

VESSEL

GENERAL CATALOGUE

2017-2018

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HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

Genuine craftsmanship based on

For 100 years since its founding, VESSEL CO., INC. has made much of craftsmanship spirits.

This has been integrated into the new market development, leading VESSEL Group as it is now.

Consequently we can introduce the new technologies and products for the goal of being helpful and reliable partner to all of our customers.

- 1916** Founder Ginosuke Taguchi establishes Taguchi Tekkoshu (current VESSEL INDUSTRIAL CO., LTD.). Began manufacturing of screwdrivers, the tool needed during that period.
- 1933** VESSEL trademark is registered. Means a great merchant ship. With pioneering spirit, the company start developping a market abroad the overseas market.
- 1945** Teruo Taguchi, later president, joins company. Uses innovative manufacturing methods to establish mass production system.
- 1948** Company name changed to NIHON NEJIMAWASHI CO., LTD.
- 1949** Former chairman Teruo Taguchi selected by the Productivity Headquarters - a government external auxiliary organization - to observe machine manufacturers in Europe and the USA for approximately two months. Immediately after his return to Japan, he Implemented a western mass production system for screwdrivers.
- 1952** Authorized to display JIS mark (No.1983).
- 1954** Begins manufacturing industrial bits.

- 1962** VESSEL KOGU CO., LTD. established as a sales division.
- 1963** VESSEL ENGINEERING CO., LTD. established. Launches air tools.
- 1965** Tokyo Sales Office opens (current Tokyo Branch).
- 1966** Teruo Taguchi assumes position of company president. Nagoya Sales Office opens.
- 1967** VESSEL FUKUCHIYAMA CO., LTD. established.
- 1968** Fukuoka Satellite Office opens (current Fukuoka Sales Office). Sapporo Satellite Office opens.
- 1969** VESSEL DISTRIBUTION CENTER established to centralize warehousing and distribution operations.
- 1970** Hiroshima Satellite Office opens.
- 1972** Sendai Satellite Office opens.
- 1974** Company name changed to VESSEL CO., INC. VESSEL SHIMANE CO., LTD. established.

1981

Win at the Macau FP Grand-Prix



1962

Foundation of VESSEL CO., INC.



1923



1958

"GT-F" the first air screwdriver

1933



The VESSEL brand, born from the image of a treasure ship

1961

Invention of the double ended bit



1974

Launches "CRYSTALINE" Screwdrivers



Revolving displays for hardware stores



The "SUNLINE" and "TIGERLINE" set of products

1984

The Ball-Grip screwdrivers, which provided for the development of screwdrivers for electrical applications.



1972

Launches "Air Nippers"



1916



Ginosuke Taguchi, the Founder of VESSEL CO., INC.



Storehouse of Taguchi Tekkoshu, shortly after its foundation

THE FO

100-year experience...

- 1980 "GREEN" Home Center Fukuchiyama opens (Kyoto Prefecture).
- 1982 "GREEN" Home Center Hashimoto opens (Wakayama Prefecture).
- 1987 Sales alliance formed with QMATIC of Sweden (Customer management systems).
- 1995 **VESSEL (THAILAND) CO., LTD.** established as overseas subsidiary.
- 1996 Junichi Taguchi assumes role of company president. VESSEL INDUSTRIAL CO., LTD. obtains ISO9000 certification.
- 2001 VESSEL SHIMANE CO. LTD., obtains ISO9000 certification.
- 2002 **VECTOR CO., INC.** (start of resataurant operations) established.
- 2010 **VESSEL EUROPE S.A.R.L.** established.
- 2013 Launched operations at new VESSEL THAILAND plant.

1997

Our flagship screwdrivers, "MEGADORA"



2005

Opens a subsidiary in france



1987

Announcement of the Client Management System, the "Q System"



2002

"JIYUUKEN", a restaurant founded by VECTOR Co., Ltd.



2000

Launches a static elimination products



1999

"GASOLINE ENGINE IMPACT WRENCH", innovative tool which can be used without electricity or air.



2016

"Corner Drill" Used in aircraft manufacturing. Specialized for drilling lightweight composite materials



100th
VESSEL 1916-2016

2014

Launches the electric screwdrivers.



"Power Scaler" Essential model for iron work and shipbuilding Drastically improves maneuverability and impact efficiency.

2007

"STAT CLEAN Series" Begun Conductive floor coating and rubber mat product line



100 STEPS of 1916-2016

HAND TOOLS





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About ISO

ISO 9001 : 2008

Our screwdriver manufacturing division, VESSEL SHIMANE CO., LTD is certified according to ISO standard, the global standard for quality assurance control.



ISO 14001 : 2004

We obtained ISO 14001 in August 2010. VESSEL will further strive to offer eco-friendly products, aiming at minimizing the environmental burden as a manufacturing group.



HAND TOOLS TECHNICAL

HAND TOOLS

BITS & SOCKETS

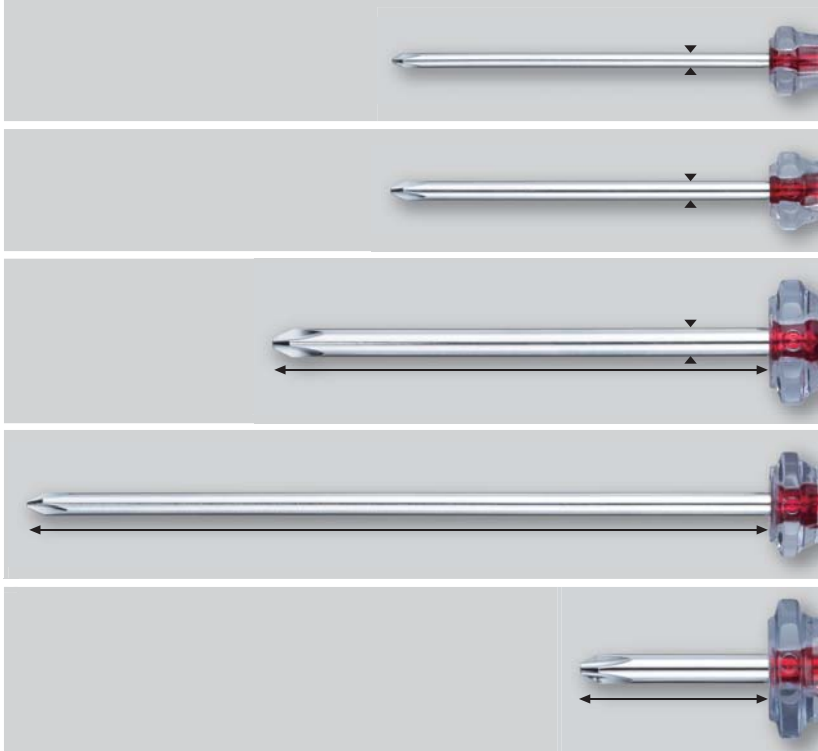
ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

Nominal designation based on shank types



Cr-V steel
Cr-V Mo steel

Good precision and durability nurtured in assembly lines Chrome vanadium steel that improves the shank strength

Cr (chromium): hardens the tip.
V (vanadium): makes the tip tough.
MO (molybdenum): improves strength, hardness, and even toughness.

Precision shank A shank diameter of 3 mm or less

This is for precision small screws whose thread diameter is 1 to 3 mm.

Slim shank A diameter of 4 mm

This is a long slender shank to avoid interference even in a narrow area.

Standard shank

It has a popular shank diameter and length based on various standards.

Long shank

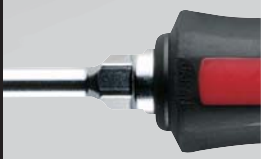
This is suitable for screw tightening in deep and narrow areas.

Stubby shank

This is a short shank suitable for work in a confined area.

Hexagon bolster

This part allows a spanner, etc. to be applied to retighten a screw or undo a hard-tightened screw.



Magnetized Tip-End

The tip-end is strongly magnetized to capture screws for better work efficiency.



JAWSFIT®

NEW JAWSFIT

Coated specially with high strength metallic granules. This prevents CAM-OUT (phenomenon peculiar to cross recessed screws).



Black point®

The tip-end with the black oxide finishment is insensitive to the effect of a plating layer thickness and highly precise.



General type

Type in which a shank is held in the handle. It is electrically safe.



Tang-thru type

A shank is installed through the handle so that the screwdriver can be used for position adjustment or screw-hole correction by tapping the head with a hammer.



CAUTION

Safety icons are printed and indicated for easy identification. (Displayed in a stepwise manner on a product basis)



Cushion

An elastomer is integrally formed on the exterior of the grip. It provides elastic grip, offering large tightening force.

8P



Ergonomics design

The use of design taking into account the shape of the palm and enhancing the operability at the finger tips ensures comfortable screw tightening.

13P
16P
21P



Wood handle

A long seller grip made of air-dried natural wood. It fits the palm of the hand as the tool is used longer.

24P



Non-slip

VESSEL-developed non-slip surface features fine knurling process, enabling torque to be transmitted firmly even if there is oil on it.

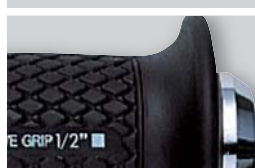
26P



Precision use

Designed to transmit a minute force efficiently. Intended for precision work

29P



Other functional grips

A ratchet screwdriver allowing screw tightening to be made by mere repetition of wrist movement; an impact screwdriver used to undo a rusted or stuck screw, etc.

32P



Taper shape

Enabling a screwdriver to be easily taken out of a screwdriver holder. It is often used for screwdrivers related to electrical equipment.



Rolling prevention

Having a shape avoiding rolling over, which has also been widely adopted by overseas screwdrivers.



Environmental measures

Pb (lead), Cd (cadmium), Hg (mercury), hexavalent chromium, PBB (polybrominated biphenyl), and PBDE (polybrominated diphenyl ether)

This symbol indicates the products that conform to VESSEL's environment measure standards compliant with the restriction of the use of certain hazardous substances (six substances listed above) (RoHS directive).

No. 700

Super Cushion Screwdriver



Highly elastic cushion grip.
Fits the palm of the hand. No slipping.
Transmits high torque to the tip.

HAND TOOLS

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A D V A N C E D
GEL-FUNCTION
T E C H N O L O G Y

No. 700
Super Cushion
Screwdriver

VESSEL Cushion Grip Screwdrivers fit not only screw heads but also your hand. This series assure the efficient torque transmission.

※The photograph is an image.

No. 700 Super Cushion Screwdriver PAT.

- "Super Cushion" grip fits your hand perfectly.
- Rust-resistant black chrome plating.



No.700	Bit		Bit (mm)				Inner Ctn.	Outer Ctn.	EDP No.
⊖ 5.5 × 75	5.5	0.8	75	5.5	29	182	6	120	125211
⊖ 6 × 100	6.0	0.9	100	6.4	32	215	6	120	125212
⊖ 6 × 150	6.0	0.9	150	6.4	32	265	6	120	125213
⊖ 8 × 150	8.0	1.1	150	8.0	34	275	6	120	125214
⊕ 1 × 75	⊕No.1	75	5.5	29	182		6	120	125215
⊕ 2 × 100	⊕No.2	100	6.4	32	215		6	120	125216
⊕ 2 × 150	⊕No.2	150	6.4	32	265		6	120	125217
⊕ 3 × 150	⊕No.3	150	8.0	34	275		6	120	125218

No. 720 Super Cushion Screwdriver (Stubby Type) PAT.

- "Super Cushion" grip fits your hand perfectly.
- Rust-resistant black chrome plating.
- Ideal for working in cramped places.



No.720	Bit		Bit (mm)				Inner Ctn.	Outer Ctn.	EDP No.
⊖ 6 × 15	6.0	0.9	15	6.0	35	68	6	120	125221
⊕ 1 × 15	⊕No.1	15	6.0	35	68		6	120	125222
⊕ 2 × 15	⊕No.2	15	6.0	35	68		6	120	125223

No. 730 Super Cushion Tang-Thru Screwdriver PAT.

- "Super Cushion" grip fits your hand perfectly.
- Tang-thru type with a star-shaped end cap for hammering.
- Rust-resistant black chrome plating.



No.730	Bit		Bit (mm)				Inner Ctn.	Outer Ctn.	EDP No.
⊖ 5.5 × 75	5.5	0.8	75	5.5	29	182	6	120	125231
⊖ 6 × 100	6.0	0.9	100	6.4	32	215	6	120	125232
⊖ 6 × 150	6.0	0.9	150	6.4	32	265	6	120	125233
⊖ 8 × 150	8.0	1.1	150	8.0	34	276	6	60	125234
⊕ 1 × 75	⊕No.1	75	5.5	29	182		6	120	125235
⊕ 2 × 100	⊕No.2	100	6.4	32	215		6	120	125236
⊕ 2 × 150	⊕No.2	150	6.4	32	265		6	120	125237
⊕ 3 × 150	⊕No.3	150	8.0	34	276		6	60	125238

No. 610 Cushion Grip Screwdriver (Thin Shank Type)

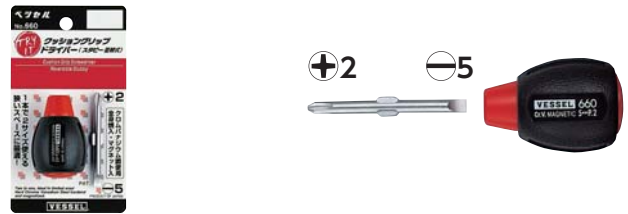
- Ideal for screw tightening in precision fields.
- Straight cut slotted tip good even for a use in cramped spaces.
- Highly precise black point tip, not being affected by the thickness of the plating layer.



No.610	Bit		Bit (mm)				Inner Ctn.	Outer Ctn.	EDP No.
⊖ 4 × 75	4.0	0.5	75	4.0	20.5	162	12	120	125332
⊖ 4 × 100	4.0	0.5	100	4.0	20.5	187	12	120	125333
⊖ 4 × 150	4.0	0.5	150	4.0	20.5	237	12	120	125335
⊖ 4 × 200	4.0	0.5	200	4.0	20.5	287	12	120	125336
⊕ 00 × 75	⊕No.00	75	4.0	20.5	162		12	120	125337
⊕ 0 × 75	⊕No.0	75	4.0	20.5	162		12	120	125339
⊕ 0 × 100	⊕No.0	100	4.0	20.5	187		12	120	125340
⊕ 1 × 75	⊕No.1	75	4.0	20.5	162		12	120	125341
⊕ 1 × 100	⊕No.1	100	4.0	20.5	187		12	120	125342
⊕ 1 × 150	⊕No.1	150	4.0	20.5	237		12	120	125343

No. 660 Cushion Grip Screwdriver (Stubby Type)

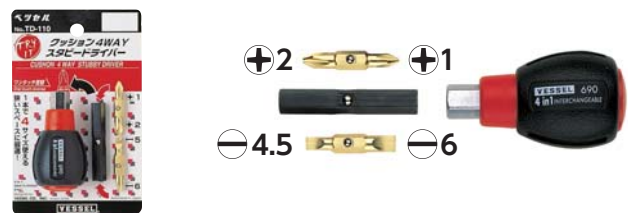
- With reversible blade (⊖5, ⊕2).



Set content		Package size (mm)	Inner Ctn.	Outer Ctn.	EDP No.
Grip	length 53mm dia. 35mm	135×75×35	10	60	133085
Reversible blade	⊖5 / ⊕2 ×60mm 1pc				

No. TD-110 Cushion 4-way Stubby Screwdriver

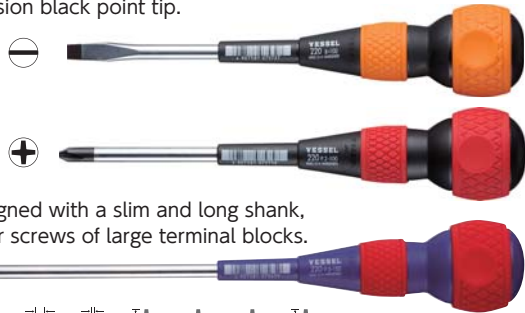
- Handle can store 2 types of double-ended bit with different tip end.



Set content		Package size (mm)	Inner Ctn.	Outer Ctn.	EDP No.
Grip	length 86mm dia. 35mm	135×85×35	10	60	251110
Reversible blade	⊕1 / ⊕2 ×35mm 1pc				
Holder	⊖4.5 / ⊖6 ×35mm 1pc				

No. 220 Ball-Grip Screwdriver

- Transmits ample tightening force to screw.
- Cushion grip color-coded by ⊕⊖.
- High precision black point tip.



- ⊕3 is designed with a slim and long shank, optimal for screws of large terminal blocks.



No.220	1	2	3	4	5	6	Inner Ctn. (mm)	Outer Ctn.	EDP No.
⊖ 5.5 × 75	5.5	0.8	75	5.5	32	156	6	60	125351
⊖ 5.5 × 100	5.5	0.8	100	5.5	32	181	6	60	125361
⊖ 5.5 × 150	5.5	0.8	150	5.5	32	231	6	60	125362
⊖ 6 × 100	6.0	0.9	100	6.4	41	200	6	60	125352
⊖ 6 × 150	6.0	0.9	150	6.4	41	250	6	60	125353
⊖ 6 × 200	6.0	0.9	200	6.4	41	300	6	60	125354
⊕ 1 × 75	⊕No.1	75	5.5	32	156	6	60	125355	
⊕ 1 × 100	⊕No.1	100	5.5	32	181	6	60	125371	
⊕ 1 × 150	⊕No.1	150	5.5	32	231	6	60	125372	
⊕ 2 × 100	⊕No.2	100	6.4	41	200	6	60	125356	
⊕ 2 × 150	⊕No.2	150	6.4	41	250	6	60	125357	
⊕ 2 × 200	⊕No.2	200	6.4	41	300	6	60	125358	
⊕ 3 × 150	⊕No.3	150	6.4	41	250	6	60	125374	

No. 220F Free-Turning Ball Grip Screwdriver (Screwdriver only)

PAT.

- Free-turning hook enables fast turning.
- Elastomer resin excellently fits the hand.



No.220F	1	2	3	4	5	6	Inner Ctn. (mm)	Outer Ctn.	EDP No.
⊖ 6 × 100	6.0	0.9	100	6.4	41	200	6	60	125541
⊖ 6 × 150	6.0	0.9	150	6.4	41	250	6	60	125542
⊕ 2 × 100	⊕No.2	100	6.4	41	200	6	60	125543	
⊕ 2 × 150	⊕No.2	150	6.4	41	250	6	60	125544	

No. B-640TX Cushion Grip TORX Screwdriver NEW

- Optimal for fastening screws in precision fields.
- Non-electrolytic plating, keeping the precise tip quality.
- Cushion grip fitting comfortably in a hand.
- Also good for tamper-proof TORX screws (except T5 and T6).



No.B-640TX	1	2	3	4	5	Inner Ctn. (mm)	Outer Ctn.	EDP No.
T5	1.42	40	4.0	20.5	126	6	60	123561
T6	1.69	40	4.0	20.5	126	6	60	123562
T7H	1.97	40	4.0	20.5	126	6	60	123563
T8H	2.30	40	4.0	20.5	126	6	60	123564
T9H	2.48	40	4.0	20.5	126	6	60	123565

TORX® is a registered trademark of Acument TM Intellectual Properties, LLC (USA). VESSEL has a manufacturing license in Japan and selling same to the world.

No. 230 Ball-Grip Tang-Thru Screwdriver

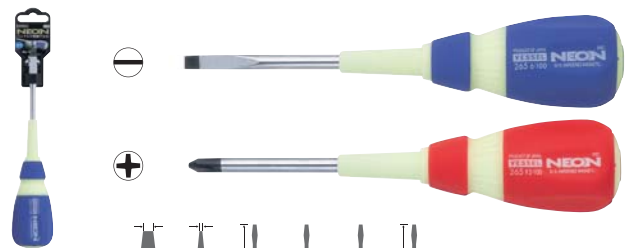
- Tang-Thru shank with star end cap.
- Transmits ample tightening force to screw.
- Cushion grip color-coded by ⊕⊖.
- High precision black point tip.



No.230	1	2	3	4	5	6	Inner Ctn. (mm)	Outer Ctn.	EDP No.
⊖ 5.5 × 75	5.5	0.8	75	5.5	32	156	6	60	125311
⊖ 6 × 100	6.0	0.9	100	6.4	41	200	6	60	125314
⊖ 6 × 150	6.0	0.9	150	6.4	41	250	6	60	125315
⊕ 1 × 75	⊕No.1	75	5.5	32	156	6	60	125321	
⊕ 2 × 100	⊕No.2	100	6.4	41	200	6	60	125324	
⊕ 2 × 150	⊕No.2	150	6.4	41	250	6	60	125325	

No. 265 "NEON" Screwdriver

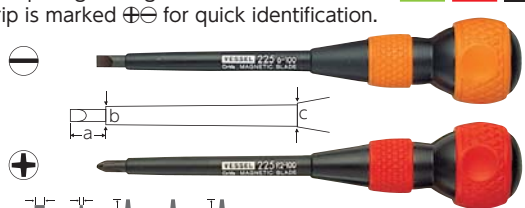
- Glow-in-the-dark type.
- High precision black point tip.



No.265	1	2	3	4	5	6	Inner Ctn. (mm)	Outer Ctn.	EDP No.
⊖ 6 × 100	6.0	0.9	100	6.4	40	185	6	60	125561
⊖ 6 × 150	6.0	0.9	150	6.4	40	235	6	60	125562
⊕ 2 × 100	⊕No.2	100	6.4	40	185	6	60	125563	
⊕ 2 × 150	⊕No.2	150	6.4	40	235	6	60	125564	

No. 225 Ball-Grip Screwdriver (With covered shank)

- Resin-covered shank. It prevents electrical short circuit.
- Transmits ample tightening force to screw.
- Cushion grip is marked ⊕⊖ for quick identification.



No.225	1	2	3	4	5	6	7	8	9	10	Inner Ctn. (mm)	Outer Ctn.	EDP No.
⊖ 6 × 100	6.0	0.9	100	41	200	14	8	10	6	60	125382		
⊖ 6 × 150	6.0	0.9	150	41	250	14	8	10	6	60	125383		
⊕ 2 × 100	⊕No.2	100	41	200	14	8	10	6	60	125389			
⊕ 2 × 150	⊕No.2	150	41	250	14	8	10	6	60	125390			

⚠ Electric insulation is not guaranteed. For safety purposes, shut off power before use. The covered shaft protects against unexpected shorts. Should it become scratched, damaged or deteriorated, do not use the screwdriver.

HAND TOOLS

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GASOLINE ENGINE TOOLS

No. 250 Tang-Thru Screwdriver w/Ceramic Ball (For electric works)

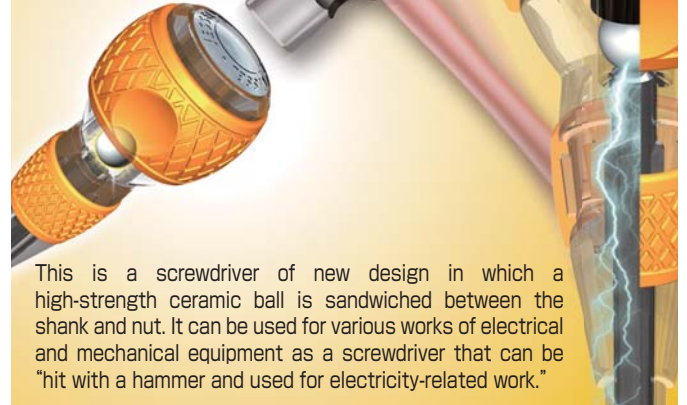
- Incorporates a ceramic ball preventing electricity from being conducted.
- Uses zirconia ceramics having the highest rigidity and wear resistance among ceramics.
- Easy to tap with a hammer on the large nut.
- High-precision black point tip.



No.250							Inner Ctn.	Outer Ctn.	EDP No.
⊖ 6 × 100	6.0	0.9	100	6.4	41	200	6	60	112105
⊖ 6 × 150	6.0	0.9	150	6.4	41	250	6	60	112106
⊕ 2 × 100	⊕No.2	100	6.4	41	200	6	60	112107	
⊕ 2 × 150	⊕No.2	150	6.4	41	250	6	60	112108	

One point

Tang-thru screwdriver No. 250 that incorporates a ceramic ball preventing electricity from being conducted



This is a screwdriver of new design in which a high-strength ceramic ball is sandwiched between the shank and nut. It can be used for various works of electrical and mechanical equipment as a screwdriver that can be "hit with a hammer and used for electricity-related work."

⚠ Electric insulation is not guaranteed. For safety purposes, shut off power before use.

No. 220W Ball Grip (Bit-replaceable grip)

- Compatibility with a 6.35mm hex drive bit enables to be used as a familiar ball grip screwdriver.



Model No.	Grip size	Package size (mm)	Outer Ctn.	EDP No.
220W	length 100mm, dia.41mm	145×50×43	10	125344

No. 230W Ball Grip (Bit-replaceable Tang-Thru grip) NEW

- Blade interchangeable tang-thru grip. (A/F6.35mm)
- 25mm large nut incorporated transmitting well the hammering power.



Model No.	Grip size	Package size (mm)	Inner Ctn.	EDP No.
230W	length 100mm, dia.41mm	145×50×43	10	125326

No. 270BW Cushion Stubby (Bit-replaceable grip)

- Stubby type optimal for a narrow area. Compatibility with a 6.35mm hex drive bit for electric screwdrivers.



Model No.	Grip size	Package size (mm)	Outer Ctn.	EDP No.
270BW	length 55.5mm, dia.35mm	100×50×37	10	233074

One point

Features of replacement grip

This is a screwdriver grip enabling a electric driver bit of a hexagonal width-across-flats of 6.35 mm to be inserted and used.



No. 210 Ball Grip Screwdriver (for electric works) NEW

- 125mm long shank is good for screw-tightening even deep in distribution boards and ideal for not contacting the floor when squatting.
- High-precision black point tip.



No.210		Bit (mm)						Inner Ctn.	Outer Ctn.	EDP No.
⊖ 6×	125	6.0	0.9	125	6.4	41	225	6	60	125575
⊕ 2×	125	⊕No.2	125	6.4	41	225	6	60	125574	

No. 2200 Ball Ratchet Screwdriver NEW

- With 36-teeth gear ratchet to realize comfortable operation with fine tuning.
- Shank cover prevents short circuits. Thin shank is convenient for operating on terminal blocks.
- Shank uses bit materials, fully hardened. Replacement shank is available as option.

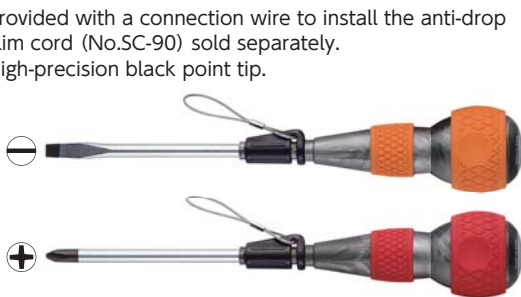


No.2200		Bit (mm)						Inner Ctn.	Outer Ctn.	EDP No.
⊖ 6×	100	6.0	0.8	100	6.0	41	200	6	60	125395
⊖ 6×	150	6.0	0.8	150	6.0	41	250	6	60	125396
⊕ 2×	100	⊕No.2	100	6.0	41	200	6	60	125345	
⊕ 2×	150	⊕No.2	150	6.0	41	250	6	60	125346	
⊕ 3×	150	⊕No.3	150	6.0	41	250	6	60	125347	

⚠ Electric insulation is not guaranteed. For safety purposes, shut off power before use.

No. 210ST Slim Free-Turning Ball Grip Screwdriver (for electric works) NEW

- 125mm long shank is good for screw-tightening even deep in distribution boards and ideal for not contacting the floor when squatting.
- Provided with a slim free-turning part, which enables fast turning and smooth on/off from the screwdriver holder.



No.210ST		Bit (mm)						Inner Ctn.	Outer Ctn.	EDP No.
⊖ 6×	125	6.0	0.9	125	6.4	41	225	6	60	125577
⊕ 2×	125	⊕No.2	125	6.4	41	225	6	60	125576	

No. 2200B Ball Ratchet Screwdriver Reversible Blade NEW

- Shank uses bit materials, fully hardened.
- Replacement blade; can be replaced by pulling out the ball-grip part of No.2200.



No.2200B		Bit (mm)						Inner Ctn.	Outer Ctn.	EDP No.
⊖ 6×	100	6.0	0.8	100	6.0	158	6	60	125397	
⊖ 6×	150	6.0	0.8	150	6.0	208	6	60	125398	
⊕ 2×	100	⊕No.2	100	6.0	158	6	60	125348		
⊕ 2×	150	⊕No.2	150	6.0	208	6	60	125349		
⊕ 3×	150	⊕No.3	150	6.0	208	6	60	125350		

No. SC-90 Anti-drop Slim Cord NEW

- Cord to prevent screwdrivers from dropping.
- Provided with a sleeve to avoid rings forming, which cause the cord to get caught.



Package content		Inner Ctn.	EDP No.
Mounted load	500g or less	10	125405
Length	482 (maximum length 1500) mm		
Material	Sleeve: polypropylene		
	Rubber band: polypropylene and natural rubber		

One point
Move the sleeve to straighten the cord!



HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

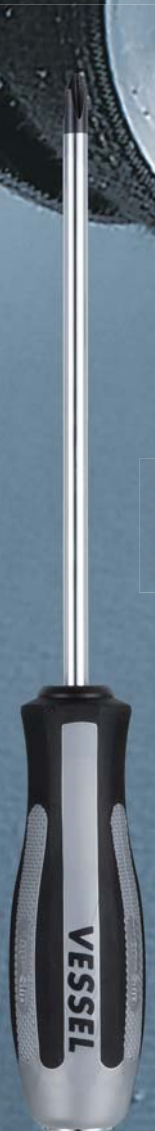
No. 980

MEGADORA IMPACTA



Our proprietary Tang-thru nut incorporates cam rotation mechanism, which turns the driving tip counter-clockwise by 12 degrees when the handle is hit with a hammer.

IMPACTA leverages impact acceleration to remove stuck screws.



Distorted screws



Rusted screw



Stuck screws

12°

No. 980

MEGADORA IMPACTA

Equipped with a flat-surface grip and cushions on the corners of the hexagonal cross section. The inner core is a triple-layered construction using recycled resin, designed with practical use of resources.

※This is for illustrative purpose.

No. 980 MEGADORA IMPACTA PAT.

- Tang-Thru nut with cam rotation mechanism.
- High precision black point tip.



No.980		Tip Dimensions (mm)					Inner Ctn.	Outer Ctn.	EDP No.
⊕ 2 × 100	⊕No.2	100	6.4	34	213	6	60	125941	
⊕ 2 × 150	⊕No.2	150	6.4	34	263	6	60	125942	
⊕ 3 × 150	⊕No.3	150	8.0	36	278	6	60	125943	

No. 900 MEGADORA Standard Screwdriver Extra Long Type PAT.

- Philips JAWSFIT tip that firmly grips the screw. **JAWSFIT**
- Good for a work deep in a space.
- Useful for adjustment of automotive headlight and removal of a hose band.
- Junk (turning) grip minimizes shaking because of the long shank, to ensure stable tightening.



No.900		Tip Dimensions (mm)					Inner Ctn.	Outer Ctn.	EDP No.
⊖ 6 × 400	⊖No.2	400	6.4	34	510	6	60	125709	
⊕ 2 × 400	⊕No.2	400	6.4	34	510	6	60	125710	

No. 900 MEGADORA Standard Screwdriver PAT.

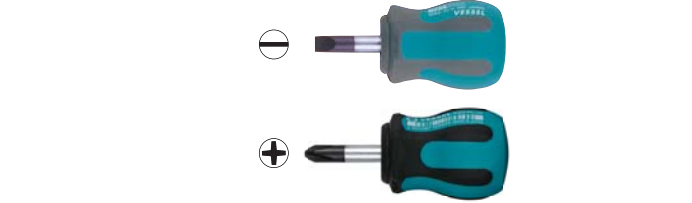
- NEW Philips JAWSFIT tip that firmly grips the screw. **JAWSFIT**
- A knurled shank is useful for fast and slipless turning by fingers and open wide holes on a wood material or a board.



No.900		Tip Dimensions (mm)					Inner Ctn.	Outer Ctn.	EDP No.
⊖ 5.5 × 75	5.5	0.8	75	5.5	30	175	6	60	125701
⊖ 6 × 100	6.0	0.9	100	6.4	34	210	6	60	125702
⊖ 6 × 150	6.0	0.9	150	6.4	34	260	6	60	125703
⊖ 8 × 150	8.0	1.1	150	8.0	36	275	6	60	125704
⊕ 1 × 75	⊕No.1	75	5.5	30	175	6	60	125705	
⊕ 2 × 100	⊕No.2	100	6.4	34	210	6	60	125706	
⊕ 2 × 150	⊕No.2	150	6.4	34	260	6	60	125707	
⊕ 3 × 150	⊕No.3	150	8.0	36	275	6	60	125708	

No. 920 MEGADORA Stubby Screwdriver

- Philips JAWSFIT tip that firmly grips the screw. **JAWSFIT**
- 25mm-long shank. Ideal for working in cramped places.



No.920		Tip Dimensions (mm)					Inner Ctn.	Outer Ctn.	EDP No.
⊖ 6 × 25	6.4	0.9	25	6.4	36	75	6	60	125752
⊕ 1 × 25	⊕No.1	25	6.4	36	75	6	60	125753	
⊕ 2 × 25	⊕No.2	25	6.4	36	75	6	60	125754	

No. 930 MEGADORA Tang-Thru Screwdriver PAT.

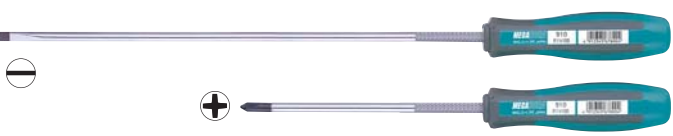
- NEW Philips JAWSFIT tip that firmly grips the screw. **JAWSFIT**
- Tang-Thru shank with large end cap.
- With a hexagonal bolster for spanner.



No.930		Tip Dimensions (mm)							Inner Ctn.	Outer Ctn.	EDP No.
⊖ 5.5 × 75	5.5	0.8	75	5.5	30	175	8	6	60	125711	
⊖ 6 × 38	6.0	0.9	38	6.4	34	151	—	6	60	125719	
⊖ 6 × 100	6.0	0.9	100	6.4	34	213	10	6	60	125712	
⊖ 6 × 150	6.0	0.9	150	6.4	34	263	10	6	60	125713	
⊖ 8 × 150	8.0	1.1	150	8.0	36	278	12	6	60	125714	
⊕ 1 × 75	⊕No.1	75	5.5	30	176	8	6	60	125715		
⊕ 2 × 100	⊕No.2	100	6.4	34	213	10	6	60	125716		
⊕ 2 × 150	⊕No.2	150	6.4	34	263	10	6	60	125717		
⊕ 3 × 150	⊕No.3	150	8.0	36	278	12	6	60	125718		

No. 910 MEGADORA Thin Shank Screwdriver

- Precision type with 4 mm or smaller diameter shank.
- Black point tip, unaffected by the plating thickness.



No.910		Tip Dimensions (mm)					Inner Ctn.	Outer Ctn.	EDP No.
⊖ 3 × 75	3.0	0.4	75	3.0	21	153	12	120	125746
⊖ 3 × 100	3.0	0.4	100	3.0	21	178	12	120	125747
⊖ 4 × 75	4.0	0.5	75	4.0	21	153	12	120	125748
⊖ 4 × 100	4.0	0.5	100	4.0	21	178	12	120	125749
⊖ 4 × 150	4.0	0.5	150	4.0	21	228	12	120	125750
⊖ 4 × 200	4.0	0.5	200	4.0	21	278	12	120	125751
⊕ 0 × 75	⊕No.0	75	3.0	21	153	12	120	125742	
⊕ 0 × 100	⊕No.0	100	3.0	21	178	12	120	125743	
⊕ 1 × 75	⊕No.1	75	4.0	21	153	12	120	125744	
⊕ 1 × 100	⊕No.1	100	4.0	21	178	12	120	125745	

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

No. 970 MEGADORA Clip Remover **PAT.**

- One model for both large and small tips. Suited for many clips used with automobiles.
- Chrome plating, not causing scratches on a painted metal plate.
 - Optimally angled for working in cramped spaces, such as, door trim, wire binding clip, and so on.



No.970	CR × 120	12/7	120	7.0	34	230	(mm)	Inner Ctn.	Outer Ctn.	EDP No.
								6	60	125721

No. 970 MEGADORA Chisel-Type Screwdriver **PAT.**

- Special steel for high quality cold chisel used. Hardness: 58HRC. Abrasion resistant and sharp edge.
- Elastomer-resin made grip absorbs shock when using and alleviate the fatigue on the hand.
 - Tang-Thru shank with large end cap. Less deformative case hardening nut.



No.970	7 × 100	9.5 × 120	7.0	1.5	100	6	34	213	(mm)	Inner Ctn.	Outer Ctn.	EDP No.
			9.5	1.7	120	8	36	248		6	60	125722
										6	60	125732

One point

Pull out / Break



MEGADORA Clip Remover



One model compatible with 2 popular types of clip in the automobile industry.



High-grade chisel used.



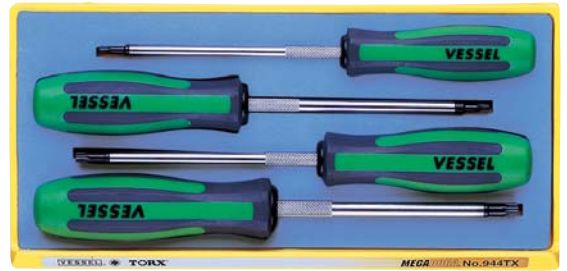
Sharp edge and anti-abrasion quality. Good for removal of welding on a spot, of burrs, and for various work with tiles and bricks.



MEGADORA Chisel-Type Screwdriver

No. 944TX 4-Piece MEGADORA FOD TORX Screwdriver Set **PAT.**

- Used for work in automobile maintenance field
- Provided with a two-layer structured tray that prevents a screwdriver from being left.



→See P45 One point

No.940TX	Set content	Tray size (mm)	Inner Ctn.	Outer Ctn.	EDP No.
	T20H×120,T25H×120 T30H×120,T40H×120	280×135×35	1	20	125804

TORX® is a registered trademark of Acument™ Intellectual Properties, LLC (USA). VESSEL has a manufacturing license in Japan and selling same to the world.

No. S-903 MEGADORA Pozidriv Screwdriver

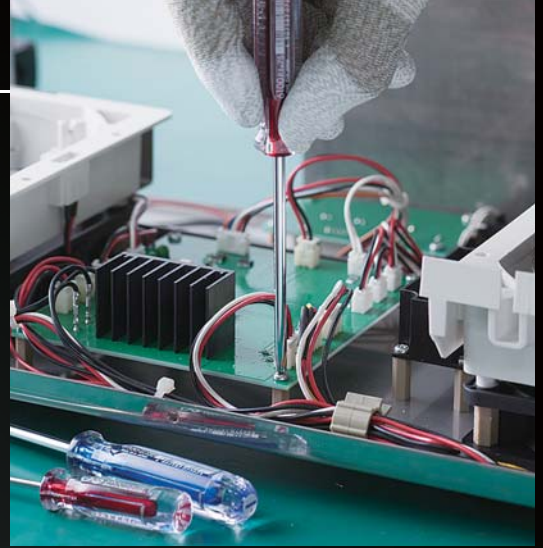
- Dedicated to Pozidriv screws.
- VESSEL is an official licensee of Pozidriv.
- A knurled shank is useful for fast turning.



No.S-903	PZ1 × 75	PZ2 × 100	PZ3 × 150						(mm)	Inner Ctn.	EDP No.
				PZ No.1	75	5.5	30	175		6	267254
				PZ No.2	100	6.4	34	210		6	267255
				PZ No.3	150	8.0	36	275		6	267256

No. 6300

"CRYSTALINE" Screwdriver



We have created a colorful grip with a crystalline sparkle. We offer an abundant lineup of shank sizes, including those capable of accessing deeply recessed or narrow areas.



No. 6300

"CRYSTALINE" Screwdriver

Uses cellulose acetate resin with good oil and chemical resistance. Uses raw materials such as wood and cotton (literal meaning of cellulose).

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

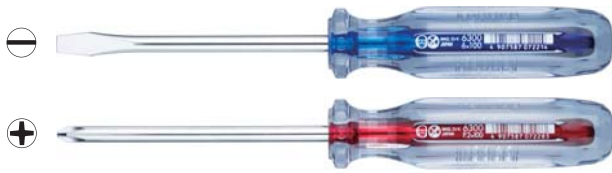
AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

No. 6300 "CRYSTALINE" Screwdriver PAT.

- Bright quartz "CRYSTALINE" handles. Color coding by ⊕⊖.
- Uses cellulose acetate resin.



No.6300							Inner Ctn.	Outer Ctn.	EDP No.
⊖ 4.5 × 50	4.5	0.6	50	5.0	22.0	138	12	240	121201
⊖ 5.5 × 75	5.5	0.8	75	5.5	22.0	163	12	240	121202
⊖ 6 × 100	6.0	0.9	100	6.0	26.5	205	12	240	121203
⊖ 8 × 150	8.0	1.1	150	8.0	28.5	263	12	120	121205
⊖ 9 × 200	9.0	1.2	200	9.0	28.5	313	6	60	121206
⊖ 10 × 250	10.0	1.2	250	9.0	28.5	363	6	60	121207
⊖ 10 × 300	10.0	1.2	300	9.0	28.5	413	6	60	121208
⊕ 1 × 75	⊕No.1	75	5.0	22.0	163		12	240	121209
⊕ 2 × 100	⊕No.2	100	6.0	26.5	205		12	240	121210
⊕ 3 × 150	⊕No.3	150	8.0	28.5	263		12	120	121211
⊕ 4 × 200	⊕No.4	200	9.0	28.5	313		6	60	121212

No. 6300 "CRYSTALINE" Screwdriver (Long Shank Type) PAT.

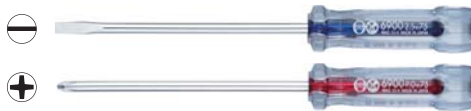
- Bright quartz "CRYSTALINE" handle. Marked for ⊕⊖.
- Long shank for fastening in a hard-to-reach space.
- Uses cellulose acetate resin.



No.6300							Inner Ctn.	Outer Ctn.	EDP No.
⊖ 5 × 150	5.0	0.8	150	4.8	22	238	12	120	121213
⊖ 5 × 200	5.0	0.8	200	4.8	22	288	12	120	121214
⊖ 5 × 250	5.0	0.8	250	4.8	22	338	12	120	121215
⊕ 1 × 150	⊕No.1	150	4.8	22	238		12	120	121216
⊕ 1 × 200	⊕No.1	200	4.8	22	288		12	120	121217
⊕ 1 × 250	⊕No.1	250	4.8	22	338		12	120	121218
⊕ 2 × 150	⊕No.2	150	6.0	26.5	255		12	120	121219
⊕ 2 × 200	⊕No.2	200	6.0	26.5	305		12	120	121220
⊕ 2 × 250	⊕No.2	250	6.0	26.5	355		12	120	121221

No. 6900 "CRYSTALINE" Screwdriver (Precision Type) PAT.

- Bright quartz "CRYSTALINE" handle. Marked for ⊕⊖.
- For intense precision work.
- Handle butt is recessed to allow pressing with fingertips for fast turning.
- Uses cellulose acetate resin.



No.6900							Inner Ctn.	Outer Ctn.	EDP No.
⊖ 2.5 × 50	2.5	0.35	50	3	14	101	24	240	121301
⊖ 2.5 × 75	2.5	0.35	75	3	14	126	24	240	121302
⊖ 2.5 × 100	2.5	0.35	100	3	14	151	24	240	121303
⊕ 00 × 50	⊕No.00	50	3	14	101		24	240	121327
⊕ 0 × 75	⊕No.0	75	3	14	126		24	240	121304

No. 6100 "CRYSTALINE" Screwdriver (Thin Shank Type) PAT.

- Bright quartz "CRYSTALINE" handle. Marked for ⊕⊖.
- Thin shank screwdriver. Ideal for working in cramped spaces.
- Uses cellulose acetate resin.



No.6100							Inner Ctn.	Outer Ctn.	EDP No.
⊖ 4 × 50	4.0	0.45	50	4	16	124.5	12	240	121001
⊖ 4 × 75	4.0	0.45	75	4	16	149.5	12	240	121002
⊖ 4 × 100	4.0	0.45	100	4	16	174.5	12	240	121003
⊖ 4 × 150	4.0	0.45	150	4	16	224.5	12	120	121005
⊖ 4 × 200	4.0	0.45	200	4	16	274.5	12	120	121006
⊕ 0 × 75	⊕No.0	75	4	16	149.5		12	240	121323
⊕ 0 × 100	⊕No.0	100	4	16	174.5		12	240	121009
⊕ 0 × 150	⊕No.0	150	4	16	224.5		12	120	121325
⊕ 0 × 200	⊕No.0	200	4	16	274.5		12	120	121326
⊕ 1 × 75	⊕No.1	75	4	16	149.5		12	240	121008
⊕ 1 × 100	⊕No.1	100	4	16	174.5		12	240	121012
⊕ 1 × 150	⊕No.1	150	4	16	224.5		12	120	121013
⊕ 1 × 200	⊕No.1	200	4	16	274.5		12	120	121014
⊕ 2 × 200	⊕No.2	200	4	16	274.5		12	120	121015
⊕ 2 × 250	⊕No.2	250	4	16	324.5		12	120	121016

No. 6200 "CRYSTALINE" Screwdriver (Stubby Type) PAT.

- Bright quartz "CRYSTALINE" handle. Marked for ⊕⊖.
- Ideal for working in cramped spaces.
- Uses cellulose acetate resin.



No.6200							Inner Ctn.	Outer Ctn.	EDP No.
⊖ 6 × 38	6.0	0.9	38	6	30	87.5	12	240	121101
⊕ 1 × 38	⊕No.1	38	6	30	87.5		12	240	121102
⊕ 2 × 38	⊕No.2	38	6	30	87.5		12	240	121103

One point

An Eco-friendly grip made from plant-based ingredients

Cellulose acetate resin, used in many plastic screwdrivers, is once again in the spotlight as an ecologically friendly plant-based polyester resin. Cellulose acetate resin is an outstanding material that is resistant to oil, chemicals, and shock. As the word cellulose implies, the grip is made from wood pulp and cotton. This resin grip is ecologically friendly with a low environment load, and does not upset the CO2 balance when burned.



No. 6603 Long Square Shank Screwdriver PAT.

- 450mm-long square shank. Fully hardened tough special steel.
- Effective with high strength tightening.
- For fastening screws of sanitary appliances, etc.
- Uses cellulose acetate resin.



No.6603

							Outer Ctn. (mm)	EDP No.
⊖ 9 × 450	9.0	1.2	450	8	113	28.5	563	6 122231
⊕ 2 × 450	⊕No.2	450	6	113	28.5	563		6 122232
⊕ 3 × 450	⊕No.3	450	8	113	28.5	563		6 122233

No. 4500 Power Grip Screwdriver

- Plastic handle and tang-thru shank stand up to heavy-duty work.
- Hexagon bolster for strong tightening with a spanner or alike.
- Cellulose acetate resin grip. Ergonomic design.



No.4500

								Inner Ctn. (mm)	Outer Ctn. (mm)	EDP No.
⊖ 5.5 × 75	5.5	0.8	75	5.8	28.0	172	8	6	240	123401
⊖ 6 × 100	6.0	0.9	100	6.4	31.8	204	10	6	120	123402
⊖ 8 × 150	8.0	1.1	150	8.0	35.6	265	12	6	120	123403
⊖ 9 × 200	9.0	1.2	200	9.0	37.0	320	12	6	60	123404
⊕ 1 × 75	⊕No.1	75	5.8	28.0	172	8		6	240	123405
⊕ 2 × 100	⊕No.2	100	6.4	31.8	204	10		6	120	123406
⊕ 3 × 150	⊕No.3	150	8.0	35.6	265	12		6	120	123407
⊕ 4 × 200	⊕No.4	200	9.0	37.0	320	12		6	60	123408

No. B-370 Non-slip tang-thru screwdrivers

- Unique Non-Slip finish that prevents slipping even if oil adheres on the grip.
- Tang-thru type with a large nut. Good for heavy duty work.
- The end of the handle has a color ring facilitates to distinguish the tip difference at a glance.

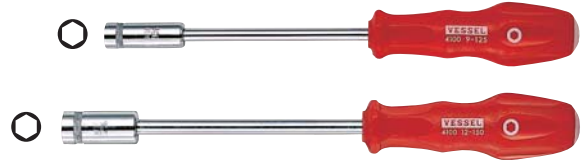


No.B-370

							Inner Ctn. (mm)	Outer Ctn. (mm)	EDP No.
⊖ 5.5 × 75	5.5	0.8	75	5.5	27.4	183	6	60	267590
⊖ 6 × 100	6.0	0.9	100	6.4	30.7	226	6	60	267591
⊖ 8 × 150	8.0	1.1	150	8.0	36.2	290	6	60	267592
⊕ 1 × 75	⊕No.1	75	5.5	27.4	183		6	60	267593
⊕ 2 × 100	⊕No.2	100	6.4	30.7	226		6	60	267594
⊕ 3 × 150	⊕No.3	150	8.0	36.2	290		6	60	267595

No. 4100 Power Socket Screwdriver

- For fastening and loosening hexagon bolts and nuts.



No.4100

								Inner Ctn. (mm)	Outer Ctn. (mm)	EDP No.
A/F 5 × 115	5	8	18	115	5.0	28.0	212	6	60	123501
A/F 5.5 × 115	5.5	9	18	115	5.0	28.0	212	6	60	123502
A/F 6 × 115	6	9	18	115	5.5	28.0	212	6	60	123503
A/F 7 × 125	7	10	18	125	5.5	28.0	222	6	60	123504
A/F 8 × 125	8	12	20	125	5.5	31.8	229	6	60	123505
A/F 9 × 125	9	12.7	20	125	6.3	31.8	229	6	60	123506
A/F 10 × 125	10	15	20	125	7.0	35.6	240	6	60	123507
A/F 11 × 125	11	15	20	125	7.0	35.6	240	6	60	123508
A/F 12 × 150	12	17	20	150	8.0	35.6	265	6	60	123509
A/F 13 × 150	13	19	20	150	8.0	35.6	265	6	60	123510

No. 4600 POZIDRIV Screwdriver

- High precision black point tip.
- Good for assembly of European and American furniture and skiing equipment.



No.4600

						Inner Ctn. (mm)	EDP No.
PZ1 × 75	PZ No.1	75	5	28	172	6	636011
PZ2 × 100	PZ No.2	100	6	31	204	6	636012
PZ3 × 150	PZ No.3	150	8	35	265	6	636013

No. 5400TX Power Grip TORX Screwdriver

- Champagne gold plating keeping the precise tip quality.
- Cellulose acetate resin grip. Ergonomic design.
- For working with tamper-proof screws (T5 and T6 excluded).



→ See P45 One point

No.5400TX

								Inner Ctn. (mm)	Outer Ctn. (mm)	EDP No.
T 5 × 80	1.42	80	2.5	17.0	155	12	60	122854		
T 6 × 80	1.69	80	2.5	17.0	155	12	60	122855		
T 7H × 80	1.97	80	2.5	17.0	155	12	60	122856		
T 8H × 80	2.3	80	3.0	17.0	155	12	60	122857		
T 9H × 80	2.48	80	3.0	17.0	155	12	60	122858		
T10H × 80	2.72	80	3.0	17.0	155	12	60	122859		
T15H × 80	3.26	80	3.5	28.0	177	6	60	122860		
T20H × 120	3.84	120	4.0	28.0	217	6	60	122861		
T25H × 120	4.4	120	5.0	31.8	224	6	60	122862		
T27H × 120	4.96	120	5.0	31.8	224	6	60	122863		
T30H × 120	5.49	120	6.0	35.6	235	6	60	122864		
T40H × 120	6.6	120	7.0	35.6	235	6	60	122865		

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HAND TOOLS

BITS & SOCKETS

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AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

No. B-5400BP Power Grip UltraBall Screwdriver

- Champagne gold plating keeping the precise tip quality.
- Cellulose acetate resin grip. Ergonomic design.
- A knurled shank keeps hands from slipping in fast turning.



No. B-5400BP						Outer Ctn.	EDP No.
H 1.5 × 80	1.5	80	2.5	17.0	155	30	267565
H 2 × 80	2	80	3.0	17.0	155	30	267566
H 2.5 × 80	2.5	80	3.0	17.0	155	30	267567
H 3 × 120	3	120	3.5	28.0	217	30	267568
H 4 × 120	4	120	5.0	31.8	224	30	267569
H 5 × 120	5	120	6.0	35.6	235	30	267570
H 6 × 120	6	120	7.0	35.6	235	30	267571

No. TX-10 TORX Screwdriver Set

- Provided with bits in a holder.
- Also good for tamper-proof screws.
- New type of bit holder that assuredly holds bits.
- Bit insertion part ● 6.35mm
- Cellulose acetate resin grip. Ergonomic design.

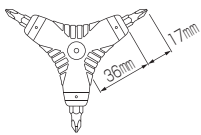


Set content		Package size (mm)	Outer Ctn.	EDP No.
Body	length 204mm dia. 31.8mm	235×100×31	10	252020
Bits	T10H, T15H, T20H, T25H, T27H, T30H, T40H, ⊕2, ⊕3, ⊕6×25.4mm			
Accessories	Bit belt holder			

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No. TD-250Y/ 220B/ 240G 3-Point Screwdriver

- 3 sizes in 1 compact handy tool.
- Y-handle fits in the palm of the hand. Delivers powerful fastening strength.

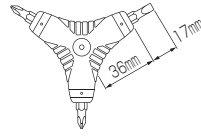


⊕ No. TD-250Y ● No. TD-220B ● No. TD-240G

Model No.	Set content	Package size (mm)	Inner Ctn.	EDP No.
TD-250Y	⊕1 / ⊕2 / ⊕3	120×95×18	10	251211
TD-220B	H2 / H2.5 / H3	120×95×18	10	251221
TD-240G	H4 / H5 / H6	120×95×18	10	251222

No. TD-210 3-Point Cross Screwdriver

- 3 sizes in 1 compact handy tool.
- Y-handle fits in the palm of the hand. Delivers powerful fastening strength.



Set content	Package size (mm)	Inner Ctn.	Outer Ctn.	EDP No.
⊕1 / ⊕2 / ⊕6	135×120×20	10	60	251210

No. TD-6310HX Hex Screwdriver Set NEW

- Bit insertion part ● 6.35mm. Magnetized.
- Holds securely short bits. Reliable fastening as the bit does not drop easily.
- Grip made of environmental-friendly plant material.
- Provided with a bit belt for storage.



Set content		Package size (mm)	Outer Ctn.	EDP No.
Body	length 213mm dia. 28.5mm	235×100×29	10	247029
Bits	⊕4, ⊕6, ⊕4, ⊕4, ⊕4, H2.5, H3, H4, H5, H6×25.4mm			
Accessories	Bit belt holder			

No. TD-6310TX TORX Screwdriver Set NEW

- Bit insertion part ● 6.35mm. Magnetized.
- Holds securely short bits. Reliable fastening as the bit does not drop easily.
- Grip made of environmental-friendly plant material.
- Provided with a bit belt for storage.



Set content		Package size (mm)	Outer Ctn.	EDP No.
Body	length 213mm dia. 28.5mm	235×100×29	10	247028
Bits	⊕6, ⊕2, T8H, T10H, T15H, T20H, T25H, T27H, T30H, T40H×25.4mm			
Accessories	Bit belt holder			

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No. TD-800 "FAMIDORA 8" Screwdriver 8-Piece Set

- Ergonomic handle that fits in the palm of the hand.
- Color-coded interchangeable driver blades.
- Provided with a screwdriver stand, which is convenient for storage.



Set content		Package size (mm)	Inner Ctn.	Outer Ctn.	EDP No.
Handle	length 100mm dia. 29.5mm				
Driver blades	Φ0, Φ1, Φ2, Φ2.5, Φ4, Φ6, Awl, Pin extractor×128mm				

No. TD-410 "FAMIDORA" Reversible Blade Screwdriver

- Ergonomic handle that fits in the palm of the hand.
- Fully hardened shank. Tough tip.



Set content		Package size (mm)	Inner Ctn.	Outer Ctn.	EDP No.
Handle	length 101.5mm dia. 29mm				
Driver blades	Φ2 / Φ6×150mm				

No. TD-808 "FAMIDORA W8" Screwdriver Set

- Ergonomic handle that fits in the palm of the hand.
- Reversible blades. Each blade has 2-sized ends.
- Fully hardened alloy steel shank. ●Provided with a transparent case.



Set content		Package size (mm)	Inner Ctn.	Outer Ctn.	EDP No.
Handle	length 100mm dia. 29.5mm				
Driver blades	Φ0/Φ2.5, Φ1/Φ4, Φ2/Φ6, Awl, Pin extractor×120mm				

No. TD-2100 "Dual-Tone" Screwdriver Set NEW

- Set of a handle and interchangeable blades, convenient for repair/disassembly of electric goods, toys, and equipment instruments.
- Octagonal grip effectively transmitting fastening force; made of polypropylene, oil and chemical resistant.
- Blades have a thin non-electrolytic plating layer and fits screws.
- Magnetized tip catching screws. ●Provided with a handy bag.



Set content		Package size (mm)	Inner Ctn.	EDP No.
Handle	length 100mm dia. 30mm			
Driver blades	Φ1, Φ2, Φ4, Φ6×120mm			

One point

Features of the FAMIDORA series
Small handle / Big handle

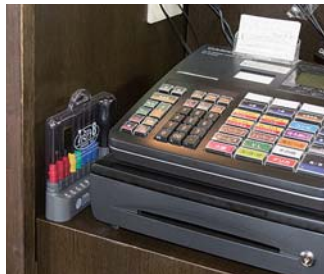
Compact design useful as a standing set in households, offices, stores, etc.



Without big handle, the screwdriver can be used.



In a drawer



In a gap beside a cash register



For mounting hardware



For fastening a sign with screws

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

No. 550

"SEPADORA" Screwdriver



Environmentally friendly products with low environmental impacts are desired in corporate activities.

All are ecological when held by hand.



Elastomer wrapping the grip holds the shank.



No. 550
"SEPADORA"
Screwdriver

Eco screwdrivers of the special manufacturing process that enables the shank and the handle to be separated.

The ergonomic grip designed in the motif of a leaf is superior in tightening force.

⚠ Caution (SEPADORA)

●Eco screwdrivers are not tang-thru screwdrivers; hitting a screwdriver with a hammer disables the shank from being pulled out or causes it to be deformed or broken.

※This is for illustrative purpose.

No. 550 "SEPADORA" Screwdriver PAT.

- Shank and grip are separable. Sort and recycle.
- Wavy octagonal grip fits your palm and transmits driving torque effectively.



← See P21

No.550	Tip	Length (mm)	Inner Ctn.	Outer Ctn.	EDP No.
⊖ 5.5 × 75	5.5 0.8 75	5.0 30.0 175	6	120	121601
⊖ 6 × 100	6.0 0.9 100	6.0 33.5 210	6	60	121602
⊖ 8 × 150	8.0 1.1 150	8.0 36.0 275	6	60	121603
⊕ 1 × 75	⊕No.1 75	5.0 30.0 175	6	120	121611
⊕ 2 × 100	⊕No.2 100	6.0 33.5 210	6	60	121612
⊕ 2 × 150	⊕No.2 150	6.0 33.5 260	6	60	121613
⊕ 3 × 150	⊕No.3 150	8.0 36.0 275	6	60	121616

No. 590 "SEPADORA" Screwdriver (Precision Type) PAT.

- Shank and grip are separable. Sort and recycle.
- Wavy octagonal grip fits your palm and transmits driving torque effectively.
- Special grip with a clip.
- Thin shank screwdriver. Ideal for screw tightening in precision fields.
- ※ ⊕00×50 is with a fully black oxide finish shank.



No.590	Tip	Length (mm)	Inner Ctn.	Outer Ctn.	EDP No.
⊖ 2.5 × 50	2.5 0.35 50	3.0 15.4 99	24	480	121671
⊖ 2.5 × 75	2.5 0.35 75	3.0 15.4 124	24	480	121672
⊖ 2.5 × 100	2.5 0.35 100	3.0 15.4 149	24	480	121673
⊕ 00 × 50	⊕No.00 50	3.0 15.4 99	24	480	121674
⊕ 0 × 75	⊕No.0 75	3.0 15.4 124	24	480	121675

No. 560 "SEPADORA" Screwdriver (Thin Shank Type) PAT.

- Shank and grip are separable. Sort and recycle.
- Wavy octagonal grip fits your palm and transmits driving torque effectively.
- Thin shank screwdriver. Ideal for screw tightening in narrow spaces.



No.560	Tip	Length (mm)	Inner Ctn.	Outer Ctn.	EDP No.
⊖ 4 × 75	4.0 0.5 75	4.0 19.8 153	12	240	121632
⊖ 4 × 100	4.0 0.5 100	4.0 19.8 178	12	240	121633
⊖ 4 × 150	4.0 0.5 150	4.0 19.8 228	12	240	121634
⊖ 4 × 200	4.0 0.5 200	4.0 19.8 278	12	240	121635
⊕ 0 × 75	⊕No.0 75	4.0 19.8 153	12	240	121642
⊕ 1 × 100	⊕No.1 100	4.0 19.8 178	12	240	121647
⊕ 2 × 150	⊕No.2 150	4.0 19.8 228	12	240	121651

No. 570 "SEPADORA" Screwdriver (Stubby Type) PAT.

- Shank and grip are separable. Sort and recycle.
- Wavy octagonal grip fits your palm and transmits driving torque effectively.
- Ideal for working in cramped places.



No.570	Tip	Length (mm)	Inner Ctn.	Outer Ctn.	EDP No.
⊖ 6 × 25	6.0 0.9 25	6.0 45 50	12	240	121661
⊕ 1 × 25	⊕No.1 25	6.0 45 50	12	240	121662
⊕ 2 × 25	⊕No.2 25	6.0 45 50	12	240	121663

One point

Concave octagonal grip

Dents and projections of the waves fit into your palm to transmit the torque securely.



Tip shape is shown on the grip end

Black point processing

High precision finish, unaffected by plate thickness

Rust-proof chrome plating

Elastomer grip

The elastomer resin coating on the surface is slip-proof and fits into your palm

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

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STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

No.500 ECO VALUE Screwdriver

- Robust looking black hard grip.
- Wavy octagonal grip fits your palm and transmits driving torque effectively.
- Champagne gold plating, keeping the precise tip quality.



No.500							Inner Ctn.	Outer Ctn.	EDP No.
⊖ 5.5 × 75	5.5	0.8	75	5.0	30.0	175	6	120	121751
⊖ 6 × 100	6.0	0.9	100	6.0	33.5	210	6	60	121752
⊖ 8 × 150	8.0	1.1	150	8.0	36.0	275	6	60	121753
⊕ 1 × 75	⊕No.1	75	5.0	30.0	175		6	120	121761
⊕ 2 × 100	⊕No.2	100	6.0	33.5	210		6	60	121762
⊕ 3 × 150	⊕No.3	150	8.0	36.0	275		6	60	121766

※The shank is not separable.

No.510 ECO VALUE Screwdriver

- Robust looking black hard grip.
- Wavy octagonal grip fits your palm and transmits driving torque effectively.
- Thin shank screwdriver. Ideal for screw tightening in narrow spaces.
- Champagne gold plating, keeping the precise tip quality.



No.510							Inner Ctn.	Outer Ctn.	EDP No.
⊖ 4 × 75	4.0	0.45	75	4.0	19.8	153	12	240	121782
⊖ 4 × 100	4.0	0.45	100	4.0	19.8	178	12	240	121783
⊕ 0 × 75	⊕No.0	75	4.0	19.8	153		12	240	121792
⊕ 1 × 100	⊕No.1	100	4.0	19.8	178		12	240	121797

※The shank is not separable.

No.540 ECO VALUE Screwdriver (Precision Type)

- Robust looking black hard grip.
- Wavy octagonal grip fits your palm and transmits driving torque effectively.
- Special grip with a clip.
- Thin shank screwdriver. Ideal for screw tightening in precision fields.
- Champagne gold plating, keeping the precise tip quality.



No.540							Inner Ctn.	Outer Ctn.	EDP No.
⊖ 2.5 × 50	2.5	0.35	50	3.0	15.4	99	24	480	121821
⊕ 00 × 50	⊕No.00	50	3.0	15.4	99		24	480	121824
⊕ 0 × 75	⊕No.0	75	3.0	15.4	124		24	480	121825

※The shank is not separable.

No.520 ECO VALUE Screwdriver (Stubby Type)

- Robust looking black hard grip.
- Wavy octagonal grip fits your palm and transmits driving torque effectively.
- Ideal for working in cramped spaces.
- Champagne gold plating, keeping the precise tip quality.



No.520							Inner Ctn.	Outer Ctn.	EDP No.
⊖ 6 × 25	6.0	0.9	25	6.0	45	50	12	240	121811
⊕ 1 × 25	⊕No.1	25	6.0	45	50		12	240	121812
⊕ 2 × 25	⊕No.2	25	6.0	45	50		12	240	121813

※The shank is not separable.

No.460NT-9S ECOSOFT T-bar screwdriver (w/socket bit set)

- The ergonomic grip fits comfortably in your hand. T-shaped handle transmits high torque without applying too much force by your hand.
- Ball-lock type holds a socket assuredly. Hex drive 6.35mm.



Set content		Package size (mm)	Inner Ctn.	Outer Ctn.	EDP No.
Body	length 165.5mm dia. 100mm				
Socket bits	A/F5, A/F5.5, A/F6, A/F7, A/F8, A/F9, A/F10, A/F12, A/F13 ×26.5mm	235×120×30	5	30	121891
Accessories	Socket bit holder				

※The shank is not separable.

No. 100

Powerful Tang-Thru Screwdriver



Luxurious furniture finish coating on the large handle, which fits more comfortably in your hand the more you use it.

Its better usability compared to plastic handles attracts support from many professional users.



No. 100

Powerful Tang-Thru Screwdriver

Especially large, heavy-duty end cap. An especially large end cap efficiently delivers the shock of the hammer blow.

When tapped with a hammer, and adjusting the force of the tapping to the condition of the material concerned, this screwdriver can be used effectively to loosen stripped or rusted screws.

※This is for illustrative purpose.

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

No. 100 Powerful Tang-Thru Screwdriver

- Wooden handle and Tang-Thru shank with thick end cap.
- Large and long grip comfortable to hold.
- Black point tip.

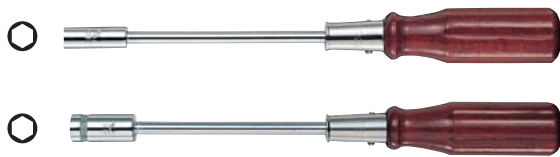


← See P24

No.100	Tip Dimensions (mm)						Inner Ctn.	Outer Ctn.	EDP No.
	W	H	L	W	H	L			
⊖ 5.5 × 75	5.5	0.8	75	5.8	27.0	182	6	120	111051
⊖ 6 × 100	6.0	0.9	100	6.4	30.5	223	6	120	111052
⊖ 6 × 300	6.0	0.9	300	6.4	30.5	423	6	60	111061
⊖ 8 × 150	8.0	1.1	150	8.0	34.0	294	6	120	111053
⊕ 1 × 75	⊕No.1		75	5.8	27.0	182	6	120	111054
⊕ 2 × 100	⊕No.2		100	6.4	30.5	223	6	120	111055
⊕ 2 × 300	⊕No.2		300	6.4	30.5	423	6	60	111066
⊕ 3 × 150	⊕No.3		150	8.0	34.0	294	6	120	111056

No. 110 Wooden Handle Socket Driver

- For fastening and loosening hexagon bolts and nuts.
- Tip is made of specially treated steel to enhance wear resistance.



No.110	Tip Dimensions (mm)						Inner Ctn.	Outer Ctn.	EDP No.
	W	H	L	W	H	L			
A/F 5 × 115	5	8	18	115	5	23	12	120	113002
A/F 6 × 115	6	9	18	115	5.5	25	12	240	113004
A/F 9 × 125	9	12.7	20	125	6.3	28	12	120	113007
A/F 11 × 125	11	15	20	125	6.3	28	12	120	113009
A/F 12 × 150	12	17	20	150	8	33	6	—	113010
A/F 14 × 150	14	19	22	150	8	33	6	—	113012
A/F 17 × 150	17	23	22	150	9	35	6	—	113013

No. 310 Wooden Handle standard Shank Screwdriver

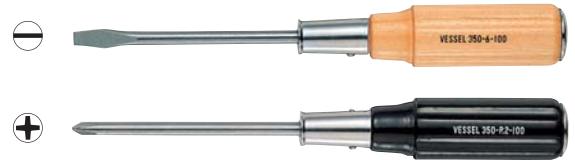
- Widely-used standard wooden handle screwdriver.
- Mahogany colored handle. Easy-to-grip texture and shape.
- Shot blasting tip.



No.310	Tip Dimensions (mm)						Inner Ctn.	Outer Ctn.	EDP No.
	W	H	L	W	H	L			
⊖ 5.5 × 75	5.5	0.8	75	5.5	25	181	12	120	111102
⊖ 8 × 150	8	1.1	150	8	33	292	6	120	111105
⊕ 2 × 100	⊕No.2		100	6.3	28	225	12	240	111111

No. 350 Wooden Handle Tang-Thru Screwdriver

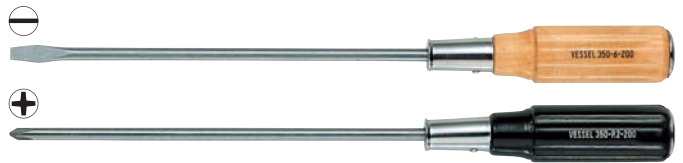
- Widely-used standard wooden handle screwdriver.
- Wooden handle and Tang-Thru shank with large end cap.
- Shot blasting tip.



No.350	Tip Dimensions (mm)						Inner Ctn.	Outer Ctn.	EDP No.
	W	H	L	W	H	L			
⊖ 4.5 × 50	4.5	0.6	50	5.0	25	153	12	120	111001
⊖ 5.5 × 75	5.5	0.8	75	5.5	25	178	12	120	111002
⊖ 6 × 100	6.0	0.9	100	6.3	28	218	12	240	111003
⊖ 7 × 125	7.0	0.9	125	7.0	33	258	6	120	111004
⊖ 8 × 150	8.0	1.1	150	8.0	33	283	6	120	111005
⊖ 9 × 200	9.0	1.2	200	9.0	36	355	6	60	111006
⊖ 10 × 300	10.0	1.2	300	9.0	36	455	6	60	111008
⊕ 0 × 75	⊕No.0		75	5.0	25	178	12	120	111009
⊕ 1 × 75	⊕No.1		75	5.0	25	178	12	120	111010
⊕ 2 × 100	⊕No.2		100	6.3	28	218	12	240	111011
⊕ 3 × 150	⊕No.3		150	8.0	33	283	6	120	111012
⊕ 4 × 200	⊕No.4		200	9.0	36	355	6	60	111013

No. 350 Wooden Handle Tang-Thru Screwdriver (Long Shank Type)

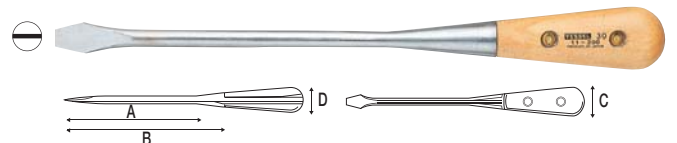
- Wooden handle and Tang-Thru shank.
- Long shank for fastening in a hard-to-reach space.



No.350	Tip Dimensions (mm)						Inner Ctn.	Outer Ctn.	EDP No.
	W	H	L	W	H	L			
⊖ 6 × 200	6.0	0.9	200	6.3	28	320	12	120	111018
⊖ 6 × 250	6.0	0.9	250	6.3	28	370	12	120	111019
⊖ 6 × 300	6.0	0.9	300	6.3	28	420	12	120	111020
⊕ 2 × 200	⊕No.2		200	6.3	28	320	12	120	111024
⊕ 2 × 250	⊕No.2		250	6.3	28	370	12	120	111025
⊕ 2 × 300	⊕No.2		300	6.3	28	420	12	120	111026

No. 30 "SPLIT" Handle Screwdriver

- Joined Tang-Thru shank and handle. Super strong type.



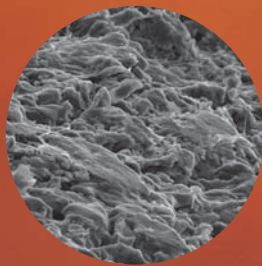
No.30	Tip Dimensions (mm)						Inner Ctn.	Outer Ctn.	EDP No.		
	W	H	L	W	H	L					
⊖ 9.5 × 150	9.5	1.2	9.5	145	190	35	29	285	6	120	113101
⊖ 11 × 200	11	1.2	11	195	255	38	32	360	6	120	113102

No. 300

Wood-Compo Screwdriver



Maintenance of cars, motorbikes and machines always involves oils. Wood-compo screwdriver's coarse wood powder on the grip surface stops the oil flow against the tightening torque, producing an outstanding non-slip grip effect.



A D V A N C E D

NON-SLIP

T E C H N O L O G Y

No. 300

Wood-Compo Screwdriver

The grip part is made by unique mold injection technique for "wood resin" which is a compound of wood powder and plastic.

Wood powder is the main material, realizing texture and feeling to fit comfortably in your hand like those made of natural wood.

※ This is for illustrative purpose.

HAND TOOLS

BITS & SOCKETS




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AIR TOOLS


STATIC SOLUTIONS

GASOLINE ENGINE TOOLS




No. 300 Wood-Compo Screwdriver NEW PAT.

- Extraordinary non-slip grip; Secure working efficiency even with oily hands.   
- Wood-composite resin, reproducing the natural material texture.
- Rust-resistant black chrome plating shank.




No.300							Inner Ctn.	Outer Ctn.	EDP No.	
⊖ 5.5x	75	5.5	0.8	75	5.5	30	182	6	120	120021
⊖ 6x	100	6.0	0.9	100	6.4	32	215	6	120	120022
⊖ 6x	150	6.0	0.9	150	6.4	32	265	6	120	120027
⊖ 8x	150	8.0	1.1	150	8.0	35	275	6	120	120023
⊕ 1x	75	⊕No.1	75	5.5	30	182	6	120	120024	
⊕ 2x	100	⊕No.2	100	6.4	32	215	6	120	120025	
⊕ 2x	150	⊕No.2	150	6.4	32	265	6	120	120029	
⊕ 3x	150	⊕No.3	150	8.0	35	275	6	120	120026	




No. B-330 Wood-Compo Tang-Thru Screwdriver NEW PAT.

- Extraordinary non-slip grip; Secure working efficiency even with oily hands.   
- Tang-thru type, which can be tapped by a hammer. With star-shaped nut.
- Rust-resistant black chrome plating shank.




No.B-330							Inner Ctn.	Outer Ctn.	EDP No.	
⊖ 5.5x	75	5.5	0.8	75	5.5	30	183	6	120	120041
⊖ 6x	100	6.0	0.9	100	6.4	32	217	6	120	120042
⊖ 6x	150	6.0	0.9	150	6.4	32	267	6	60	120043
⊖ 8x	150	8.0	1.1	150	8.0	35	277	6	60	120044
⊕ 1x	75	⊕No.1	75	5.5	30	183	6	120	120045	
⊕ 2x	100	⊕No.2	100	6.4	32	217	6	120	120046	
⊕ 2x	150	⊕No.2	150	6.4	32	267	6	60	120047	
⊕ 3x	150	⊕No.3	150	8.0	35	277	6	60	120048	




No. B-300 Wood-Compo S/D (w/hanging card) NEW PAT.

- Extraordinary non-slip grip; Secure working efficiency even with oily hands.   
- Wood-composite resin, reproducing the natural material texture.
- Rust-resistant black chrome plating shank.




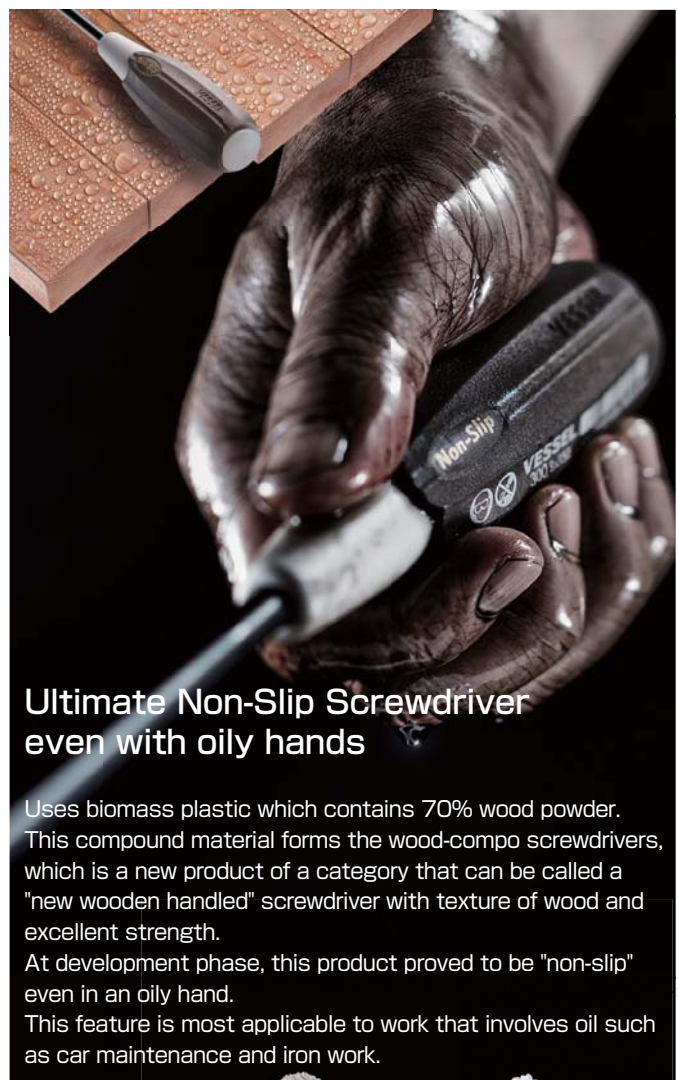
No.B-300							Inner Ctn.	Outer Ctn.	EDP No.	
⊖ 5.5x	75	5.5	0.8	75	5.5	30	183	6	120	120071
⊖ 6x	100	6.0	0.9	100	6.4	32	217	6	120	120072
⊖ 6x	150	6.0	0.9	150	6.4	32	267	6	60	120073
⊖ 8x	150	8.0	1.1	150	8.0	35	277	6	60	120074
⊕ 1x	75	⊕No.1	75	5.5	30	183	6	120	120075	
⊕ 2x	100	⊕No.2	100	6.4	32	217	6	120	120076	
⊕ 2x	150	⊕No.2	150	6.4	32	267	6	60	120077	
⊕ 3x	150	⊕No.3	150	8.0	35	277	6	60	120078	

No. 320 Wood-Compo Screwdriver (Stubby Type) NEW PAT.

- Stubby type, which is convenient for tightening screws in cramped spaces.   
- Wood-composite resin, reproducing the natural material texture.
- Rust-resistant black chrome plating shank.



No.320							Inner Ctn.	Outer Ctn.	EDP No.	
⊖ 6x	15	6.0	0.9	15	6.0	35	68	6	120	120035
⊕ 2x	15	⊕No.2	15	6.0	35	68	6	120	120037	



Ultimate Non-Slip Screwdriver even with oily hands

Uses biomass plastic which contains 70% wood powder. This compound material forms the wood-compo screwdrivers, which is a new product of a category that can be called a "new wooden handled" screwdriver with texture of wood and excellent strength. At development phase, this product proved to be "non-slip" even in an oily hand. This feature is most applicable to work that involves oil such as car maintenance and iron work.



One point

No. B-340TX

Wood-Compo TORX Screwdriver **NEW PAT.**



- Extraordinary non-slip grip; Secures working efficiency even with oily hands. Wood-composite resin, reproducing the natural material texture.
- Non-electrolytic plating, keeping the precise tip quality.
- Also good for tamper-proof TORX screws.



No. B-340TX						内装 (mm)	外装 (mm)	JAN (4907587)
T10H	2.72	80	5.5	30	188	6	120	120081
T15H	3.26	80	5.5	30	188	6	120	120082
T20H	3.84	120	5.5	30	228	6	120	120083
T25H	4.40	120	6.4	32	236	6	60	120084
T27H	4.96	120	6.4	32	236	6	60	120085
T30H	5.49	120	8.0	35	246	6	60	120086
T40H	6.60	120	8.0	35	246	6	60	120087

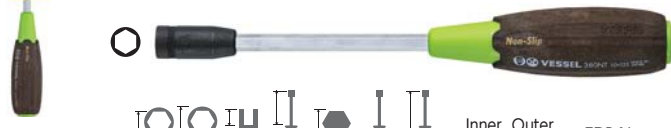
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No. B-380NT

Wood-Compo Socket Screwdriver **NEW PAT.**



- Extraordinary non-slip grip; Secures working efficiency even with oily hands. Wood-composite resin, reproducing the natural material texture.
- Black oxide plated socket.
- Rust resistant chrome plating. Hexagonal shank for fastening with a wrench.



No. B-380NT							Inner Ctn. (mm)	Outer Ctn. (mm)	EDP No.
A/F 5 ×125	5	8	18	125	5.0	30.0	224	60	120091
A/F 5.5×125	5.5	9	18	125	5.0	30.0	224	60	120092
A/F 7 ×125	7	10	18	125	5.0	30.0	224	60	120093
A/F 8 ×125	8	12	20	125	5.0	32.0	233	60	120094
A/F 10×125	10	15	20	125	7.0	32.0	233	60	120095
A/F 12×150	12	17	20	125	7.0	32.0	233	60	120096
A/F 13×150	13	19	22	125	7.0	32.0	233	60	120097
A/F 14×150	14	19	22	125	7.0	32.0	233	60	120098

No. B-370 Non-slip Tang-Thru Screwdrivers

- Unique Non-Slip finish that prevents slipping even if oil adheres on the grip.



- Tang-thru type with a large nut. Good for heavy duty work.
- The end of the handle has a color ring facilitates to distinguish the tip difference at a glance.



No. B-370							Inner Ctn. (mm)	Outer Ctn. (mm)	EDP No.
⊖ 5.5× 75	5.5	0.8	75	5.5	27.4	183	6	60	267590
⊖ 6 × 100	6.0	0.9	100	6.4	30.7	226	6	60	267591
⊖ 8 × 150	8.0	1.1	150	8.0	36.2	290	6	60	267592
⊕ 1 × 75	⊕No.1	75	5.5	27.4	183	6	60	267593	
⊕ 2 × 100	⊕No.2	100	6.4	30.7	226	6	60	267594	
⊕ 3 × 150	⊕No.3	150	8.0	36.2	290	6	60	267595	

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

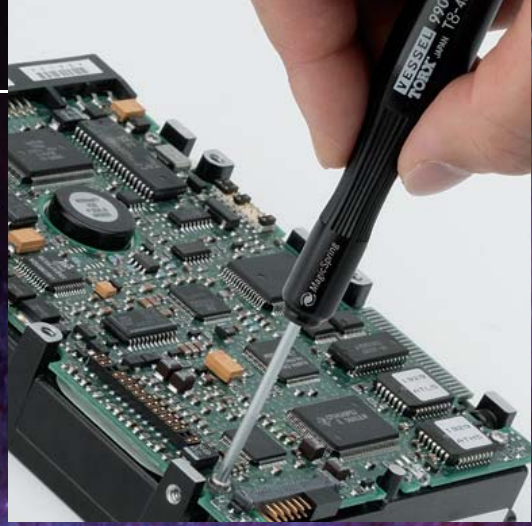
AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

No. 990

G-grip Screwdriver



This precision screwdriver is perfect for the delicate screw tightening operations of precision work. Our high-precision, tip process conforms to JIS and JCIA standards. The ergonomic grips employed enable a smoother torque transfer.



No. 990

G-grip Screwdriver

Quick-turning screwdriver, taking advantage of the gravity force. The perfect shape for high-precision work. The weight of the internal steel ball freely rotates the cap in the palm of the hand to provide the optimum grip position.

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

※The photograph is an image.

No. 990 G-grip Screwdriver PAT.

- The weight of the steel ball keeps the end cap in an optimum position for a grip.
 - Black point tip, fitting well screws.
 - Slotted tip is cut straight.



← See P29

No.990	Bit	Length (mm)	Shank Dia. (mm)	Tip Dia. (mm)	Tip Length (mm)	Tip Width (mm)	Tip Thickness (mm)	Inner Ctn.	Outer Ctn.	EDP No.
1.8 × 50	1.8	0.25	50	2.5	16	21	148	12	240	125901
2.5 × 75	2.5	0.3	75	2.5	16	21	173	12	240	125902
3 × 100	3	0.5	100	3.0	16	21	198	12	240	125903
4 × 100	4	0.6	100	4.0	16	21	198	12	240	125904
5 × 100	5	0.8	100	5.0	30	38	215	6	60	125905
Φ00 × 75	ΦNo.00	75	2.5	16	21	173		12	240	125911
Φ0 × 100	ΦNo.0	100	3.0	16	21	198		12	240	125912
Φ1 × 100	ΦNo.1	100	3.0	30	38	215		6	60	125913
Φ2 × 100	ΦNo.2	100	5.0	30	38	215		6	60	125914

No. 9902/9903 3-Piece Micro Screwdriver Set

- 2 types recommended to precision fields.
- Set of frequently used sizes.
- For adjustment and repair of precision device, electric device, glasses, watches, etc.



Model No.	Set content	Package size (mm)	Inner Ctn.	Outer Ctn.	EDP No.
9902	No.9900 Φ00×75, Φ0×100, ⊖1.8×50	235×70×15	5	30	125636
9903	No.9900 Φ00×75, ⊖2.5×75, ⊖3×100	235×70×15	5	30	125637

No. 990TX G-grip TORX Screwdriver PAT.

- The weight of the steel ball keeps the end cap in an optimum position for a grip.
 - A special precision spring is welded to the tip by laser, enabling the screwdriver to catch a TORX screw firmly by spring action.



→ See P45 One point

No.990TX	Bit	Length (mm)	Shank Dia. (mm)	Tip Dia. (mm)	Tip Length (mm)	Tip Width (mm)	Tip Thickness (mm)	Inner Ctn.	Outer Ctn.	EDP No.
T3 × 40	T3	1.13	40	2.5	16	21	138	12	240	125921
T5 × 40	T5	1.42	40	2.5	16	21	138	12	240	125923
MagicSpring T6 × 40	T6	1.69	40	2.5	16	21	138	12	240	125924
MagicSpring T8 × 40	T8	2.3	40	2.5	16	21	138	12	240	125926
MagicSpring T9 × 40	T9	2.48	40	4.0	16	21	138	12	240	125927
MagicSpring T10 × 80	T10	2.72	80	4.0	30	38	195	6	60	125928
MagicSpring T15 × 80	T15	3.26	80	5.5	30	38	195	6	60	125929
MagicSpring T20 × 80	T20	3.84	80	5.5	30	38	195	6	60	125930

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One point

Features of the precision tip

Precisely-finished tip-end good for minuscule screws
No.990 / No.9900

00 / 0

A deep recessed area can also be accessed by the thin shank!

6mm hole, M3 round head screw, and screw head dia. of φ5.5 mm

No.990

1 / 2

Two-step flat shape, enabling the tip to fit into a screw

No.990

1.8 / 2.5 / 3 / 4 / 5

StepFlat

Catches a TORX screw
A special-shape spring is welded to the tip by laser.

No.990TX

T6 / T8 / T9 / T10 / T15 / T20

MagicSpring

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HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

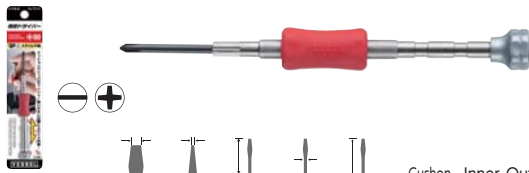
AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

No. TD-51 Precision Micro Screwdriver

- The main body is made of stainless steel (the end cap is made of resin).
- For assembly, repair, and disassembly of precision devices, cameras, watches, glasses, etc.

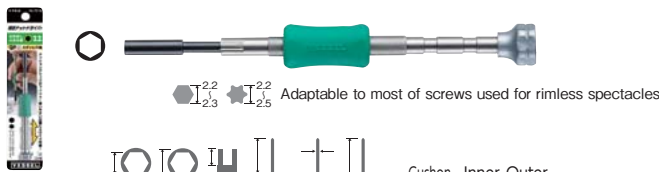


No. TD-51	Bit Size	Length (mm)	Cushion Grip color	Inner Ctn.	Outer Ctn.	EDP No.
⊖0.7	0.7	10	Purple	10	100	251350
⊖0.9	0.9	10	Green	10	100	251351
⊖1.2	1.2	10	Blue	10	100	251352
⊖1.8	1.8	20	Black	10	100	251353
⊖2.3	2.3	22	Purple	10	100	251354
⊖3.0	3.0	26	Red	10	100	251355
⊖3.5	3.5	28	Yellow	10	100	251356
⊕00	⊕No.00	24	Red	10	100	251357
⊕0	⊕No.0	26	Yellow	10	100	251358
⊕1	⊕No.1	26	Green	10	100	251359

Package size...160×35×14mm

No. TD-52 Precision Nutdriver

- The main body is made of stainless steel (the end cap is made of resin).
- For assembly, repair, and disassembly of precision devices, spacer, toys, etc.



No. TD-52	Bit Size	Length (mm)	Cushion Grip color	Inner Ctn.	Outer Ctn.	EDP No.
2.2	—	12	Green	10	100	251361
A/F 3.0	3.0	25	Blue	10	100	251362
A/F 4.0	4.0	25	Black	10	100	251363
A/F 4.5	4.5	25	Purple	10	100	251364
A/F 5.0	5.0	25	Red	10	100	251365
A/F 5.5	5.5	25	Yellow	10	100	251366

Package size...160×35×14mm

No. TD-53 Precision Hex. Driver

- The main body is made of stainless steel (the end cap is made of resin).
- For assembly, repair, and disassembly of precision devices, toys, etc.

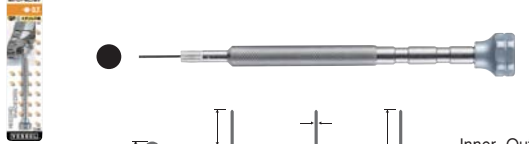


No. TD-53	Bit Size	Length (mm)	Cushion Grip color	Inner Ctn.	Outer Ctn.	EDP No.
H 0.89	0.89	98	Green	10	100	251371
H 1.27	1.27	98	Blue	10	100	251372
H 1.5	1.5	98	Black	10	100	251373
H 2.0	2.0	104	Purple	10	100	251374
H 2.5	2.5	104	Yellow	10	100	251375

Package size...160×35×14mm

No. TD-54 Watch Band Pin Punch

- The main body is made of stainless steel (the end cap is made of resin).
- For adjustment of the watch band.



No. TD-54	Bit Size	Length (mm)	Inner Ctn.	Outer Ctn.	EDP No.
0.7	0.7	10	10	100	251380

Package size...160×35×14mm

No. TD-55/56/57/58 Precision Screwdriver Set

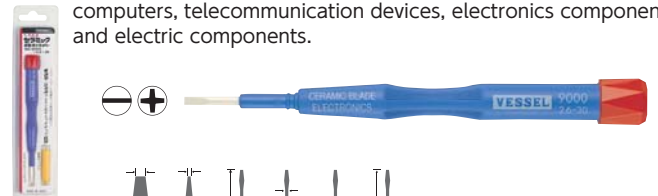
- The main body is made of stainless steel (the end cap is made of resin).
- Provided in a portable transparent case.



Model No.	Model Name	Set content	Package size (mm)	Inner Ctn.	EDP No.
TD-55	Precision Screwdriver Set	⊖0.9, ⊖1.2, ⊖1.8, ⊖2.3, ⊖3.0, ⊖3.5	140×86×20	10	251381
TD-56	Precision Screwdriver Set	⊖0.9, ⊖1.2, ⊖1.8, ⊖2.3, ⊕00, ⊕0	140×86×20	10	251382
TD-57	Precision Nut driver Set	2.2, ⊕3.0, ⊕4.0, ⊕4.5, ⊕5.0, ⊕5.5	140×86×20	10	251383
TD-58	Precision Hex.driver Set	●0.89, ●1.27, ●1.5, ●2.0, ●2.5, ⊕00	140×86×20	10	251384

No. 9000 Ceramic Adjusters

- Uses a zirconia ceramics tip, non-inductive magnetic substance.
- Optimum for coil and trimmer adjustments.
- For the adjustment of electronic parts, such as audio instruments, computers, telecommunication devices, electronics components, and electric components.

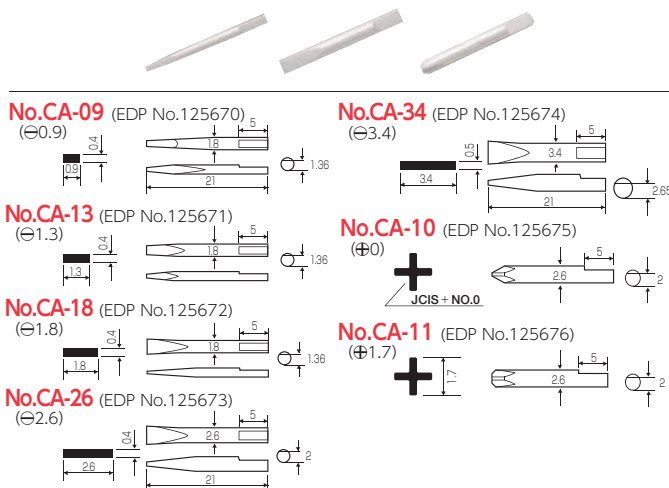


No.9000	Bit Size	Length (mm)	End cap color	Inner Ctn.	Outer Ctn.	EDP No.
⊖0.9×30	0.9	30	Green	10	60	125641
⊖1.3×30	1.3	30	White	10	60	125642
⊖1.8×30	1.8	30	Yellow	10	60	125643
⊖2.6×30	2.6	30	Red	10	60	125644
⊖3.4×15	3.4	15	Black	10	60	125645
⊕0 ×30	⊕No.0	30	Navy blue	10	60	125646
⊕1.7×30	⊕Width1.7	30	Lilac	10	60	125647

Package size...190×45×14mm

No. CA Individual Ceramic Blades / Ceramic Blade Adapters

- Blade for automatic adjuster. ●Made of zirconia ceramics, offering high durability.
- For the adjustment of electronic parts, such as audio instruments, computers, telecommunication devices and electronic components.



No. CA	EDP No.	Bit Size	Length (mm)	Inner Ctn.	Outer Ctn.	EDP No.
No. CA-09	(EOP No.125670)	⊖0.9	18	10	100	125670
No. CA-13	(EOP No.125671)	⊖1.3	18	10	100	125671
No. CA-18	(EOP No.125672)	⊖1.8	18	10	100	125672
No. CA-26	(EOP No.125673)	⊖2.6	18	10	100	125673
No. CA-34	(EOP No.125674)	⊖3.4	18	10	100	125674
No. CA-10	(EOP No.125675)	⊕0	18	10	100	125675
No. CA-11	(EOP No.125676)	⊕1.7	18	10	100	125676

Inner Ctn.:10pcs

No. TD-6800 Series Ratchet Screwdriver



This functionally enhanced screwdriver enables screw tightening by simple repeated wrist movements.

Improved gear strength combined with our unique ratchet design makes these screwdrivers suitable for the most strenuous tightening jobs.

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS



No. TD-6804MG Ratchet Screwdriver

Newly developed 72 gear ratchet realizes smooth rotation. You can work by one hand, without grasping over again.

Ratchet series optimal for a confined area

	Flexible	Plate Ratchet	Screw catcher	Stubby	Driver	Power
At a corner edge						
In a narrow area						
In a deep recessed area						
For torque retaining tightening						
	TD-6700FX-4	TD-74/75/76/77/78/79 TD-70/71/72	TD-73MC TX-12MC	TD-6700W-23	TD-6800 Series	S-13
						TD-80 S-12/13 TD-81R/81G/81B

No. TD-6804MG Ratchet Screwdriver (4-pc bit set) **NEW**

- Smoothly click feeling realized by rotating angle of 5° and 72 gears. High strength accomplished by 2 nails supporting the ratchet gear. It can be used for final tightening work.
- The handle is made out of oil-resistance cellulose acetate resin.
- Easy to carry around with cassette type bit storage inside the handle.
- Magnetic bits can be replaced with one-touch.
- Bit insertion part ●6.35mm.



Set content			
Body	length 177mm dia. 28.5mm		
Bits	⌀1, ⌀2, ⌀3, ⌀6 ×25.4mm		
Package size (mm)	Inner Ctn.	Outer Ctn.	EDP No.
235×80×29	5	30	247022

No. TD-6808MG Ratchet Screwdriver (8-pc bit set) **NEW**

- Smoothly click feeling realized by rotating angle of 5° and 72 gears. High strength accomplished by 2 nails supporting the ratchet gear. It can be used for final tightening work.
- The handle is made out of oil-resistance cellulose acetate resin.
- Easy to carry around with cassette type bit storage inside the handle.
- Stores 8 types of bits including HEX bit. Magnetic bits can be replaced with one-touch.
- Bit insertion part ●6.35mm.



Set content			
Body	length 177mm dia. 28.5mm		
Bits	⌀1, ⌀2, ⌀3, ⌀6, H2.5, H3, H4, H5 ×25.4mm		
Package size (mm)	Inner Ctn.	Outer Ctn.	EDP No.
235×80×29	5	30	247023

No. TD-6808TX Ratchet Screwdriver TORX (8-pc bit set) **NEW**

- Smoothly click feeling realized by rotating angle of 5° and 72 gears. High strength accomplished by 2 nails supporting the ratchet gear. It can be used for final tightening work.
- The handle is made out of oil-resistance cellulose acetate resin.
- Easy to carry around with cassette type bit storage inside the handle.
- Stores 8 types of bits including TORX bit. Magnetic bits can be replaced with one-touch.
- Bit insertion part ●6.35mm.



Set content			
Body	length 177mm dia. 28.5mm		
Bits	⌀2, ⌀3, T10H, T15H, T20H, T25H, T30H, T40H ×25.4mm		
Package size (mm)	Inner Ctn.	Outer Ctn.	EDP No.
235×80×29	5	30	247024

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No. TD-6816MG Ratchet Screwdriver (16-pc bit set) **NEW**

- Smoothly click feeling realized by rotating angle of 5° and 72 gears. High strength accomplished by 2 nails supporting the ratchet gear. It can be used for final tightening work.
- The handle is made out of oil-resistance cellulose acetate resin.
- Easy to carry around with cassette type bit storage inside the handle.
- 16 types of bits to adapt to various types of work. Magnetic bits can be replaced with one-touch.
- Bit insertion part ●6.35mm.



Set content			
Body	length 177mm dia. 28.5mm		
Bits	⌀1, ⌀2, ⌀3, ⌀6, H2, H2.5, H3, H4, H5, T10H, T15H, T20H, T25H, T27H, T30H, T40H ×25.4mm		
Package size (mm)	Inner Ctn.	Outer Ctn.	EDP No.
235×90×29	5	30	247025

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No. TD-6700W-23 Ratchet Stubby Screwdriver **NEW**

- Improves workability in cramped spaces! Stubby type that fits in your hand.
- Smoothly click feeling realized by rotating angle of 5° and 72 gears. High strength accomplished by 2 nails supporting the ratchet gear. It can be used for final tightening work.
- The handle is made out of oil-resistance cellulose acetate resin.
- Ball-lock bits can be replaced with one-touch.
- Bit insertion part ●6.35mm.



Set content			
Body	length 77mm	dia. 35mm	
Bits	⌀2 / ⌀3 × 35mm		
Package size (mm)	Inner Ctn.	Outer Ctn.	EDP No.
135×70×40	10	60	247026

No. TD-6700FX-4 Ratchet Stubby Screwdriver with Flexible Shaft **NEW**

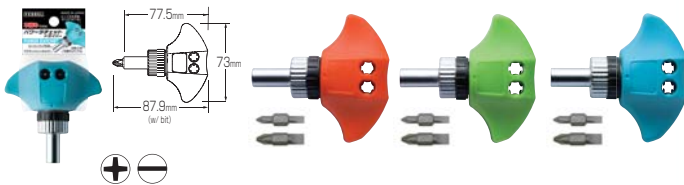
- Improves workability in cramped spaces! Stubby type that fits in your hand.
- Smoothly click feeling realized by rotating angle of 5° and 72 gears. High strength accomplished by 2 nails supporting the ratchet gear. It can be used for final tightening work.
- The handle is made out of oil-resistance cellulose acetate resin.
- Ball-lock bits can be replaced with one-touch.
- Bit insertion part ●6.35mm.



Set content			
Body	length 77mm	dia. 35mm	
Bits	⌀1, ⌀2, ⌀4, ⌀6 × 33mm		
Flexible Shaft (length 165mm)			
Package size (mm)	Inner Ctn.	Outer Ctn.	EDP No.
235×80×40	5	30	247027

No. TD-81 Power Ratchet Screwdriver

- Ratchet fine feed enables to fasten with a little wrist movement.
- Ideal ratchet mechanism for sufficient final tightening.
- 2 double-ended bits (different size combination) can be stored within the handle.
- Bit insertion part ϕ 6.35mm



Model No.	Color	Bits	Package size (mm)	Inner Ctn.	EDP No.
TD-81R	Red	ϕ 1/ ϕ 4, ϕ 2/ ϕ 6 \times 25.4	115 \times 73 \times 34	10	250081
TD-81G	Green	ϕ 1/ ϕ 4, ϕ 2/ ϕ 6 \times 25.4	115 \times 73 \times 34	10	250082
TD-81B	Blue	ϕ 1/ ϕ 4, ϕ 2/ ϕ 6 \times 25.4	115 \times 73 \times 34	10	250083

No. TD-80 T-Bar Ratchet Screwdriver

- Ratchet driving mechanism allows you to tighten a screw without adjusting your grip.
- Bit insertion part ϕ 6.35mm



Set content		
Body	T-bar ratchet screwdriver length 78mm dia. 73mm	
Bits	ϕ 1, ϕ 2, ϕ 3, ϕ 4, ϕ 6 \times 25.4mm	
Accessory	Bit belt holder	
Package size (mm)	Outer Ctn.	EDP No.
170 \times 105 \times 28	40	250080



No. S-13 Handy Tool Set

- Easy-to-use tool sets for fastening jobs around the house.
- Optimum for work at a corner or place with obstacles!
- Bit insertion part ϕ 6.35mm



Set content		
Body	T-bar ratchet screwdriver length 78mm dia. 73mm	
Short Bits	ϕ 1, ϕ 2, ϕ 3, ϕ 4, ϕ 6, H2, H2.5, H3, H4, H5, H6 \times 25.4mm	
Accessory	Magnetic Bit holder (length 115mm) Flexible shank (length 145mm)	
Package size (mm)	Outer Ctn.	EDP No.
240 \times 143 \times 45	10	250003



No. 2200 Ball Ratchet Screwdriver NEW

- With 36-teeth gear ratchet to realize comfortable operation with fine tuning.
- Shank cover prevents short circuits. Thin shank is convenient for operating on terminal blocks.



- Shank uses bit materials, fully hardened. Replacement shank is available as option.



No.2200	Shank	Shank dia. (mm)	Shank length (mm)	Ratchet teeth	Ratchet length (mm)	Ratchet dia. (mm)	Inner Ctn.	Outer Ctn.	EDP No.
\ominus 6 \times 100	6.0	0.8	100	6.0	41	200	6	60	125395
\ominus 6 \times 150	6.0	0.8	150	6.0	41	250	6	60	125396
\oplus 2 \times 100	ϕ No.2	100	6.0	41	200	6	60	125345	
\oplus 2 \times 150	ϕ No.2	150	6.0	41	250	6	60	125346	
\oplus 3 \times 150	ϕ No.3	150	6.0	41	250	6	60	125347	

⚠ Electric insulation is not guaranteed. For safety purposes, shut off power before use.

No. 2200B Ball Ratchet Screwdriver Reversible Blade NEW

- Shank uses bit materials, fully hardened.
- Replacement blade; can be replaced by pulling out the ball-grip part of No.2200.

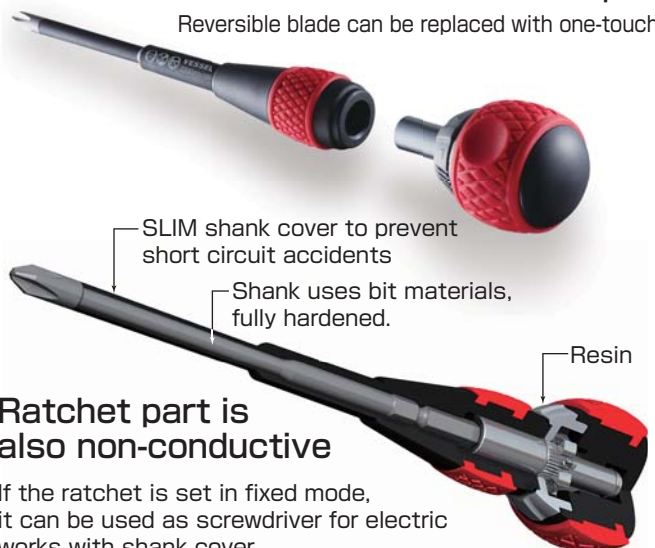


No.2200B	Shank	Shank dia. (mm)	Shank length (mm)	Ratchet teeth	Ratchet length (mm)	Ratchet dia. (mm)	Inner Ctn.	Outer Ctn.	EDP No.
\ominus 6 \times 100	6.0	0.8	100	6.0	158	6	60	125397	
\ominus 6 \times 150	6.0	0.8	150	6.0	208	6	60	125398	
\oplus 2 \times 100	ϕ No.2	100	6.0	158	6	60	125348		
\oplus 2 \times 150	ϕ No.2	150	6.0	208	6	60	125349		
\oplus 3 \times 150	ϕ No.3	150	6.0	208	6	60	125350		

One point

Shanks are detachable from the ratchet part

Reversible blade can be replaced with one-touch.



Ratchet part is also non-conductive

If the ratchet is set in fixed mode, it can be used as screwdriver for electric works with shank cover. It is most suitable for working on distribution boards.

HAND TOOLS

BITS & SOCKETS

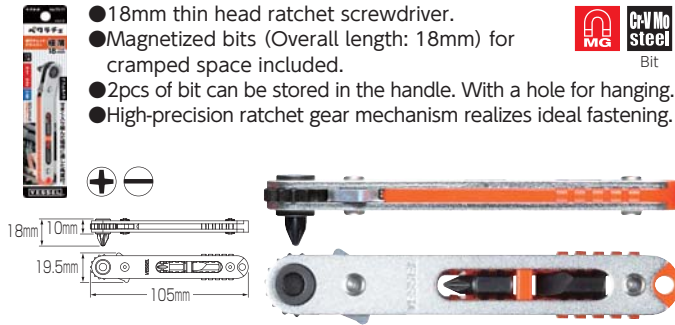
ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

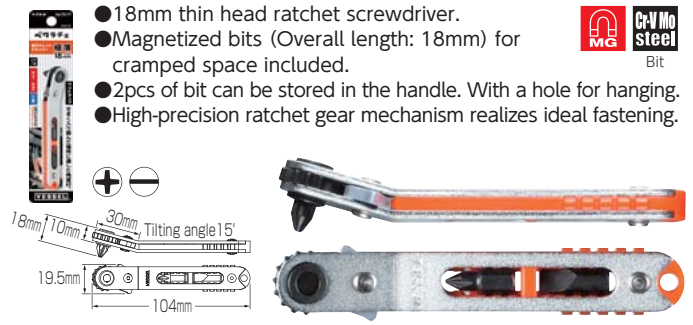
GASOLINE ENGINE TOOLS

No. TD-74 "PETA-RACHE" Flat-shaped Ratchet Screwdriver (straight type)



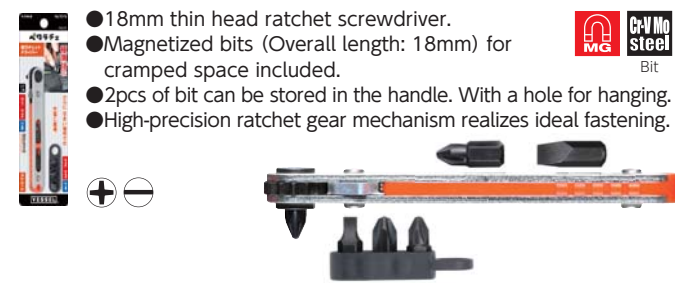
Model No.	Set content	Package size (mm)	Inner Ctn.	EDP No.
TD-74	Flat-shaped Ratchet Screwdriver (Straight type) Bits $\oplus 1, \oplus 2, \ominus 6 \times 18\text{mm}$	160x35x21	10	250074

No. TD-77 "PETA-RACHE" Flat-shaped Ratchet Screwdriver (bent-up type)



Model No.	Set content	Package size (mm)	Inner Ctn.	EDP No.
TD-77	Flat-shaped Ratchet Screwdriver (Angled type) Bits $\oplus 1, \oplus 2, \ominus 6 \times 18\text{mm}$	160x35x21	10	250077

No. TD-75 "PETA-RACHE" Flat-shaped Ratchet Screwdriver (straight type)



Model No.	Set content	Package size (mm)	Inner Ctn.	EDP No.
TD-75	Flat-shaped Ratchet Screwdriver (Straight type) Bits $\oplus 1, \oplus 2, \oplus 2, \oplus 3, \ominus 4, \ominus 6 \times 18\text{mm}$ Bit holder	160x50x21	10	250075

No. TD-78 "PETA-RACHE" Flat-shaped Ratchet Screwdriver (bent-up type)



Model No.	Set content	Package size (mm)	Inner Ctn.	EDP No.
TD-78	Flat-shaped Ratchet Screwdriver (Angled type) Bits $\oplus 1, \oplus 2, \oplus 2, \oplus 3, \ominus 4, \ominus 6 \times 18\text{mm}$ Bit holder	160x50x21	10	250078

No. TD-76 "PETA-RACHE" Flat-shaped Ratchet Screwdriver (straight type)



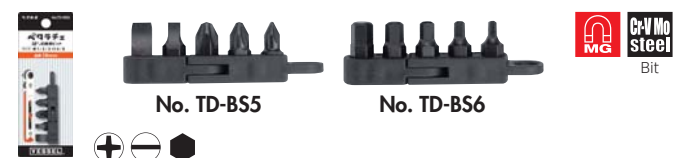
Model No.	Set content	Package size (mm)	Inner Ctn.	EDP No.
TD-76	Flat-shaped Ratchet Screwdriver (Straight type) Bits $\oplus 1, \oplus 2, \oplus 2, \oplus 3, \ominus 4, \ominus 6, \text{H}2.5, \text{H}3, \text{H}4, \text{H}5, \text{H}6 \times 18\text{mm}$ Bit holder	160x50x21	10	250076

No. TD-79 "PETA-RACHE" Flat-shaped Ratchet Screwdriver (bent-up type)



Model No.	Set content	Package size (mm)	Inner Ctn.	EDP No.
TD-79	Flat-shaped Ratchet Screwdriver (Angled type) Bits $\oplus 1, \oplus 2, \oplus 2, \oplus 3, \ominus 4, \ominus 6, \text{H}2.5, \text{H}3, \text{H}4, \text{H}5, \text{H}6 \times 18\text{mm}$ Bit holder	160x50x21	10	250079

No. TD-BS "PETA-RACHE" 18mm replacement bits



Model No.	Set content	Package size (mm)	Inner Ctn.	EDP No.
TD-BS5	Bits $\oplus 1, \oplus 2, \oplus 3, \ominus 4, \ominus 6 \times 18\text{mm}$ Bit holder	120x40x23	10	251304
TD-BS6	Bits H2.5, H3, H4, H5, H6x18mm Bit holder	120x40x23	10	251305

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

No. TD-70 Flat Plate Ratchet Screwdriver Set



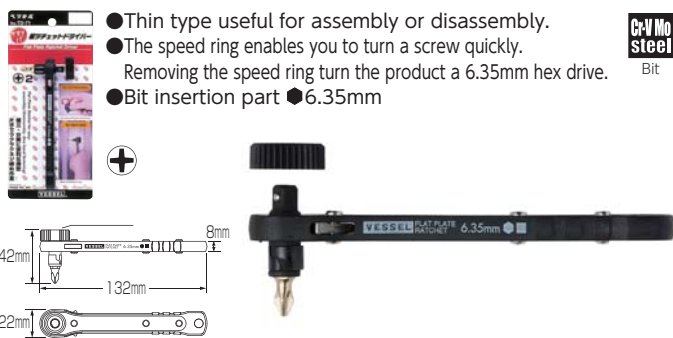
Set content		Package size (mm)	Inner Ctn.	EDP No.
Body	Plate ratchet screwdriver			
Bits	Φ1, Φ2, Φ3, Φ4, Φ6, H2.5, H3, H4, H5, H6×25.4mm			
Accessory	Bit belt holder			

No. TD-73MC Plate Ratchet Screw Catcher



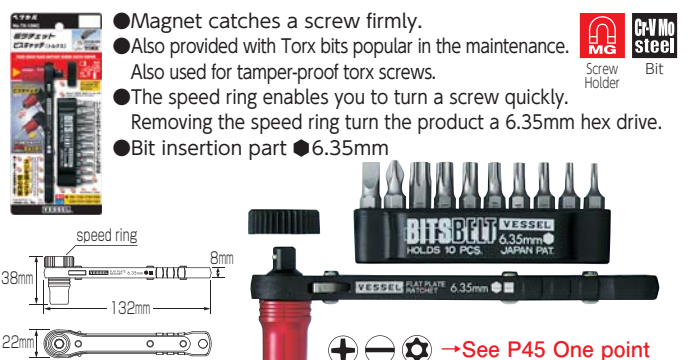
Set content		Package size (mm)	Inner Ctn.	EDP No.
Body	Plate ratchet screwdriver			
Bits	Φ1, Φ2, Φ3, Φ4, Φ6, H 2.5, 3, 4, 5, 6×25.4mm			
Accessory	Magnetic Screw Holder Bit belt holder			

No. TD-71 Flat Plate Ratchet Screwdriver



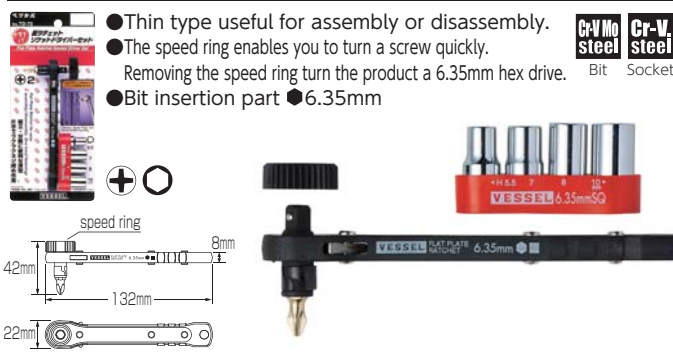
Set content		Package size (mm)	Inner Ctn.	EDP No.
Body	Plate ratchet screwdriver			
Bit	Φ2×25.4mm			

No. TX-12MC Plate Ratchet/Magnetic Screw Catcher (TORX)



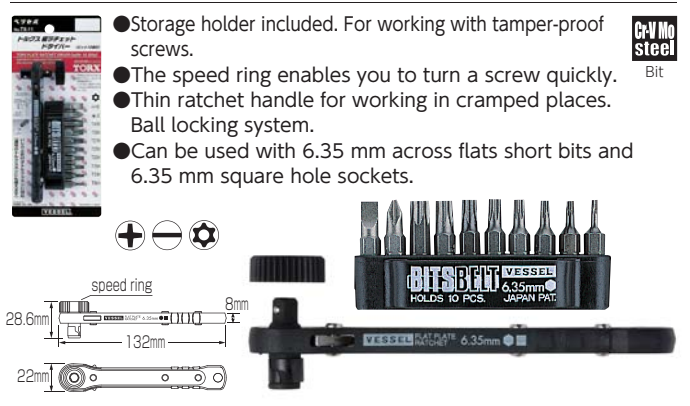
Set content		Package size (mm)	Inner Ctn.	EDP No.
Body	Plate ratchet screwdriver			
Bits	T8H, T10H, T15H, T20H, T25H, T27H, T30H, T40H, Φ2, Φ6×25.4mm			
Accessory	Magnetic Screw Holder Bit belt holder			

No. TD-72 Flat Plate Ratchet Screwdriver Set



Set content		Package size (mm)	Inner Ctn.	EDP No.
Body	Plate ratchet screwdriver			
Bit	Φ2×25.4mm			
Socket	A/F 5.5, 7, 8, 10×26mm			
Accessory	Socket holder			

No. TX-11 Plate Ratchet TORX Set



Set content		Package size (mm)	Inner Ctn.	EDP No.
Body	Plate ratchet screwdriver			
Bits	T8H, T10H, T15H, T20H, T25H, T27H, T30H, T40H, Φ2, Φ6×25.4mm			
Accessory	Magnetic Screw Holder Bit belt holder			

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HAND TOOLS
 BITS & SOCKETS
 ELECTRIC TOOLS
 AIR TOOLS
 STATIC SOLUTIONS
 GASOLINE ENGINE TOOLS

No. TD-BS Replacement Bit Set

No. TD-BS1 **No. TD-BS2** **No. TD-BS3**

Applicable models
TD-70/TD-71/TD-72/TD-73MC/TD-80/TD-150/TD-160/S-12/S-13
TX-10/TX-11/TX-12MC/830MG-4/840/840L

Applicable models
TD-70/TD-71/TD-72
TD-170
TX-11/TD-73MC
TX-12MC

No. TD-BS4

Cr-V Mo steel Bit
Cr-V steel Socket

Model No.	Set content	Package size (mm)	Inner Ctn.	EDP No.
TD-BS1	⊕1, ⊕2, ⊕3, ⊖4, ⊖6 ×25.4mm Bit belt holder	120×45×23	10	251300
TD-BS2	H 2.5, 3, 4, 5, 6 ×25.4mm Bit belt holder	120×45×23	10	251301
TD-BS3	T10H, T15H, T20H, T25H, T30H ×25.4mm Bit belt holder	120×45×23	10	251302
TD-BS4	A/F 5.5, 7, 8, 10 Socket holder	120×45×23	10	251303

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No. TD-64 "PETADORA" Z-shaped Offset Screwdriver

- S-shaped type good for strong tightening in cramped spaces.
- Special plating to keep precision at the tip.

No. TD-64

	⊕2/⊖6	⊕1/⊕2
Tip (mm)	6 0.9 / ⊕No.2 18 6 129	⊕No.1 / ⊕No.2 16.5 5 126
Inner Ctn.	10	10
Outer Ctn.	100	100
EDP No.	250122	250121

Package size...160×35×12mm

No. 25 Offset Screwdriver

- S-shaped type good for strong tightening in cramped spaces.
- Different size tips combined.
- Can be chosen according to applications.

No. 25

	⊕1/⊖5	⊕2/⊖6	⊕3/⊖8
Tip (mm)	25 5 125	26 6 125	33 8 150
Inner Ctn.	12	12	12
EDP No.	143005	143006	143007

Package size...160×35×12mm

No. 251526 2-Piece Offset Screwdriver Set

Model No.	Set content	Package size (mm)	Inner Ctn.	EDP No.
251526	No.25 ⊖6/⊕2, ⊖5/⊕1	210×70×10	20	243011

No. TD-61 "PETADORA" L-shaped Offset Screwdriver

- Special plating to keep precision at the tip.
- L-shaped type good for working in cramped spaces.

No. TD-61

	⊖6	⊕1	⊕2
Tip (mm)	6 0.9 18 6 117	⊕No.1 16.5 5 105	⊕No.2 18 6 117
Cushion Grip color	Blue	Green	Red
Inner Ctn.	10	10	10
Outer Ctn.	100	100	100
EDP No.	250105	250101	250102

Package size...160×35×14mm

No. TD-63 "PETADORA" L-shaped Offset Screwdriver

- Special plating to keep precision at the tip.
- L-shaped type good for working in cramped spaces.

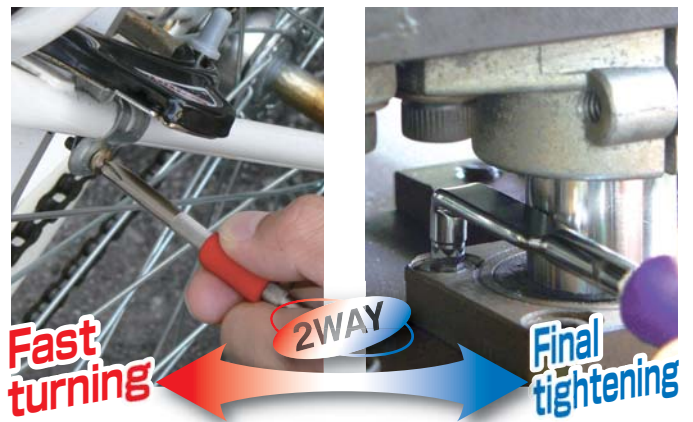
No. TD-63

	H 2.5	H 3	H 4	H 5
Tip (mm)	2.5 16.5 5 105	3 16.5 5 105	4 16.5 5 105	5 18 6 117
Cushion Grip color	Orange	Purple	Black	Blue
Inner Ctn.	10	10	10	10
Outer Ctn.	100	100	100	100
EDP No.	250112	250113	250114	250115

Package size...160×35×14mm

One point

Speedy fast-turning,
firm tightening



This one product can be used from fast-turning to tightening!

An evolution of offset screwdriver with all the required functions for tightening screws.

No. 83L LED Voltage Detection Screwdriver

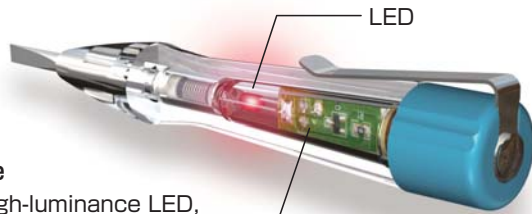
- For conduction/ continuity test in general household.
- Long-life LED lights brightly. Batteries can be replaced.
- Handy pencil-type screwdriver.



Voltage detection range	4.0	0.45	20	17.5	130	Package size (mm)	Inner Ctn.	EDP No.
100 to 250V AC						185×70×16	10	125106

One point

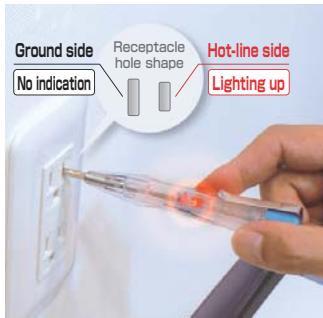
Conductivity check of electrical wiring tools



LED type

Uses a high-luminance LED, allowing you to check electrical conductivity easily even in a bright location. Batteries are consumables and need to be replaced.

Conductivity check / polarity discrimination Continuity test



A conductivity check of electrical wiring or receptacle and polarity discrimination of AC hot-line and ground sides



Continuity check of a wiring circuit. Make sure that no power is applied to the circuit before checking continuity.

No. TD-1300L

6-Piece Voltage Detection Screwdriver Set **NEW**

- Neon tube integrated into the grip end. When contacting the current-carrying point, the neon tube lights and continuity test can be conducted. **Cr-V. steel**
- Resin chuck enables to replace the blades. Lightweight resin grip, with a transparent end-cap at the grip edge.
- Frequently used 6 types of blade in a pack.
- Provided in a handy transparent vinyl carrying and storage pouch.
- Low voltage type (100 to 250V AC)



No. TD-1300L

Voltage detection range	Reversible blade content (mm)				Inner Ctn.	EDP No.
	⊖	⊕	Awl	Pin extractor		
100 to 250V AC	⊖4×125 ⊖6×125	⊕1×125 ⊕2×125	125	125	10	247021
Handle length 126.4mm dia. 26.5mm						

※Package size...185×105×31mm

No. TD-1300B

5-Piece Voltage Detection Screwdriver Set **NEW**

- Neon tube integrated into the grip end. When contacting the current-carrying point, the neon tube lights and continuity test can be conducted. **Cr-V. steel** Except Socket
- Resin chuck enables to replace the blades. Lightweight resin grip, with a transparent end-cap at the grip edge.
- A small diameter type socket suitable for small screws included in replacement blade set.
- Handy vinyl carrying and storage pouch
- Low voltage type (100 to 250V AC)



No. TD-1300B

Voltage detection range	Reversible blade content (mm)				Inner Ctn.	EDP No.
	⊖	⊕	Socket			
100 to 250V AC	⊖4×125	⊕1×125 ⊕2×125	A/F5	×125 A/F5.5×125	10	247031
Handle length 126.4mm dia. 26.5mm						

※Package size...185×105×31mm

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

No. 240001 Impact Driver

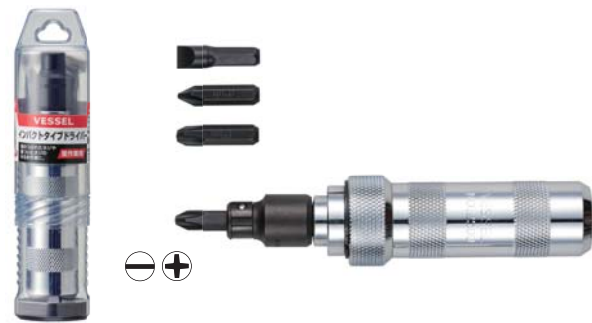
- One-touch switching of the rotation direction.
- Soft non-slip resin handle, comfortable to grip. Designed for less shock on hands.
- For heavy-duty use.
- If the bit adapter is detached, a 12.7 mm socket can be attached.
- Bit insertion part ●8mm



Set content		Package size (mm)	Outer Ctn.	EDP No.
Bits	⌀2×36, ⌀2×80, ⌀3×36, ⌀3×80, ⌀4×36, ⌀10×36			
Body	length 176mm dia. 37.5mm	220×73×80	5	246051

No. 250001 Impact Driver

- Effective for very tight fastening and loosening rusted screws.
- Suited for automobile maintenance, and assembly and disassembly of machinery and equipment.
- For heavy-duty use.
- If the bit adapter is detached, a 12.7 mm socket can be attached.
- Bit insertion part ●8mm



Set content		Package size (mm)	Outer Ctn.	EDP No.
Bits	⌀10, ⌀2, ⌀3, ⌀4×36			
Body	length 166mm dia. 32mm	325×80×38	5	246001

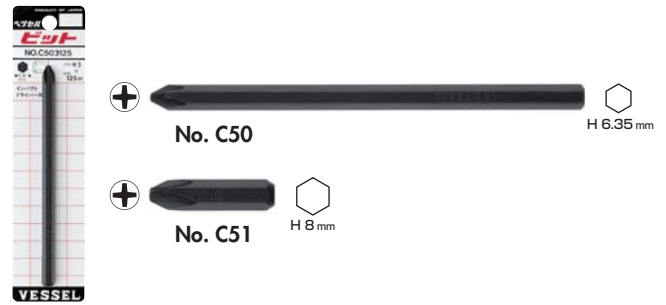
No. 260002 Impact Uni Driver

- Thin handle. Can be used as normal screwdriver.
- Long shank bit. Ideal for hard-to-reach cramped spaces.
- Bit insertion part ●6.35mm



Set content		Package size (mm)	Outer Ctn.	EDP No.
Bits	⌀5, ⌀6, ⌀7, ⌀1, ⌀2, ⌀3×125			
Body	length 132.5mm dia. 26mm	225×110×33	5	246016

No. C50/C51 Impact Driver Bit



Model No.	Set content	Applicable models	Package size (mm)	Inner Ctn.	EDP No.
C502125	⌀2×125	260002	170×42	10	486212
C503125	⌀3×125	260002	170×42	10	486213
C506125	⌀6×125	260002	170×42	10	486216
C512036	⌀2×36	250001, 240001	170×42	10	486201
C513036	⌀3×36	250001, 240001	170×42	10	486202
C518036	⌀8×36	250001, 240001	170×42	10	486203

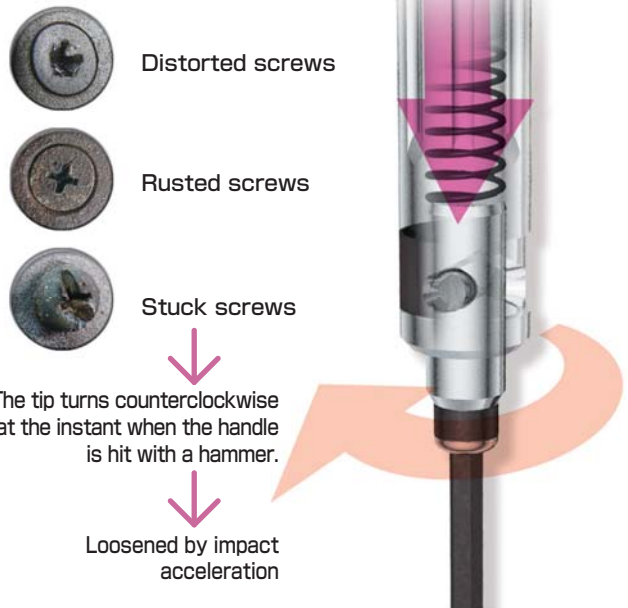
»For 10-Piece Set, please refer to page 83.

Mounting quantity: 1

One point

Removal of a rusted or stuck screw

Hitting the handle with a hammer causes the impact to be converted into rotational force.



No. TRD-15

Torque Screwdriver

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS



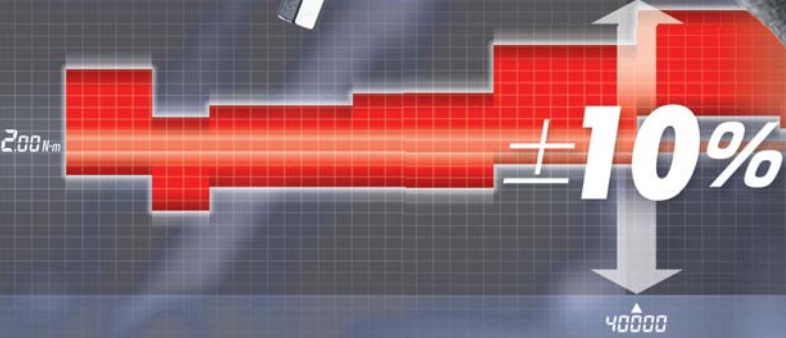
High precision torque screwdrivers with a torque accuracy of $\pm 10\%$ as specified by ISO 6789. Ergonomic & cushion grip friendly to your palm. The hand does not get tired even for long-hour work. For replacement of cemented carbide tips of various machining tools that have been going up in speed. For assembly torque management of precision machines. Also for appropriate tightening of terminal blocks, circuit breakers, or electro-magnetic switches.

Inserting the provided L-shape wrench into the rear of the handle and turning it allows torque setting to be easily accomplished.



No. TRD-15 Torque Screwdriver

Made in Germany, these torque screwdrivers feature our patented double clutch mechanism for outstanding torque precision. High precision torque screwdrivers designed not merely for testing, but for serious, full-scale assembly operations.



Long life by torque accuracy assurance of 40,000-time repetition

No. TRD-15IP Torque Screwdriver Set

- For TORX PLUS clamp screws used for chip replacement.
- With popular TORX PLUS blades.



Set content	Torque range (N·m)	Package size (mm)	Outer Ctn.	EDP No.
TRD-15 Torque Screwdriver (Torque precision ±10%), 6IP, 7IP, 8IP, 9IP, L wrench (A/F 6mm)	0.6~1.5	215×40×40	10	173011

No. TRD-15TX Torque Screwdriver Set

- For TORX clamp screws most often used for chip replacement.
- With popular TORX blades.
- Also suitable for tightening quality of hard disks.

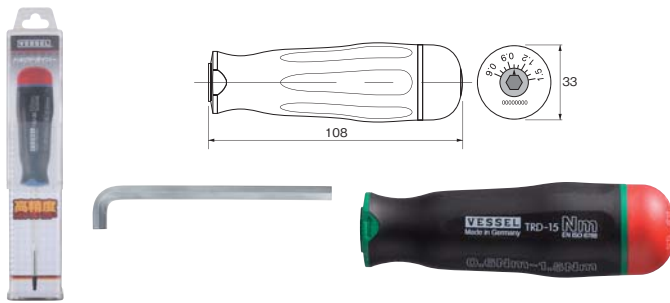


Set content	Torque range (N·m)	Package size (mm)	Outer Ctn.	EDP No.
TRD-15 Torque Screwdriver (Torque precision ±10%), T6, T7, T8, L wrench (A/F 6mm)	0.6~1.5	215×40×40	10	173012

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No. TRD-15 Torque Screwdriver Handle

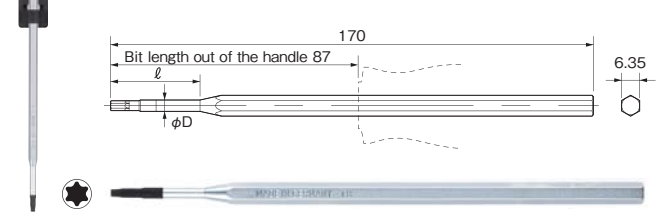
- Can be used with the dedicated replaceable blades.
- HEX key wrench (A/F 6mm) is included.



Model No.	Torque range (N·m)	1 scale (N·m)	Torque precision (%)	Package size (mm)	Outer Ctn.	EDP No.
TRD-15	0.6~1.5	0.1	±10	215×40×40	10	173001

No. BTX Blades for Torque Screwdrivers

- Blades for TORX screws.
- Adopted for replacement of chips of machine tools that has been going up in speed.



Model No.	Tip	l (mm)	φD (mm)	Outer Ctn.	EDP No.	
BTX06	T6	1.69	30	3.5	10	173206
BTX07	T7	1.97	30	3.5	10	173207
BTX08	T8	2.3	30	3.5	10	173208
BTX10	T10	2.72	30	3.5	10	173210
BTX15	T15	3.26	32	4.5	10	173215
BTX20	T20	3.84	34	5	10	173220

No. B IP Blades for Torque Screwdrivers

- Blades for TORX PLUS screws.
- Adopted for replacement of chips of machine tools that has been going up in speed.



Model No.	Tip	l (mm)	φD (mm)	Outer Ctn.	EDP No.	
B06IP	6IP	1.69	30	3.5	10	173106
B07IP	7IP	1.97	30	3.5	10	173107
B08IP	8IP	2.29	30	3.5	10	173108
B09IP	9IP	2.48	30	3.5	10	173109
B10IP	10IP	2.72	30	3.5	10	173110
B15IP	15IP	3.25	30	4.5	10	173111

No. BPH Blades for Torque Screwdrivers

- Blades for Phillips screws.
- Optimal for tightening control of various terminal blocks.



Model No.	Tip	l (mm)	φD (mm)	Outer Ctn.	EDP No.
BPH01	⊕1	35	5	10	173301
BPH02	⊕2	35	6	10	173302
BPH03	⊕3	—	—	10	173303

No. BHX Blades for Torque Screwdrivers

- Blades for hexagonal socket head bolts and set screw.
- Optimum for assembly of machines or automatic equipment.



Model No.	Tip	l (mm)	φD (mm)	Outer Ctn.	EDP No.	
BHX15	H1.5	1.5	29.5	3	10	173321
BHX20	H2	2	29.5	3	10	173322
BHX25	H2.5	2.5	29.5	3	10	173323
BHX30	H3	3	32	4	10	173324
BHX40	H4	4	34	5	10	173325
BHX50	H5	5	36	6	10	173326

No. 8909BP

"RAINBALL" L-wrenches



Easy to spot inside the toolbox. Color-coded by size. Provided with a portable holder to carry around easily. Can be used by fixing onto level metal parts of machine tools, automated machinery, surface plates, etc.



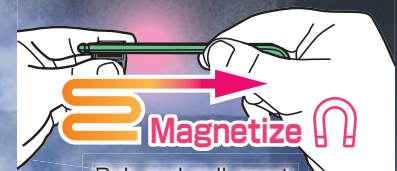
No. 8909BP

"RAINBALL" L-wrenches 9PC SET

Inherits the large tilted angle, which is the greatest characteristic of the RAINBALL. Driving part is set so that it contacts near the entry point of hexagonal hole. Maximum tilted angle is approximately 38°. Moreover, it fits firmly to low head screws such as a button screw.

Provided with a magnetizer

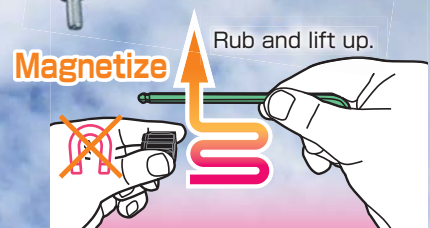
You can directly magnetize and demagnetize a wrench.



Rub and pull apart.



Even stronger when mounted on wrenches!



Rub and lift up.

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

No. 8900BP "RAINBALL" L-wrenches NEW PAT.

- Easy to find in a toolbox. Color-coded by size. Coating is peel-proofed by manganese phosphate under coating.
- New ball shape. Set the driving part so that it contacts near the entry point of the hexagonal hole, with the maximum tilted angle of 38° (design value in our company). The cross-sectional area of the neck of the ball is enlarged to improve the strength.
- High precision black point tip, unaffected by metal plating.
- Cross-section is "Ultra-Hex", which has the 3-point and 3-surface contact geometry to reduce deforming of screw holes.



No.8900BP	Set content	Package size (mm)	Inner Ctn.	EDP No.
H 1.5	1.5 15 69	160×45×5	10	144341
H 2	2 17.5 74	160×45×5	10	144342
H 2.5	2.5 20 83.5	160×45×5	10	144343
H 3	3 22 93.5	160×45×5	10	144344
H 4	4 28 102.5	200×60×8	10	144345
H 5	5 32 123.5	200×60×8	10	144346
H 6	6 37 144	200×60×8	10	144347
H 8	8 43 166	235×75×14	5	144348
H 10	10 49 188.5	235×75×14	5	144349

※Colors inside the table cells indicate the body color.

No. 8906BP "RAINBALL" L-wrenches 6PC Set NEW PAT.

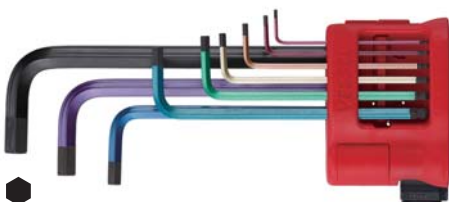
- Easy to find in a toolbox. Color-coded by size.
- New ball shape with the maximum tilted angle of 38° (design value in our company). The cross-sectional area of the neck of the ball is enlarged to improve the strength.
- Provided with a convenient portable holder.



No.8906BP	Set content	Package size (mm)	Inner Ctn.	EDP No.
8900BP	H 1.5, 2, 2.5, 3, 4, 5 mm	200×80×13	5	144352
Accessory	Holder			

No. 8909BP "RAINBALL" L-wrenches 9PC Set NEW PAT.

- Provided with a holder that opens like a fan and utilized as a stand, together with a magnetizer.
- Can be fixed onto level metal parts of machine tools, automated machinery, surface plates, etc. by the magnetic force of the magnetizer mounted to the lower part of the holder.
- The magnetizer can be taken out from the holder and used to magnetize and demagnetize a wrench.



No.8909BP	Set content	Package size (mm)	Inner Ctn.	EDP No.
8900BP	H 1.5, 2, 2.5, 3, 4, 5, 6, 8, 10 mm	245×110×35	5	144351
Accessory	Magnetizer/Holder			

No. 8409BP "ULTRABALL" L-wrenches 9PC Set NEW PAT.

- New ball shape with the maximum tilted angle of 38° (design value in our company). The cross-sectional area of the neck of the ball is enlarged to improve the strength.
- Cross-section is "Ultra-Hex", which has the 3-point and 3-surface contact geometry to reduce deforming of screw holes.
- Provided with a convenient portable holder. This is openable facilitating to pick a necessary size.

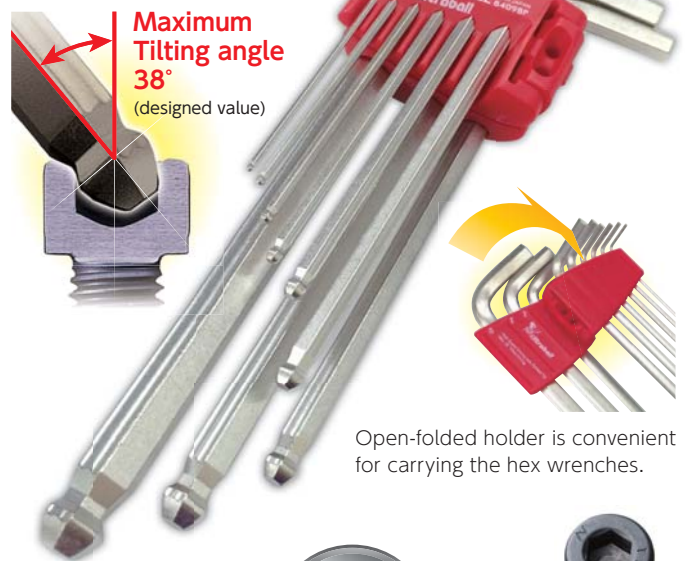


No.8409BP	Set content	Package size (mm)	Inner Ctn.	EDP No.
8400BP	H 1.5, 2, 2.5, 3, 4, 5, 6, 8, 10 mm	245×105×27	5	144353
Accessory	Holder			

One point

No.8409BP Ultra Ball

Unique ball configuration allowing the tip to incline 38° maximum facilitates tightening or loosening of screws!



Ultra Hex

Highly durable but no damage on screw surface! 3-point and 3-face contact hexagonal shape maximizes fastening effectiveness.



Surface Contact



No. 8500TX TORX Key Wrench

- Special plating to keep precision at the tip.
- Knurled shank for fast turning.
- Precision tips based on TORX spec.



No.8500TX	I				Package size (mm)	Inner Ctn.	EDP No.
T6	1.68	2.5	15	52	110×45×5	10	144301
T7	1.97	2.5	15	56	110×45×5	10	144302
T8	2.3	3	17	59	110×45×5	10	144303
T9	2.48	3	17	63	110×45×5	10	144304
T10	2.72	3	17	67	110×45×5	10	144305
T15	3.26	3.5	19	72	110×45×5	10	144306
T20	3.84	4	21	77	110×45×5	10	144307
T25	4.4	5	23	83	145×55×8	10	144308
T27	4.96	5	23	90	145×55×8	10	144309
T30	5.49	6	25	98	145×55×8	10	144310
T40	6.6	7	27	107	145×55×8	10	144311

No. 8507TX TORX 7-Piece Key Set

- Special plating to keep precision at the tip.
- Knurled shank for fast turning.
- Precision tips based on TORX spec.



Set content		Package size (mm)	Inner Ctn.	EDP No.
8500TX	T10, T15, T20, T25, T27, T30, T40	135×65×17	10	144315
Accessory	Vinyl package			

No. TX-10 TORX Screwdriver Set

- Provided with bits in a holder.
- Also good for tamper-proof screws.
- New type of bit holder that assuredly holds bits.
- Bit insertion part ϕ 6.35mm
- Cellulose acetate resin grip. Ergonomic design.



Set content		Package size (mm)	Outer Ctn.	EDP No.
Body	length 204mm dia. 31.8mm	235×100×31	10	252020
Bits	T10H, T15H, T20H, T25H, T27H, T30H, T40H, \oplus 2, \oplus 3, \ominus 6×25.4mm			
Accessories	Bit belt holder			

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No. 5400TX Power Grip TORX Screwdriver

- Champagne gold plating keeping the precise tip quality.
- Cellulose acetate resin grip. Ergonomic design.
- For working with tamper-proof screws (T5 and T6 excluded).



No.5400TX	I				Inner Ctn.	Outer Ctn.	EDP No.	
T 5 × 80	1.42	80	2.5	17.0	155	12	60	122854
T 6 × 80	1.69	80	2.5	17.0	155	12	60	122855
T 7H× 80	1.97	80	2.5	17.0	155	12	60	122856
T 8H× 80	2.3	80	3.0	17.0	155	12	60	122857
T 9H× 80	2.48	80	3.0	17.0	155	12	60	122858
T10H× 80	2.72	80	3.0	17.0	155	12	60	122859
T15H× 80	3.26	80	3.5	28.0	177	6	60	122860
T20H× 120	3.84	120	4.0	28.0	217	6	60	122861
T25H× 120	4.4	120	5.0	31.8	224	6	60	122862
T27H× 120	4.96	120	5.0	31.8	224	6	60	122863
T30H× 120	5.49	120	6.0	35.6	235	6	60	122864
T40H× 120	6.6	120	7.0	35.6	235	6	60	122865

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HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

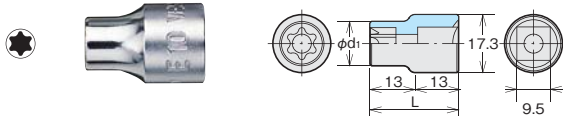
STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

No. Q6E TORX "E" Socket (SQ9.5mm)

- Work socket (Cannot be used with power tools.)
- Has the 9.5 mm square hole, optimal for automobile maintenance and repair.

Cr-V Mo Steel
Shank only

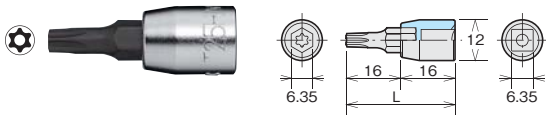


Model No.	TORX No.		$\phi d1$	L (mm)	Inner Ctn.	EDP No.
Q6E8	E8		7.47	9.9	26	621151
Q6E10	E10		9.37	12.0	26	621152
Q6E12	E12		11.12	14.5	26	621153

No. Q4T TORX T-type Socket (SQ 6.35mm)

- Work socket (Cannot be used with power tools.) Tamper proof torx.
- Has the 6.35 mm square hole, optimal for automobile maintenance and repair.

Cr-V Mo Steel
Shank only

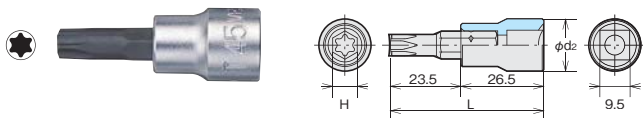


Model No.	TORX No.		L (mm)	Inner Ctn.	EDP No.	
Q4T10H	T10H		2.72	32	10	621131
Q4T15H	T15H		3.26	32	10	621132
Q4T27H	T27H		4.96	32	10	621135

No. Q6T TORX T-type Socket (SQ 9.5mm)

- Work socket (Cannot be used with power tools.)
- Has the 9.5 mm square hole, optimal for automobile maintenance and repair.

Cr-V Mo Steel
Shank only



Model No.	TORX No.		$\phi d2$	H	L (mm)	Inner Ctn.	EDP No.
Q6T30	T30		5.49	18	6.35	50	621136
Q6T45	T45		7.77	18	8	50	621138
Q6T50	T50		8.79	20	10	50	621139

No. 944TX 4-Piece MEGADORA FOD TORX Screwdriver Set

PAT.

- Used for work in automobile maintenance field
- Provided with a two-layer structured tray that prevents a screwdriver from being left.

eco Cr-V Steel



Set content		Tray size (mm)	Inner Ctn.	Outer Ctn.	EDP No.
No.940TX	T20HX120,T25HX120 T30HX120,T40HX120	280x135x35	1	20	125804

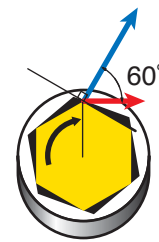
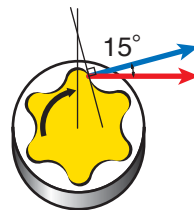
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One point

Features of TORX tool



Basic TORX consists of 6 ear-lobular shaped curves. Compared to hexagonal shape driver, TORX has higher drive effectiveness and transfers torque smoothly and accurately while eliminating "CAM-OUT".



Drive Torque
Loaded Torque

TORX

TORX transfers max torque due to small driving angle.

Hex

Meanwhile, Hex square drive need max upload torque to transfer for large driving angle to other directions.

TAMPER-PROOF TORX SYSTEM



Added function of "Never Touch Screw" a post in the middle of the recess for maximum security eliminates regular TORX drive or any other flat screwdrivers for safety. Tamper proof screws are mostly used at communication equipment and computers so as not to abuse the screwing/unscrewing due to its design and control of function. Keep off unscrewing unless otherwise maintenance serving practiced.

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No. TX-12MC Plate Ratchet/Magnetic Screw Catcher (TORX)

- Magnet catches a screw firmly.
- Also provided with Torx bits popular in the maintenance.
- Also used for tamper-proof torx screws.
- The speed ring enables you to turn a screw quickly.
- Removing the speed ring turn the product a 6.35mm hex drive.
- Bit insertion part ● 6.35mm



Set content		Package size (mm)	Inner Ctn.	EDP No.
Body	Plate ratchet screwdriver	190×85×27	10	252022
Bits	T8H, T10H, T15H, T20H, T25H, T27H, T30H, T40H, $\Phi 2$, $\Phi 6 \times 25.4$ mm			
Accessory	Magnetic Screw Holder Bit belt holder			

No. TX-11 TORX Plate Ratchet and Bit Set

- Storage holder included. For working with tamper-proof screws.
- The speed ring enables you to turn a screw quickly.
- Thin ratchet handle for working in cramped places.
- Ball locking system.
- Can be used with 6.35 mm across flats short bits and 6.35 mm square hole sockets.



Set content		Package size (mm)	Inner Ctn.	EDP No.
Body	Plate ratchet screwdriver	190×85×27	10	252021
Bits	T8H, T10H, T15H, T20H, T25H, T27H, T30H, T40H, $\Phi 2$, $\Phi 6 \times 25.4$ mm			
Accessory	Magnetic Screw Holder Bit belt holder			

No. B-340TX Wood-Compo TORX Screwdriver NEW

- Extraordinary non-slip grip; Secures working efficiency even with oily hands.
- Wood-composite resin, reproducing the natural material texture.
- Non-electrolytic plating, keeping the precise tip quality.
- Also good for tamper-proof TORX screws.



No.B-340TX	Icons	Bit (mm)	Inner (本)	Outer (本)	JAN (4907587)				
T10H		2.72	80	5.5	30	188	6	120	120081
T15H		3.26	80	5.5	30	188	6	120	120082
T20H		3.84	120	5.5	30	228	6	120	120083
T25H		4.40	120	6.4	32	236	6	60	120084
T27H		4.96	120	6.4	32	236	6	60	120085
T30H		5.49	120	8.0	35	246	6	60	120086
T40H		6.60	120	8.0	35	246	6	60	120087

No. B-640TX Cushion Grip TORX Screwdriver NEW

- Optimal for fastening screws in precision fields.
- Non-electrolytic plating, keeping the precise tip quality.
- Cushion grip fitting comfortably in a hand.
- Also good for tamper-proof TORX screws (except T5 and T6).



No.B-640TX	Icons	Bit (mm)	Inner Ctn.	Outer Ctn.	EDP No.				
T5		1.42	40	4.0	20.5	126	6	60	123561
T6		1.69	40	4.0	20.5	126	6	60	123562
T7H		1.97	40	4.0	20.5	126	6	60	123563
T8H		2.30	40	4.0	20.5	126	6	60	123564
T9H		2.48	40	4.0	20.5	126	6	60	123565

No. TD-6310TX TORX Screwdriver Set NEW

- Bit insertion part ● 6.35mm. Magnetized.
- Holds securely short bits. Reliable fastening as the bit does not drop easily.
- Grip made of environmental-friendly plant material.
- Provided with a bit belt for storage.



Set content		Package size (mm)	Outer Ctn.	EDP No.
Body	length 213mm dia. 28.5mm	235×100×29	10	247028
Bits	$\Phi 6$, $\Phi 2$, T8H, T10H, T15H, T20H, T25H, T27H, T30H, T40H ×25.4mm			
Accessories	Bit belt holder			

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HAND TOOLS

BITS & SOCKETS




ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS







GASOLINE ENGINE TOOLS

No. 990TX G-grip TORX Screwdriver PAT.




- The weight of the steel ball keeps the end cap in an optimum position for a grip.   
- A special precision spring is welded to the tip by laser, enabling the screwdriver to catch a TORX screw firmly by spring action.



No.990TX

	Inner (mm)	Outer (mm)	Inner Ctn.	Outer Ctn.	EDP No.			
T3 × 40	1.13	40	2.5	16	21 138	12	240	125921
T5 × 40	1.42	40	2.5	16	21 138	12	240	125923
 T6 × 40	1.69	40	2.5	16	21 138	12	240	125924
 T8 × 40	2.3	40	2.5	16	21 138	12	240	125926
 T9 × 40	2.48	40	4.0	16	21 138	12	240	125927
 T10×80	2.72	80	4.0	30	38 195	6	60	125928
 T15×80	3.26	80	5.5	30	38 195	6	60	125929
 T20×80	3.84	80	5.5	30	38 195	6	60	125930




No. TD-6816MG Ratchet Screwdriver (16-pc bit set) NEW

- Smoothly click feeling realized by rotating angle of 5° and 72 gears. High strength accomplished by 2 nails supporting the ratchet gear. It can be used for final tightening work.   
- The handle is made out of oil-resistance cellulose acetate resin.
- Easy to carry around with cassette type bit storage inside the handle.
- 16 types of bits to adapt to various types of work. Magnetic bits can be replaced with one-touch.
- Bit insertion part ●6.35mm.



Set content			
Body	length 177mm dia. 28.5mm		
Bits	⊕1, ⊕2, ⊕3, ⊕6, H2, H2.5, H3, H4, H5, T10H, T15H, T20H, T25H, T27H, T30H, T40H ×25.4mm		
Package size (mm)	Inner Ctn.	Outer Ctn.	EDP No.
235×90×29	5	30	247025

No. TD-6808TX Ratchet Screwdriver TORX (8-pc bit set) NEW

- Smoothly click feeling realized by rotating angle of 5° and 72 gears. High strength accomplished by 2 nails supporting the ratchet gear. It can be used for final tightening work.   
- The handle is made out of oil-resistance cellulose acetate resin.
- Easy to carry around with cassette type bit storage inside the handle.
- Stores 8 types of bits including TORX bit. Magnetic bits can be replaced with one-touch.
- Bit insertion part ●6.35mm.



Set content			
Body	length 177mm dia. 28.5mm		
Bits	⊕2, ⊕3, T10H, T15H, T20H, T25H, T30H, T40H ×25.4mm		
Package size (mm)	Inner Ctn.	Outer Ctn.	EDP No.
235×80×29	5	30	247024

No. TD-BS3 Replacement Bit Set



Applicable models
TD-70/TD-71/TD-72/TD-73MC/TD-80/TD-150/TD-160/S-12/S-13
TX-10/TX-11/TX-12MC/830MG-4/840/840L

Model No.	Set content	Package size (mm)	Inner Ctn.	EDP No.
TD-BS3	T10H, T15H, T20H, T25H, T30H ×25.4mm Bit belt holder	120×45×23	10	251302

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TORX is also available for bits.

Industrial Bits Type A

No.V TORX Bit P62

No.V TORX Bit (Tamper-Proof) P63



No.V5 TORX Bit P64



Industrial Bits Type B

No.N TORX Bit P67, P78

No.N TORX Bit (Tamper-Proof) P67, P78



No.J TORX Bit P70

No.J TORX Bit (Tamper-Proof) P70



No.A5 TORX Bit P71



Precision Bits

No.DS73 Shockless Bit P75



No.D71 TORX Bit P76



No.D73 TORX Bit P76



No.D76 TORX Bit P77



Short Bits

No.A4 TORX Bit P82



Construction Bits

No.SMVT TORX Bit (Tamper-Proof) P95



"PROKON" series

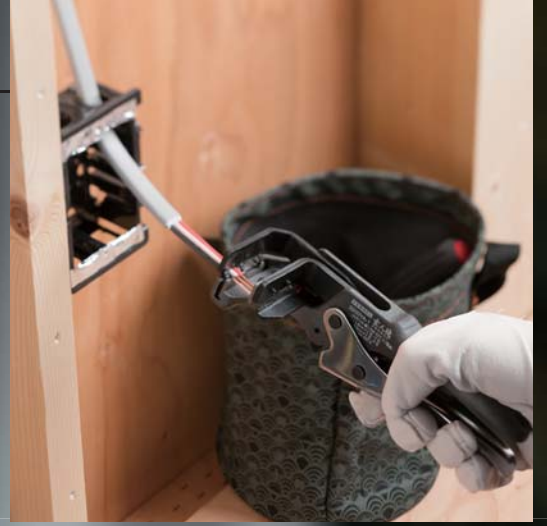
No.SS16T Recessed "SAKISUBO" TORX Bit P111



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No. 3200VA-1

VA cable stripper



The 3200VA-1 is a solution for stripping strenuous cables such as VA cables which becomes soft and elongates during the summer or as eco-friendly PE cables, which hardness during winter months.



No. 3200VA-1

VA cable stripper

The depth of cut by blades can be adjusted by 5 levels to support the different hardness of coating for different wire manufacturers. Designed to hold the wire coating so that the core line is always at the center, to prevent jamming.

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS


AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

No. 3200VA-1 VA cable stripper

PAT.

- Even for eco-friendly PE cables, clear stripping can be perfectly achieved with light force. 
- Corresponds to various sheath hardness according to cable manufacturers. Can adjust cutting depth in 5 steps.
- Precision blades by the metal injection offer excellent cutting quality.
- Designed to hold wire sheath so that the core conductor is always located at the center, preventing the blades from cutting into the conductor.



← See P48



Model No.	Overall length (mm)	Weight (g)	Wire size	Outer Ctn.	EDP No.
3200VA-1	180	370	PVC cables (VVf/ VA cables) PE cables (EM-EEF/ Eco cables) φ1.6mm duplex/φ2.0mm duplex φ1.6mm triplex/φ2.0mm triplex	5	141016

Package size...250×115×63mm




No. WB-013 For 3200VA-1 Replacement Blade

Model No.	Applicable wire stripper	Package size (mm)	Inner Ctn.	EDP No.
WB-013	3200VA-1	120×45×3	10	141084

No. 3500E-1/-2 Wire Stripper



- Lightweight (100g), compact handy type. 
- Diamond finely polished blade for precision stripping.
- AWG-mm-mil conversion table on the grip.




Model No.	Overall length (mm)	Weight (g)	Color	Inner Ctn.	Outer Ctn.	EDP No.
3500E-1	155	100	Red	5	30	141036
3500E-2	155	100	Yellow	5	30	141037

Package size...220×75×13mm

Model No.	AWG	12	14	16	18	20	22	24
	3500E-1	Solid wire (mm)	2.0	1.6	1.3	1.0	0.8	0.65
	Standard wire (mm)	3.3	2.0	1.3	0.8	0.5	0.3	0.2
3500E-2	AWG	18	20	22	24	26	28	30
	Solid wire (mm)	1.0	0.8	0.65	0.5	0.4	0.3	0.25
	Standard wire (mm)	0.8	0.5	0.3	0.2	0.13	0.08	0.05

No. 3000 Wire Stripper

- Nimble and cleanly strips off sheathing in a single operation. 
- Can be used with wiring for TV, radio, home appliances, electrical work, automotive circuits, telephones, etc.
- With a strip gauge.



Model No.	Overall length (mm)	Weight (g)	Wire diameter and nominal sectional area	Handle color	Outer Ctn.	EDP No.
3000A	170	350	For solid wire 0.5/1.2/1.6/2.0mm	Green	20	141001
3000B	170	350	For solid wire 1.0/1.6/2.0/2.6/3.2mm	Red	20	141002
3000C	170	350	For stand wire 0.9/1.25/2.0/3.5/5.5mm	Black	20	141000

Package size...220×75×13mm

Wire Stripper Cardbord product

Model No.	Wire diameter and nominal sectional area	Package size (mm)	Outer Ctn.	EDP No.
300001	For solid wire 0.5/1.2/1.6/2.0mm	250×110×38	5	241001
300002	For solid wire 1.0/1.6/2.0/2.6/3.2mm	250×110×38	5	241002
300005	For stand wire 0.9/1.25/2.0/3.5/5.5mm	250×110×38	5	241005

Wire Stripper Blade

Model No.	Applicable wire stripper	Wire diameter and nominal sectional area	Package size (mm)	Inner Ctn.	EDP No.
WB-001	3000 A, 300001	For solid wire	95×30×15	5	141071
WB-002	3000 B, 300002	For solid wire	95×30×15	5	141072
WB-003	3000 C, 300005	For stand wire	95×30×15	5	141073

One point

Features of wire strippers

3200VA-1



Wire strippers dedicated for VA cables and eco-friendly PE cables (VVf/EM-EEF)

For solid wire 1.6mm×2/3duplex/triplex

For solid wire 2.0mm×2/3duplex/triplex

3500E-1/3500E-2



For cutting and stripping of various electronic wires represented by KV

For solid wire 0.25mm~2.0mm

For stand wire 0.05mm~3.3mm

3000



For stripping of various wires and cords including IV and VSF

Solid wires: 0.5mm to 3.2mm

Stranded cables: 0.9mm to 5.5mm

No. DB-200 Bucket for Electricians NEW

- Convenient for collecting wire scraps and carrying tools and instruments.
- Belt length can be adjusted.
- Elliptical shape to fit comfortably.



Size with header (mm)	Outer Ctn.	EDP No.
H280 × W200 × D125	1	141034

No. 76-10 Gel Grip Hammer (Plastic Head) NEW

- Gel resin grip drastically absorbs the shocks by hammer blows to your palm. Alleviates the strain on your wrist.
- Slip resistance grip design of elastomer resin.
- Excellent balance between both heads, ensuring firm feeling of hammering.
- Hammer heads are screwed on and replaced easily. Replacement head is available as option.



Model No.	Size	Length	Head Diameter	Head Length (mm)	Weight (g)	Inner Ctn.	Outer Ctn.	EDP No.
76-10	1	315	32	120	430	6	60	142082

Replacement Head for No.76 (Plastic Head)

Model No.	Set content	Package size (mm)	Inner Ctn.	Outer Ctn.	EDP No.
076110 Card Product	1lb×2pcs	170×60×35	-	5	242024
76-10H Boxed	1lb	130×155×35	20	400	142131

※Apply hammer Gel Grip Hammer No.76-10 No.77-10 Plastic Head Hammer No.70-1



No. 70 Plastic Head Hammer

- Soft durable plastic head. Does not damage workpieces.
- Replacement head is available as option in a box.
- Replacement head of 1/2, 1 and 1 1/2 sizes is also available in 2-pc pre-carded package.



To replace the hammer head

Size	Length	Head		Inner Ctn.	Outer Ctn.	EDP No.
		Diameter	Length (mm)			
1/4	280	19.5	66.5	6	60	142001
1/2	280	25	82	6	60	142002
1	295	31.3	108	6	60	142003
1 1/2	325	37.6	125.5	6	36	142004
2	350	45.4	139	6	24	142005

Handles are not separately sold.

Replacement head for No.70

Model No.	Set content	Package size (mm)	Inner Ctn.	Outer Ctn.	EDP No.
Head 70×1/4	1/4	85×102×20	20	-	142011
Head 70×1/2	1/2	110×132×27	20	400	142012
Head 70×1	1	130×155×35	20	400	142013
Head 70×1 1/2	1 1/2	80×185×42	10	400	142014
Head 70×2	2	100×225×48	10	400	142015

Replacement head for No.70 Cardbord Products

Model No.	Set content	Package size (mm)	Outer Ctn.	EDP No.
070105	1/2×2pcs	170×60×26	5	242012
070110	1×2pcs	170×60×35	5	242013
070115	1 1/2×2pcst	210×75×41	5	242014

⚠ WARNING concerning Hammers

- Strike target directly. Do not hit at an angle, etc.
- Do not strike anywhere but the target area.



No. 77-10 Gel Grip Hammer (Rubber/Plastic Head)

- Gel resin grip drastically absorbs the shocks by hammer blows to your palm. Alleviates the strain on your wrist.
- Slip resistance grip design of elastomer resin.
- Excellent balance between both heads, ensuring firm feeling of hammering.
- Hammer heads are screwed on and replaced easily. Replacement head is available as option.
- The hammer heads are screwed on and replaced easily. Rubber head is available as option. Rubber head is of light gray color, which does not cause color staining to the object.



Model No.	Size	Length	Head Diameter	Head Length (mm)	Weight (g)	Inner Ctn.	Outer Ctn.	EDP No.
77-10	1	315	32	120	430	6	60	142091

Replacement Head for No.77 (Rubber Head)

Model No.	Set content	Package size (mm)	Inner Ctn.	Outer Ctn.	EDP No.
077110 Card Product	1lb×2pcs	170×60×35	-	5	242021
77-10H Boxed	1lb	130×155×35	20	400	142121

※Apply hammer Gel Grip Hammer No.77-10 Cannot be used for plastic hammer No.70-1.



One point

GEL resin grip



GEL

Built-in gel cushions the shock to the palm

Cushions the shock to the palm of hammering blows. Alleviates the strain on your wrist.

Slip-resistant grip design

By gel, the contact surface with the palm increases. Non-slip grip with projected parts.



HAND TOOLS

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STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

No. RG-95 Ratchet Rivet Gun



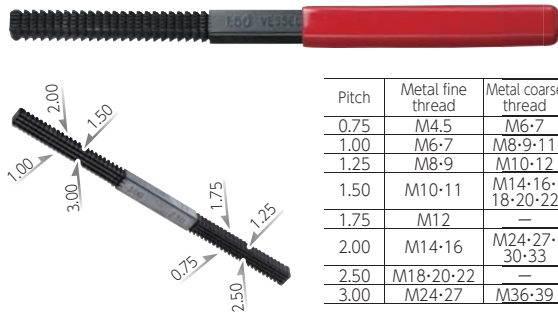
- Can calk blind rivets easily with one hand.
- Easily calks 4.8 mm steel rivets that were difficult to use with existing manual riveters.



Set content		Package size (mm)	Outer Ctn.	EDP No.
Body	overall length 230mm weight 570g	350×140×30	5	621310
Accessories	Nose piece 2.4, 3.2, 4.0, 4.8mm Nose piece wrench A/F 10mm			

No. 8 Thread File

- Quickly restores threads of tooling machines, automobiles, etc.
- 1 tool can be used with 8 different thread pitches.



Pitch	Metal fine thread	Metal coarse thread
0.75	M4.5	M6-7
1.00	M6-7	M8-9-11
1.25	M8-9	M10-12
1.50	M10-11	M14-16-18-20-22
1.75	M12	—
2.00	M14-16	M24-27-30-33
2.50	M18-20-22	—
3.00	M24-27	M36-39

Set content		Package size (mm)	Outer Ctn.	EDP No.
Pitch (mm)	0.75 / 1.00 / 1.25 / 1.50 1.75 / 2.00 / 2.50 / 3.00	270×75×12	10	621111

No. 5700WP Water Faucet Screwdriver

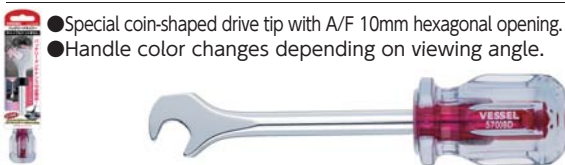
- Large sized tip enables stable fastening work as it fits well.



Package size (mm)		Inner Ctn.	EDP No.					
18	1.6	85	8	30	134.5	182×40×30	6	121572

No. 5700BD Car Battery Screwdriver

- Special coin-shaped drive tip with A/F 10mm hexagonal opening.
- Handle color changes depending on viewing angle.



Package size (mm)		Inner Ctn.	EDP No.						
18	10	1.6	85	8	28.5	133	182×40×30	6	121571

No. ZW-3/ZW-4 Thread Thru Stud Wrench

- Works with continuous thread studs, cut bolts and hanger bolts.
- Can be used 2 ways: Straight for tightening, or bent for fast turning.
- Can be used from halfway point with long hanger bolts.
- Lightweight, compact and easy to carry.



	Thread part	32	20	140	Weight (mm) (g)	Package size (mm)	Inner Ctn.	EDP No.
ZW-3	3/8	32	20	140	224	195×64×27	10	621320
ZW-4	1/2	32	20	140	222	195×64×27	10	621321

One point

Features of special tools



Ratchet Rivet Gun
Allows you to caulk blind rivets easily with one hand



Thread File
For restoring of screw threads
One file can be used for eight different thread pitches.



Thread Thru Stud Wrench
Dedicated for installing a full-thread bolt
It can be bent to turn a bolt quickly.



Tap Screwdriver
Used for tightening and loosening of a water shut-off valve, flow-regulating valve, or check valve



Car Battery Screwdriver
It is a combination of a spanner with width across flats of 10mm for car battery removal and a coin-shaped drive tip.

Industrial Bits

BITS & SOCKETS





Contents

Type A Industrial Bits	57 - 64
Type B Industrial Bits	65 - 72
Precision Bits	73 - 79
Bit Holders, etc	80 - 83



About ISO

ISO 9001 : 2008

Our screwdriver manufacturing division, VESSEL SHIMANE CO., LTD is certified according to ISO standard, the global standard for quality assurance control.



ISO 14001 : 2004

We obtained ISO 14001 in August 2010. VESSEL will further strive to offer eco-friendly products, aiming at minimizing the environmental burden as a manufacturing group.

Industrial bits Technical

BITS & SOCKETS

TECHNICAL



Environmental measures

Pb (lead), Cd (cadmium), Hg (mercury), hexavalent chromium, PBB (polybrominated biphenyl), and PBDE (polybrominated diphenyl ether) This symbol indicates the products that conform to VESSEL's environment measure standards compliant with the restriction of the use of certain hazardous substances (six substances listed above) (RoHS directive).

HAND TOOLS

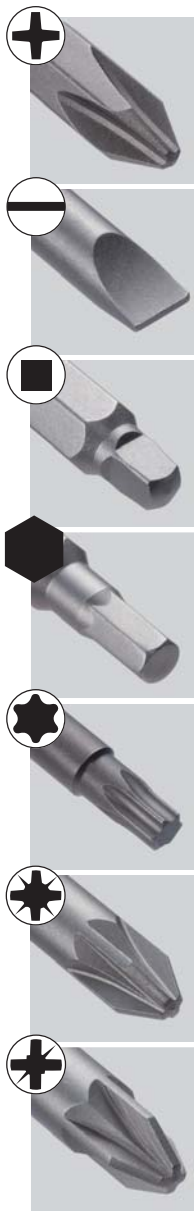
BITS & SOCKETS

ELECTRIC TOOLS

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GASOLINE ENGINE TOOLS



For cross recessed screws

Most commonly used in the market
JIS B4633.
Devised by PHILLIPS SCREW COMPANY.

For slotted head screws

Especially used for small screws for watches, glasses and precision equipment.
Also used for cross recessed slotted screws
JIS B4609.

For square screws

Mainly used for quake-resistant hardware.
Also good for sash doors and log houses.

For hexagonal socket screws

Used for metal products assembly, mold tools, machines, precision equipment and motorcycles, etc.

For TORX screws

Used for hard disk, automobiles and cutting tools.
VESSEL manufactures tools for TORX and TORX PLUS under the licensing agreement with Acument Intellectual Properties, LLC.

For POZIDRIV screws

Favored in Europe and used for OA devices, computers, housing materials, automobiles and airplanes.
VESSEL manufactures POZIDRIV tools under the licensing agreement with European Ind. Serv. Ltd. in UK.

For SUPADRIV screws

Favored in UK, Where this shape was devised, and used for OA devices, computers, housing materials, automobiles and airplanes. VESSEL manufactures SUPADRIV tools under the licensing agreement with European Ind. Serv. Ltd. in UK.



For hexagonal bolts and nuts

Sockets widely used for metal product assembly, automobiles, machines, houses and construction related fields

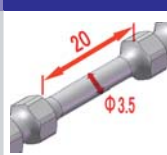
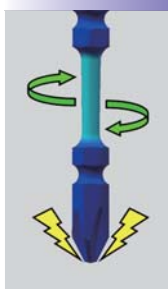
Magnetized bits

These bits can capture screws with a strong magnetic force enhancing work efficiency.



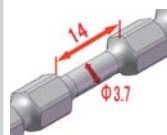
Torsion part

Torsion part absorbs the impact caused when the screw head is fully seated by an impact driver, preventing tip breakage.



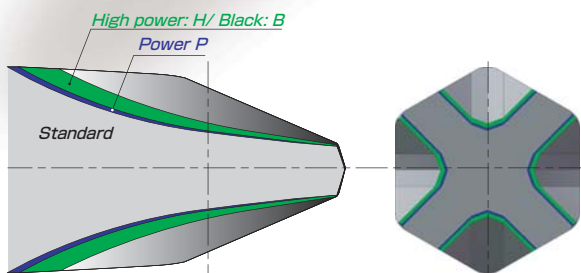
φ3.5×20mm

For soft joint such as wood screws fastening.
Suitable when fastened material is soft.



φ3.7×14mm

For hard joint such as drill fastening.
Suitable when fastened material is hard.



Name	Mark	Cross-section area of the tip	Purpose	Fitting to screws
Standard	—	Small	Wide range of works	Strongly Recommended
Power	P	Medium	For high impact	Very Good
High Power	H	Large	For widely cross recessed screws (pan head screws.)	Good
Black	B			



Sockets with a press-fitted shank

The socket and the shank are separately heat-treated at different harnesses, realizing a high torsional strength nearly two times greater than that of integrated type sockets.



Carefully selected materials

With our long experience and research in manufacturing, we developed our own materials with balanced hardness (less wearing) and toughness (hard to chip). Properties of the elements contained in the materials are improved to an optimal level through a heat treatment process.

- C**...Carbon | The more carbon is contained, the greater hardening penetration becomes. When the carbon content is 0.6 % or more, abrasion resistance increases, although hardening penetration remains the same.
- Ni**...Nickel | The addition of small amount of nickel increases steel's shock resistance and toughness. When added in a large amount, it becomes weak and breaks easily.
- Cr**...Chrome | Hardenability increases. Oxidation resistance increases. Toughness is improved.
- Mo**...Molybdenum | Hardenability increases. Significant decrease in toughness can be prevented.

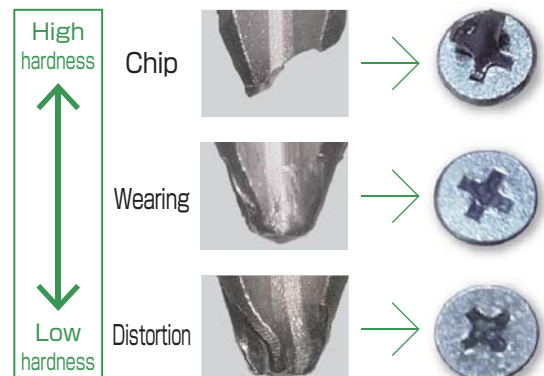
Insertion part

For compact electric screw drivers			
	⊙	φ 4 mm	76P
	⊙	φ 4 mm	75P ~77P
	⊙	φ 5 mm	77P
For electric or air screwdrivers			
	⊙	H 5 mm	67P 78P
	⊙	H 5 mm	67P
For air or electric impact screwdrivers			
	⊙	H 6.35 mm	61P ~64P 80P
	⊙	H 6.35 mm	59P ~61P
	⊙	H 6.35 mm	69P ~72P
	⊙	H 6.35 mm	68P 69P
For air impact drivers			
	⊙	H 8 mm	64P
	⊙	H 8 mm	64P

Hardness (Heat processing classifications)

Chip, wearing and deformation, which directly affect the life of bits and sockets, can be controlled by choosing different hardnesses (heat processing classification)

Hardness (Heat processing classifications)	Examples of use for screws	Industrial use
X Possible highest hardness	Precision small screws, automated machine fitting, collated screws	Precision device assembly, light electrical automated screw tightening, collated screws for housing
H High hardness	Wood screws, small screws, tapping screws, self-drilling screws	Light electric assembly, communication acoustic device assembly, civil engineering and construction work
G Standard hardness	Tapping screws, small screws	Automobile and machine assembly, sash frame assembly
FES Low hardness	Self-drilling screws, tapping screws, small screws	Rigid joint, sheet metal assembly, heavy work



If you do not find any bits or sockets suitable for your work in our product lineup, we also offer made-to-order products tailored to your specifications.



- Need a longer bit. Is it OK to connect two bits by welding?
- Bit does not catch screws well. Center run-out of the screw driver is the cause?
- Want to use bits for a long time. Supplies expense is too much?
- Want to stabilize the screw tightening torque as much as possible.
- Want to use bits in narrow spaces. Parts are getting in the way of bits.
- Want to reduce the breakage of the bit tips. Having hard time in removing the broken piece of the bit tip from the screw head.
- Annoyed by stuck screws. Screw fastening machine often stops.
- Rust and oil of bits cause problems.
- Want to prevent screw stripping. It spoils precious workpieces.
- Want to introduce special screws. Tamper-proof screws are under consideration.
- Want to reduce the number of interruptions in production line due to bit changes, etc.

Best practice

Ideal fitting and improved bit tip life with tailored bits

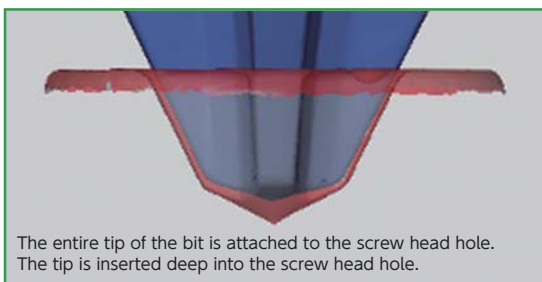
Analyze the fitting between the tip of the bit currently used and the screw head by using a 3D measurement device.

Fitting between the screw head and a user's bit



Analyze the fitting between the tip of the tailored bit and the screw head hole by using a 3D measurement device

Fitting between the tailored bit and the screw head hole

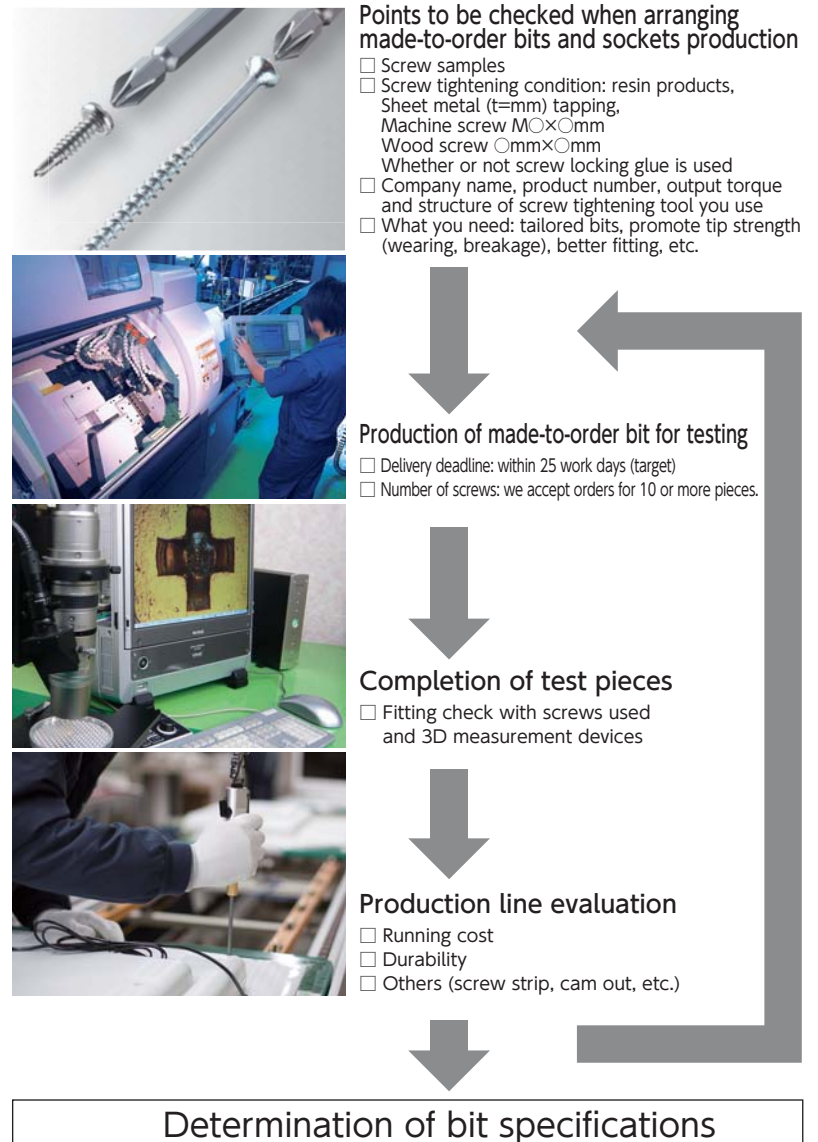


Result

The life of bits increased three times and the frequency of screw strip decreased.

*Analyses using 3D measurement devices are conducted as needed. They are not conducted every time made-to-order bits and socket are manufactured.

Flow of arrangement and process of made-to-order bits and sockets production

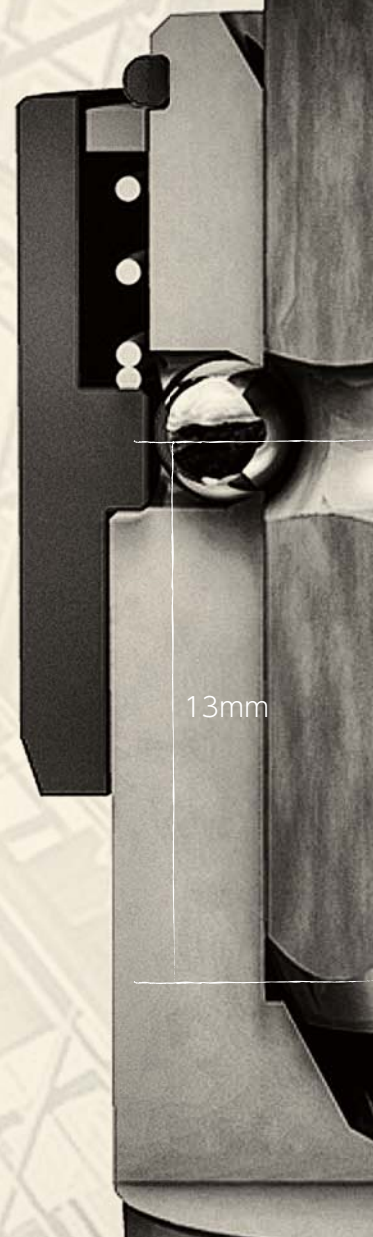
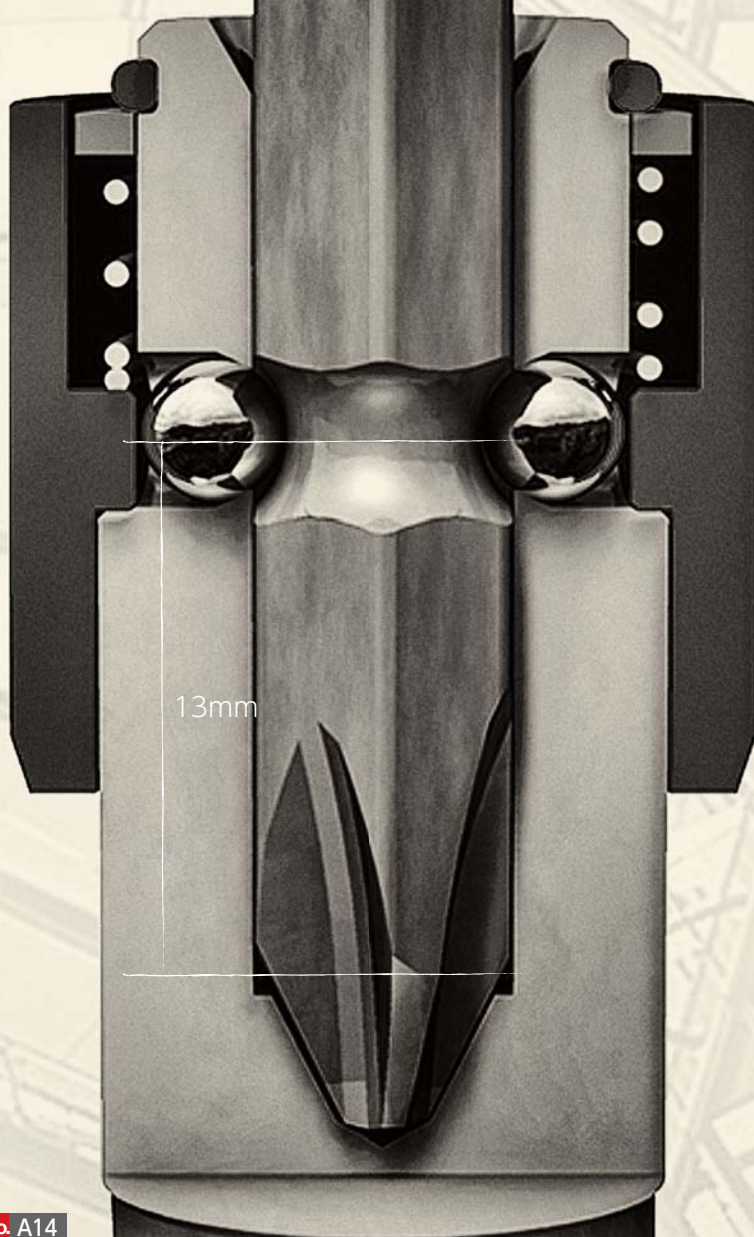


No. A14

Double End Bit Type A



The Type A entry is designed to VESSEL's special insertion dimensions, developed when we first started manufacturing air drivers. The majority of electric drivers on the market can be used with our ubiquitous Type A bits.



No. A14

Double End Bit

High precision bit tips...
We design and manufacture optimal bits for many kinds of screws.
For such purpose, we take proactively into consideration licensing agreements for various screw types.
Also we supply bits that support the continuous changes in screw recess, by technological exchanges with screw punch manufactures.

※This is for illustrative purpose.

HAND TOOLS

BITS & SOCKETS








ELECTRIC TOOLS

AIR TOOLS

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Applicable models Please check the model No. of your drivers before determining which bit(s) to choose.

Shape	Model No.	Page	Applicable models		
			 Air Screwdriver	 Electric Screwdriver	
 H 6.35 mm	A14	59P 60P	<p>VESSEL GT-H4R-H4PR-H4.5-H5R-H5P-PH4-PH5-S4.5DR-PLR-PLZ-PLP-PLHI-S6MLR-S6HS-S6.5D-P4.5D-P4.5DR-P5LS-P6EXD-P6LSIII-P6HS-P6.5D-S4TR-S4TS-S4TG-S5TR-S5TB-S5TG-S5TS-S4.5XD-P4.5XD-PLXD-P60XD-P6LXD-S6LXD-S60XD-PLIXD-P5XD</p> <p>Hitachi Koki WH 12AB2-12H2</p> <p>NPK ND-○○○Y NPW-○○○Y SD-4</p> <p>Fuji Kuki FLT series D-10-D-20 FPT series D-10 FL series D-10 FPW series D-10 FW series D-10-D-20-D-60-D-70-D-80</p> <p>Makita AD604-AD605H</p>	<p>VESSEL VE-5000-5000P-6000-6000P</p> <p>Toshiba CI-144VBKS</p> <p>Hitachi Koki WH 7DL-9DM2-10DL-10DAL-14DSL2-14DBAL2-14DDL-14DDL2-18DBAL2-18DDL-18DDL2-14DBEL-18DBEL-14DKL-18DKL-10DCL-14DCL-12H2-12AB2-12VE WM 10DBL-14DBL-18DBL WP 14DSL-12VA DB 3DL2 FWH 7DL-10DAL-10DFL-14DGL-14DSAL-12DC2-12VD-10DCL FDB 3DL2-10DFL W 4SA2-5SA-8V</p> <p>(Old model) WH 6DC-9DM-12DM-12DAF2-12DM2-12DMR-12DK-12DMR2-14DMRL-14DBL-14DBAL-18DBDL-8DYA (No.2 only available)-14DH-14DM-14DML-14DMR-14DSL-18DL-12VA-12VB-12VC3-12VC2-12VC-12VD WP 10A-12DM W 4SA-5VC-5VD-5VE-6VC-6VH-6VJ-6M-6MV-6MV2</p> <p>●The models in blue letters are the screwdrivers for light steel substrates and boards. It is recommended to use a 45mm long bit.</p> <p>Makita TD 0220-021D-061D-090D-110D-135D-134D-146D-134DX2-146DX2-134DSHX-160D-170D-138D-149D-136D-137D-146D-147D-148D TL 060D-061D TP 140D-131D-141D TS 131D-141D 6955-6963SPK DF 010D-030D-031D</p> <p>Panasonic EZ 75A7-75A1-7544-7207-6506-7545-7521-7520-7548-6507-7410-7411-7420-6220</p> <p>Ryobi BD-361 BID-1100-180-1810-1228-1229-1250-1260-1415-1416-1417-1418-143-1440-145-1805-1806 CID-1100 ID-140</p> <p>Tonichi AUR5N</p> <p>MAX PJ-ID144-SD101</p> <p>Yokota YBX-50B</p>	
	A14P	59P			
	M-A14				
	A14H				
	A14B				
	AZ14				
	AS14				
	A14R				60P
	AL14				
	AT14				
AT14P	61P				
ST14					
 H 6.35 mm	A16	61P 62P	<p>Yokota YLa60B-70B-80B YLT50B-60B-70B-60BL-70BL Y-40SB-41B-46B YX-80B-180B-180SB-280B-380B-500B-180SB-280SB-380SB-500SB YBX-50B YD-400SCB-4.5LBZ-6WBZK-600SBZ-40PBZ-4.5PBZK-600PBZ-650PBZ-65PTBZ-65PBZ-670B-670B-F-670B-R-670B-RF</p> <p>Yutani D-6SPAL-5WPEA-6WSPEA-6WSHPEA-600SHEA-604A-8WPE-6SSAEL-6WSHSA DH-6PL-4.5PEA-6PLE-4.5SA-6SELA HPW-4D-6D-6αD-8αD-4SD-6SD-6αSD ETC-10HD-15HD-5HSD-10HSD</p> <p>MAX AT-ID6P1-HF-ID7P1</p>	<p>Panasonic EZ 6220-6225-7410-7411</p> <p>Ryobi D-500</p>	
	M-A16	62P			
	D81	62P 63P			
	V	62P 63P			
	A20	63P			
	A20-5				
	MA20S				
	MA20	64P			
	SB				
	HA				
HAM	80P				
HD-71 x 45					
 H 6.35 mm	D830082	95P		<p>Panasonic EZ 6220-6225-7410-7411</p> <p>Ryobi D-500</p>	
	D831045				
	D831075				
	D832075				
	D832100				
D832150					
 H 8 mm	A15	64P	<p>VESSEL GT-P8D-P10SII-P80XD</p>	<p>Hitachi Koki WH 14DA</p> <p>Panasonic EZ6680</p>	
	A19	64P			
 H 8 mm	V5				

HAND TOOLS

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No. A14 Double End Bit

- If one end breaks, the other end can be used.
- A wide variety of bits according to different heat treatment.



Size Tip×Overall Length (mm)	Heat treatment classification	Inner Ctn.	Outer Ctn.	EDP No.
⊕ 1× 45	H	10	100	413029
65	H	10	100	413031
65	G	10	100	413032
110	H	10	100	413231
110	G	10	100	413232
⊕ 2× 45	X	10	100	413039
45	H	10	100	413041
45	G	10	100	413040
65	X	10	100	413047
65	H	10	100	413042
65	G	10	100	413043
65	E	10	100	413045
110	X	10	100	413262
110	H	10	100	413241
110	G	10	100	413242
110	E	10	100	413243
150	X	10	100	413263
150	H	10	100	413245
150	G	10	100	413246
150	E	10	100	413247
200	X	10	150	413264
200	H	10	150	413249
200	G	10	150	413248
200	E	10	150	413250
300	G	10	100	413255
⊕ 3× 45	H	10	100	413051
45	E	10	100	413050
65	X	10	100	413054
65	H	10	100	413052
65	E	10	100	413053
110	H	10	100	413252
110	E	10	100	413251

No. A14P Double End Bit (Power tip)

- If one end breaks, the other end can be used.
- Well balanced combination between tip precision and strength.



Size Tip×Overall Length (mm)	Heat treatment classification	Inner Ctn.	Outer Ctn.	EDP No.
⊕ 2× 65	H	10	100	415331
110	H	10	100	415333
150	H	10	100	415334

No. A14H TAPPING Bit (High power tip)

- If one end breaks, the other end can be used.
- Reinforced tip for tapping work.



Size Tip×Overall Length (mm)	Heat treatment classification	Inner Ctn.	Outer Ctn.	EDP No.
⊕ 2× 65	H	10	100	413351
110	H	10	100	413355
150	H	10	100	413359

No. M-A14 Double End Bit (Magnetized)

- If one end breaks, the other end can be used.
- Strongly magnetized.



Size Tip×Overall Length (mm)	Heat treatment classification	Inner Ctn.	Outer Ctn.	EDP No.
⊕ 1× 45	H	10	100	413401
65	H	10	100	413402
110	H	10	100	413407
⊕ 2× 45	H	10	100	413403
45	G	10	100	413404
65	H	10	100	413405
65	G	10	100	413406
110	H	10	100	413408
110	G	10	100	413411
150	H	10	100	413409

No. A14B TAPPING Bit (Black tip)

- If one end breaks, the other end can be used.
- Reinforced tip for tapping work.



Size Tip×Overall Length (mm)	Heat treatment classification	Inner Ctn.	Outer Ctn.	EDP No.
⊕ 2× 50	S	10	100	413141
75	S	10	100	413142
100	S	10	100	413341
150	S	10	100	413342

No. AZ14 GIZA Bit

PAT.

- If one end breaks, the other end can be used.
- Jagged tip prevents cam-out.



Size Tip×Overall Length (mm)	Heat treatment classification	Inner Ctn.	Outer Ctn.	EDP No.
⊕ 2× 65	H	10	100	413360
110	H	10	100	413361
150	H	10	100	413362

No. AS14 SLENDER Bit

- If one end breaks, the other end can be used.
- Tapered tip allows for easy view.



Size Tip×Overall Length (mm)	Heat treatment classification	Inner Ctn.	Outer Ctn.	EDP No.
⊕ 1× 65	H	10	100	413367
⊕ 2× 45	H	10	100	413366
65	H	10	100	413364
110	H	10	100	413365

H 6.35 mm

No. A14 Square Double End Bit

- If one end breaks, the other end can be used.
- Specially-shaped tip prevents the bit from getting stuck.



Size Tip×Overall Length (mm)	Heat treatment classification	Inner Ctn.	Outer Ctn.	EDP No.
SQ 1× 65	H	10	100	413380
SQ 2× 65	H	10	100	413381
110	H	10	100	413383
150	H	10	100	413385
SQ 3× 65	H	10	100	413382
110	H	10	100	413384
150	H	10	100	413386

No. A14R Square Double End Bit

- If one end breaks, the other end can be used.
- With a ring attached preventing the bit from getting stuck.



Size Tip×Overall Length (mm)	Heat treatment classification	Inner Ctn.	Outer Ctn.	EDP No.
SQ 1× 65	H	10	100	413387
SQ 2× 65	H	10	100	413388
110	H	10	100	413389
150	H	10	100	413390
SQ 3× 65	H	10	100	413391
110	H	10	100	413392
150	H	10	100	413393

H 6.35 mm

No. AL14 ALFA Bit

- If one end breaks, the other end can be used.
- Modest torsion effect created by tempering treatment on the ball grooves.

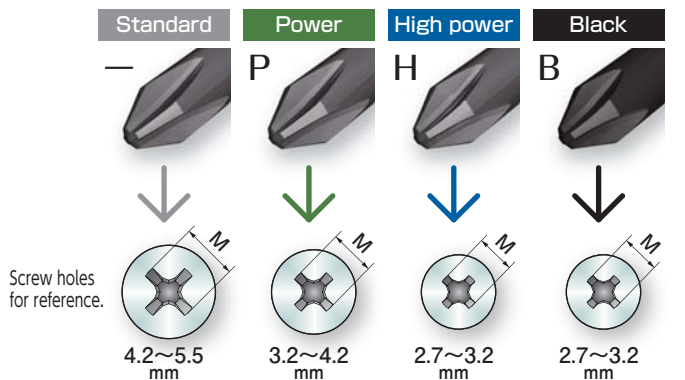
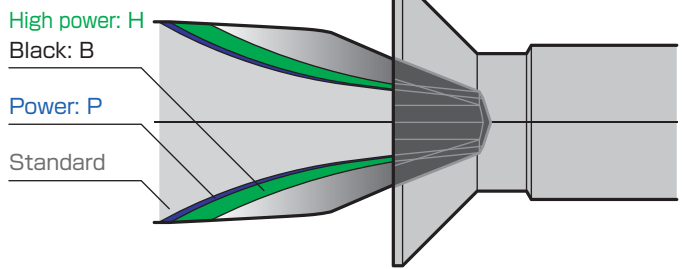


Size Tip×Overall Length (mm)	Heat treatment classification	Inner Ctn.	Outer Ctn.	EDP No.
⊕ 2× 65	H	10	100	413369
110	H	10	100	413370

One point

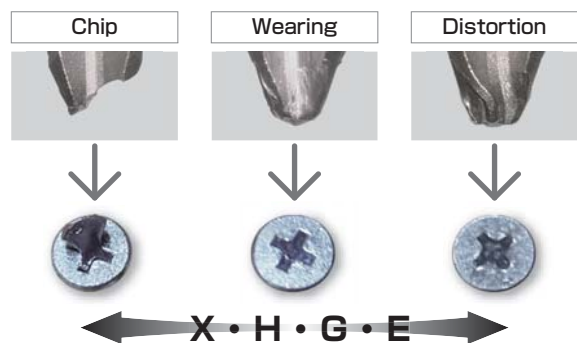
Bit selection I

- Selecting Phillips tip suitable for screw head hole



* M dimension : the size of a cross recess on a screw head viewed from directly above

- Selecting Phillips tip according to hardness classification



HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

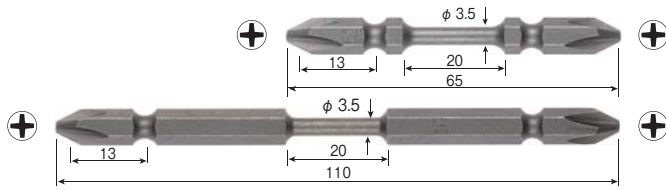
STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

 H 6.35 mm

No. AT14 TORSION Bit

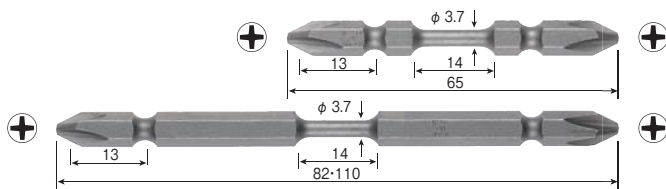
- If one end breaks, the other end can be used.
- For soft joint such as wood screws.



Size Tip×φ×Overall Length (mm)	Heat treatment classification	Inner Ctn.	Outer Ctn.	EDP No.
⊕ 2×3.5× 65	H	10	100	413143
110	H	10	100	413144

No. AT14P TORSION Bit (Power tip)

- If one end breaks, the other end can be used.
- For hard joint such as drill screws.

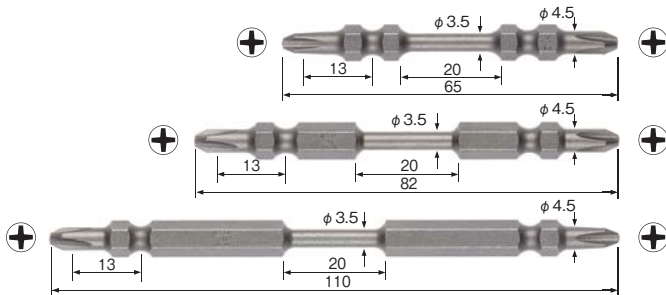


Size Tip×φ×Overall Length (mm)	Heat treatment classification	Inner Ctn.	Outer Ctn.	EDP No.
⊕ 2×3.7× 65	X	10	100	415361
82	X	10	100	415362
110	X	10	100	415363

No. ST14 SLENDER TORSION Bit

PAT.

- If one end breaks, the other end can be used.
- Thin tip allows for easy view. For soft joint such as wood screws.

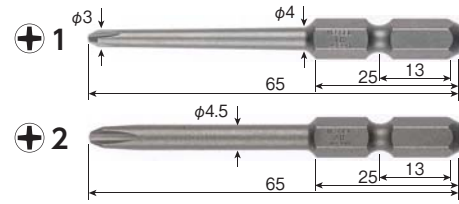


Size Tip×φ×Overall Length (mm)	Heat treatment classification	Inner Ctn.	Outer Ctn.	EDP No.
⊕ 1×3.5× 65	H	10	100	413374
⊕ 2×3.5× 65	H	10	100	413375
82	H	10	100	413377
110	H	10	100	413376

 H 6.35 mm

No. A16 Recessed Bit

- Recessed type. Thin shank allows for use in narrow spaces.

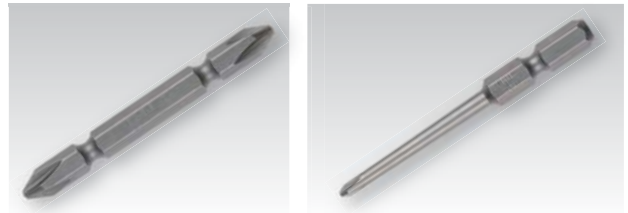


Size Tip×φ×Overall Length (mm)	Heat treatment classification	Inner Ctn.	Outer Ctn.	EDP No.
⊕ 1×3 × 65	H	10	100	415061
⊕ 2×4.5× 65	H	10	100	415066

One point

Bit selection II

- Selection according to bit shapes





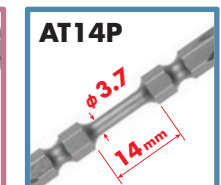

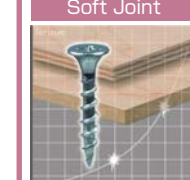

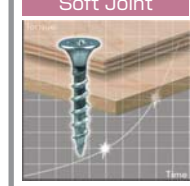
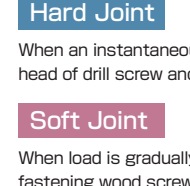
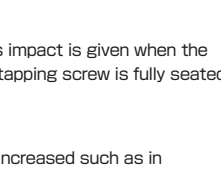
Double End Bit

If one end breaks, the other end can be used.

Recessed Bit / Bit

Thin shank improves workability in narrow spaces.

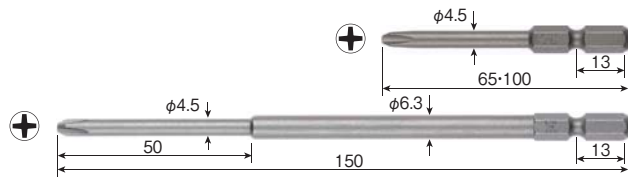
- Selection according to torsion effect

AL14	AT14/ST14	AT14P
 <p>Ball groove</p> <p>Impact is absorbed by the torsion effect at the slot part which receives tempering treatment.</p>	 <p>φ3.5</p> <p>20mm</p> <p>Impact is absorbed by the torsion part (φ3.5 × 20mm).</p>	 <p>φ3.7</p> <p>14mm</p> <p>Impact is absorbed by the torsion part (φ3.7 × 14mm).</p>
<p>Hard Joint</p> 	<p>Soft Joint</p> 	<p>Hard Joint</p> 
<p>Soft Joint</p> 	<p>Hard Joint</p> 	<p>Hard Joint</p> 
	<p>When an instantaneous impact is given when the head of drill screw and tapping screw is fully seated</p>	<p>When load is gradually increased such as in fastening wood screws</p>



No. M-A16 Recessed Bit (Magnetized)

- Recessed type. Thin shank allows for use in narrow spaces.
- Powerfully magnetized.



Size Tip×Overall Length (mm)	Heat treatment classification	Inner Ctn.	Outer Ctn.	EDP No.
⊕ 2×4.5× 65	H	10	100	415311
100	H	10	100	415312
150	H	10	100	415313

No. A16 Hex Bit

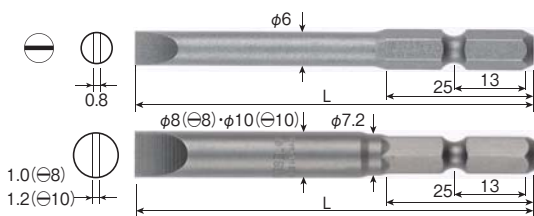
- For assembly work focusing on workability.



Size Tip×Overall Length (mm)	Heat treatment classification	Inner Ctn.	Outer Ctn.	EDP No.
H 2× 65	H	10	100	481090
110	H	10	100	481100
2.5× 65	H	10	100	481091
110	H	10	100	481101
3× 65	H	10	100	481092
110	H	10	100	481102
4× 65	H	10	100	481093
110	H	10	100	481103
5× 65	G	10	100	481094
110	G	10	100	481104
6× 65	G	10	100	481096
110	G	10	100	481105

No. A16 Recessed Bit

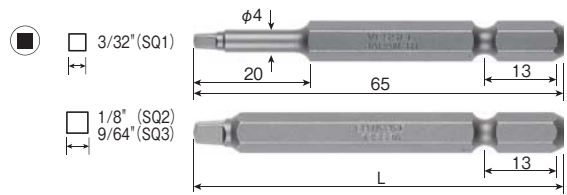
- For assembly work focusing on workability.



Size Tip×Overall Length (mm)	Heat treatment classification	Inner Ctn.	Outer Ctn.	EDP No.
⊖ 6 × 45	G	10	100	415071
70	G	10	100	415072
⊖ 8 × 45	G	10	300	415171
70	G	10	250	415172
⊖ 10× 52	G	10	200	415271
70	G	10	200	415272

No. A16 Square Bit

- For assembly work focusing on workability.



Size Tip×Overall Length (mm)	Heat treatment classification	Inner Ctn.	Outer Ctn.	EDP No.
SQ 1×4× 65	H	10	100	481001
SQ 2× 65	H	10	100	481002
110	H	10	100	481005
150	H	10	100	481008
SQ 3× 65	H	10	100	481003
110	H	10	100	481006
150	H	10	100	481009

No. D81 Recessed Bit

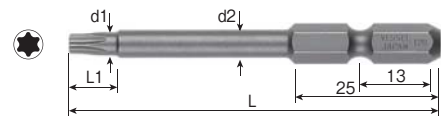
- Recessed type. Thin shank allows for use in narrow spaces.



Size Tip×Overall Length (mm)	Heat treatment classification	Inner Ctn.	Outer Ctn.	EDP No.
⊕ 2 × 82	X	10	100	482040
82	H	10	100	482041
82	E	10	100	482042

No. V TORX Bit

- For TORX screws used in the automobile industry.



Size Tip×Overall Length (mm)	d1	L1	d2	(mm)	Inner Ctn.	EDP No.
T6 × 65 ▲	1.65	1.95	6.5	4.0	10	634997
110 ▲	1.65	1.95	6.5	4.0	10	634998
T8 × 65 ▲	2.3	2.60	7.0	4.5	10	634999
110 ▲	2.3	2.60	7.0	4.5	10	635000
T10× 65	2.72	3.02	7.5	4.5	10	635120
110	2.72	3.02	7.5	4.5	10	635121
T15× 65	3.26	3.56	7.5	4.5	10	635125
110	3.26	3.56	7.5	4.5	10	635126
T20× 65	3.84	4.14	7.5	5.0	10	635130
110	3.84	4.14	7.5	5.0	10	635131
T25× 65	4.4	4.70	8.0	5.0	10	635135
110	4.4	4.70	8.0	5.0	10	635136
T27× 65	4.96	5.26	8.0	5.5	10	635140
110	4.96	5.26	8.0	5.5	10	635141
T30× 65	5.49	5.79	8.5	6.0	10	635145
110	5.49	5.79	8.5	6.0	10	635146
T40× 65	6.6	H6.35	—	H6.35	10	635150
110	6.6	H6.35	—	H6.35	10	635151

▲For the date of delivery, consult VESSEL

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HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

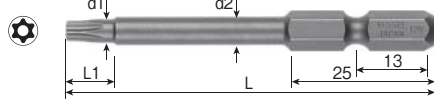
STATIC SOLUTIONS

GASOLINE ENGINE TOOLS



No. V TORX Bit (Tamper-Proof)

- For TORX screws used in the automobile industry.
- With a round hole for tamper-proof.

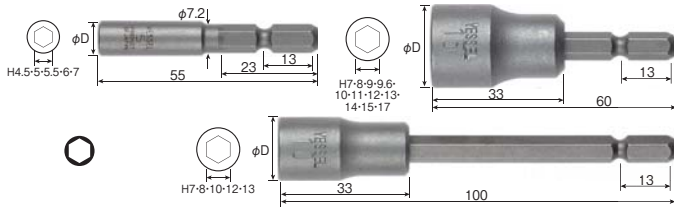


Size Tip×Overall Length (mm)	mm	d1	L1	d2 (mm)	Inner Ctn.	EDP No.
T8H × 65	2.3	2.60	7.0	4.5	10	635032
110	2.3	2.60	7.0	4.5	10	635033
T10H× 65	2.72	3.02	7.5	4.5	10	635001
110	2.72	3.02	7.5	4.5	10	635002
T15H× 65	3.26	3.56	7.5	4.5	10	635005
110	3.26	3.56	7.5	4.5	10	635006
T20H× 65	3.84	4.14	7.5	5.0	10	635010
110	3.84	4.14	7.5	5.0	10	635011
T25H× 65	4.4	4.70	8.0	5.0	10	635015
110	4.4	4.70	8.0	5.0	10	635016
T27H× 65	4.96	5.26	8.0	5.5	10	635020
110	4.96	5.26	8.0	5.5	10	635021
T30H× 65	5.49	5.79	8.5	6.0	10	635025
110	5.49	5.79	8.5	6.0	10	635026
T40H× 65	6.6	H6.35	—	H6.35	10	635030
110	6.6	H6.35	—	H6.35	10	635031

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No. A20 Socket Bit

- Socket bit for assembly.
- Strong resistance to shank breakage with press-fit method.
(Marked with a star symbol in the table below)



Size Tip×Overall Length (mm)	φD	Drilling holes depth	Inner Ctn. (mm)	Outer Ctn.	EDP No.
A/F 4.5× 55	7.5	20	10	250	416080
5 × 55	8.5	20	10	250	416081
5.5× 55	9	20	10	250	416082
100	9	25	10	250	416281
6 × 55	10	20	10	200	416083
100	10	25	10	200	416282
7 × 11× 55	11	20	10	200	416084
100	11	25	10	150	416280
7 × 60	☆ 13.5	22	10	200	416095
100	☆ 13.5	25	10	150	416283
8 × 60	☆ 13.5	22	10	200	416085
100	☆ 13.5	22	10	150	416284
9 × 60	☆ 15	22	10	150	416086
9.6× 60	☆ 15	22	10	150	416087
10 × 60	☆ 16	22	10	150	416088
100	☆ 16	22	10	100	416286
11 × 60	☆ 17	22	10	150	416089
12 × 60	☆ 18	22	10	100	416090
100	☆ 18	22	10	100	416287
13 × 60	☆ 19	22	10	100	416091
100	☆ 19	22	10	50	416288
14 × 60	☆ 20	22	10	100	416092
15 × 60	☆ 21	22	10	50	416093
17 × 60	☆ 23	22	10	50	416094

☆...Press-fit type

No. A20-5 Socket Bit

- Short type socket bit to use in narrow spaces, such as on the periphery of automobile engines.

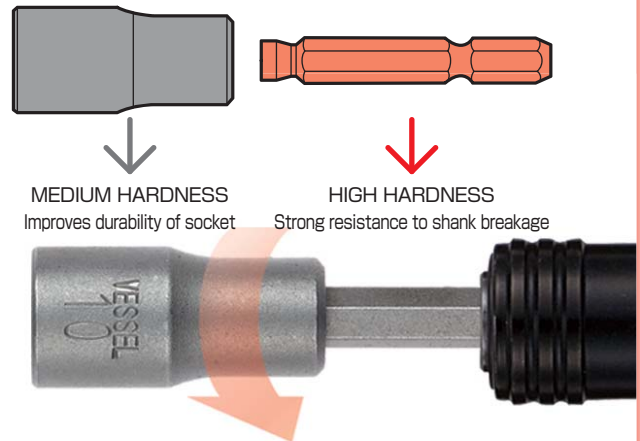


Size Tip×Overall Length (mm)	φD	Drilling holes depth	Inner Ctn. (mm)	Outer Ctn.	EDP No.
A/F 10× 50	16	10	10	150	416396

One point

Features of press-fit type sockets

(Press-fit type: marked with a star symbol in the table of each model)



The shank and socket have been heat-treated to the best hardness and press-fit together. The socket part is strong against wear and shank against twisting, resulting in higher durability.

Prevents shank breakage
Torsion moment with a static torque

Normal type

75
N·m

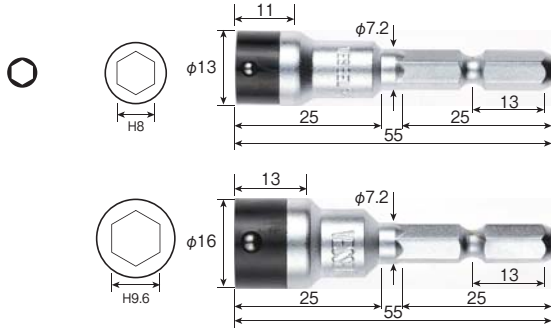
Press-fit type

107
N·m



No. SB Nut Setter (Ball Lock)

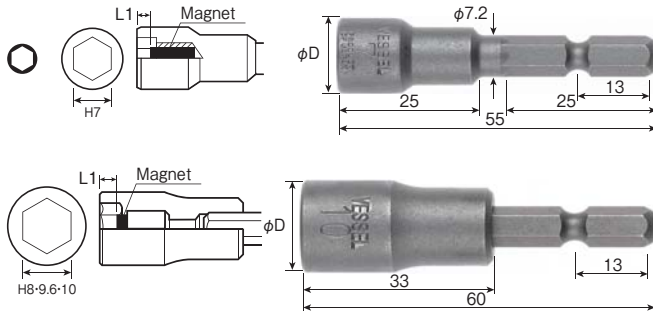
- Socket bit for Hex screws.
- Ball-lock type for minimum cutting particles.



Size Tip×Overall Length	Inner Ctn. (mm)	Outer Ctn. (mm)	EDP No.
A/F 5/16" (8mm) × 55 (For screw dia. 5mm)	5	50	482531
A/F 3/8" (9.6mm) × 55 (For screw dia. 6mm)	5	50	482532

No. MA20 Socket Bit (Press-Fit Magnet)

- Socket bit for Hex screws.
- Holds the screw with a strong magnet, to prevent the screws from dropping.



Size Tip×Overall Length (mm)	phi D	L1 (mm)	Inner Ctn. (mm)	Outer Ctn. (mm)	EDP No.
A/F 7 × 55 (For screw dia. of 4mm)	13	2.5	10	200	482510
A/F 8 × 60 (For screw dia. of 5mm)	☆ 13.5	3.17	10	150	482511
A/F 9.6 × 60 (For screw dia. of 6mm)	☆ 15	3.96	10	150	482512
A/F 10 × 60 (For screw dia. of 6mm)	☆ 16	3.96	10	150	482513

☆Press-fit type.

No. MA20S Socket Bit (Side Magnet)

- Socket bit for Hex screws.
- Holds the screw with side magnet, to prevent the screws from dropping.



Size Tip×Overall Length (mm)	phi D	Drilling holes depth (mm)	Inner Ctn. (mm)	Outer Ctn. (mm)	EDP No.
A/F 5/16" (8mm) × 55	13	20	10	100	482401
A/F 3/8" (9.6mm) × 55	16	20	10	100	482402
A/F 10mm × 55	16	20	10	100	482403



No. A15 Double End Bit

- If one end breaks, the other end can be used.
- High strength with 8mm hexagonal shank.

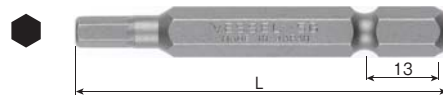


Size Tip×Overall Length (mm)	Heat treatment classification	Inner Ctn.	Outer Ctn.	EDP No.
⊕ 2× 65	G	10	250	414041
110	G	10	150	414042
⊕ 3× 65	E	10	250	414051
110	E	10	150	414052



No. A19 Hex Bit

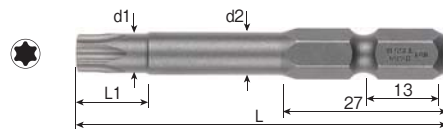
- For assembly work focusing on workability.
- High strength with 8mm hexagonal shank.



Size Tip×Overall Length (mm)	Heat treatment classification	Inner Ctn.	Outer Ctn.	EDP No.
H 5× 65	G	10	250	481191
6× 65	G	10	250	481192
130	G	10	100	481196
8× 65	G	10	250	481193
130	G	10	100	481197
10× 65	S	10	200	481194
130	S	10	100	481198

No. V5 TORX Bit

- For TORX screws used in the automobile industry.
- High strength with 8mm hexagonal shank.



Size Tip×Overall Length (mm)	d1	L1	d2	Inner Ctn. (mm)	EDP No.	
T25× 65	4.4	4.70	10.0	6.0	10	635215
110	4.4	4.70	10.0	6.0	10	635216
T27× 65	4.96	5.26	11.5	6.5	10	635220
110	4.96	5.26	11.5	6.5	10	635221
T30× 65	5.49	5.79	11.5	6.5	10	635225
110	5.49	5.79	11.5	6.5	10	635226
T40× 65	6.6	6.90	11.5	7.5	10	635230
110	6.6	6.90	11.5	7.5	10	635231
T45× 65	7.77	8.0	—	8.0	10	635235
110	7.77	8.0	—	8.0	10	635236
T50× 65	8.79	H8	—	H8	10	635240
110	8.79	H8	—	H8	10	635241

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HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

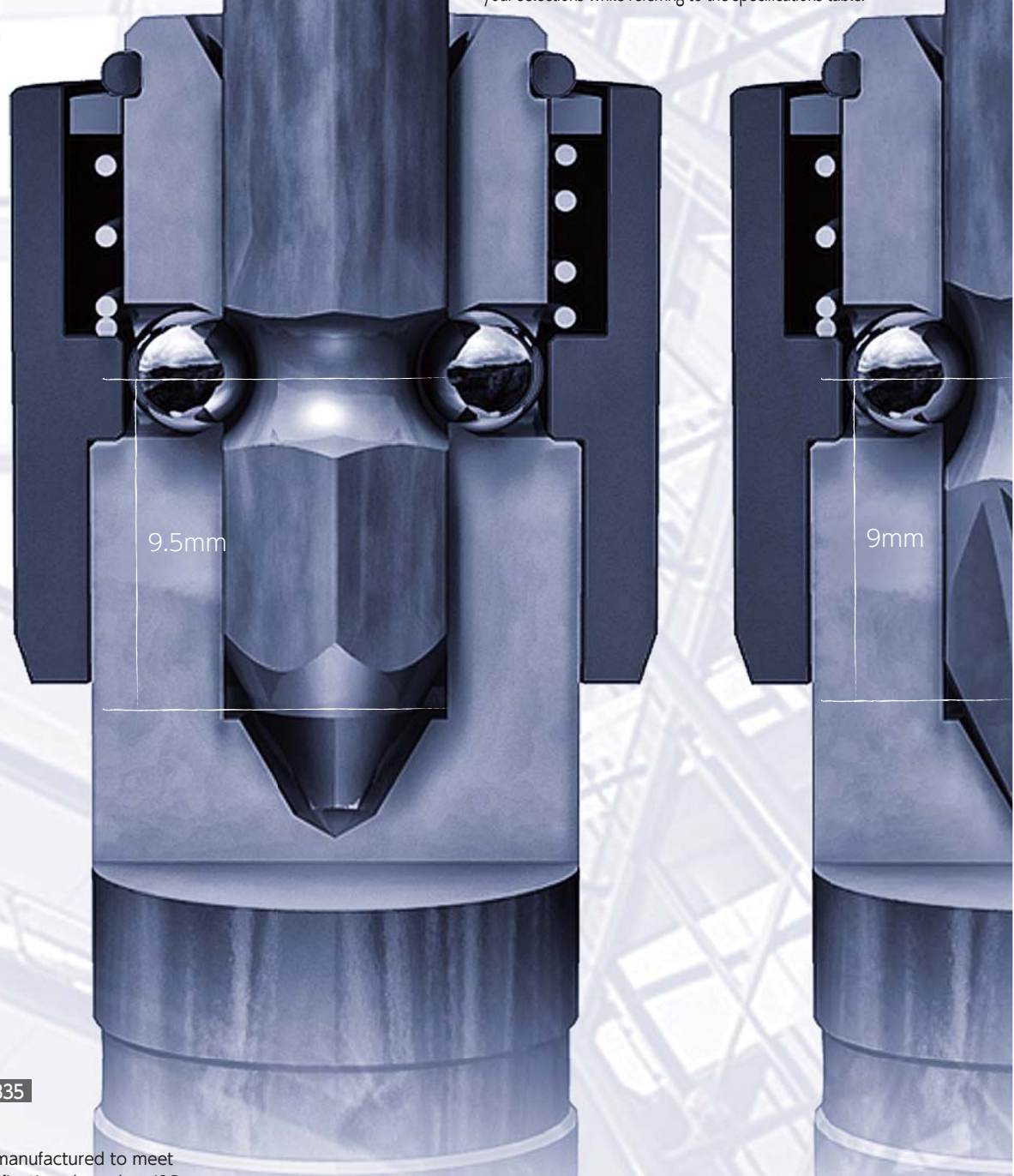
GASOLINE ENGINE TOOLS

No. B35

Bit Type B



The Type B insertion entry is designed to work with the dimensions most commonly used by air tool manufacturers. There are some models that will not accept insertion of the double-head types, depending on the shape of the insertion chuck. Please make your selections while referring to the specifications table.









No. B35
Bit

Bits manufactured to meet specifications based on ISO.
Width across flats 6.35 mm, hexagonal.

※This is for illustrative purpose.

Applicable models Please check the model No. of your drivers before determining which bit(s) to choose.

Shape	Model No.	Page	Applicable models		
			 Air Screwdriver	 Electric Screwdriver	
 H 5 mm	B36	67P	<p>VESSEL GT-S5TFR-S5TFB-S5TFG-S4TFR-S4TFS-S4TFG</p> <p>Uryu US-40-3.5A-4-4PB/ US-LT○○A/AL series</p> <p>Yokota YD-3-4-400SC</p>	<p>VESSEL VE-4000-4000P-4500-4500P</p>	
 H 5 mm	B34	67P	<p>VESSEL GT-S4TFR-S4TFS-S4TFG-S5TFR-S5TFB-S5TFG</p> <p>Uryu US-40-3.5A-4-4PB (Except B44 Socket Bit Overall Length 70mm) US-LT○○A/AL series</p> <p>Yokota YD-3-4-400SC</p>	<p>VESSEL VE-4000-4000P-4500-4500P</p> <p>Hios PG-7000, BLG-5000BC1/-15/-20/-HT BLG-5000/-15/-20/HT, BL-5000/-15/-20-5020-7000/-20 CL-4000-6000-6500-7000 SS-4000-6500-7000, α-4500-5000-6500 CD-4000-5000-6000-7000 VB-1510/-18-1820-3012-2008-3020 VZ-1510-1812-1820-3012-3007</p> <p>Delvo DLV ○○○○-EJN/-DJN/-DJE DLV 7(8)120-SPC-7(8)130-SPC-7(8)140-SPC- 7(8)241-SPC-7(8)231-SPC DLV 30LL(P)-SPC-30SL(P)-SPC-30HL(P)-SPC</p> <p>Hitachi Koki WT 3G/3GP-4G/4GP-5G/5GP</p> <p>Kanon 3K-120L-180L-180LF-120P-180P-180PF 9K-130P-140P-130PF-131L-131LF-131P-131PF 5KD-200-300</p> <p>Panasonic FE-A310S-A310MH-A310L-A111L-A111MH-A111M-A710AXN-A710MHN</p>	
	N				
	B44				
 H 6.35 mm	B43	68P	<p>Uryu UX-U-UW-ALPHA-UL-JEP-UAT-UA-UDP all driver type US-350W-450WB-5-50-5PB-○○W/PW-LT○○B/BL/PB</p> <p>NPK ND-○○OX, NPW-○○OX</p> <p>Fuji Kuki FLT series D-1-D-2 FPT series D-1, FL series D-1, FPW series D-1 FW series D-1-D-2-D-6-D-7-D-8, FD series D-4-D-5</p>	<p>Yokota YBX-50A</p> <p>Tonichi AUR5N-U(Except U1000CN)·UR·DU</p> <p>●Following Tool models are applicable only for the single end bits.</p> <p>Hios PG-7000 BLG-4000BC1-5000BC1/-15/-20/-HT BLG-4000-5000/-15/-20/HT BL-3000-5000/-15/-20-5020-7000/-20 CL-4000-6000-6500-7000-9000 SS-4000-6500-7000 α-4500-5000-6500 CD-4000-5000-6000-7000 VB-1510/-18-1820-3012-4504-2008-3020 VBH-1820-3012 VZ-1510-1812-1820-3012-3007-4504-4506 VZH-1820-3012</p>	
	M-B43				
	B43P				
	B43H				
	B43B				
	BT43				69P
	BT43P				
B35	69P 70P	<p>Yutani D-6SPBL-5WPEB-6WSPEB-6WSHPB-600SHEB- 604B-8WPB-6SSBEL-6WSHBS DH-6PL-4.5PEB-6PLE-4.5SB-6SELB HPW-4D-6D-6αD-8αD-4SD-6SD-6αSD</p> <p>Yokota TKa60A-70A-80A YEX-120A-150A-501A-100SA-120SA-150SA- 300SA-500SA YLa60A-70A-80A YLT50A-60A-70A-60AL-70AL Y-40SA-41A-46A YX-80A-180A-280A-380A-500A-280A-380A- 500A-180SA-280SA-380SA-500SA-280CA-500CA YBX-50A YD-400SCA-500SCA-5PHCA-3A-4A-4.5SZ-5A- 4.5LAZ-6WAZK-600SZ-40PZ-4.5PZK-600PZ- 650PZ-65PTZ-65PZ-670A-670A-F-670A-R-670A-RF</p> <p>Atlas-Copco LUM-LUF-LUD-TWIST-COMBI series</p>			
J	70P				
IP	71P				
X5000					
B45	72P				
MB45					
MB45S					
MB45D	80P				
HB					
HBM					
DBHM					
MMBC	81P				
 H 6.35 mm	B39	71P	<p>VESSEL GT- H4RC-H5RC-S6CD-PLRC</p> <p>Uryu US-3.5ACB-4CA-5CA- LT30B-○○C-LT40B-○○C</p> <p>Yutani D-6WHCL</p> <p>Yokota YD-600L YX-280CA-500CA</p>	<p>Kanon (Old model) CN 60LTDK~N 10LTDK(N6~N100LTDK) CN 60STDK~N 10STDK(N6~N100STDK) CN 100~CN 500DPSK(N10~N50DPSK) CN 100~CN 500DPSK-L(N10~N50DPSK(L)) CN 15/CN 30LTDK-H(N1.5/N3LTDK-H) DTDK-CN 500EXL(DTDK-N5EXL)</p>	



Manual type Torque Screwdriver

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

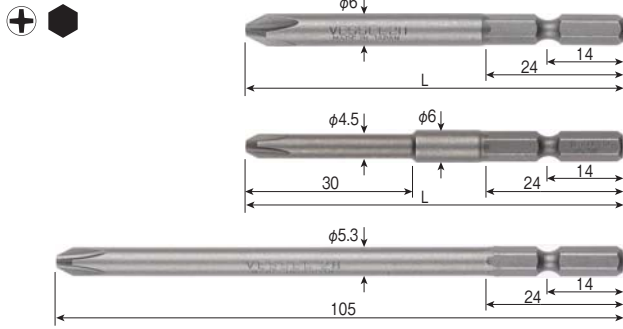
STATIC SOLUTIONS

GASOLINE ENGINE TOOLS



No. B34 Bit

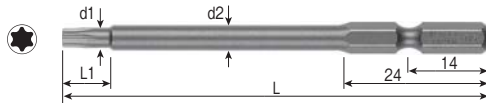
- For assembly work focusing on workability.
- Hexagonal shape with the width across flats of 5mm is also suited for electric drivers.



Size Tip×Overall Length (mm)	Heat treatment classification	Inner Ctn.	Outer Ctn.	EDP No.
⊕ 1 × 70	H	10	100	422031
100	H	10	100	422032
150	H	10	100	422033
⊕ 1×4 × 70	H	10	100	422048
⊕ 1×5.3× 105	H	10	100	422034
120	X	10	100	422040
120	H	10	100	422035
⊕ 2 × 70	H	10	100	422041
100	H	10	100	422042
120	H	10	100	422045
150	H	10	100	422043
200	H	10	100	422044
⊕ 2×3×30×75	H	10	100	446340
⊕ 2×4.5× 70	H	10	100	422049
⊕ 2×5.3× 105	H	10	100	422046
120	H	10	100	422047
H 2 × 70	H	10	100	422071
H 2.5× 70	H	10	100	422072
H 3 × 70	H	10	100	422073
H 4 × 70	H	10	100	422074
H 5 × 70	H	10	100	422075

No. N TORX Bit

- For TORX screws popular in the automobile industry.



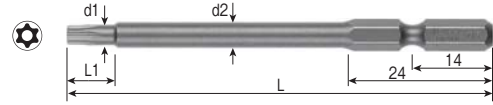
Size Tip×Overall Length (mm)	d1 (mm)	L1 (mm)	d2 (mm)	Inner Ctn.	EDP No.	
T5 × 75	1.37	1.67	6.5	4.0	10	635498
100▲	1.37	1.67	6.5	4.0	10	635499
T6 × 75	1.65	1.95	6.5	4.0	10	635500
100	1.65	1.95	6.5	4.0	10	635501
T8 × 75	2.3	2.60	7.0	4.5	10	635505
100	2.3	2.60	7.0	4.5	10	635506
T10× 75	2.72	3.02	7.5	4.5	10	635510
100	2.72	3.02	7.5	4.5	10	635511
T15× 75	3.26	3.56	7.5	4.5	10	635515
100	3.26	3.56	7.5	4.5	10	635516
T20× 75	3.84	4.14	7.5	5.0	10	635520
100	3.84	4.14	7.5	5.0	10	635521
T25× 75	4.4	4.70	8.0	5.0	10	635525
100	4.4	4.70	8.0	5.0	10	635526
T27× 75	4.96	5.26	8.0	5.5	10	635530
100	4.96	5.26	8.0	5.5	10	635531

▲For the date of delivery, consult VESSEL

TORX is a registered trademark of Acument TM Intellectual Properties, LLC (USA). VESSEL has a manufacturing license in Japan and selling same to the world.

No. N TORX Bit (Tamper-Proof)

- For TORX screws popular in the automobile industry.
- With a round hole for tamper-proof.

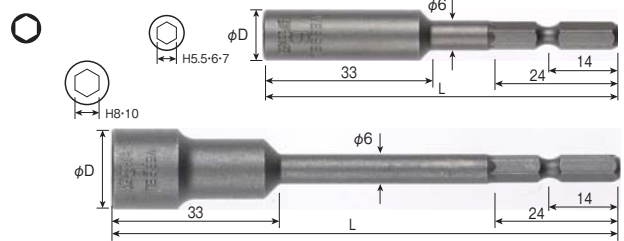


Size Tip×Overall Length (mm)	d1 (mm)	L1 (mm)	d2 (mm)	Inner Ctn.	EDP No.	
T10H× 75	2.72	3.02	7.5	4.5	10	635551
100	2.72	3.02	7.5	4.5	10	635552
T15H× 75	3.26	3.56	7.5	4.5	10	635553
100	3.26	3.56	7.5	4.5	10	635554
T20H× 75	3.84	4.14	7.5	5.0	10	635555
100	3.84	4.14	7.5	5.0	10	635556
T25H× 75	4.4	4.70	8.0	5.0	10	635557
100	4.4	4.70	8.0	5.0	10	635558

TORX is a registered trademark of Acument TM Intellectual Properties, LLC (USA). VESSEL has a manufacturing license in Japan and selling same to the world.

No. B44 Socket Bit

- Socket bit for Hex screws.

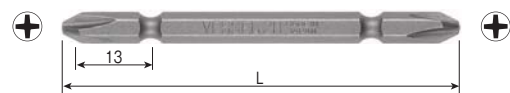


Size Tip×Overall Length (mm)	φD (mm)	Drilling holes depth (mm)	Inner Ctn.	Outer Ctn.	EDP No.
A/F 5.5× 70	9	25	10	250	422371
100	9	25	10	250	422381
6× 70	10	25	10	200	422372
100	10	25	10	200	422382
7× 70	11	25	10	200	422373
100	11	25	10	150	422383
8× 70	13	25	10	200	422374
100	13	25	10	150	422384
10×100	16	25	10	100	422385



No. B36 Double End Bit

- If one end breaks, the other end can be used.
- For assembly work focusing on workability.



Size Tip×Overall Length (mm)	Heat treatment classification	Inner Ctn.	Outer Ctn.	EDP No.
⊕ 1× 70	H	10	100	423031
100	X	10	100	423036
100	H	10	100	423032
⊕ 2× 70	H	10	100	423041
100	H	10	100	423042
150	H	10	100	423043
200	H	10	100	423044



No. B43 Double End Bit

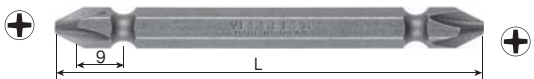
- If one end breaks, the other end can be used.
- For assembly work focusing on workability.



Size Tip×Overall Length (mm)	Heat treatment classification	Inner Ctn.	Outer Ctn.	EDP No.
⊕ 1× 75	H	10	100	425032
⊕ 2× 50	X	10	100	425036
50	H	10	100	425037
50	E	10	100	425038
75	X	10	100	425039
75	H	10	100	425040
75	G	10	100	425041
75	E	10	100	425042
100	X	10	100	425046
100	H	10	100	425047
100	G	10	100	425043
100	E	10	100	425044
150	X	10	100	425048
150	H	10	100	425049
150	G	10	100	425045
200	G	10	100	425050
300	H	10	100	446373
⊕ 3× 75	H	10	100	425054
75	E	10	100	425055
100	H	10	100	425057
100	E	10	100	425058
150	H	10	100	446375

No. M-B43 Double End Bit (Magnetized)

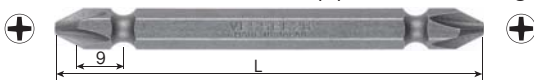
- If one end breaks, the other end can be used.
- For assembly work focusing on workability.



Size Tip×Overall Length (mm)	Heat treatment classification	Inner Ctn.	Outer Ctn.	EDP No.
⊕ 2× 75	H	10	100	446669
100	H	10	100	446672
150	H	10	100	446673

No. B43P Double End Bit (Power tip)

- If one end breaks, the other end can be used.
- Well balanced combination between tip precision and strength.



Size Tip×Overall Length (mm)	Heat treatment classification	Inner Ctn.	Outer Ctn.	EDP No.
⊕ 2× 75	H	10	100	425171
100	H	10	100	425172

No. B43H TAPPING Bit (High power tip)

- If one end breaks, the other end can be used.
- Reinforced tip for tapping work.



Size Tip×Overall Length (mm)	Heat treatment classification	Inner Ctn.	Outer Ctn.	EDP No.
⊕ 2× 75	H	10	100	425151
100	H	10	100	425153
150	H	10	100	425155

No. B43B TAPPING Bit (Black tip)

- If one end breaks, the other end can be used.
- Reinforced tip for tapping work.

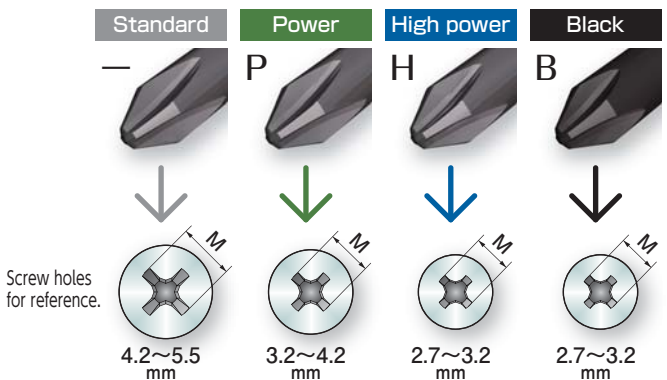
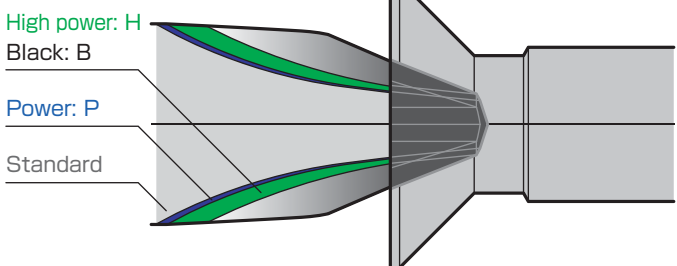


Size Tip×Overall Length (mm)	Heat treatment classification	Inner Ctn.	Outer Ctn.	EDP No.
⊕ 2× 50	S	10	100	425141
75	S	10	100	425142
100	S	10	100	425143
150	S	10	100	425144

One point

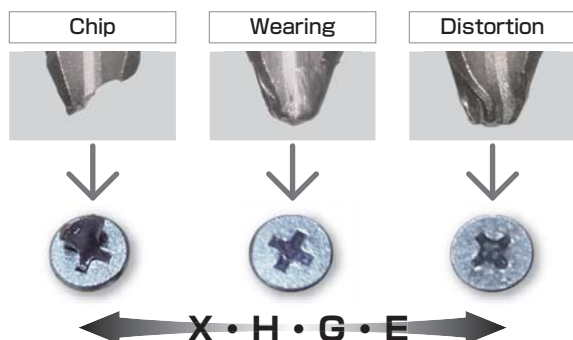
Bit selection I

- Selecting Phillips tip suitable for screw head hole



* M dimension : the size of a cross recess on a screw head viewed from directly above

- Selecting Phillips tip according to hardness classification



X · H · G · E

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

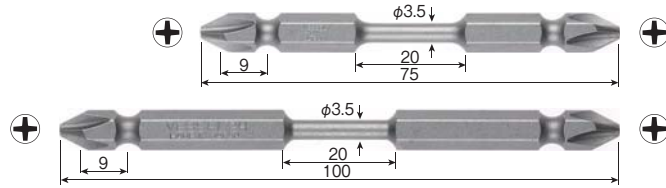
STATIC SOLUTIONS

GASOLINE ENGINE TOOLS



No. BT43 TORSION Bit

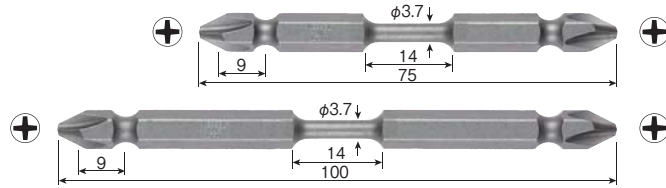
- If one end breaks, the other end can be used.
- For soft joint such as wood screws.



Size Tip×φ×Overall Length (mm)	Heat treatment classification	Inner Ctn.	Outer Ctn.	EDP No.
⊕ 2×3.5× 75	H	10	100	425161
100	H	10	100	425162

No. BT43P TORSION Bit (Power tip)

- If one end breaks, the other end can be used.
- For hard joint such as drill screws.

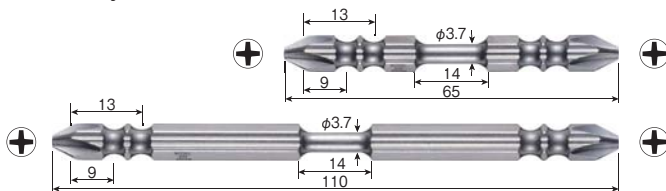


Size Tip×φ×Overall Length (mm)	Heat treatment classification	Inner Ctn.	Outer Ctn.	EDP No.
⊕ 2×3.7× 75	X	10	100	425201
100	X	10	100	425202



No. RS SUPER TORSION bit

- If one end breaks, the other end can be used.
- Compatible with both A and B type chucks.
- For hard joint such as drill screws.



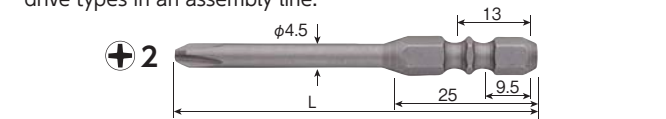
Model No.	Contents	Heat treatment classification	Package size (mm)	EDP No.
RS10P2065F	⊕2×φ3.7× 65 10pcs.	H	143×87×7	486948
RS10P2082F	⊕2×φ3.7× 82 10pcs.	H	143×87×7	486949
RS10P2110F	⊕2×φ3.7×110 10pcs.	H	162×87×7	486950

InnerCtn.: 10 sets



No. M-AB16 Recessed Bit (Magnetized)

- Compatible with both A and B type chucks.
- Useful when using multiple fastening tools with different drive types in an assembly line.

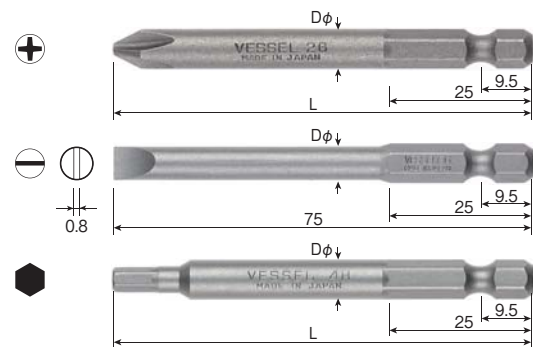


Size Tip×φ×Overall Length (mm)	Heat treatment classification	Inner Ctn.	Outer Ctn.	EDP No.
⊕ 2×4.5× 65	H	10	100	415301
100	H	10	100	415302
150	H	10	100	415303



No. B35 Bit

- For assembly work focusing on workability.
- International standards compatible A/F 6.35mm(1/4")

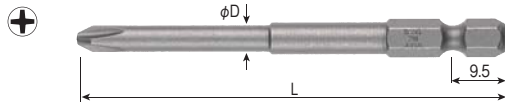


Size Tip×Overall Length	Heat treatment classification (mm)	φD	Inner Ctn.	Outer Ctn.	EDP No.
⊕ 1 × 50	H	7.0	10	100	424032
75	X	7.0	10	100	424034
75	H	7.0	10	100	424035
⊕ 1 × 4.5×100	H	4.5	10	100	424036
⊕ 2 × 50	X	7.0	10	100	424061
50	G	7.0	10	100	424040
75	X	7.0	10	100	424062
75	H	7.0	10	100	424047
75	G	7.0	10	100	424041
75	E	7.0	10	100	424042
100	H	7.0	10	100	424048
100	G	7.0	10	100	424043
100	E	7.0	10	100	424044
150	H	7.0	10	100	424049
150	G	7.0	10	100	424045
150	E	7.0	10	100	424046
⊕ 2 × 4.5×100	H	4.5	10	100	424038
⊕ 3 75	H	7.0	10	100	424050
75	E	7.0	10	100	424051
100	H	7.0	10	100	424052
100	E	7.0	10	100	424053
150	G	7.0	10	100	424054
⊖ 6 × 75	E	6.0	10	100	424075
⊖ 6.35×0.97× 49 (1524)	H	6.35	10	100	487245
⊖ 7.9 ×1.17× 49 (1526)	H	7.9	10	100	487255
H 2 × 75	H	7.0	10	100	424080
100	H	7.0	10	100	424081
H2.5 × 75	H	7.0	10	100	424082
100	H	7.0	10	100	424083
150	H	7.0	10	100	424093
H 3 × 75	H	7.0	10	100	424084
100	H	7.0	10	100	424085
150	H	7.0	10	100	424094
H 4 × 49 (21204)	H	4.6	10	100	487282
75	H	7.0	10	100	424086
100	H	7.0	10	100	424087
150	H	7.0	10	100	424095
H 5 × 49 (21205)	H	5.8	10	100	487283
75	G	7.0	10	100	424088
100	G	7.0	10	100	424089
150	G	7.0	10	100	424096
H 6 × 49 (21206)	H	—	10	100	487284
75	G	7.0	10	100	424090
100	G	7.0	10	100	424091
150	G	7.0	10	100	424097



No. B35 Bit

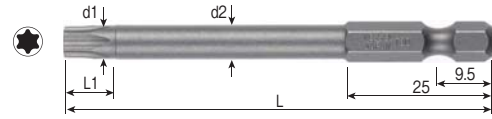
- For assembly work focusing on workability.
- International standards compatible A/F 6.35mm (1/4")



Size Tip×Overall Length	Heat treatment classification	φD	Inner Ctn.	Outer Ctn.	EDP No.
⊕00×1.2×20× 60	H	1.2	10	100	446126
1.58× 49 (10600)	H	1.58	10	100	446423
2×40×100	H	2.0	10	100	446141
⊕0 ×2×20× 60	H	2.0	10	100	446153
3.17× 49 (1060)	H	3.17	10	100	487195
⊕1 ×4.76× 89 (1081)	H	4.76	10	100	487202
⊕2 ×6×100 (4302/100)	H	6.0	10	100	489255
127 (4302/127)	H	6.0	10	100	446435
150 (4302/150)	H	6.0	10	100	489673
200 (4302/200)	H	6.0	10	100	446439
6.35× 49 (1062)	H	6.35	10	100	487205
70 (1072)	H	6.35	10	100	487206
89 (1082)	H	6.35	10	100	487207
152 (1092)	H	6.35	10	100	487208
⊕3 ×7.9× 49 (1063)	H	7.9	10	100	487210
89 (1083)	H	7.9	10	100	487212

No. J TORX Bit

- For TORX screws used in the automobile industry.

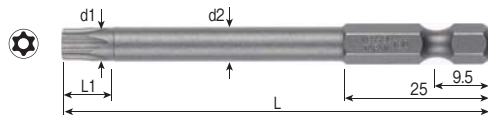


Size Tip×Overall Length	(mm)	d1	L1	d2	Inner Ctn.	EDP No.
T5 × 49 (T10605)	1.37	1.67	6.5	3.18	10	446486
89 (T10805)	1.37	1.67	6.5	3.18	10	447356
T6 × 75	1.65	1.95	6.5	4.0	10	635300
100	1.65	1.95	6.5	4.0	10	635301
152 (T10906)	1.65	1.95	6.5	3.18	10	447317
T7 × 75	1.97	2.27	6.5	4.0	10	635303
90 (T10807)	1.97	2.27	6.5	3.18	10	446509
152 (T10907)	1.97	2.27	6.5	3.18	10	446519
T8 × 70 (T10708)	2.3	2.6	7.0	3.18	10	446500
75	2.3	2.6	7.0	4.5	10	635305
100	2.3	2.6	7.0	4.5	10	635306
T9 × 70 (T10709)	2.5	2.78	7.0	3.18	10	446501
152 (T10909)	2.5	2.78	7.0	3.18	10	446521
T10× 49 (T10610)	2.72	3.02	7.5	3.96	10	446491
70 (T10710)	2.72	3.02	7.5	3.96	10	446502
75	2.72	3.02	7.5	4.5	10	635310
100	2.72	3.02	7.5	4.5	10	635311
152 (T10910)	2.72	3.02	7.5	3.96	10	446522
T15× 49 (T10615)	3.26	3.56	7.5	3.96	10	446492
70 (T10715)	3.26	3.56	7.5	3.96	10	446503
75	3.26	3.56	7.5	4.5	10	635315
100	3.26	3.56	7.5	4.5	10	635316
T20× 49 (T10620)	3.84	4.14	7.5	4.37	10	446493
70 (T10720)	3.84	4.14	7.5	4.37	10	446504
75	3.84	4.14	7.5	5.0	10	635320
100	3.84	4.14	7.5	5.0	10	635321
152 (T10920)	3.84	4.14	7.5	4.37	10	446524
T25× 70 (T10725)	4.4	4.7	8.0	4.75	10	446505
75	4.4	4.7	8.0	5.0	10	635325
100	4.4	4.7	8.0	5.0	10	635326
T27× 75	4.96	5.26	8.0	5.5	10	635330
100	4.96	5.26	8.0	5.5	10	635331
152 (T10927)	4.96	5.26	8.0	6.35	10	446526
T30× 70 (T10730)	5.49	5.79	8.5	6.35	10	446507
75	5.49	5.79	8.5	6.0	10	635335
90 (T10830)	5.49	5.79	8.5	6.35	10	446517
100	5.49	5.79	8.5	6.0	10	635336
152 (T10930)	5.49	5.79	8.5	6.35	10	446527
T40× 49 (T10640)	6.6	—	—	7.0	10	446497
70 (T10740)	6.6	—	—	7.0	10	446508
75	6.6	—	—	7.0	10	635340
90 (T10840)	6.6	—	—	7.0	10	446518
100	6.6	—	—	7.0	10	635341
152 (T10940)	6.6	—	—	7.0	10	446528
T45× 75	7.77	—	—	8.0	10	635345
100	7.77	—	—	8.0	10	635346

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No. J TORX Bit (Tamper-Proof)

- For TORX screws used in the automobile industry.
- With a round hole for tamper-proof.



Size Tip×Overall Length	(mm)	d1	L1	d2	Inner Ctn.	EDP No.
T6H × 75	1.65	1.95	6.5	4.0	10	635283
100	1.65	1.95	6.5	4.0	10	635284
T8H × 75	2.3	2.60	7.0	4.5	10	635285
100	2.3	2.60	7.0	4.5	10	635286
T10H× 49 (T10610H)	2.72	3.02	7.5	3.96	10	446533
70 (T10710H)	2.72	3.02	7.5	3.96	10	446544
75	2.72	3.02	7.5	4.5	10	635251
100	2.72	3.02	7.5	4.5	10	635252
T15H× 75	3.26	3.56	7.5	4.5	10	635255
100	3.26	3.56	7.5	4.5	10	635256
T20H× 49 (T10620H)	3.84	4.14	7.5	4.37	10	446535
70 (T10720H)	3.84	4.14	7.5	4.37	10	446546
75	3.84	4.14	7.5	5.0	10	635261
100	3.84	4.14	7.5	5.0	10	635262
T25H× 75	4.4	4.70	8.0	5.0	10	635265
100	4.4	4.70	8.0	5.0	10	635266
T27H× 75	4.96	5.26	8.0	5.5	10	635271
100	4.96	5.26	8.0	5.5	10	635272
T30H× 75	5.49	5.79	8.5	6.0	10	635275
100	5.49	5.79	8.5	6.0	10	635276
T40H× 75	6.6	—	—	7.0	10	635281
100	6.6	—	—	7.0	10	635282

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HAND TOOLS

BITS & SOCKETS


ELECTRIC TOOLS

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STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

No. IP TORX Plus Bit

●For TORX Plus screws used for various assembly lines.  



Model code	Size Tip	mm	Overall Length (mm)	Inner Ctn.	Outer Ctn.	EDP No.
IP10906	6IP	1.64	152	10		447251
IP10907	7IP	1.99	152	10		447252
IP10908	8IP	2.31	152	10		447253
IP10709	9IP	2.5	70	10		447236
IP10809	9IP	2.5	90	10		447243
IP10909	9IP	2.5	152	10		447226
IP10910	10IP	2.74	152	10		447254
IP10615	15IP	3.27	49	10		447230
IP10715	15IP	3.27	70	10		447237
IP10815	15IP	3.27	90	10		447245
IP10915	15IP	3.27	152	10		447255
IP10620	20IP	3.86	49	10		447231
IP10720	20IP	3.86	70	10		447238
IP10820	20IP	3.86	90	10		447246
IP10920	20IP	3.86	152	10		447256
IP10625	25IP	4.43	49	10		447232
IP10725	25IP	4.43	70	10		447239
IP10825	25IP	4.43	90	10		447247
IP10630	30IP	5.52	49	10		447234
IP10730	30IP	5.52	70	10		447241
IP10830	30IP	5.52	90	10		447249
IP10640	40IP	6.65	49	10		447235
IP10740	40IP	6.65	70	10		447242
IP10840	40IP	6.65	90	10		447250

No. B35 SUPADRIV Bit

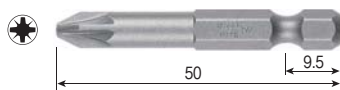
●For SUPADRIV screws. ●Special tip shape prevents cam-out. 



Size Tip×Overall Length (mm)	Heat treatment classification	Inner Ctn.	Outer Ctn.	EDP No.
SDV1× 75	H	10	100	636121
SDV2× 75	H	10	100	636122
100	H	10	100	636123
SDV3× 75	H	10	100	636130

No. B35 POZIDRIV Bit

●For POZIDRIV screws. ●Special tip shape prevents cam-out. 



Size Tip×Overall Length (mm)	Heat treatment classification	Inner Ctn.	Outer Ctn.	EDP No.
PZ1×4.8×50	H	10	100	424101
PZ2×6.3×50	H	10	100	424102
PZ3×8.0×50	H	10	100	424103

No. B39 Bit

●For assembly work focusing on workability. 



Size Tip×Overall Length (mm)	Heat treatment classification	Inner Ctn.	Outer Ctn.	EDP No.
⊕1× 23	H	10	100	424131
⊕2× 23	H	10	100	424141
40	H	10	100	424143
100	H	10	100	424147

No. B39 3-Flute Fastening Bit

●For fastening screws used in aircraft, special vehicles, etc. 



Size Tip×Overall Length (mm)	Heat treatment classification	Inner Ctn.	Outer Ctn.	EDP No.
TW1×40	H	10	100	424201
TW2×40	H	10	100	424202
TW3×40	H	10	100	424203
TW4×40	H	10	100	424204
TW5×40	H	10	100	424205

No. X5000 Adapters

●Hex socket adaptors.

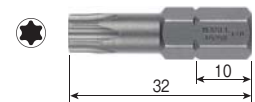


Model code	SQ	Overall Length (mm)	Inner Ctn.	EDP No.
X5003	1/4"	76	10	487382
X5004	1/4"	102	10	487383
X5005	1/4"	152	10	487384
X5012	3/8"	43	10	487391
X5013	3/8"	76	10	487392
X5014	3/8"	102	10	487393
X5015	3/8"	152	10	487394



No. A5 TORX Bit

●For TORX screws used in the automobile industry. 



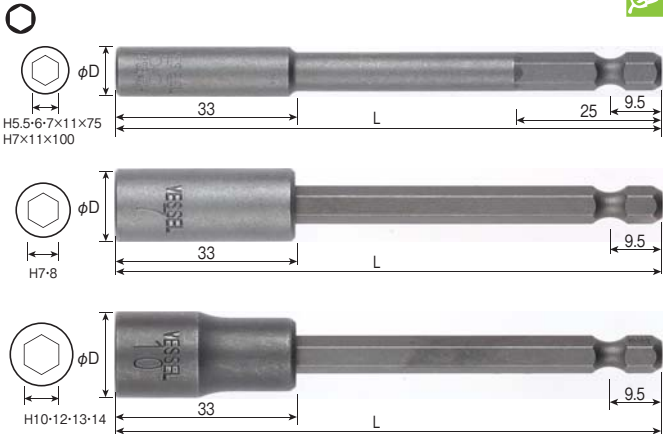
Size Tip	mm	Overall Length (mm)	Inner Ctn.	EDP No.
T30	5.49	32	10	635427
T40	6.6	32	10	635428
T45	7.77	32	10	635429
T50	8.79	32	10	635430

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No. B45 Socket Bit

● Socket bit for Hex screws.

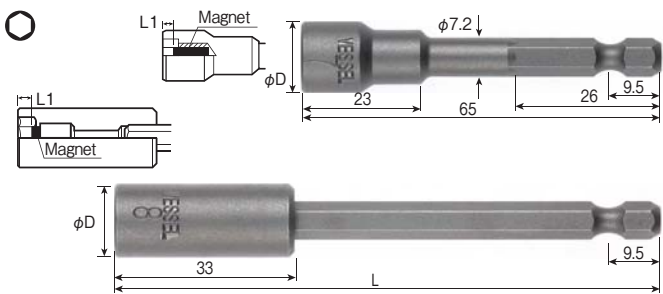


Size Tip×Overall Length (mm)	φD	Drilling holes depth (mm)	Inner Ctn. (mm)	Outer Ctn.	EDP No.
A/F 5.5× 75	9	25	10	250	424281
100	9	25	10	250	424380
6×100	10	25	10	200	424381
7×11× 75	11	25	10	200	424279
100	11	25	10	150	424280
7× 75 ☆	13.5	22	10	200	424283
100 ☆	13.5	22	10	150	424382
8× 75 ☆	13.5	22	10	200	424284
100 ☆	13.5	22	10	100	424383
150 ☆	13.5	22	10	100	424483
10× 75 ☆	16	22	10	150	424286
100 ☆	16	22	10	100	424384
150 ☆	16	22	10	100	424484
12×100 ☆	18	22	10	100	424385
13× 75 ☆	19	22	10	100	424288
100 ☆	19	22	10	100	424386
14×100 ☆	20	22	10	100	424387

☆...Adopts a patented axial press-fit shank technique

No. MB45 Socket Bit (Press-Fit Magnet)

● Socket bit for Hex screws.
● Holds the screw with a strong magnet, to prevent the screws from dropping.

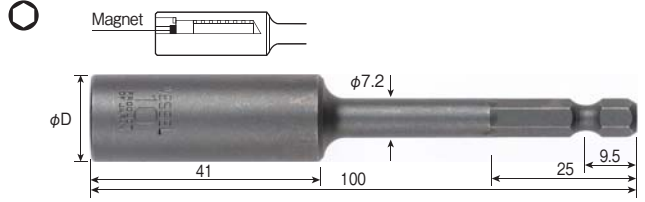


Size Tip×Overall Length (mm)	φD	L1	Inner Ctn. (mm)	Outer Ctn.	EDP No.
A/F 7× 65	13	2.5	10	200	482520
A/F 8× 65 ☆	13.5	3.17	10	150	482521
75 ☆	13.5	3.17	10	100	482523
100 ☆	13.5	3.17	10	100	482524
A/F 9.6× 65 ☆	15	3.96	10	150	482522
A/F 10× 75 ☆	16	3.96	10	100	482525
100 ☆	16	3.96	10	100	482526

☆...Adopts a patented axial press-fit shank technique

No. MB45D Socket Bit (Sliding Magnet)

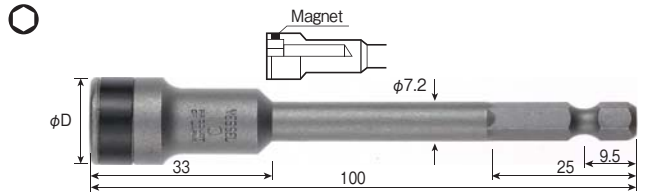
● Socket bit for Hex screw.
● Holds the screw with sliding magnet, to prevent the screws from dropping.



Size Tip×Overall Length (mm)	φD	Drilling holes depth (mm)	Inner Ctn. (mm)	Outer Ctn.	EDP No.
A/F 8×100	13	36	10	100	482516
A/F 10×100	16	36	10	100	482517

No. MB45S Socket Bit (Side Magnet)

● Socket bit for Hex screw.
● Holds the screw with side magnet, to prevent the screws from dropping.

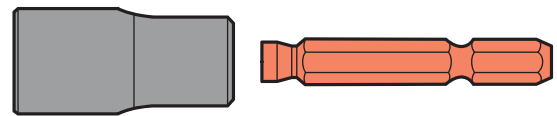


Size Tip×Overall Length (mm)	φD	Drilling holes depth (mm)	Inner Ctn. (mm)	Outer Ctn.	EDP No.
A/F 8×100	13	25	10	100	482406
A/F 10×100	16	25	10	100	482407

One point

Features of press-fit type sockets

(Press-fit type: marked with a star symbol in the table of each model)



MEDIUM HARDNESS
Improves durability of socket

HIGH HARDNESS
Strong resistance to shank breakage



The shank and socket have been heat-treated to the best hardness and press-fit together. The socket part is strong against wear and shank against twisting, resulting in higher durability.

Prevents shank breakage

Torsion moment with a static torque



HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

No. DS73

Shockless Bit



High Precision Bit Tips

Bits with 4mm and 5mm shafts for use with a wide variety of small, electric drivers.

Our strong, durable bits undergo actual work tests, damage tests, and repeated fatigue tests before delivery to the market.

In our quest for ever-greater reliability, we employ torque analysis and screw-engagement checks that result in ultra high precision bit tips.



No. DS73

Shockless Bit

Combination of special alloy steel + zinc die cast.

Less variation in inrush torque at seating, therefore tightening becomes consistent.

Moreover, the tip durability is improved significantly.

HAND TOOLS

BITS & SOCKETS





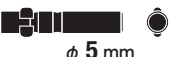
ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

Applicable models Please check the model No. of your drivers before determining which bit(s) to choose.

Shape	Model NO.	Page	Applicable models
			 Electric S/D (Precision type)
 H 5 mm	B34	78P	VESSEL VE-4000·4000P·4500·4500P Hios PG-7000 BLG-5000BC1/-15/-20/-HT BLG-5000/-15/-20/HT BL-5000/-15/-20·5020·7000/-20 CL-4000·6000·6500·7000 SS-4000·6500·7000 α-4500·5000·6500 CD-4000·5000·6000·7000 VB-1510/-18·1820·3012·2008·3020 VZ-1510·1812·1820·3012·3007 Delvo DLV ○○○○-EJN/-DJN/-DJE DLV 7(8)120-SPC·7(8)130-SPC·7(8)140-SPC·7(8)241-SPC·7(8)231-SPC DLV 30LL(P)-SPC·30SL(P)-SPC·30HL(P)-SPC Hitachi Koki WT 3G/3GP·4G/4GP·5G/5GP Kanon 3K-120L·180L·180LF·120P·180P·180PF, 9K-130P·140P·130PF·131L·131LF·131P·131PF, 5KD-200·300 Panasonic FE-A310S·A310MH·A310L·A111L·A111MH·A111M·A710AXN·A710MHN
	N		
	B44		
 φ 4 mm	D71	76P	Delvo DLV ○○○○-BMN/-CMN/-EMN/-SB DLV 5820·5820H·5840 DLV 7410A-SPC·7410HA-SPC·7420A-SPC·7321-SPC·7331-SPC·7020-SPC·7030-SPC·7031-SPC·8020-SPC·8030-SPC·8031-SPC
D72			
 φ 4 mm	DS73	75P	VESSEL VE-1500·1500EPA·2000·2000EPA·3000 Hios PG-3000·5000 BLG-4000BC1·5000BC1/-15/-20 BLG-4000·5000/-15/-20 BL-2000·3000·5000/-15/-20 CL-2000·3000·4000 SS-2000·3000·4000 α-4500·5000 CD-4000·5000 VB-1510/-18 VZ-1510 Kanon 3K-110L·110P 2KD-100·200·300
	D73	76P 77P	
 φ 5 mm	D76	77P	Hios CL-6000·6500·7000 SS-6500·7000 α-6500 CD-6000·7000

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

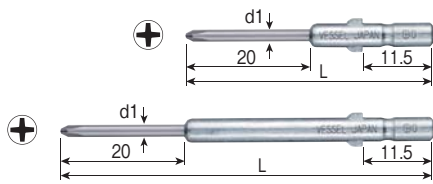
GASOLINE ENGINE TOOLS

φ 4 mm

No. DS73 Shockless Bit

PAT.

- Combination of special alloy steel and zinc die cast; Stable fastening torque and improved durability.
- Bit tip high-precision-machined to thread standards.

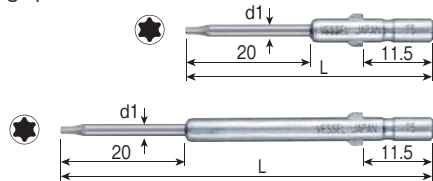


Size Tip×φ×Overall Length(mm)	d1	Inner Ctn. (mm)	Outer Ctn.	EDP No.
⊕00×1.5×40	1.5	10	100	483801
60	1.5	10	100	483802
⊕0 ×1.5×40	1.5	10	100	483809
60	1.5	10	100	483810
⊕0 ×1.7×40	1.7	10	100	483811
60	1.7	10	100	483812
⊕0 ×2.0×40	2.0	10	100	483813
60	2.0	10	100	483814

No. DS73 Shockless Bit

PAT.

- Combination of special alloy steel and zinc die cast; Stable fastening torque and improved durability.
- Bit tip high-precision-machined to thread standards.



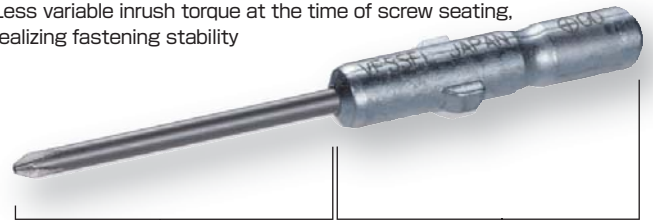
Size Tip×φ×Overall Length(mm)	mm	d1	Inner Ctn. (mm)	Outer Ctn.	EDP No.
T5 ×2.0× 40	1.37	2.0	10	100	483901
60	1.37	2.0	10	100	483902
T6 ×2.0× 40	1.65	2.0	10	100	483903
60	1.65	2.0	10	100	483904

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One point

Advantage of Shockless Bit

Shockless Bit have cushioning characteristics to absorb the impact occurred when a screw is fully seated. Less variable inrush torque at the time of screw seating, realizing fastening stability

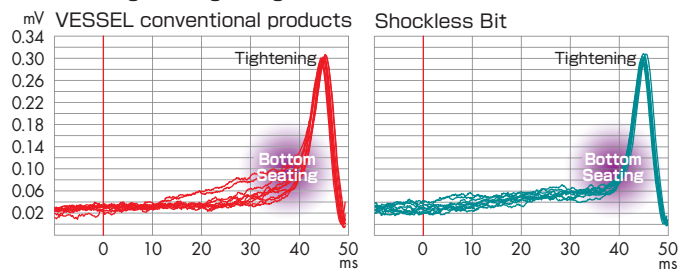


●Stable tightening torque

The combination of alloy steel and zinc creates a shockless effect and stabilizes the tightening torque.

[Measurement of tightening waveform]

The load during screw tightening is indicated as a waveform



●Break-resistant with improved durability

The shockless effect of the alloy steel and zinc combination greatly improves the durability of the tool tip.

[Driving durability test]

Number of tools which do not break when continuously screwed in by a screw tightening robot.

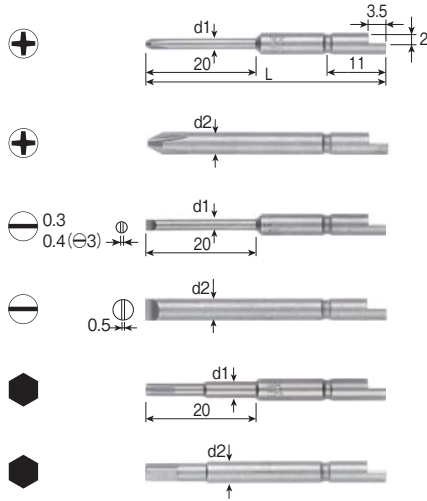


Cushion effect of combination of several materials enables the impact on the tip-end to be absorbed and makes the bit durable. This also leads to less damage on screw or workpieces as Shockless Bit is not merely hard but cushiony.

● ϕ 4 mm

No. D71 Bit

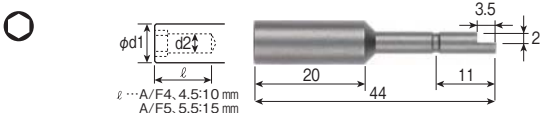
- With crescentic shank shape in cross section; for fastening precision small screws.
- Bit tip high-precision-machined to thread standards.



Size Tip×Overall Length (mm)	d1	d2	Inner (mm)	Outer Ctn.	EDP No.
⊕ 00×1.5×44	1.5	—	10	100	482901
64	1.5	—	10	100	482902
⊕ 0 ×2 ×44	2.0	—	10	100	482911
64	2.0	—	10	100	482912
⊕ 0 ×2.5×44	2.5	—	10	100	482913
64	2.5	—	10	100	482914
⊕ 1 ×3 ×44	3.0	—	10	100	482921
64	3.0	—	10	100	482922
⊕ 1 ×4 ×44	—	4.0	10	100	482923
64	—	4.0	10	100	482924
⊕ 2 ×4 ×44	—	4.0	10	100	482931
64	—	4.0	10	100	482932
⊖ 2 ×0.3×44	2.0	—	10	200	482941
⊖ 2.5×0.3×44	2.5	—	10	200	482942
⊖ 3 ×0.4×44	3.0	—	10	200	482943
⊖ 4 ×0.5×44	—	4.0	10	200	482944
H 1.5×2 ×44	2.0	—	10	200	482951
H 2 ×3 ×44	3.0	—	10	200	482952
H 2.5×3 ×44	3.0	—	10	200	482953
H 3 ×4 ×44	—	4.0	10	200	482954

No. D72 Socket Bit

- With crescentic shank shape in cross section; for fastening precision small screws.
- Bit tip high-precision-machined to thread standards.

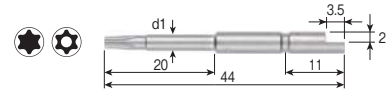


Size Tip×Overall Length (mm)	d1	d2	Inner (mm)	Outer Ctn.	EDP No.
A/F 4 × 44	7	3	10	100	482961
A/F 4.5× 44	7	3	10	100	482962
A/F 5 × 44	8	4	10	100	482963
A/F 5.5× 44	8	4	10	100	482964

● ϕ 4 mm

No. D71 TORX Bit

- With crescentic shank shape in cross section; for fastening small screws for such as computers, HDDs.
- Bit tip high-precision-machined to thread standards.



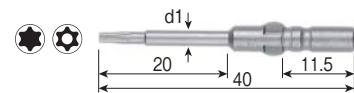
Size Tip×Overall Length (mm)	mm	d1 (mm)	Inner Ctn.	Outer Ctn.	EDP No.
T1 × 44	0.84	1.5	10	100	635601
T2 × 44	0.94	1.5	10	100	635602
T3 × 44	1.12	1.7	10	100	635603
T4 × 44	1.3	1.8	10	100	635604
T5 × 44	1.37	2.0	10	100	635605
T6 × 44	1.65	2.5	10	100	635606
T7 × 44	1.97	2.5	10	100	635607
T8 × 44	2.3	3.0	10	100	635608
T8H × 44 (ETX254)	2.3	4	10	200	446323
T9 × 44	2.48	3.0	10	100	635609
T10 × 44	2.72	3.0	10	100	635610
T15H × 44 (ETX259)	3.26	4	10	200	446328

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● ϕ 4 mm

No. D73 TORX Bit

- For fastening small screws for HDDs, etc.
- Bit tip high-precision-machined to thread standards.



Size Tip×Overall Length (mm)	mm	d1 (mm)	Inner Ctn.	Outer Ctn.	EDP No.
T1 × 40	0.84	1.5	10	100	635621
T2 × 40	0.94	1.5	10	100	635622
T3 × 40	1.12	1.7	10	100	635623
T4 × 40	1.3	1.8	10	100	635624
T5 × 40	1.37	2.0	10	100	635625
T5 × 2×20×40	1.37	2.0	10	100	446107
60	1.37	2.0	10	100	446108
60	1.37	2.0	10	100	635695
T6 × 40	1.65	2.5	10	100	635626
T6 × 2×20×40	1.65	2.0	10	100	446109
60	1.65	2.0	10	100	446110
60	1.65	2.0	10	100	635696
T7 × 40	1.97	2.5	10	100	635627
T7 × 2×20×60	1.97	2.0	10	100	446113
T8 × 40	2.3	3.0	10	100	635628
T9 × 40	2.48	3.0	10	100	635629
T10× 40	2.72	3.0	10	100	635630
T10H × 4× 60	2.72	4.0	10	100	446119

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※Japanese specifications.

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

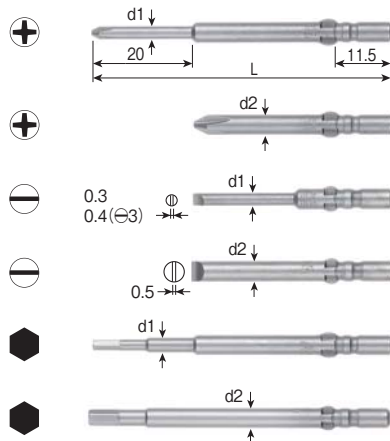
STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

φ 4 mm

No. D73 Bit

- For fastening precision small screws.
- Bit tip high-precision-machined to thread standards.



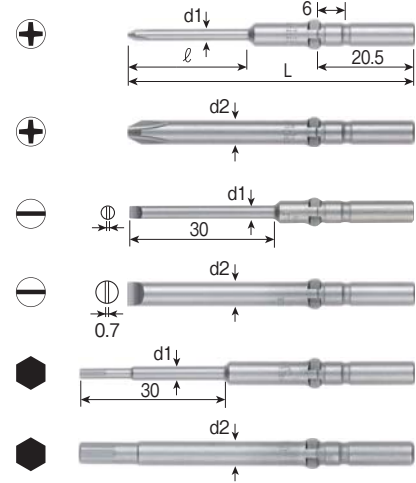
Size Tip×Overall Length (mm)	d1	d2	(mm)	Inner Ctn.	Outer Ctn.	EDP No.
⊕ 00 ×1.2×20×40	1.2	—	10	100	446001	
⊕ 00 ×1.5 ×40	1.5	—	10	100	445981	
40※	1.5	—	10	100	483001	
60	1.5	—	10	100	445982	
60※	1.5	—	10	100	483002	
⊕ 00 ×1.7×20×40	1.7	—	10	100	446004	
⊕ 00 ×2 ×40	2.0	—	10	100	445983	
40※	2.0	—	10	100	483005	
60	—	—	10	100	445984	
60※	2.0	—	10	100	483006	
⊕ 0 ×1.4×20×40	1.4	—	10	100	446016	
60	1.4	—	10	100	446017	
⊕ 0 ×1.5×20×40	1.5	—	10	100	446022	
⊕ 0 ×1.7 ×40	1.7	—	10	100	483010	
60	1.7	—	10	100	483011	
⊕ 0 ×2.0×20×40	2.0	—	10	100	446025	
60	2.0	—	10	100	446026	
80	2.0	—	10	100	446027	
100	2.0	—	10	100	446028	
⊕ 0 ×2.0×30×60	2.0	—	10	100	446029	
⊕ 0 ×2.5 ×40	2.5	—	10	100	483015	
60	2.5	—	10	100	483016	
⊕ 0 ×2.5×20×80	2.5	—	10	100	446033	
100	2.5	—	10	100	446034	
⊕ 1 ×2.5×20×40	2.5	—	10	100	446048	
⊕ 1 ×3 ×40	3.0	—	10	100	483021	
⊕ 1 ×3 ×20×60	3.0	—	10	100	446053	
80	3.0	—	10	100	446054	
100	3.0	—	10	100	446055	
120	3.0	—	10	100	483376	
⊕ 1 ×4 ×40	—	4.0	10	100	483025	
60	—	4.0	10	100	446059	
⊕ 2 ×4 ×40	—	4.0	10	100	483031	
60	—	4.0	10	100	446070	
80	—	4.0	10	100	446071	
100	—	4.0	10	100	446072	
120	—	4.0	10	100	446073	
⊖ 2 ×0.3 ×40	2.0	—	10	100	483041	
⊖ 2.5×0.3 ×40	2.5	—	10	100	483042	
⊖ 3 ×0.4 ×40	3.0	—	10	100	483043	
⊖ 4 ×0.5 ×40	—	4.0	10	100	483044	
H 1.5×2 ×60	2.0	—	10	100	483051	
H 2 ×3 ×60	3.0	—	10	100	483052	
H 2.5×3 ×60	3.0	—	10	100	483053	
H 3 ×4 ×60	—	4.0	10	100	483054	

※Japanese specifications.

φ 5 mm

No. D76 Bit

- For fastening various small screws and tapping screws for sheet metals.
- Bit tip high-precision-machined to thread standards.



Size Tip×Overall Length (mm)	ℓ	d1	d2	(mm)	Inner Ctn.	Outer Ctn.	EDP No.
⊕ 00×2 ×60	20	2.0	—	10	100	446241	
60※	20	2.0	—	10	100	483105	
⊕ 0 ×2.5 ×60	25	2.5	—	10	100	483115	
⊕ 1 ×3 ×60	30	3.0	—	10	100	483121	
⊕ 1×3×30×80	30	3.0	—	10	100	446267	
⊕ 1 ×5 ×60	—	—	5.0	10	100	483125	
⊕ 2 ×5 ×60	—	—	5.0	10	100	483131	
80	—	—	5.0	10	100	446279	
100	—	—	5.0	10	100	446280	
120	—	—	5.0	10	100	446281	
150	—	—	5.0	10	100	446282	
⊖ 3 ×0.4 ×60	—	3.0	—	10	100	483141	
⊖ 4 ×0.6 ×60	—	4.0	—	10	100	483142	
⊖ 5 ×0.7 ×60	—	—	5.0	10	100	483143	
H 2 ×3 ×70	—	3.0	—	10	100	483151	
H 2.5×3 ×70	—	3.0	—	10	100	483152	
H 3 ×4 ×70	—	4.0	—	10	100	483153	
H 4 ×5 ×70	—	—	5.0	10	100	483154	

※Japanese specifications.

No. D76 TORX Bit

- For fastening small screws for HDDs, etc.
- Bit tip high-precision-machined to thread standards.



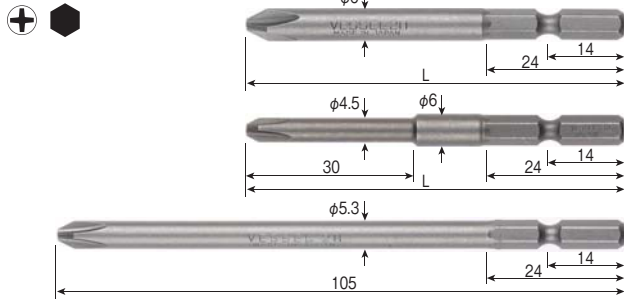
Size Tip×Overall Length (mm)	mm	d1	(mm)	Inner Ctn.	Outer Ctn.	EDP No.
T5 × 60	1.37	2.0	10	100	635651	
T6 × 60	1.65	2.5	10	100	635652	
T7 × 60	▲ 1.97	2.5	10	100	635653	
T8 × 60	2.3	3.0	10	100	635654	
T9 × 60	2.48	3.0	10	100	635655	
T10× 60	2.72	3.0	10	100	635656	
T15× 60	3.26	4.0	10	100	635657	
T20× 60	3.84	—	10	100	635658	
T25× 60	4.4	—	10	100	635659	

▲For the date of delivery, consult Vessel.
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No. B34 Bit

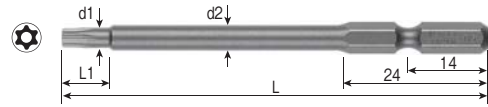
- For fastening various small screws and tapping screws for sheet metals.
- Bit tip high-precision-machined to thread standards.



Size Tip×Overall Length (mm)	Heat treatment classification	Inner Ctn.	Outer Ctn.	EDP No.
⊕1 × 70	H	10	100	422031
100	H	10	100	422032
150	H	10	100	422033
⊕1 × 4 × 70	H	10	100	422048
⊕1 × 5.3 × 105	H	10	100	422034
120	X	10	100	422040
120	H	10	100	422035
⊕2 × 70	H	10	100	422041
100	H	10	100	422042
120	H	10	100	422045
150	H	10	100	422043
200	H	10	100	422044
⊕2 × 3 × 30 × 75	H	10	100	446340
⊕2 × 4.5 × 70	H	10	100	422049
⊕2 × 5.3 × 105	H	10	100	422046
120	H	10	100	422047
H 2 × 70	H	10	100	422071
H 2.5 × 70	H	10	100	422072
H 3 × 70	H	10	100	422073
H 4 × 70	H	10	100	422074
H 5 × 70	H	10	100	422075

No. N TORX Bit (Tamper-Proof)

- For fastening small screws for HDDs, etc.
- Bit tip high-precision-machined to thread standards.
- With a round hole for tamper-proof.

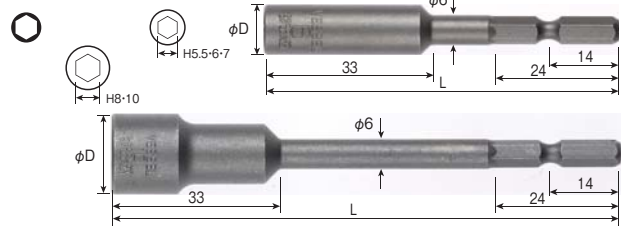


Size Tip×Overall Length (mm)	d1	L1	d2	Inner Ctn.	EDP No.	
T10H × 75	2.72	3.02	7.5	4.5	10	635551
100	2.72	3.02	7.5	4.5	10	635552
T15H × 75	3.26	3.56	7.5	4.5	10	635553
100	3.26	3.56	7.5	4.5	10	635554
T20H × 75	3.84	4.14	7.5	5.0	10	635555
100	3.84	4.14	7.5	5.0	10	635556
T25H × 75	4.4	4.70	8.0	5.0	10	635557
100	4.4	4.70	8.0	5.0	10	635558

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No. B44 Socket bit

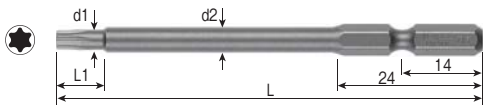
- For fastening screws for electric appliances and hex head tapping screws.



Size Tip×Overall Length (mm)	φD	Drilling holes depth	Inner Ctn.	Outer Ctn.	EDP No.
A/F 5.5 × 70	9	25	10	250	422371
100	9	25	10	250	422381
6 × 70	10	25	10	200	422372
100	10	25	10	200	422382
7 × 70	11	25	10	200	422373
100	11	25	10	150	422383
8 × 70	13	25	10	200	422374
100	13	25	10	150	422384
10 × 100	16	25	10	100	422385

No. N TORX Bit

- For fastening small screws for HDDs, etc.
- Bit tip high-precision-machined to thread standards.



Size Tip×Overall Length (mm)	d1	L1	d2	Inner Ctn.	EDP No.	
T5 × 75	1.37	1.67	6.5	4.0	10	635498
100 ▲	1.37	1.67	6.5	4.0	10	635499
T6 × 75	1.65	1.95	6.5	4.0	10	635500
100	1.65	1.95	6.5	4.0	10	635501
T8 × 75	2.3	2.60	7.0	4.5	10	635505
100	2.3	2.60	7.0	4.5	10	635506
T10 × 75	2.72	3.02	7.5	4.5	10	635510
100	2.72	3.02	7.5	4.5	10	635511
T15 × 75	3.26	3.56	7.5	4.5	10	635515
100	3.26	3.56	7.5	4.5	10	635516
T20 × 75	3.84	4.14	7.5	5.0	10	635520
100	3.84	4.14	7.5	5.0	10	635521
T25 × 75	4.4	4.70	8.0	5.0	10	635525
100	4.4	4.70	8.0	5.0	10	635526
T27 × 75	4.96	5.26	8.0	5.5	10	635530
100	4.96	5.26	8.0	5.5	10	635531

▲For the date of delivery, consult Vessel.

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HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

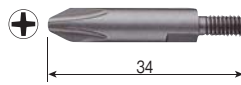
STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

M4/M5/M6

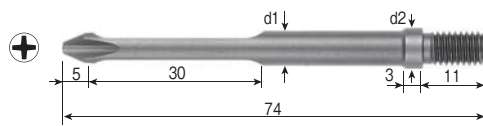
Other bits for screw fastening robots than the following can be custom-made. Please contact VESSEL with detailed information, listed in the right "One point" column.

No. 3491/34,3492/34 Screw Shank Driver Bit



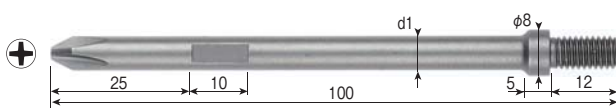
Model No.	Size Tip×Overall Length (mm)	M	Inner Ctn.	Outer Ctn.	EDP No.
3491/34	⌀1×34-M4	M4	10	100	489656
3492/34	⌀2×34-M4	M4	10	100	489657

No. D61 Bits for screw fastening robots (Semi-standardized items)



Size Tip×Overall Length (mm)	d1	d2	(mm)	Inner Ctn.	Outer Ctn.	EDP No.
⌀2×74-M5 P0.8	5.0	6.0		10	100	483301
⌀2×74-M6 P1.0	6.0	7.0		10	100	483302

No. D62 Bits for screw fastening robots (Semi-standardized items)



Size Tip×Overall Length (mm)	d1	d2	(mm)	Inner Ctn.	Outer Ctn.	EDP No.
⌀2×100-M6 P1.0	6.0	—		10	100	483303

One point

Custom-Made Bits

If you cannot find an appropriate bit among our standard line-up, VESSEL can also produce specially designed bits for your application.



Bits for automated assembly lines

High-precision processing is required for bits to be installed in automatic assembly machines, which operate in micro-level accuracy. VESSEL has technology and know-how for such precision bits as one of the biggest bit manufacturers in the world.

Order-made bit database

All the previous orders are recorded and organized by computer system.



Laser marking

Necessary information can be directly laser-marked on bits, which brings further efficiency to your inventory management.



Innovative material and surface treatment

We choose most suitable materials and surface treatment methods for each different application, for example, high-endurance bits made of corrosion-resistant stainless steel and high-speed steel, etc.

●How to request for customized bits for automated machinery

Type of screw drive

Type and size of screw drive

Hardness	To be specified/ To be based on VESSEL standards	Sample screw	Available/ Not available
Tolerance	To be specified/ To be based on VESSEL standards	Official drawing	Available/ Not available
Surface treatment	Black oxide finish Shot blasting	Quantity	

●Outline for made-to-order bit

Arrangement We receive a minimum order of 10 pieces including test samples. Since the more the number of bits ordered, the less the unit cost becomes, we recommend you to make a bulk purchase for production.

Delivery deadline Normally, we ship products within 21 work days after receiving your order. Regarding bits for Torx and automatic machine (screw thread cutting), we try to ship products within 25 work days after receiving your order.

*For some types of bits, more time may be needed to machine specific dies and jigs.
*For delivery deadline, we will inform you each time.



No. HA Bit Holder

● Holds a bit with C-pin. ● Cutting chips do not attach to the bit.

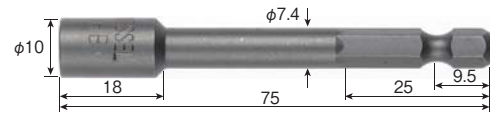


Size Tip×Overall Length (mm)	Inner Ctn.	Outer Ctn.	EDP No.
A/F 6.3× 75	10	100	482410



No. HB Bit Holder

● Holds a bit with C-pin. ● Cutting chips do not attach to the bit.



Size Tip×Overall Length (mm)	Inner Ctn.	Outer Ctn.	EDP No.
A/F 6.3× 75	10	100	482420

No. HAM Bit Holder

● Holds the bit with a strong magnetic force.



Size Tip×Overall Length (mm)	Inner Ctn.	Outer Ctn.	EDP No.
A/F 6.3× 75	10	100	482415

No. HBM Bit Holder

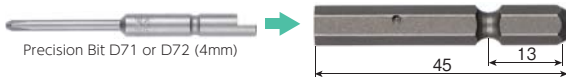
● Holds the bit with a strong magnetic force.



Size Tip×Overall Length (mm)	Inner Ctn.	Outer Ctn.	EDP No.
A/F 6.3× 75	10	100	482425

No. HD-71×45 Bit Holder

● By attaching a crescentic shank shape precision bit, it can be used with compact electric screwdrivers.



Size Overall Length (mm)	Inner Ctn.	Outer Ctn.	EDP No.
45	10	100	482429

※Bit is not included.

No. DBHM Double Bit Holder

● Popular bit holders.



Model No.	D	L	(mm)	Inner Ctn.	Outer Ctn.	EDP No.
DBHM-01	11.1	60		10	100	482433

No. DBHM Double Bit Holder

● Popular bit holders.



Model No.	D	L	(mm)	Inner Ctn.	Outer Ctn.	EDP No.
DBHM-02	14.4	62		10	100	482434

One point

Precision bits can be installed to electric screwdrivers.

D71 / D72(4mm) bits can be inserted.

No. HD-71×45

(6.35mm)



HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

No. MMBC-J Magnet Screw Catcher

●Micro magnet vis catchers.



Size Tip×Overall Length (mm)	Tip size	L	Inner Ctn.	Outer Ctn.	EDP No.
T10× 49	T10	49	10	10	447111
70	T10	70	10	10	447112
T15× 49	T15	49	10	10	447115
70	T15	70	10	10	447116
T20× 49	T20	49	10	10	447113
75	T20	75	10	10	447101
150	T20	150	10	10	447109
T25× 49	T25	49	10	10	447117
70	T25	70	10	10	447118

H 6.35 mm

No. MMBC Magnet Screw Catcher

●Micro magnet vis catchers.



Size Tip×Overall Length (mm)	Tip size	L	Inner Ctn.	Outer Ctn.	EDP No.
T10× 33	T10	33	10	10	447104
T15× 33	T15	33	10	10	447102
T20× 33	T20	33	10	10	447103
T25× 33	T25	33	10	10	447110
PH1× 33	PH1	33	10	10	447105
PH2× 33	PH2	33	10	10	447106
PZ1× 33	PZ1	33	10	10	447107
PZ2× 33	PZ2	33	10	10	447108

Replacement Bits For MMBC Series



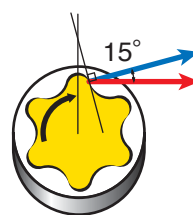
Size Tip×Overall Length (mm)		Inner Ctn.	Outer Ctn.	EDP No.
T10× 33	bit only, for MMBC	10	10	447329
T15× 33	bit only, for MMBC	10	10	447330
T20× 33	bit only, for MMBC	10	10	447331
T25× 33	bit only, for MMBC	10	10	447332
PH1× 33	bit only, for MMBC	10	10	447333
PH2× 33	bit only, for MMBC	10	10	447334
PZ1× 33	bit only, for MMBC	10	10	447335
PZ2× 33	bit only, for MMBC	10	10	447336
T10× 49	bit only, for MMBC	10	10	447337
T10× 70	bit only, for MMBC	10	10	447338
T20× 49	bit only, for MMBC	10	10	447339
T20× 75	bit only, for MMBC	10	10	447340
T20×150	bit only, for MMBC	10	10	447341

One point

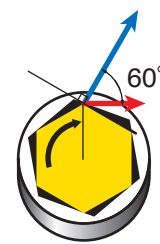
Features of TORX Bits



TORX has 6-lobe shaped curves. Compared to hexagonal shape driver, TORX has higher drive effectiveness and transfers torque smoothly and accurately while eliminating "CAM-OUT".



TORX
TORX transfers max torque due to small driving angle.



Hex
Meanwhile, Hex square drive need max upload torque to transfer for large diving angle to other directions.

← Driving Torque
← Loading Torque

TAMPER-PROOF TORX SYSTEM



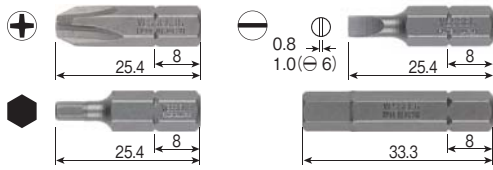
Added function of "Never Touch Screw" a post in the middle of the recess for maximum security eliminates regular TORX drive or any other flat screwdrivers for safety. Tamper proof screws are mostly used at communication equipment and computers so as not to abuse the screwing/un screwing due to its design and control of function. Keep off unscrewing unless otherwise maintenance serving practiced.

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 H 6.35 mm

No. B33 Short Bit (For Bit Holder)

● Can be used by attaching to a bit holder.

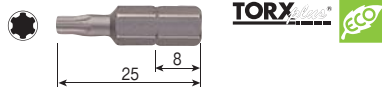



Size Tip×Overall Length (mm)	Heat treatment classification	Inner Ctn.	Outer Ctn.	EDP No.
⊕1 × 25.4	H	10	100	421231
⊕2 × 25.4	H	10	100	421241
⊕3 × 25.4	G	10	100	421242
⊖4 × 25.4	G	10	100	421251
⊖6 × 25.4	G	10	100	421252
H 2 × 25.4	H	10	100	421260
H 2.5× 25.4	H	10	100	421261
H 3 × 25.4	H	10	100	421262
H 4 × 33.3	H	10	100	421263
H 5 × 33.3	H	10	100	421264
H 6 × 33.3	H	10	100	421265

Model No.	Contents	Set content	Inner Ctn.	Outer Ctn.	EDP No.
B33 Driver Bit Set	1 for each	⊕1, ⊕2, ⊕3, ⊖4, ⊖6×25.4 with holder	1	10	421270
B33 Hex. Bit Set	1 for each	H 2, 2.5, 3×25.4 H 4, 5, 6×33.3 with holder	1	10	421271

No. IP TORX Plus Bit

● Can be used by attaching to a bit holder.

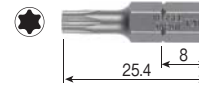



Size Tip No.	mm 	Overall Length (mm)	Inner Ctn.	EDP No.
15IP	3.26	25	10	447204
20IP	3.84	25	10	447205
25IP	4.4	25	10	447206
30IP	5.49	25	10	447207
40IP	6.6	25	10	447208

TORX is a registered trademark of Acument TM Intellectual Properties, LLC (USA). VESSEL has a manufacturing license in Japan and selling same to the world.

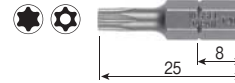
No. A4 TORX Bit


● Can be used by attaching to a bit holder.



Size Tip No.	mm 	Overall Length (mm)	Inner Ctn.	EDP No.
T6	1.65	25.4	10	635400
T8	2.3	25.4	10	635401
T10	2.72	25.4	10	635402
T15	3.26	25.4	10	635403
T20	3.84	25.4	10	635404
T25	4.4	25.4	10	635405
T27	4.96	25.4	10	635406
T30	5.49	25.4	10	635407
T40	6.6	25.4	10	635408

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Model No.	Size	mm 	Overall Length (mm)	Inner Ctn.	EDP No.
T3/25	T3	1.12	25	10	489154
T5/25	T5	1.37	25	10	489155
T7/25	T7	1.99	25	10	489157
TF08/25	T8H	2.31	25	10	446392

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One point

Bit Holder



Short bits can be used in various power tools. Throw-away method in which a bit can be replaced without being removed from the power tool.

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

H 6.35 mm

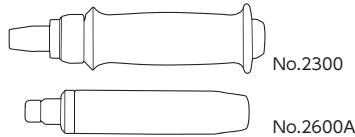
No. C50 Impact Driver Bit



Size Tip×Overall Length (mm)	Heat treatment classification	Inner Ctn.	EDP No.
⊕1× 125	G	10	431301
⊕2× 125	G	10	431302
⊕3× 125	G	10	431303
⊖5× 125	G	10	431311
⊖6× 125	G	10	431312
⊖7× 125	G	10	431313

Applicable models

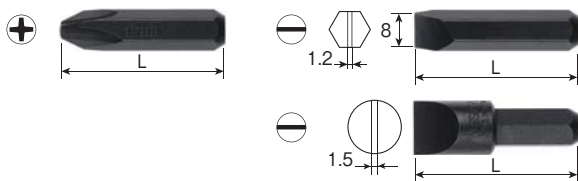
No.2300
No.2600A
No.230001
No.260002



Model No.	Contents	Set content	Inner Ctn.	EDP No.
2300- 2600A Bit Set	1 for each	C50 ⊕1, ⊕2, ⊕3, ⊖5, ⊖6, ⊖7×125mm	1	431701

H 8 mm

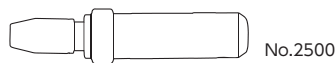
No. C51 Impact Driver Bit



Size Tip×Overall Length (mm)	Heat treatment classification	Inner Ctn.	Outer Ctn.	EDP No.
⊕2× 36	G	10	250	431041
80	G	10	250	431042
⊕3× 36	E	10	250	431051
80	E	10	250	431052
⊕4× 36	E	10	250	431061
⊖8× 36	E	10	250	431171
80	E	10	250	431172
⊖10× 36	E	10	250	431271
80	E	10	200	431272
⊖12× 36	E	10	200	431273

Applicable models

No.2500
No.240001
No.250001



Model No.	Contents	Set content	Inner Ctn.	Outer Ctn.	EDP No.
2500 Bit Set	1 for each	C51 ⊕2, ⊕3, ⊕4, ⊖10×36mm	1	50	431801

9.5 mm Attachment for Impact Driver

No. S6 TORX Socket

●SQ9.5mm TORX sockets for impact wrenches



Size Tip×Overall Length (mm)	mm	d1 (mm)	EDP No.
T30× 75	▲ 5.49	5.79	— 635681
T40× 75	▲ 6.6	6.9	— 635682
T45× 75	▲ 7.77	8.0	— 635683
T50× 75	▲ 8.79	10.0	— 635684

▲For the date of delivery, consult Vessel.
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12.7 mm Attachment for Impact Driver

No. S8 TORX Socket

●SQ12.7mm TORX sockets for impact wrenches.



Size Tip×Overall Length (mm)	mm	d1 (mm)	EDP No.
T40× 75	▲ 6.6	6.9	— 635691
T45× 75	▲ 7.77	8.0	— 635692
T50× 75	▲ 8.79	9.09	— 635693

▲For the date of delivery, consult Vessel.
TORX is a registered trademark of Acument TM Intellectual Properties, LLC (USA).
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Construction Bits

BITS & SOCKETS





Contents

Construction Bits 88 - 99

Construction Sockets 100 -108

PROKON series 109 -116

Black Laser Series..... 117 -118

Drill Bits / Drill Chucks..... 119 -123

About ISO

ISO 9001 : 2008

Our screwdriver manufacturing division, VESSEL SHIMANE CO., LTD is certified according to ISO standard, the global standard for quality assurance control.



ISO 14001 : 2004

We obtained ISO 14001 in August 2010. VESSEL will further strive to offer eco-friendly products, aiming at minimizing the environmental burden as a manufacturing group.



Ideal Bits for construction & facilities

BITS & SOCKETS

TECHNICAL



Environmental measures

Pb (lead), Cd (cadmium), Hg (mercury), hexavalent chromium, PBB (polybrominated biphenyl), and PBDE (polybrominated diphenyl ether)
 This symbol indicates the products that conform to VESSEL's environment measure standards compliant with the restriction of the use of certain hazardous substances (six substances listed above) (RoHS directive).

89P
118P

92P

Rib PAT.

Magnum bit is an unconventional bit with reinforced ribs on its tip. Combining with optimal torsion part, it has realized excellent torque transmission and high durability. With high strength, this bit shows superb durability for various works.

GIZA

The jagged tip of our GIZA BIT prevents cam-out of cross-head screws. Just as the bit starts to cam-out, the jagged edges bite into the internal wall of the recess of the screw.

EXTRA HARD

Our EXTRA HARD BITS have been hardened to a maximum hardness of 62 HRC. They are ideal for relatively hard screws such as stainless steel screws and board screws.

92P

TAPPING

Our TAPPING BITS are designed with thick wings and short flutes for extra strength, making them ideal for heavy-duty work such as driving sash screws of greater than 4mm in diameter.

93P

SLENDER

The tips of our SLENDER BIT series have been worked to a fine point, making it easy to see the heads of the screws. These bits are designed for soft joint work such as wood screws and resin tapping screws.

90P
91P

JAWS PAT.

Our JAWS BITS are perfect for working wood screws. From start to finish, these bits bite into the screw holes, allowing for increased work efficiency without fallen screws.

92P

Tapered shape (SAKISUBO BITS)

The constricted part of the bit reduces the vibration caused when the thread starts to enter the material and screw passes through wood grain, preventing cam out and allowing efficient works.

98P
110P
~112P
114P
118P

Carefully selected materials

With our long experience and research in manufacturing, we developed our own materials with hardness (less wearing) and toughness (hard to chip). Properties of the elements contained in the materials have been improved to an optimal level through a heat treatment process.

C...Carbon

The more carbon is contained, the greater hardening penetration becomes. When the carbon content is 0.6 % or more, abrasion resistance increases, although hardening penetration remains the same.

Ni...Nickel

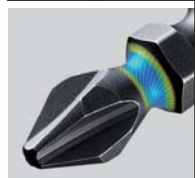
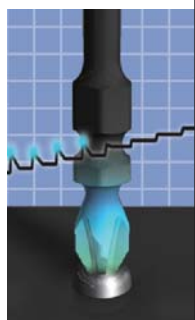
The addition of small amount of nickel increases steel's shock resistance and toughness. When added in a large amount, it becomes weak and breaks easily.

Cr...Chrome

Hardenability increases. Oxidation resistance increases. Toughness is improved.

Mo...Molybdenum

Hardenability increases. Significant decrease in toughness can be prevented.



HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

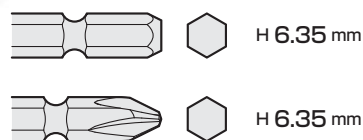
AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS



Drive



Ultra Hex

Special hexagonal cross section composed of the flat surfaces and the waved surfaces. The waved surfaces fit to the inner surface of chuck improving driving efficiency. In the meantime, the flat surfaces prevent shank from getting stuck in the chuck reducing damage to chuck.

89P
90P

Cushion ring

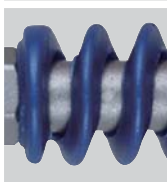
By minimizing the gap between chuck and bit, rattling and vibration are reduced.

90P

Plastic spring

Bits come out automatically with the help of spring when the sleeve of chuck is pulled, allowing users to pull out a bit with one hand. Useful to change heated bit

89P



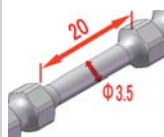
Magnetized bits

These bits can capture screws with a strong magnetic force enhancing work efficiency.



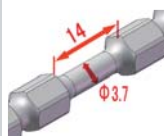
Torsion part

Torsion part absorbs the impact caused when the screw head is fully seated by an impact driver, preventing tip breakage.



φ3.5×20mm

For soft joint such as fastening wood screws Suitable when fastened material is soft



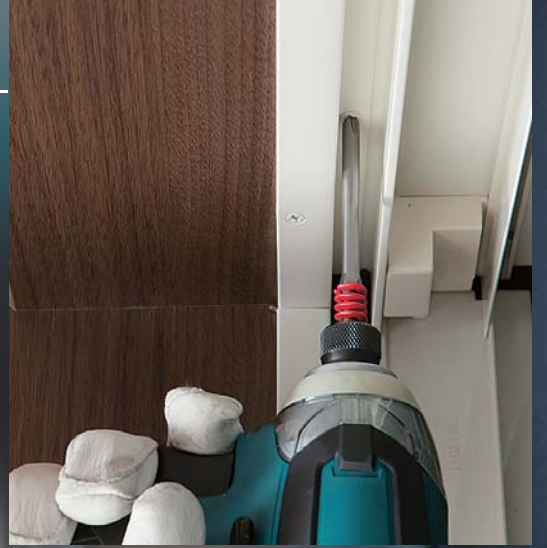
φ3.7×14mm

For hard joint such as drill fastening Suitable when fastened material is hard

89P
~92P
98P
110P
~112P
114P
118P

No. MX14

Double End MAGNUM bit

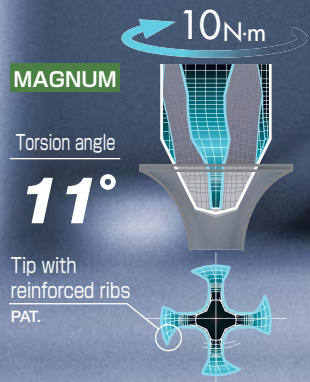
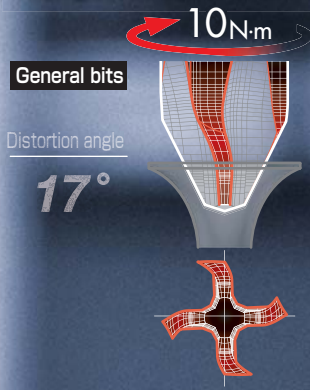


Under the theme of "problem solution", these bits have been developed.

Torsion bit which absorbs excessive load and impact, for improvement in durability; Jaws fit bit which hold a screw firmly; Slender bit which allows for easy visibility around the tip, etc.

Now Magnum bit has come along, which has definitely strong resistance to breakage and distortion by introducing the tip with reinforced ribs developed, using new technology.

Ribs protect the tip firmly!
Strong resistance to torsion!



No. MX14

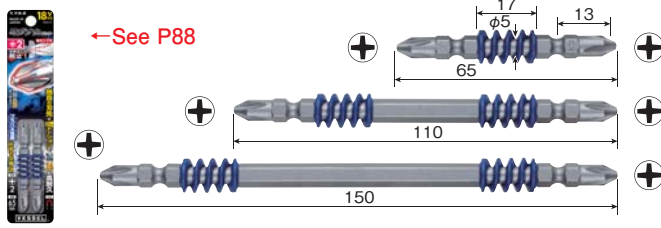
Double End MAGNUM bit

Long life with ribbed tip and torsion
Plastic spring facilitates bit replacement.



No. MX14 Double End MAGNUM bit 2-Piece Set PAT.

- Long life with ribbed tip and torsion.
- Plastic spring facilitates bit replacement.



Model No.	Contents	Heat treatment classification	Card size (mm)	EDP No.
MX142065	⊕2×φ5× 65 2pcs.	H	160×35×8	485031
MX142110	⊕2×φ5×110 2pcs.	H	160×35×8	485033
MX142150	⊕2×φ5×150 2pcs.	H	210×35×8	485034

Inner Ctn.: 10 sets

No. MX5P Double End MAGNUM bit 5-Piece Set PAT.



MX5P2065 MX5P2110

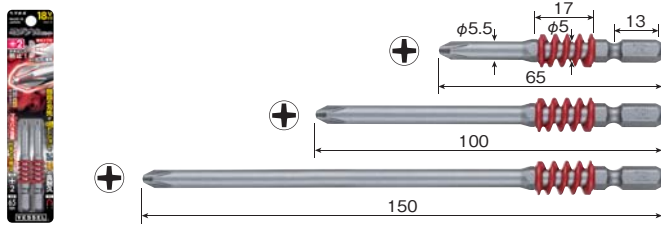


Model No.	Contents	Heat treatment classification	Card size (mm)	EDP No.
MX5P2065	⊕2×φ5× 65 5pcs.	H	160×70×8	485051
MX5P2110	⊕2×φ5×110 5pcs.	H	160×70×8	485052

Inner Ctn.: 10 sets

No. MX16 Recessed MAGNUM bit 2-Piece Set PAT.

- Long life with ribbed tip and torsion.
- Plastic spring facilitates bit replacement.



Model No.	Contents	Heat treatment classification	Card size (mm)	EDP No.
MX162065	⊕2×φ5× 65 2pcs.	H	160×35×8	485035
MX162100	⊕2×φ5×100 2pcs.	H	160×35×8	485037
MX162150	⊕2×φ5×150 2pcs.	H	210×35×8	485038

Inner Ctn.: 10 sets

No. MX5P Recessed MAGNUM bit 5-Piece Set PAT.



MX5P2065D MX5P2100D

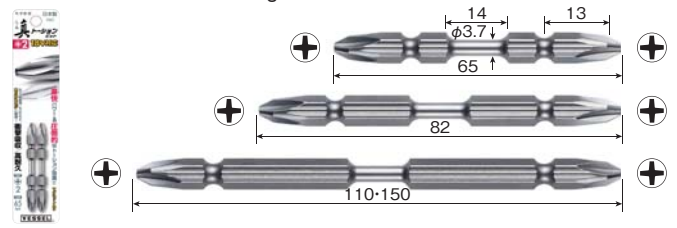


Model No.	Contents	Heat treatment classification	Card size (mm)	EDP No.
MX5P2065D	⊕2×φ5× 65 5pcs.	H	160×70×8	485053
MX5P2100D	⊕2×φ5×100 5pcs.	H	160×70×8	485054

Inner Ctn.: 10 sets

No. RT "SUPER TORSION BIT" 2-Piece Set PAT.

- Tapered tip allows for easy view of small screw head.
- Combination of strong tip-end and torsion which is suitable for heavy works.
- Ultra Hex shank avoids damage to the chuck.



Model No.	Contents	Heat treatment classification	Card size (mm)	EDP No.
RT142065	⊕2×φ3.7× 65 2pcs.	X	160×35×8	484461
RT142082	⊕2×φ3.7× 82 2pcs.	X	160×35×8	484462
RT142110	⊕2×φ3.7×110 2pcs.	X	160×35×8	484463
RT142150	⊕2×φ3.7×150 2pcs.	X	210×35×8	484464

Inner Ctn.: 10 sets

No. RT5P "SUPER TORSION BIT" 5-Piece Set PAT.



RT5P2065 RT5P2082 RT5P2110



Model No.	Contents	Heat treatment classification	Card size (mm)	EDP No.
RT5P2065	⊕2×φ3.7× 65 5pcs.	X	160×70×8	484471
RT5P2082	⊕2×φ3.7× 82 5pcs.	X	160×70×8	484472
RT5P2110	⊕2×φ3.7×110 5pcs.	X	160×70×8	484473

Inner Ctn.: 10 sets

No. RT10P "SUPER TORSION BIT" 10-Piece Set PAT.



RT10P2065F RT10P2082F RT10P2110F

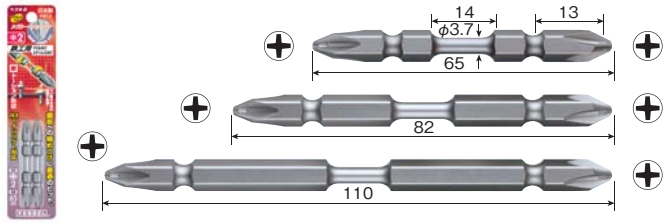


Model No.	Contents	Heat treatment classification	Card size (mm)	EDP No.
RT10P2065F	⊕2×φ3.7× 65 10pcs.	X	143×87×7	413441
RT10P2082F	⊕2×φ3.7× 82 10pcs.	X	143×87×7	413442
RT10P2110F	⊕2×φ3.7×110 10pcs.	X	162×87×7	413443

Inner Ctn.: 10 sets

No. MT MEGA TORSION BIT 2-Piece Set PAT.

- Jaws fit tip fits screw head hole.
- Torsion design suitable for heavy works.



Model No.	Contents	Heat treatment classification	Card size (mm)	EDP No.
MT142065	⊕2×φ3.7× 65 2pcs.	X	160×35×8	484435
MT142082	⊕2×φ3.7× 82 2pcs.	X	160×35×8	484436
MT142110	⊕2×φ3.7×110 2pcs.	X	160×35×8	484437

No. MT5P MEGA TORSION BIT 5-Piece Set PAT.

Inner Ctn.: 10 sets

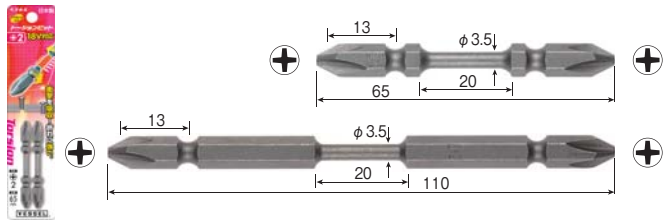


Model No.	Contents	Heat treatment classification	Card size (mm)	EDP No.
MT5P2065	⊕2×φ3.7× 65 5pcs.	X	160×70×8	484440
MT5P2082	⊕2×φ3.7× 82 5pcs.	X	160×70×8	484441
MT5P2110	⊕2×φ3.7×110 5pcs.	X	160×70×8	484442

Inner Ctn.: 10 sets

No. AT TORSION BIT 2-Piece Set

- Absorbs efficiently the impact caused when screws are fully seated.
- Torsion design suitable for tightening wood screws.



Model No.	Contents	Heat treatment classification	Card size (mm)	EDP No.
AT142065	⊕2×φ3.5× 65 2pcs.	H	160×35×8	486113
AT142110	⊕2×φ3.5×110 2pcs.	H	160×35×8	486114

Inner Ctn.: 10 sets

No. BW TORSION BIT 5-Piece Set

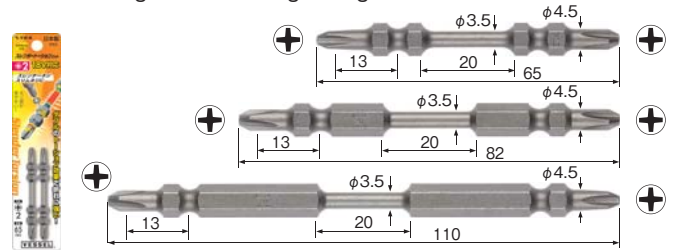


Model No.	Contents	Heat treatment classification	Card size (mm)	EDP No.
BW-163	⊕2×φ3.5× 65 5pcs.	H	140×70×23	486306
BW-164	⊕2×φ3.5×110 5pcs.	H	140×70×23	486307
BW-165	⊕2×φ3.5× 65 3pcs. ⊕2×φ3.5×110 2pcs.	H	140×70×23	486308

Provided with one bit holder. Outer Ctn.: 10 sets

No. ST SLENDER TORSION BIT 2-Piece Set PAT.

- Absorbs efficiently the impact caused when screws are fully seated.
- Tapered finished tip fits to slim screws.
- Torsion design suitable for tightening wood screws.



Model No.	Contents	Heat treatment classification	Card size (mm)	EDP No.
ST141065	⊕1×φ3.5× 65 2pcs.	H	160×35×8	484400
ST142065	⊕2×φ3.5× 65 2pcs.	H	160×35×8	484401
ST142082	⊕2×φ3.5× 82 2pcs.	H	160×35×8	484403
ST142110	⊕2×φ3.5×110 2pcs.	H	160×35×8	484402

Inner Ctn.: 10 sets

No. BW SLENDER TORSION BIT 5-Piece Set PAT.

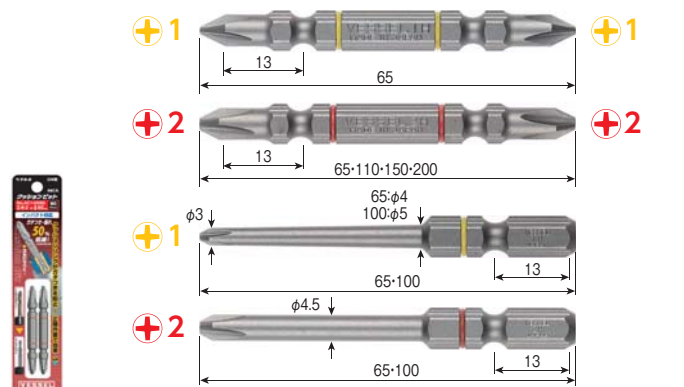


Model No.	Contents	Heat treatment classification	Card size (mm)	EDP No.
BW-301	⊕2×φ3.5× 65 5pcs.	H	140×70×23	486691
BW-302	⊕2×φ3.5×110 5pcs.	H	140×70×23	486692
BW-303	⊕2×φ3.5× 65 3pcs. ⊕2×φ3.5×110 2pcs.	H	140×70×23	486693
BW-305	⊕2×φ3.5× 82 5pcs.	H	140×70×23	486694

Provided with one bit holder. Outer Ctn.: 10 sets

No. AC CUSHION BIT 2-Piece Set PAT.

- Cushion ring is attached to reduce vibration.
- UltraHex shank avoids damage to the chuck.



Model No.	Contents	Heat treatment classification	Card size (mm)	EDP No.
AC141065	⊕1× 65 2pcs.	H	160×35×8	484376
AC142065	⊕2× 65 2pcs.	H	160×35×8	484378
AC142110	⊕2×110 2pcs.	H	160×35×8	484379
AC142150	⊕2×150 2pcs.	H	210×35×8	484380
AC142200	⊕2×200 2pcs.	H	260×35×8	484381
AC161065	⊕1×φ4 × 65 2pcs.	H	160×35×8	484386
AC161100	⊕1×φ5 ×100 2pcs.	H	160×35×8	484387
AC162065	⊕2×φ4.5× 65 2pcs.	H	160×35×8	484388
AC162100	⊕2×φ4.5×100 2pcs.	H	160×35×8	484389

*Colors inside the table cells indicate the ring color.

Inner Ctn.: 10 sets

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

No. AS SLENDER BIT 2-Piece Set

- Tapered finished tip fits to slim screws.
- For soft joint such as wood screws and resin tapping screws.



Model No.	Contents	Heat treatment classification	Card size (mm)	EDP No.
AS141065	⊕1× 65 2pcs.	H	160×35×8	486187
AS142045	⊕2× 45 2pcs.	H	160×35×8	486186
AS142065	⊕2× 65 2pcs.	H	160×35×8	486184
AS142110	⊕2×110 2pcs.	H	160×35×8	486185

Inner Ctn.: 10 sets

No. BW SLENDER BIT 5-Piece Set



BW-180 BW-181 BW-182



Model No.	Contents	Heat treatment classification	Card size (mm)	EDP No.
BW-180	⊕2× 65 5pcs.	H	140×70×23	486650
BW-181	⊕2×110 5pcs.	H	140×70×23	486651
BW-182	⊕2× 65 3pcs. ⊕2×110 2pcs.	H	140×70×23	486652

Provided with one bit holder. Outer Ctn.: 10 sets

No. AS5P SLENDER BIT 5-Piece Set



AS5P1065F AS5P2065F
AS5P2110F



Model No.	Contents	Heat treatment classification	Card size (mm)	EDP No.
AS5P1065F	⊕1× 65 5pcs.	H	135×50×7	485441
AS5P2065F	⊕2× 65 5pcs.	H	135×50×7	485442
AS5P2110F	⊕2×110 5pcs.	H	160×50×7	485443

Inner Ctn.: 10 sets

No. AS20P SLENDER BIT 20-Piece Set



AS20P2065F
AS20P2110F



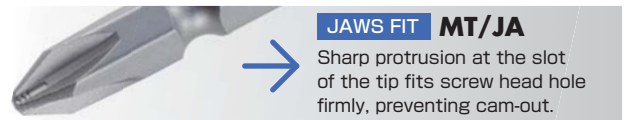
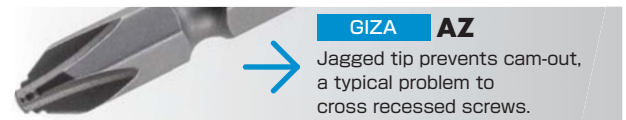
Model No.	Contents	Heat treatment classification	Card size (mm)	EDP No.
AS20P2065F	⊕2× 65 20pcs.	H	143×87×14	484481
AS20P2110F	⊕2×110 20pcs.	H	162×87×14	484482

Inner Ctn.: 5 sets

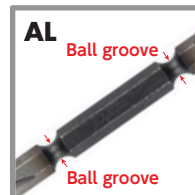
One point

Bit Selection

- Different tip-end for various application.

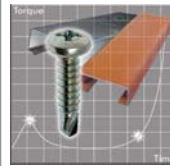


- Selection according to torsion effect

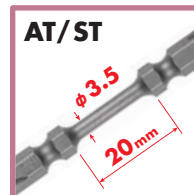
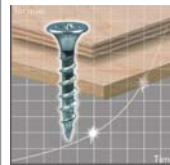


Impact is absorbed with the torsion effect at the tempered groove part.

HARD JOINT



SOFT JOINT



Impact is absorbed by the torsion part (⌀3.5 × 20mm).

SOFT JOINT

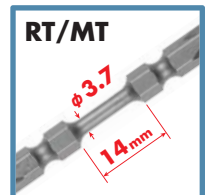


HARD JOINT

When an instantaneous impact is given when the head of drill screw or tapping screw is fully seated

SOFT JOINT

When the load is gradually increased such as in fastening wood screws



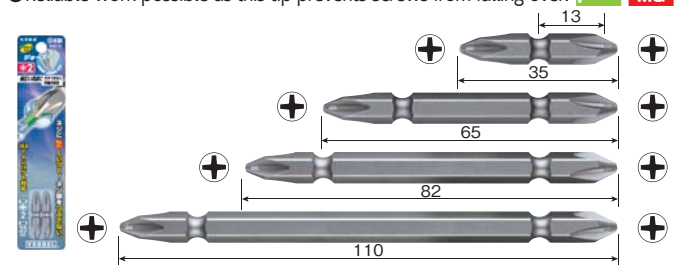
Impact is absorbed by the torsion part (⌀3.7 × 14mm).

HARD JOINT



No. JA JAWS BIT 2-Piece Set **PAT.**

- Jaws Fit tip fits screw head hole.
- Reliable work possible as this tip prevents screws from falling over.



Model No.	Contents	Heat treatment classification	Card size (mm)	EDP No.
JA142035	⊕2× 35 2pcs.	H	160×35×8	484450
JA142065	⊕2× 65 2pcs.	H	160×35×8	484451
JA142082	⊕2× 82 2pcs.	H	160×35×8	484452
JA142110	⊕2×110 2pcs.	H	160×35×8	484453

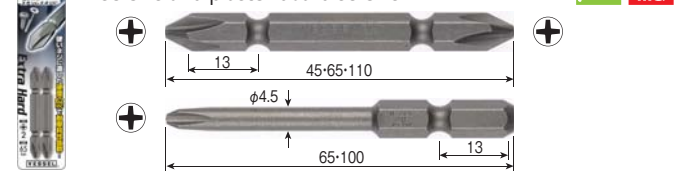
No. JA5P JAWS BIT 5-Piece Set **PAT.**



Model No.	Contents	Heat treatment classification	Card size (mm)	EDP No.
JA5P2065	⊕2× 65 5pcs.	H	160×70×8	484456
JA5P2082	⊕2× 82 5pcs.	H	160×70×8	484457
JA5P2110	⊕2×110 5pcs.	H	160×70×8	484458

No. AX EXTRA HARD BIT 2-Piece Set

- The highest hardness of 62HRC, suited for stainless screws and plaster board screws.



Model No.	Contents	Heat treatment classification	Card size (mm)	EDP No.
AX142045	⊕2× 45 2pcs.	X	160×35×8	486192
AX142065	⊕2× 65 2pcs.	X	160×35×8	486193
AX142110	⊕2×110 2pcs.	X	160×35×8	486194
AX162065	⊕2×φ4.5× 65 2pcs.	X	160×35×8	486195
AX162100	⊕2×φ4.5×100 2pcs.	X	160×35×8	486196

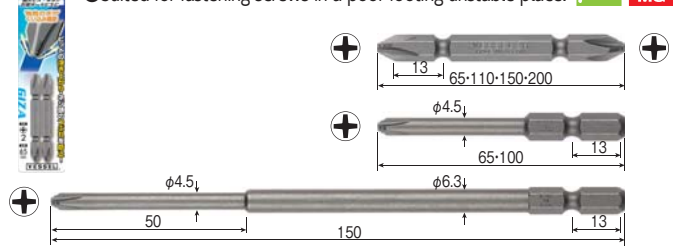
No. BW EXTRA HARD BIT 5-Piece Set



Model No.	Contents	Heat treatment classification	Card size (mm)	EDP No.
BW-36	⊕2× 65 5pcs.	X	140×70×23	486596
BW-37	⊕2×110 5pcs.	X	140×70×23	486597
BW-38	⊕2×φ4.5× 65 5pcs.	X	140×70×23	486598
BW-39	⊕2×φ4.5×100 5pcs.	X	140×70×23	486599

No. AZ GIZA BIT 2-Piece Set

- Jagged parts prevents cam-out.
- Suited for fastening screws in a poor footing unstable place.



Model No.	Contents	Heat treatment classification	Card size (mm)	EDP No.
AZ142065	⊕2× 65 2pcs.	H	160×35×8	486177
AZ142110	⊕2×110 2pcs.	H	160×35×8	486178
AZ142150	⊕2×150 2pcs.	H	210×35×8	486179
AZ142200	⊕2×200 2pcs.	H	260×35×8	486180
AZ162065	⊕2×φ4.5× 65 2pcs.	H	160×35×8	486181
AZ162100	⊕2×φ4.5×100 2pcs.	H	160×35×8	486182
AZ162150	⊕2×φ4.5×φ6.3×150 2pcs.	H	210×35×8	486183

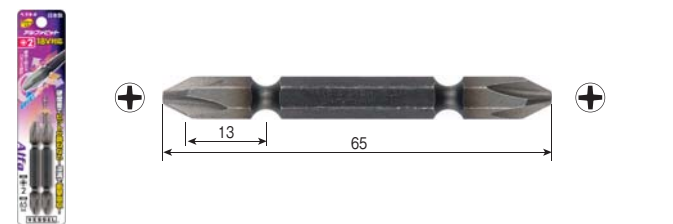
No. BW GIZA BIT 5-Piece Set



Model No.	Contents	Heat treatment classification	Card size (mm)	EDP No.
BW-172	⊕2× 65 2pcs. ⊕2×110 3pcs.	H H	140×70×23	486636
BW-175	⊕2×φ4.5× 65 2pcs. ⊕2×φ4.5×100 3pcs.	H H	140×70×23	486639

No. AL ALFA BIT 2-Piece Set

- Different hardness applied to ball groove and shank, absorbing and relieving the impact during fastening.
- Suited for a wide variety of works with an excellent torque transmission.



Model No.	Contents	Heat treatment classification	Card size (mm)	EDP No.
AL142065	⊕2× 65 2pcs.	H	160×35×8	486217

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

No. A14H TAPPING BIT 2-Piece Set



- Increased thickness of the cross blade recommended to heavy works.
- Suited for screws for sash frames with a thread size of about 4mm.

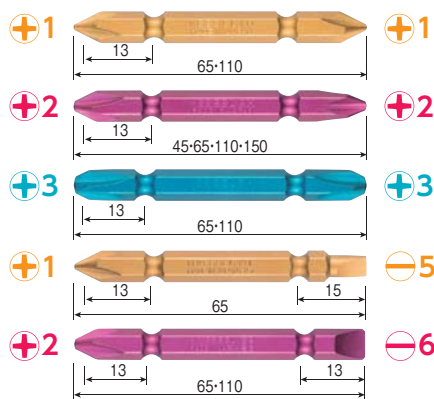


Model No.	Contents	Heat treatment classification	Card size (mm)	EDP No.
A14H2065	⌀2×65 2pcs.	H	160×35×8	486190
A14H2110	⌀2×110 2pcs.	H	160×35×8	486191

Inner Ctn.: 10 sets

No. IR14 IRO BIT (Color-coded Bit) 2-Piece Set

- Bits colored according to size.
- Excellent rust proof performance.



Model No.	Contents	Heat treatment classification	Card size (mm)	EDP No.
IR141045	⌀1×45 2pcs.	H	160×35×8	485100
IR141065	⌀1×65 2pcs.	H	160×35×8	485101
IR141110	⌀1×110 2pcs.	H	160×35×8	485102
IR142045	⌀2×45 2pcs.	H	160×35×8	485103
IR142065	⌀2×65 2pcs.	H	160×35×8	485104
IR142082	⌀2×82 2pcs.	H	160×35×8	485107
IR142110	⌀2×110 2pcs.	H	160×35×8	485105
IR142150	⌀2×150 2pcs.	H	210×35×8	485106
IR143045	⌀3×45 2pcs.	H	160×35×8	485110
IR143065	⌀3×65 2pcs.	H	160×35×8	485111
IR143110	⌀3×110 2pcs.	H	160×35×8	485112
IR143150	⌀3×150 2pcs.	H	210×35×8	485113
IR141565	⌀1/⌀5×65 2pcs.	H	160×35×8	485120
IR142665	⌀2/⌀6×65 2pcs.	H	160×35×8	485121
IR142611	⌀2/⌀6×110 2pcs.	H	160×35×8	485122
IR142615	⌀2/⌀6×150 2pcs.	H	210×35×8	485123

※Colors inside the table cells indicate the bit color. Inner Ctn.: 10 sets

No. IR5P IRO BIT (Color-coded Bit) 5-Piece Set



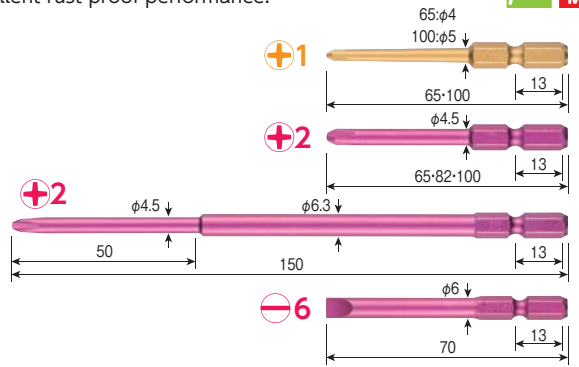
IR5P2065F IR5P3065F
IR5P2110F

Model No.	Contents	Heat treatment classification	Card size (mm)	EDP No.
IR5P2065F	⌀2×65 5pcs.	H	135×50×7	485167
IR5P2110F	⌀2×110 5pcs.	H	160×50×7	485168
IR5P3065F	⌀3×65 5pcs.	H	135×50×7	485169

※Colors inside the table cells indicate the bit color. Inner Ctn.: 10 sets

No. IR16 Recessed IRO Bit (Color-coded Bit) 2-Pieces Set

- Bits colored according to size.
- Excellent rust proof performance.



Model No.	Contents	Heat treatment classification	Card size (mm)	EDP No.
IR161065	⌀1×⌀4 × 65 2pcs.	H	160×35×8	485132
IR161100	⌀1×⌀5 × 100 2pcs.	H	160×35×8	485133
IR162065	⌀2×⌀4.5×65 2pcs.	H	160×35×8	485134
IR162082	⌀2×⌀4.5×82 2pcs.	H	160×35×8	485135
IR162100	⌀2×⌀4.5×100 2pcs.	H	160×35×8	485136
IR162150	⌀2×⌀4.5×⌀6.3×150 2pcs.	H	210×35×8	485137
IR166070	⌀6×⌀6 × 70 2pcs.	H	160×35×8	485131

※Colors inside the table cells indicate the bit color. Inner Ctn.: 10 sets

No. IR5P Recessed IRO Bit (Color-coded Bit) 5-Pieces Set



IR5P1065DF IR5P2100DF

Model No.	Contents	Heat treatment classification	Card size (mm)	EDP No.
IR5P1065DF	⌀1×⌀4 × 65 5pcs.	H	135×50×7	485170
IR5P2100DF	⌀2×⌀4.5×100 5pcs.	H	160×50×7	485171

※Colors inside the table cells indicate the bit color. Inner Ctn.: 10 sets

No. IR5P IRO BIT (Color-coded Bit) 5-Piece Set

- Bits colored according to size.
- Excellent rust proof performance.



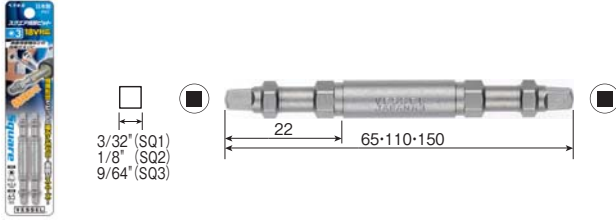
IR5P01 IR5P02

Model No.	Contents	Heat treatment classification	Card size (mm)	EDP No.
IR5P01	⌀1×⌀4.0×65, ⌀2×⌀4.5×100, ⌀2/⌀6×65, ⌀2×110, ⌀3×65	H	160×70×8	485165
IR5P02	⌀1×65, ⌀2×65 ⌀3×65, ⌀2×110(2pcs.)	H	160×70×8	485166

Inner Ctn.: 10 sets

No. A14SQ SQUARE DOUBLE END BIT 2-Piece Set

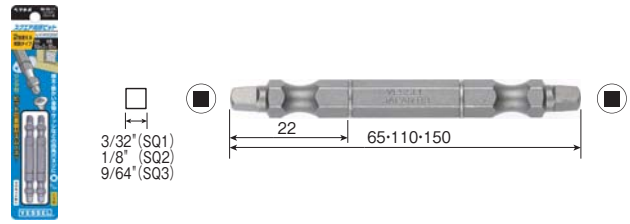
● Bit for square screws mostly used for sash frames and quake resistant hardware.



Model No.	Contents	Heat treatment classification	Card size (mm)	EDP No.
A14SQ1065	SQ 1× 65 2pcs.	H	160×35×8	486219
A14SQ2065	SQ 2× 65 2pcs.	H	160×35×8	486208
A14SQ2110	SQ 2×110 2pcs.	H	160×35×8	486210
A14SQ2150	SQ 2×150 2pcs.	H	210×35×8	486220
A14SQ3065	SQ 3× 65 2pcs.	H	160×35×8	486209
A14SQ3110	SQ 3×110 2pcs.	H	160×35×8	486211
A14SQ3150	SQ 3×150 2pcs.	H	210×35×8	486221

No. A14RSQ SQUARE DOUBLE END BIT 2-Piece Set

● Bit for square screws mostly used for sash frames and quake resistant hardware.



Model No.	Contents	Heat treatment classification	Card size (mm)	EDP No.
A14RSQ1065	SQ 1× 65 2pcs.	H	160×35×8	486222
A14RSQ2110	SQ 2×110 2pcs.	H	160×35×8	486224
A14RSQ2150	SQ 2×150 2pcs.	H	210×35×8	486225
A14RSQ3065	SQ 3× 65 2pcs.	H	160×35×8	486226
A14RSQ3110	SQ 3×110 2pcs.	H	160×35×8	486227

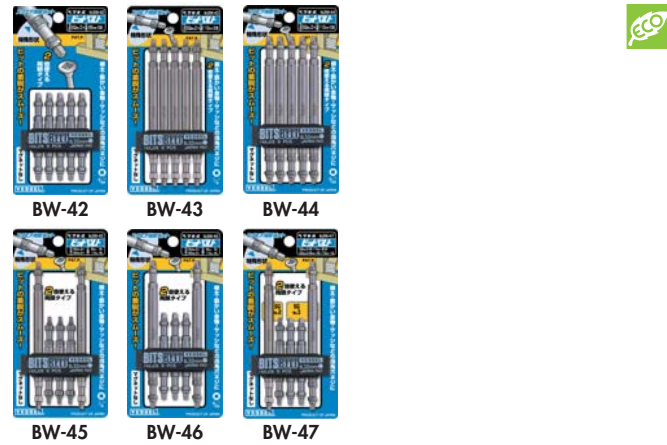
No. BW SQUARE DOUBLE END BIT 5-Piece Set Inner Ctn.: 10 sets



Model No.	Contents	Heat treatment classification	Card size (mm)	EDP No.
BW-401	SQ 2× 65 5pcs.	H	140×70×23	486850
BW-403	SQ 2×110 5pcs.	H	140×70×23	486852
BW-405	SQ 2× 65 3pcs.	H	140×70×23	486854
	SQ 2×110 2pcs.	H		
BW-407	SQ 2× 65 1pc.	H	140×70×23	486856
	SQ 3× 65 2pcs.	H		
	SQ 2×110 1pc.	H		
	SQ 3×110 1pc.	H		

Provided with one bit holder. Outer Ctn.: 10 sets

No. BW SQUARE DOUBLE END BIT 5-Piece Set Inner Ctn.: 10 sets

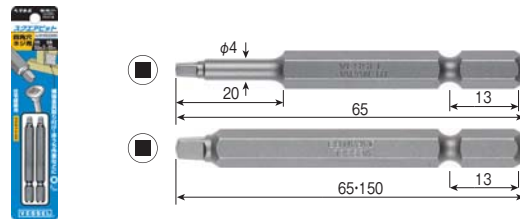


Model No.	Contents	Heat treatment classification	Card size (mm)	EDP No.
BW-42	SQ 3× 65 5pcs.	H	140×70×23	486662
BW-43	SQ 2×110 5pcs.	H	140×70×23	486663
BW-44	SQ 3×110 5pcs.	H	140×70×23	486664
BW-45	SQ 2× 65 3pcs.	H	140×70×23	486665
	SQ 2×110 2pcs.	H		
BW-46	SQ 3× 65 3pc.	H	140×70×23	486666
	SQ 3×110 2pcs.	H		
BW-47	SQ 2× 65 1pc.	H	140×70×23	486667
	SQ 3× 65 2pcs.	H		
	SQ 2×110 1pc.	H		
	SQ 3×110 1pc.	H		

Provided with one bit holder. Outer Ctn.: 10 sets

No. M16SQ Square bit 2-Piece Set

● Bit for square screws mostly used for sash frames and quake resistant hardware.



Model No.	Contents	Card size (mm)	EDP No.
M16SQ1065	SQ 1× 65 2pcs.	160×35×8	486155
M16SQ2065	SQ 2× 65 2pcs.	160×35×8	486156

Inner Ctn.: 10 sets

HAND TOOLS

BITS & SOCKETS

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STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

No. SM16H Hex Bit

●For hexagon socket head bolts or set screws commonly used for machines and facilities, cars and motorcycles.



Model No.	Contents	Card size (mm)	EDP No.
SM16H020	H 2 × 65 1pc.	135×35×8	486671
SM16H025	H 2.5× 65 1pc.	135×35×8	486672
SM16H030	H 3 × 65 1pc.	135×35×8	486673
SM16H040	H 4 × 65 1pc.	135×35×8	486674
SM16H050	H 5 × 65 1pc.	135×35×8	486675
SM16H060	H 6 × 65 1pc.	135×35×8	486676
SM16H080	H 8 × 65 1pc.	135×35×8	486677

Inner Ctn.: 10 sets

No. BW Hex Bit 5-Piece Set



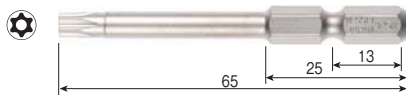
BW-31

Model No.	Contents	Card size (mm)	EDP No.
BW-31	H2.5, 3, 4, 5, 6×65 1 for each	140×70×23	486591

Provided with one bit holder. Outer Ctn.: 10 sets

No. SMVT TORX Bit (Tamper-Proof)

●For TORX screws used in the automobile industry.
●With a round hole for tamper-proof.



Model No.	Contents	Card size (mm)	EDP No.
SMVT08H	T 8H× 65 1pc.	135×35×8	486681
SMVT10H	T10H× 65 1pc.	135×35×8	486682
SMVT15H	T15H× 65 1pc.	135×35×8	486683
SMVT20H	T20H× 65 1pc.	135×35×8	486684
SMVT25H	T25H× 65 1pc.	135×35×8	486685
SMVT27H	T27H× 65 1pc.	135×35×8	486686
SMVT30H	T30H× 65 1pc.	135×35×8	486687
SMVT40H	T40H× 65 1pc.	135×35×8	486688

Inner Ctn.: 10 sets

TORX is a registered trademark of Acument TM Intellectual Properties, LLC (USA).
VESSEL has a manufacturing license in Japan and selling same to the world.

No. SM16BP Ball Point Bit

●For bolts with holes or set screws commonly used for machines and facilities, cars and motorcycles.

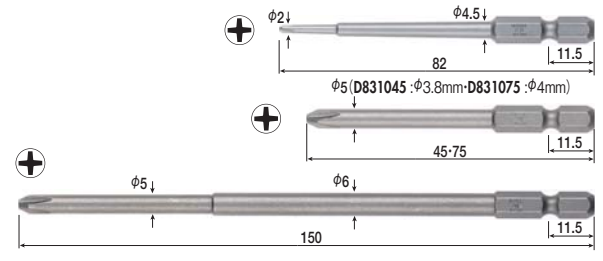


Model No.	Contents	Card size (mm)	EDP No.
SM16BP40	H 4 × 82 1pc.	160×35×8	486696
SM16BP50	H 5 × 82 1pc.	160×35×8	486697
SM16BP60	H 6 × 82 1pc.	160×35×8	486698

Inner Ctn.: 10 sets

No. D83 Bit 2-Piece Set

●Stepped shape useful for fastening screws in narrow spaces.



Model No.	Contents	Card size (mm)	EDP No.
D830082	⊕0×φ2 ×φ4.5× 82 2pcs.	160×35×8	486287
D831045	⊕1×φ3.8× 45 2pcs.	160×35×8	486282
D831075	⊕1×φ4 × 75 2pcs.	160×35×8	486283
D832075	⊕2×φ5 × 75 2pcs.	160×35×8	486284
D832150	⊕2×φ5 ×φ6 ×150 2pcs.	210×35×8	486286

Inner Ctn.: 10 sets

No. M16 Bit for small precision screws 2-Piece Set

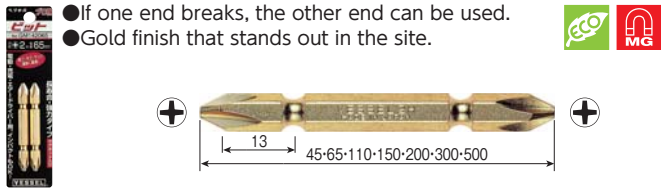
●Stepped shape useful for fastening screws in narrow spaces.



Model No.	Contents	Card size (mm)	EDP No.
M160082	⊕0×φ2×φ4.5× 82 2pcs.	160×35×8	486158

Inner Ctn.: 10 sets

No. GM14 Double End Gold Color Bit (Magnetic) 2-Piece Set



Model No.	Contents	Heat treatment classification	Card size (mm)	EDP No.
GM141065	⊕1× 65 2pcs.	H	135×35×8	486421
GM141110	⊕1×110 2pcs.	H	160×35×8	486422
GM142045	⊕2× 45 2pcs.	H	135×35×8	486423
GM142065	⊕2× 65 2pcs.	H	135×35×8	486424
GM142110	⊕2×110 2pcs.	H	160×35×8	486425
GM143065	⊕3× 65 2pcs.	H	135×35×8	486428
GM142150	⊕2×150 2pcs.	H	210×35×8	486426
GM142200	⊕2×200 2pcs.	H	260×35×8	486569
GM143110	⊕3×110 2pcs.	H	160×35×8	486429

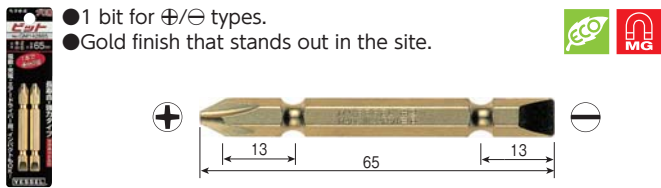
Inner Ctn.: 10 sets

No. GM14 Double End Gold Color Bit (Magnetic) 1-Piece

Model No.	Contents	Heat treatment classification	Card size (mm)	EDP No.
GM142300	⊕2×300 1pc.	H	340×35×17	486570
GM142500	⊕2×500 1pc.	H	540×35×17	486571

Silver finish. For the S hanger. Inner Ctn.: 10 sets

No. GM14 ⊕⊖ Double End Gold Color Bit 2-Piece Set



Model No.	Contents	Heat treatment classification	Card size (mm)	EDP No.
GM141565	⊕1/⊖5 × 65 2pcs.	H	135×35×8	486441
GM142665	⊕2/⊖6 × 65 2pcs.	H	135×35×8	486442

Inner Ctn.: 10 sets

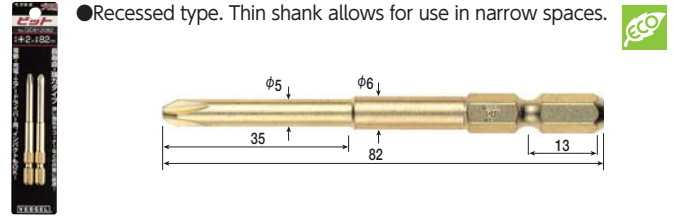
No. BW Gold Color Bit 5-Piece Set



Model No.	Contents	Card size (mm)	EDP No.
BW-51	Double End Gold Color Bit ⊕2× 45 5pcs.	95×70×23	486621
BW-52	Double End Gold Color Bit ⊕2× 65 5pcs.	95×70×23	486622
BW-53	Double End Gold Color Bit ⊕2×110 5pcs.	140×70×23	486623
BW-55	Double End Gold Color Bit 1 for each ⊕2× 65, ⊕2×110 ⊕⊖ Double End Gold Color Bit ⊕2/⊖6 × 65 1pc. Gold Color Bit 1 for each ⊕1×100, ⊕2×100	140×70×23	486625

Provided with one bit holder. Outer Ctn.: 10 sets

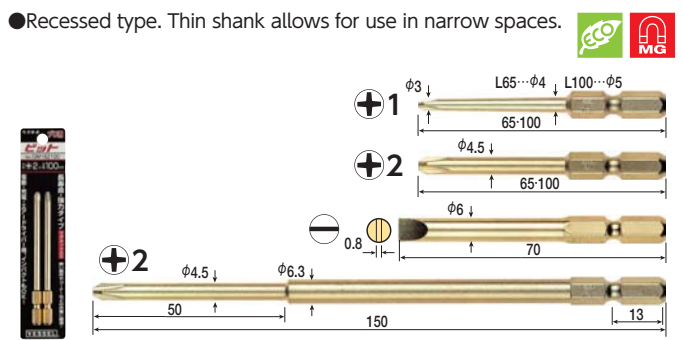
No. GD Gold Color Bit 2-Piece Set



Model No.	Contents	Heat treatment classification	Card size (mm)	EDP No.
GD812082	⊕2×φ5×φ6×82 2pcs.	H	160×35×8	486451

Inner Ctn.: 10 sets

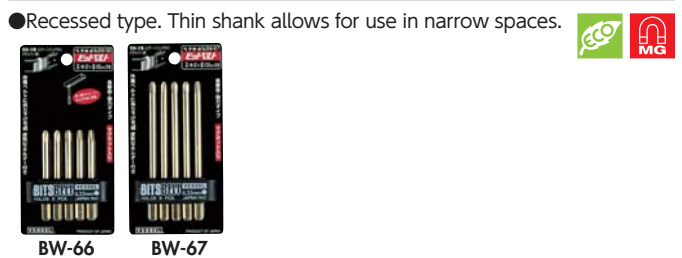
No. GM16 Step Gold Color Bit 2-Piece Set



Model No.	Contents	Heat treatment classification	Card size (mm)	EDP No.
GM166070	⊖6×φ6 × 70 2pcs.	G	160×35×8	486454
GM161065	⊕1×φ4 × 65 2pcs.	H	135×35×8	486455
GM161100	⊕1×φ5 × 100 2pcs.	H	160×35×8	486459
GM162065	⊕2×φ4.5× 65 2pcs.	H	135×35×8	486456
GM162100	⊕2×φ4.5×100 2pcs.	H	160×35×8	486457
GM162150	⊕2×φ4.5×φ6.3×150 2pcs.	H	210×35×8	486458

Inner Ctn.: 10 sets

No. BW Recessed Gold Color Bit 5-Piece Set



Model No.	Contents	Card size (mm)	EDP No.
BW-66	Gold Color Bit ⊕2× 65 5pcs.	140×70×23	486646
BW-67	Gold Color Bit ⊕2×100 5pcs.	140×70×23	486647

Provided with one bit holder. Outer Ctn.: 10 sets

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

No. BW Gold Color Bit 10-Piece Set

●Excellent rust proof performance.



Except BW-10



Model No.	Contents	Card size (mm)	EDP No.
BW-11	Double End Gold Color Bit $\Phi 2 \times 45$ 10pcs.	120×85×23	486311
BW-12	Double End Gold Color Bit $\Phi 2 \times 65$ 10pcs.	120×85×23	486312
BW-13	Double End Gold Color Bit $\Phi 2 \times 110$ 10pcs.	150×100×23	486313
BW-15	Double End Gold Color Bit $\Phi 1 \times 65, \Phi 2 \times 110, \Phi 3 \times 65$ 1 for each $\Phi 2 \times 45, \Phi 2 \times 65$ 2 for each $\Phi 2$ / $\Phi 6 \times 65$ 1pc. Step Gold Color Bit $\Phi 1 \times 100, \Phi 2 \times 100$ 2 for each	150×100×23	486315

Provided with one bit holder. Outer Ctn.: 10 sets

No. GM16H Hex Gold Color Bit

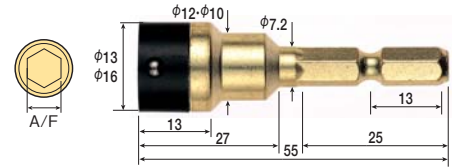
- Bit for hexagon socket head bolts or set screws commonly used for machines and facilities, cars and motorcycles.
- Gold finish that stands out in the site.



Model No.	Contents	Card size (mm)	EDP No.
GM16H025	H 2.5× 65 1pc.	135×35×8	486558

Inner Ctn.: 10 sets

No. GSB Gold Color Nut Setter (Locked with ball)



Model No.	Contents	Card size (mm)	EDP No.
GSB8055	A/F $5/16" \times 55$ (for 5mm) 1pc.	135×35	486511
GSB9655	A/F $3/8" \times 55$ (for 6mm) 1pc.	135×35	486512

Inner Ctn.: 5 sets

No. GSAM Gold Color Nut Setter (Magnetic)



Model No.	Contents	Card size (mm)	EDP No.
GSAM8055	A/F $5/16" \times 55$ (for 5mm) 1pc.	135×35	486501
GSAM9655	A/F $3/8" \times 55$ (for 6mm) 1pc.	135×35	486502

Inner Ctn.: 5 sets

No. GMA Gold Bits (in zip pack)

- Packed in a bag with a zipper for easy storage.
- Gold finish that stands out in the site.



Model No.	Contents	Heat treatment classification	Package size (mm)	EDP No.
GMA14 $\Phi 2 \times 45H$	GM14 $\Phi 2 \times 45$ 10pcs.	H	145×80×7	410150
GMA14 $\Phi 2 \times 65H$	GM14 $\Phi 2 \times 65$ 10pcs.	H	145×80×7	410153
GMA14 $\Phi 2 \times 110H$	GM14 $\Phi 2 \times 110$ 10pcs.	H	190×80×7	410156
GMA16 $\Phi 1 \times \phi 3 \times 65H$	GM16 $\Phi 1 \times \phi 3 \times 65$ 10pcs.	H	145×80×7	418303
GMA16 $\Phi 1 \times \phi 3 \times 100H$	GM16 $\Phi 1 \times \phi 3 \times 100$ 10pcs.	H	190×80×7	418306
GMA16 $\Phi 2 \times \phi 4.5 \times 65H$	GM16 $\Phi 2 \times \phi 4.5 \times 65$ 10pcs.	H	145×80×7	418313
GMA16 $\Phi 2 \times \phi 4.5 \times 100H$	GM16 $\Phi 2 \times \phi 4.5 \times 100$ 10pcs.	H	190×80×7	418316

Inner Ctn.: 10 sets

No. BW-70 Socket Bit Belt



Model No.	Contents	Card size (mm)	EDP No.
BW-70	A/F 8×60 A/F 10×60 A/F 12×60 A/F 13×60 A/F 14×60 1 for each	140×80×23	486705

Provided with one bit holder. Outer Ctn.: 5 sets

No. SB Nut Setter (For power tools)



Model No.	Contents	Card size (mm)	EDP No.
SB A/F 5/16"×55	A/F 5/16"×55 (for 5mm) 5pcs.	127×87×15	482531
SB A/F 3/8"×55	A/F 3/8"×55 (for 6mm) 5pcs.	127×87×15	482532

Outer Ctn.: 10 sets

No. BB Bit Belt Holder



Model No.	Contents	Package size (mm)	EDP No.
BB-5	Bit Belt Holder for 5pcs.	158×78×28	486579
BB-10	Bit Belt Holder for 10pcs.	118×98×38	486580

Outer Ctn.: 10 sets

No. VBA Double End Power Bit (w/Bit Belt) **NEW**

- Holder included for hanging from the waist belt.
- Anti-rust surface treatment.
- Popular 2 sizes available.

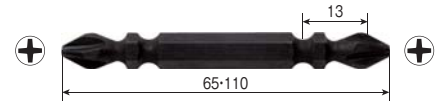


Model No.	Contents	Card size (mm)	EDP No.
VBA20651	Non-electrolytic plated bit $\varnothing 2 \times 65$ mm 10pcs.	50×100	484056
VBA21101	Non-electrolytic plated bit $\varnothing 2 \times 110$ mm 10pcs.	85×120	484057

with one piece of holder case Inner Ctn.: 10 sets

No. SMG14 Bit Mag Bottle 20-pc Set **SAKISUBO** Double End Bits **NEW PAT.**

- Tip is easy to see, and the torsion effect of the constricted part produces great durability.
- Used for soft joints such as wood screw work.
- Integrated magnetizer in the cap to magnetize/demagnetize bits.
- Provided with a ring to hang onto hooks.

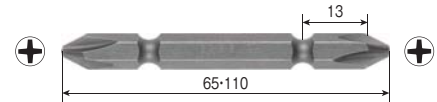


Model No.	Contents	Heat treatment classification	Bottle size (mm)	EDP No.
SMG14 $\varnothing 2 \times 65$H	$\varnothing 2 \times 65$ 20pcs.	H	53×100×111	415283
SMG14 $\varnothing 2 \times 110$H	$\varnothing 2 \times 110$ 20pcs.	H	53×100×153	415284

Inner Ctn.: 5 sets

No. AMG14 Bit Mag Bottle 20-pc Set **Double End Bits (A-type) NEW PAT.**

- Basic bits which are long popular in assembly factories.
- Optimal for hard joint parts such as tapping and machine screws.
- Integrated magnetizer in the cap to magnetize/demagnetize bits.
- Provided with a ring to hang onto hooks.

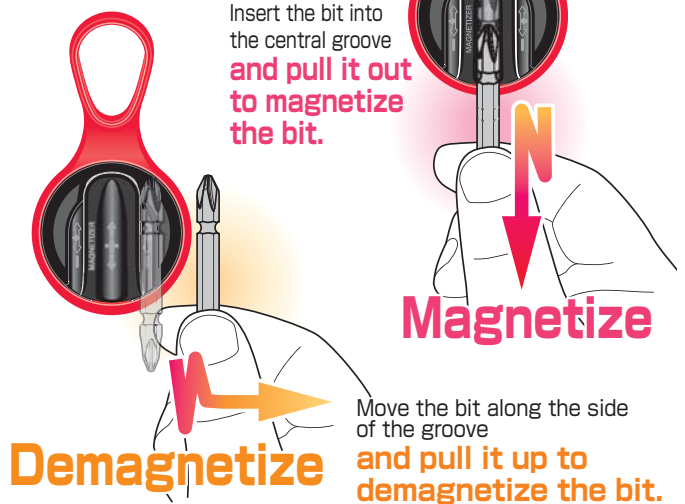


Model No.	Contents	Heat treatment classification	Bottle size (mm)	EDP No.
AMG14 $\varnothing 2 \times 65$H	$\varnothing 2 \times 65$ 20pcs.	H	53×100×111	415285
AMG14 $\varnothing 2 \times 110$H	$\varnothing 2 \times 110$ 20pcs.	H	53×100×153	415286

Inner Ctn.: 5 sets

One point

Magnetize/demagnetize with freedom



HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

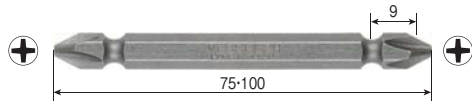
AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

No. BMG43 Bit Mag Bottle 20-pc Set Double End Bits (B-type) **NEW PAT.**

- Basic bits which are long popular in assembly factories.
- Optimal for hard joint parts such as tapping and machine screws.
- Integrated magnetizer in the cap to magnetize/demagnetize bits.
- Provided with a ring to hang onto hooks.



Model No.	Contents	Heat treatment classification	Bottle size (mm)	EDP No.
BMG43 Φ 2x100H	Φ 2x100 20pcs.	H	53x100x153	415282

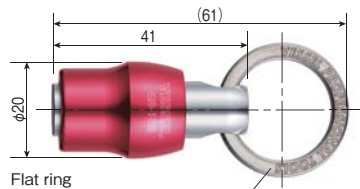
Inner Ctn.: 5 sets

No. QB-10 Quick Catcher **NEW**

- Bit can be replaced with just one hand.
- Smooth surface finish and pull-up type sleeve prevent tools from dropping.
- Strong ball chuck enables to mount a tool up to 500g.
- Flat ring with large diameter is easy to mount on carabiners, etc.



QB-10R QB-10B QB-10Y



Model No.	Contents	Card size (mm)	EDP No.
QB-10R	Quick Catcher (Red) 1pc.	135x50x22	486921
QB-10B	Quick Catcher (Blue) 1pc.	135x50x22	486922
QB-10Y	Quick Catcher (Yellow) 1pc.	135x50x22	486923

Inner Ctn.: 10 sets Outer Ctn.: 10 sets

No. QB-K3C Quick Catcher 3-Piece Set **NEW**

- Bit can be replaced with just one hand.
- Smooth surface finish and pull-up type sleeve prevent tools from dropping.
- Strong ball chuck enables to mount a tool up to 500g.
- Provided with a carabiner to hang onto your belt, etc.



Model No.	Contents	Card size (mm)	EDP No.
QB-K3C	Quick catcher (Red-Blue-Yellow), Carabiner (Black) 1 for each	135x50x50	486924

Inner Ctn.: 10 sets Outer Ctn.: 100 sets

No. QB-KBAD Quick Cather with Key Adapter **NEW**

- Bit can be replaced with just one hand.
- Smooth surface finish and pull-up type sleeve prevent tools from dropping.
- Strong ball chuck enables to mount a tool up to 500g.
- Provided with a carabiner to hang onto your belt, etc.

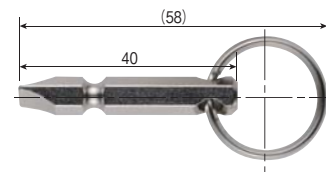


Model No.	Contents	Card size (mm)	EDP No.
QB-KBAD	Quick catcher (Black), Key adapter, Carabiner (Black) 1 for each	135x50x31	486925

Inner Ctn.: 10 sets Outer Ctn.: 100 sets

No. QB-AD Key adapter **NEW**

- Key adapter for Quick Catcher QB series.
- A flat blade for prizing, which can also be used to open paint can lids.
- Flat ring with large diameter is easy to mount on carabiners, etc.



Model No.	Contents	Card size (mm)	EDP No.
QB-AD	Key adapter 1pc.	135x50x9	486926

Inner Ctn.: 10 sets Outer Ctn.: 100 sets

One point

Insert/withdraw with just one hand

Pinch sleeve up to withdraw.

Insert, and automatically locks

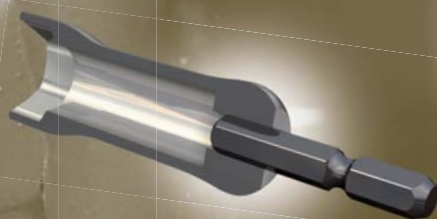
No. SL

GO-TAN Semi-Long socket



Medium length socket characterized by carefully polished mirror finish. Smooth streamlined design fits comfortably in your hand. Light-weight Deep Hole Sockets are good especially for installation and/or roof work of solarpanels, which are expanding.

A D V A N C E D
PRESS-FIT
T E C H N O L O G Y



Improved strength against shank breakage, press fit type



No. SL

"GO-TAN" Semi-long Socket

The most versatile medium length socket
Plane contact type hex socket
Streamlined mirror finish fits your hand
and has an excellent rust-proof performance.

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

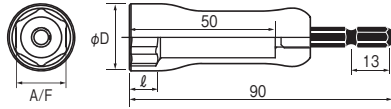
STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

No. SL "GO-TAN" (Hard Forged) Semi-long Socket



- The most versatile medium length socket.
- Streamlined mirror finish body fits your hand and has an excellent rust-proof performance.
- Plane contact type hex socket.



←See P100

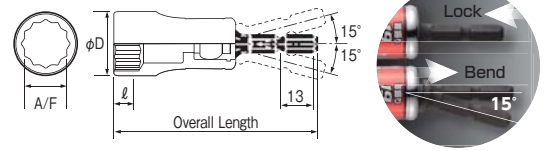
Model No.	A/F	φD	ℓ	Overall Length (mm)	Card size (mm)	EDP No.
SL200790	7	11	6.5	90	143×35	486741
SL200890	8	14	6.5	90	143×35	486731
SL200990	9	15	6.5	90	143×35	486742
SL201090	10	16	6.5	90	143×35	486732
SL201190	11	17	7	90	143×35	486743
SL201290	12	18	7.5	90	143×35	486733
SL201390	13	19	8	90	143×35	486734
SL201490	14	20	8	90	143×35	486735
SL201590	15	21	8	90	143×35	486744
SL201790	17	23	9	90	143×35	486736
SL201990	19	25	10	90	143×35	486737
SL202190	21	28	11	90	143×35	486738
SL202290	22	29	12	90	143×35	486739
SL202490	24	32	13	90	143×35	486740

※The colors of the A/F column in the table indicate the seal colors. Inner Ctn.: 5 sets Outer Ctn.: 100 sets

No. WSA "GO-TAN" (Hard Forged) Tilt Short Socket **NEW**



- Tilting short socket, optimal for using in cramped spaces.
- Push the shank to fix; pull it to let it incline max 15°.
- Recommended to the work at a corner where it is not easy to reach with an electric screwdriver.
- Surface-to-surface contact dodecagonal type for improved workability (except A/F8mm model) ? Does not damage the edges of bolts or nuts.



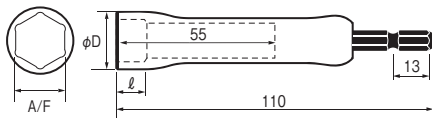
Model No.	A/F	φD	ℓ	Overall Length (mm)	Card size (mm)	EDP No.
WSA2008	8	13	6.5	75	130×35	486751
WSA2010	10	16	6.5	75	130×35	486752
WSA2012	12	18	7.5	75	130×35	486753
WSA2013	13	19	8	75	130×35	486754
WSA2014	14	20	8	75	130×35	486755
WSA2017	17	23	9	75	130×35	486756
WSA2019	19	25	10	75	130×35	486757
WSA2021	21	28	11	80	140×35	486758
WSA2024	24	32	13	85	145×35	486759

※The colors of the A/F column in the table indicate the seal colors. Inner Ctn.: 5 sets Outer Ctn.: 100 sets

No. TA "GO-TAN" (Hard Forged) Mirror Socket **PAT.**



- With a shank press-fit into the socket with resin, suppressing the concentration of stress on the shank part when impact is applied.
- Streamlined mirror finish body fits your hand and has an excellent rust-proof performance.
- Plane contact type hex socket.

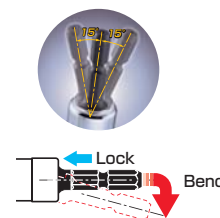
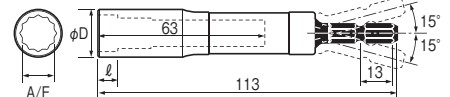


Model No.	A/F	φD	ℓ	Overall Length (mm)	Card size (mm)	EDP No.
TA200811	8	14	6.5	110	165×35	485008
TA201011	10	16	6.5	110	165×35	485010
TA201211	12	18	7.5	110	165×35	485012
TA201311	13	19	8	110	165×35	485013
TA201411	14	20	8	110	165×35	485014
TA201711	17	23	9	110	165×35	485017
TA201911	19	25	10	110	165×35	485019
TA202111	21	28	11	110	165×35	485021
TA202211	22	29	13	110	165×35	485022
TA202411	24	32	13	110	165×35	485024

※The colors of the A/F column in the table indicate the seal colors. Inner Ctn.: 5 sets Outer Ctn.: 100 sets

No. WA Tilt Socket **PAT.**

- Usually can be used as deep length socket, but at a corner can be used as a tilting socket.
- Plane contact type dodecagonal socket allows for easy fitting to bolts and nuts, improving working performance.



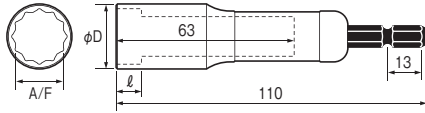
Model No.	A/F	φD	ℓ	Overall Length (mm)	Card size (mm)	EDP No.
WA201011	10	16	6.5	113	165×35	486361
WA201211	12	18	7.5	113	165×35	486362
WA201311	13	19	8	113	165×35	486363
WA201411	14	20	8	113	165×35	486364
WA201711	17	23	9	113	165×35	486365
WA201911	19	25	10	113	165×35	486366
WA202111	21	28	11	113	165×35	486367
WA202211	22	29	13	113	165×35	486368
WA202411	24	32	13	113	165×35	486369

※The colors of the A/F column in the table indicate the seal colors. Inner Ctn.: 5 sets Outer Ctn.: 100 sets

No. LA Deep Hole Socket



- Deep hole socket suitable for nut tightening work.
- Plane contact type dodecagonal socket allows for easy fitting to bolts and nuts, improving working performance.



Model No.	A/F	φD	ℓ	Overall Length (mm)	Card size (mm)	EDP No.
LA200811	8	14	6.5	110	165×35	486140
LA201011	10	16	6.5	110	165×35	486141
LA201211	12	18	7.5	110	165×35	486142
LA201311	13	19	8	110	165×35	486143
LA201411	14	20	8	110	165×35	486144
LA201711	17	23	9	110	165×35	486145
LA201911	19	25	10	110	165×35	486146
LA202111	21	28	11	110	165×35	486147
LA202211	22	29	13	110	165×35	486148
LA202411	24	32	13	110	165×35	486149

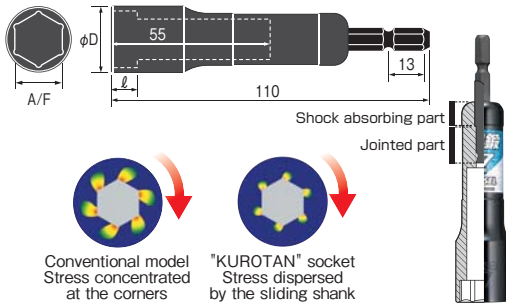
※The colors of the A/F column in the table indicate the seal colors. Inner Ctn.: 5 sets Outer Ctn.: 100 sets (LA202411 is supplied only by inner ctn.)

No. HA "KUROTAN" Socket

PAT.



- Professional's preferred all black finish.
- Improved durability as unique shank structure disperses the impact.
- Plane contact type hex socket.



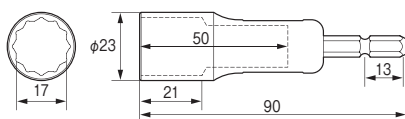
Model No.	A/F	φD	ℓ	Overall Length (mm)	Card size (mm)	EDP No.
HA201711	17	23	9	110	160×35	486116
HA201911	19	25	10	110	160×35	486117
HA202111	21	28	11	110	160×35	486118

※The colors of the A/F column in the table indicate the seal colors. Inner Ctn.: 5 sets Outer Ctn.: 100 sets

No. LAS Scaffolding Worker's Socket



- Socket for scaffolding corresponding to clamps.
- Plane contact type dodecagonal socket allows for easy fitting to bolts and nuts, improving workability.



Model No.	A/F	Outer Diameter φ	ℓ	Overall Length (mm)	Card size (mm)	EDP No.
LAS20179	17	23	21	90	146×35	486150

※The colors of the A/F column in the table indicate the seal colors. Inner Ctn.: 5 sets Outer Ctn.: 100 sets

One point

Various applications of socket bits

	For assembly and disassembly of electric appliances, hex tapping screws, and bolt and nut tightening	→	5.5 mm
	For mounting casters and adjust bolts, and pipe saddles to ALC, etc.	→	7 mm
	For corrugated panels (hook bolts), folded plate roof materials, and drill screws to be used between roof frames, etc.	→	8 mm
	For mounting fixtures to C-shape steel (drill screws, etc.)	→	9.6 mm
	For corrugated panels (hook bolts), steel furniture assembly, lag screws, etc.	→	10 mm
	For corrugated slate panels (hook bolts), form work equipment (plastic cones), etc.	→	12 mm
	For mounting members to cavity walls (hanger bolts for cavity walls), lag screws, facility, piping work, etc.	→	13 mm
	For placing folded plate roof (roof bolts), duct mounting, facility, piping work, etc.	→	14 mm
	For scaffolding work (clamps), cable rack assembly, lag screws, etc.	→	17 mm
	For strap bolts, lag screws, etc.	→	19 mm
	For form tie nuts, strap bolts, lag screws, etc.	→	21 mm
	Useful when concrete is attached to a form tie nut	→	22 mm
	For hole-down joint metals (bolt with washer, anchor bolt), etc.	→	24 mm

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

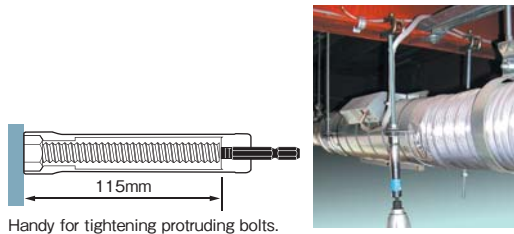
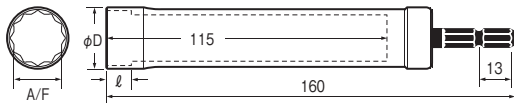
AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

No. XA Drop-ceiling Socket

- Suited for tightening nuts when the projecting part of bolt is long.
- Useful for mounting duct and tightening hanging bolts.
- Plane contact type dodecagonal socket.

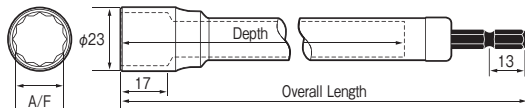


Model No.	A/F	φD	ℓ	Overall Length (mm)	Card size (mm)	EDP No.
XA201715	17	23	9	160	217×35	486132
XA201915	19	25	10	160	217×35	486133
XA202115	21	28	11	160	217×35	486134
XA202415	24	32	13	160	217×35	486131

※The colors of the A/F column in the table indicate the seal colors. Inner Ctn.: 5 sets Outer Ctn.: 50 sets

No. KA Drop-ceiling Socket

- Super long size socket with a deep hole.
- The diameter of the deep hole part is designed to be as small as the size of the thread, realizing light weight and making overhead position work easier.
- Plane contact type dodecagonal socket.

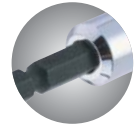
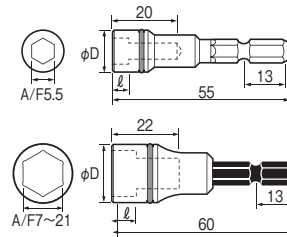


Model No.	A/F	Outer Diameter φ	Depth	Overall Length (mm)	Card size (mm)	EDP No.
KA201730	17	23	255	300	355×35	484421
KA201750	17	23	455	500	555×35	484422
KA201770	17	23	655	700	755×35	484423

※The colors of the A/F column in the table indicate the seal colors. Inner Ctn.: 5 sets

No. SA "GO-TAN" Socket

- Basic sockets.
- Plane contact type hexagonal socket allowing for excellent durability.



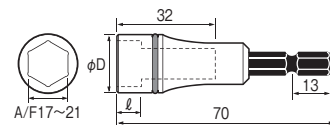
Axial Press-fitting is strong against twisting

Model No.	A/F	φD	ℓ	Overall Length (mm)	Card size (mm)	EDP No.
SA205555	5.5	10	3.5	55	110×35	486230
SA200755	7	13	5	60	115×35	486231
SA200860	8	13.5	6.5	60	115×35	486232
SA209660	9.6	16	6.5	60	115×35	486233
SA201060	10	16	6.5	60	115×35	486234
SA201260	12	18	8	60	115×35	486235
SA201360	13	19	8	60	115×35	486236
SA201460	14	20	8	60	115×35	486237
SA201760	17	23	9	60	115×35	486238

※The colors of the A/F column in the table indicate the seal colors. Inner Ctn.: 5 sets Outer Ctn.: 100 sets

No. SA "GO-TAN" Semi-Long Type

- Basic sockets.
- Plane contact type hexagonal socket allowing for excellent durability.

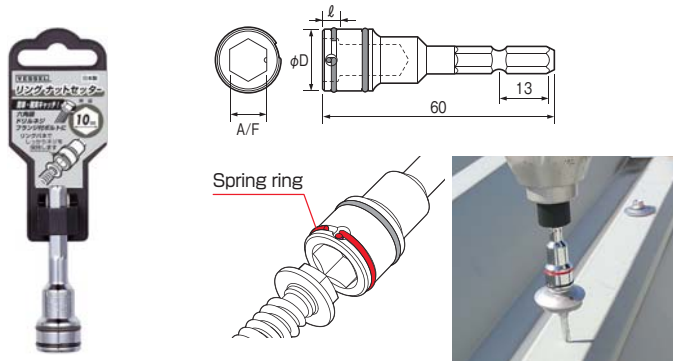


Model No.	A/F	φD	ℓ	Overall Length (mm)	Card size (mm)	EDP No.
SA201770	17	23	9	70	125×35	486243
SA201970	19	25	10	70	125×35	486239
SA202170	21	28	11	70	125×35	486240

※The colors of the A/F column in the table indicate the seal colors. Inner Ctn.: 5 sets Outer Ctn.: 100 sets

No. SAR Ring Nut Setter

- Ring spring holds the screw head firmly.
- It does not use magnets, not attracting chips.

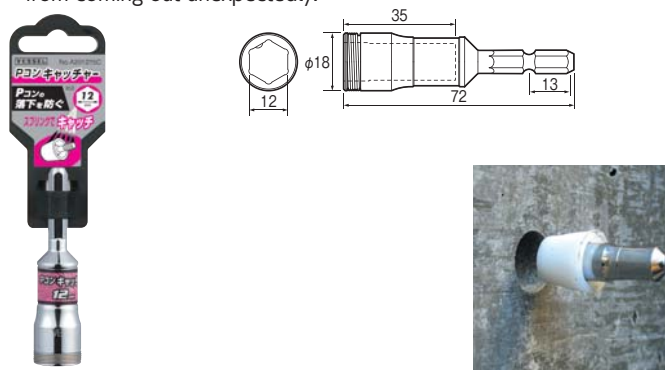


Model No.	A/F	φD	φ	Overall Length (mm)	Card size (mm)	EDP No.
SAR0860	8	13	3	60	115×35	486245
SAR9660	9.6	16	4	60	115×35	486246
SAR1060	10	16	5	60	115×35	486247

*The colors of the A/F column in the table indicate the seal colors. Inner Ctn.: 5 sets Outer Ctn.: 100 sets

No. A201275C Plastic Cone Catcher

- A spring and a ball hold a plastic cone firmly, preventing plastic cone from coming out unexpectedly.

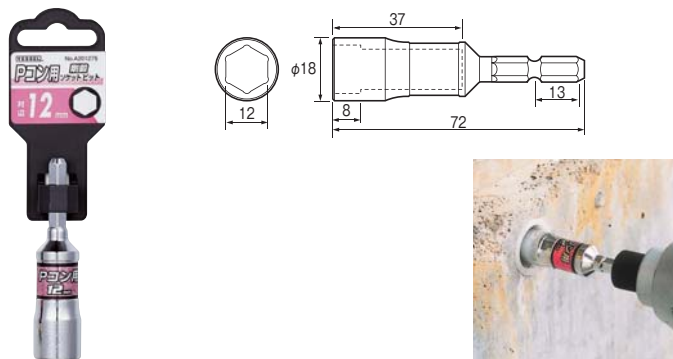


Model No.	A/F	Outer Diameter φ	Overall Length (mm)	Card size (mm)	EDP No.
A201275C	12	18	72	130×35	486265

*The colors of the A/F column in the table indicate the seal colors. Inner Ctn.: 5 sets Outer Ctn.: 100 sets

No. A201275 Socket for Plastic Cone

- For attaching and removing plastic cones.
- The shank can be hit with a hammer to remove concrete rubble.

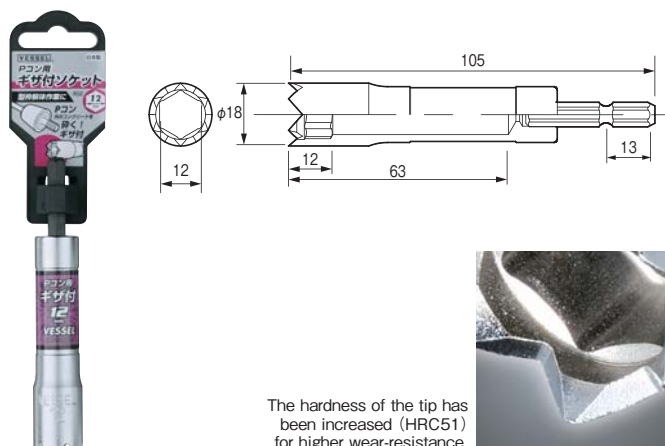


Model No.	A/F	φD	Overall Length (mm)	Card size (mm)	EDP No.
A201275	12	18	72	120×35	486241

*The colors of the A/F column in the table indicate the seal colors. Inner Ctn.: 5 sets Outer Ctn.: 100 sets

No. A201210B Rubble-removing Socket for Plastic Cones (Carbide tipped)

- For attaching and removing plastic cones while removing concrete rubbles.
- Excellent abrasion-resistance with the highly hard cutting edge.



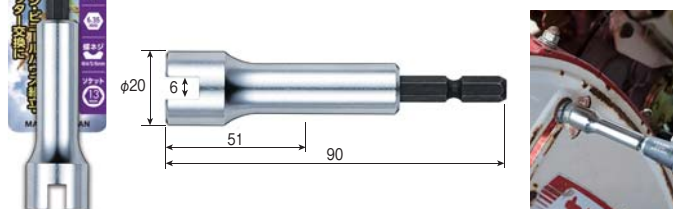
The hardness of the tip has been increased (HRC51) for higher wear-resistance.

Model No.	A/F	Outer Diameter φ	Overall Length (mm)	Card size (mm)	EDP No.
A201210B	12	18	105	160×35	486264

*The colors of the A/F column in the table indicate the seal colors. Inner Ctn.: 5 sets

No. A20CH13 Thumbscrew Socket NEW

- To fasten either wing screws or hexagonal nuts (Wing screw size: M4/5/6, Hexagonal nut: A/F13mm).
- Can fasten many wing screws during a short time, mounting this product to an electric impact driver. May be recommended to installation of electric fences or PVC greenhouses.
- A/F13mm type may be recommended to replacement of bush cutters.
- Can be used with a commercially available driver handle.



Model No.	A/F	φD	Overall Length (mm)	Card size (mm)	EDP No.
A20CH13	13	20	90	140×35	486244

Inner Ctn.: 5 sets Outer Ctn.: 100 sets

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

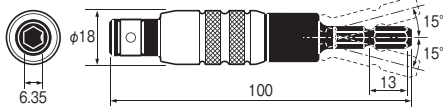
STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

No. WBJ Tilt Bit Holder

PAT.

- Thanks to a hand-turned grip, users can work in a stable posture.
- Installing half-down hardware and angle brackets.

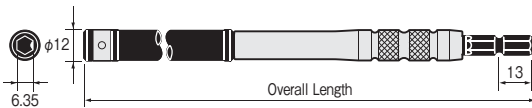


Model No.	Bit mounting angle (mm)	Outer Diameter ϕ	Overall Length (mm)	Card size (mm)	EDP No.
WBJ100	6.35	18	100	160×35	486357

Inner Ctn.: 5 sets Outer Ctn.: 100 sets

No. EXJ Long Bit Holder

- Insert 6.35mm hexagon bit, and transform it to a long type.
- Hand-turned grip enables to use in a stable posture.
- For tightening screws in high places or when nearby obstructions make work difficult.

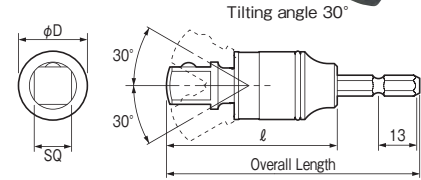


Model No.	Bit mounting angle (mm)	Outer Diameter ϕ	Overall Length (mm)	Card size (mm)	EDP No.
EXJ150	6.35	12	150	205×35	486350
EXJ300	6.35	12	300	355×35	486351

Inner Ctn.: 5 sets Outer Ctn.: 100 sets

No. A20USQ Universal Socket Adapter

- Universal adaptor used with a hand held socket.
- Most standard 9.5mm and 12.7mm socket types are available.
- Suited for bolt and nut tightening works in narrow spaces.

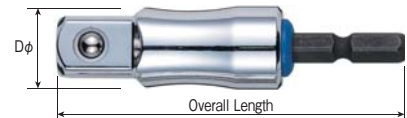


Model No.	Square drive size A/F	ϕD	ℓ	Overall Length (mm)	Card size (mm)	EDP No.
A20USQ3	3/8" (9.5mm)	20	49	77	133×35	486268
A20USQ4	1/2" (12.7mm)	23	56	84	140×35	486269

※The colors of the A/F column in the table indicate the seal colors. Inner Ctn.: 5 sets Outer Ctn.: 100 sets

No. TA20BSQ "GO-TAN" (Hard Forged) Mirror Socket Adapter **NEW**

- Remarkably improved durability by protecting the shank with a shock absorbing resin.
- 4 times superior durability than a press-fit type.
- Adapter for electric screwdrivers, with which commercially available sockets can be used.

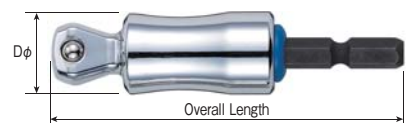


Model No.	Square drive size A/F	ϕD	Overall Length (mm)	Card size (mm)	EDP No.
TA20BSQ3	9.5	16	72	130×35	486492
TA20BSQ4	12.7	18	77	135×35	486493
TA20BSQ3L	9.5	16	110	170×35	486494
TA20BSQ4L	12.7	18	115	175×35	486495

Inner Ctn.: 5 sets Outer Ctn.: 100 sets

No. TA20WSQ "GO-TAN" (Hard Forged) Tilt Socket Adapter **NEW**

- Remarkably improved durability by protecting the shank with a shock absorbing resin.
- 4 times superior durability than a press-fit type.
- Adapter for electric screwdrivers, with which commercially available sockets can be used.

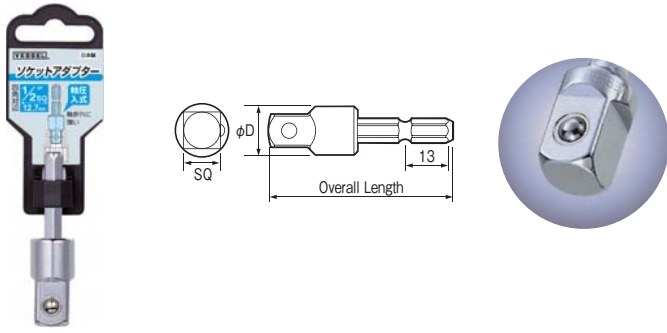


Model No.	Square drive size A/F	ϕD	Overall Length (mm)	Card size (mm)	EDP No.
TA20WSQ3	9.5	16	72	130×35	486496
TA20WSQ4	12.7	18	77	135×35	486497
TA20WSQ3L	9.5	16	110	170×35	486498
TA20WSQ4L	12.7	18	115	175×35	486499

Inner Ctn.: 5 sets Outer Ctn.: 100 sets

No. A20BSQ Socket Adapter

- Use your own sockets.
- Available in 3 sizes for different types of socket chucks.
- Superior durability by press-fitting (3/8", 1/2" only).



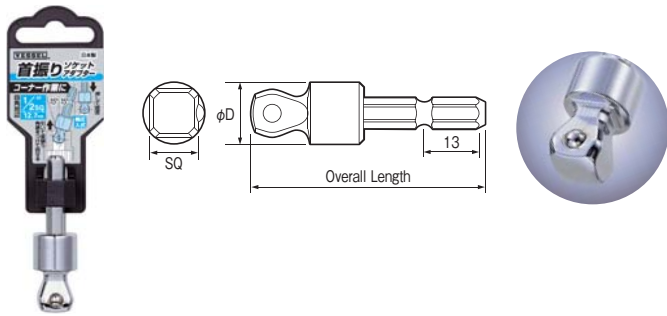
Model No.	Square drive size A/F	φD	Overall Length (mm)	Card size (mm)	EDP No.
A20BSQ2	1/4" (6.35mm)	8	45	105×35	486352
A20BSQ3	3/8" (9.5mm)	13	54	112×35	486353
A20BSQ4	1/2" (12.7mm)	16	59	117×35	486354

Inner Ctn.: 5 sets Outer Ctn.: 100 sets

No. A20WSQ Tilt Socket Adapter

PAT.

- Use your own sockets.
- When pulled it swings, and when pushed it is locked.
- Superior durability by press-fitting.

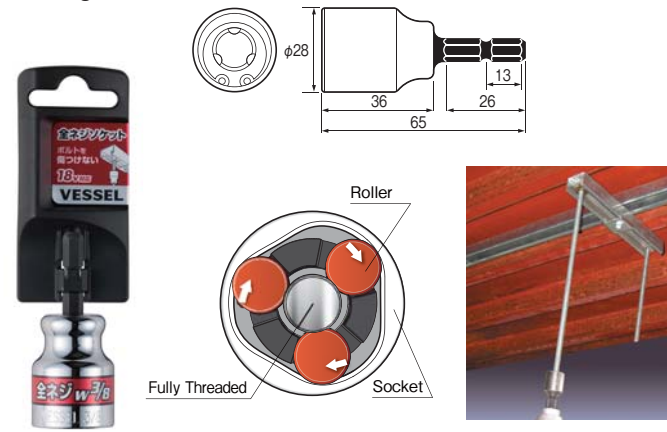


Model No.	Square drive size A/F	φD	Overall Length (mm)	Card size (mm)	EDP No.
A20WSQ3	3/8" (9.5mm)	13	56	114×35	486355
A20WSQ4	1/2" (12.7mm)	16	60	117×35	486356

Inner Ctn.: 5 sets Outer Ctn.: 100 sets

No. A20ZW Fully Threaded Socket

- 3 rollers hold screw firmly.
- Indispensable for a work with hanging bolts and light gauge steel framing construction.

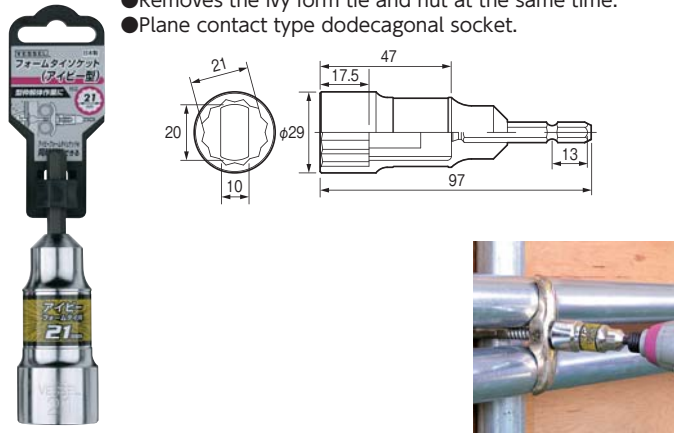


Model No.	Screw size	Outer Diameter φ	Overall Length (mm)	Card size (mm)	EDP No.
A20ZW30	w3/8	28	66	124×38×28	486359
A20ZW40	w1/2	28	66	124×38×28	486360

※The colors of the Screw size column in the table indicate the seal colors. Inner Ctn.: 5 sets Outer Ctn.: 100 sets

No. A202110F Form Tie Socket (For Ivy Form Ties)

- Removes the ivy form tie and nut at the same time.
- Plane contact type dodecagonal socket.



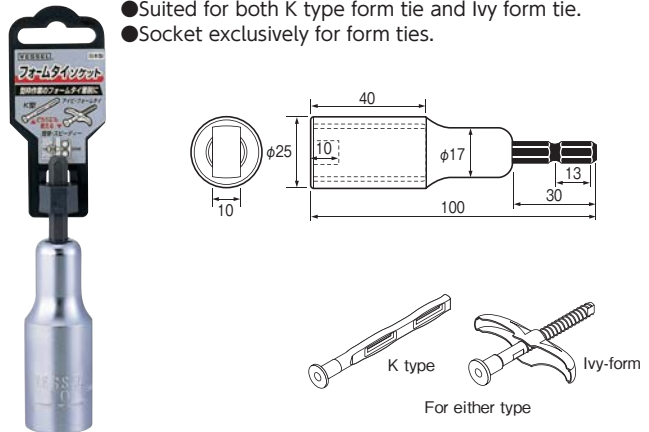
Model No.	A/F	Outer Diameter φ	Overall Length (mm)	Card size (mm)	EDP No.
A202110F	21	29	97	160×35	486267

※The colors of the A/F column in the table indicate the seal colors.

Inner Ctn.: 5 sets

No. GA20F101 Form Tie Socket

- Suited for both K type form tie and Ivy form tie.
- Socket exclusively for form ties.



Model No.	A/F	Outer Diameter φ	Overall Length (mm)	Card size (mm)	EDP No.
GA20F101	10	25	100	160×35	486491

Inner Ctn.: 5 sets

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

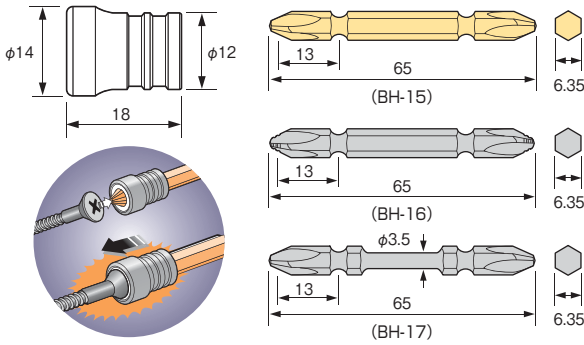
AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

No. BH Magnetic Screw Catcher

- When a screw approaches the bit, the magnet sleeve moves automatically to catch the screw.
- Suited for building work such as floor panels, joist, interior finish, 2x4, etc.



Automatically catches screws



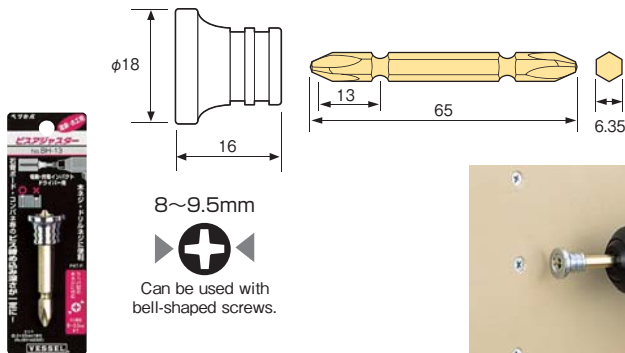
Model No.	Contents	Card size (mm)	EDP No.
BH-15	Magnetic Screw Catch 1 pc. Double End Gold Color Bit $\Phi 2 \times 65$ 1 pc.	135x45	486331
BH-16	Magnetic Screw Catch 1 pc. "GIZA" bit $\Phi 2 \times 65$ 1 pc.	135x45	486332
BH-17	Magnetic Screw Catch 1 pc. Torsion bit $\Phi 2 \times 65$ 1 pc.	135x45	486333

Inner Ctn.: 10 sets

No. BH-13 Screw Adjuster

- Provided with screw stopper.
- Keeps the level of screw head constant in continuous work, causing no damage to the plaster board.

PAT.



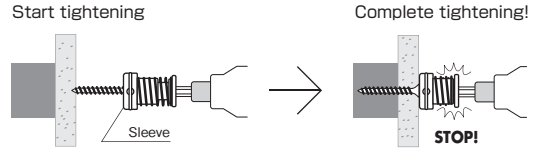
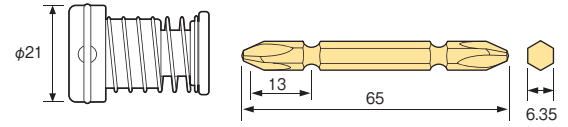
Model No.	Contents	Card size (mm)	EDP No.
BH-13	Screw Adjuster 1 pc. Double End Gold Color Bit $\Phi 2 \times 65$ 1 pc.	135x45	486329

Outer Ctn.: 10 sets

No. BH-11 Screw Catch and Adjuster

PAT.

- Catches long screws even without magnetic force.
- Screw stopper function keeps the level of screw head constant, causing no damage to the plaster board.



8~9.5mm



Can be used with bell-shaped screws.

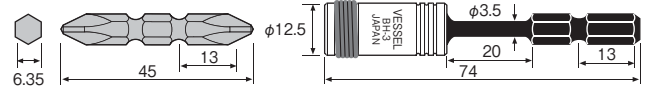


Model No.	Contents	Card size (mm)	EDP No.
BH-11	Screw Catch and Adjuster 1 pc. Double End Gold Color Bit $\Phi 2 \times 65$ 1 pc.	135x45	486324

Outer Ctn.: 10 sets

No. BH-14 Torsion Bit Holder

- Bit holder with a torsion part.
- Can be used by mounting a double-ended bit.
- Prevents screw stripping and bit breakage.



Assuredly holds bit with ball and spring.

Torsion shank absorbs impact.



Model No.	Contents	Card size (mm)	EDP No.
BH-14	Torsion Bit Holder 1 pc. High Hardness Bit $\Phi 2 \times 45$ 1 pc.	160x45	486330

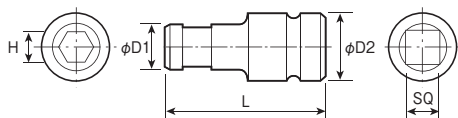
Inner Ctn.: 10 sets

Model No.	Contents	Card size (mm)	EDP No.
BH-13	Screw Adjuster 1 pc. Double End Gold Color Bit $\Phi 2 \times 65$ 1 pc.	135x45	486329

Outer Ctn.: 10 sets

■ 9.5 / 12.7 mm For Impact Adapter

No. A30 Socket Anvil



Model No.	(SQ)×A/F (H) (mm)	Dimensions D1 D2 L (mm)			Applicable to	EDP No.
		D1	D2	L		
A30	9.5×6.35	13	20	45	A14·A16	479201
	9.5×8.0	16	20	47.5	A15·A19	479202
	12.7×6.35	13	25	49	A14·A16	479401
	12.7×8.0	16	25	51	A15·A19	479402

■ 12.7 mm For Impact Adapter

No. BH-30 Socket Anvil

- Bit holder with a torsion part.
- Can be used by mounting a double-ended bit.
- Prevents screw stripping and bit breakage.

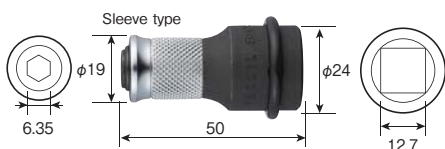


Model No.	(SQ)×A/F (H) (mm)	Card size (mm)	EDP No.
BH-30	12.7×6.35	135×60	486336

Inner Ctn.: 5 sets

No. BHC-30 Socket Anvil (sleeve type)

- Adaptor used with air/electric impact wrench.
- 6.35mm hexagon bits can be mounted at one-touch.

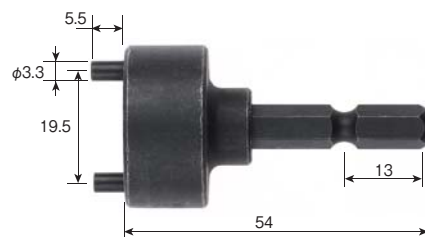


Model No.	(SQ)×A/F (H) (mm)	Card size (mm)	EDP No.
BHC-30	12.7×6.35	135×60	486582

Inner Ctn.: 5 sets

No. A202050P Pin Wrench for Disk Nut

- Can be used with an electric impact driver to remove firmly tightened disk nuts easily.
- For the disk grinder with the wheel diameter of 100mm.



Model No.	Pitch of nut holes	Pin diameter φ (mm)	Card size (mm)	EDP No.
A202050P	19.5	3.3	107×35	486581

Inner Ctn.: 5 sets

One point

For simple loosening of disk nuts...

An opposite side 6.35mm pin wrench with hexagonal shaft for disk nuts that can be attached to an impact driver. Disk nuts which cannot be removed by the drill wrench that came with the impact driver can be easily loosened and removed with this unit.



HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

No. SST

SAKISUBO Torsion Bit



"PROKON" is a series of tools manufactured with a professional spirit for professionals. This solves various kinds of problems in construction, electric, and utility works. "PROKON" is all that craftspeople could ask!

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS



No. SST

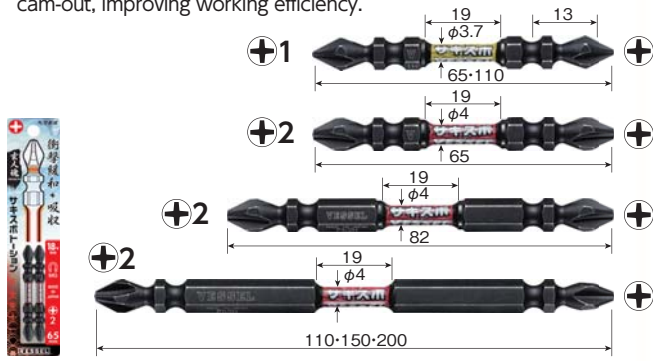
SAKISUBO Torsion Bit

Highly durable tapered bit combined with torsion effect. Cushion effect at the constricted part prevents cam-out, improving work efficiency. Magnetized.

※This is for illustrative purpose.

No. SST SAKISUBO Torsion Bit 2-Piece Set PAT.

- Highly durable tapered bit combined with torsion effect.
- Cushion effect at the constricted part prevents cam-out, improving working efficiency.



Model No.	Contents	Card size (mm)	EDP No.
SST141065	⊕1×φ3.7× 65 2pcs.	160×35×8	485321
SST141110	⊕1×φ3.7×110 2pcs.	160×35×8	485335
SST142065	⊕2×φ4 × 65 2pcs.	160×35×8	485322
SST142082	⊕2×φ4 × 82 2pcs.	160×35×8	485323
SST142110	⊕2×φ4 ×110 2pcs.	160×35×8	485324
SST142150	⊕2×φ4 ×150 2pcs.	210×35×8	485325
SST142200	⊕2×φ4 ×200 2pcs.	260×35×8	485326

Inner Ctn.: 10 sets

No. SST5P SAKISUBO Torsion Bit 5-Piece Set PAT.



Model No.	Contents	Card size (mm)	EDP No.
SST5P2065	⊕2×φ4 × 65 5pcs.	160×70×8	485444
SST5P2082	⊕2×φ4 × 82 5pcs.	160×70×8	485445
SST5P2110	⊕2×φ4 ×110 5pcs.	160×70×8	485446

Inner Ctn.: 10 sets

No. SS16 Recessed SAKISUBO Bit 2 Piece Set PAT.

- Thin shank type ideal for working in narrow places.
- Cushion effect at the constricted part prevents cam-out that may occur at the time of passing wood grains in the wooden work.



Model No.	Contents	Card size (mm)	EDP No.
SS161065	⊕1×φ3 ×65 2pcs.	160×35×8	485336
SS161100	⊕1×φ3 ×100 2pcs.	160×35×8	485327
SS162065	⊕2×φ4.5×65 2pcs.	160×35×8	485337
SS162082	⊕2×φ4.5×82 2pcs.	160×35×8	485338
SS162100	⊕2×φ4.5×100 2pcs.	160×35×8	485328
SS162120	⊕2×φ4.5×120 2pcs.	210×35×8	485339
SS162150	⊕2×φ4.5×150 2pcs.	210×35×8	485340

Inner Ctn.: 10 sets

No. NMCS Recessed SAKISUBO Bit With Bit Magnetizer/Demagnetizer PAT.

- Magnetic screw catcher with two built-in neodymium magnets holds screws securely.
- Combined with recessed bit, ideal for continuous screw fastening in confined places and on the dry walls.



Model No.	Contents	Card size (mm)	EDP No.
NMCS16210	Recessed SAKISUBO Bit ⊕2×φ4.5×100 1pc. Bit Magnetizer/Demagnetizer 1pc.	160×35×17	349958
NMCS16215	Recessed SAKISUBO Bit ⊕2×φ4.5×150 1pc. Bit Magnetizer/Demagnetizer 1pc.	210×35×17	349965

Inner Ctn.: 10 sets

One point Strong magnet catches screws. Bit Magnetizer / Demagnetizer

Approx. **20** times stronger **0.318kgf**

Attaching the NMC-2P to a bit make its retaining strength about 20 times more than normal magnetized bits. The bit with the NMC-2P can assuredly catch even a long screw.



HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

No. SS16H Recessed "SAKISUBO" Hex Bit PAT.

- For hex hole bolts and screws.
- Long type useful for hard-to-reach places.



Model No.	Contents	Card size (mm)	EDP No.
SS16H2010	H2.0 × 100 1pc.	160×35×8	485329
SS16H2510	H2.5 × 100 1pc.	160×35×8	485330
SS16H3010	H3.0 × 100 1pc.	160×35×8	485331
SS16H4010	H4.0 × 100 1pc.	160×35×8	485332
SS16H5010	H5.0 × 100 1pc.	160×35×8	485333
SS16H6010	H6.0 × 100 1pc.	160×35×8	485334

Inner Ctn.: 10 sets

No. SS16T Recessed "SAKISUBO" TORX Bit PAT.

- Specialized for Torx screws.
- Manufactured under license by Torx, this bit is compatible with any Torx screws.



Model No.	Contents	Card size (mm)	EDP No.
SS16T1010	T10 × 100 1pc.	160×35×8	485347
SS16T1510	T15 × 100 1pc.	160×35×8	485348
SS16T2010	T20 × 100 1pc.	160×35×8	485349
SS16T2510	T25 × 100 1pc.	160×35×8	485350
SS16T3010	T30 × 100 1pc.	160×35×8	485351

Inner Ctn.: 10 sets

No. BW Recessed "SAKISUBO" Hex Bit 5-Piece Set PAT.



Model No.	Contents	Card size (mm)	EDP No.
BW-32	Recessed "SAKISUBO" Hex Bit A/F2.5, 3.0, 4.0, 5.0, 6.0 × 100 1 for each Bit Magnetizer/Demagnetizer 1pc.	160×70×23	486592

Inner Ctn.: 10 sets

No. BW Recessed "SAKISUBO" TORX Bit 5-Piece Set PAT.



Model No.	Contents	Card size (mm)	EDP No.
BW-33	Recessed "SAKISUBO" TORX Bit T10, 15, 20, 25, 30 × 100 1 for each Bit Magnetizer/Demagnetizer 1pc.	160×70×23	486593

Inner Ctn.: 10 sets

TORX is a registered trademark of Acument TM Intellectual Properties, LLC (USA). VESSEL has a manufacturing license in Japan and selling same to the world.

No. SS16BP Recessed "SAKISUBO" Ball Point Bit PAT.

- For hex hole bolt and screw.
- Ball point tip with an inclination angle of 30°. Suited for working in cramped places of high-density packaging.



Model No.	Contents	Card size (mm)	EDP No.
SS16BP2010	H2.0 × 100 1pc.	160×35×8	485341
SS16BP2510	H2.5 × 100 1pc.	160×35×8	485342
SS16BP3010	H3.0 × 100 1pc.	160×35×8	485343
SS16BP4010	H4.0 × 100 1pc.	160×35×8	485344
SS16BP5010	H5.0 × 100 1pc.	160×35×8	485345
SS16BP6010	H6.0 × 100 1pc.	160×35×8	485346

Inner Ctn.: 10 sets

No. NMC-2P Bit Magnetizer/Demagnetizer NEW

- Magnetic screw catcher with two built-in neodymium magnets holds screws securely.
- Combined with bit, ideal for continuous screw fastening in cramped places and on the dry walls.



Model No.	Contents	Card size (mm)	EDP No.
NMC-2P	Bit Magnetizer/Demagnetizer 2pcs.	120×44×17	486575

Inner Ctn.: 10 sets

No. S14 Double End "SAKISUBO" Bit 2-Piece Set NEW

- The constricted part acts as a cushion, absorbing the shock from power impact tools, and improves durability.
- Optimal for fastening joists, staircase construction, concrete panels, sash attachment and interior fixtures.



Model No.	Contents	Card size (mm)	EDP No.
S142065	⌀2× 65 2pcs.	160×35×8	485447
S142082	⌀2× 82 2pcs.	160×35×8	485448
S142110	⌀2×110 2pcs.	160×35×8	485449
S142150	⌀2×150 2pcs.	210×35×8	485450

Inner Ctn.: 10 sets

No. S5P Double End "SAKISUBO" Bit 5-Piece Set

- Tapered tip prevents cam-out.
- Excellent durability.



Model No.	Contents	Package size (mm)	EDP No.
S5P2065F	⌀2× 65 5pcs.	135×50×7	485435
S5P2110F	⌀2×110 5pcs.	160×50×7	485436

Inner Ctn.: 10 sets

No. NMCS3P "SAKISUBO" Bit with Bit Magnetizer/Demagnetizer (packed in a plastic bag) 3-Piece Set NEW

- A set of SAKISUBO bits with convenient NMC-2P Bit Magnetizer/Demagnetizer.
- More affordable by omitting printing mark from the bit.
- Both 3-piece and 8-piece sets come with 1 × NMC-2P Bit Magnetizer/Demagnetizer.



Model No.	Contents	Package size (mm)	EDP No.
NMCS3P2065F	SAKISUBO Bit ⌀2× 65 3pcs. Bit Magnetizer/Demagnetizer 1pc.	130×50×16	485359
NMCS3P2082F	SAKISUBO Bit ⌀2× 82 3pcs. Bit Magnetizer/Demagnetizer 1pc.	130×50×16	485360
NMCS3P2110F	SAKISUBO Bit ⌀2×110 3pcs. Bit Magnetizer/Demagnetizer 1pc.	160×50×16	485361

Inner Ctn.: 10 sets

No. NMCS8P "SAKISUBO" Bit with Bit Magnetizer/Demagnetizer (packed in a plastic bag) 8-Piece Set NEW

Model No.	Contents	Package size (mm)	EDP No.
NMCS8P2065F	SAKISUBO Bit ⌀2× 65 8pcs. Bit Magnetizer/Demagnetizer 1pc.	143×87×16	485362
NMCS8P2082F	SAKISUBO Bit ⌀2× 82 8pcs. Bit Magnetizer/Demagnetizer 1pc.	143×87×16	485363
NMCS8P2110F	SAKISUBO Bit ⌀2×110 8pcs. Bit Magnetizer/Demagnetizer 1pc.	162×87×16	485364

Inner Ctn.: 10 sets

No. M-S14 "SAKISUBO" Bit (packed in a plastic bag) 10-Piece Set NEW



- For soft joint applications such as fastening elastic items (coarse threads, wood screw, resin tap etc). Can be used with general standard screws.
- Suppresses backlash of bits on a wood grain and secure a smooth fastening.



Model No.	Contents	Heat treatment classification	Package size (mm)	EDP No.
M-S14	⌀2×110H			
M-S14	⌀2× 65H	H	86×133×8	415441
M-S14	⌀2× 82H	H	86×162×8	415442
M-S14	⌀2×110H	H	86×162×8	415443
M-S14	⌀2×150H	H	86×202×8	415444

Outer Ctn.: 10 sets

No. M-S14H "SAKISUBO" Bit (packed in a plastic bag) 10-Piece Set NEW



- For hard joint applications such as tapping or self-tapping screws. Optimal for low head screws such as thin washers or screws whose head hole accuracy is not good.
- Thick tip improves durability. Fits pan head screws like tapping or drill screws.
- Black finish appealing to professionals. Rust-resistant.

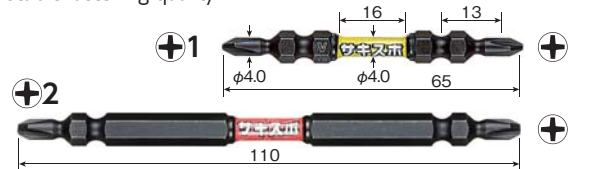


Model No.	Contents	Heat treatment classification	Package size (mm)	EDP No.
M-S14H	⌀2×110H			
M-S14H	⌀2× 65H	H	86×133×8	415445
M-S14H	⌀2× 82H	H	86×162×8	415446
M-S14H	⌀2×110H	H	86×162×8	415447
M-S14H	⌀2×150H	H	86×202×8	415448

Outer Ctn.: 10 sets

No. SDT "SAKISUBO" Slender Torsion Bit 2-Piece Set NEW

- Tapered tip allows for easy view of screw head and improves working efficiency.
- High hardness and ductile new material developed. Shock resistant in spite of the tapered tip. Can be used with a drilling screw.
- Torsion part absorbs a big impact of the impact driver. Remarkably improved durability.
- Tapered tip absorbs a low impact when the screw is seated. Stable fastening quality.



Model No.	Contents	Card size (mm)	EDP No.
SDT141065	⌀1× 65 2pcs.	160×35×8	485403
SDT141110	⌀1×110 2pcs.	160×35×8	485404
SDT142065	⌀2× 65 2pcs.	160×35×8	485395
SDT142082	⌀2× 82 2pcs.	160×35×8	485396
SDT142110	⌀2×110 2pcs.	160×35×8	485397
SDT142150	⌀2×150 2pcs.	210×35×8	485405

Inner Ctn.: 10 sets

No. SDT5P "SAKISUBO" Slender Torsion Bit 5-Piece Set

Model No.	Contents	Card size (mm)	EDP No.
SDT5P2065	⌀2× 65 5pcs.	160×70×8	485398
SDT5P2082	⌀2× 82 5pcs.	160×70×8	485399
SDT5P2110	⌀2×110 5pcs.	160×70×8	485400

Inner Ctn.: 10 sets

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

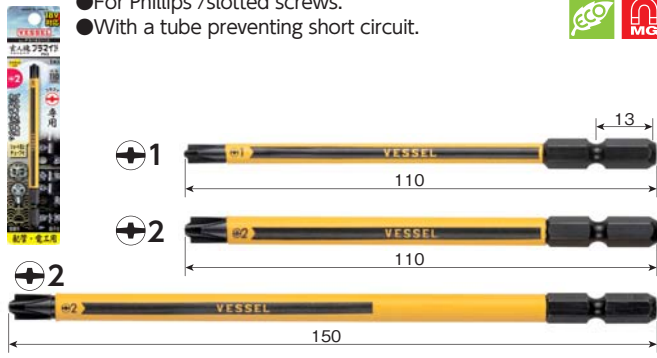
AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

No. PS "Plus-Minus" Bit for Terminal Screws

- For Phillips /slotted screws.
- With a tube preventing short circuit.



Model No.	Contents	Card size (mm)	EDP No.
PS161110	PS1×φ4 ×φ4.5×110 1pc.	160×35×8	485411
PS162110	PS2×φ5.5×φ6 ×110 1pc.	160×35×8	485412
PS162150	PS2×φ5.5×φ6 ×150 1pc.	210×35×8	485413

Inner Ctn.: 10 sets

No. KDB "KADOGIWA" Corner Bit for Brace

- For fastening seismic hardware.
- Can be tilted up to 6° at the tip section. Ideal for working at corners.
- For fastening hall-down hardware and brace hardware.

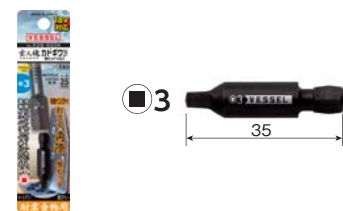


Model No.	Contents	Card size (mm)	EDP No.
KDB-SQ3	SQ 3×100 1pc.	160×50×13	485421

Inner Ctn.: 10 sets

No. KDB Replacement Corner Bit

- Exclusively for the KDB-SQ3.

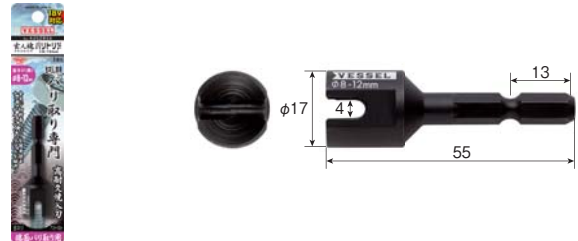


Model No.	Contents	Card size (mm)	EDP No.
KDB-SQ3K	SQ 3× 35 1pc.	135×35×8	485422

Inner Ctn.: 10 sets

No. A20ZB "BARITORI" Full Tread Burring Bit

- Burrs of thread studs (made of iron) can be removed by electrical impact tools.
- Optimal for edge surface finish of hanging bolts and anchor bolts.

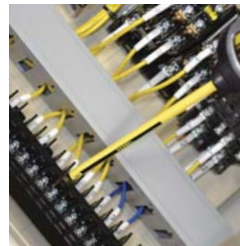


Model No.	Contents	Card size (mm)	EDP No.
A20ZB55	Full Tread(iron)M8, 3/8, M10, M12	160×35×20	485431

Inner Ctn.: 5 sets

One point

PROKON series



"Plus-Minus" Bit for Terminal Screws

For Phillips/slotted screws that are widely used. For fastening terminal screws on distribution board, fitting hardware to hold electric wire, plumbing, and air conditioner installation.



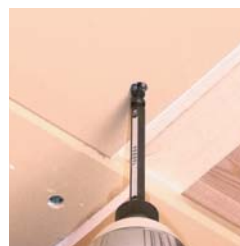
"KADOGIWA" Corner Bit for Bracing

Can be tilted up to 6° at the tip section. Can fasten screws easily in narrow places like corners using impact driver. For fastening hold down hardware, brace hardware and various seismic hardware.



"BARITORI" Full Tread Burring Bit

Easy to use with impact driver. Excellent durability. Must for fitting hanging bolts and installing air conditioning equipment. Ideal for treating edge face of anchor bolt.

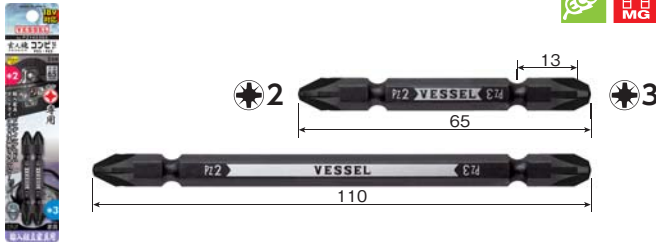


Double End "SAKISUBO" Bit

Improved durability with cushion effect at constricted part. For working with joist, stairs, composite panels, sash frame, interior finishing, etc.

No. PZ Double End Combi Bit 2-Piece Set

●PZ2 and PZ3 are combined into one bit.



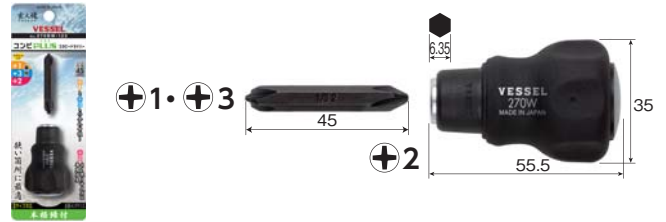
Model No.	Contents	Card size (mm)	EDP No.
PZ142365	PZ2/ PZ3×65 2pcs.	160×35×8	485401
PZ142311	PZ2/ PZ3×110 2pcs.	160×35×8	485402

Inner Ctn.: 10 sets

No. 270BW-123 Combi Plus Stubby Screwdriver

●Stubby type suited for working in cramped places.

●Three sizes are combined into one bit. Can be used for most of Phillips screws commonly used.



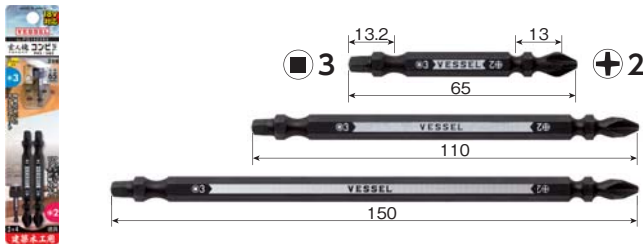
Model No.	Contents	Card size (mm)	EDP No.
270BW-123	●Bit Interchangeable Cushion Suttby Grip ●Bit ⊕1 · ⊕3 / ⊕2×45mm	160×55×37	233076

Inner Ctn.: 10 sets

No. PQ Double End Combi Bit 2-Piece Set

●SQ3 and ⊕2 are combined into one bit.

●Tapered tip of ⊕2 prevents cam-out. Long life.



Model No.	Contents	Card size (mm)	EDP No.
PQ142365	⊕2 / SQ3× 65 2pcs.	160×35× 8	485406
PQ142311	⊕2 / SQ3×110 2pcs.	160×35× 8	485407
PQ1423155	⊕2 / SQ3×150 1pc.	190×35×17	485408

Inner Ctn.: 10 sets

No. 220W-62 Ball-Grip Interchangeable Screwdriver

●Slotted tip used for quick connection terminal such as outlet and frequently-used ⊕2 are combined into one bit.



Model No.	Contents	Card size (mm)	EDP No.
220W-62	●Bit Interchangeable Ball-Grip ●Bit ⊖6 / ⊕2×110mm	160×70×43	233071

Inner Ctn.: 10 sets

No. 220W-123 Combi Plus Screwdriver

●Three sizes are combined into one bit. Can be used for most of Phillips screws commonly used.



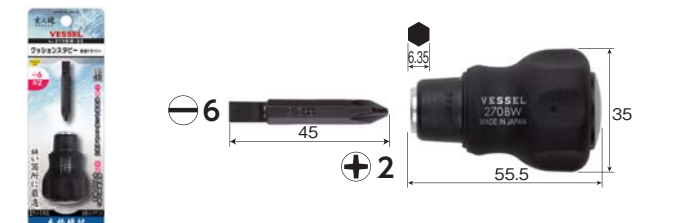
Model No.	Contents	Card size (mm)	EDP No.
220W-123	●Bit Interchangeable Ball-Grip ●Bit ⊕1 · ⊕3 / ⊕2×110mm	160×70×43	233073

Inner Ctn.: 10 sets

No. 270BW-62 Cushion Stubby Interchangeable Screwdriver

●Stubby type suited for working in cramped places.

●Slotted tip used for quick connection terminal such as outlet and frequently-used ⊕2 are combined into one bit.



Model No.	Contents	Card size (mm)	EDP No.
270BW-62	●Bit Interchangeable Cushion Suttby Grip ●Bit ⊖6 / ⊕2×110mm	160×70×43	233075

Inner Ctn.: 10 sets

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

No. 220W-3 Ball-Grip Interchangeable Screwdriver Set

- Convenient set with $\oplus 1$, $\oplus 3$, slotted tip used for quick connection terminal such as outlet, frequently-used $\oplus 2$, and Pozidrive Pz2 and Pz3 widely used for imported furniture assembly and snowboard bindings.

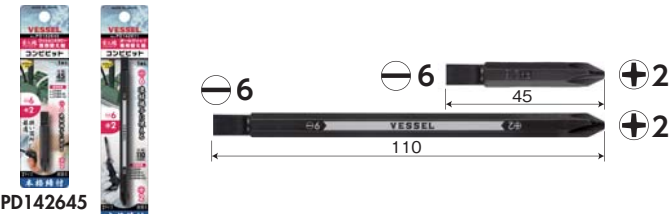


Model No.	Contents	Card size (mm)	EDP No.
220W-3	● Bit Interchangeable Ball-Grip ● Bit $\oplus 1$ / $\oplus 3$, $\ominus 6$ / $\oplus 2$, PZ2 / PZ3 $\times 110$ mm	153 \times 93 \times 41	233072

Inner Ctn.: 10 sets

No. PD Dedicated replacement Shank Combi Bit

- Slotted tip used for quick connection terminal such as outlet and frequently-used $\oplus 2$ are combined into one bit.



PD142645

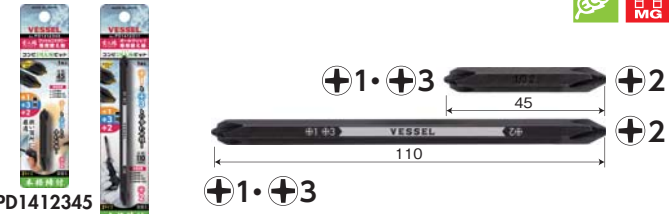
PD142611

Model No.	Contents	Card size (mm)	EDP No.
PD142645	$\ominus 6$ / $\oplus 2 \times 45$ mm 1pc.	135 \times 35 \times 8	485416
PD142611	$\ominus 6$ / $\oplus 2 \times 110$ mm 1pc.	160 \times 35 \times 8	485414

Inner Ctn.: 10 sets

No. PD Dedicated replacement Shank Combi Plus Bit

- Three sizes are combined into one bit.



PD1412345

PD1412311

Model No.	Contents	Card size (mm)	EDP No.
PD1412345	$\oplus 1 \cdot \oplus 3$ / $\oplus 2 \times 45$ mm 1pc.	135 \times 35 \times 8	485415
PD1412311	$\oplus 1 \cdot \oplus 3$ / $\oplus 2 \times 110$ mm 1pc.	160 \times 35 \times 8	485417

Inner Ctn.: 10 sets

PD1412311 / PD142611 Application Models 220W / 220W-3 / 220W-62 / 220W-123
PD1412345 / PD142645 Application Models 270BW / 270BW-62 / 270BW-123

No. 220W Bit Interchangeable Ball-Grip

- Can be used as a normal ball-grip driver by inserting a bit for electric driver (6.35 mm hex bit).
- Black grip gives a robust impression.



Model No.	Contents	Card size (mm)	EDP No.
220W	Bit Interchangeable Ball-Grip	145 \times 50 \times 43	125344

Inner Ctn.: 10 sets

No. 270BW Bit Interchangeable Cushion Subby Grip

- Stubby type suited for working in confined places. Can be used with bits for electric driver (6.35 mm hex bit).
- Black grip gives a robust impression.



Model No.	Contents	Card size (mm)	EDP No.
270BW	Bit Interchangeable Cushion Subby Grip	100 \times 50 \times 37	233074

Inner Ctn.: 10 sets

One point

Combi PLUS

One bit for 3-size tip-end!
One side is dedicated to frequently-used $\oplus 2$ and another for both $\oplus 1$ and $\oplus 3$.

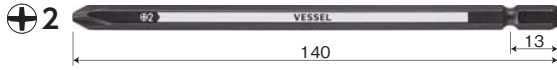


No. 230W-2

Ball Grip (Bit-replaceable Tang-Thru Screwdriver) NEW



- Blade interchangeable tang-thru grip.
- 25mm large nut incorporated transmitting well the hammering power.
- Blades can be used with electric screwdrivers.



Model No.	Set Contents	Card size (mm)	EDP No.
230W-2	● Ball Grip (Bit-replaceable Tang-Thru grip) ● Bit $\oplus 2 \times 140\text{mm}$ 1 for each	160×70×43	125327

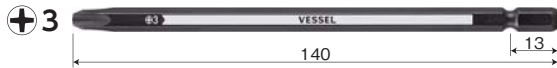
Inner Ctn: 10 sets

No. 230W-3

Ball Grip (Bit-replaceable Tang-Thru Screwdriver) NEW



- Blade interchangeable tang-thru grip.
- 25mm large nut incorporated transmitting well the hammering power.
- Blades can be used with electric screwdrivers.



Model No.	Set Contents	Card size (mm)	EDP No.
230W-3	● Ball Grip (Bit-replaceable Tang-Thru grip) ● Bit $\oplus 3 \times 140\text{mm}$ 1 for each	160×70×43	125328

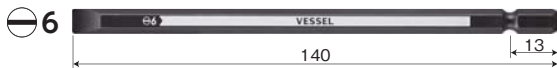
Inner Ctn: 10 sets

No. 230W-6

Ball Grip (Bit-replaceable Tang-Thru Screwdriver) NEW



- Blade interchangeable tang-thru grip.
- 25mm large nut incorporated transmitting well the hammering power.
- Blades can be used with electric screwdrivers.



Model No.	Set Contents	Card size (mm)	EDP No.
230W-6	● Ball Grip (Bit-replaceable Tang-Thru grip) ● Bit $\ominus 6 \times 140\text{mm}$ 1 for each	160×70×43	125329

Inner Ctn: 10 sets

No. 230W

Ball Grip (Bit-replaceable Tang-Thru grip) NEW



- Blade interchangeable tang-thru grip. (A/F6.35mm)
- 25mm large nut incorporated transmitting well the hammering power.



Model No.	Grip size	Package size (mm)	Inner Ctn.	EDP No.
230W	length 100mm, dia.41mm	145×50×43	10	125326

No. PD162140 / PD163140 / PD166140

Replacement bit NEW

- Interchangeable blade for the 230W (ball grip tang-thru grip). A/F6.35mm.
- Blades can be used with electric screwdrivers.



PD162140 PD163140 PD166140

Model No.	Contents	Card size (mm)	EDP No.
PD162140	$\oplus 2 \times 140\text{mm}$ 1pc	175×35×8	485418
PD163140	$\oplus 3 \times 140\text{mm}$ 1pc	175×35×8	485419
PD166140	$\ominus 6 \times 140\text{mm}$ 1pc	175×35×8	485420

Inner Ctn: 5 sets

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

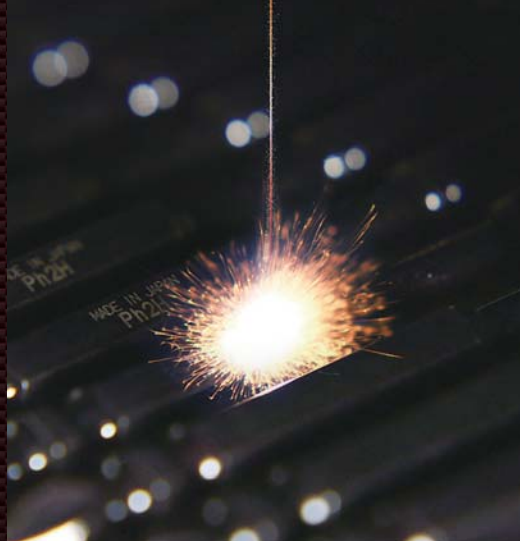
AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

No. RBT

BL Rib Torsion Bits



Black body with a shot blasted (satin finished) high precision bit is marked by laser of the brand logo and screw head design.



Laser
Laser marking

Valuable piece of bit decorated by laser beam

No. RBT

BL Rib Torsion Bits

Tip with rib that enhances the strength.
Provided with the torsion part that absorbs
the shock at seating of the screw.

※This is for illustrative purpose.

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

No. S3P BL SAKISUBO Bit 3-Piece Set NEW



- SAKISUBO bits whose constricted part acts as a cushion, absorbing the shock from power impact tools.
- Optimal for fastening joists, staircase construction, concrete panels, sash attachment and interior fixtures.



Model No.	Contents	Card size (mm)	EDP No.
S3P2065-BL	Φ2× 65 3pcs.	160×43×8	485371
S3P2082-BL	Φ2× 82 3pcs.	160×43×8	485372
S3P2110-BL	Φ2×110 3pcs.	160×43×8	485373

Inner Ctn.: 10 sets

No. RB3P BL Rib Bit 3-Piece Set NEW



- Tip with rib that enhances the strength.
- Optimal for iron and steel work.



Model No.	Contents	Card size (mm)	EDP No.
RB3P2065-BL	Φ2× 65 3pcs.	160×43×8	485374
RB3P2082-BL	Φ2× 82 3pcs.	160×43×8	485375
RB3P2110-BL	Φ2×110 3pcs.	160×43×8	485376

Inner Ctn.: 10 sets

No. S5P BL SAKISUBO Bit 5-Piece Set NEW



- Bits in a clip holder with magnetizer.

Model No.	Contents	Card size (mm)	EDP No.
S5P2065-BL	Φ2× 65 5pcs.	160×75×23	485383
S5P2082-BL	Φ2× 82 5pcs.	160×75×23	485384
S5P2110-BL	Φ2×110 5pcs.	160×75×23	485385

Inner Ctn.: 5 sets

No. RB5P BL Rib Bit 5-Piece Set NEW



- Bits in a clip holder with magnetizer.

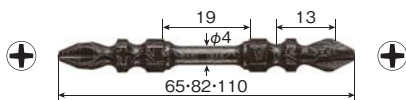
Model No.	Contents	Card size (mm)	EDP No.
RB5P2065-BL	Φ2× 65 5pcs.	160×75×23	485386
RB5P2082-BL	Φ2× 82 5pcs.	160×75×23	485387
RB5P2110-BL	Φ2×110 5pcs.	160×75×23	485388

Inner Ctn.: 5 sets

No. SST3P BL SAKISUBO Torsion Bit 3-Piece Set NEW PAT.



- SAKISUBO shape, in which the constricted part acts as a cushion, absorbing the shock from power impact tools.
- Torsion effect that absorbs the shock generated at the time of seating of the screw.
- Optimal for fastening joists, staircase construction, concrete panels, sash attachment and interior fixtures.



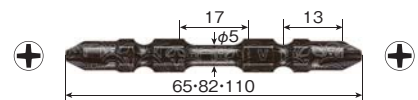
Model No.	Contents	Card size (mm)	EDP No.
SST3P2065-BL	Φ2× 65 3pcs.	160×43×8	485377
SST3P2082-BL	Φ2× 82 3pcs.	160×43×8	485378
SST3P2110-BL	Φ2×110 3pcs.	160×43×8	485379

Inner Ctn.: 10 sets

No. RBT3P BL Rib Torsion Bit 3-Piece Set NEW



- Tip with rib that enhances the strength.
- Torsion effect that absorbs the shock generated at the time of seating of the screw.
- Optimal for iron and steel work.



Model No.	Contents	Card size (mm)	EDP No.
RBT3P2065-BL	Φ2× 65 3pcs.	160×43×8	485380
RBT3P2082-BL	Φ2× 82 3pcs.	160×43×8	485381
RBT3P2110-BL	Φ2×110 3pcs.	160×43×8	485382

Inner Ctn.: 10 sets

No. SST5P BL SAKISUBO Torsion Bit 5-Piece Set NEW PAT.



- Bits in a clip holder with magnetizer.

Model No.	Contents	Card size (mm)	EDP No.
SST5P2065-BL	Φ2× 65 5pcs.	160×75×23	485389
SST5P2082-BL	Φ2× 82 5pcs.	160×75×23	485390
SST5P2110-BL	Φ2×110 5pcs.	160×75×23	485391

Inner Ctn.: 5 sets

No. RBT5P BL Rib Torsion Bit 5-Piece Set NEW



- Bits in a clip holder with magnetizer.

Model No.	Contents	Card size (mm)	EDP No.
RBT5P2065-BL	Φ2× 65 5pcs.	160×75×23	485392
RBT5P2082-BL	Φ2× 82 5pcs.	160×75×23	485393
RBT5P2110-BL	Φ2×110 5pcs.	160×75×23	485394

Inner Ctn.: 5 sets

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

No. CMD-4 Cap Drill



Our cap drills are designed to be placed over the tips of bits mounted in electric impact drivers, enabling efficient drilling and screw tightening work.

The cap is designed to be held between the fingers for safe, and secure use.

Unique know-how on the drill blades, for accurate and ultra-fast drilling performance.



No. CMD Cap Drill

For drilling a pilot hole on sheet steel / wooden board. Our "Cap Drills" allow you to mount a drill directly onto the bit, speeding up the task of pilot hole drilling.

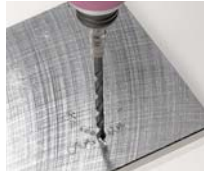
No. AMD "Cushion" Drill Bit (for steel) PAT.

- Expanded lineup. 40 sizes now available.
- Drilling holes on steel, lightweight metal, synthetic resin, and wood.
- High-hardness HSS steel blade is very durable.



X-shape (cross) thinning process enables high-speed drilling and remarkable fitting.

Can drill a hole with a light force even without using a center punch.



Model No.	φD	ℓ	A	Overall Length (mm)	X-shape (cross) thinning	EDP No.
AMD-1.0	1.0	22	12	72	—	461111
AMD-1.2	1.2	26	16	76	—	461112
AMD-1.5	1.5	24	18	74	—	461113
AMD-1.6	1.6	26	20	76	—	461114
AMD-1.8	1.8	29	22	79	—	461115
AMD-2.0	2.0	32	24	82	—	461001
AMD-2.1	2.1	32	24	82	—	461116
AMD-2.2	2.2	36	27	86	—	461117
AMD-2.3	2.3	36	27	86	—	461118
AMD-2.4	2.4	40	30	90	—	461119
AMD-2.5	2.5	40	30	90	—	461002
AMD-2.6	2.6	40	30	90	—	461120
AMD-2.7	2.7	44	33	94	—	461121
AMD-2.8	2.8	44	33	94	—	461003
AMD-2.9	2.9	44	33	94	—	461122
AMD-3.0	3.0	44	33	94	●	461004
AMD-3.1	3.1	44	36	94	●	461123
AMD-3.2	3.2	48	36	98	●	461005
AMD-3.3	3.3	48	36	98	●	461006
AMD-3.4	3.4	53	39	103	●	461017
AMD-3.5	3.5	53	39	103	●	461007
AMD-3.6	3.6	53	39	103	●	461018
AMD-3.7	3.7	53	39	103	●	461008
AMD-3.8	3.8	58	43	108	●	461009
AMD-3.9	3.9	58	43	108	●	461124
AMD-4.0	4.0	58	43	108	●	461010
AMD-4.1	4.1	58	43	108	●	461125
AMD-4.2	4.2	58	43	108	●	461011
AMD-4.3	4.3	63	47	113	●	461019
AMD-4.4	4.4	63	47	113	●	461126
AMD-4.5	4.5	63	47	114	●	461012
AMD-4.6	4.6	64	47	114	●	461127
AMD-4.7	4.7	64	47	114	●	461128
AMD-4.8	4.8	69	52	120	●	461013
AMD-4.9	4.9	70	52	120	●	461129
AMD-5.0	5.0	69	52	120	●	461014
AMD-5.2	5.2	69	52	120	●	461020
AMD-5.5	5.5	76	57	127	●	461015
AMD-5.8	5.8	77	57	127	●	461130
AMD-6.0	6.0	76	57	127	●	461016

※Colors inside the table cells indicate the ring color. Mounting quantity : 1 Card size : 165×35×8mm Inner Ctn.: 10 sets, Outer Ctn.: 200 sets

No. AMD3S "Cushion" Drill Bit (for steel) 3-Piece Set PAT.



Model No.	Contents	Card size (mm)	EDP No.
AMD3S-1	2.0 / 2.5 / 3.0mm 1pc ea	165×50×8	461101
AMD3S-2	3.0 / 3.5 / 4.0mm 1pc ea	165×50×8	461102
AMD3S-3.5	3.5mm 3 pcs	165×50×8	461103

Inner Ctn.: 10 sets

No. AMD6P "Cushion" Drill Bit (for steel) 6-Piece Set



Model No.	Contents	Card size (mm)	EDP No.
AMD6P-3.5	3.5mm 6 pcs	165×55×7	461104

Inner Ctn.: 10 sets

One point

"Cushion" Drill Bit (for steel)

No.AMD series

Fast machining. Durable.

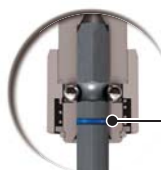
No punching is required. Push the tip-end lightly on the object and fastly drill a hole. Less burdens on the tip-end. Sharp edge remains long time.



A punching (making a mark to fix the drill tip-end) is not required because of X thinning shape. This is applied to bigger sizes than dia.3.0mm.

Drill on the target point.

Ring suppresses backlash and avoids runoff!



Cushion ring reduces backlash and runoff.

Cushion ring sustains inside the chuck of electric screwdriver and reduces the backlash.

Different color identification for each size.



HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

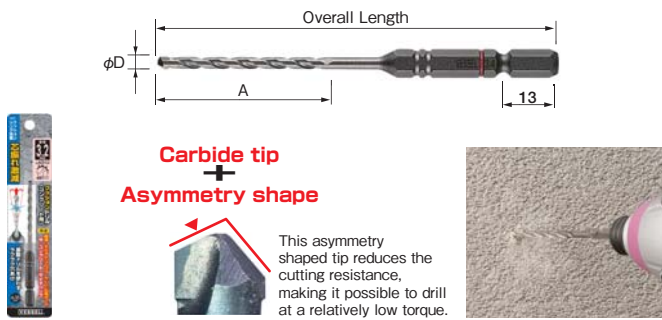
AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

No. ACD "Cushion" Drill Bit (for concrete) PAT.

- Drilling holes on mortar, block, brick, ALC, plaster boards, etc. and also drilling pilot holes for screw anchor insertion and plugless screws.



Model No.	φD	A	Overall Length (mm)	Card size (mm)	EDP No.
ACD-3.0	3.0	45	102	165×35×8	462001
ACD-3.2	3.2	45	102	165×35×8	462002
ACD-3.4	3.4	45	102	165×35×8	462003
ACD-3.5	3.5	45	102	165×35×8	462004
ACD-3.8	3.8	50	107	165×35×8	462005
ACD-4.0	4.0	50	107	165×35×8	462006
ACD-4.3	4.3	50	107	165×35×8	462007
ACD-4.5	4.5	50	107	165×35×8	462008
ACD-4.8	4.8	50	107	165×35×8	462009
ACD-5.0	5.0	50	107	165×35×8	462010
ACD-5.3	5.3	65	122	165×35×8	462015
ACD-5.5	5.5	65	122	165×35×8	462011
ACD-6.0	6.0	65	122	165×35×8	462012
ACD-6.4	6.4	65	122	165×35×8	462013
ACD-6.5	6.5	65	122	165×35×8	462014

※Colors inside the table cells indicate the ring color. Mounting quantity : 1 Inner Ctn: 10 sets, Outer Ctn: 200 sets

No. ACD "Cushion" Drill Bit (for concrete) Long Type PAT.



Model No.	φD	A	Overall Length (mm)	Card size (mm)	EDP No.
ACD-3.4L	3.4	95	152	200×35×8	462029
ACD-3.5L	3.5	95	152	200×35×8	462030
ACD-4.3L	4.3	100	157	200×35×8	462031
ACD-4.8L	4.8	100	157	200×35×8	462032
ACD-5.0L	5.0	100	157	200×35×8	462033
ACD-6.4L	6.4	115	172	200×35×8	462034

※Colors inside the table cells indicate the ring color. Mounting quantity : 1 Inner Ctn: 10 sets, Outer Ctn: 200 sets

No. ACD3S "Cushion" Drill Bit (for concrete) 3-Piece Set PAT.



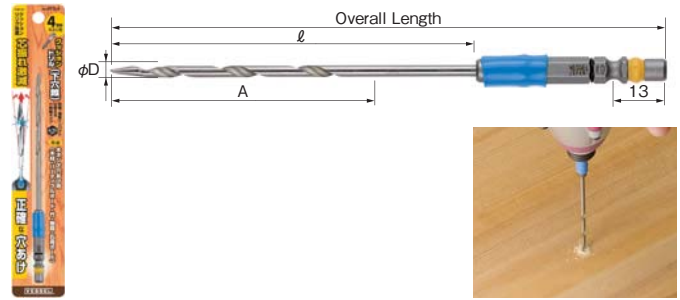
Model No.	Contents	Card size (mm)	EDP No.
ACD3S-3.4	3.4mm 3 pcs	165×50×8	462101
ACD3S-3.5	3.5mm 3 pcs	165×50×8	462102
ACD3S-4.3	4.3mm 3 pcs	165×50×8	462103

※Colors inside the table cells indicate the ring color.

Inner Ctn: 10 sets

No. ATD "Cushion" Drill Bit for Awl PAT.

- Drilling holes on steel, wood, bamboo, plaster, and resin boards. Also drilling a pilot hole on other brittle materials.
- Durable straight shank can drill a hole on hard wood.



Model No.	φD	ℓ	A	Overall Length (mm)	Card size (mm)	EDP No.
ATD-4	3.0	93	62	143	200×35×8	463001
ATD-5	4.0	103	76	153	200×35×8	463002
ATD-6	5.0	113	80	163	200×35×8	463003

※Colors inside the table cells indicate the ring color. Mounting quantity : 1 Inner Ctn: 10 sets, Outer Ctn: 200 sets

No. CMD Cap Drill

- For drilling a pilot hole on sheet steel / wooden board.
- Our "Cap Drills" allow you to mount a drill directly onto the bit, speeding up the task of pilot hole drilling.



←See P119



Model No.	φD	ℓ	A	Overall Length (mm)	Card size (mm)	EDP No.
CMD-4	4.0	59	43	110.5	165×45×29	463054
CMD-5	5.0	69	52	121	165×45×29	463055

※Colors inside the table cells indicate the ring color. Mounting quantity : 1 Inner Ctn: 10 sets

No. BH-9 Cap Drill Chuck



Model No.	Tip grip range	Overall Length (mm)	Card size (mm)	EDP No.
BH-9	Dia.:1.5~6.5	77.5	140×50×29	485301

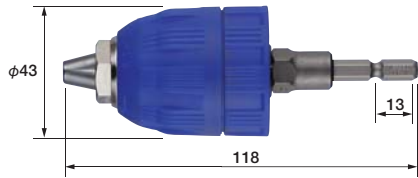
*Colors inside the table cells indicate the cap color. Mounting quantity : 1 Inner Ctn.: 10 sets

No. BH Drill Chuck Keyless Type (For power tools)

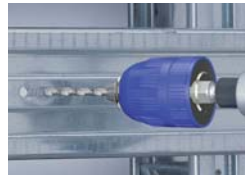
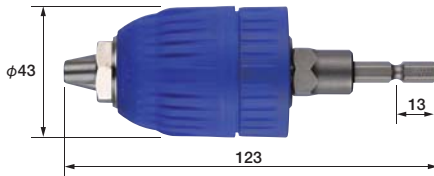
●For Air tools, Electric tools.



BH-261



BH-271

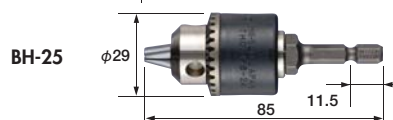
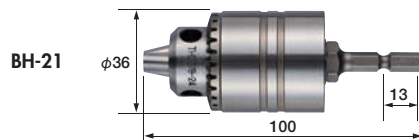
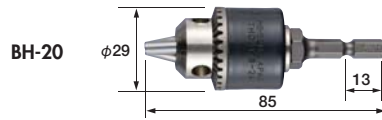
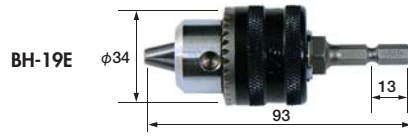


Model No.	Contents	Tip grip range (mm)	Card size (mm)	EDP No.
BH-261	Drill Chuck (Keyless)	Dia.:0.5~10	140×80×45	486344
BH-271	Drill Chuck (Keyless)	Dia.:1.5~13	140×80×45	486343

Inner Ctn.: 5 sets

No. BH Drill Chuck Key Type

- For Air tools, Electric tools.
- Excellent holding performance. High precision.
- High durability shaft unit.
- Key type: Attach and detach tools with the included key.
- Hybrid type: Works with or without a key.



Model No.	Contents	Tip grip range (mm)	Card size (mm)	EDP No.
BH-19E	Drill Chuck (Keyed) · Key	Dia.:1.0~10	140×80×37	485311
BH-20	Drill Chuck (Keyed) · Key	Dia.:0.8~6.5	140×80×31	486337
BH-21	Drill Chuck (Hybrid) · Key	Dia.:1.5~10	140×80×38	486338
BH-23	Drill Chuck (Keyed) · Key	Dia.:1.5~13	140×80×44	486340
BH-25	Drill Chuck (Keyed) · Key	Dia.:0.8~6.5	140×80×31	486342

For the BH-25 applicable models, see the D83 type on page 58

Inner Ctn.: 5 sets

No. BH Spare Shaft for Drill Chucks



BH-24

Application Models:
BH-19E/20/21/23/261



BH-29

Application Models:
BH-271



Model No.	Contents	Screw size	Card size (mm)	EDP No.
BH-24	Spare shank · Reversing screw	3/8-24UNF	135×35×17	486341
BH-29	Spare shank · Reversing screw	1/2-20UNF	135×35×17	486349

Inner Ctn.: 5 sets

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

No. BH-28 Drill Chuck SDS Puls type

●For rotary hammer and hammer drills.



Model No.	Contents	Tip grip range (mm)	Card size (mm)	EDP No.
BH-28	Drill Chuck (Keyless)	Dia.:1.5~13	185×100×45	486348

Inner Ctn.: 5 sets

No. BH-22H Drill Chuck SDS Puls type

●For rotary hammer and hammer drills.



Model No.	Contents	Tip grip range (mm)	Card size (mm)	EDP No.
BH-22H	Drill Chuck (Keyed) · Key	Dia.:2.5~13	185×100×45	485312

Inner Ctn.: 5 sets

No. BH-22HC Dust-proof cap

●For BH-22H.



Model No.	Contents	Box size (mm)	EDP No.
BH-22HC	Dust-proof cap / 5pcs.	58×56×174	485313

Inner Ctn.: 5 sets

No. KMD "KESSAKU" Drill Bit (for steel)

●"Anomaly spiral shape" adopted. Spiral angle is moderate toward the shank side. Chips are exhausted smoothly, resulting in a high speed drilling.

- X-shape (cross) thinning process helps the tip fit the object and drill a hole without punching.
- Tip-end angle is as acute as 118°. Can drill a hole with a light force.
- Sharp edge lasts as high hardness HSS steel is adopted.

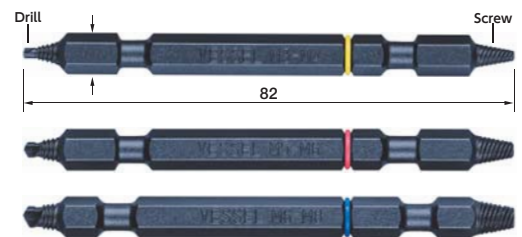


Model No.	φD (mm)	A (mm)	Overall Length (mm)	Card size (mm)	Inner Ctn.	Outer Ctn.	EDP No.
KMD-6.5	6.5	63	107	165×35×11	10	200	461141
KMD-7.0	7.0	65	109	165×35×11	10	200	461142
KMD-7.5	7.5	66	110	165×35×11	10	200	461143
KMD-8.0	8.0	67	111	165×35×11	10	200	461144
KMD-8.5	8.5	70	114	165×35×11	10	200	461145
KMD-9.0	9.0	73	117	165×35×11	10	200	461146
KMD-9.5	9.5	74	118	165×35×15	5	100	461147
KMD-10.0	10.0	76	120	165×35×15	5	100	461148
KMD-10.5	10.5	78	122	165×35×15	5	100	461149
KMD-11.0	11.0	81	125	165×35×15	5	100	461150
KMD-11.5	11.5	82	126	165×35×15	5	100	461151
KMD-12.0	12.0	83	127	165×35×15	5	100	461152
KMD-12.5	12.5	83	128	165×35×15	5	100	461153
KMD-13.0	13.0	85	130	165×35×15	5	100	461154

Mounting quantity : 1

No. NEJ Damaged Screw Remover

- Easy to remove distorted or damaged screws with an electric screwdriver (at low speed mode).
- No need to change the rotation; drilling on a damaged screw and removing it can be conducted by rotating counterclockwise.
- O-ring helps distinguish the sizes. Also good to check the drill or thread side.



Model No.	Compatible Screw	Overall Length	Tip dia. Drill	Tip dia. Screw	H (mm)	EDP No.
NEJ-1	M3~M4	82	1.8	1.7	6.35	485424
NEJ-2	M5~M6	82	2.7	2.6	6.35	485425
NEJ-3	M6~M8	82	3.7	3.6	6.35	485426

※Colors inside the table cells indicate the ring color. Card size:135×50×8mm Inner Ctn.: 10 sets Outer Ctn.: 200 sets

No. NEJ-123 Damaged Screw Remover 3-Piece Set

Model No.	Contents	EDP No.
NEJ-123	NEJ-1 / NEJ-2 / NEJ-3 1 for each	485428

Card size:135×63×8mm Inner Ctn.: 10 sets Outer Ctn.: 200 sets

Electric Screwdrivers

ELECTRIC TOOLS





Contents

Electric Screwdrivers	128 - 131
DC Type Controller	131
Screw Counter/Torque Meter	132
Screw Feeder/Pistol Grip/Color Sleeves/ Extension Cord	133

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

Electric Screwdrivers Technical

ELECTRIC TOOLS

TECHNICAL



Anti-static model compatible for use with EPA

Conductive resin is used for the body, switch lever, and sleeve, so screws can be tightened safely even in areas where static electricity is a concern. Resistance Value $10^5 \sim 10^{10} \Omega$
 ※VE-1500EPA, VE-2000EPA

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS



16-step, 5scale: VE-1500, 2000
 16-step, 8scale: VE-3000, 4000(P), 4500(P), 5000(P), 6000P
 24-step, 5scale: VE-1500(EPA), 2000(EPA)

Accurate and secure torque adjustment

As the torque adjustment pitch is fine, precise adjustments are possible. A tamper-proof sleeve is enclosed as a standard accessory which can avoid the inappropriate torque setting.



Tamper-proof sleeve is enclosed as an accessory.



Environmental measures

Pb (lead), Cd (cadmium), Hg (mercury), hexavalent chromium, PBB (polybrominated biphenyl), and PBDE (polybrominated diphenyl ether)
 This symbol indicates the products that conform to VESSEL's environment measure standards compliant with the restriction of the use of certain hazardous substances (six substances listed above) (RoHS directive).

Easy-to-use, anti-fatigue ergonomic design

The screwdriver handle's ergonomic design has a shape that fingers naturally fit at the lever position when the handle is gripped, a soft gel pads that absorb vibration, and a non-slip surface finish, etc.



Lever

Lever method for vertical driving



Lever

A thumb holder assures more stable operation (VE-1500, 1500EPA, 2000, 2000EPA)



Push

Push method for horizontal driving



Vibration-absorbing gel pad

GEL pad on the grip assures a firm hold and absorbs vibration for comfortable operation.

Easy installation and wiring applicable to various working sites

The newly designed controller (DC type) has a rounded back surface for easy installation onto the cell block's pipe. The AC type is plugged into a 100VAC outlet, and does not require a controller.



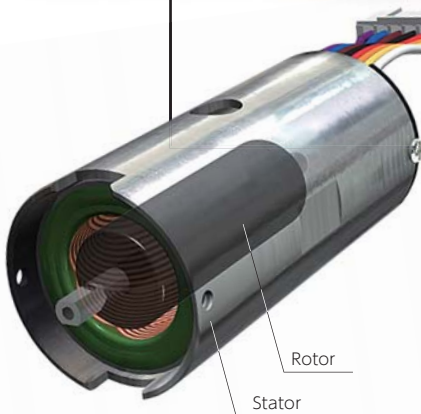
External controller capable of HI or LOW selection

Simple cord connection (DC type)



Long-life, low-fault design Maintenance free

VESSEL electric screwdrivers incorporate a long life brushless motor; no need for replacement for 3 years in normal operating conditions. Brushless motors are not with a carbon brush which requires a regular replacement. In addition, a durable magnet switch is adopted.



Rotor
Stator

Brushed motors require replacement of brushes at regular intervals because the brushes wear out. Brushless motors are free from maintenance because the motor rotation is controlled by an inverter to suppress the abrasion. Also brushless motors feature low annoying sounds and low electrical noises.



Rigid gear clutch



High-strength cord is fixed firmly onto the main body to prevent breakage by on/off and pulling (except VE-1500 and 2000)



Magnetic switch (non-contact) is used to reduce wear and damage

No. VE-4000

Electric Screwdrivers



The ergonomic design that reduces the burden on the worker during consecutive assembly and/or fastening work.

Easy installation and wiring. Accurate torque adjustment. Maintenance-free concept for long and constant use.

The VE series is an electric screwdriver for professional use that powerfully supports the production lines.



No. VE-4000

Electric Screwdrivers

High performance, slot-less and brush-less motor is used in the heart of an electric screwdriver. Improves not only the tightening accuracy but also the efficiency and maintainability, to enhance the performance of production sites.

Screwdriver Model Selection Table

	Model	Output torque range					Applicable screws		Working voltage
							Small screw	Tapping	
DC Type	VE-1500/ VE-1500EPA	0.01~0.15					M1.0~1.7	1.0~1.5mm	AC100V-240V (VCT-20)
	VE-2000/ VE-2000EPA	0.06~0.34					M1.0~2.3	1.0~2.0mm	AC100V-240V (VCT-20)
	VE-3000	0.15~1.0					M1.6~3.0	1.6~2.6mm	AC100V-240V (VCT-30)
	VE-4000/ VE-4000P	0.3~1.5					M2.3~4.0	1.6~2.6mm	AC100V-240V (VCT-45)
	VE-4500/ VE-4500P	0.4~1.8					M2.3~4.0	2.3~3.0mm	AC100V-240V (VCT-45)
AC Type	VE-4000AC/ VE-4000PAC	0.3~1.5					M2.3~4.0	1.6~2.6mm	AC100V
	VE-4500AC/ VE-4500PAC	0.4~1.8					M2.3~4.0	2.3~3.0mm	AC100V
	VE-5000/ VE-5000P	0.6~2.5					M2.6~4.0	2.6~3.5mm	AC100V
	VE-6000/ VE-6000P	1.6~4.5					M3.5~5.0	≤4mm	AC100V

0 N·m 1.0 N·m 2.0 N·m 3.0 N·m 4.0 N·m 5.0 N·m

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

No. VE-1500



Lever type DC Type 16-step×5scales



No. VE-2000



Lever type DC Type 16-step×5scales



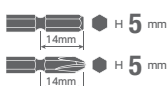
No. VE-3000



Lever type DC Type 16-step×8scales



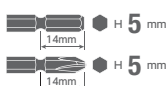
No. VE-4000



Lever type DC Type High-speed revolution 16-step×8scales



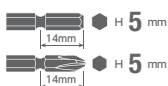
No. VE-4000P



Push type DC Type High-speed revolution 16-step×8scales



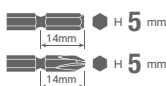
No. VE-4500



Lever type DC Type 16-step×8scales



No. VE-4500P



Push type DC Type 16-step×8scales

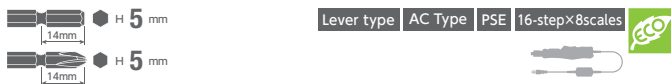


- Slot-less/brush-less motor is used. Tightening accuracy, efficiency and maintainability are improved.
- Easy-to-use ergonomic design. Shock absorbing gel pad enables a firm grip.
- Prevents mis-operation of adjustment by a tamper-proof sleeve. ●Power cable (2m) integrated type without a connector on the main body.
- VE-1500/2000 have connectors, and only the main body can be removed. Power cable length is 2m.

Model No.	Output torque range (N·m)	Applicable screws Small screw Tapping (mm)	No-load rotation speed (min ⁻¹)	Rating	External dimensions (mm)	Weight (g)	Enclosed bits	Controller	EDP No.
VE-1500	0.01~0.15	M1.0~1.7	1.0~1.5	HI 1000/LO 700	DC12V 15W	200 190	D73 $\oplus 0 \times 1.4 \times 40 \dots 1 / \oplus 0 \times 1.7 \times 40 \dots 1$	VCT-20	550001
VE-2000	0.06~0.34	M1.0~2.3	1.0~2.0	HI 1000/LO 700	DC12V 15W	200 190	D73 $\oplus 0 \times 1.4 \times 40 \dots 1 / \oplus 0 \times 1.7 \times 40 \dots 1$	VCT-20	550002
VE-3000	0.15~1.0	M1.6~3.0	1.6~2.6	HI 1000/LO 700	DC32V 25W	222 430	D73 $\oplus 0 \times 1.7 \times 40 \dots 1 / \oplus 1 \times 3 \times 40 \dots 1$	VCT-30	550003
VE-3000U								—	550103
VE-4000	0.3~1.5	M2.3~4.0	1.6~2.6	HI 2000/No LO setting	DC32V 55W	250 700	B36 $\oplus 1 \times 70 \dots 1 / \oplus 2 \times 70 \dots 1$	VCT-45	550004
VE-4000U								—	550104
VE-4000P	0.3~1.5	M2.3~4.0	1.6~2.6	HI 2000/No LO setting	DC32V 55W	250 700	B36 $\oplus 1 \times 70 \dots 1 / \oplus 2 \times 70 \dots 1$	VCT-45	550005
VE-4000PU								—	550105
VE-4500	0.4~1.8	M2.3~4.0	2.3~3.0	HI 1000/LO 700	DC32V 55W	250 710	B36 $\oplus 1 \times 70 \dots 1 / \oplus 2 \times 70 \dots 1$	VCT-45	550006
VE-4500U								—	550106
VE-4500P	0.4~1.8	M2.3~4.0	2.3~3.0	HI 1000/LO 700	DC32V 55W	250 710	B36 $\oplus 1 \times 70 \dots 1 / \oplus 2 \times 70 \dots 1$	VCT-45	550007
VE-4500PU								—	550107

※Common accessories for products with controllers: 1 tamper-proof sleeve, 2 set screws (M3×3), 1 hexagonal wrench (H1.5), 1 AC cable (1.8 m), 1 3P2P conversion adapter, user manual Material: PC+elastomer
 ※Common accessories for products without controllers: 1 tamper-proof sleeve, 2 set screws (M3 × 3), 1 hexagonal wrench (H1.5), user manual Material: PC + elastomer

No. VE-4000AC



Lever type AC Type PSE 16-step×8scales



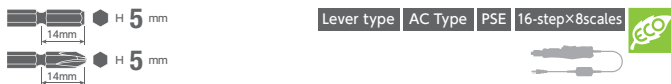
No. VE-4000PAC



Push type AC Type PSE 16-step×8scales



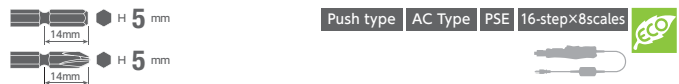
No. VE-4500AC



Lever type AC Type PSE 16-step×8scales



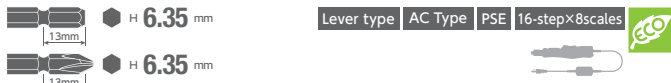
No. VE-4500PAC



Push type AC Type PSE 16-step×8scales



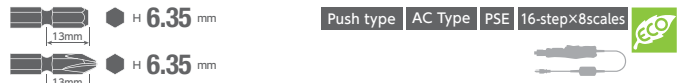
No. VE-5000



Lever type AC Type PSE 16-step×8scales



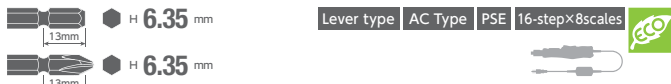
No. VE-5000P



Push type AC Type PSE 16-step×8scales



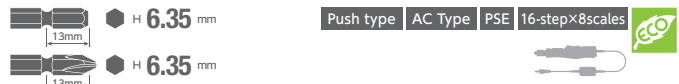
No. VE-6000



Lever type AC Type PSE 16-step×8scales



No. VE-6000P



Push type AC Type PSE 16-step×8scales



- Slot-less/brush-less motor is used. Tightening accuracy, efficiency and maintainability are improved.
- Easy-to-use ergonomic design. Shock absorbing gel pad enables a firm grip.
- Prevents mis-operation of adjustment by tamper-proof sleeve.
- Power cable (2.5m) integrated type without a connector on the main body.

The AC type is a 100VAC input that requires no controller.

Model No.	Output torque range (N·m)	Applicable screws Small screw Tapping (mm)	No-load rotation speed (min ⁻¹)	Rating	External dimensions (mm)	Weight (g)	Enclosed bits	EDP No.
VE-4000AC	0.3~1.5	M2.3~4.0 1.6~2.6	2000	AC100V 50/ 60Hz 40W	250	840	B36 \oplus 1×70...1	550014
VE-4000PAC							B36 \oplus 2×70...1	550015
VE-4500AC	0.4~1.8	M2.3~4.0 2.3~3.0	1000	AC100V 50/ 60Hz 40W	250	845	B36 \oplus 1×70...1	550012
VE-4500PAC							B36 \oplus 2×70...1	550013
VE-5000	0.6~2.5	M2.6~4.0 2.6~3.5	1000	AC100V 50/ 60Hz 90W	290	1100	M-A14 \oplus 2×65H...2	550008
VE-5000P							550009	
VE-6000	1.6~4.5	M3.5~5.0 \leq 4	1000	AC100V 50/ 60Hz 120W	290	1100	M-A14 \oplus 2×65H...2	550011
VE-6000P							550010	

※Common accessories: 1 suspension ring (Except VE-4000, VE-4000P, VE-4500, VE-4500P), 1 tamper-proof sleeve, 2 set screws (M3×3), 1 hexagonal wrench (H1.5), 1 3P2P conversion adapter, user manual Material: PC + elastomer

HAND TOOLS

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ELECTRIC TOOLS

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STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

No. VE-1500EPA



Lever type DC Type 24-step×5scales



No. VE-2000EPA



Lever type DC Type 24-step×5scales



One point

Conductive resin body

- Anti-static resin is used for the body, switch lever and sleeve. Prevents static electricity from damaging the assembled items. Resistance:10⁵ to 10¹⁰Ω or smaller



No.VE-1500EPA
No.VE-2000EPA

- Slot-less/brush-less motor is used. Tightening accuracy, efficiency and maintainability are improved.
- Easy-to-use ergonomic design. Shock absorbing gel pad enables a firm grip.
- Prevents mis-operation of adjustment by tamper-proof sleeve.
- Power cable(2m) integrated type without a connector on the main body.

Model No.	Output torque range (N·m)	Applicable screws Small screw Tapping (mm)	No-load rotation speed (min ⁻¹)	Rating	External dimensions(mm)	Weight (g)	Enclosed bits	Controller	EDP No.
VE-1500EPA	0.01~0.15	M1.0~1.7 1.0~1.5	HI: 1000/ LO: 700	DC12V 15W	200	190	D73 \varnothing 0×1.4×40...1/ \varnothing 0×1.7×40...1	VCT-20	550201
VE-1500EPAU								—	550108
VE-2000EPA	0.06~0.34	M1.0~2.3 1.0~2.0	HI: 1000/ LO: 700	DC12V 15W	200	190	D73 \varnothing 0×1.4×40...1/ \varnothing 0×1.7×40...1	VCT-20	550202
VE-2000EPAU								—	550109

※Common accessories for products with controllers: 1 suspension ring, 1 tamper-proof sleeve, 2 set screws (M3×3), 1 hexagonal wrench (H1.5), 1 AC cable (1.8 m), 1 3P2P conversion adapter, 1 3P/6P conversion cord, user manual. Material: Conductive PC + conductive elastomer
 ※Common accessories for products without controllers: 1 suspension ring, 1 tamper-proof sleeve, 2 set screws (M3 × 3), 1 hexagonal wrench (H1.5), 1 3P/6P conversion cord, user manual. Material: Conductive PC + conductive elastomer

No. VCT-20/ 30/ 45 DC Type Controller **NEW**



- Rear surface is cut in round shape, so that it is easily mounted on the pipe of the cell bench.
- HI (high speed) and LO (low speed) can be switched by flicking the switch.

Model No.	Rating	Secondary power	Dimensions(mm)	Weight(g)	Compatible models	Package contents	EDP No.
VCT-20	AC100~240V 50/60Hz 31~42VA	Hi: DC12V/ LO: DC9V 1.0A	72×170×40	230	VE-1500, 1500EPA, 2000, 2000EPA	AC cable (1.8m) ... 1, 3P2P conversion adapter ... 1	550301
VCT-30	AC100~240V 50/60Hz 63~79VA	Hi: DC32V/ LO: DC24V 1.0A	72×170×40	300	VE-3000	AC cable (1.8m) ... 1, 3P2P conversion adapter ... 1	550302
VCT-45	AC100~240V 50/60Hz 62~78VA	Hi: DC32V/ LO: DC24V 0.9A	82×200×55	510	VE-4000, 4000P, 4500, 4500P	AC cable (1.8m) ... 1, 3P2P conversion adapter ... 1	550303

No. VSC-01 Screw Counter NEW



- Connected between the electric screwdriver VE series and the power source, to notify tightening completion, insufficient tightening and wrong screws by alarm sound and light.
- Convenient slow start function and final tightening function available.
- Compact and lightweight, can be mounted anywhere.



Channel	5 channels
Count number	0~99
Count method	Count up/count down (selective)
Automatic reset time	0.0~9.9seconds
Slow start setting time	0.0~9.9seconds
Speed during slow start	10 30, 35, 40, 45, 50, 60, 65, 70, 80, 85% (steps)
Screw tightening time	(upper limit time) 0.01~9.90seconds
	(lower limit time) 0.01~9.90seconds
Connector	Dedicated connector (open collector 7 contacts)

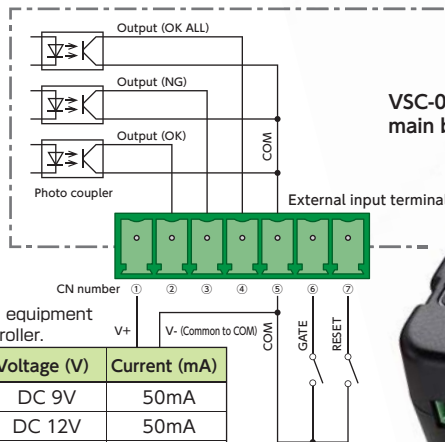
Model No.	Compatible Controller	Output	Dimensions(mm)	Weight(g)	Compatible models	EDP No.
VSC-01	VCT-20	Hi:DC12V, LO:DC 9 V	150×65×32	180	VE-1500EPA, VE-2000EPA	551002
	VCT-30	Hi:DC32V, LO:DC24V			VE-3000	
	VCT-45	Hi:DC32V, LO:DC24V			VE-4000, VE-4000P, VE-4500, VE-4500P	

One point



Input and output signals from the external input/output terminal.

- Combined with PLC or sensors, it can control processes.



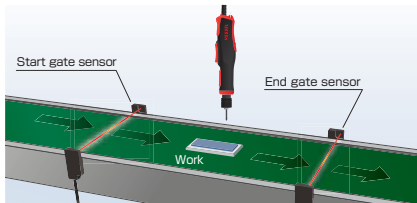
VSC-01 main body



Power source capacity for external equipment varies depending on the used controller.

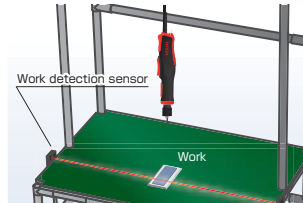
Used controller and output	Voltage (V)	Current (mA)
VCT20, Low	DC 9V	50mA
VCT-20, High	DC 12V	50mA
VCT-30 / 45, Low	DC 24V	50mA
VCT-30 / 45, High	DC 32V	50mA

Interlocked with sensor



Interlocked with gate sensor

- ① Passes the start gate sensor. Screw tightening work can be started.
- ② Start the screw tightening work. Tighten the specified number of screws.
- ③ Screw tightening work is completed. Screw tightening work completion signal is sent out.
- ④ Passes the end gate sensor. You can move onto the next work.



Interlocked with work detection sensor

- ① Work detection sensor detects the existence of work. Screw tightening work can be started.
- ② Start the screw tightening work. Tighten the specified number of screws.
- ③ Screw tightening work is completed. Screw tightening work completion signal is sent out, and you can move onto the next work.

No. VTM-8 / 10 / 100 Torque Meter

Measurement bits	H5mm bits	H6mm bits
	D73 H5×50 D76 H5×50 B34 H5×50 A16 H5×50	D73 H6×50 D76 H6×50 B34 H6×50 A16 H6×50



- Torque accuracy within ±0.5% enables accurate torque measurement.
- Light and compact design, the main body is approximately 1kg. Rechargeable and convenient to carry around.
- Capable of measuring both tightening and loosening directions. ● Automatic power off (power turns OFF after 10minutes of non-operation).

Model No.	Measurement range(N·m)	Precision	Unit measurement	Socket Outlet(mm)	Dimensions(mm)	Weight(kg)	Power supply	Compatible models	EDP No.
VTM-8	0.002~0.8	±0.5%(±3 digits below 499 digits)	cN·m /mN·m	20×20, SQ9.5	160x125x55	1.0	Nickel-cadmium battery 1.2V x 5 cells (700 mAh)	VE-1500(EPA), 2000(EPA)	551011
VTM-10	0.01~1.0	±0.5%(±1 digits below 199 digits)	N·m /cN·m	20×20, SQ9.5	160x125x55	1.0		VE-1500(EPA), 2000(EPA), 3000	551012
VTM-100	0.1~10.0	±0.5%(±1 digits below 199 digits)	N·m /cN·m	20×20, SQ9.5	160x125x55	1.0		VE-4000(P), 4500(P), 5000(P), 6000(P)	551013

※One digit refers to the minimum value of the last digit that can be displayed regardless of the decimal point position. (VTM-8:3digit=0.003N·m/3mN·m, VTM-10:1digit=0.01N·m/1cN·m, VTM-100:1digit=0.1N·m/10cN·m)
 ※Accessories: AC adapter 1, Torque adapter, Measurement bits set, Test Results, Proof of Calibration, Traceability System Diagram, Instruction manual
 ※Charging/usage time: Charging approx. 3 hours/max. 12 hours of use Battery life: 300 or more charges (varies according to the usage state)

AC adapter

Applicable standards	PSE
Rated input voltage	AC100~240V 50/60Hz 0.3A
Rated output voltage	DC12V 0.5A
Cord length (m)	1.5
Weight (g)	70

Torque Adapter	Compatible models	Usage range	Compatible bits	EDP No.
VJ-3	VTM-8	0.25 N·m or less	H5	551021
	VTM-10	0.25 N·m or less	H5	
VJ-10	VTM-10	0.3~1.0 N·m	H5	551022
VJ-10K	VTM-100	0.3~1.0 N·m	H6	551023
VJ-50	VTM-100	0.5~5.0 N·m	H6	551024

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

No. VSF-5 Screw Feeder NEW



- Supports various screws from M1 to M5.
- Lightweight and compact, the small footprint only takes up 126 × 182 mm area.
- All required replacement parts are attached for changing supplied screws.
- By the sensor, it operates the drum rotation and vibration only when required. When in standby, the operation is stopped temporarily so it is quiet.
- Adaptable to screws such as counter sunk screws, pan head screws, truss head screws, screws with washers.



Adjustable with enclosed rail
The rail width can be adjusted, so there's no need to manage several rails.



Adjustment tool enclosed in set
The adjustment tool required to change the screw size is enclosed so adjustments can be made.



Model No.	Compatible Screw	Screw	Thread Length	Screw capacity	Rating	Dimensions(mm)	Weight(kg)	EDP No.
VSF-5	Regular screws Tapping screws	M1~M5	20mm	200cc	DC15V 0.7A	126×182×147	2.2	551001

※Working temperature/humidity: 0~40°C 10~95%RH(with no dew condensation) Installation place: Limited to indoors ※Accessories: AC adapter 1, Spare parts set 1

AC adapter

Model	AD15-VSF
Applicable standards	PSE
Rated input voltage	AC100~240V 50/60Hz 0.8A
Rated output voltage	DC15V 1.5A
Cord length (m)	Cord approx. 1.8
Weight (g)	136

Accessories

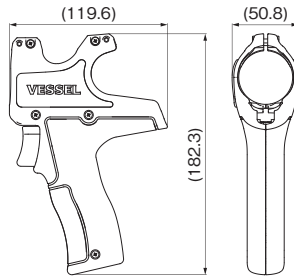
Stopper	For M1.0 to 2.0...1 pc., for M2.3 to 5.0...1 pc.
Rail width adjustment plate (mm)	Front 70 x 90 x t0.8, t1.0, t1.2, t1.5, t2.0...1 plate each Rear 20 x 10 x t0.2...2 plates, 20 x 10 x t0.5...10 plates
L-shape hexagon wrench	H2.0 mm x 108 mm
Grounding wire	
Instruction manual	

No. VPG-L Pistol Grip

- By mounting it on a straight type to transform into a pistol type, the efficiency of working against a vertical surface is improved.
- There are two holes to hang, to change the barycenter according to the type of work.
- Easy-to-grip trigger prevents fatigue even if working for a long time.

Suspension ring mounting hole

Using the suspension holes provided at two places on the pistol grip and one place on the Dendora body can change the installation angle.



Model No.	VPG-L
Dimensions (mm)	119.5×50.8×182.3
Weight (g)	113
Material	Polycarbonate
Accessories	Housing upper cover × 1, Housing lower cover × 1 Trigger × 1, Link × 1, Spring × 1, M3 pan-head screw × 5
Compatible models	VE-5000, 5000P, 6000, 6000P
Optionally compatible models	VE-1500 (EPA), 2000 (EPA), 3000, 4000 (P), 4500 (P)
EDP No.	551038

The pistol grip is available as an option for all models other than the VE-5000(P) and VE-6000P. Contact VESSEL for more information.

No. VCS Color Sleeves

- Tamper-proof color sleeves for the VE series electric screwdrivers.
- Allocating the same color helps identify the different torque of the VE screwdrivers used in the assembly line.



PINK



RED



GREEN



BLUE



YELLOW

Model No.	Size	Compatible models	EDP No.
VCS-SSP	SS	VE-1500 VE-2000	551053
VCS-SSR			551045
VCS-SSG			551057
VCS-SSB			551049
VCS-SSY			551061
VCS-SP	S	VE-3000	551054
VCS-SR			551046
VCS-SG			551058
VCS-SB			551050
VCS-SY			551062
VCS-MP	M	VE-4000 VE-4000P VE-4500 VE-4500P	551055
VCS-MR			551047
VCS-MG			551059
VCS-MB			551051
VCS-MY			551063
VCS-LP	L	VE-5000 VE-5000P VE-6000 VE-6000P	551056
VCS-LR			551048
VCS-LG			551060
VCS-LB			551052
VCS-LY			551064

No. VE-EC2 Extension Cord(2m)



Compatible models	VE-3000, 4000, 4000P, 4500, 4500P VE-1500EPA, 2000EPA VSC-01, VCT-20*, VCT-30, VCT-45
Weight (g)	120g
EDP No.	551036

※The 3P/6P conversion cord is required to connect to the VCT-20.

Contents



Air Screwdrivers.....	138 - 147
Air Impact Wrenches	148 - 160
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Air Sanders/Air Grinders	163 - 168
Air Saws/Air Drills	169 - 172
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GASOLINE ENGINE TOOLS

AIR TOOLS TECHNICAL



Environmental measures

Pb (lead), Cd (cadmium), Hg (mercury), hexavalent chromium, PBB (polybrominated biphenyl), and PBDE (polybrominated diphenyl ether)
This symbol indicates the products that conform to VESSEL's environment measure standards compliant with the restriction of the use of certain hazardous substances (six substances listed above) (RoHS directive).



HAND TOOLS

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ELECTRIC TOOLS

AIR TOOLS



Standard A type anvil

Can be used with A type of industrial bits.
For more information, contact us.

Option

Can be used with B type of industrial bits.
For more information, contact us.



Pin-lock Type Anvil

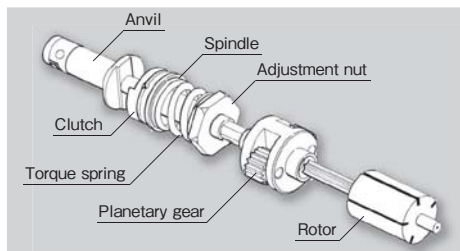
Insert socket and lock with a pin.
Mainly used for industrial assembly line.

Retainer Ring Type Anvil

Pin type anvil combined with a retainer ring.

Tough Aluminum Body

Mechanism : Air Screwdriver



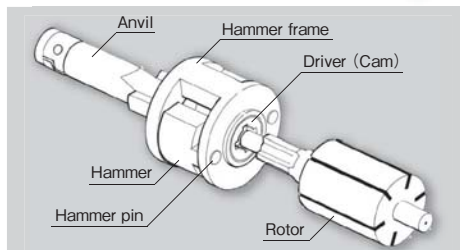
Clutch Type / Gear Type Air Screwdriver

The speed of air motor rotation is reduced by planetary gears so as to raise the rotation torque. Smooth and stable tightening can be performed via engagement of the clutch.

Torque Control Type : When the tightening torque reaches to the specified level, the air supply is cut off by the movement of cam-shaft, and operation is suspended.

142P

146P
147P



Impact type Air Screwdriver

The hammer which is rotated by the rotor makes use of the impact of the striking the anvil, and a construction is obtained which generates a powerful tightening force.

Torque Control Type : As the bolt or nut is tightened, its resistance value increases, and the percussion part and rotary part are greatly inverted. This angle of inversion is caught by the clutch, transmitted to the stop valve, and the air is cut off.

143P
~145P

147P

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS



Oil Xtra Series

The impact mechanism is filled with lubricating oil. In addition to changing the impact noise to a softer, smoother sound, the oil prevents part damage due to friction.



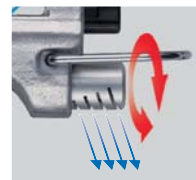
Adjust Dial (Dual-purpose switch)

Consolidated control part combining air flow control switch and forward reverse control switch.



Adjust Dial

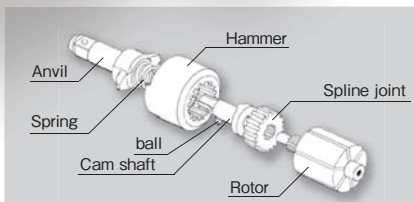
Exclusive adjust dial suited for work requiring frequent flow control.



Silencer

Built-in filter reduces exhaust sound.

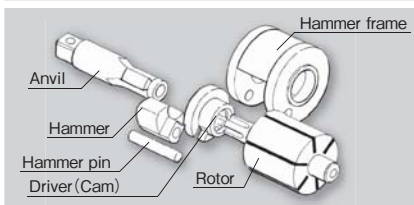
Mechanism : Air Impact Wrench



Impact Type Innovative "V" Hammer

A hammer moves forward and backward by rotating and hit the anvil, which makes powerful and speedy tightening. Good hammering efficiency, and compact and light-weight type.

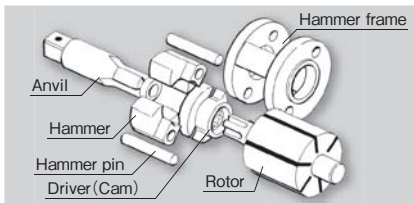
150P
151P



Impact Type Single Hammer

A construction whereby 1 rotation of the rotor causes the hammer to inflict 1 blow on the anvil. Due to this 1 rotation/1 percussion system, a strong tightening is obtainable.

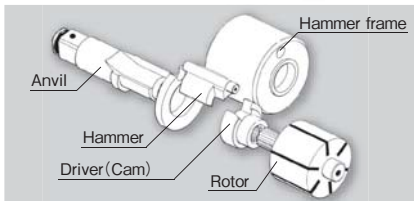
154P
~156P



Impact Type Double Hammer

A construction whereby 1 rotation of the rotor causes the hammer to inflict 2 blows on the anvil. Due to this 1 rotation/2 percussions system, a stable tightening is obtainable.

157P
~159P



Pinless Impact Type Pinless Hammer

Rotation force of air motor is transmitted to the driver (cum) to rotate the hammer to hit the anvil, the impact of which enhances impact efficiency, allowing for firm screw tightening. Introduced pinless hammer which is small but outputs a great torque force.

152P
153P

No. GT-P5XD

Air Screwdrivers Oil Xtra Series



A wide variety of air screwdrivers for high efficiency work.

We have developed products such as "Oil Extra" series which is filled with oil in the impact part unit, as well as air tube exhaust models, aiming at reducing noise and vibration.



No. GT-P5XD

Air Screwdrivers

The impact mechanism is filled with lubricating oil. In addition to changing the impact noise to a softer, smoother sound, the oil prevents part damage due to friction.



HAND TOOLS

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Applicable Models ※Only for referential purposes.

Small screw	Philips	Applicable Models
M2	0 (Old JIS 1)	S4TFG, S4TG
M2.3	0 (Old JIS 1)	S4TFG, S4TFS, S4TG, S4TS
M2.5	1	S4TFG, S4TFS, S4TG, S4TS, S5TFG, S5TG
M2.6	0 (Old JIS 1)	H4RC, S4TFS, S4TS, S5TFG, S5TG
M3	1 (Old JIS 2)	H4R, H4PR, PH4, H4RC, S4TFS, S4TFR, S4TS, S4TR, S5TFG, S5TFB, S5TG, S5TB
M3.5	2	H4R, H4PR, PH4, H4RC, H5RC, S4TR, S4TFR, S5TFB, S5TB
M4	2	H4R, H4PR, PH4, H5R, H5P, PH5, H5RC, S4.5DR, P4.5DR, PLR, PLP, PLZ, PLRC, P5LS, S4TFR, S4TR, S5TFB, S5TFR, S5TB, S5TR, PLXD, S4.5XD, P4.5XD, PLIXD, P5XD
M4.5	2	H5R, H5P, PH5, H5RC, S4.5DR, P4.5DR, PLR, PLP, PLZ, PLRC, P5LS, S5TFR, S5TR, S5TS, PLXD, S4.5XD, P4.5XD, PLIXD, P5XD
M5	2	H5R, H5P, PH5, S4.5DR, P4.5DR, PLR, PLP, PLZ, PLRC, P5LS, P6LSIII, P6HS, PLHII, P60XD, S6MLR, S6HS, S6CD, S5TFR, S5TR, S5TS, PLXD, S4.5XD, P4.5XD, P6EXD, S6LXD, P6LXD, S60XD, PLIXD, P5XD
M6	3	P6LSIII, P6HS, PLHII, S6MLR, S6HS, S5TS, S6.5D, P6.5D, S6CD, P6EXD, S6LXD, P6LXD, P60XD, S60XD
M8	4 (Old JIS 3)	S6.5D, P6.5D, P8D, P10SII, P60XD, S60XD, P80XD
M10	4	P8D, P10SII, P80XD

Wood screw	Philips	Applicable Models
1.8	—	H4R, H4PR, PH4
2.1	1	H4R, H4PR, PH4
2.4	1	H4R, H4PR, PH4
2.7	1	H5R, H5P, PH5, S4.5DR, P4.5DR, PLR, PLP, PLZ, P5LS, S4.5XD, P4.5XD
3.1	2	H5R, H5P, PH5, S4.5DR, P4.5DR, PLR, PLP, PLZ, P5LS, S4.5XD, P4.5XD
3.5	2	H5R, H5P, PH5, S4.5DR, P4.5DR, PLR, PLP, PLZ, P5LS, P6LSIII, P6HS, PLHII, S6MLR, S6HS, S6CD, PLXD, S4.5XD, P4.5XD, P6EXD, S6LXD, P6LXD, P60XD, S60XD, PLIXD, P5XD
3.8	2	PLHII, P6LSIII, S6MLR, S6HS, P6HS, S6CD, S6.5D, P6.5D, PLXD, P6EXD, S6LXD, P6LXD, P60XD, S60XD, PLIXD, P5XD
4.1	2	PLHII, P6LSIII, S6MLR, S6HS, P6HS, S6CD, S6.5D, P6.5D, P6EXD, S6LXD, P6LXD, P60XD, S60XD
4.5	2	S6.5D, P6.5D, P6EXD, P60XD, P8D, P10SII, S60XD, P80XD
4.8	2	P8D, P10SII, P6EXD, P80XD
5.1	3	P8D, P10SII, P80XD
5.5	3	P8D, P10SII, P80XD
5.8	3	P8D, P10SII, P80XD
6.2	3	P8D, P10SII, P80XD

Tapping screw	Philips	Applicable Models
3.5	2	H5R, H5P, PH5, S4.5DR, P4.5DR, PLR, PLP, PLZ, P5LS, S4.5XD, P4.5XD
4	2	H5R, H5P, PH5, S4.5DR, P4.5DR, PLR, PLP, PLZ, P5LS, P6LSIII, P6HS, PLHII, S6MLR, S6HS, S6.5D, P6.5D, S6CD, PLXD, PLIXD, P5XD, S4.5XD, P4.5XD, P6EXD, S6LXD, P6LXD, P60XD, S60XD
4.2	2	P6LSIII, P6HS, PLHII, S6MLR, S6HS, S6.5D, P6.5D, S6CD, PLXD, PLIXD, P5XD, P6EXD, S6LXD, P6LXD, P60XD, S60XD
4.5	2	P6LSIII, P6HS, PLHII, S6MLR, S6HS, S6.5D, P6.5D, S6CD, P6EXD, S6LXD, P6LXD, P60XD, S60XD
4.8	2	P6.5D, P60XD, S60XD
5	2	P6.5D, P8D, P10SII, P60XD, S60XD, P80XD
5.5	3	P8D, P10SII, P80XD
6	3	P8D, P10SII, P80XD

Hexagonal recess bolt Hexagonal head bolt	H (mm)	H (mm)	Applicable Models
M2.5	2.0	5.0	H4RC
M3	2.5	5.5	H4R, H4PR, PH4, H4RC
M3.5	—	6.0	H4R, H4PR, PH4, H4RC, H5RC
M4	3.0	7.0	H4R, H4PR, PH4, H5R, H5P, PH5, H5RC, S4.5DR, P4.5DR, PLR, PLP, PLZ, P5LS, PLRC, PLXD, S4.5XD, P4.5XD, PLIXD, P5XD
M5	4.0	8.0	H5R, H5P, PH5, S4.5DR, P4.5DR, PLR, PLP, PLZ, P5LS, P6LSIII, P6HS, PLHII, S6MLR, S6HS, S6CD, PLXD, S4.5XD, P4.5XD, P6EXD, S6LXD, P6LXD, P60XD, S60XD, PLIXD, P5XD
M6	5.0	10.0	P6LSIII, P6HS, PLHII, S6MLR, S6HS, S6.5D, P6.5D, S6CD, P6EXD, S6LXD, P6LXD, P60XD, S60XD
M7	—	11.0	S6.5D, P6.5D, P60XD, S60XD
M8	6.0	13.0 (Small bolt 12.0)	S6.5D, P6.5D, P8D, P10SII, P60XD, S60XD, P80XD
M10	8.0	16.0 (Old JIS 17.0) Small bolt 14.0)	P8D, P10SII, P80XD

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

Standard screw **4~5mm** Compact, lightweight and high revolution motor. For recycle plant, small sash frame, etc.

Oil Xtra Series

←See P138



No. GT-S4.5XD

6.35 Bit sleeve retainer

Noise reducer

No. GT-P4.5XD

6.35 Bit sleeve retainer

Noise reducer/Rear exhaust



No. GT-PLXD

6.35 Bit sleeve retainer

Adjust dial

Noise reducer



No. GT-P5XD NEW

6.35 Bit sleeve retainer

Noise reducer/Rear exhaust



No. GT-PLIXD

6.35 Bit sleeve retainer

Adjust dial

Noise reducer

Suppress noise with air tube

See P141 One point→

Standard screw **5~6mm** Stable tightening performance with high power. For sash frame for building, exterior, home building, etc.



No. GT-S6LXD

6.35 Bit sleeve retainer

Adjust dial

Noise reducer

No. GT-P6LXD

6.35 Bit sleeve retainer

Noise reducer/Rear exhaust



Model No.	Capacity (mm)				No Load Speed (rpm)	Air Consumption (ml/min)	Hose Coupling	Overall Length (mm)	Weight (g)	Accessories		EDP No.
	Standard Screw	Tapping Screw	Wood Screw	Bolt						Bit	Plug	
GT-S4.5XD	4.0~5.0	3.5~4.0	2.7~3.5	4.0~5.0	14,500	0.2	G 1/4	188	585	A14 Φ 2×65G	BPN-2F	311085
GT-P4.5XD	4.0~5.0	3.5~4.0	2.7~3.5	4.0~5.0	14,000	0.2	Rc 1/4	170	735	A14 Φ 2×65G	BPB-2	311089
GT-PLXD	4.0~5.0	3.8~4.2	3.3~3.8	4.0~5.0	11,000	0.35	G 1/4	198.5	670	A14 Φ 2×65G	BPN-2F	311113
GT-P5XD	4.0~5.0	3.5~4.0	3.3~3.8	4.0~5.0	11,000	0.33	Rc 1/4	172	790	A14 Φ 2×65G	BPB-2	311100
GT-PLIXD	4.0~5.0	3.8~4.2	3.3~3.8	4.0~5.0	7,300	0.29	G 1/4	198	740	A14 Φ 2×65G	BPN-2F Tube fitting PL8-02	311114
GT-S6LXD	5.0~6.0	4.0~4.5	3.6~4.1	5.0~6.0	12,000	0.4	G 1/4	212	815	A14 Φ 2×65G	BPN-2F	311115
GT-P6LXD	5.0~6.0	4.0~4.5	3.6~4.1	5.0~6.0	12,500	0.45	Rc 1/4	184	876	A14 Φ 2×65G	BPB-2	311116

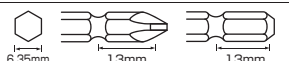
·Air pressure: 0.6MPa ·Air hose diameter: 6.35mm ·Overall length and Weight: Accessories not included.
 ·Capacity is listed as instant reference and depends on operation conditions.

·w/Rotary parts oil (VG-10), Impact parts oil (VG-32)

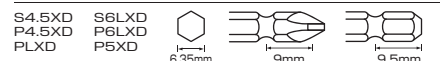
Bit installation anvil application

Unless otherwise mentioned, following type is a standard.

Standard type in Japan



※Option: Following retainer anvil is available.



HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

Standard screw **6~8mm** Powerful torque force. For installing parts, fastening concrete screw, etc.

Oil Xtra Series



No. GT-P60XD

6.35 Bit sleeve retainer

3 Adjust dial

Noise reducer/Rear exhaust



No. GT-S60XD

6.35 Bit sleeve retainer

3 Adjust dial

Noise reducer/Rear exhaust



Standard screw **8~10mm** Powerful torque force. For installing parts, fastening concrete screw, etc.



No. GT-P80XD

8 Bit sleeve retainer

4 Adjust dial

Noise reducer/Rear exhaust



Standard screw **5~6mm** High power models for construction.



No. GT-P6EXD

6.35 Bit sleeve retainer

3 Adjust dial

Noise reducer/Rear exhaust



Does not damage work piece with protector.

One point

Suppress noise with air tube

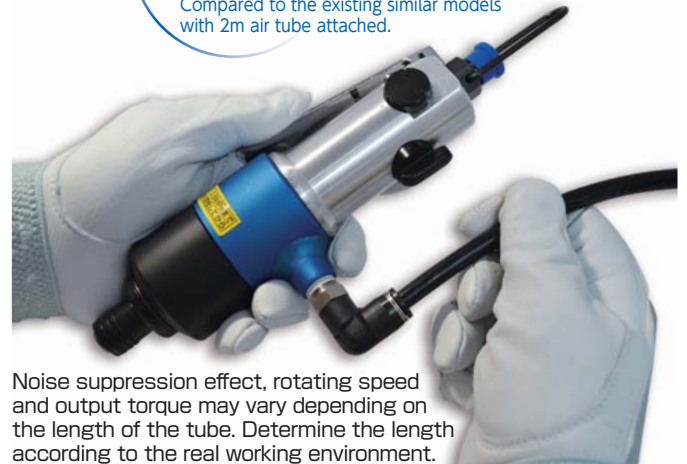
Exhaust noise is reduced by mounting existing $\varnothing 8$ air tube.

No. GT-PLIXD

-8dB

※No-load noise
Approx. **78dB**

Compared to the existing similar models
with 2m air tube attached.



Noise suppression effect, rotating speed and output torque may vary depending on the length of the tube. Determine the length according to the real working environment.

Model No.	Capacity (mm)				No Load Speed (rpm)	Air Consumption (m ³ /min)	Hose Coupling	Overall Length (mm)	Weight (g)	Accessories			EDP No.
	Standard Screw	Tapping Screw	Wood Screw	Bolt						Bit	Plug	L-wrench	
GT-P60XD	6.0~8.0	4.0~5.0	3.8~4.5	6.0~8.0	7,500	0.38	Rc 1/4	176	1,130	A14 $\varnothing 2 \times 65E / \varnothing 3 \times 65E$	BPB-2	-	324021
GT-S60XD	6.0~8.0	4.0~5.0	3.8~4.5	6.0~8.0	7,500	0.38	Rc 1/4	198	1,030	A14 $\varnothing 2 \times 65E / \varnothing 3 \times 65E$	BPB-2	-	324023
GT-P80XD	8.0~10.0	5.0~6.0	4.5~6.2	8.0~10.0	7,000	0.4	Rc 1/4	172	1,520	A15 $\varnothing 2 \times 65G / \varnothing 3 \times 65E$	BPB-2	H4	324050
GT-P6EXD	5.0~6.0	4.0~4.5	3.6~4.8	5.0~6.0	9,300	0.55	Rc 1/4	155	1,085	A14 $\varnothing 2 \times 65G$	BPB-2	-	311150

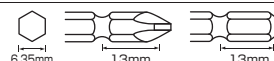
•Air pressure: 0.6MPa •Air hose diameter: 6.35mm •Overall length and Weight: Accessories not included.
•Capacity is listed as instant reference and depends on operation conditions.

•w/Rotary parts oil (VG-10), Impact parts oil (VG-32)

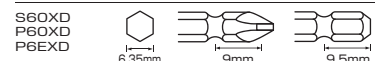
Bit installation anvil application

Unless otherwise mentioned, following type is a standard.

Standard type in Japan



※Option: Following retainer anvil is available.



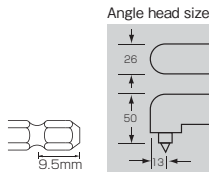
Standard screw **2.6~3.5mm** Speed-reduction type air driver.

Standard screw **3.5~4.5mm** Speed-reduction type air screwdriver.



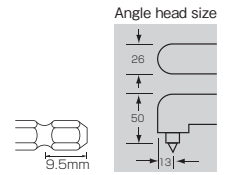
No. GT-H4RC

6.35 Ball spring retainer
Noise reducer



No. GT-H5RC

6.35 Ball spring retainer



Standard screw **3~4mm** Compact, lightweight and silent gear speed-reduction mechanism.



No. GT-H4R

6.35 Ball spring retainer
Lever push starting/Noise reducer



No. GT-H4PR

6.35 Ball spring retainer
Push starting/Noise reducer

Standard screw **4~5mm** Stable tightening performance with high power. For installing electrical parts.



No. GT-H5R

6.35 Ball spring retainer
Lever push starting



No. GT-H5P

6.35 Ball spring retainer
Push starting/Noise reducer

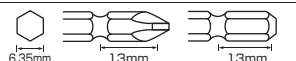
Model No.	Capacity (mm)				No Load Speed (rpm)	Air Consumption (ml/min)	Hose Coupling	Overall Length (mm)	Weight (g)	Accessories		EDP No.
	Standard Screw	Tapping Screw	Wood Screw	Bolt						Bit	Plug	
GT-H4R	3~4	—	1.8~2.4	3~4	1,500	0.2	G 1/4	190	590	A14 Φ 2×65G	BPN-2F	311036
GT-H4PR	3~4	—	1.8~2.4	3~4	1,500	0.19	G 1/4	213	610	A14 Φ 2×65G	BPN-2F	311046
GT-H4RC	2.6~3.5	—	—	2.6~3.5	1,500	0.2	G 1/4	216	735	B39 Φ 2×23H	BPN-2F	311034
GT-H5R	4~5	3.5~4	2.7~3.5	4~5	1,500	0.25	G 1/4	225	880	A14 Φ 2×65G	BPN-2F	311066
GT-H5P	4~5	3.5~4	2.7~3.5	4~5	1,500	0.25	G 1/4	235	880	A14 Φ 2×65G	BPN-2F	311065
GT-H5RC	3.5~4.5	—	—	3.5~4.5	1,500	0.25	G 1/4	248	1,047	B39 Φ 2×23H	BPN-2F	311064

·Air pressure: 0.6MPa ·Air hose diameter: 6.35mm ·Overall length: Accessories and hanger parts not included. ·Weight: Accessories not included.
·Capacity is listed as instant reference and depends on operation conditions.

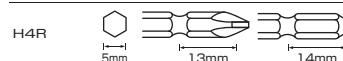
Bit installation anvil application

Unless otherwise mentioned, following type is a standard.

Standard type in Japan



※Option: Following retainer anvil is available.



Standard screw **4~5mm** Compact and lightweight. Basic models for assembly plant.



No. GT-S4.5DR

6.35 Bit sleeve retainer

Noise reducer



No. GT-P4.5DR

6.35 Bit sleeve retainer

Noise reducer/Rear exhaust



No. GT-PLR

6.35 Ball spring retainer

3 Adjust dial



No. GT-P5LS

6.35 Bit sleeve retainer

Noise reducer/Rear exhaust



No. GT-PLP

6.35 Ball spring retainer

Push starting/Noise reducer



No. GT-PLZ

6.35 Bit sleeve retainer

3 Adjust dial

Noise reducer



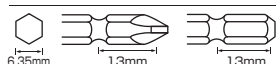
Model No.	Capacity (mm)				No Load Speed (rpm)	Air Consumption (m ³ /min)	Hose Coupling	Overall Length (mm)	Weight (g)	Accessories		EDP No.
	Standard Screw	Tapping Screw	Wood Screw	Bolt						Bit	Plug	
GT-S4.5DR	4.0~5.0	3.5~4.0	2.7~3.5	4.0~5.0	14,000	0.2	G 1/4	180	585	A14 Φ 2×65G	BPN-2F	311084
GT-P4.5DR	4.0~5.0	3.5~4.0	2.7~3.5	4.0~5.0	14,000	0.2	Rc 1/4	160	715	A14 Φ 2×65G	BPB-2	311088
GT-PLR	4.0~5.0	3.5~4.0	2.7~3.5	4.0~5.0	9,000	0.2	G 1/4	187	830	A14 Φ 2×65G	BPN-2F	311097
GT-P5LS	4.0~5.0	3.5~4.0	2.7~3.5	4.0~5.0	9,000	0.2	Rc 1/4	165	980	A14 Φ 2×65G	BPB-2 Air regulator	311099
GT-PLP	4.0~5.0	3.5~4.0	2.7~3.5	4.0~5.0	9,000	0.2	G 1/4	197	750	A14 Φ 2×65G	BPN-2F	311095
GT-PLZ	4.0~5.0	3.5~4.0	2.7~3.5	4.0~5.0	9,000	0.2	G 1/4	205	950	A14 Φ 2×65G	BPN-2F	311111

*Air pressure: 0.6MPa *Air hose diameter: 6.35mm *Overall length: Accessories and hanger parts not included. *Weight: Accessories not included.
 *Capacity is listed as instant reference and depends on operation conditions.

Bit installation anvil application

Unless otherwise mentioned, following type is a standard.

Standard type in Japan



*Option: Following retainer anvil is available.



Standard screw **5~6mm** Compact and lightweight. Basic models for assembly plant.

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS



No. GT-PLHII

6.35 Bit sleeve retainer (Pull type)

3 Adjust dial

OP Anvil (Bit sleeve retainer, push type)



No. GT-P6LSIII

6.35 Bit sleeve retainer (Pull type)

Noise reducer/Rear exhaust

OP

Anvil (Bit sleeve retainer, push type)
Rubber grip



Rubber grip type available as option.



No. GT-S6HS

6.35 Bit sleeve retainer

3 Adjust dial



No. GT-P6HS

6.35 Bit sleeve retainer

Noise reducer/Rear exhaust



No. GT-S6MLR

6.35 Bit sleeve retainer (Pull type)

3 Adjust dial



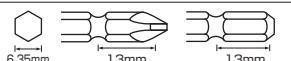
Model No.	Capacity (mm)				No Load Speed (rpm)	Air Consumption (ml/min)	Hose Coupling	Overall Length (mm)	Weight (g)	Accessories		EDP No.
	Standard Screw	Tapping Screw	Wood Screw	Bolt						Bit	Plug	
GT-PLHII	5.0~6.0	4.0~4.5	3.6~4.1	5.0~6.0	8,500	0.3	Rc 1/4	213	925	A14 Φ 2×65G	BPB-2	311094
GT-P6LSIII	5.0~6.0	4.0~4.5	3.6~4.1	5.0~6.0	9,000	0.3	Rc 1/4	177	955	A14 Φ 2×65G	BPB-2	311098
GT-S6HS	5.0~6.0	4.0~4.5	3.6~4.1	5.0~6.0	10,000	0.3	G 1/4	220	1,100	A14 Φ 2×65G	BPB-2	311107
GT-P6HS	5.0~6.0	4.0~4.5	3.6~4.1	5.0~6.0	10,000	0.3	Rc 1/4	180	1,170	A14 Φ 2×65G	BPB-2	Air regulator 311131
GT-S6MLR	5.0~6.0	4.0~4.5	3.6~4.1	5.0~6.0	8,500	0.25	G 1/4	215	1,120	A14 Φ 2×65G	BPB-2	311106

*Air pressure: 0.6MPa ·Air hose diameter: 6.35mm ·Overall length: Accessories and hanger parts not included. ·Weight: Accessories not included.
·Capacity is listed as instant reference and depends on operation conditions.

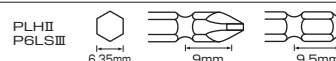
Bit installation anvil application

Unless otherwise mentioned, following type is a standard.

Standard type in Japan



※Option: Following retainer anvil is available.



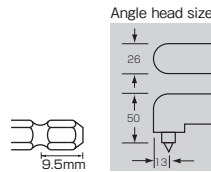
Standard screw **4~5mm** Angle impact screwdriver.



No. GT-PLRC

6.35 Ball spring retainer

3 Adjust dial



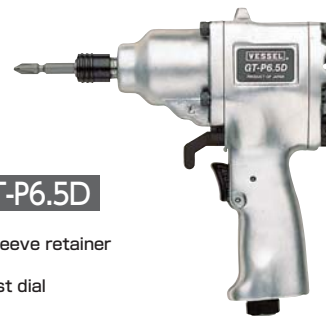
Standard screw **6~8mm** Powerful torque force. Excellent durability.



No. GT-S6.5D

6.35 Bit sleeve retainer

4 Adjust dial



No. GT-P6.5D

6.35 Bit sleeve retainer

3 Adjust dial

Standard screw **8~10mm** High power models. For installing various parts.



No. GT-P8D

8 Bit sleeve retainer

3 Adjust dial

Model No.	Capacity (mm)				No Load Speed (rpm)	Air Consumption (m³/min)	Hose Coupling	Overall Length (mm)	Weight (g)	Accessories			EDP No.
	Standard Screw	Tapping Screw	Wood Screw	Bolt						Bit	Plug	L-wrench	
GT-PLRC	4.0~5.0	—	—	4.0~5.0	9,000	0.2	G 1/4	228	1,100	B39 Φ 2×23H	BPN-2F	—	311112
GT-S6.5D	6.0~8.0	4.0~4.5	3.8~4.5	6.0~8.0	7,500	0.35	Rc 1/4	217	1,300	A14 Φ 2×65E/ Φ 3×65E	BPB-2	H4	324040
GT-P6.5D	6.0~8.0	4.0~5.0	3.8~4.5	6.0~8.0	8,500	0.38	Rc 1/4	152	1,450	A14 Φ 2×65E/ Φ 3×65E	BPB-2	H4	324041
GT-P8D	8.0~10.0	5.0~6.0	4.5~6.2	8.0~10.0	7,500	0.4	Rc 1/4	172	1,930	A15 Φ 2×65G/ Φ 3×65E	BPB-2	H4	324046

*Air pressure: 0.6MPa *Air hose diameter: 6.35mm *Overall length and Weight: Accessories and hanger parts not included.
 *Capacity is listed as instant reference and depends on operation conditions.

Bit installation anvil application

Unless otherwise mentioned, following type is a standard.

Standard type in Japan



Torque Control Air Screwdriver, Reduced Type

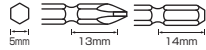
Standard screw **2~2.5mm** Air is automatically shut out when torque reaches a set value.



No. GT-S4TFG

5 Ball spring retainer

Push startup type/Noise reducer/Rear exhaust
 Torque Spring



No. GT-S4TG

6.35 Ball spring retainer

Adjust dial type Push startup type/Noise reducer/Rear exhaust
 Torque Spring Hose Coupling(1/8")

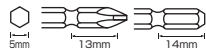
Standard screw **2.2~3mm** Air is automatically shut out when torque reaches a set value.



No. GT-S4TFS

5 Ball spring retainer

Push startup type/Noise reducer/Rear exhaust
 Torque Spring



No. GT-S4TS

6.35 Ball spring retainer

Adjust dial type Push startup type/Noise reducer/Rear exhaust
 Torque Spring Hose Coupling(1/8")

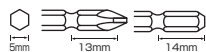
Standard screw **3~4mm** Air is automatically shut out when torque reaches a set value.



No. GT-S4TFR

5 Ball spring retainer

Push startup type/Noise reducer/Rear exhaust
 Torque Spring



No. GT-S4TR

6.35 Ball spring retainer

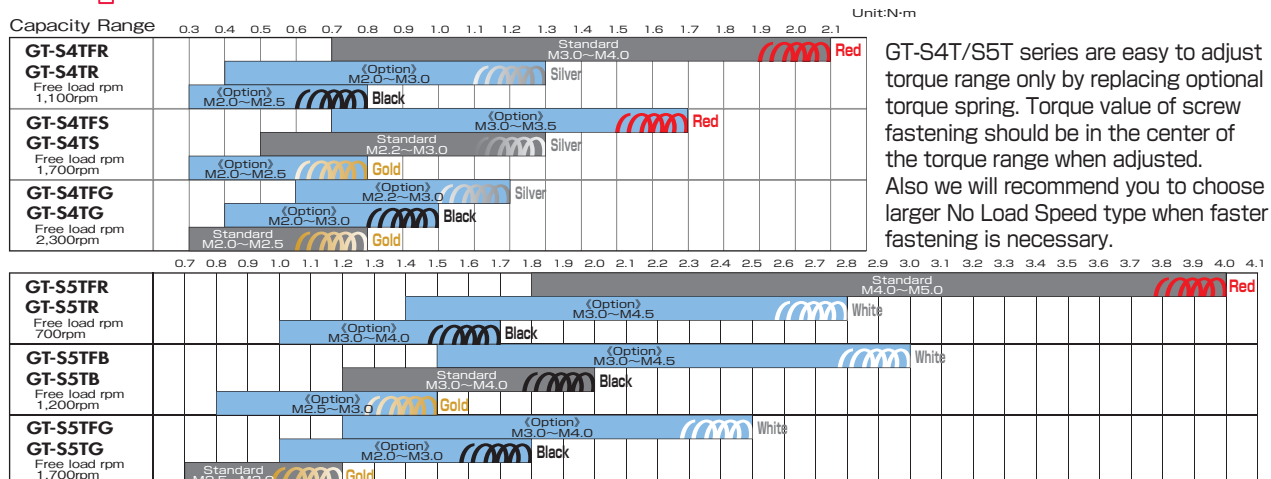
Adjust dial type Push startup type/Noise reducer/Rear exhaust
 Torque Spring Hose Coupling(1/8")

Model No.	Capacity Standard Screw (mm)	Torque Range (N·m)	No Load Speed (rpm)	Air Consumption (ml/min)	Hose Coupling	Overall Length (mm)	Weight (g)	Accessories		EDP No.
								Bit	Plug	
GT-S4TFG	2.0~2.5	0.3~0.8	2,300	0.28	Rc 1/8	215	565	B36 Φ 2×70H	—	311206
GT-S4TFS	2.2~3.0	0.5~1.3	1,700	0.28	Rc 1/8	215	555	B36 Φ 2×70H	—	311205
GT-S4TFR	3.0~4.0	0.7~2.1	1,100	0.28	Rc 1/8	215	565	B36 Φ 2×70H	—	311204
GT-S4TG	2.0~2.5	0.3~0.8	2,300	0.28	Rc 1/4	215	650	A14 Φ 2×65G	BPB-2	311203
GT-S4TS	2.2~3.0	0.5~1.3	1,700	0.28	Rc 1/4	215	640	A14 Φ 2×65G	BPB-2	311202
GT-S4TR	3.0~4.0	0.7~2.1	1,100	0.28	Rc 1/4	215	650	A14 Φ 2×65G	BPB-2	311201

·Air pressure: 0.6MPa ·Air hose diameter: 6.35mm ·Overall length: Accessories and hanger parts not included. ·Weight: Accessories not included.
 ·Capacity is listed as instant reference and depends on operation condition.

One point

Torque Spring Change



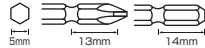
Standard screw **2.5~3mm** Air is automatically shut out when torque reaches a set value.



No. GT-S5TFG

5 Ball spring retainer

Push startup type/Noise reducer/Rear exhaust
 OP Torque Spring



No. GT-S5TG

6.35 Ball spring retainer

Adjust dial type Push startup type/Noise reducer/Rear exhaust
 OP Torque Spring

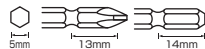
Standard screw **3~4mm** Air is automatically shut out when torque reaches a set value.



No. GT-S5TFB

5 Ball spring retainer

Push startup type/Noise reducer/Rear exhaust
 OP Torque Spring



No. GT-S5TB

6.35 Ball spring retainer

Adjust dial type Push startup type/Noise reducer/Rear exhaust
 OP Torque Spring

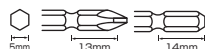
Standard screw **4~5mm** Air is automatically shut out when torque reaches a set value.



No. GT-S5TFR

5 Ball spring retainer

Push startup type/Noise reducer/Rear exhaust
 OP Torque Spring



No. GT-S5TR

6.35 Ball spring retainer

Adjust dial type Push startup type/Noise reducer/Rear exhaust
 OP Torque Spring

Torque Control Air Screwdriver, Impact Type

Standard screw **4.5~6mm** Combination between impact and torque control systems gives an excellent workability.

No. GT-S5TS

6.35 Bit sleeve retainer (Pull type)

Adjust dial type



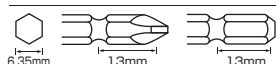
Model No.	Capacity Standard Screw (mm)	Torque Range (N·m)	No Load Speed (rpm)	Air Consumption (ml/min)	Hose Coupling	Overall Length (mm)	Weight (g)	Accessories			EDP No.
								Bit	Plug	L-wrench	
GT-S5TFG	2.5~3.0	0.7~1.2	1,700	0.35	Rc 1/8	243	860	B36 Φ 2×70H	—	—	311215
GT-S5TG	2.5~3.0	0.7~1.2	1,700	0.35	Rc 1/4	260	920	A14 Φ 2×65G	BPB-2	—	311212
GT-S5TFB	3.0~4.0	1.2~2.0	1,200	0.35	Rc 1/8	243	830	B36 Φ 2×70H	—	—	311214
GT-S5TB	3.0~4.0	1.2~2.0	1,200	0.35	Rc 1/4	260	910	A14 Φ 2×65G	BPB-2	—	311211
GT-S5TFR	4.0~5.0	1.8~4.0	700	0.35	Rc 1/8	243	850	B36 Φ 2×70H	—	—	311213
GT-S5TR	4.0~5.0	1.8~4.0	700	0.35	Rc 1/4	260	930	A14 Φ 2×65G	BPB-2	—	311210
GT-S5TS	4.5~6.0	3.9~9.8	6,500	0.25	Rc 1/4	292	1,310	A14 Φ 2×65G	BPB-2	H3	324002

·Air pressure: 0.6MPa ·Air hose diameter: 6.35mm ·Overall length: Accessories and hanger parts not included. ·Weight: Accessories not included.
 ·Capacity is listed as instant reference and depends on operation conditions.

Bit installation anvil application

Unless otherwise mentioned, following type is a standard.

Standard type in Japan



※Option: Following retainer anvil is available.



No. GT-C1400

Corner type impact wrench



Compact and lightweight, these impact wrenches have been designed to achieve the best possible balance in the hand, ensuring a secure hold for optimum nut/bolt work.



No. GT-C1400

Corner type impact wrench

Unique mechanism pursuing high hammering efficiency (PAT.P.)
Transverse-mounted hammer part transmitting hammering forces
directly to the anvil, it gives high power with its compact body.

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

Air Impact Wrenches Model Selection Chart

※Fastening torque is based on JIS B1083. (Metric coarse screw, friction coefficient μ : 0.15) The following selection chart is for referential purposes only.

		JISB1051 Strength Category																	
		3.6		4.6		4.8		5.6		5.8		6.8		8.8		10.9		12.9	
Screw diameter	Torque (N · m)	Applicabl Models	Torque (N · m)	Applicabl Models	Torque (N · m)	Applicabl Models	Torque (N · m)	Applicabl Models	Torque (N · m)	Applicabl Models	Torque (N · m)	Applicabl Models	Torque (N · m)	Applicabl Models	Torque (N · m)	Applicabl Models	Torque (N · m)	Applicabl Models	
M8	8.7	800	11.0	800	15.6	800	13.7	800 1000	19.2	800 1000	22.0	800 1000	29.3	1000	43.0	1000 1400	50.4	1000 1400	
M10	17.1	800 1000	21.6	1000	30.6	1000	27.0	1000	37.8	1000 1400	43.2	1000 1400	57.6	1000 1400	84.7	1000 1400	99.1	1400 1600	
M12	29.4	1000 1400	37.2	1000 1400	52.7	1400 1600	46.5	1400 1600	65.1	1400 1600	74.4	1400 1600	99.1	1400 1600	145.6	1600 2000	170.4	1600 2000	
M14	46.9	1400	59.3	1400 1600	84.0	1600 2000	74.1	1400 1600	103.8	1400 1600	118.6	1600	158.1	1600 2000	232.2	2000	271.7	2000	
M16	73.0	1600	92.2	1600	130.6	1600 2000	115.3	1600 2000	161.4	1600 2000	184.4	1600 2000	245.9	2000 2500	361.2	2000 2500	422.7	2000 2500	
M18	100.8	1600 2000	127.3	1600 2000	180.4	2000	159.2	2000	222.8	2000	254.7	2000 2500	350.2	2000 2500	498.8	2500	583.6	2500	
M20	142.7	2000	180.3	2000	255.4	2000	225.4	2000	315.5	2000 2500	360.6	2000 2500	495.9	2500	706.2	2500	826.4	2500 3800	
M22	196.6	2000	284.4	2500	351.9	2500	310.5	2500	434.7	2500	496.7	2500 3800	683.0	2500 3800	972.8	3800	1138.4	3800 4200 4800	
M24	245.9	3800	310.7	3800	440.1	3800	388.3	3800	543.7	3800	621.3	3800	854.3	3800	1216.8	3800 4200 4800	1423.9	3800 4200 4800	
M27	365.0	3800	461.0	3800	653.1	3800	576.2	3800	806.7	3800	922.0	3800	1267.7	3800 4200	1805.6	S55R	2112.9	S55R	
M30	494.6	3800	624.8	3800	885.2	3800	781.0	3800	1093.4	3800 4200 4800	1249.6	3800 4200 4800	1718.2	4200 4800 S55R	2447.2	S55R	2863.7		
M33	666.7	3800	842.1	3800	1193.0	3800	1052.6	3800	1473.7	4200 4800	1684.2	S55R	2315.8	S55R	3298.2		3859.6		
M36	862.5	3800	1089.5	4200 4800	1543.4	4200 4800 S55R	1767.8	4200 4800	1906.6	S55R	2178.9	S55R	2996.0		4267.1		4993.4		
M39	1119.6	4200 4800	1414.2	4200 4800	2003.5	S55R	1767.8	S55R	2474.9		2828.5		3889.2		5539.1		6482.0		
M42	1385.0	4200 4800	1749.4	S55R	2478.3	S55R	2186.8	S55R	3061.5		3498.8		4810.9		6851.9		8018.2		
M45	1733.0	S55R	2189.0	S55R	3101.1		2736.3		3830.8		4378.0		6019.8		8573.6		10033.0		
M48	2092.1	S55R	2642.6		3743.7		3303.3		4624.6		5285.3		7267.3		10350.3		12112.1		
M52	2692.9	S55R	3401.6		4818.9		4252.0		5953.8		6803.2		9354.4		13322.9		15590.6		

- 800 : GT-P6 II / S650 / S65W / P65W / S70WK / P60XW / S60XW
- 1000 : GT-P8 II / P80W / P80XW / C900
- 1400 : GT-1400P / P12 / C1400
- 1600 : GT-1600VPX / 1600VPH(L) / 1600VP(L) / P14J (L) / 1600P(L) / P14W / 1600JP
- 2000 : GT-2000PF / P18J(L) / 2000P(L) / S20RW / 1700BX
- 2500 : GT-2500LF / 2500PF / S220W
- 3800 : GT-3900VL / 3900VP / 3900V / 3800LX / S32RW
- 4200 : GT-4200LF / 4200PF / 4200L / 4200
- 4800 : GT-4800VL
- S55R : GT-S55R

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

 Machine Bolt Dia. **16mm** Compact, lightweight and high power with V shape hammer system.



No. GT-1600VPX

12.7 Retainer ring

④ Adjust dial

Rear exhaust



No. GT-1600VP

12.7 Retainer ring

④ Adjust dial

Rear exhaust



No. GT-1600VPL

12.7 Retainer ring

④ Adjust dial

Rear exhaust



No. GT-1600VPH

12.7 Retainer ring

④ Adjust dial

Rear exhaust

Oil-less type



No. GT-1600VPHL

12.7 Retainer ring

④ Adjust dial

Rear exhaust

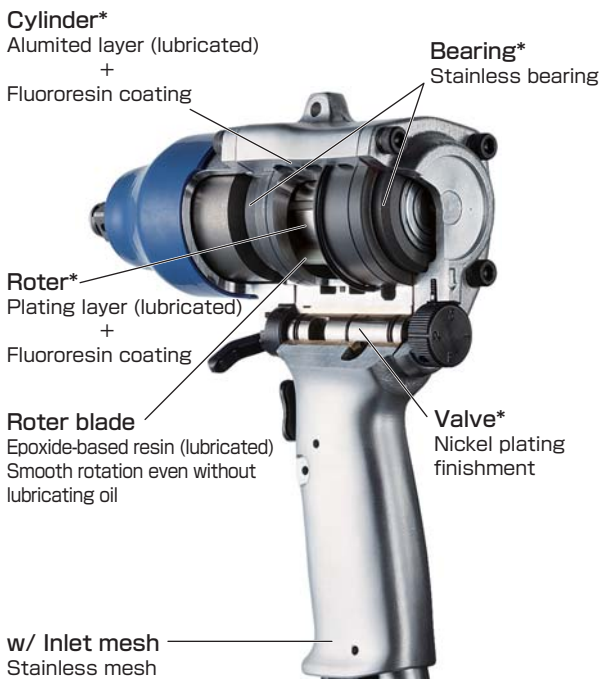
Oil-less type



One point

GT-1600VPH/GT-1600VPHL Oilless mechanism

Completely oil-less model with rust-proofing and lubrication treatment on the air passage. Maintenance-free and environmental-friendly impact wrench, not causing oil mist.



*Rust-proof and lubrication-free

Model No.	Capacity Ordinary Bolt Dia. (mm)	Torque Range (N-m)	Max. Torque (N-m)	No Load Speed (rpm)	Air Consumption (ml/min)	Hose Coupling	Air Hose Inner Dia. (mm)	Overall Length (mm)	Weight (kg)	Accessories		EDP No.
										Plug	L-wrench	
GT-1600VPX	16	49~294.2	360.0	8,200	0.4	Rc 1/4	6.35	169	1.48	BPB-2	H4	336013
GT-1600VP	16	49~304.0	366.7	8,500	0.4	Rc 1/4	6.35	171	1.91	BPB-2	H4	336010
GT-1600VPL	16	49~304.0	366.7	8,500	0.4	Rc 1/4	6.35	199	1.95	BPB-2	H4	336016
GT-1600VPH	16	49~284.3	352.0	8,200	0.4	Rc 1/4	6.35	174.5	1.75	BPB-2	H4	336012
GT-1600VPHL	16	49~284.3	352.0	8,200	0.4	Rc 1/4	6.35	202.5	1.8	BPB-2	H4	336017

•Air pressure: 0.6MPa •Overall length and Weight: Accessories not included. •Capacity is listed as instant reference and depends on operation conditions.

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS


VESSEL Air motor tightens really fast Air Impact Wrenches Super Light V-Hammer

 Machine Bolt Dia. **39mm** Compact, lightweight and high power with V shape hammer system.



No. GT-3900VP

25.4 Retainer ring


 Adjust dial

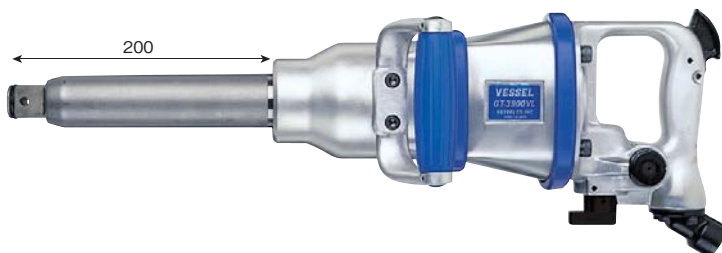
Rear exhaust



No. GT-3900VL


25.4 Retainer ring

 Adjust dial



No. GT-3900V

25.4 Retainer ring

 Adjust dial




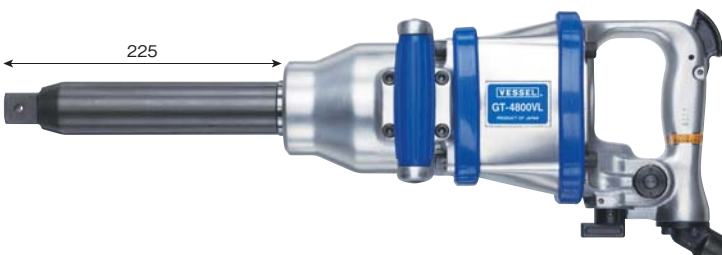
 Machine Bolt Dia. **48mm** Compact, lightweight and high power with V shape hammer system.



No. GT-4800VL

25.4 Pin-lock

 Adjust dial



Model No.	Capacity Ordinary Bolt Dia. (mm)	Torque Range (N·m)	Max. Torque (N·m)	No Load Speed (rpm)	Air Consumption (ml/min)	Hose Coupling	Air Hose Inner Dia. (mm)	Overall Length (mm)	Weight (kg)	Accessories		EDP No.
										Plug	L-wrench	
GT-3900VP	39	490~1716	2013.4	4,200	0.7	Rc 3/8	12.7	268	7.95	BPB-3	H5,H6	336118
GT-3900VL	39	490~1716	2094.9	4,200	0.7	Rc 1/2	12.7	524	8.95	BPB-4	H5,H6	336117
GT-3900V	39	490~1716	2094.9	4,200	0.7	Rc 1/2	12.7	358.6	8.2	BPB-4	H5,H6	336113
GT-4800VL	48	343~2010	2542.1	3,200	1.0	Rc 1/2	12.7	559	12.8	1/2"×1/2" (hose nipple)	H6	336121

*Air pressure: 0.6MPa *Overall length and Weight: Accessories not included. *Capacity is listed as instant reference and depends on operation conditions.

HAND TOOLS

BITS & SOCKETS


ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

Air Impact Wrenches Lightweight F-Hammer Air motor tightens really fast **VESSEL**

 Machine Bolt Dia. **20mm** Models with the best balance between strength and lightness.




No. GT-2000PF

19 Retainer ring

4 Adjust dial

Rear exhaust/Noise reducer



 Machine Bolt Dia. **25mm** Models with the best balance between strength and lightness.



No. GT-2500PF

19 Retainer ring

4 Adjust dial

Rear exhaust/Noise reducer



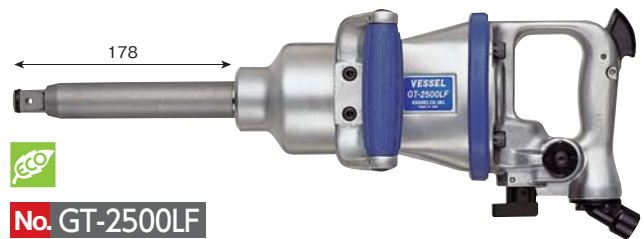
178




No. GT-2500LF

19 Retainer ring

4 Adjust dial



 Machine Bolt Dia. **39mm** Models with the best balance between strength and lightness.



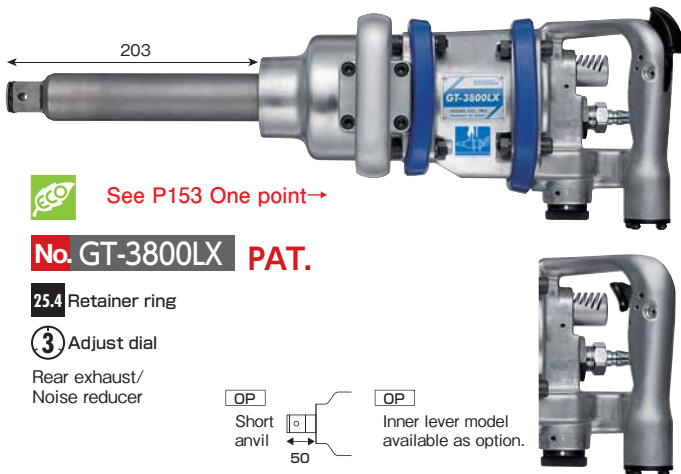
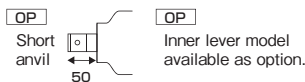
See P153 One point→

No. GT-3800LX PAT.

25.4 Retainer ring

3 Adjust dial

Rear exhaust/
Noise reducer



No. GT-3800PX

25.4 Retainer ring

Rear exhaust/Noise reducer



Model No.	Capacity Ordinary Bolt Dia. (mm)	Torque Range (N-m)	Max. Torque (N-m)	No Load Speed (rpm)	Air Consumption (m ³ /min)	Hose Coupling	Air Hose Inner Dia. (mm)	Overall Length (mm)	Weight (kg)	Accessories		EDP No.
										Plug	L-wrench	
GT-2000PF	20	98~460.9	542.7	5,500	0.43	Rc 1/4	9.5	210	3.5	BPB-2	H5	331298
GT-2500PF	25	147~961	1187.7	3,200	0.6	Rc 3/8	9.5	242	6.2	BPB-3	H5	335326
GT-2500LF	25	245~961	1315.2	4,400	0.7	Rc 3/8	9.5	478	7.3	BPB-3	H5,H6	335321
GT-3800LX	39	490~1607	2082.3	4,100	0.7	Rc 1/2	12.7	520	9.8	BPB-4	H5	335373
GT-3800PX	39	490~1607	2063.0	4,100	0.7	Rc 1/2	12.7	270	8.9	BPB-4	H5	335389

*Air pressure: 0.6MPa *Overall length and Weight: Accessories not included. *Capacity is listed as instant reference and depends on operation conditions.

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

VESSEL Air motor tightens really fast Air Impact Wrenches Lightweight F-Hammer

Machine Bolt Dia. **42mm** Models with the best balance between strength and lightness.



No. GT-4200PF

25.4 Pin-lock

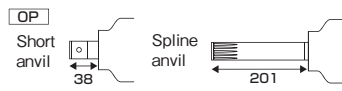
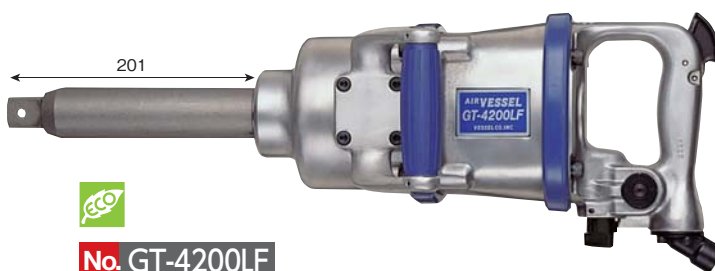
4 Adjust dial



No. GT-4200LF

25.4 Pin-lock

4 Adjust dial



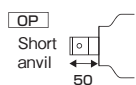
Machine Bolt Dia. **52mm** Models with the best balance between strength and lightness.



No. GT-S55R

25.4 Pin-lock

4 Adjust dial
Noise reducer



Model No.	Capacity Ordinary Bolt Dia. (mm)	Torque Range (N·m)	Max. Torque (N·m)	No Load Speed (rpm)	Air Consumption (ml/min)	Hose Coupling	Air Hose Inner Dia. (mm)	Overall Length (mm)	Weight (kg)	Accessories		EDP No.
										Plug	L-wrench	
GT-4200PF	42	343~1863	2250	2,500	1.0	Rc 3/8	12.7	297	11.5	BPB-3	H6	335388
GT-4200LF	42	343~1863	2250	3,200	1.0	Rc 1/2	12.7	547	13.3	BPB-4	H6	335385
GT-S55R	52	343~2450	3000	2,800	1.2	Rc 1/2	12.7	610	17.0	1/2"×1/2" (hose nipple)	H6	335391

·Air pressure: 0.6MPa ·Overall length and Weight: Accessories not included. ·Capacity is listed as instant reference and depends on operation conditions.

One point

Grip shape specialized for working with tires

Designed so that the center of gravity comes to the center of the whole body with the socket and air hose attached.

Very recommended to large tire shops replacing many tires a day.



No. GT-3800LX

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

Air Impact Wrenches Single Hammer Air motor tightens really fast **VESSEL**

 Machine Bolt Dia. **6~8mm** For strong tightening work. Excellent durability.



No. GT-S650

9.5 Retainer ring

4 Adjust dial



No. GT-P6II

9.5 Retainer ring

3 Adjust dial

 Machine Bolt Dia. **8~10mm** For strong tightening work. Excellent durability.



No. GT-P8II

12.7 Retainer ring

3 Adjust dial

 Machine Bolt Dia. **10mm** Corner type impact wrench.



No. GT-C900 **NEW PAT.P.**

9.5 Retainer ring

4 Adjust dial

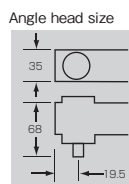
 Machine Bolt Dia. **6~8mm** Corner type impact wrench.



No. GT-S600C

9.5 Pin-lock

4 Adjust dial



 Machine Bolt Dia. **14mm** Corner type impact wrench.



No. GT-C1400 **PAT.P.**

12.7 Retainer ring

4 Adjust dial



← See P144

Model No.	Capacity Ordinary Bolt Dia. (mm)	Torque Range (N·m)	Max. Torque (N·m)	No Load Speed (rpm)	Air Consumption (ml/min)	Hose Coupling	Air Hose Inner Dia. (mm)	Overall Length (mm)	Weight (kg)	Accessories		EDP No.
										Plug	L-wrench	
GT-S650	6~8	49~121.6	140.5	7,500	0.35	Rc 1/4	6.35	210	1.3	BPB-2	H4	331221
GT-P6II	6~8	49~121.6	140.5	8,500	0.38	Rc 1/4	6.35	146	1.43	BPB-2	H4	331234
GT-P8II	8~10	49~259.8	295.3	7,500	0.4	Rc 1/4	6.35	166	1.89	BPB-2	H4	331244
GT-C900	10	49~100	131.7	7,000	0.25	Rc 1/4	6.35	257	1.9	BPB-2	H3,H4	331228
GT-S600C	6~8	25~47	51.5	7,300	0.35	Rc 1/4	6.35	255	1.87	BPB-2	H4	331226
GT-C1400	14	49~220	241.8	4,500	0.3	Rc 1/4	6.35	277	2.8	BPB-2	H4,H5	331227

*Air pressure: 0.6MPa *Overall length and Weight: Accessories not included. *Capacity is listed as instant reference and depends on operation conditions.

HAND TOOLS

BITS & SOCKETS


ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

VESSEL Air motor tightens really fast Air Impact Wrenches Single Hammer

 Machine Bolt Dia. **14mm** For strong tightening work. Excellent durability.



No. GT-P12

12.7 Retainer ring

④ Adjust dial



No. GT-1400P

12.7 Retainer ring

④ Adjust dial



 Machine Bolt Dia. **16mm** For strong tightening work. Excellent durability. Long anvil model also available.



No. GT-P14J

12.7 Retainer ring

④ Adjust dial



No. GT-P14JL

12.7 Retainer ring

④ Adjust dial



No. GT-1600P

12.7 Retainer ring

④ Adjust dial



No. GT-1600PL

12.7 Retainer ring

④ Adjust dial



Model No.	Capacity Ordinary Bolt Dia. (mm)	Torque Range (N·m)	Max. Torque (N·m)	No Load Speed (rpm)	Air Consumption (m ³ /min)	Hose Coupling	Air Hose Inner Dia. (mm)	Overall Length (mm)	Weight (kg)	Accessories		EDP No.
										Plug	L-wrench	
GT-P12	12~14	49~294.1	344.9	7,500	0.4	Rc 1/4	6.35	185	2.3	BPB-2	H4	331262
GT-1400P	12~14	49~294.1	344.9	7,000	0.35	Rc 1/4	6.35	182	2.25	BPB-2	H4	331265
GT-P14J	14~16	75~323.6	409.6	6,500	0.42	Rc 1/4	6.35	197	2.95	BPB-2	H5	331272
GT-P14JL	14~16	75~323.6	365.0	6,500	0.42	Rc 1/4	6.35	226	3.0	BPB-2	H5	331276
GT-1600P	14~16	75~308.9	362.3	6,700	0.36	Rc 1/4	6.35	196	2.7	BPB-2	H5	331275
GT-1600PL	14~16	75~308.9	338.8	6,700	0.36	Rc 1/4	6.35	224	2.8	BPB-2	H5	331277

·Air pressure: 0.6MPa ·Overall length and Weight: Accessories not included. ·Capacity is listed as instant reference and depends on operation conditions.

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

Air Impact Wrenches Single Hammer Air motor tightens really fast **VESSEL**

 Machine Bolt Dia. **20mm** For strong tightening work. Excellent durability. Long anvil model also available.



No. GT-P18J

19 Retainer ring

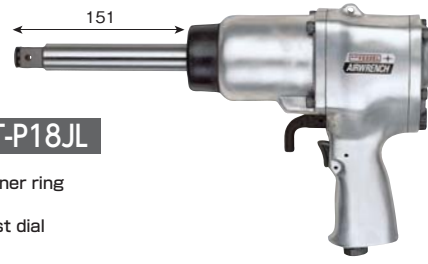
4 Adjust dial



No. GT-P18JL

19 Retainer ring

4 Adjust dial



No. GT-2000P

19 Retainer ring

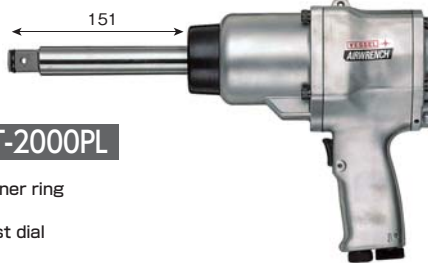
4 Adjust dial



No. GT-2000PL

19 Retainer ring

4 Adjust dial



 Machine Bolt Dia. **33mm** For strong tightening work.



No. GT-P32J

25.4 Pin-lock

4 Adjust dial



 Machine Bolt Dia. **42mm** For strong tightening work.

No. GT-4200P

25.4 Pin-lock

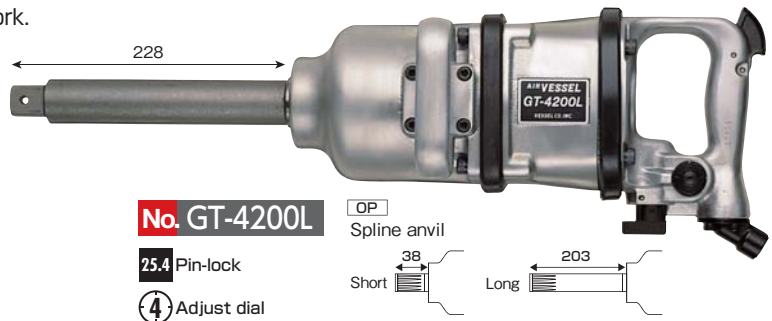
4 Adjust dial



No. GT-4200L

25.4 Pin-lock

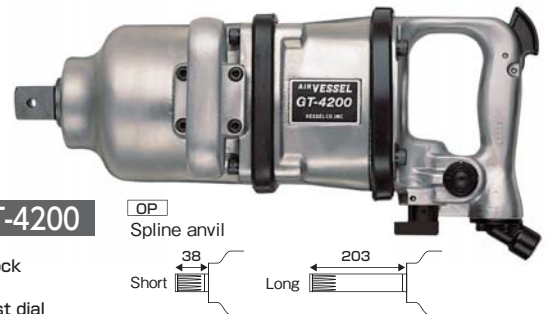
4 Adjust dial



No. GT-4200

25.4 Pin-lock

4 Adjust dial



Model No.	Capacity Ordinary Bolt Dia. (mm)	Torque Range (N·m)	Max. Torque (N·m)	No Load Speed (rpm)	Air Consumption (ml/min)	Hose Coupling	Air Hose Inner Dia. (mm)	Overall Length (mm)	Weight (kg)	Accessories		EDP No.
										Plug	L-wrench	
GT-P18J	16~20	98~470.7	556.5	5,000	0.52	Rc 1/4	9.5	240	4.2	BPB-2	H5	331292
GT-P18JL	16~20	98~441.3	471.4	5,000	0.52	Rc 1/4	9.5	353	4.7	BPB-2	H5	331296
GT-2000P	16~20	98~470.7	556.5	5,000	0.45	Rc 1/4	9.5	241	4.3	BPB-2	H5	331295
GT-2000PL	16~20	98~441.3	471.4	5,000	0.45	Rc 1/4	9.5	354	4.7	BPB-2	H5	331297
GT-P32J	33	343~1569	1906.9	3,700	0.8	Rc 3/8	12.7	264	11.2	BPB-3	H6	335181
GT-4200P	27~42	490~1863	2250	2,500	1.0	Rc 3/8	12.7	315	14.2	BPB-3	H6	331335
GT-4200L	27~42	490~1863	2250	3,200	1.0	Rc 1/2	12.7	593	15.9	BPB-4	H6	335378
GT-4200	27~42	490~1863	2267	3,200	1.0	Rc 1/2	12.7	403	14.9	BPB-4	H6	335377

*Air pressure: 0.6MPa · Overall length and Weight: Accessories not included. · Capacity is listed as instant reference and depends on operation conditions.

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

VESSEL Air motor tightens really fast Air Impact Wrenches Double Hammer

Machine Bolt Dia. **6~8mm** Low noise and low vibration. High power and high durability.

Oil Xtra Series



No. GT-S60XW

9.5 Pin-lock

3 Adjust dial

Noise reducer/Rear exhaust

↓ See One point



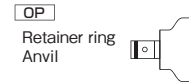
No. GT-P60XW

9.5 Pin-lock

3 Adjust dial

Noise reducer/Rear exhaust

↓ See One point



Machine Bolt Dia. **8~10mm** Low noise and low vibration. High power and high durability.

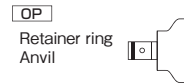


No. GT-P80XW

12.7 Pin-lock

4 Adjust dial

Noise reducer/Rear exhaust



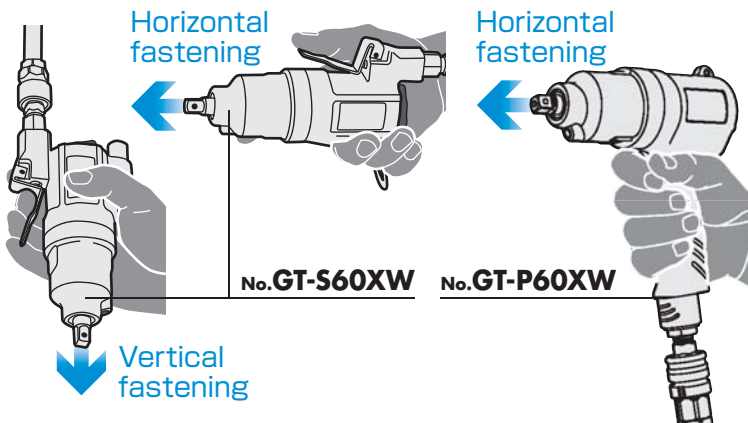
Model No.	Capacity Ordinary Bolt Dia. (mm)	Torque Range (N·m)	Max. Torque (N·m)	No Load Speed (rpm)	Air Consumption (ml/min)	Hose Coupling	Air Hose Inner Dia. (mm)	Overall Length (mm)	Weight (kg)	Accessories			EDP No.
										Socket	Plug	L-wrench	
GT-S60XW	6~8	49~116.8	135.0	7,500	0.38	Rc 1/4	6.35	192	1.0	—	BPB-2	—	324022
GT-P60XW	6~8	49~116.8	135.0	7,500	0.38	Rc 1/4	6.35	169.4	1.1	—	BPB-2	—	324020
GT-P80XW	8~10	49~229.7	242.9	7,000	0.4	Rc 1/4	6.35	163.5	1.48	—	BPB-2	H4	324049

*Air pressure: 0.6MPa *Overall length and Weight: Accessories not included. *Capacity is listed as instant reference and depends on operation conditions.

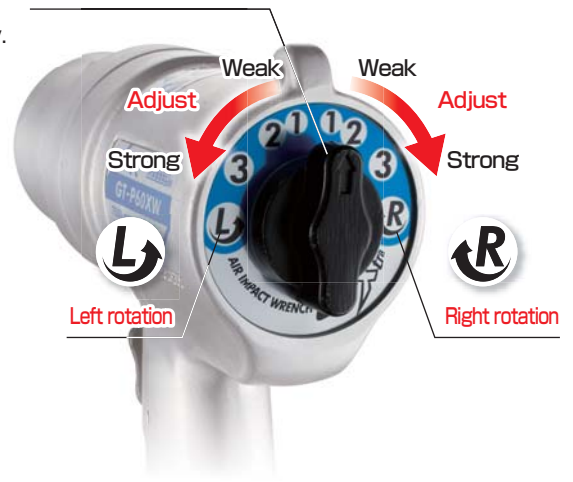
One point

GT-S60XW / GT-P60XW Quest for easy-to-use tools

Flexible ways to hold. Easy-to-hold grip and balanced body improve workability.



Adjustor and switch to change right/left rotation



HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

Air Impact Wrenches Double Hammer Air motor tightens really fast **VESSEL**

 Machine Bolt Dia. **5~6mm** For powerful constant fastening. Excellent durability.



No. GT-S6MLRB

9.5 Pin-lock

3 Adjust dial

 Machine Bolt Dia. **6~8mm** Corner type impact wrench.

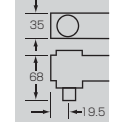


No. GT-S60CW

9.5 Pin-lock

4 Adjust dial

Angle head size



 Machine Bolt Dia. **6~8mm** For powerful constant fastening. Excellent durability.



No. GT-S65W

9.5 Pin-lock

4 Adjust dial



No. GT-P65W

9.5 Pin-lock

3 Adjust dial



No. GT-S70WK

9.5 Pin-lock

4 Adjust dial

Noise reducer/Rear exhaust

 Machine Bolt Dia. **8~10mm** For powerful constant fastening.



No. GT-P80W

12.7 Pin-lock

3 Adjust dial

 Machine Bolt Dia. **12~16mm** For powerful constant fastening.



No. GT-P14W

12.7 Pin-lock

4 Adjust dial

Model No.	Capacity Ordinary Bolt Dia. (mm)	Torque Range (N·m)	Max. Torque (N·m)	No Load Speed (rpm)	Air Consumption (ml/min)	Hose Coupling	Air Hose Inner Dia. (mm)	Overall Length (mm)	Weight (kg)	Accessories			EDP No.
										Socket	Plug	L-wrench	
GT-S6MLRB	5~6	10~39	—	8,500	0.25	G 1/4	6.35	200	1.1	A/F10	BPN-2F	—	311103
GT-P65W	6~8	49~121.6	140.5	8,500	0.38	Rc 1/4	6.35	146	1.43	A/F10	BPB-2	H4	324038
GT-S65W	6~8	49~121.6	140.5	7,500	0.35	Rc 1/4	6.35	210	1.3	A/F10	BPB-2	H4	324008
GT-S70WK	6~8	85~176.5	193.5	7,000	0.39	Rc 1/4	6.35	231	1.3	—	BPB-2	H4	324017
GT-S60CW	6~8	25~47	51.5	7,300	0.35	Rc 1/4	6.35	255	1.87	A/F10	BPB-2	H4	324011
GT-P80W	8~10	49~259.8	295.3	7,500	0.4	Rc 1/4	6.35	164	1.89	A/F14	BPB-2	H4	324048
GT-P14W	12~16	49~421.6	505.0	6,400	0.47	Rc 1/4	9.5	200	3.2	A/F22	BPB-2	H5	324073

*Air pressure: 0.6MPa *Overall length and Weight: Accessories not included. *Capacity is listed as instant reference and depends on operation conditions.

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

Air Impact Wrenches Double Hammer

Machine Bolt Dia. **20mm** For powerful constant fastening.



No. GT-S20RW

19 Pin-lock

4 Adjust dial

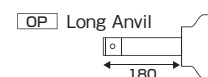
Machine Bolt Dia. **33mm** For powerful constant fastening.



No. GT-S32RW

25.4 Pin-lock

4 Adjust dial



Model No.	Capacity Ordinary Bolt Dia. (mm)	Torque Range (N·m)	Max. Torque (N·m)	No Load Speed (rpm)	Air Consumption (ml/min)	Hose Coupling	Air Hose Inner Dia. (mm)	Overall Length (mm)	Weight (kg)	Accessories		EDP No.
										Plug	L-wrench	
GT-S20RW	20	75~610	928	4,800	0.9	Rc 3/8	9.5	300	5.4	BPB-3	H5	324101
GT-S32RW	33	343~1,569	1801.2	3,600	1.0	Rc 1/2	12.7	380	12.2	BPB-4	H5,H6	324088

·Air pressure: 0.6MPa ·Overall length and Weight: Accessories not included. ·Capacity is listed as instant reference and depends on operation conditions.

Air Impact Wrenches Twin Hammer

Machine Bolt Dia. **16mm** Well balanced, less shock from the impact.



No. GT-1600JP NEW

12.7 Retainer ring

3 Adjust dial

Rear exhaust

Machine Bolt Dia. **20mm** Well balanced, less shock from the impact.



No. GT-1700BX NEW

12.7 Retainer ring

4 Adjust dial


Rear exhaust

Oil lubricating mechanism
Oil protects the hammer unit and reduces irritating noises, preventing parts from being burned.

Model No.	Capacity Ordinary Bolt Dia. (mm)	Torque Range (N·m)	Max. Torque (N·m)	No Load Speed (rpm)	Air Consumption (ml/min)	Hose Coupling	Air Hose Inner Dia. (mm)	Overall Length (mm)	Weight (kg)	Accessories		EDP No.
										Plug	L-wrench	
GT-1600JP	16	50~220	280	10,000	0.6	Rc1/4	6.35	109	1.4	BPB-2	—	336014
GT-1700BX	20	Right rotation 49~450 Left rotation 75~500	Right rotation 480 Left rotation 540	Right rotation 7,000 Left rotation 8,000	0.9	Rc1/4	6.35	192	2.2	—	—	331286

·Air pressure: 0.6MPa ·Overall length and Weight: Accessories not included. ·Capacity is listed as instant reference and depends on operation conditions.

Air Ratchet Wrenches

 Machine Bolt Dia. **10mm** This ratchet tightening system makes it possible to fine-tune the wrenching torque.

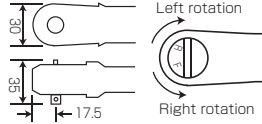
Mini type



The exhaust cover is 360-degree rotatable.

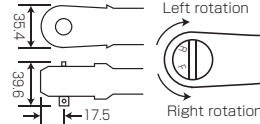
No. GT-R10M

9.5 Ball-lock



No. GT-R10


9.5 Ball-lock



Model No.	Capacity Ordinary Bolt Dia. (mm)	No Load Speed (rpm)	Air Consumption (ml/min)	Hose Coupling	Air Hose Inner Dia. (mm)	Overall Length (mm)	Weight (kg)	Accessories		EDP No.
								Plug	L-wrench	
GT-R10M	10	250	0.3	Rc 1/4	6.35	170	500	BPB-2	H3,H4	339003
GT-R10	10	160	0.4	Rc 1/4	6.35	297	1,090	BPB-2	H3,H4	339001

*Air pressure: 0.6MPa *Overall length and Weight: Accessories not included.

Air Impact Wrenches, Torque Control Type

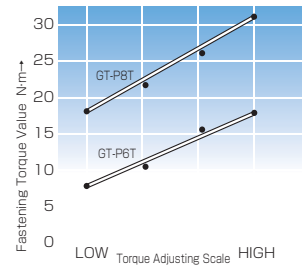
 Machine Bolt Dia. **6~8mm** Automatic suspensions by torque set-up



No. GT-P6T

9.5 Pin-lock

Adjust dial



*The above is an actual measurement value by our specified torque tester. It depends upon screw, bolts, nuts, or material differences.

 Machine Bolt Dia. **8~10mm** Automatic suspensions by torque set-up



No. GT-P8T

12.7 Pin-lock

Adjust dial

Model No.	Capacity Ordinary Bolt Dia. (mm)	Torque Range (N·m)	No Load Speed (rpm)	Air Consumption (ml/min)	Hose Coupling	Air Hose Inner Dia. (mm)	Overall Length (mm)	Weight (kg)	Accessories		EDP No.
									Plug	L-wrench	
GT-P6T	6~8	7.8~17.6	3,000	0.27	Rc 1/4	6.35	246	1.5	BPB-2	H3,H4	324003
GT-P8T	8~10	17.6~31.4	2,500	0.31	Rc 1/4	6.35	266	2.2	BPB-2	H3,H4	324005

*Air pressure: 0.6MPa *Overall length and Weight: Accessories not included. *Capacity is listed as instant reference and depends on operation conditions.

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

No. GT-HPS160 Power Scaler



The barycenter is at the front side, alleviating the strain on your wrist. Effortless operation is possible by just pressing the needles on welding spatters, slugs, etc. The impact does not catch your hand so the needles do not spread out as much, making it easier to work.



No. GT-HPS160 Power Scaler

Even in places set deep at the back where the pistol types cannot reach, it can be handled smoothly.

Power Scaler

- The barycenter is at the front side, alleviating the strain on your wrist. Downward-facing work on a welding bench is easy and effortless.
- With a new shape similar to the straight type, it can be handled smoothly even in places set deep at a place where the pistol types cannot reach.
- Needles do not spread as much, enabling to aim at the welding spatters and to perform a precise work.
- Easy to replace needles without any tools.
- The hose rotates 360°, making it easier to handle. Equipped with a filter to prevent dust coming in from the air inlet.
- Convenient for removing spatters or slugs, peeling off coating and removing rust.

Needle ϕ 2mm



No. GT-HPS160 NEW

- Needle ϕ 2mm×180mm 29pcs.
- Accessories ·Hose set 1set
·Hydraulic oil for hammer unit 1pc. (VG-10·White)
·Replacement needles..... 29pcs. (ϕ 2mm×180mm)

Needle ϕ 3mm



No. GT-HPS200 NEW

- Needle ϕ 3mm×180mm 12pcs.
- Accessories ·Hose set 1set
·Hydraulic oil for hammer unit 1pc. (VG-10·White)
·Replacement needles..... 12pcs. (ϕ 3mm×180mm)

Model No.	Piston diameter (mm)	Needle stroke (mm)	Number of impacts (min ⁻¹)	Air Consumption (m ³ /min)	Inlet bushing	Appropriate Air Pressure (MPa)	Air hose inner diameter (mm)	Overall Length (mm)	Weight (kg)	EDP No.
GT-HPS160	16	18	4000	0.22	Rc 1/4	0.6	6.35	380	1.47	310650
GT-HPS200	20	20	3700	0.26	Rc 1/4	0.6	6.35	400	1.9	310651

*Overall length and weight : Accessories included

Needles for Power Scalers

No. HPSN-215 NEW



No. HPSN-318 NEW



No. HPSN-218 NEW



For GT-HPS160 (100pieces)

Model No.	Contents	EDP No.
HPSN-215	ϕ 2mm×150mm 100pcs.	350151
HPSN-218	ϕ 2mm×180mm 100pcs.	350150

For GT-HPS200 (50pieces)

Model No.	Contents	EDP No.
HPSN-318	ϕ 3mm x180mm 50pcs.	350152

No. GT-BS12

Air Belt Sanders



The center of the arm becomes the center of gravity. This belt has been designed in an offset position so that it becomes aligned with the center of the arm when the unit is taken up. This slight difference in balance makes a big difference in reducing fatigue. A major ergonomic achievement.



No. GT-BS12

Air Belt Sanders

The more you use our air belt sanders the more you will see how efficient and well balanced they are. They boast an easy-to-use, one-touch system for paper and disk replacement, and their delicate balance achieves a major reduction in fatigue.

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

Air Belt Sanders

Belt Width 12mm/10mm Compact and lightweight.



No. GT-BS12 PAT.

With noise reducer
Accessories
Sand belt #60...2pcs.
#80...1pc.

Belt Width 20mm Roller head can be chosen.



No. GT-BS20 PAT.

Aluminum roller head
With noise reducer



Aluminum
For heavy-duty sanding.

Accessories
Sand belt #60...2pcs.
#80...1pc.



Belt Width 30mm Roller head can be chosen.

No. GT-BS30 PAT.

Aluminum roller head
With noise reducer



Aluminum
For heavy-duty sanding.

No. GT-BS30W PAT.

Urethane roller head
With noise reducer



Urethane
For undulated and curved surfaces.



Accessories
Bar grip (Auxiliary handle)... 1pc.
Sand belt #60...2pcs.
#80...1pc.

Model No.	Applicable Belt Size	Belt Circumferential Speed (m/min)	Working Air Pressure (MPa)	No Load Speed (rpm)	Air Consumption (m ³ /min)	Hose Coupling	Overall Length (mm)	Weight (g)	Accessories		EDP No.
									Plug	L-wrench	
GT-BS12	12mm/10mm×330mm	1,100	0.6	17,000	0.52	Rc 1/4	311	840	BPB-2	H1.5	310621
GT-BS20	20mm×520mm	2,600	0.6	16,500	0.6	Rc 1/4	398	1,300	BPB-2	H2	310622
GT-BS30	30mm×540mm	2,040	0.6	13,000	0.72	Rc 1/4	374	1,930	BPB-2	H2.5	310624
GT-BS30W											310625

*Total length: When mounted with belt.

Air Disk Sanders

Disk Dia. 50mm Low speed of 5000 rpm & High torque.



Collet chuck
φ6mm



Sand belt #60...2pcs.
#80...1pc.

No. GT-DS50A

With noise reducer
Accessories
Flap wheel #60...1 pc.
Fiber wheel #600...1 pc.
Pitatto holder...1 pc.
Pitatto disk paper #60...3 pcs.



Disk bolt

Collet chuck (φ3mm, φ1/4", φ1/8")



Disk Dia. 100mm Low speed of 5000 rpm & High torque.



M10 disk nut



No. GT-DS50B

With noise reducer
Accessories
Protective cover
Disk nut
Pin wrench

Model No.	Disk Dia. (mm)	No Load Speed (rpm)	Air Consumption (m ³ /min)	Hose Coupling	Air Hose Inner Dia. (mm)	Overall Length (mm)	Weight (g)	Tip Tool Installation Part	Accessories		EDP No.
									Plug	Spanner	
GT-DS50A	50	5,000	0.65	Rc 1/4	6.35	211	935	Collet chuck φ6mm	BPB-2	H11,H15	310635
GT-DS50B	100	5,000	0.65	Rc 1/4	6.35	211	1,150	M10 Disk nut	BPB-2	Pin spanner,H15	310636

*Air pressure: 0.6MPa

Endless belts for air belt sander

No. CB12 Ceramic Endless Belt (for GT-BS12)



Model No.	Size	Grit No.	Quantity	EDP No.
CB12-60	12mm×330mm	#60	50	350061
CB12-80	12mm×330mm	#80	50	350062
CB12-120	12mm×330mm	#120	50	350064

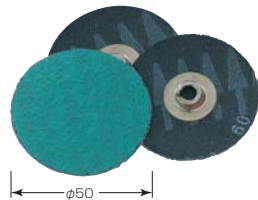
No. ZB20 Zirconia Endless Belt (for GT-BS12)



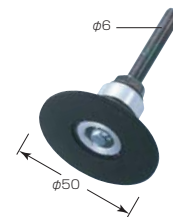
Model No.	Size	Grit No.	Quantity	EDP No.
ZB20-40	20mm×520mm	#40	20	350067
ZB20-60	20mm×520mm	#60	20	350068
ZB20-80	20mm×520mm	#80	20	350069

Air Disk Sander Wheel (For DS50A) See P162 One point→

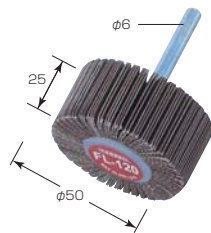
No. PD-P60 Pitatto Disk Paper



No. PD-P6 Pitatto Holder



No. FL-60,120 Flap Wheel



No. FB-400,600,1000 Fiber Wheel



Model No.	Grit No.	Max. Circumferential Speed (rpm)	Material	Use	Quantity	EDP No.
PD-P60	Z60	20,000	Zirconia	Thin pressed plate deburring, surfacing, etc.	50	350111
PD-P6	—	—	Rubber (Pad)	For Pitatto disk paper	1	350116
FL-60	A60	20,000	Alumina	Deburring, spatter removal Cylinder lining polishing, surfacing, etc.	5	350101
FL-120	A120	20,000	Alumina	Deburring, spatter removal Cylinder lining polishing, surfacing, etc.	5	350102
FB-400	400	10,000	Unwoven cloth	Dirt removal, cleaning prior to welding or plating, burn removal after welding, etc.	5	350106
FB-600	600	10,000	Unwoven cloth	Dirt removal, cleaning prior to welding or plating, burn removal after welding, etc.	5	350107
FB-1000	1000	10,000	Unwoven cloth	Dirt removal, cleaning prior to welding or plating, burn removal after welding, etc.	5	350108

Wheels to Remove Rust / Stains (For DS50B) See P162 One point→

No. HMW10 Hammer Wheel **PAT.P.**



No. BHW10 Brush Wheel



Model No.	Max. Circumferential Speed (rpm)	Material	Use	Quantity	EDP No.
HMW10	5,000	SUS	Slag and spatter removal after welding, etc.	1	350121
BHW10	5,000	Abrasive grain nylon	Steel plate rust removal, aluminum cast finishing, etc.	1	350122

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

Disk Dia. 100mm Handy & powerful grinder pursuing safety and usability.



No. GT-DG100



OP
Bar grip (Auxiliary handle)

Model No.	Grindstone Size Outer Dia.×Thickness×Hole Dia. (mm)	Belt Circumferential Speed (m/min)	No Load Speed (rpm)	Air Consumption (m ³ /min)	Hose Coupling	Overall Length (mm)	Height (mm)	Weight (g)	Accessories		EDP No.
									Plug	L-wrench	
GT-DG100	100×6×15	4,300	13,500	0.7	Rc 1/4	205	92	1,390	BPB-2	H6	310630

·Air pressure: 0.6MPa ·Air hose diameter: 6.35mm

One point

Application

Wheel

Tools

- For grinding inner cylinder and plane surface and removing burr (Grinding, welding press)

← Flap Wheel



No.FL-60
No.FL-120

- For removing dirt, cleaning welded parts and plate processed parts, removing scuffing, feathering, etc.

← Fiber Wheel



No.FB-400
No.FB-600
No.FB-1000

- For removing burr from thin metal sheet press, cutter mark, burr from aluminum casting, wood work, etc.

← Pitatto Holder + Pitatto Disk Paper



No.PD-P6
No.PD-P60

- For removing slag and spatter after welding, rust on steel members, burr on foundry pieces, shells on ship bottom, etc.

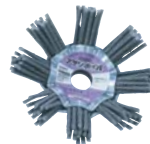
← Hammer Wheel



No.HMW10

- For removing rust on steel members, grain pattern finishing, finishing for aluminum casting

← Brush Wheel



No.BHW10

No.GT-DS50A



No.GT-DS50B



Collet chuck $\phi 3\text{mm}$ High rotation speed and minimum core deviation, realizing an effortless and smooth grinding performance

No. GT-MG75S

75,000 rpm



No. GT-MG75SAR

Soft Grip

75,000 rpm



[OP] Collet chuck ($\phi 2.35\text{mm}, \phi 1/8"$)



No. GT-MG55SR

Ergo Grip

55,000 rpm



No. GT-MG55SAR

Soft Grip

55,000 rpm



[OP] Collet chuck ($\phi 2.35\text{mm}, \phi 1/8"$)



No. GT-MG55S

55,000 rpm



No. GT-MG35-12CC

Soft Grip

35,000 rpm



[OP] Collet chuck ($\phi 2.35\text{mm}, \phi 1/8"$)



[OP] Corner attachment
No. GT-MG25-12CF (Smooth grinding / polishing at 25,000 rpm)
No. GT-MG25-12CC (Precision grinding at 25,000 rpm)

Collet chuck $\phi 6\text{mm}$ High rotation speed and minimum core deviation, realizing an effortless and smooth grinding performance

No. GT-MG25S

25,000 rpm



[OP] Collet chuck ($\phi 3\text{mm}, \phi 1/4", \phi 1/8"$)



No. GT-MG35SAR

Soft Grip

35,000 rpm



[OP] Collet chuck ($\phi 3\text{mm}, \phi 1/4", \phi 1/8"$)



Model No.	No Load Speed (rpm)	Air Consumption (m ³ /min)	Hose Coupling	Air Hose Inner Dia. (mm)	Overall Length (mm)	Frame Dia. (mm)	Weight (g)	Collet Chuck (ϕ mm)	Accessories			EDP No.
									Chuck handle	Spanner	Oil	
GT-MG75S	75,000	0.16	Rc 1/4	6.35	170	18.5	190	3	●	H9	●	310725
GT-MG75SAR	75,000	0.16	Rc 1/4	6.35	156	20.9	180	3	—	H5,H9	●	310726
GT-MG55SR	55,000	0.16	Rc 1/4	6.35	180	20.5	220	3	●	H9	●	310750
GT-MG55SAR	55,000	0.245	Rc 1/4	6.35	178	24.4	260	3	—	H5,H9	●	310773
GT-MG55S	55,000	0.16	Rc 1/4	6.35	165	17.5	180	3	●	H9	●	310705
GT-MG35-12CC	35,000	0.20	Rc 1/4	6.35	183	24.5	305	3	—	H5,H9	●	310774
GT-MG35-12CR	35,000	0.16	Rc 1/4	6.35	151	20.0	160	3	—	H5,H9	●	310748
GT-MG25S	25,000	0.175	Rc 1/4	6.35	198	30.0	600	6	—	H11,H13	●	310765
GT-MG35SAR	35,000	0.285	Rc 1/4	6.35	182	29.4	435	6	—	H11,H13	●	310772

·Working air pressure: 0.6MPa ·Overall length: Accessories and exhaust hose parts not included. ·Weight: Accessories not included.

·In the main body, a 1.5m air intake hose, exhaust hose and a hose joint are attached. ·With regard to GT-MG55S, MG55SR, MG75S and a 2.35 mm collet chuck is also prepared.

[OP] Can be replaced by user. [OP] Should be replaced at our factory.

No. GT-MG25-12CF

Soft Grip

25,000 rpm



OP Corner attachment
 No.GT-MG35-12CC (Precision grinding at 35,000 rpm)
 No.GT-MG25-12CC (Precision grinding at 25,000 rpm)

No. GT-MG25-9CF

Soft Grip

25,000 rpm



OP Corner attachment
 No.GT-MG25-9CC (Precision grinding at 25,000 rpm)
 No.GT-MG35-9CC (Precision grinding at 35,000 rpm)

Model No.	No Load Speed (rpm)	Air Consumption (ml/min)	Hose Coupling	Air Hose Inner Dia. (mm)	Overall Length (mm)	Frame Dia. (mm)	Weight (g)	Tip tool attachment size	Accessories	EDP No.
GT-MG25-12CF	25,000	0.25	Rc 1/4	6.35	181	24.5	315	M7	·Chuck handle ·Oil ·Rubber holder	310776
GT-MG25-9CF	25,000	0.25	Rc 1/4	6.35	173	24.5	310	M7	·PO-ring (#60·100·150·240 3pcs. each)	310775
GT-MG25-12CR	25,000	0.16	Rc 1/4	6.35	160	20.0	200	M7	#400·600 1pc. each	310762
GT-MG25-9CR	25,000	0.16	Rc 1/4	6.35	143	20.0	200	M7	·Lap ring (#600 1pc.) ·Headcup (#80 1pc.)	310761

·Working air pressure: 0.6MPa ·Overall length: Accessories and exhaust hose parts not included. ·Weight: ·Accessories not included. ·In the main body, a 1.5m air intake hose, exhaust hose and a hose joint are attached.

OP Should be replaced at our factory.

Tip Tools for Smooth Surface Grinding and Polishing

To meet work objectives from the removal of cutter marks when manufacturing metal molding, to the finishing of mirror surfaces

No. HC-80 Headcup



Model No.	Grit #	Inner Ctn.	EDP No.
HC-80	80	10	622205

No. RH-30 Rubber Holder



Model No.	Inner Ctn.	EDP No.
RH-30	10	622305

No. PR PO-Ring



Model No.	Grit #	Inner Ctn.	EDP No.
PR-60	60	100	622005
PR-100	100	100	622007
PR-150	150	100	622009
PR-240	240	100	622011
PR-400	400	100	622013
PR-600	600	100	622015

No. LP Lap Ring

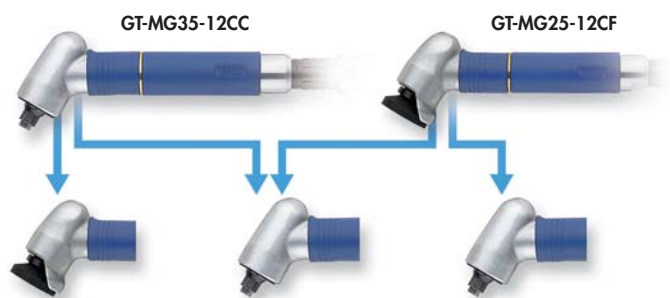


Model No.	Grit #	Inner Ctn.	EDP No.
LP-320	320	30	622105

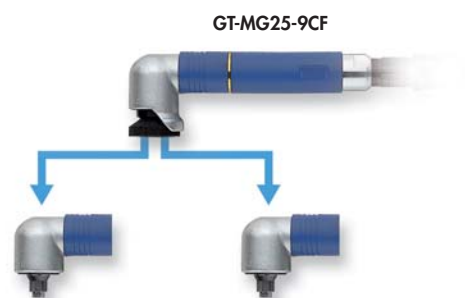
One point

Corner Attachment Replacement Heads

A selection of corner attachments with differing head shapes and gear ratios is available. VESSEL will replace the micro grinder heads in accordance with your needs.



- GT-MG25-12CF**
 ●No Load Speed 25,000rpm
 ●Tip tool attachment size: M7
- GT-MG25-12CC**
 ●No Load Speed 25,000rpm
 ●Collet chuck: φ3mm I.D.
- GT-MG35-12CC**
 ●No Load Speed 35,000rpm
 ●Collet chuck: φ3mm I.D.



- GT-MG25-9CC**
 ●No Load Speed 25,000rpm
 ●Collet chuck: φ3mm I.D.
- GT-MG35-9CC**
 ●No Load Speed 35,000rpm
 ●Collet chuck: φ3mm I.D.

HAND TOOLS

BITS & SOCKETS

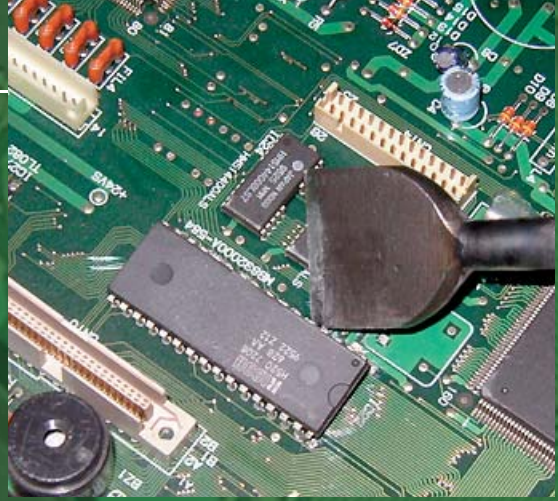
ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

No. GT-ASC5 Air Scraper



Featuring superior speed, operating efficiency, and durability, our air grinders are designed for cutting sheet, plate, and board material, these air scrapers are available in 2 models, with emphasis on high speed and strength.

The movement amplitude is both exact and strong, and as air scrapers these units have become the focus of attention in the recycling industry.



**No. GT-ASC5
Air Scraper**

Speedy cutting performance with an excellent amplitude balance. User-friendly ergonomic design.

Cutting Capacity Metal Sheet **4mm** Compact and lightweight.

Easy recovery by the restart button in case of unexpected stop.



No. GT-AS10 PAT.

Noise reducer

Accessories

Blade : 32-tooth thick blade ASB-32H...1pc.
24-tooth thick blade ASB-24H...1pc.

Cutting Capacity Metal Sheet **1.6mm** Compact and lightweight.



No. GT-AS100 PAT.

Accessories

Blade : 32-tooth standard blade ASB-32...2pcs.

Model No.	Cutting Capacity	Working Air Pressure (MPa)	Stroke Speed (c.p.m.)	Air Consumption (m ³ /min)	Stroke (mm)	Hose Coupling	Overall Length (mm)	Weight (g)	Accessories		EDP No.
									Plug	L-wrench	
GT-AS10	Metal sheet...4mm	0.6	5,000	0.28	10	Rc 1/4	195.5	870	BPB-2	H3	336131
GT-AS100	Metal sheet...1.6mm	0.6	10,000	0.34	10	Rc 1/4	170	570	BPB-2	H2,H4	310640

Cutting capacity: GT-AS10: When used with a No.ABS-32H blade GT-AS100: When used with a No.ASB-32 blade Overall Length and Weight: Accessories not included.

Air Saw Blades(For GT-AS10/AS100)



Model No.	Specifications	Use	Quantity	EDP No.
ASB-32	For steel Cobalt mix, standard blade, 32 teeth	Cutting steel	10	350054
ASB-32H	For steel Cobalt mix, super thick blade, 32 teeth	Cutting plain and stainless steel sheet	10	350052
ASB-24H	For steel Cobalt mix, super thick blade, 24 teeth	Cutting aluminum, soft steel and resin	10	350053
ASC-25-5	Scraper 25 mm wide blade	Scraping, peeling, etc.	1	350143
ASF-F-5	File Flat	File	5	350144
ASF-T-5	File Triangular	File	5	350146

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

Easy recovery by the restart button in case of unexpected stop.



No. GT-ASC5

Noise reducer
 ※ Scraper sold separately
 ↓ See One point

Model No.	Working Air Pressure (MPa)	Stroke Speed (c.p.m.)	Air Consumption (ml/min)	Stroke (mm)	Hose Coupling	Overall Length (mm)	Weight (g)	Accessories		EDP No.
								Plug	L-wrench	
GT-ASC5	0.6	7,000	0.28	5	Rc 1/4	195.5	810	BPB-2	H3	336132

Scraper (For GT-ASC5)

No. ASC-25-8



No. ASC-50-8



Model No.	Blade Width (mm)	Axis Dia. φ (mm)	Use	EDP No.
ASC-25-8	25	8	for IC chip	350141
ASC-50-8	50	8	for IC chip, wall	350142

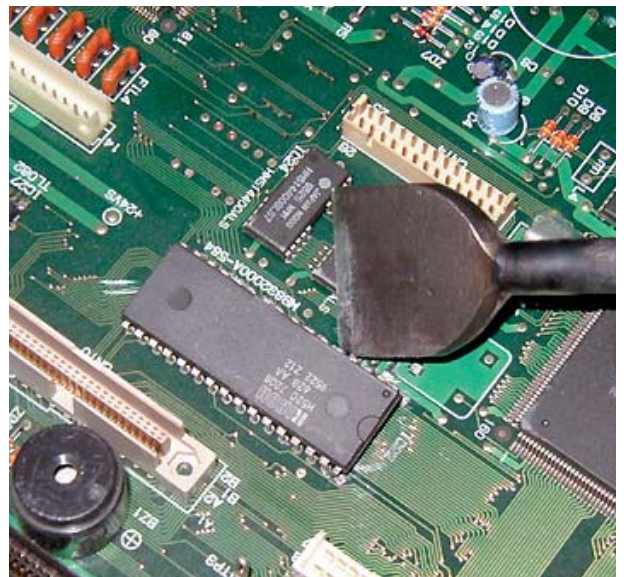
One point

Ideal for recycling of automotive and PC



Air Scraper
No. GT-ASC5

Use to detach IC chips from circuit boards when recycling PCs, faxes, copiers.



Drill Hole $\phi 6\text{mm}$ Compact and lightweight. Equipped with adjust-valve and silencer, which offer comfort to operators



No. GT-D60-30 NEW

Noise reducer/Rear exhaust



No. GT-D60-45 NEW

Heat protection rubber cover.



Drill Hole $\phi 6\text{mm}$ Suitable for drilling holes on curved surfaces and/or hard-to-work-on places.

Start by pushing



You can use commercially available snake drills.



No. GT-CD60-34 NEW

Air Corner Drill

Rear exhaust

Start with a lever



You can use commercially available snake drills.



No. GT-CD60-34L NEW

Drill Hole $\phi 8\text{mm}$ Compact, lightweight, and noise reducer equipped, for comfort to the workplace.

No. GT-D80-20

Noise reducer/Rear exhaust



No. GT-D80-20K

Noise reducer/Rear exhaust

Key-less chuck type, which does not need a chuck handle



Drill Hole $\phi 10\text{mm}$ Compact, lightweight, and noise reducer equipped, for comfort to the workplace.

No. GT-D100-15

Noise reducer/Rear exhaust



No. GT-D100-15K

Noise reducer/Rear exhaust

Key-less chuck type, which does not need a chuck handle



Model No.	Steel Plate Drilling Capacity ϕ (mm)	No Load Speed (rpm)	Air Consumption (ml/min)	Hose Coupling	Air Hose Inner Dia. (mm)	Overall Length (mm)	Weight (g)	Chuck Size (mm)	Accessories		EDP No.
									Plug	Chuck handle	
GT-D60-30	6	3,000	0.52	Rc 1/4	6.35	188	880	6.0	BPB-2	Chuck handle	310603
GT-D60-45	6	4,500	0.56	Rc 1/4	6.35	188	890	6.0	BPB-2	Chuck handle	310603
GT-CD60-34	6	3,400	0.42	Rc 1/4	6.35	250	820	6.0	BPB-2	Lock handle, Offset handle, wrench	336141
GT-CD60-34L	6	3,400	0.42	Rc 1/4	6.35	251	840	6.0	BPB-2	Lock handle, Offset handle, wrench	336142
GT-D80-20	8	2,000	0.35	Rc 1/4	6.35	165	940	8.0	BPB-2	Chuck handle	310604
GT-D80-20K	8	2,000	0.35	Rc 1/4	6.35	171	960	8.0	BPB-2	—	310605
GT-D100-15	10	1,500	0.54	Rc 1/4	6.35	189	1,280	10.0	BPB-2	Chuck handle	310606
GT-D100-15K	10	1,500	0.54	Rc 1/4	6.35	195	1,300	10.0	BPB-2	—	310607

*Working air pressure: 0.6MPa *Overall length and Weight: Accessories not included.

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

No. AD-4 N Air Dusters



2 types are available to meet a variety of needs.

A perfect amalgamation of materials with ergonomic design has made easy-to-use products for all applications of blowing and drying work.



No. AD-4 N
Air Dusters

VESSEL's air dusters boast aluminum die-cast bodies that are light and strong, a wide selection of replaceable nozzles such as extra-long nozzles, flexible nozzles, nozzles with flanges, and a protector to prevent loosening of the handle lever.

Standard Nozzle **AD-4 N** Standard Type.

Flow Volume Adjustment Nozzle **AD-4 J** Can control air flow.



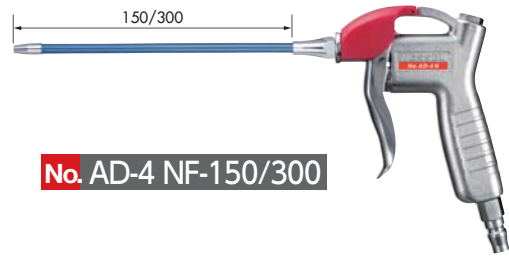
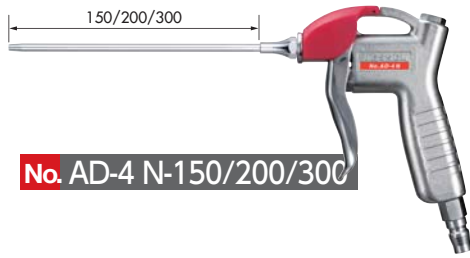
High Volume Nozzle **AD-4 M** Booster nozzle with a higher spraying pressure.
→See 175P One point

Brushing Nozzle **AD-4 B** Powerfully sweeps out particles with a sturdy brush.
→See 175P One point



Long Nozzle **AD-4 N** For working in deep and distant places.

Flexible Nozzle **AD-4 NF** Bendable nozzle.



Model No.	Nozzle Type	Nozzle Inner Dia. (mm)	Air Consumption (ℓ/min)	Overall Length (mm)	Weight (g)	Air Hose Connection	Outer Ctn.	Card/ Box Size (mm)	EDP No.
AD-4 N	Standard Nozzle	2	180	125	235	Coupling	20	in paper box 110×173	141180
AD-4 N-PB	Standard Nozzle	2	180	125	235	Coupling	10	185×160	141181
AD-4 N-PT	Standard Nozzle	2	180	125	235	1/4 Hose	10	185×160	141182
AD-4 J	Flow Adjustment Nozzle	2	150	130	240	Coupling	20	in paper box 110×173	141183
AD-4 J-PB	Flow Adjustment Nozzle	2	150	130	240	Coupling	10	185×160	141184
AD-4 J-PT	Flow Adjustment Nozzle	2	150	130	240	1/4 Hose	10	185×160	141185
AD-4 M	High Volume Nozzle	2×1pc,0.8×4pcs.	240	125	228	Coupling	20	in paper box 110×173	141187
AD-4 B	Brushing Nozzle	2	180	170	248	Coupling	10	in paper box 115×220	141186
AD-4 N-150	Long Nozzle	2.5	180	275	248	Coupling	10	in paper box 140×300	141188
AD-4 N-200	Long Nozzle	2.5	180	325	253	Coupling	10	in paper box 140×450	141189
AD-4 N-300	Long Nozzle	2.5	180	425	260	Coupling	10	in paper box 140×450	141190
AD-4 NF-150	Flexible Nozzle ※	2.3	180	275	260	Coupling	10	in paper box 140×300	141191
AD-4 NF-300	Flexible Nozzle ※	2.3	180	425	274	Coupling	10	in paper box 140×450	141193

*Power source: compressed air ·Working air pressure: 0.5MPa ·Max. working pressure: 0.7MPa ·Working temperature range: 0-60°C (32-140°F) ·Working air hose I.D.: φ4mm and more
·Overall length and weight: Air coupler included. ※It can be bent freely due to the built-in copper tube. (Do not bend it at a steep angle.)



Box package



Also compatible with hanging type



Slide package

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

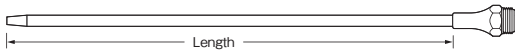
AIR TOOLS

STATIC SOLUTIONS

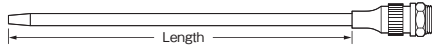
GASOLINE ENGINE TOOLS

Interchangeable Nozzles (for AD-4) /Brushes (for AD-4 B)

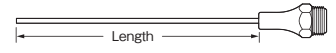
Long Nozzle



Air Flow Volume Adjustment Long Nozzle



Slender Nozzle Ideal for narrow spaces



Inlet: G1/8

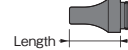
Flexible Nozzle

Bendable shaft



Plastic Nozzle

Safe and dent-free



Interchangeable Brush



Long Nozzle

Model No.	Innner Dia.	Outer Dia.	Length (mm)	Inner Ctn.	EDP No.
LN-150	2.5	5	150	10	141133
LN-200	2.5	5	200	10	141134
LN-300	2.5	5	300	10	141135
LN-500	2.5	5	500	10	141136

Air Flow Volume Adjustment Long Nozzle

LJ-150	2.5	5	150	10	141137
LJ-200	2.5	5	200	10	141138
LJ-300	2.5	5	300	10	141139
LJ-500	2.5	5	500	10	141140

Slender Nozzle

LS-2-100	0.9	2	100	10	141141
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Flexible Nozzle Shaft

Model No.	Innner Dia.	Outer Dia.	Length (mm)	Inner Ctn.	EDP No.
LF-150	2.3	7	150	10	141143
LF-200	2.3	7	200	10	141144
LF-300	2.3	7	300	10	141145
LF-700	2.3	7	700	10	141146

Plastic Nozzle

SP-0	2.0	7.5	21	1	141132
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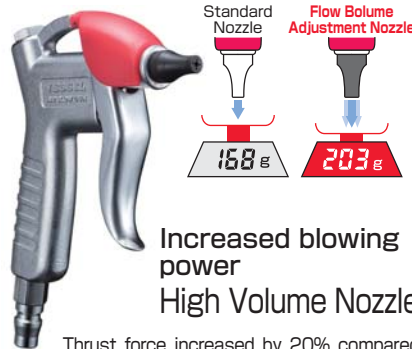
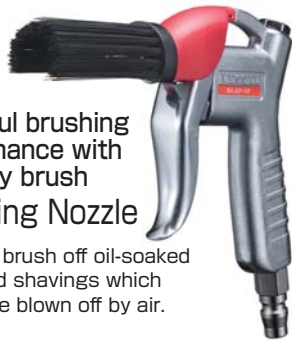
Interchangeable Brush

Model No.	Brush Length	Outer Dia.	Length (mm)	Inner Ctn.	EDP No.
SB-50	60	35	68	5	141147

One point

Powerful brushing performance with a sturdy brush
Brushing Nozzle

Securely brush off oil-soaked chips and shavings which cannot be blown off by air.



Increased blowing power
High Volume Nozzle

Thrust force increased by 20% compared with the standard nozzle. Booster nozzle has a great wind pressure to powerfully blow off chips and shavings stuck in narrow gaps in chuck claws and cutter trench.

Standard Nozzle **AD-2** To blow off machined chips, moisture, and oil

No. AD-2 0N



No. AD-2 0N-PB



Long Nozzle **AD-2 100N/ 200N/ 300N** To blow off machined chips, moisture, and oil

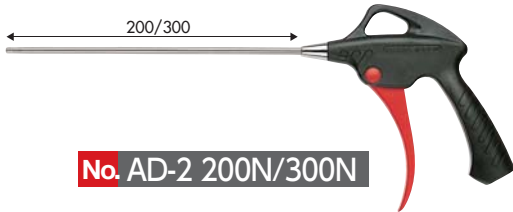
No. AD-2 100N



No. AD-2 100N-PB

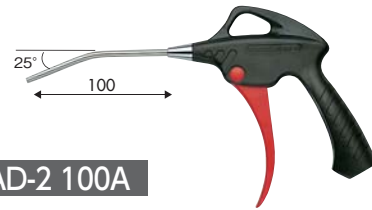


No. AD-2 200N/300N



25° Long Nozzle **AD-2 100A** 25° bendable tip to improve workability

No. AD-2 100A



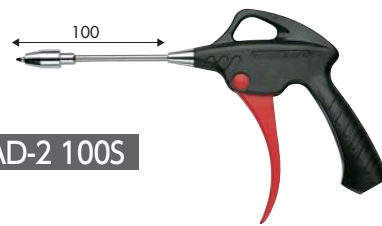
Safety Bypass Nozzle **AD-2 0S** To blow off safely and quietly in a wide area

No. AD-2 0S



Safety Bypass Long Nozzle **AD-2 100S** To blow off safely and quietly in a wide area

No. AD-2 100S



Large finger throttle lever for less fatigue to control the air volume. The ergonomically designed handle enables outstanding operability. Dust removal and drying of sheet metal, coated materials, automotive parts, molds, metal working, etc.

Model No.	Nozzle Type	Nozzle		Air Consumption (ℓ/min)	Overall Length (mm)	Weight (g)	Outer Ctn.	Card/ Box Size (mm)	EDP No.
		Length	Inner Dia.(mm)						
AD-2 0N	Standard Nozzle	0	2.1	135	145	122	10	152×232	141111
AD-2 0N-PB	Standard Nozzle (with plug)	0	2.1	135	155	146	10	152×232	141151
AD-2 100N	Long Nozzle	100	2.1	135	242	131	10	182×232	141112
AD-2 100N-PB	Long Nozzle (with plug)	100	2.1	135	252	157	10	182×232	141152
AD-2 200N	Long Nozzle	200	2.1	135	342	141	1	in paper box 140×445	141113
AD-2 300N	Long Nozzle	300	2.1	135	442	150	1	in paper box 140×455	141114
AD-2 100A	25° Long Nozzle	100	2.1	135	242	131	10	182×232	141115
AD-2 0S	Safety Bypass nozzle	0	2.1	105	155.5	131	10	152×232	141121
AD-2 100S	Safety Bypass long nozzle	100	2.1	105	239.5	151	10	182×232	141122

·Power source: compressed air ·Max. working pressure: 0.97MPa ·Working temperature range: 0-60°C (32-140°F) ·Air inlet screw diameter: Rc 1/4
 ·Working air hose I.D.: φ4mm and more ·Air pressure when air consumption is measured: 0.49MPa ·Pre-packed (200N, 300N in paper box)

※Nozzle can not be replaced.

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

Rubber Nozzle **AD-2 0R** Dust blow off, not making scratches on a part

Rubber Long Nozzle **AD-2 100R** Dust blow off, not making scratches on a part



Nozzle with soft rubber tip.

No. AD-2 0R



100



No. AD-2 100R

High Volume Nozzle **AD-2 0M** When more air volume is required in spite of low air pressure

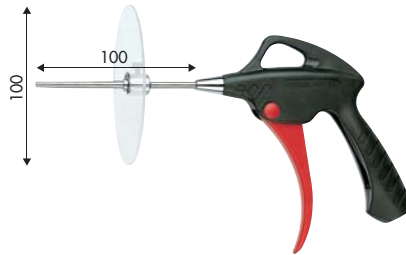
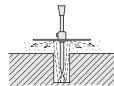
Air flow booster type.
Venturi nozzle emits air to wider area.
2.5 times more emission than AD-2 0N type.



No. AD-2 0M

Chip Shield Long Nozzle **AD-2 100P** Plastic plate prevents dust and particles from blowing back and scattering

Ideal for blowing out dust from a narrow hole or deep place.



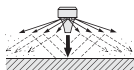
No. AD-2 100P



Blister package

Air Screen Nozzle **AD-2 0C** Air curtain prevents dust and particles from blowing back and scattering

Air curtain shuts out the spreading of oil, moisture and cutting dust.



No. AD-2 0C



Box package

Large finger throttle lever for less fatigue to control the air volume. The ergonomically designed handle enables outstanding operability. Dust removal and drying of sheet metal, coated materials, automotive parts, molds, metal working.

Model No.	Nozzle Shape	Nozzle		Air Consumption (ℓ/min)	Overall Length (mm)	Weight (g)	Outer Ctn.	Card/ Box Size (mm)	EDP No.
		Length	Inner Dia. (mm)						
AD-2 0R	Rubber Nozzle	0	2.1	115	155.5	123	10	152×232	141116
AD-2 100R	Rubber Long Nozzle	100	2.1	115	227	147	10	182×232	141117
AD-2 0M	High Volume Nozzle	0	10	185	160	126	10	152×232	141118
AD-2 100P	Chip Shield Long Nozzle	100	2.1	135	242	157	10	182×232	141120
AD-2 0C	Air Screen Nozzle	0	2.8	260	145	127	10	152×232	141119

·Power source: compressed air ·Max. working pressure: 0.97MPa ·Working temperature range: 0-60°C (32-140°F) ·Air inlet screw diameter: Rc 1/4
·Working air hose I.D.: φ4mm and more ·Air pressure when air consumption is measured: 0.49MPa ·Pre-packed

※Nozzle can not be replaced.

AIR NIPPER





Contents

- Sliding Air Nippers Horizontal-type 184 - 186
 - Sliding Air Nippers Horizontal-type blades 187 - 188
- Sliding Air Nippers Vertical-type 188
 - Sliding Air Nippers Vertical-type blades 189 - 190
- Thrust-Cut Air Nippers 191
 - Thrust-Cut Air Nipper blades 191
- Heat Air Nippers 192 - 195
- Air Nippers 196 - 199
 - Air Nipper blades 200 - 203
- Air Scissors 204
- Custom-made blades 205

AIR NIPPER TECHNICAL

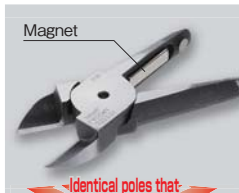
Tough aluminum body



Spring

Standard blades

Blades open and close by a spring repulsion.



Magnet

NM blades

Special blade without spring for 24-hour operation; blades open and close by a magnet repulsion.



Identical poles that repel one another
Neodymium magnet of powerful magnetic force

Air nippers

Model Blade shape

No. **NY10 A J**



- AJ** : Straight blades for plastic ————— **RAJ** : Straight blades for plastic reverse bevel
- AJL** : Straight long blades for plastic
- AJT** : Thin, straight blades for plastic
- AE** : Nipping blades for plastic
- AJY** : Thin, straight blades for plastic
- AD** : Lift blades for plastic
- AH** : Crank blades for plastic ————— **RAH** : Crank blades for plastic reverse bevel
- AJB** : Straight blades for plastic, a brazed carbide tip
- AJV** : V shaped straight blades for plastic
- AJH** : Straight blades for plastic, a brazed high-speed steel tip
- BJ** : Straight thin blades for metal ————— **RBJ** : Straight thin blades for metal reverse bevel

For more precise gate-cutting:



Heat air nippers

These nippers perform cutting by applying heat to the blade edges. They are good for cutting acrylic lens.

194P



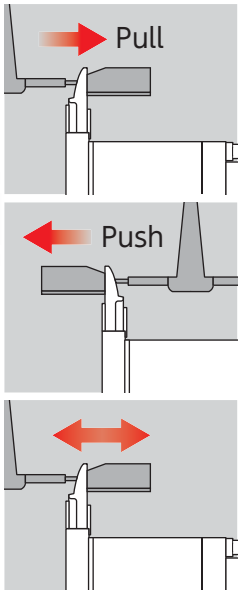
Heat air nippers Thrust-cut type

Cutting by the application of heat; thrust-cutting type ensuring a clean, unblemished cut surface constantly.

193P

Slide-off air nippers

The main unit of the nipper slides and the blade comes into intimate contact with a gate, enabling to cut it without resin residue.



Pull/Push

A wide selection of models can support various applications. Possible to fix the highly precise positioning against the gate as there is less rattling or deflection.

185P

Double action type

Slide mechanism not using a spring ensures smooth action. It is free from concerns about spring wear or metal fatigue, resulting in high durability.

186P

Square type

Provided with threaded holes on the 5 faces of the main unit. Suitable for incorporating into a machine or equipment.

197P

Round type

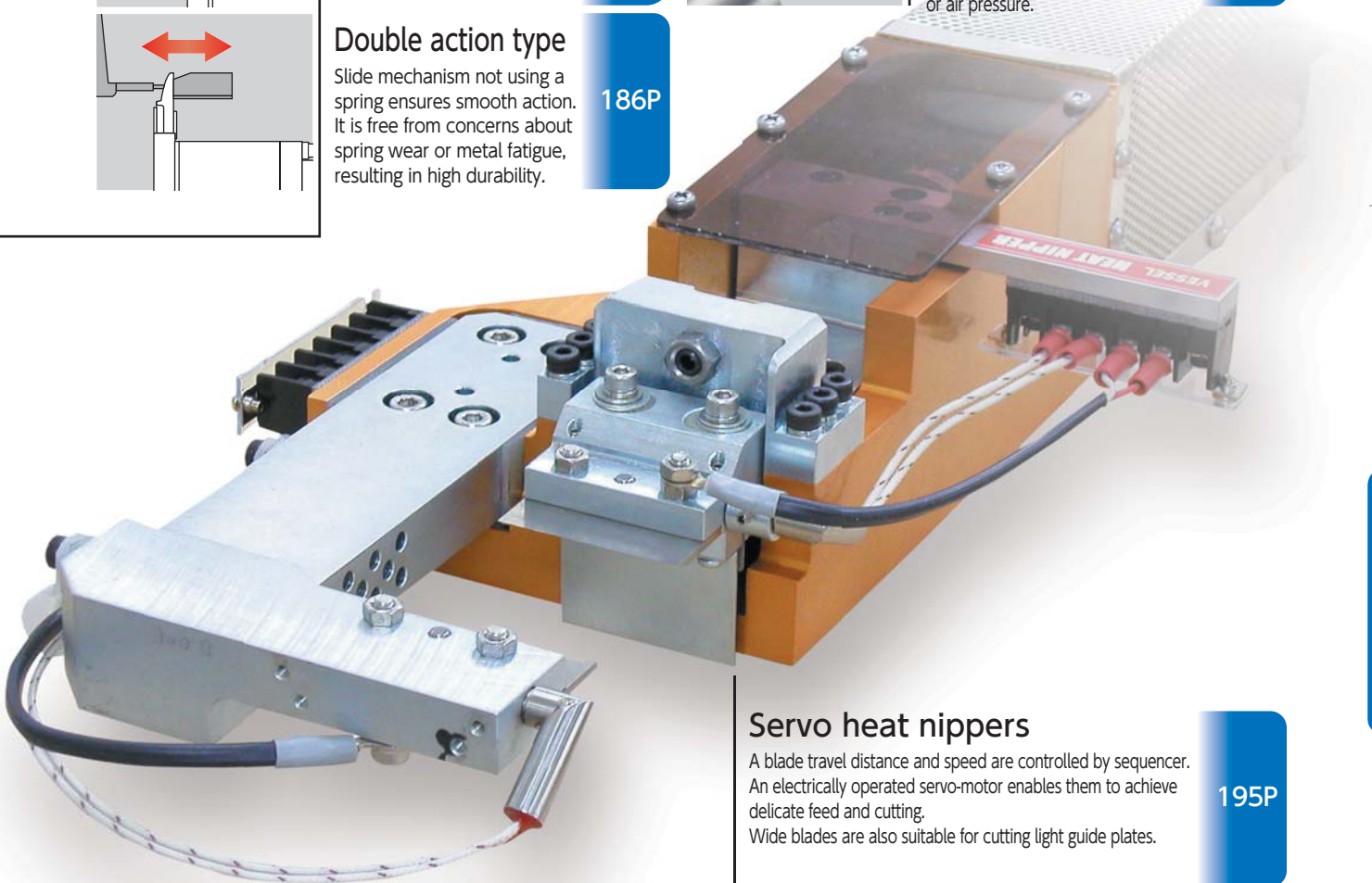
Possible to adjust freely the mounting angle by a stand (option). Suitable for installation on a robotic arm or chuck plate.

198P

Extra Pressure Booster

Installing this unit on either square or round air nipper enables a pressure to be boosted. Ideal for applications where the radical pressure cannot be attained because of installation space or air pressure.

198P



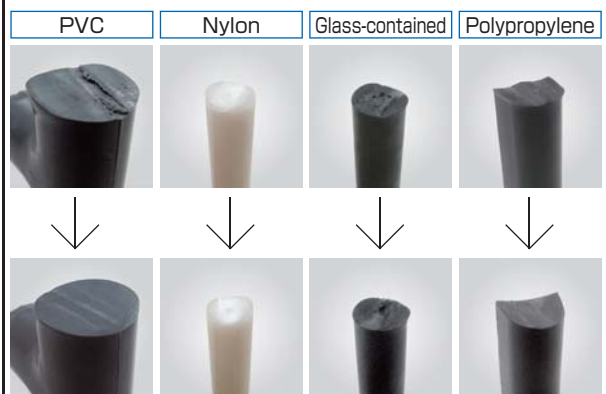
Servo heat nippers

A blade travel distance and speed are controlled by sequencer. An electrically operated servo-motor enables them to achieve delicate feed and cutting. Wide blades are also suitable for cutting light guide plates.

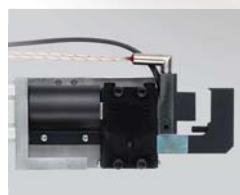
195P

Differences in the cut surfaces when using heat nippers

Standard Blades
(Not Heat Nipper)



Heat Nippers



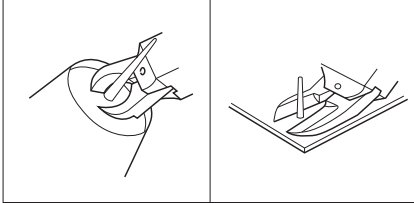
Air-hydro nippers Thrust-cut type

An air-hydro cylinder of air + oil provides low speeds and high power. These nippers are suitable for precision cutting in which gate projecting allowance is strict.

193P

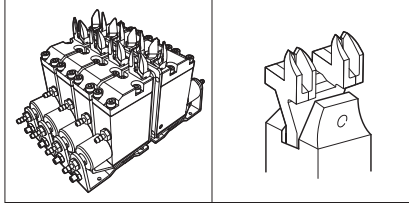
Applications

Cutting direct gate molded components



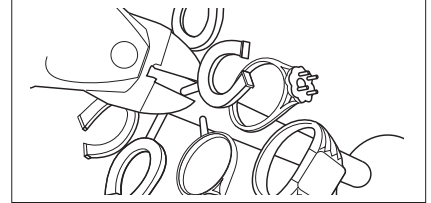
Cuts large diameter sprues such as garment cases, helmets, pipe joint parts, trash cans, planters. Superb durability in long term use.

Gate cut for multiple impression molded components



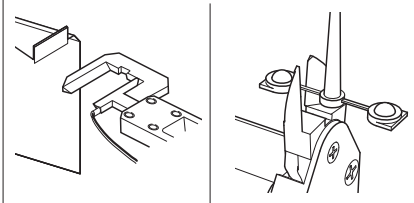
Compact, lightweight body and with a large selection of blade items, easy mounting on chuck board and standby jig. Achieves efficient cuts matching cycle time.

Taking products from a jewelry tree



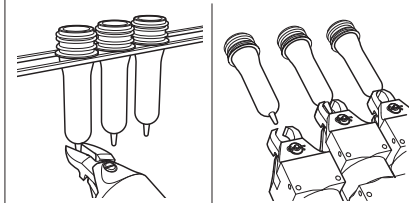
Cutting of precious metals for rings, necklaces etc. Superb durability and increased efficiency with powerful nipper blades.

Gate cutting for lenses, LGP, and transparent products



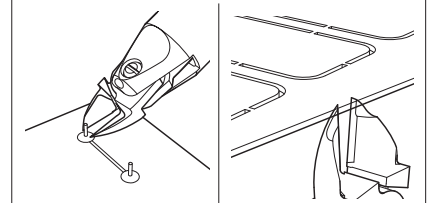
Various heated nippers prevent cracks and whitening, the decisive factor is the heating temperature of the blades and cutting speed. Supports demands for improved flexibility and high precision cutting.

Pre-form cutting for food and drug cases



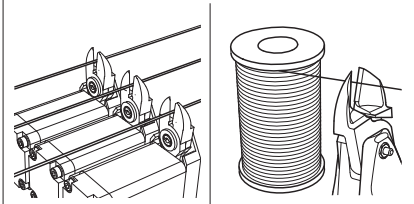
Improved efficiency in pre-forming, nippers attached to flat finish pre-form molding machine. Cut precision is linked to product quality.

Cutting electronic components and around boards



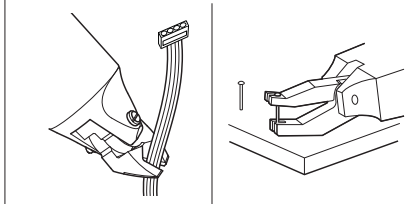
Optimal handy nippers for cutting lead lines after soldering to significantly reduce wrist strain. Substrate is attached to the desktop robot...

Wire cutting with coil winding machine



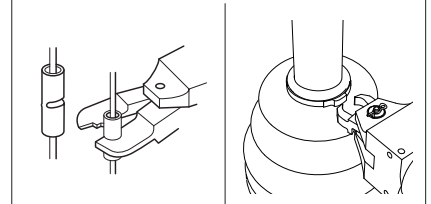
Attach to the nipper unit of automatic coil winding machine for power transformers, fan motors and ignition. Cutting thick diameter wires that cannot be torn off.

Hand tools for dismantling in recycling plants



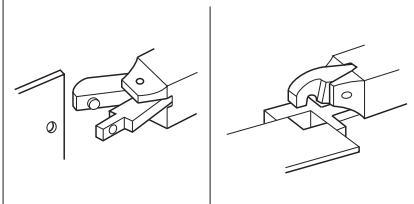
Cuts a variety of wires, copper tubing and steel bands in recycling plants such as PCs and OA equipment, pachinko machines, TVs, and refrigerators, washing machines, etc. Nippers for the purpose of pulling out the pachinko machine pins.

Crimping task for solderless terminals



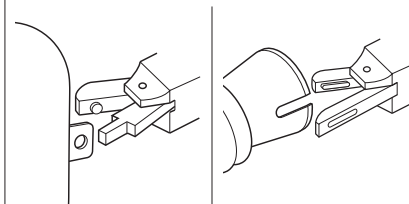
For crimping terminals with various wiring harnesses such as for switchboards, electrical products and lighting equipment. Less strain on fingers and wrists. Increased work efficiency for stop rings for auto parts.

Die cutter for aluminum products and plastic components



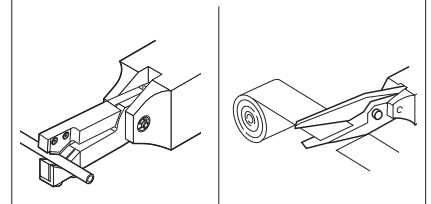
By support for separate blades, allows punching and form cutting of aluminum sash and thin plates.

Punching of blow molded products, punching slotted holes



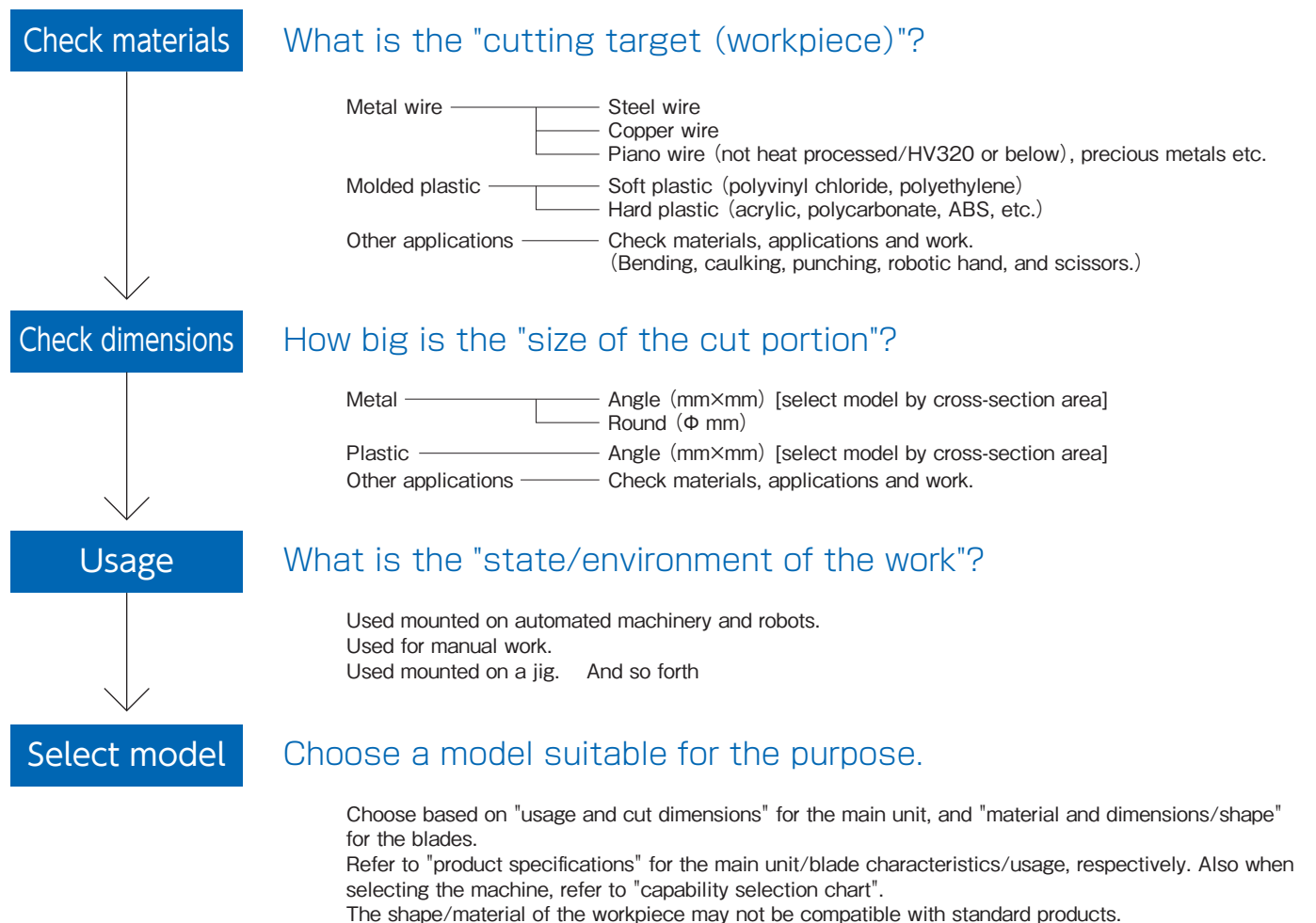
Punching blow molded products, punching slotted holes, for containers that cannot be punched and automobile ducts, etc.

Other applications



Micro-edge air scissors that can cut various hard-to-cut fibers, carbon, aramid fibers, and soft plastic sheets. Nippers for cutting belt loops of jeans, peeling recycled golf balls, cutting edges with textile machinery, etc.

Selection method for air nipper



Guidance for capability selection Note: Reference value when a standard blade is mounted. Values vary depending on the blade shapes and types of cut objects.

Types	Cutting material						Applicable models	Air pressure (MPa)	
	Copper wire	Steel wire (Non-heat treated)	Piano Wire (HV320 or below)	Soft Plastic		Hard Plastic			Solderless terminals
				Dia.	Cross-section				
N · NS · NR	1.0mm	0.5mm	0.2mm	2.0mm	3.1mm ²			NS2,N3,NS3,NR3	0.4~0.5
	1.0	0.5	0.3	2.0	3.1			N5,NS5,NR5	0.4~0.5
	1.6	1.0	0.5	3.0	7.0	2.0mm		N7,NS7,NR7	0.4~0.5
	1.8	1.2	0.5	4.0	12.5	2.6		N10,NS10L,NR10L	0.5~0.6
	2.3	1.7	0.6	4.5	15.8	4.0		N12	0.5~0.6
	2.6	2.0	1.0	7.0	38.4	5.0		N20,NS20,NR20	0.5~0.6
	3.3	2.8	1.2	10.0	78.5	6.5	1.25/2.0	N30,NS30,NR30	0.5~0.6
	5.5	4.5	2.0	12.0	113.0	6.5		N50,NR50	0.5~0.6
With pressure booster	2.6	1.6		5.0	19.6	4.0	1.25/2.0	P-10L	
	3.0	2.2		8.0	50.2	6.0	2.0/5.5	P-20	
	4.8	4.0		13.0	132.6	7.0	~0.8	P-30	
	6.5	5.5						P-50	
NY				2.0	3.1	1.3		NY03	0.4~0.5
	1.6	1.0		3.0	7.0	2.0		NF05,NY05	0.4~0.5
				3.5	9.6	2.3		NF10,NY10	0.4~0.5
				4.0	12.5	2.6		NF15,NY15	0.4~0.5
				5.0	19.6	3.4		NY25	0.5~0.6
NT				1.5	1.7	1.0		NT03	0.4~0.5
				2.5	4.9	1.5		NT05	0.4~0.5
				3.5	9.6	2.3		NT10	0.4~0.5
				5.0	19.6	3.4		NT20	0.4~0.5
	AS, HS, BJ type		BBB	AP, PF, AJ type			ACD type		

No. GT-NY25

Sliding Air Nippers



These are high-class air nippers that can be mounted on gate cutting equipment and standby jigs for accurate, speedy cutting of resin products. VESSEL has a wide selection of items to meet a variety of needs not only for around-the-clock operations but also for the highly precise cutting accuracy.



No. GT-NY25

Sliding Air Nippers Horizontal-Type

The horizontal slide enables space to be utilized effectively. The low profile of the nipper body allows objects to be removed from the machine without obstructing the operations of the chuck plate.



HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

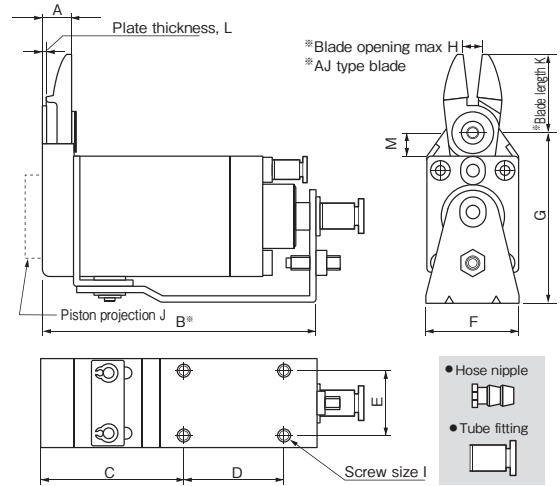
AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

No. GT-NY05/10/15/25 Sliding Air Nippers Horizontal-Type

- The horizontal slide enables space to be utilized effectively.
- The low profile of the nipper body allows objects to be removed from the machine without obstructing the operations of the chuck plate.



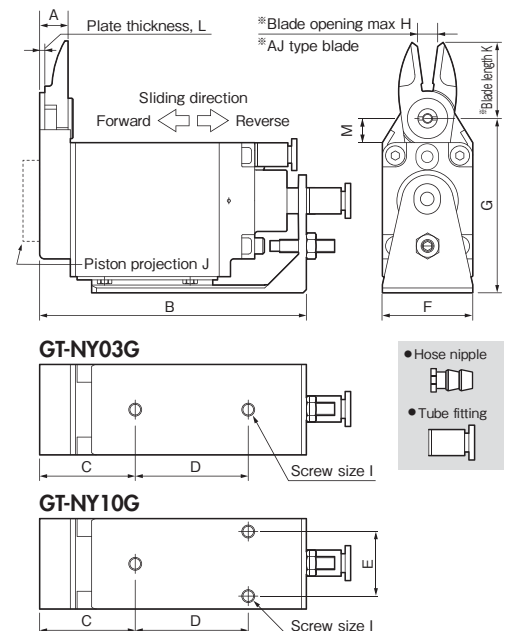
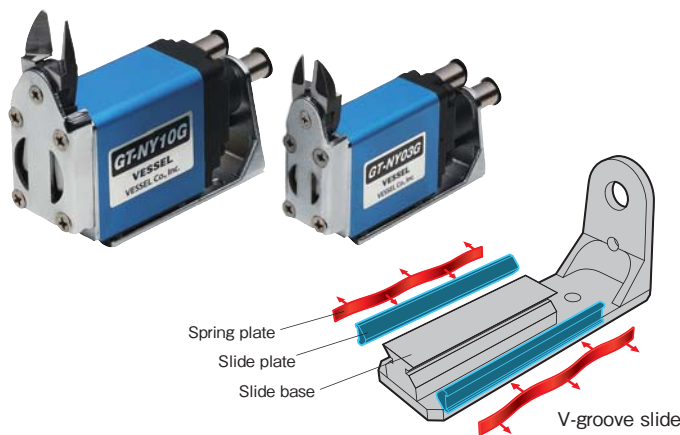
Reference

Capacity ϕ (mm)				Model No.	Size (mm)													Air Consumption (cm ³ /str.)	Weight (g)	Slide Distance (mm)	Hose Port	EDP No.
Soft Plastic	Hard Plastic	Copper	Steel		A	B	C	D	E	F	G	H	I	J	K	L	M					
3.0	2.0	1.6	1.0	GT-NY05	8.6	75.9	40.9	25	15	23	47.6	4	M4	3	22	1.6	8.5	48	155	Pull 0~3	W/hose nipple	360646
3.0	2.0	1.6	1.0	GT-NY05R																	Hose I.D. ϕ 2.5mm	360647
3.0	2.0	1.6	1.0	GT-NY05-4																	W/tube fitting	360648
3.0	2.0	1.6	1.0	GT-NY05R-4																	Hose I.D. ϕ 2.5×O.D. ϕ 4mm	360649
3.5	2.3			GT-NY10	8.8	82.1	42.1	30	20	28	51.6	6	M4	5	24	1.6	7.5	68	210	Pull 0~3	W/hose nipple	360652
3.5	2.3			GT-NY10R																	Hose I.D. ϕ 2.5mm	360656
3.5	2.3			GT-NY10-4																	W/tube fitting	360660
3.5	2.3			GT-NY10R-4																	Hose I.D. ϕ 2.5×O.D. ϕ 4mm	360664
4.0	2.6			GT-NY15	10.2	93	48	35	25	33	58	8	M4	5	27	2	7.5	136	319	Pull 0~3	W/hose nipple	360672
4.0	2.6			GT-NY15R																	Hose I.D. ϕ 2.5mm	360673
4.0	2.6			GT-NY15-4																	W/tube fitting	360674
4.0	2.6			GT-NY15R-4																	Hose I.D. ϕ 2.5×O.D. ϕ 4mm	360675
5.0	3.4			GT-NY25	12.5	108.5	54.5	40	30	42	69	9	M5	2	31	2.5	10.5	184	580	Pull 0~5	W/hose nipple	360680
5.0	3.4			GT-NY25R																	Hose I.D. ϕ 4mm	360681
5.0	3.4			GT-NY25-6																	W/tube fitting	360682
5.0	3.4			GT-NY25R-6																	Hose I.D. ϕ 4×O.D. ϕ 6mm	360683

※Capacity indication shows the reference value when a standard blade is mounted. Values vary depending on the blade shapes and type of cut objects.
 ※K (blade projection) and H (maximum blade opening) indicate the dimensions when a standard blade (AJ type) is mounted. ※Air Pressure: 0.4~0.5MPa (NY25 type: 0.5~0.6)
 ※B refers to the distance from the cut position for PUSH style models, and the distance from the start position for PULL style models.

No. GT-NY03G/10G Sliding Air Nippers Horizontal-Type

- V-groove slide base ensures constant, stable positioning.
- The unit is not subject to inclined loads, and has achieved high precision gate cutting performance.




Reference

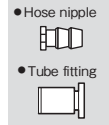
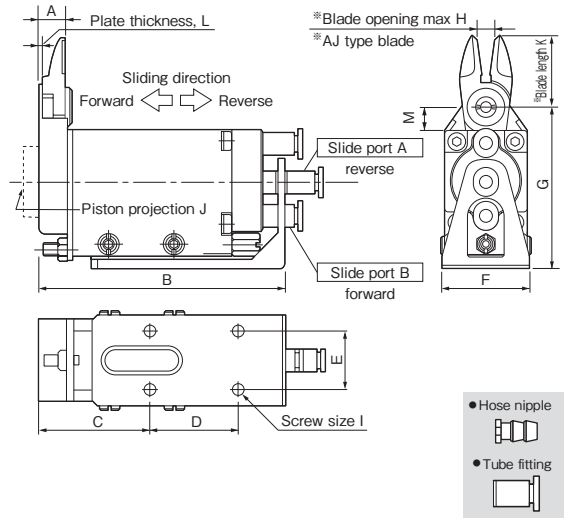
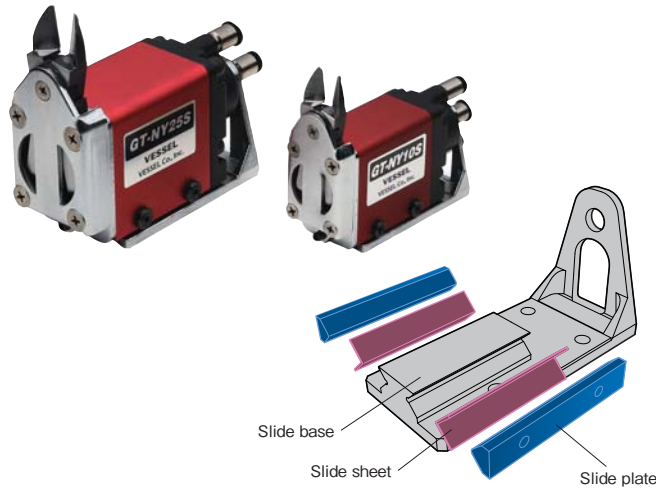
Capacity ϕ (mm)				Model No.	Size (mm)													Air Consumption (cm ³ /str.)	Weight (g)	Slide Distance (mm)	Hose Port	EDP No.
Soft Plastic	Hard Plastic				A	B	C	D	E	F	G	H	I	J	K	L	M					
2.0	1.3			GT-NY03G	8.6	74.5	29.5	30	-	19	46.5	3	M4	0	21	1.6	7.5	37	160	Pull 0~3	W/hose nipple	360741
2.0	1.3			GT-NY03GR																	Hose I.D. ϕ 2.5mm	360742
2.0	1.3			GT-NY03G-4																	W/tube fitting	360743
2.0	1.3			GT-NY03GR-4	Hose I.D. ϕ 2.5×O.D. ϕ 4mm	360744																
3.5	2.3			GT-NY10G	8.8	82.6	29.6	35	20	28	54	6	M4	5	24	1.6	7.5	68	275	Pull 0~3	W/hose nipple	360753
3.5	2.3			GT-NY10GR																	Hose I.D. ϕ 2.5mm	360754
3.5	2.3			GT-NY10G-4																	W/tube fitting	360755
3.5	2.3			GT-NY10GR-4																	Hose I.D. ϕ 2.5×O.D. ϕ 4mm	360756

※Capacity indication shows the reference value when a standard blade is mounted. Values vary depending on the blade shapes and type of cut objects. ※K (blade projection) and H (maximum blade opening) indicate the dimensions when a standard blade (AJ type) is mounted. ※Air Pressure: 0.4~0.5MPa

※Blades are optional. Note that a forward or a backward-facing blades are respectively available.

No. GT-NY10S/25S Double Action Sliding Air Nippers

- The springless slide construction of the main unit ensures smooth movement. 
- V-groove slide base has been employed for high precision positioning.




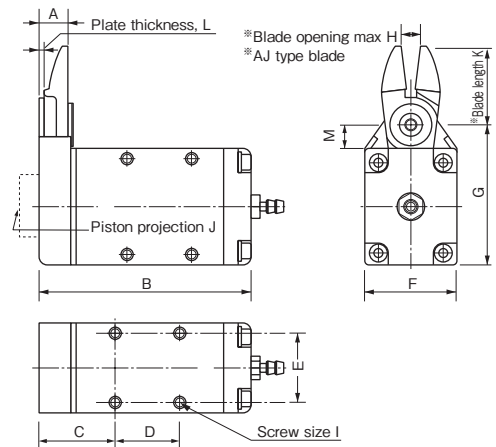
Reference

Capacity ϕ (mm) Soft Plastic Hard Plastic	Model No.	Size (mm)													Air Consumption (cm ³ /str.)	Weight (g)	Slide Distance (mm)	Hose Port	EDP No.
		A	B	C	D	E	F	G	H	I	J	K	L	M					
3.5 2.3	GT-NY10S	8.8	84.5	38	30	20	32	55	6	M4	5	24	1.6	7.5	68	300	0~3.5	W/tube fitting Hose I.D. ϕ 2.5×O.D. ϕ 4mm	360731
5.0 3.4	GT-NY25S	12.5	106.5	47	40	30	47	72	9	M5	2	31	2.5	10.5	184	695	0~5.0	W/tube fitting Hose I.D. ϕ 4×O.D. ϕ 6mm	360732

※Capacity indication shows the reference value when a standard blade is mounted. Values vary depending on the blade shapes and type of cut objects.
 ※K (blade projection) and H (maximum blade opening) indicate the dimensions when a standard blade (AJ type) is mounted.
 ※Air Pressure--NY10S: 0.4~0.5MPa / NY25S: 0.5~0.6MPa

No. GT-NF05/10/15 Type-F Air Nippers

- These compact, lightweight nippers have been designed for easy mounting inside equipment and to enable secure mounting under high-density mounting conditions. 



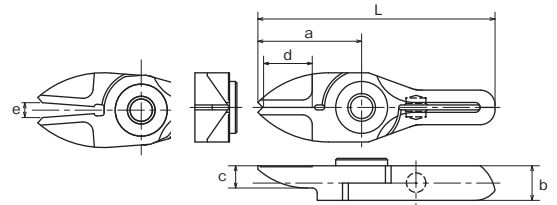
Reference

Capacity ϕ (mm) Soft Plastic Hard Plastic Copper Steel	Model No.	Size (mm)													Air Consumption (cm ³ /str.)	Weight (g)	Hose Port	EDP No.
		A	B	C	D	E	F	G	H	I	J	K	L	M				
3.0 2.0 1.6 1.0	GT-NF05	8.6	59.9	21.9	17	18	23	39.5	4	M3	3	22	1.6	8.4	43	101	W/hose nipple	360606
3.5 2.3 1.7 1.1	GT-NF10	8.8	65.1	23.1	20	22	28	43.5	6	M3.5	5	24	1.6	7.4	63	143	Hose I.D.	360607
4.0 2.6 1.8 1.2	GT-NF15	10.2	73	25	25	26	33	48.5	8	M4	5	27	2	7.4	128	219	ϕ 2.5× ϕ 4mm	360608

※Capacity indication shows the reference value when a standard blade is mounted. Values vary depending on the blade shapes and type of cut objects.
 ※K (blade projection) and H (maximum blade opening) indicate the dimensions when a standard blade (AJ type) is mounted. Mounting screw for NF10 (M3.5) is regarded as spare part.
 ※Air Pressure--0.4~0.5MPa

No. AJ/RAJ/AJB Straight blades for plastic

Plastic **AJ**/This is a set of vertical blades with an unbeveled cutting edge. This can cut a gate of molded objects vertically and straight.
RAJ/This is a reverse bevel of AJ type.
AJB/This has a brazed carbide tip used for cutting hard plastic or plastic containing glass fiber.

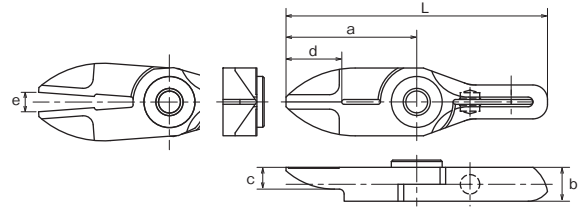


Model No.	Size (mm)						Weight (g)	Material	Applicable models	EDP No.
	a	b	c	d: Effective Length	e: Blade opening	L				
NY03AJ	21	7	4.5	10.5	3	48	17	Special alloy steel	GT-NY03G(-4)	360591
NY03RAJ	21	7	4.5	10.5	3	48	17	Special alloy steel	GT-NY03GR(-4)	360594
NY05AJ	22	7	5	10.5	4	53	22	Special alloy steel	GT-NY05(-4) / NF05	360551
NY05RAJ	22	7	5	10.5	4	53	22	Special alloy steel	GT-NY05R(-4) / NF05	360556
NY05AJB	22	7	5	10.5	4	53	22	w/Carbide chip	GT-NY05(-4) / NF05	360553
NY10AJ	24	7.2	5	12	6	57	28	Special alloy steel	GT-NY10(-4) / NY10G(-4) / NF10 / NY10S	360561
NY10RAJ	24	7.2	5	12	6	57	28	Special alloy steel	GT-NY10R(-4) / NY10GR(-4) / NF10 / NY10S	360566
NY10AJB	24	7.2	5	12	6	57	28	w/Carbide chip	GT-NY10(-4) / NY10G(-4) / NF10 / NY10S	360563
NY15AJ	27	8.2	5.5	13	8	65	41	Special alloy steel	GT-NY15(-4) / NF15	360571
NY15RAJ	27	8.2	5.5	13	8	65	41	Special alloy steel	GT-NY15R(-4) / NF15	360576
NY15AJB	27	8.2	5.5	13	8	65	41	w/Carbide chip	GT-NY15(-4) / NF15	360573
NY25AJ	31	10	6	16	9	77	65	Special alloy steel	GT-NY25(-6) / NY25S	360583
NY25RAJ	31	10	6	16	9	77	65	Special alloy steel	GT-NY25R(-6) / NY25S	360587
NY25AJB	31	10	6	16	9	77	65	w/Carbide chip	GT-NY25(-6) / NY25S	360585

>> For guidance on cutting capability, see P231 of the technical material.

No. AJL Straight long blades for plastic

Plastic **AJL**/This is a long type set of straight blades. This is useful when there is distance between the nipper and the gate cut portion of the molded object.

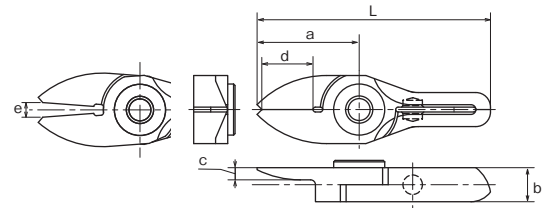


Model No.	Size (mm)						Weight (g)	Material	Applicable models	EDP No.
	a	b	c	d: Effective Length	e: Blade opening	L				
NY03AJL	27	7	4.5	10.5	4	54	21	Special alloy steel	GT-NY03G(-4)	360592
NY05AJL	31	7	5	10.5	5.5	62	29	Special alloy steel	GT-NY05(-4) / NF05	360552
NY10AJL	33	7.2	5	12	8	66	37	Special alloy steel	GT-NY10(-4) / NY10G(-4) / NF10 / NY10S	360562
NY15AJL	38	8.2	5.5	13	11	76	50	Special alloy steel	GT-NY15(-4) / NF15	360572
NY25AJL	46	10	6	16	13	92	88	Special alloy steel	GT-NY25(-6) / NY25S	360584

>> For guidance on cutting capability, see P231 of the technical material.

No. AJT Thin, straight blades for plastic

Plastic **AJT**/This is a set of straight blades with a thin cutting edge. It can cleanly trim cross sections without remnants.

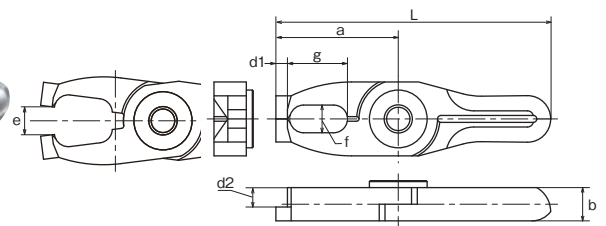


Model No.	Size (mm)						Weight (g)	Material	Applicable models	EDP No.
	a	b	c	d: Effective Length	e: Blade opening	L				
NY03AJT	21	7	2.5	10.5	3	48	17	Special alloy steel	GT-NY03G(-4)	360593
NY05AJT	22	7	3	10.5	4	53	21	Special alloy steel	GT-NY05(-4) / NF05	360554
NY10AJT	24	7.2	3	12	6	57	26	Special alloy steel	GT-NY10(-4) / NY10G(-4) / NF10 / NY10S	360564
NY15AJT	27	8.2	3.5	13	8	65	38	Special alloy steel	GT-NY15(-4) / NF15	360574

>> For guidance on cutting capability, see P231 of the technical material.

No. AD Lift blades for plastic

Plastic **AD**/This is used for batch processing of the three-dimensional gate such as ride gate.

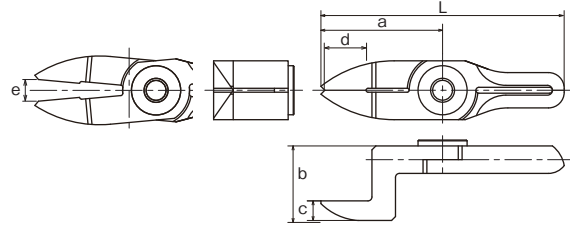


Model No.	Size (mm)			d1 (mm)	d2 (mm)	e: Blade opening (mm)	L (mm)	Weight (g)	Material	Applicable models	EDP No.
	a	b	f×g								
NY10AD	26.5	7.2	6×13	2.5	4.2	6	59.5	31	Special alloy steel	GT-NY10(-4) / NY10G(-4) / NF10 / NY10S	360568
NY15AD	30	8.2	7×14	3	4.7	8	68	45	Special alloy steel	GT-NY15(-4) / NF15	360578
NY25AD	35	10	8×17	4	6	9	81	75	Special alloy steel	GT-NY25(-6) / NY25S	360589

>> For guidance on cutting capability, see P231 of the technical material.

No. AH/RAH Crank blades for plastic

Plastic **AH**/This is a set of crank shaped blade for plastic. It is effective when there are obstructions or the gate is narrow.
RAH/This is a reverse bevel of AH type used when installing the main units face-to-face.

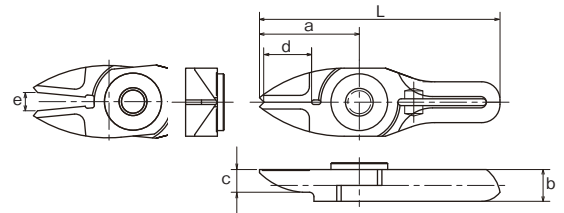


Model No.	Size (mm)							Weight (g)	Material	Applicable models	EDP No.
	a	b	c	d: Effective Length	e: Blade opening	L					
NY05AH	31	19	5	10.5	5.5	62	37	Special alloy steel	GT-NY05(-4) / NF05	360555	
NY05RAH	30	12	5	10.5	5	61	31	Special alloy steel	GT-NY05R(-4) / NF05	360557	
NY10AH	33	20	5	12	8	66	43	Special alloy steel	GT-NY10(-4) / NY10G(-4) / NF10 / NY10S	360565	
NY10RAH	32	12.2	5	12	7	65	36	Special alloy steel	GT-NY10R(-4) / NY10GR(-4) / NF10 / NY10S	360567	
NY15AH	38	21.5	5.5	13	11	76	63	Special alloy steel	GT-NY15(-4) / NF15	360575	
NY15RAH	35	13.2	5.5	13	9	73	52	Special alloy steel	GT-NY15R(-4) / NF15	360577	
NY25AH	46	24	6	17	13	92	110	Special alloy steel	GT-NY25(-6) / NY25S	360586	
NY25RAH	42	16	6	16	12	88	89	Special alloy steel	GT-NY25R(-6) / NY25S	360588	

>> For guidance on cutting capability, see P231 of the technical material.

No. BJ/RBJ Straight blades for metals

Metal **BJ**/This is a set of vertical blades with an unbeveled cutting edge for metal.
RBJ/This is a reverse bevel of BJ type.

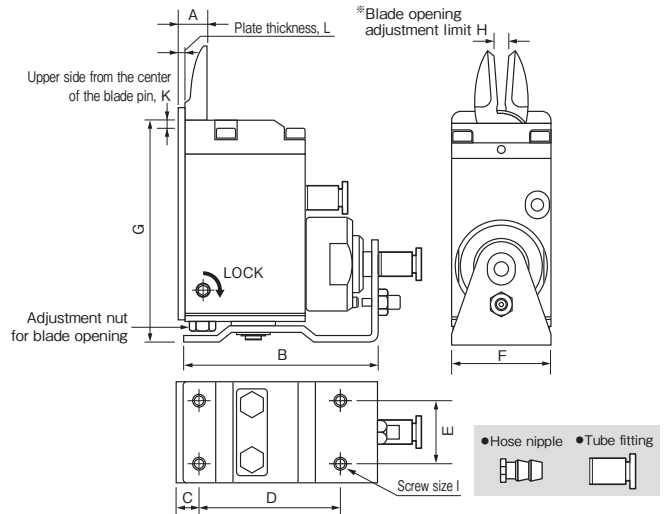


Model No.	Size (mm)							Weight (g)	Material	Applicable models	EDP No.
	a	b	c	d: Effective Length	e: Blade opening	L					
NY05BJ	22	7	5	10.5	4	53	22	Special alloy steel	GT-NY05(-4) / NF05	360558	
NY05RBJ	22	7	5	10.5	4	53	22	Special alloy steel	GT-NY05R(-4) / NF05	360559	

>> For guidance on cutting capability, see P231 of the technical material.

No. GT-NT03/05/10/20 Sliding Air Nippers Vertical-type

- Blade opening is adjustable, and fine adjustments are easy to make after mounting the nippers, ensuring clean, unblemished cut surfaces.
- Blade can be installed either with the cutting edge outside or inside.



Reference

Capacity ϕ (mm) Soft Plastic Hard Plastic	Model No.	Size (mm)											Air Consumption (cm ³ /str.)	Weight (g)	Slide Distance (mm)	Hose Port	EDP No.	
		A	B	C	D	E	F	G	H	I	J	K						
1.5 1.0	GT-NT03													27	178	Pull 0~3	W/hose nipple	360601
1.5 1.0	GT-NT03R													27	178	Push 0~3	Hose I.D ϕ 2.5mm	360611
1.5 1.0	GT-NT03-4	9	62	7	43	14	19	68.1	1.5~3	M3	2	5	27	178	Pull 0~3	W/tube fitting	360621	
1.5 1.0	GT-NT03R-4													27	178	Push 0~3	Hose I.D ϕ 2.5xO.D. ϕ 4mm	360631
2.5 1.5	GT-NT05													47	325	Pull 0~3	W/hose nipple	360602
2.5 1.5	GT-NT05R													47	325	Push 0~3	Hose I.D ϕ 2.5mm	360612
2.5 1.5	GT-NT05-4	9	64	7	45	20	32	71.1	3~6	M4	2	5	47	325	Pull 0~3	W/tube fitting	360622	
2.5 1.5	GT-NT05R-4													47	325	Push 0~3	Hose I.D ϕ 2.5xO.D. ϕ 4mm	360632
3.5 2.3	GT-NT10													82	515	Pull 0~3	W/hose nipple	360603
3.5 2.3	GT-NT10R													82	515	Push 0~3	Hose I.D ϕ 2.5mm	360613
3.5 2.3	GT-NT10-6	11	73	8	53	24	38	88.1	4~7	M4	2	5	82	515	Pull 0~3	W/tube fitting	360623	
3.5 2.3	GT-NT10R-6													82	515	Push 0~3	Hose I.D ϕ 4xO.D. ϕ 6mm	360633
5.0 3.4	GT-NT20													203	930	Pull 0~8	W/hose nipple	360604
5.0 3.4	GT-NT20R													203	930	Push 0~8	Hose I.D ϕ 4mm	360614
5.0 3.4	GT-NT20-6	14	103	10	80	28	44	102.1	4.5~9	M5	2	6	203	930	Pull 0~8	W/tube fitting	360624	
5.0 3.4	GT-NT20R-6													203	930	Push 0~8	Hose I.D ϕ 4xO.D. ϕ 6mm	360634

*Capacity indication shows the reference value when a standard blade is mounted. Values vary depending on the blade shapes and type of cut objects.
 *Blade opening adjustment limit (H) is the dimension adjusted for standard blade (AJ type). *Air Pressure...0.4~0.5MPa(NT20 type: 0.5~0.6)

※Blades are optional. Note that a forward or a backward-facing blades are respectively available.

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

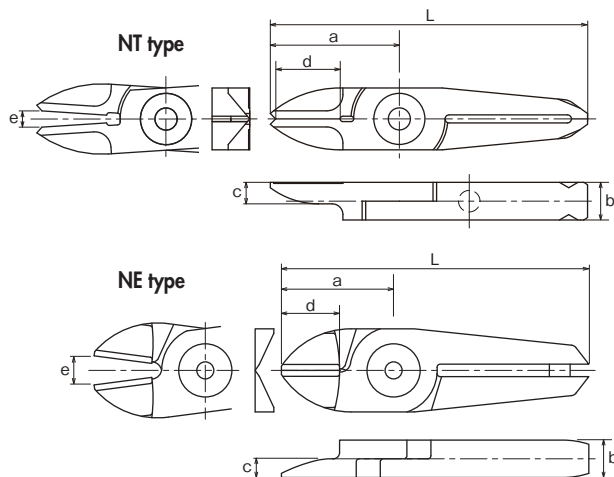
AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

No. AJ/AJH/AJB Straight blades for plastic

Plastic **AJ**/This is a set of vertical blades with an unbeveled cutting edge. This can cut a gate of molded objects vertically and straight.
AJH/This has a brazed high-speed steel tip suitable for cutting hard plastic.
AJB/This has a brazed carbide tip used for cutting hard plastic or plastic containing glass fiber. Improved durability.

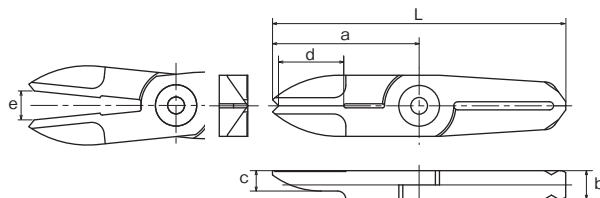


Model No.	Size (mm)						Weight (g)	Material	Applicable models	EDP No.
	a	b	c	d: Effective Length	e: Blade opening	L				
NT03AJ	24	7	4	11	3	59	20	Special alloy steel	GT-NT03 type	360511
NT05AJ	29	7	5	15	6	65	30	Special alloy steel	GT-NT05 type	360512
NT05AJH	29	7	5	15	6	65	30	High Speed Steel		360534
NT05AJB	29	7	5	15	6	65	30	w/Carbide chip		360515
NE5AJ	24	7	3.5	12	6	60	35	Special alloy steel	GT-NT10 type	360184
NT10AJ	35	9	6	17	7	82	62	Special alloy steel		360513
NT10AJH	35	9	6	17	7	82	76	High Speed Steel		360539
NT10AJB	35	9	6	17	7	82	76	w/Carbide chip		360518
NE10AJ	27	9	4.5	12	7	74	70	Special alloy steel	360185	
NT20AJ	40	12	6	20	9	97	120	Special alloy steel	GT-NT20 type	360514
NT20AJH	40	12	6	20	9	97	120	High Speed Steel		360544
NT20AJB	40	12	6	20	9	97	120	w/Carbide chip		360543

>> For guidance on cutting capability, see P231 of the technical material.

No. AJL Straight long blades for plastic

Plastic **AJL**/This is a long type set of straight blades. This is useful when there is distance between the nipper and the gate cut portion of the molded object.

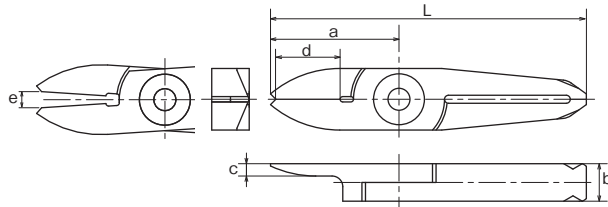


Model No.	Size (mm)						Weight (g)	Material	Applicable models	EDP No.
	a	b	c	d: Effective Length	e: Blade opening	L				
NT05AJL	36	7	5	15	7	72	39	Special alloy steel	GT-NT05 type	360516
NT10AJL	47	9	6	17	9	94	62	Special alloy steel	GT-NT10 type	360520
NT20AJL	57	12	6	20	12	114	156	Special alloy steel	GT-NT20 type	360541

>> For guidance on cutting capability, see P231 of the technical material.

No. AJT Thin, straight blades for plastic

Plastic **AJT**/This is a set of straight blades with a thin cutting edge. It can cleanly trim cross sections without remnants.

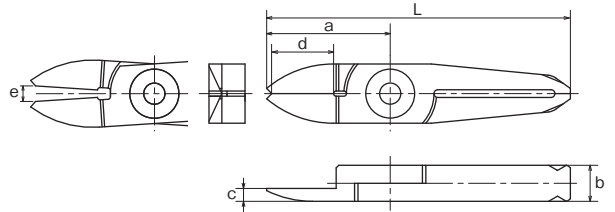


Model No.	Size (mm)						Weight (g)	Material	Applicable models	EDP No.
	a	b	c	d: Effective Length	e: Blade opening	L				
NT03AJT	24	7	2.3	11	3	59	19	Special alloy steel	GT-NT03 type	360526
NT05AJT	29	7	3	15	6	65	29	Special alloy steel	GT-NT05 type	360531
NT10AJT	35	9	4	17	7	82	65	Special alloy steel	GT-NT10 type	360536

>> For guidance on cutting capability, see P231 of the technical material.

No. AJY Thin, straight blades for plastic (approaching to a gate)

Plastic **AJY**/This is effective when the width between the opposing gates is too short and the blade cannot go in due to its thickness.

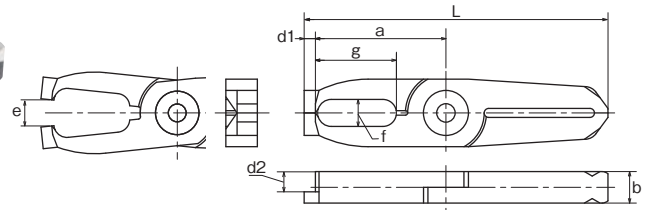


Model No.	Size (mm)							Weight (g)	Material	Applicable models	EDP No.
	a	b	c	d: Effective Length	e: Blade opening	L					
NT03AJY	24	7	2.5	11	3	59	19	Special alloy steel	GT-NT03 type	360527	
NT05AJY	29	7	5	15	6	65	29	Special alloy steel	GT-NT05 type	360532	
NT10AJY	35	9	4	17	7	72	82	Special alloy steel	GT-NT10 type	360537	

>> For guidance on cutting capability, see p231 of the technical material.

No. AD Lift blades for plastic

Plastic **AD**/This is used for batch processing of the three-dimensional gate such as ride gate.

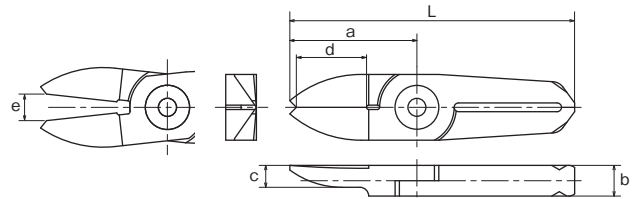


Model No.	Size (mm)			Effective Length (mm)		e: Blade opening (mm)	L (mm)	Weight (g)	Material	Applicable models	EDP No.
	a	b	f×g	d1	d2						
NT05AD	31.5	7	6×18	2.5	4.5	6	67.5	37	Special alloy steel	GT-NT05 type	360533
NT10AD	39	9	8×21.5	4	5	7	86	65	Special alloy steel	GT-NT10 type	360538
NT20AD	46	12	9×24.5	6	7	9	103	141	Special alloy steel	GT-NT20 type	360542

>> For guidance on cutting capability, see p231 of the technical material.

No. AJV V shaped straight blades for plastic

Plastic **AJV**/This is suitable for gate processing when the cross section is curved or the cut end must not be left.

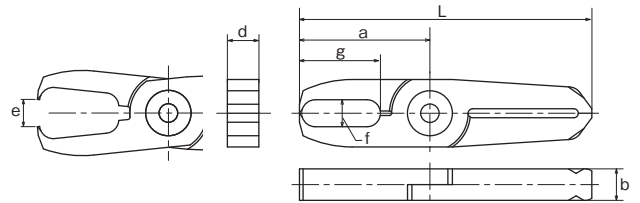


Model No.	Size (mm)							Weight (g)	Material	Applicable models	EDP No.
	a	b	c	d: Effective Length	e: Blade opening	L					
NT05AJV	29	7	5	15	6	65	29	Special alloy steel	GT-NT05 type	360535	
NT10AJV	35	9	6	17	7	82	63	Special alloy steel	GT-NT10 type	360540	

>> For guidance on cutting capability, see p231 of the technical material.

No. AE Nipping blades for plastic

Plastic **AE**/Used for processing plastic gates such as ride gates and discard gates.



Model No.	Size (mm)							Weight (g)	Material	Applicable models	EDP No.
	a	b	f×g	d: Effective Length	e: Blade opening	L					
NT05AE	29	7	6×18	7	6	65	36	Special alloy steel	GT-NT05 type	360517	
NT10AE	35	9	8×21.5	9	7	82	75	Special alloy steel	GT-NT10 type	360519	

>> For guidance on cutting capability, see p231 of the technical material.

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

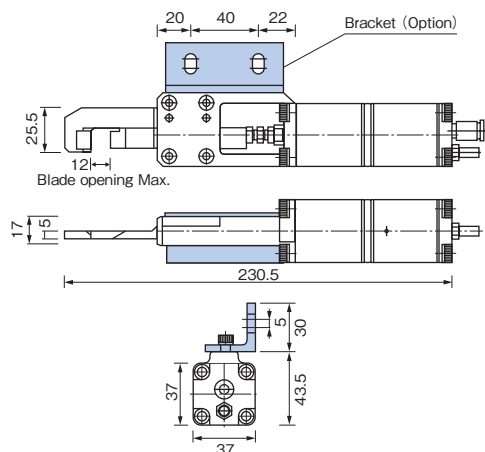
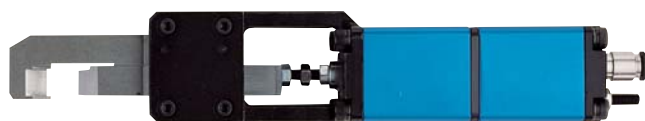
AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

No. GT-NK10 Thrust-Cut Air Nipper

- This nipper can cut film-shaped gates in conjunction with a foot switch or high precision travers machine.
- Can cut from the thin end, preventing wrinkles around the cut edge.



Reference

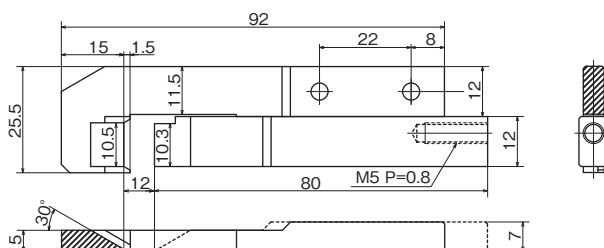
Capacity ϕ (mm) ABS Plastic	Model No.	Air Consumption ($\text{cm}^3/\text{str.}$)	Air Pressure (MPa)	Weight (g)	Applied Pressure (N)	Spec. & Size of the Hose Port	EDP No.
5	GT-NK10	110	0.4~0.5	800	735	Hose I.D. $\phi 2.5 \times \text{O.D. } \phi 4 \text{mm}$	360641 (w/NK10AJ)

·Hose Coupling: I.D. $\phi 4 \times \text{O.D. } \phi 6 \text{mm}$ ·Piston stroke···Max.12mm

No. NK10AJ Thrust-Cut Air Nipper blades



This is a dedicated set of blades for GT-NK10. Suitable for processing of film gates attached to robot hands.



Model No.	Size (mm)	Shape	Overall Length (mm)	Weight (g)	Material	Applicable models	EDP No.
NK10AJ	See Drawing	For plastic (Knife type)	95	96	Special alloy steel	GT-NK10	—

>> For guidance on cutting capability, see p231 of the technical material.

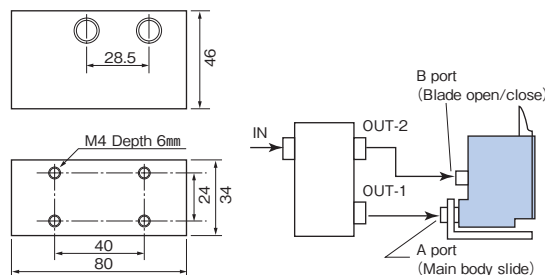
Related product

No. GT-TC-02 Timing Controller

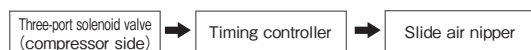
- Enables to adjust the sliding (nippers) and cutting timing, by installing this controller between the compressor and the air nippers. (Approximately 0.5 seconds to 1.5 seconds)



Adjusting Screw
(0.5~1.5 sec.)



- Working air pressure···0.6MPa
- Size···Height 46 × Length 80 × thickness 34 (mm)
- Weight···275g
- With tube joint: I.D. $\phi 4 \times \text{O.D. } \phi 6 \text{mm}$

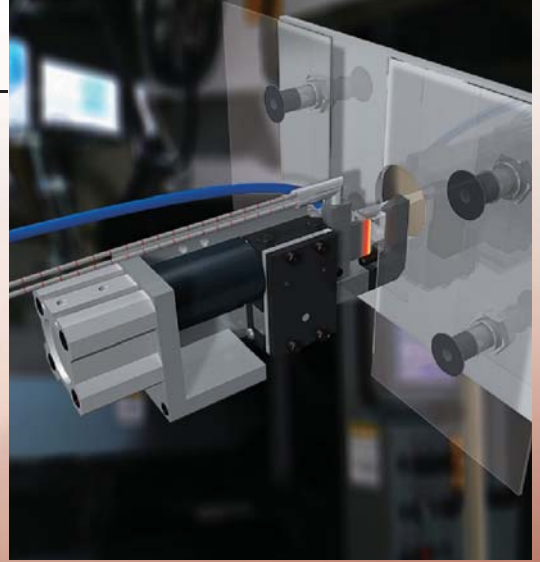


Connectable nippers(Reference)

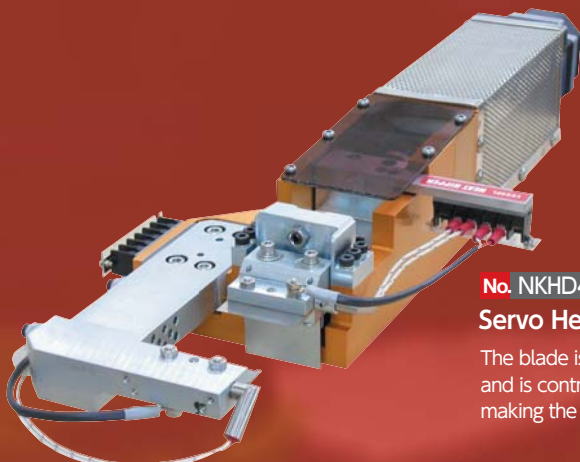
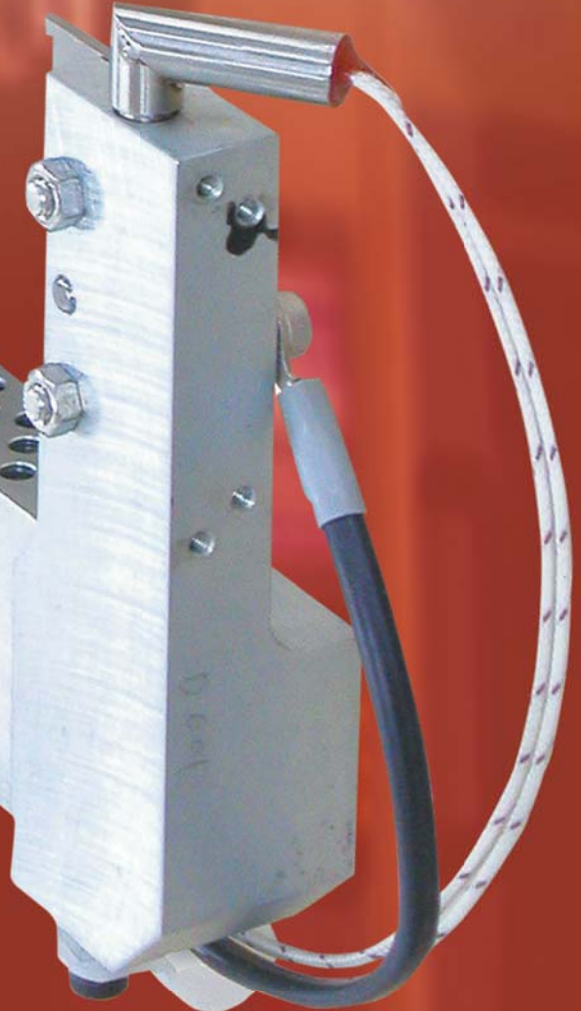
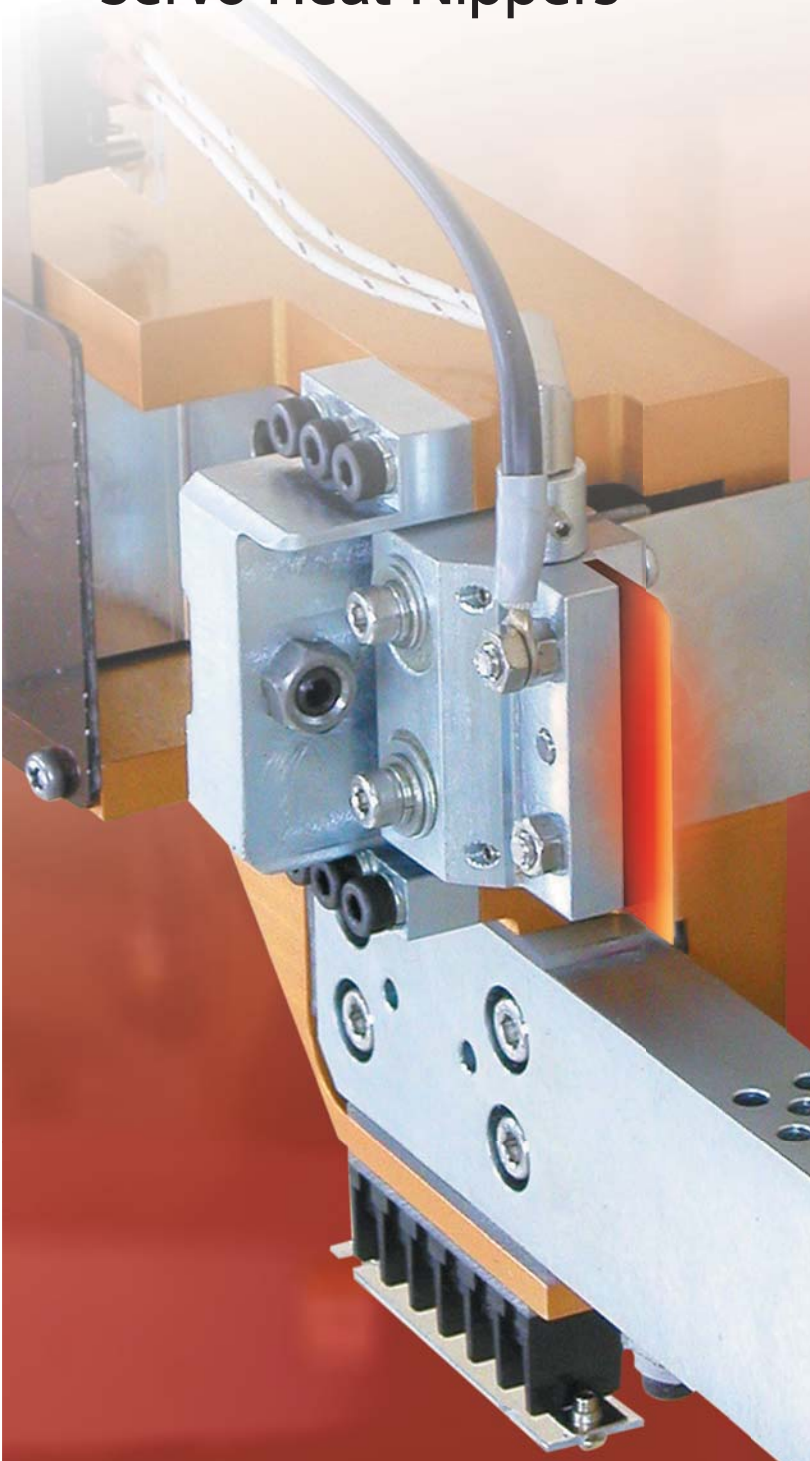
GT-	NY05	NY10	NY15	NY25	NT03	NT05	NT10	NT20	NB20	NB30	NB20LW	NB30LW	EDP No.
Connectable unit numbers	4	3	1	1	6	4	2	1	2	1	2	1	360640

No. NKHD45R-50

Servo Heat Nippers



These air nippers are connected to a heater to suppress cracks and whitening of clear materials such as acrylic. The gate is slowly melted as it's cut, resulting in a clean, unblemished cut surface.



No. NKHD45R-50

Servo Heat Nippers (With Motor Cylinder)

The blade is fed to the gate position speedily and is controlled to cut very slowly, making the cut surface clean and unblemished.

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

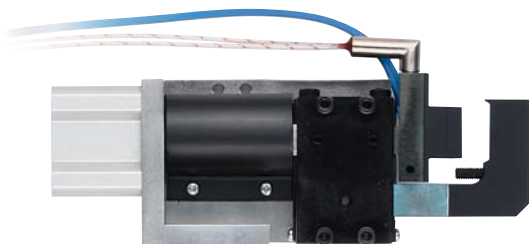
AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

No. NKH20A/20AR Air-hydro nippers (thrust cut type)

- Air-hydro cylinders produce high power from air and oil.
- Ideal for high precision cutting of products such as optical resin lenses.



- Requires separately sold Hydro Controller.
- Custom-made blade lengths and cylinder capacities available.

Model No.	Cutting Capacity width × thickness (mm) Acril	Blade Edge Temp. (MAX °C)	Cutting Cycle (sec./cut)	Air Consumption (cm ³ /str.)	Piston Stroke (mm)	Weight (g)	EDP No.
NKH20A-25 /20AR-25	10×1.5	180	4~5	60	10	720	—

·Included heater ·Included temperature sensor ·Air Pressure: 0.6MPa
 ·Working air hose inner diameter: 4mm ※200V/240V heaters are also available as made-to-order.

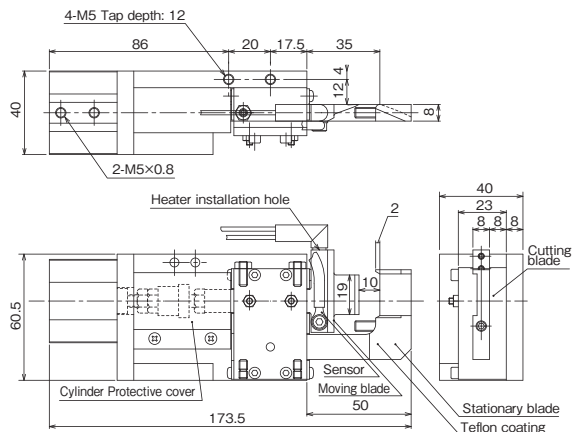
Blades Specifications

Material	Blade Shape	Blade Opening (mm)	Cutting blade effective (mm)	Weight (g)
Special alloy steel	Knife type (resin)	10	19	125

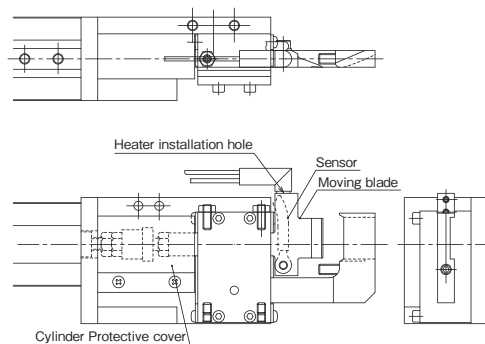
Option Parts

- Hydro-converter (Recommended: KOGANEI AHC 32×50)
Working fluid: Petroleum hydraulic fluid or turbine oil with antifoaming agent additive (VG22~100)
- Temperature controller (DTC-001)

NKH20A-25 (Forward-facing blades)

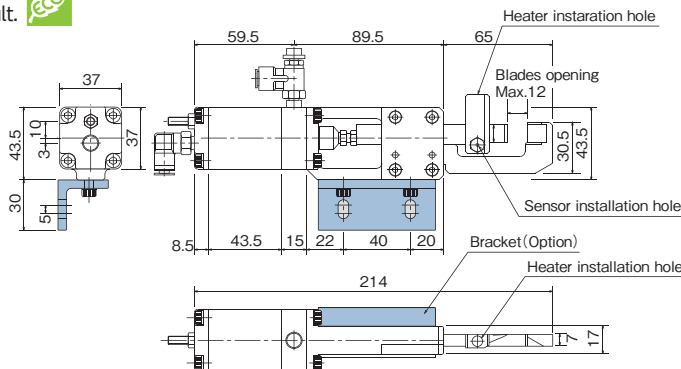
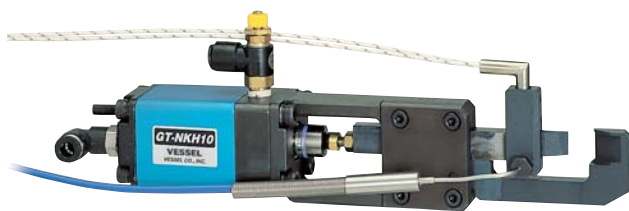


NKH20AR-25 (Backward-facing blades)



No. GT-NKH10 Heat Air Nippers

- Speed control of cutting speed and heater temperature allows for various cutting surface solutions and meets demands for high precision cutting result.



Model No.	Cutting Capacity width × thickness (mm) Acril	Blade Edge Temp. (MAX °C)	Cutting Cycle (sec./cut)	Air Consumption (cm ³ /str.)	Piston Stroke (mm)	Weight (g)	EDP No.
GT-NKH10	7×1.5	200	4~5	73	12	715	360643 (w/NKH10AJ) 360644 (w/NKH10RAJ)

·Included heater
 ·Included temperature sensor
 ·Air Pressure: 0.5~0.6MPa

Blades Specifications

Model No.	Material	Blade Shape	Blade Opening (mm)	Cutting blade effective (mm)	Weight (g)	EDP No.
NKH10AJ NKH10RAJ	Special alloy steel	Knife type (resin)	12	10	137	— —

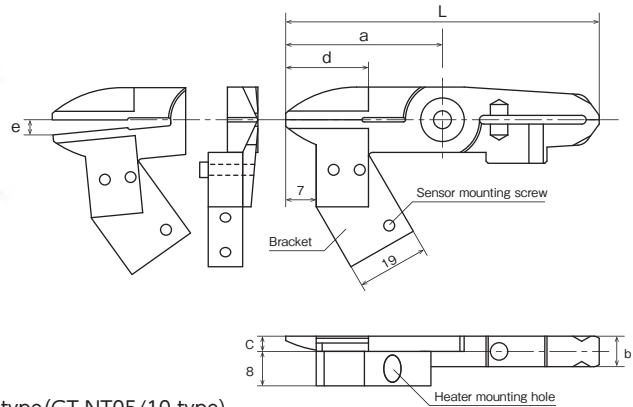
Option Parts

- Temperature controller (DTC-001)

No. NTH05AJ/10AJ Heat air nipper Blade

- Plastic ● One blade is fixed in position, facilitating easy gate alignment. In addition, a slide function presses the product into position.

Example of blade mounting



- Use these blades in combination with the Sliding Air Nippers vertical type (GT-NT05/10 type).
- For the main unit dimensions, see the Sliding Air Nippers vertical type on P186.

Model No.	Size (mm)						Weight (g)	Cutting Capacity ϕ (mm) Acrylic	Set temperature (MAX. °C)	Material	Applicable models	EDP No.
	a	b	c	d: Effective Length	e: Blade opening	L						
NTH05AJ	36	7	3.5	15	3.5	72	40	2.5	200	Special alloy steel	GT-NT05(-4)/GT-NT05R(-4)	360546
NTH10AJ	47	9	4.7	17	4.5	94	88	3.5	200	Special alloy steel	GT-NT10(-6)/GT-NT10R(-6)	360547

The above information on weight does not include heater or sensor.

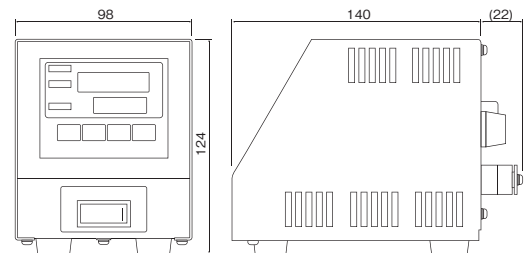
The following parts are not provided; purchase them separately.

- Special heater (80 W/120 V, cord length: 300 mm), temperature sensor (type-K thermocouple, cord length: 1,000 mm), speed controller, and bracket (for heater mounting)

Option Parts • Temperature controller (DTC-001)

No. DTC-001 Benchtop Temperature Controller

- The heating element can be connected directly to the main unit, a useful feature that saves labor during wiring installation.
- Compact construction enables the unit to be easily carried, allowing for changing the work site at any time.



Please inform us of the model No. of the heat nipper when placing an order.

Model No.	Temperature range Thermocouple K (°C)	Power supply (V)	Power consumption (with 100 VAC input)	Operating ambient temperature/humidity (°C) / (%)	Protection fuse	Weight (g)	EDP No.
DTC-001	0~200	AC100~240	Approx. 3W (Approx. 5VA) (With no load)	0~40 RH35~85% (No condensing)	One 15A fuse is incorporated.	900	—

※ Please ensure the input voltage in prior to operation as it is directly connected to the heater.
 ※ Two types of heaters are available for 100V and 240V.

Option Parts • Power supply cable : Model No. DTC-001-

- : Cable for connection to the terminal block is necessary to be included.
- : (N/A) Cable not necessary.
- A : 2m power cable w/Japanese type plug (A-type)
- C : 2m power cable w/European type plug (C-type)
- : (N/A) Cable not necessary.

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

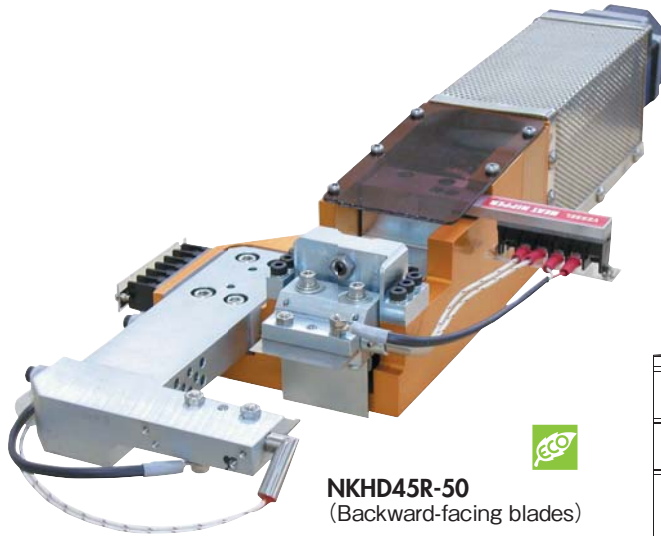
AIR TOOLS

STATIC SOLUTIONS

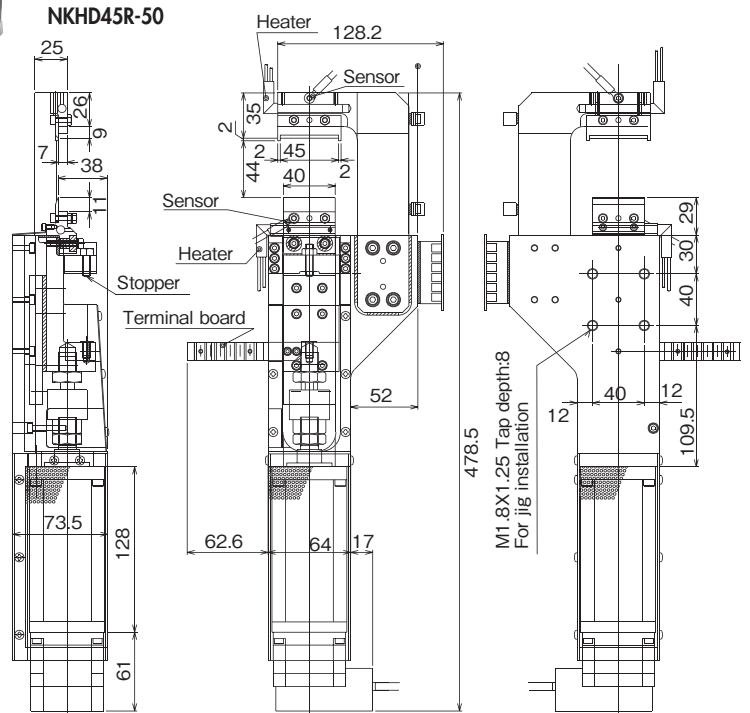
GASOLINE ENGINE TOOLS

No. NKHD20A(R)/45R Servo Heat Nippers (With Motor Cylinder)

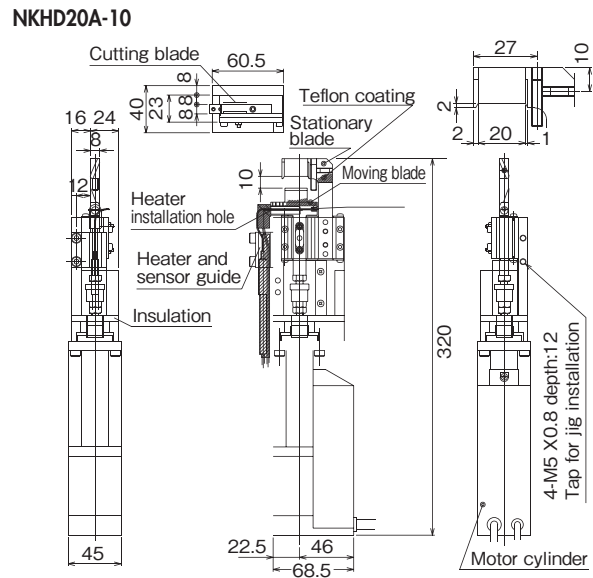
- Blade travel distance and speed can be easily programmed.
- Servo motor control enables delicate blade feeding and quiet gate cutting performance.



NKHD45R-50
(Backward-facing blades)
← See P192



Compact type
NKHD20A-10
(Forward-facing blades)
NKHD20AR-10
(Backward-facing blades)



Model No.	Cutting Capacity width x thickness φ (mm) Acril	Blade Edge Temp. (MAX °C)	Cutting Cycle (sec./cut)	Blade Opening (mm)	Position Accuracy	Max. Thrust (N)	Max. Speed (mm/s)	Positioning Points (pts)	Power Supply Voltage	Current Consumption Power Control circuit	Weight (kg)	EDP No.
NKHD45R-50	24×1.2	180	10	43	±0.1mm or less	500	100	16	DC24V±10%	3.0A 0.2A	5	—
NKHD20A(R)-10	10×1.5	180	10	10	±0.1mm or less	100	400	16	DC24V±10%	2.0A	1.6	—

Option Parts

•Temp. controller (DTC-001) •Power supply •Heater code •Parallel cable •ADP cable •Controller (CTC-33) •Power cord •Sensor cord
For the options noted above, contact us because required items or the numbers of them may change depending on the installation method, use details, etc. of servo heat nippers.

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

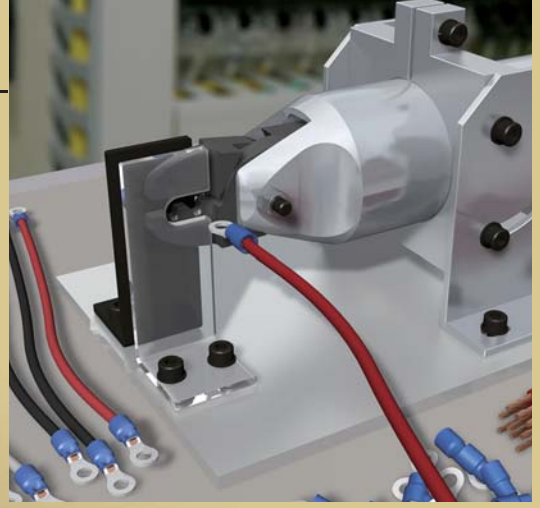
AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

No. GT-NR20

Air Nippers For Cutting and Crimping



Various models are available;
Square type for automation cutting equipment;
Round type, together with a dedicated stand,
for resin or direct gate-cutting.;
Lever type for manual operation...



No. GT-NR20

Air Nipper Round-Type without Lever

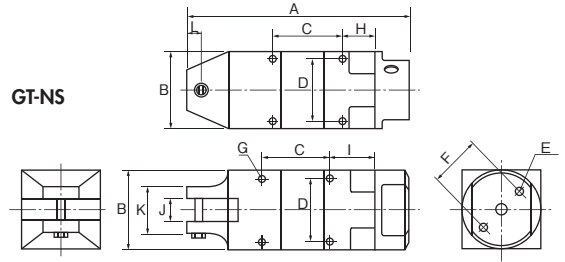
A tough body for hard jobs. The parts machined at high precision enable smooth cutting jobs to be accomplished.
With convenient scales facilitating the installation position adjustment.

No. GT-NS3/5/7/10L/20/30 Square Air Nippers

●VESSEL provides a generous selection of blades for gate-cutting of resin molded products and various wire cutting in a welding automatic machine and wire winding machine.

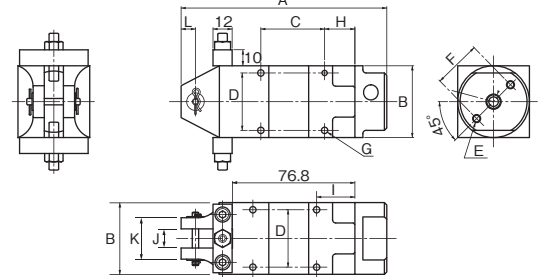


- The position of air intake port is 180-degree rotatable.
- Two air intake ports are provided, so they can be switched depending on the mounting place.



Made-to-order

GT-NS20H-1 (Blade opening adjustable)



Reference

Capacity ϕ (mm)				Model No.	Size (mm)												Air Consumption (cm ³ /str.)	Air Pressure (MPa)	Weight (g)	Hose coupling	EDP No.
Soft Plastic	Hard Plastic	Copper	Steel		A	B	C	D	E	F	G	H	I	J	K	L					
2.0	1.0	0.5		GT-NS3	110	23	40	19	M3 Depth8	17	M3 Depth3.5	19	24	7	23	7	45	0.4~0.5	95	Rc 1/8	360012
2.0	1.0	0.5		GT-NS5	94	30	30	24	M4 Depth10	20	M3 Depth5	14	19	7	23	7	64	0.4~0.5	135		360013
3.0	2.0	1.6	1.0	GT-NS7	113	36	30	28	M4 Depth10	24	M4 Depth5.5	18	23	9	23	7	116	0.4~0.5	215		360014
4.0	2.6	1.8	1.2	GT-NS10L	113	36	30	28	M4 Depth10	24	M4 Depth5.5	18	23	12	26	7	116	0.5~0.6	215		360009
7.0	5.0	2.6	2.0	GT-NS20	129	45	40	36	M5 Depth12	30	M4 Depth7	19	24	12	26	9	230	0.5~0.6	370		360010
10.0	6.5	3.3	2.8	GT-NS30	170	56	60	46	M6 Depth12	40	M5 Depth10	20	30	17	36	15	584	0.5~0.6	685	360011	
7.0	5.0	2.6	2.0	GT-NS20H-1	129	45	40	36	M5 Depth12	30	M4 Depth7	19	24	12	26	9	230	0.5~0.6	455	—	

※The capacity in the above table is given for reference, when mounting a standard type of blade. The capacity depends on the blade shape and the material of the object to cut.
 •Air hose inner dia. : 5mm •Overall length and Weight: Accessories not included.

• Check the dimensions of the VESSEL nippers and blades when installing them in an automation machine (outer diameter of the frame, screw diameter, distance between installation screws, and others)
 • The GT-NS50 is available as made-to-order. Please consult us for more detail.

No. GT-N3/5/7/10/12/20/30/50 Hand Held Air Nippers

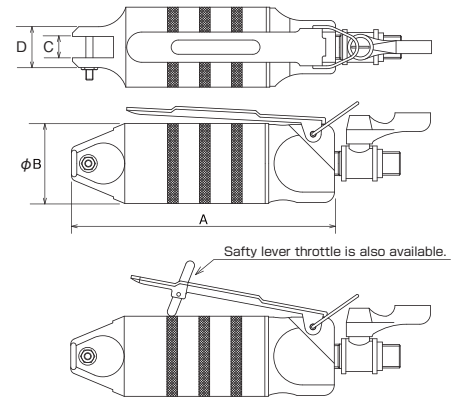
●VESSEL's made-to-order blades provide solutions for a virtually unlimited range of needs, leading to safer and more efficient working conditions, and less fatigue for the operator.



※Except N20, N30, and N50



•N20, N30 and N50 have the air cock.



Reference

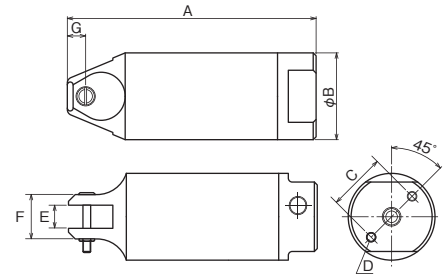
Capacity ϕ (mm)				Model No.	Size (mm)				Air Consumption (cm ³ /str.)	Air Pressure (MPa)	Weight (g)	Body	Hose coupling	EDP No.
Soft Plastic	Hard Plastic	Copper	Steel		A	B	C	D						
2.0	1.0	0.5		GT-N3	112	23	7	14	45	0.4~0.5	95	Rc 1/8	Rc 1/4	360002
2.0	1.0	0.5		GT-N5	103	30	7	17	64	0.4~0.5	135	Rc 1/8		360003
3.0	2.0	1.6	1.0	GT-N7	123	34	9	17	116	0.4~0.5	180	Rc 1/4		360004
4.0	2.6	1.8	1.2	GT-N10	132	34	9	17	116	0.4~0.5	185	Rc 1/4		360005
4.5	4.0	2.3	1.7	GT-N12	142	36	12	20	116	0.5~0.6	210	Rc 1/4		360006
7.0	5.0	2.6	2.0	GT-N20	148	45	12	23	230	0.5~0.6	375	Rc 1/4	360007	
10.0	6.5	3.3	2.8	GT-N30	185	56	17	30	584	0.5~0.6	625	Rc 1/4	360008	
		5.5	4.5	GT-N50	237	75	25.2	43	1,170	0.5~0.6	1,220	Rc 1/4	360001	

※The capacity in the above table is given for reference, when mounting a standard type of blade. The capacity depends on the blade shape and the material of the object to cut.
 •Hose coupling: R 1/4 •Air hose inner dia. : 5mm •Overall length: Accessories, Hunger not included. •Weight: Accessories not included.

※Blades are optional.

No. GT-NR3/5/7/10L/20/30/50 Air Nipper Round-Type without Lever

- The position of air intake port is 180-degree rotatable.
- Two air intake ports are provided, so they can be switched depending on the mounting place.



Reference

Capacity ϕ (mm) Soft Plastic Hard Plastic Copper Steel	Model No.	Size (mm)							Air Consumption (cm ³ /str.)	Air Pressure (MPa)	Weight (g)	Hose coupling	EDP No.
		A	B	C	D	E	F	G					
2.0	GT-NR3	110	23	17	M3 Depth8	7	14	7	45	0.4~0.5	70	Rc 1/8	360015
2.0	GT-NR5	94	30	20	M4 Depth10	7	17	7	64	0.4~0.5	110		360016
3.0	GT-NR7	113	34	22	M4 Depth10	9	17	7	116	0.4~0.5	150		360017
4.0	GT-NR10L	113	36	24	M4 Depth10	12	20	7	116	0.5~0.6	215		360018
7.0	GT-NR20	129	45	30	M5 Depth12	12	23	9.5	230	0.5~0.6	280		360019
10.0	GT-NR30	165	56	40	M6 Depth12	17	30	10.5	584	0.5~0.6	505	360020	
12.0	GT-NR50	222	75	50	M8 Depth12	25.2	43	15	1,170	0.5~0.6	1,190	Rc 1/4	360024

※The capacity in the above table is given for reference, when mounting a standard type of blade. The capacity depends on the blade shape and the material of the object to cut.
 ・Air hose inner dia.: 5mm ・Overall length and Weight: Accessories not included.

※Before mounting on dedicated/automatic machines, check the following product dimensions. (Flame O.D., screw dia., (screw to screw) dimensions, etc.)

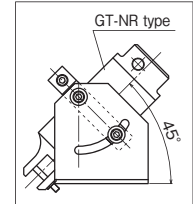
※Capacity (ϕ) is for reference purpose only. It varies depending on products.

No. NR10LST/20ST/30ST/50ST Stand for GT-NR

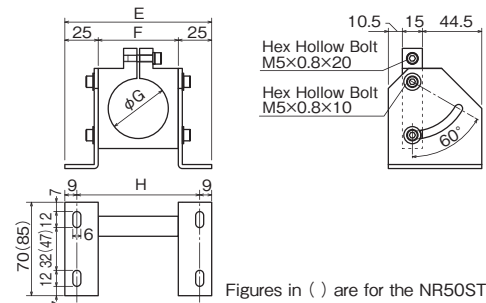
- Fixing hardware for sprue cutting of direct gates or mounting to an automatic machine.
- Mounted angle can be adjusted (0 to 60°).



Mounting example

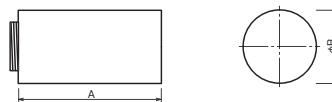


Model No.	Size (mm)				Weight (g)	EDP No.
	E	F	G	H		
NR10LST	102	52	36	84	335	360057
NR20ST	110	60	45	92	385	360058
NR30ST	130	80	56	112	535	360059
NR50ST [Option]	150	100	75	132	835	—



No. P-10L/20/30/50 Extra Pressure Boosters

- This unit is to be used in case the originally required pressure is not obtainable by the limit of space and air pressure.



Reference

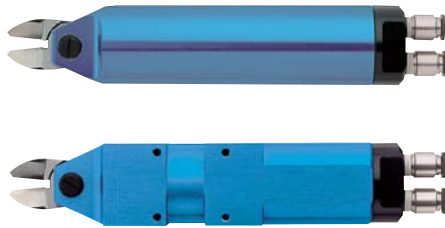
Capacity ϕ (mm) Soft Plastic Hard Plastic Copper Steel	Applicable models	Model No.	Size (mm)		Air Consumption (cm ³ /str.)	Air Pressure (MPa)	Weight (g)	EDP No.
			A	B				
5.0	NS10L, NR10L, N12	P-10L	71	36	223	Up to 0.5MPa	115	360051
8.0	N20, NS20, NR20	P-20	87	45	508	Up to 0.5MPa	215	360052
13.0	N30, NS30, NR30	P-30	92	56	956	Up to 0.5MPa	330	360053
6.5	N50, NR50	P-50	133	75	2,670	Up to 0.5MPa	840	360054

※The capacity in the above table is given for reference, when mounting a standard type of blade. The capacity depends on the blade shape and the material of the object to cut.
 ・Above figures of overall length and the weight are defined for the extra booster specs only. And these figures in the installation.

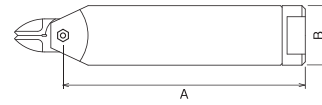
※Blades are optional.

No. GT-NWR10/20/30 GT-NWS1/10/20 Double Action Air Nippers

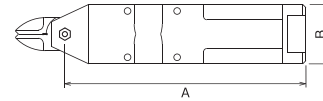
- Blade opening and closing is driven by air piston.
- Having no spring mechanism in the main unit facilitates maintenance.



GT-NWR



GT-NWS



Model No.	Capacity ϕ (mm)			Air Consumption (ml/str.)	Applied Pressure (N)	Air Pressure (MPa)	Size (mm)		Weight (g)	EDP No.
	Copper	Steel	ABS Plastic				A	B		
Double Action Air Scissors (Round Type without Lever)										
GT-NWR10	1.8	1.2	4.0	116	588	0.4~0.5	146	$\phi 36$	280	360710
GT-NWR20	2.6	2.0	6.5	230	1,372	0.5~0.6	165	$\phi 45$	523	360711
GT-NWR30	3.3	2.8	9.5	584	2,744	0.5~0.6	216	$\phi 56$	980	360712
Double Action Air Scissors (Square Type)										
GT-NWS1	1.0	0.5	2.0	45	294	0.4~0.5	95	23×20	116	360702
GT-NWS10	1.8	1.2	4.0	116	588	0.4~0.5	146	36×36	356	360706
GT-NWS20	2.6	2.0	6.5	230	1,372	0.5~0.6	165	45×45	610	360707

No. GT-NB20/30/20LW/30LW

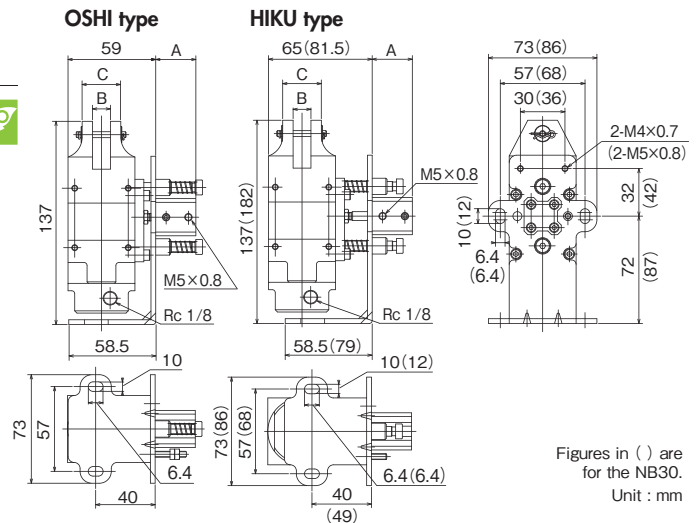
Sliding Air Nippers Bracket-Type

- VESSEL has achieved smooth and continuous slide movement even for large diameter gate cuts, which produces a large shock at each cut.

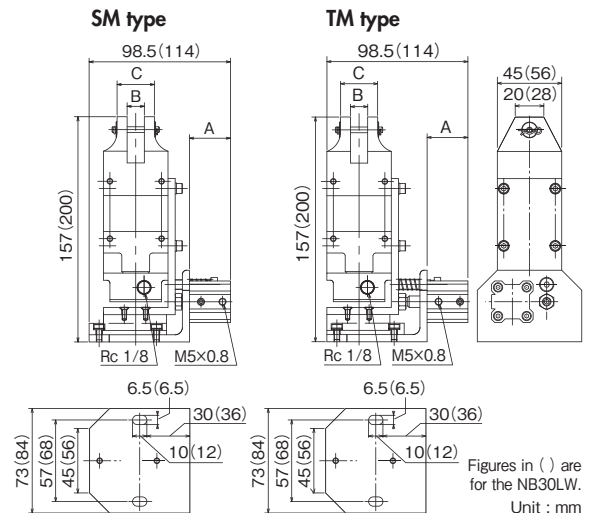


GT-NB20LW-10TM
Slide Mechanism Accurate Model

GT-NB20



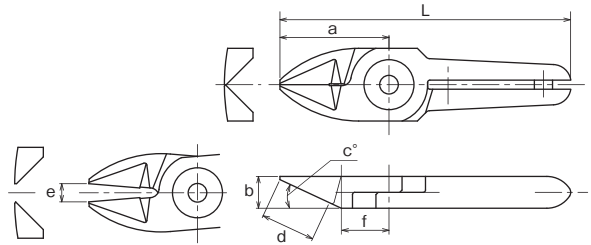
Model No.	Dimensions (mm)			Slide Direction/Distance (mm)	Weight (g)	EDP No.
	A	B	C			
GT-NB20(5-OSHI)	22	12	26	Push 0~5	755	360073
GT-NB20(5-HIKU)	22	12	26	Pull 0~5	755	360071
GT-NB20(10-OSHI)	27	12	26	Push 0~10	755	360074
GT-NB20(10-HIKU)	27	12	26	Pull 0~10	755	360072
GT-NB30(10-HIKU)	28.5	17	36	Pull 0~10	1,420	360076
GT-NB20LW-10TM	28.5	12	26	Pull 0~10	795	360069
GT-NB30LW-10TM	29.5	17	36	Pull 0~10	1,315	360077
GT-NB20LW-10SM	28.5	12	26	Push 0~10	795	360068
GT-NB30LW-10SM	29.5	17	36	Push 0~10	1,325	360078



No. AS/HS Standard



AS/Standard type. Basic set of blades used for cutting copper wire and steel wire.
HS/Improved durability with brazed high-speed steel.



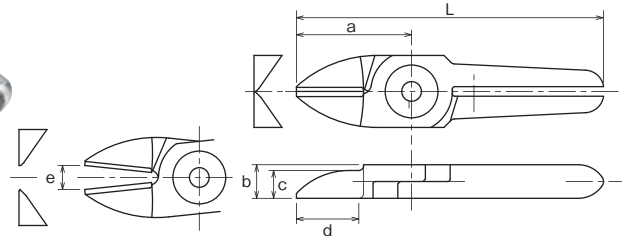
Model No.	Size (mm)							Weight (g)	Material	Applicable models	EDP No.
	a	b	c(*)	d: Effective Length	e: Blade opening	f	L				
N3AS	24	7	25	12	4	10.5	64	35	Special alloy steel	GT-NS3 / N3 / NR3	360102
N3HS	24	7	25	12	4	10.5	64	35	w/High speed steel chip	GT-NS3 / N3 / NR3	360101
N5AS	24	7	25	12	4	10.5	64	40	Special alloy steel	GT-NS5 / N5 / NR5	360112
N5HS	24	7	25	12	4	10.5	64	40	w/High speed steel chip	GT-NS5 / N5 / NR5	360111
N7AS	27	9	30	13.5	4	12.5	81	80	Special alloy steel	GT-NS7 / N7 / NR7	360122
N7HS	27	9	30	13.5	4	12.5	81	80	w/High speed steel chip	GT-NS7 / N7 / NR7	360121
N10AS	27	9	30	13.5	5	12.5	91	85	Special alloy steel	GT-N10	360132
N10HS	27	9	30	13.5	5	12.5	91	85	w/High speed steel chip	GT-N10	360131
N10LAS	35	12	30	20	5	15	89	120	Special alloy steel	GT-NS10L / NR10L	360181
N12AS	35	12	30	20	5	15	105	135	Special alloy steel	GT-N12	360142
N12HS	35	12	30	20	5	15	105	135	w/High speed steel chip	GT-N12	360141
N20AS	35	12	30	20	9	15	95	140	Special alloy steel	GT-NS20 / N20 / NR20 / NB20	360151
N30AS	43	17	30	25	9	18	127	370	Special alloy steel	GT-NS30 / N30 / NR30 / NB30	360161

>> For guidance on cutting capability, see P231 of the technical material.

No. BJ Straight blades for metals



BJ/This is a set of vertical blades with an unbeveled cutting edge for metal.



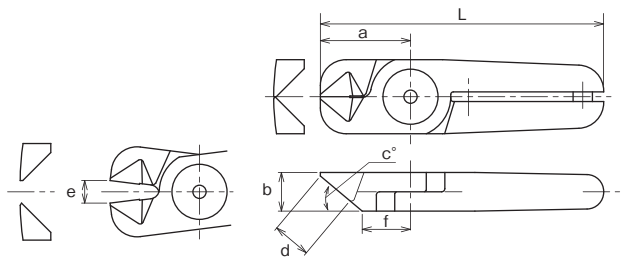
Model No.	Size (mm)							Weight (g)	Material	Applicable models	EDP No.
	a	b	c	d: Effective Length	e: Blade opening	L					
NW1BJ	20	5	3	10.5	3.5	50	16	Special alloy steel	GT-NWR1 / NWS1	360450	
N3BJ	24	7	5.8	13	5	64	35	Special alloy steel	GT-NS3 / N3 / NR3	360106	
N5BJ	24	7	5.8	13	4	64	40	Special alloy steel	GT-NS5 / N5 / NR5	360119	
N7BJ	27	9	7.5	13	5	81	75	Special alloy steel	GT-NS7 / N7 / NR7	360128	
NW10BJ	30	9	6	14	5	85	76	Special alloy steel	GT-NWR10 / NWS10	360453	
NW20BJ	40	12	6	21.5	8	100	142	Special alloy steel	GT-NWR20 / NWS20	360459	
NW30BJ	55	17	8	29.5	11	140	367	Special alloy steel	GT-NWR30	360460	

>> For guidance on cutting capability, see P231 of the technical material.

No. AG Powerful cutting blades



AG/This is a set of blades with increased strength with a shorter cutting edge than the standard type. More welding pressure is created because it cuts at the base of the blades.



Model No.	Size (mm)							Weight (g)	Material	Applicable models	EDP No.
	a	b	c(*)	d: Effective Length	e: Blade opening	f	L				
N20AG	28	12	40	12	7	15	88	135	Special alloy steel	GT-NS20 / N20 / NR20 / NB20	360159
N20HS	26	12	40	10	7	13.5	86	135	w/High speed steel chip	GT-NS20 / N20 / NR20 / NB20	360157

>> For guidance on cutting capability, see P231 of the technical material.

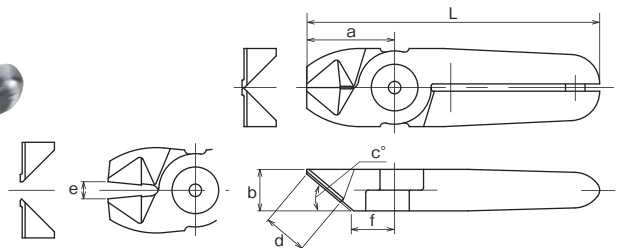
No. BBB Powerful cutting blades with carbide tips



BBB/With carbide tips suitable for cutting hard wires such as high steel wire and piano wire.



Carbide tips
 Recommended to the applications where more durable blade than the special alloy steel is required (i.e. when cutting piano wires)



Model No.	Size (mm)							Weight (g)	Material	Applicable models	EDP No.
	a	b	c(*)	d: Effective Length	e: Blade opening	f	L				
N30BBB	36	17	40	18	7	18	120	365	w/Carbide chip	GT-NS30 / N30 / NR30 / NB30	360172
N50BBB	46	25	35	19	9	24	166	955	w/Carbide chip	GT-N50 / NR50	360177

>> For guidance on cutting capability, see P231 of the technical material.

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

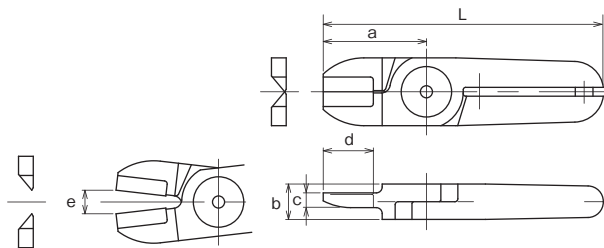
STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

Air nipper standard blades for metal

No. BFB/AS Clipper blades with carbide tips

Metal BFB/With carbide tips, suitable for cutting metal wire and thin pipe.
AS/Standard clipper type blades.

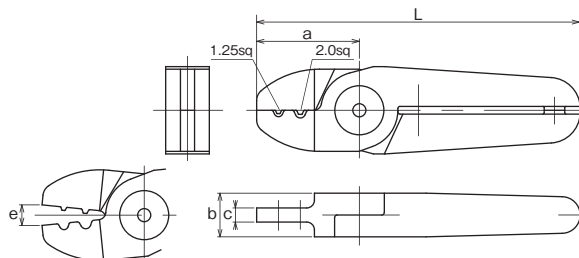


Model No.	Size (mm)						Weight (g)	Material	Applicable models	EDP No.
	a	b	c	d: Effective Length	e: Blade opening	L				
N20BFB	35	12	5	17	8	95	150	w/Carbide chip	GT-NS20 / N20 / NR20 / NB20	360156
N50AS	60	25	10	30	11	180	950	Special alloy steel	GT-N50 / NR50	360175

>> For guidance on cutting capability, see P231 of the technical material.

No. ACD Crimp edge for solderless terminals

Metal ACD/This is a set of blades for crimping solderless terminals.
 (Bare terminal 1.25sq/2.0sq)



Model No.	Size (mm)					Weight (g)	Material	Applicable models	EDP No.
	a	b	c	e: Blade opening	L				
N30ACD	40	17	5.5	8	126	335	Special alloy steel	GT-NS30 / N30 / NR30 / NB30	360171

>> For guidance on cutting capability, see P231 of the technical material.

Air nipper standard blades for plastic

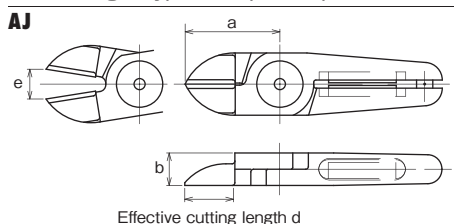
No. NM NM Blades

PAT.

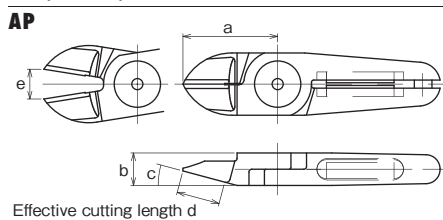


- Ideal for around-the-clock operations
- Semi-permanent magnetic force
- Compatible with our standard nipper bodies

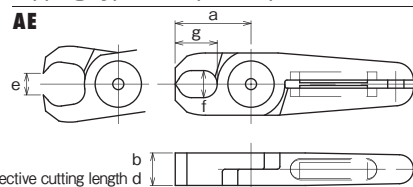
Thin, straight type / For plastic parts



For plastic parts



Nipping type / For plastic parts

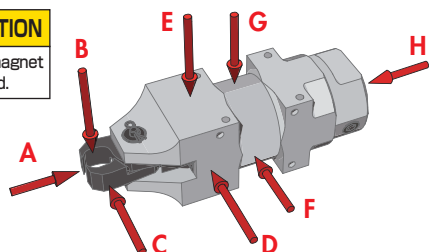


Model No.	Size (mm)							Weight (g)	Applicable models	EDP No.
	a	b	c (*)	d	e	f x g				
NM20AJ	35	12	-	18	11	-	116	GT-NS20 / N20 / NR20 / NB20	360246	
NM20AP	35	12	15	16	11	-	124	GT-NS20 / N20 / NR20 / NB20	360247	
NM20AE	28	12	-	12	8	10x15.5	129	GT-NS20 / N20 / NR20 / NB20	360248	
NM30AJ	52	17	-	28	11	-	360	GT-NS30 / N30 / NR30 / NB30	360261	
NM30AP	66	17	15	38	16	-	380	GT-NS30 / N30 / NR30 / NB30	360262	
NM30AE	45	17	-	17	12	13x28	358	GT-NS30 / N30 / NR30 / NB30	360263	

>> For guidance on cutting capability, see P231 of the technical material.

※Customization also available upon request.

CAUTION
 Powerful magnet is used.



Result of magnetic force measurement

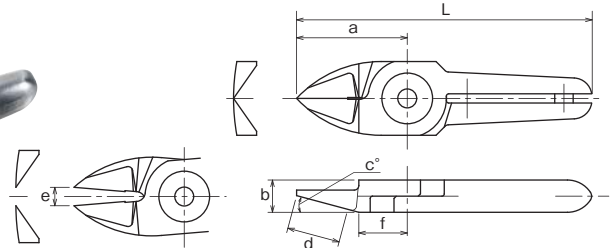
If a magnetic sensor for operation check is installed nearby, please confirm the magnetic force level in the following diagram.

品番No.	A	B	C	D	E	F	G	H	EDP No.
NM20AE	85	10	10	5	32	5	2	0	360248
NM30AE	34	8	8	6	42	15	30	3	360263

Measurement unit: Gauss
 Measurement device: Gaussmeter GM-1200 manufactured by DENSHIJIKI INDUSTRY Co., Ltd.

No. AP Standard blades for plastic

Plastic **AP**/Standard set of blades used to cut plastic. A large R is provided in the cross section for gate cutting in which the cut end must not be left. (The cutting edge is curved.)

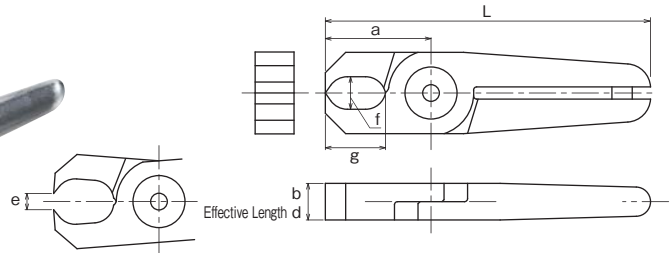


Model No.	Size (mm)							Weight (g)	Material	Applicable models	EDP No.
	a	b	c(*)	d: Effective Length	e: Blade opening	f	L				
N3AP	24	7	15	11.5	4	10.5	64	35	Special alloy steel	GT-NS3 / N3 / NR3	360104
N5AP	24	7	15	11.5	4	10.5	64	40	Special alloy steel	GT-NS5 / N5 / NR5	360114
N7AP	27	9	30	11.5	4	14.5	81	80	Special alloy steel	GT-NS7 / N7 / NR7	360124
N10AP	27	9	30	11.5	5	14.5	91	85	Special alloy steel	GT-N10	360134
N10LAP	35	12	15	16	5	15	89	120	Special alloy steel	GT-NS10L / NR10L	360182
N12AP	35	12	15	16	5	15	105	135	Special alloy steel	GT-N12	360144
N20AP	35	12	15	16	11	15	95	125	Special alloy steel	GT-NS20 / N20 / NR20 / NB20	360155
N30AP	66	17	15	38	16	24	150	380	Special alloy steel	GT-NS30 / N30 / NR30 / NB30	360165

>> For guidance on cutting capability, see P231 of the technical material.

No. AE Nipping blades for plastic

Plastic **AE**/Used for plastic gates such as ride gates and discard gates.

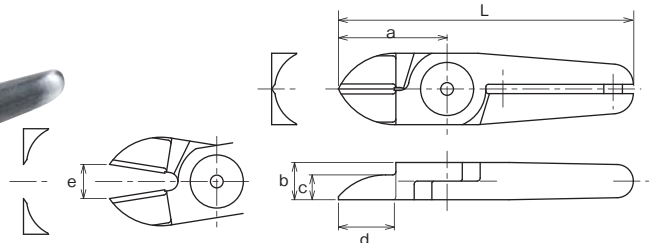


Model No.	Size (mm)							Weight (g)	Material	Applicable models	EDP No.
	a	b	f×g	d: Effective Length	e: Blade opening	L					
N3AE	20	7	6x11	7	3.5	60	35	Special alloy steel	GT-NS3 / N3 / NR3	360108	
N5AE	20	7	6x6.6	7	3.5	60	40	Special alloy steel	GT-NS5 / N5 / NR5	360118	
N7AE	26	9	8x14.8	9	4	80	85	Special alloy steel	GT-NS7 / N7 / NR7	360126	
N20AE	28	12	10x15.5	12	8	88	135	Special alloy steel	GT-NS20 / N20 / NR20 / NB20	360158	
N30AE	45	17	13x28	17	12	129	395	Special alloy steel	GT-NS30 / N30 / NR30 / NB30	360166	

>> For guidance on cutting capability, see P231 of the technical material.

No. AJ Straight blades for plastic

Plastic **AJ**/Vertical blades with an unbeveled cutting edge for plastic. You can apply it at a right angle to the gate.

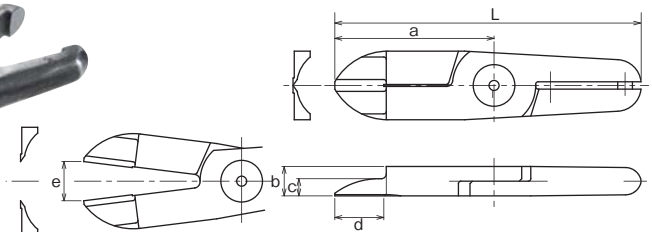


Model No.	Size (mm)							Weight (g)	Material	Applicable models	EDP No.
	a	b	c	d: Effective Length	e: Blade opening	L					
NW10AJ	30	9	6	14	5	85	76	Special alloy steel	GT-NWR10 / NWS10	360454	
N20AJ	35	12	8	18	11	95	125	Special alloy steel	GT-NS20 / N20 / NR20 / NB20	360152	
N20AJB	35	12	8	18	11	95	125	w/Carbide chip	GT-NS20 / N20 / NR20 / NB20	360381	
NW20AJ	40	12	6	21.5	8	100	142	Special alloy steel	GT-NWR20 / NWS20	360457	
N30AJ	52	17	8	28	11	136	370	Special alloy steel	GT-NS30 / N30 / NR30 / NB30	360169	
NW30AJ	55	17	8	29.5	11	140	368	Special alloy steel	GT-NWR30	360461	

>> For guidance on cutting capability, see P231 of the technical material.

No. AJL /Quasi-standard products Straight long blades for plastic

Plastic **AJL**/Long type straight blades. Suitable when there is distance between the nippers and the gate cut portion of the workpiece. N30AJL163 is useful for cutting wide gates.



Model No.	Size (mm)							Weight (g)	Material	Applicable models	EDP No.
	a	b	c	d: Effective Length	e: Blade opening	L					
※N10LAJ141	61	12	7	34	10	115	165	Special alloy steel	GT-NS10L / NR10L	360369	
N20AJL	65	12	7	20	16	125	230	Special alloy steel	GT-NS20 / N20 / NR20 / NB20	360150	
※N20AB39	61	12	7	36	14	121	185	Special alloy steel	GT-NS20 / N20 / NR20 / NB20	360376	
※N30AJ163	65	17	7	41	17.5	149	355	Special alloy steel	GT-NS30 / N30 / NR30 / NB30	360389	
N30AJL	75	17	8	25	19	159	470	Special alloy steel	GT-NS30 / N30 / NR30 / NB30	360170	

>> For guidance on cutting capability, see P231 of the technical material.

Blade with a mark ※ is a quasi-standard.

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

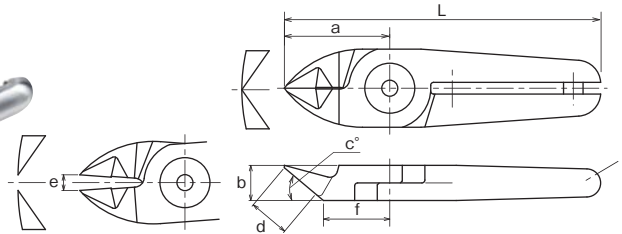
AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

No. PF Flat blades for plastic

Plastic **PF/A** set of blades for cutting plastic gates with cutting end flat. A large R is provided in the cross section for gate cutting in which the cut end must not be left.

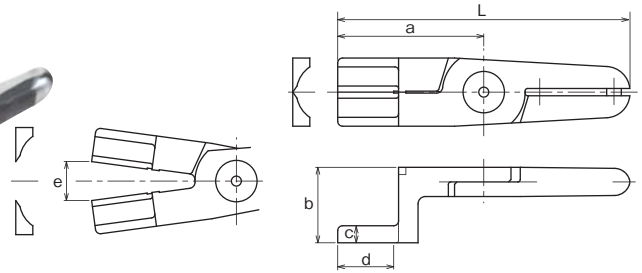


Model No.	Size (mm)							Weight (g)	Material	Applicable models	EDP No.
	a	b	c(°)	d: Effective Length	e: Blade opening	f	L				
N7PF	27	9	40	10.5	4	17	81	80	Special alloy steel	GT-NS7 / N7 / NR7	360127
N10LPF	35	12	40	13.5	5	21	89	120	Special alloy steel	GT-NS10L / NR10L	360183
N20PF	35	12	40	13.5	11	21	95	130	Special alloy steel	GT-NS20 / N20 / NR20 / NB20	360160
N30PF	58	17	30	25	15	33	142	390	Special alloy steel	GT-NS30 / N30 / NR30 / NB30	360167

>> For guidance on cutting capability, see P231 of the technical material.

No. Quasi-standard products Crank blades for plastic

Plastic **AH**/Crank shaped blade for plastic. It is effective when there are obstructions or the gate is narrow.



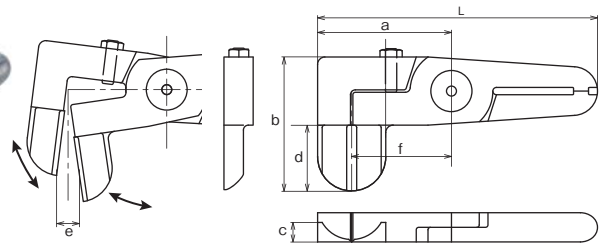
Model No.	Size (mm)							Weight (g)	Material	Applicable models	EDP No.
	a	b	c	d: Effective Length	e: Blade opening	L					
N20AH	60	31	7	23	16	120	240	Special alloy steel	GT-NS20 / N20 / NR20 / NB20	360149	

>> For guidance on cutting capability, see P231 of the technical material.

No. Quasi-standard products Laterally facing blades for plastics

Plastic **AML/AMR** This is a set of blades for plastic where the cutting area is bent 90 degrees. It is useful when it is hard for the nipper to get into, for example, in cramped spaces.

AML AMR

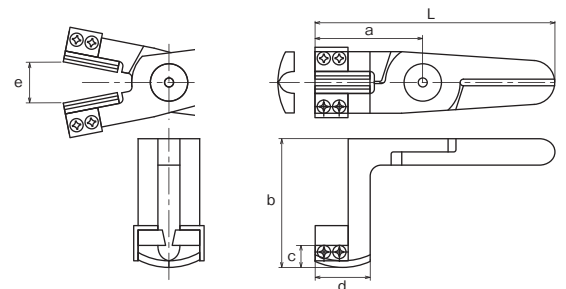


Model No.	Size (mm)							Weight (g)	Material	Applicable models	EDP No.
	a	b	c	d: Effective Length	e: Blade opening	f	L				
N20AML1498	55	55	8	26	9.5	41	115	270	Special alloy steel	GT-NS20 / N20 / NR20 / NB20	360384
N20AMR1499	55	55	8	26	9.5	41	115	270	Special alloy steel	GT-NS20 / N20 / NR20 / NB20	360385

>> For guidance on cutting capability, see P231 of the technical material.

No. Quasi-standard products Comes with sprue chuck function^①

Plastic With a sprue-chuck function. The urethane rubber on the blade catches a sprue securely in a direct gates application. Cut surface has a big R shape, which can be designed when the cutting edge should not be left.

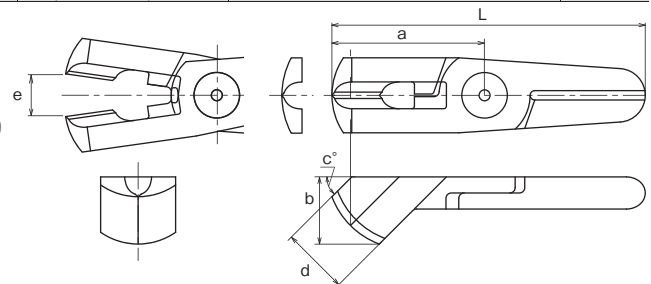


Model No.	Size (mm)							Weight (g)	Material	Applicable models	EDP No.
	a	b	c	d: Effective Length	e: Blade opening	L					
N20AH533	49	58.5	10	25	14	109	280	Special alloy steel	GT-N20 / NS20 / NR20	—	

>> For guidance on cutting capability, see P231 of the technical material.

No. Quasi-standard products Nipping blades for sprue cut

Plastic Perfect spherical set of blades optimal for cutting sprue. The blades can be inserted securely to narrow spaces that have ribs around them and the finish is very clean.



Model No.	Size (mm)							Weight (g)	Material	Applicable models	EDP No.
	a	b	c	d: Effective Length	e: Blade opening	L					
N20AK249	57	25	45	25	14	117	240	Special alloy steel	GT-NS20 / N20 / NR20	—	

>> For guidance on cutting capability, see P231 of the technical material.

No. GT-H12K/H30/H120K/HS30 Air Scissors

- Two types of blades, standard and micro-edge, are available.



GT-H12K Small lightweight type with one fixed blade (Made-to-order)



GT-H120K With one fixed blade



GT-H30 Round-Type Double movable blades



GT-HS30 Square-Type Double movable blades



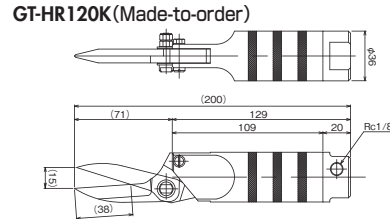
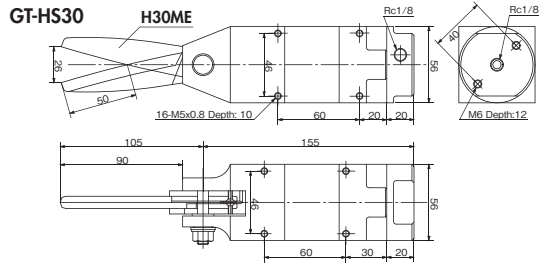
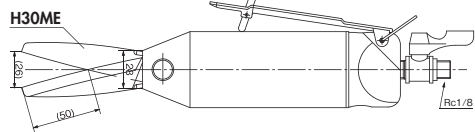
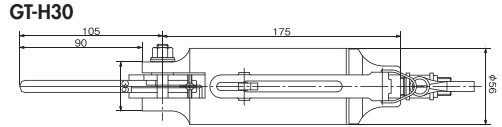
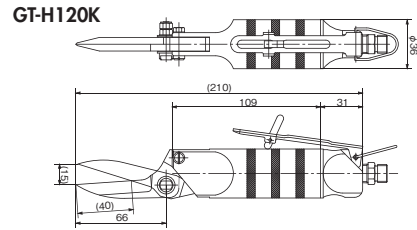
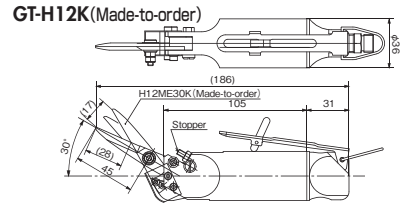
Serrated micro edge

Model No.	Capacity (max) (mm)	Air Consumption (cm ³ /str.)	Applied Pressure (MPa)	Overall Length (with Blade) (mm)	Weight (with Blade) (g)	EDP No.
GT-H30	Kevlar t=1	584	0.3	280	1,030	360211
GT-H12K	Kevlar t=0.3	116	0.2	186.2	290	360201
GT-H120K	Band steel 15×0.5t	116	0.5~0.6	211	340	360202
GT-HS30	Kevlar t=1	584	0.3	260	970	360212

·Hose coupling: R1/4 (Body Rc1/8) ·Air hose inner dia.: 5mm ·Overall length/Weight: Accessories not included.
 ·Total length and weight of the GT-HS30 and HS30 are given with the H30ME blade mounted.

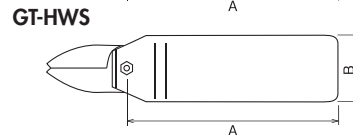
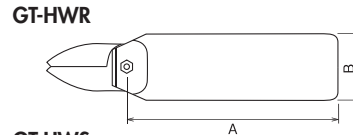
Blades specifications

Model No.	Applicable Nippers	Blade Shape	Blade Aperture (mm)	Effective Blade Cutting Length (mm)	Weight (g)	EDP No.
H30ME	H30, HS30	Scissors type	26	50	280	360311
H30MEL	H30, HS30	Serrated micro edge	34	67	285	360312
H12ME30K	H12K	Scissors type	17	28	56	360301
H120SK	H120K	Scissors type	15	38	115	360302



No. GT-HWR1/10 GT-HWS1/10 Double Action Air Scissors

- Blade opening and closing is driven by air piston.
- Having no spring mechanism in the main unit facilitates maintenance.



Applicable Blade Specifications

Model No.	Blade Opening (mm)	Cutting blade effective (mm)	A (mm)	Weight (g)	EDP No.
For GT-HWR1/HWS1					
HW1J	3.0	17	25	16	360452
For GT-HWS10					
HW10J	5.0	28	40	76	360462



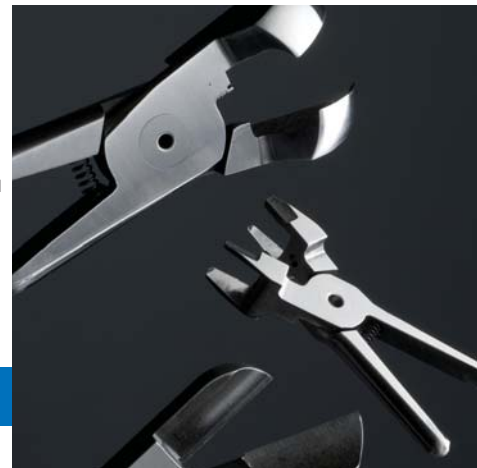
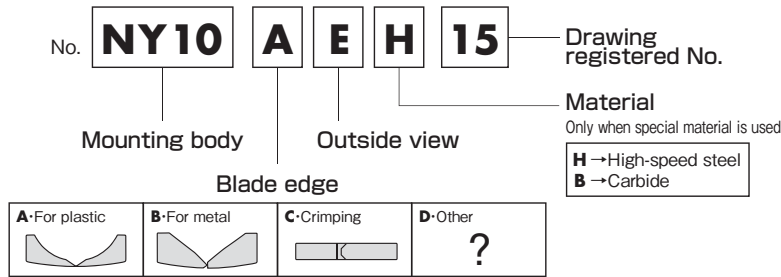
Model No.	Capacity φ (mm)	Air Consumption (cm ³ /str.)	Applied Pressure (N)	Air Pressure (MPa)	A (mm)	B (mm)	Weight (g)	EDP No.
Double Action Air Scissors (Round Type without Lever)								
GT-HWR1	1.0	0.5	45	294	0.4~0.5	95	20	84
GT-HWR10	1.8	1.2	116	588	0.4~0.5	146	36	295
Double Action Air Scissors (Square Type)								
GT-HWS1	1.0	0.5	45	294	0.4~0.5	95	23×20	116
GT-HWS10	1.8	1.2	116	588	0.4~0.5	146	36	356

※Blades are optional.

VESSEL provides solutions of customized blades for a wide variety of applications.

Custom-made blades are designed flexibly according to a wide range of demands and offered at the minimum cost and lead-time. See the examples below. We accept orders for small quantity as well.

Ref: What the model code stands for



We design your custom-made blades, even from 1 piece!

Type for blades

A Angled 	B Angled 	C Crimping 	D Mounted gate
E Disposable gate treatment 	F Power cutting 	G Punching 	H Crankshaft
I Pilers type 	J(JL) Long blade for plastic Straight Long blade For product which are vertically long and to which a nipper does not reach with an ordinary blade. 	K L-shaped (disposable gate treatment) 	L L-shaped
M/XL/XR Side opening blades 	TN Tube cutting 	VO Nail pulling 	DI Bending
VHA Scissors 	Cutting of stranded wire Film gate 	Direct gate Sprue is equal to a gate. 	AHE Pin gate treatment ...Treatment of small gates which should be automatically cut at de-gating.
AHW Double blades 	NH Double heating blades 		

STATIC SOLUTIONS

Reliable performance even in a severe environment.





Contents

- Fan Type 210 - 211
- Nozzle Type / Gun Type 212 - 214
- Bar Type 215 - 217
- Ion Parts Cleaner 219 - 220
- EPA Systems 221 - 225
 - Conductive Rubber Mat 222
 - Electrostatic Field Meter / Surface Resistance Checker 223
 - EPA Floor Sheet 224 - 225
- Clean Walker 226 - 227

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

STATIC SOLUTIONS TECHNICAL

Butterfly louvers for dispersing ions toward different directions; straight or wide.



Fan type (electrostatic neutralization)

F-6

Being compact, it is suitable for incorporation into a system. The F-6 with a clip can be clipped onto pipe of a cell production area and used for static elimination of part shelves or nearby working areas.

211P

F120R/S

This is the main model of bench-top type. It supports a wide range of applications from assembling into a unit to at-hand work. It has a louver that can be switched between dispersing air and outing it straight.

211P

CF300-E

This type supports static elimination from wide areas. It adopts a cross-flow fan. It can be installed in an area close to a conveyor or transfer system to remove static electricity from charged objects.

211P



Operation lamp enabling an operation state to be seen at a glance



Nozzle type (Electrostatic neutralization and dust removal)

This type eliminates static electricity and removes dust from charged objects with pinpointing precision. It is suitable for installation in equipment or for transfer equipment such as vibratory bowl feeders

214P

Environmental measures

Pb (lead), Cd (cadmium), Hg (mercury), hexavalent chromium, PBB (polybrominated biphenyl), and PBDE (polybrominated diphenyl ether) This symbol indicates the products that conform to VESSEL's environment measure standards compliant with the restriction of the use of certain hazardous substances (six substances listed above) (RoHS directive).

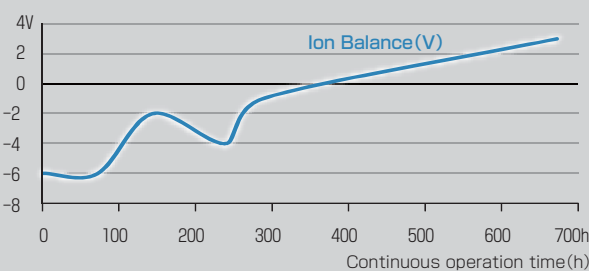


Ion creation method

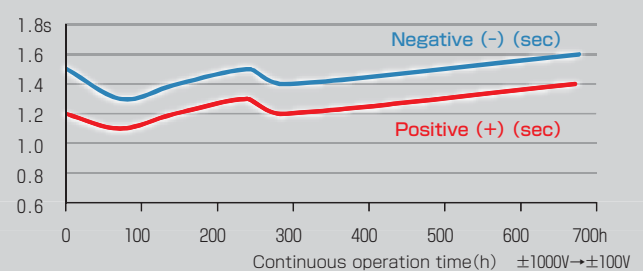
AC high frequency

Electrostatic eliminators adopting a high-frequency transformer of 20 kHz to 70 kHz have the features of stable ion balance.

Ion balance (F-120R)



Decay Time (F-120R)



Cautions : Performance varies depending on various conditions such as temperature, humidity, and atmospheric pressure. These pieces of data are our measured values for reference and do not assure the product performance.

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

LED light that makes dust visible.



Gun type (dust removal)

A hand-held static eliminator intended primarily for dust removal. It adopts a piezoelectric transformer that is lightweight, compact, and high safety.

213P



Bar type (Electrostatic neutralization, air assist ... dust removal)

This is a bar-type electrostatic eliminator provided with diverse width sizes. It adopts the AC pulse system, allowing you to select an optimal model according to the distance to a charged article.

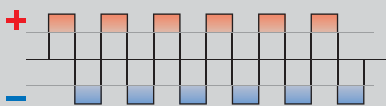
216P



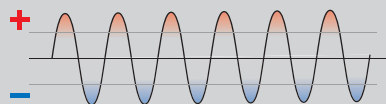
AC pulse

A pulse AC system that generates positive and negative ions alternatively from individual electrodes. It creates ions in maximum periodic widths of respective positive and negative electrodes; the amount of ions is large, enabling quick electrostatic elimination to be achieved.

AC pulse



General alternating current



VESSEL JAPAN **ION PARTS CLEANER**



Ion parts cleaner (Electrostatic neutralization, dust removal)

This is a new method of cleaning parts known as ion cleaning. It is capable of performing ion air-based static elimination and dust collection + dust absorption simultaneously.

220P



HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

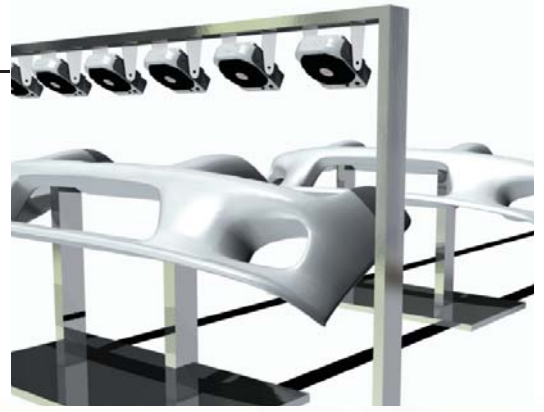
AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

No. F120R-E

Ionizing Fan

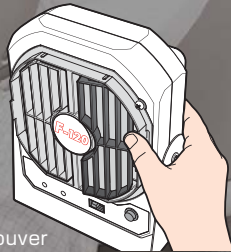


This type adopts a piezoelectric transformer that is safe and superior in ion generation. In addition, VESSEL's specific capacitive coupling method in which a discharge needle is sandwiched with resin and stainless disc, enables unmatched good ion balance.

Convenient functions such as external output terminals, butterfly louver capable of switching the airflow directions, either straight or wide area.

Butterfly Louver

Press outer side to disperse air.
Press center to let air out straight.



Butterfly Louver



No. F120R-E Ionizing Fan

Cell production in which compactness and easiness to install at setup are important; Integrated In-line process that outputs alarms while maintaining ion balance; VESSEL fan-type ionizers can remove static electricity in an efficient way.

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

No. F-6 Ionizing Mini Fan

Ionizing method: Piezoelectric high-frequency AC corona discharge Applied voltage: 3.5kVAC

- Compact and lightweight body
- Fan speed can be adjusted in two steps.
- Provided with a clip suitable for mounting (F6CL-E)
- Provided with a general-purpose stand (F6ST-E)



CE RoHS

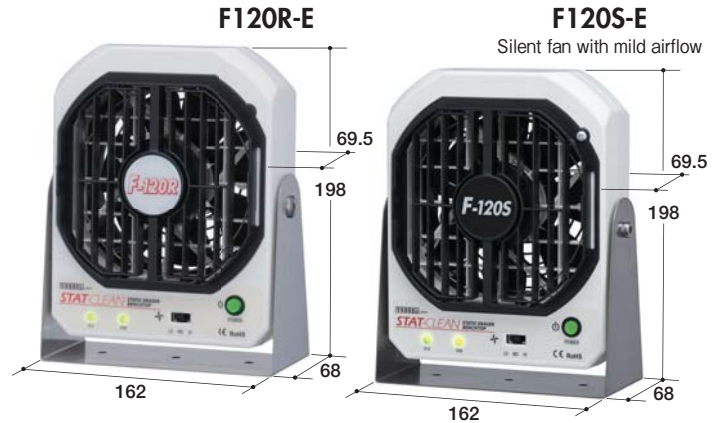
Model No.	Power supply	Current consumption (mA) typ.	Decay time	Ion balance	Noise level (dBA)	Fan speed (max) (r/min)	Weight (g)	EDP No.
F6CL-E	24VDC±5%	220	within 3.0 sec	within ±10V	53	0.78	514	621632
F6ST-E	24VDC±5%	220	within 3.0 sec	within ±10V	53	0.78	460	621631

(Decay time and ion balance: 300mm from the front of a device and max. fan speed, Noise: 1m from the front of a device and max. air speed, Weight: including clip/stand)
 *Accessories: AC adapter AD-24-ITF6-E (100 to 240V AC), AC input cable (1.8m)

No. F120R/S Ionizing Fan

Ionizing method: Piezoelectric high-frequency AC corona discharge Applied voltage: 10kVAC (p-p) **PAT.P.**

- Newly developed piezoelectric transformer makes the slim and compact model.
- Butterfly louvers for changing the airflow directions.
- Fan speed can be adjusted in three steps.
- Improvement in maintenance by easy-replaceable electrode needle unit.
- Equipped with terminals for alarm signal output, convenient for incorporation into equipment.
- F120S-E is a silent type with mild airflow.



CE RoHS

Model No.	Power supply	Current consumption (mA) max.	Decay time	Ion balance	Noise level (dBA)	Fan speed (max) (r/min)	Weight (g)	EDP No.
F120R-E	24VDC±5%	700	within 1.5 sec	within ±10V	61	3.66	900	621650
F120S-E	24VDC±5%	500	within 2.5 sec	within ±10V	51	2.21	900	621646

(Decay time and ion balance: 300mm from the front of a device and max. fan speed, Noise: 1m from the front of a device and max. air speed)
 *Accessories: AC adapter AD24-IT-EX (100 to 240V AC) AC cable (1.8m)
 *Option: Filter set F-120FS, Filter F-120EF

No. CF300-E Cross-flow Ionizing Fan NEW

Ionizing method: Piezoelectric high-frequency AC corona discharge Applied voltage: 9.2kVAC (p-p)

- Superior ionizing performance accomplished with the cross flow fan that sends out ions evenly and widely on the wind and the front cover design that takes the ion flow into consideration. Volume operation allows the non-step adjustment of airflow.
- Slide-type cleaning brush is mounted on the front cover to perform maintenance of needle electrodes at any time. On the bottom surface of the main body, a rough filter is used, which is easy to clean and replace.
- Monitoring functions of fan motor rotation monitoring function and high voltage output
- Shut-down function.



CE RoHS

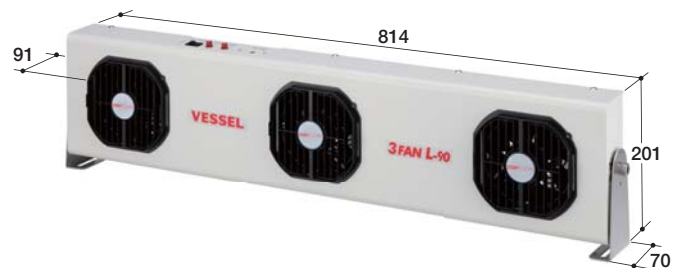
Model No.	Power supply	Current consumption (mA) max.	Decay time	Ion balance	Noise level (dBA)	Fan speed (max) (r/min)	Weight (g)	EDP No.
CF300-E	24VDC ±10%	500	within 1.5 sec	within ±10V	52.5	2.5	2.9	621657

(Decay time and ion balance: 300mm from the front of a device and max. fan speed, Noise: 1m from the front of a device and max. air speed)
 *Accessories: AC adapter AD24-IT-EX (100 to 240V AC) AC cable (1.8m) Cleaning brush

No. L-90-E Overhead Ionizing Triple-Fan NEW

Ionizing method: Piezoelectric high-frequency AC corona discharge Applied voltage: 10kVAC (p-p) **PAT.P.**

- Butterfly louver for changing the angle of wind direction from the front cover. Each front cover can be set for a desired direction - high speed spot elimination and/or wide area elimination respectively, corresponding to various applications.
- Unique capacitive-coupled needle electrodes maintain superior ion balance and long term performance.
- Lightweight design.
- Front cover can be removed by one-touch operation. Easy maintenance.



CE RoHS

Model No.	Power supply	Current consumption (A) max.	Decay time	Ion balance	Noise level (dBA)	Fan speed (max) (r/min)	Weight (g)	EDP No.
L-90-E	24VDC±5%	3.0	within 1.5 sec	within ±10V	72	4.7	4.7	621628

(Decay time and ion balance: 300mm from the front of a device and max. fan speed, Noise: 1m from the front of a device and max. air speed)
 *Accessories: AC adapter AD24-IT37 (100 to 240V AC) AC cable (1.8m)

No. G2-E

Ionizing Gun



Wiring can be modified according to the real working area environment. Not obtrusive on the cell production bench. Uses cables with superior durability and flexibility.



No. G2-E

Ionizing Gun

Ion air flowing out eliminates static electricity.
Built-in 70 kHz piezoelectric transformer!
Outstanding ion balance within ± 10 V
Safe circuit with low voltage of DC 24 V

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

No. G7R-E Ionizing Gun

Ionizing method: Piezoelectric high-frequency AC corona discharge Applied voltage: 2kVAV

- Compact and lightweight.
- Ergonomically designed grip that fits your hand.
- Equipped with a green LED light facilitating visual check of dust, and with operating status and alarm lamps.
- Interchangeable nozzles for various applications (option)
- Needle electrode can be easily replaced with a dedicated tool.



CE RoHS

Model No.	Power supply	Current consumption (mA) typ.	Decay time	Ion balance	Noise level (dBA)	Fan speed (max) (ℓ/min)	Weight (g)	EDP No.
G7R-E	24VDC±5%	85	within 1.0sec	within ±10V	92	200	200	621621

(Decay time and ion balance: 150mm from the front of a device, at 0.3MPa, and when equipped with the standard nozzle)
 (Noise: 1m from the front of a device and at 0.3MPa, Air flow: At 0.3MPa)
 ·Air supply pressure: 0.1MPa to 0.6MPa, Air supply hose diameter $\Phi 6 \times \Phi 4$ mm
 ·Accessories: AC adapter AD24-ITCE (100 to 240V AC), AC cable (1.8m), Standard Nozzle G-7SN
 ·Option: Joint Connection Needle G-7THN, Needle Electrode GN-H, Needle Electrode Replacement Screwdriver G-7DR, Straight Silent Nozzle BB-ZSN, Silent Nozzle N-2WN, Flared Nozzle N-2FN, Tube-Fitting Nozzle N-2TN, Brush (60mm bristles) G-7B, Soft Brush (60mm bristles) G-7SB, Speed Controller G-7SC, Microfilter G-7F, Relay Cable (5m) G-7EC5, Relay Cable (10m) G-7EC10

No. BBZ-E Ionizing Gun

Ionizing method: Piezoelectric high-frequency AC corona discharge Applied voltage: 2kVAC

- Built with high-intensity white LED light for clear dust detection.
- Reinforced connector applying a ring tightening type.
- Silent and high jetting air nozzle for concentrated dust removal.
- Black colored body in which stain is less conspicuous
- Long power cable (5m), enabling the model to be moved in a wider area.
- Light-weight body, alleviating an operator's fatigue.



CE RoHS

Model No.	Power supply	Current consumption (mA) typ.	Decay time	Ion balance	Noise level (dBA)	Fan speed (max) (ℓ/min)	Weight (g)	EDP No.
BBZ-E	24VDC±5%	85	within 0.7sec	within ±10V	81	200	210	621638

(Decay time and ion balance: 150mm from the front of a device, at 0.6MPa, and when equipped with a silent, straight nozzle)
 (Noise: 1m from the front of a device and at 0.3MPa, Air flow: At 0.3MPa)
 ·Air supply pressure: 0.1MPa to 0.6MPa, Air supply hose diameter $\Phi 6 \times \Phi 4$ mm
 ·Accessories: AC adapter AD24ITB-E (100 to 240V AC), AC cable (1.8m), Straight Silent Nozzle BB-ZSN
 ·Option: Needle Electrode Replacement Screwdriver G-7DR, Nozzle for Tube Fitting G-7THN, Silent Nozzle N-2WN, Flared Nozzle N-2FN, Speed Controller G-7SC, Microfilter G-7F, Needle Electrode GN-H

No. G2-E Ionizing Gun NEW

Ionizing method: Piezoelectric high-frequency AC corona discharge Applied voltage: 2kVAV

- Compact and lightweight.
- Ergonomically designed grip that fits your hand.
- Equipped with a green LED light facilitating visual check of dust, and with operating status and alarm lamps.
- Interchangeable nozzles for various applications (option)
- Needle electrode can be easily replaced with a dedicated tool.



CE RoHS

Model No.	Power supply	Current consumption (mA) typ.	Decay time	Ion balance	Noise level (dBA)	Fan speed (max) (ℓ/min)	Weight (g)	EDP No.
G2-E	24VDC±5%	100	within 0.8sec	within ±10V	94	153	260	621659

(Decay time and ion balance: 300mm from the front of a device, at 0.3MPa, and when equipped with the standard nozzle)
 (Noise: 1m from the front of a device and at 0.3MPa, Air flow: At 0.3MPa)
 ·Accessories: AC adapter AD24-ITCE (100 to 240V AC), AC cable (1.8m), Standard Nozzle N-15N

One point

Pipe arrangement and wiring can be changed depending on the work

Use by hanging above cell production benches



Static Elimination of the Tray



No. N-1 Super Slim Ionizing Nozzle

Ionizing method:Piezoelectric high-frequency AC corona discharge Applied voltage:10kVAC

- Compact design permitting placement anywhere and in any direction. Newly developed high-voltage transformer and control circuit enables unprecedented ease of use to be realized.
- Screw type nozzle is removed easily, making both nozzle replacement and cleaning of the needle electrode easy.
- Equipped with six-pole terminals enabling an abnormally high-voltage signal to emit or 24 V DC power to be daisy-chained.
- Blue lamp lights up during normal operations.
- When there occurs errors in high voltage, a red lamp flashes.



CE RoHS

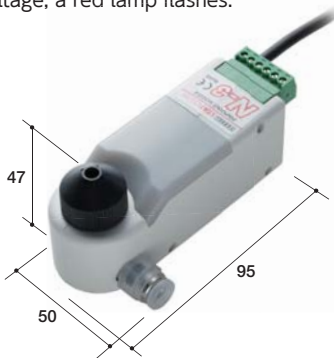
Model No.	Power supply	Current consumption (mA) typ.	Dacay time	Ion balance	Noise level (dBA)	Fan speed (max) (ℓ/min)	Weight (g)	EDP No.
N-1	24VDC±5%	58	within 1.0sec	within ±10V	96	190	80	621639

(Decay time and ion balance: 150mm from the front of a device, at 0.3MPa, and when equipped with the standard nozzle)
 (Noise: at a measurement distance of 1m and 0.3MPa, Air flow: when equipped with the standard nozzle and at 0.3MPa)
 •Accessories: Standard nozzle N-1SN
 •Options: Tube-fittig Nozzle N-2TN, Silent Straight Nozzle BB-ZSN, Silent Wide Nozzle N-2WN, Flair Nozzle N-2FN, Speed Controller G-7SC, Micro-Filter G-7F, Needle Replacement Screwdriver G-7DR, Needle Electrode GN-H

No. N-3 Pinpoint Ionizing Nozzle

Ionizing method:Piezoelectric high-frequency AC corona discharge Applied voltage:5.6kVAC

- Compact and lightweight. Equipped with screw holes for a mounting to a system.
- Offers various nozzles as options that can be used in a variety of applications
- Screw type nozzle is removed easily, making both nozzle replacement and cleaning of the needle electrode easy.
- Automatically stops in the event of high voltage. Equipped with alarm output terminals.
- Equipped with six-pole terminals enabling an abnormally high-voltage signal to emit or 24 V DC power to be daisy-chained.
- Green lamp lights up during normal operations. When there occurs errors in high voltage, a red lamp flashes.



CE RoHS

Model No.	Power supply	Current consumption (mA) max.	Dacay time	Ion balance	Noise level (dBA)	Fan speed (max) (ℓ/min)	Weight (g)	EDP No.
N-3	24VDC±5%	90	within 1.0sec	within ±10V	99.4	210	104	621654

(Decay time and ion balance: 150mm from the front of a device, at 0.3MPa, and when equipped with the standard nozzle)
 (Noise: At a measurement distance of 1m and 0.3MPa, Air flow: When equipped with the standard nozzle and at 0.3MPa)
 •Air supply pressure 0.1MPa to 0.6MPa, Air supply hose diameter φ6×φ4mm
 •Accessories: Standard Nozzle N-1SN
 •Option: Flared Nozzle N-2FN, Tube-Fitting Nozzle N-2TN, Shower Tube N-2C6B, Straight Silent Nozzle BB-ZSN, Silent Nozzle N-2WN, Speed Controller G-7SC, Microfilter G-7F, Electrode Needle Replacement Screwdriver G-7DR, Electrode Needle GN-H

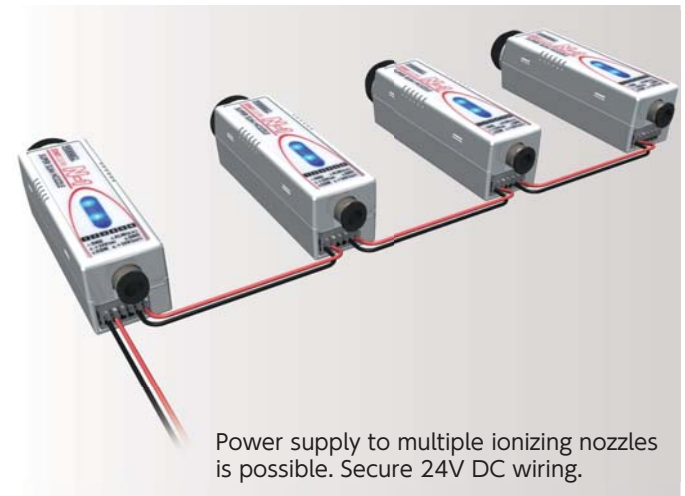
One point

Interchangeable nozzles for various applications (option)



Shower Nozzle and Silent Nozzle are available as options.

Daisy-chain wiring. High voltage cables stay inside the product.



Power supply to multiple ionizing nozzles is possible. Secure 24V DC wiring.

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

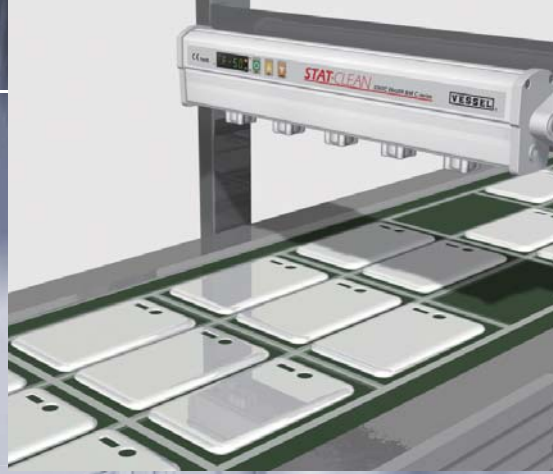
AIR TOOLS

STATIC SOLUTIONS

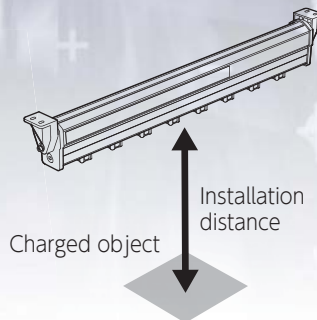
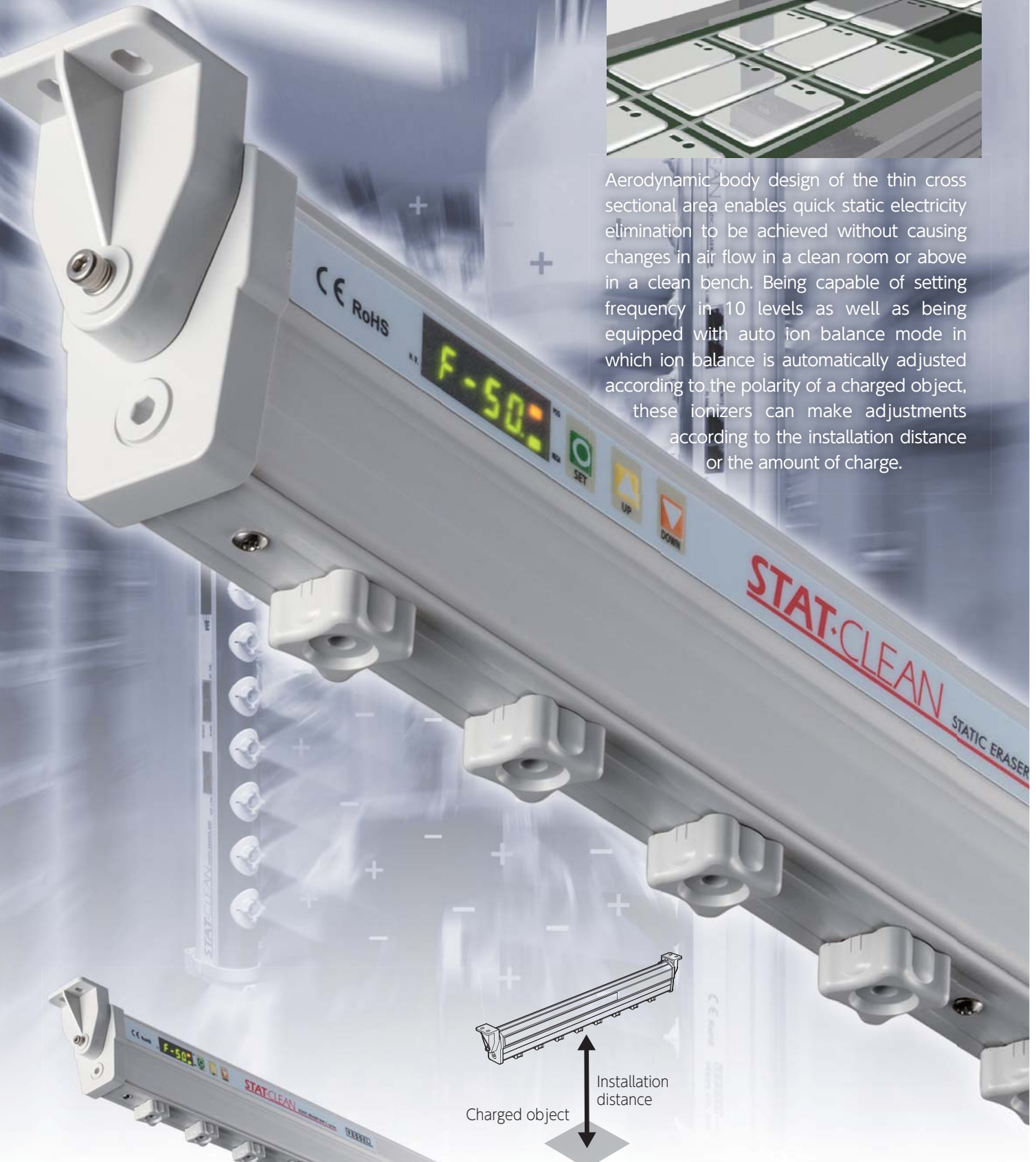
GASOLINE ENGINE TOOLS

No. C-40

AC Pulse Ionizing Clean Bar



Aerodynamic body design of the thin cross sectional area enables quick static electricity elimination to be achieved without causing changes in air flow in a clean room or above in a clean bench. Being capable of setting frequency in 10 levels as well as being equipped with auto ion balance mode in which ion balance is automatically adjusted according to the polarity of a charged object, these ionizers can make adjustments according to the installation distance or the amount of charge.



No. C-40

AC Pulse Ionizing Clean Bar

Bar-type ionizers best suited to mounting to a variety of equipment Air purge construction enables super-fast static electricity removal to be accomplished. With a lineup of abundant sizes, they respond to various applications.

Frequency setting

Installation place	Location	mm	Frequency, Hz
Film/conveyor	Close distance	50~300	20~50
Clean bench	Intermediate distance	600~750	8~10
Clean room ceiling	Long distance	900~1500	0.1~5

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

C-series

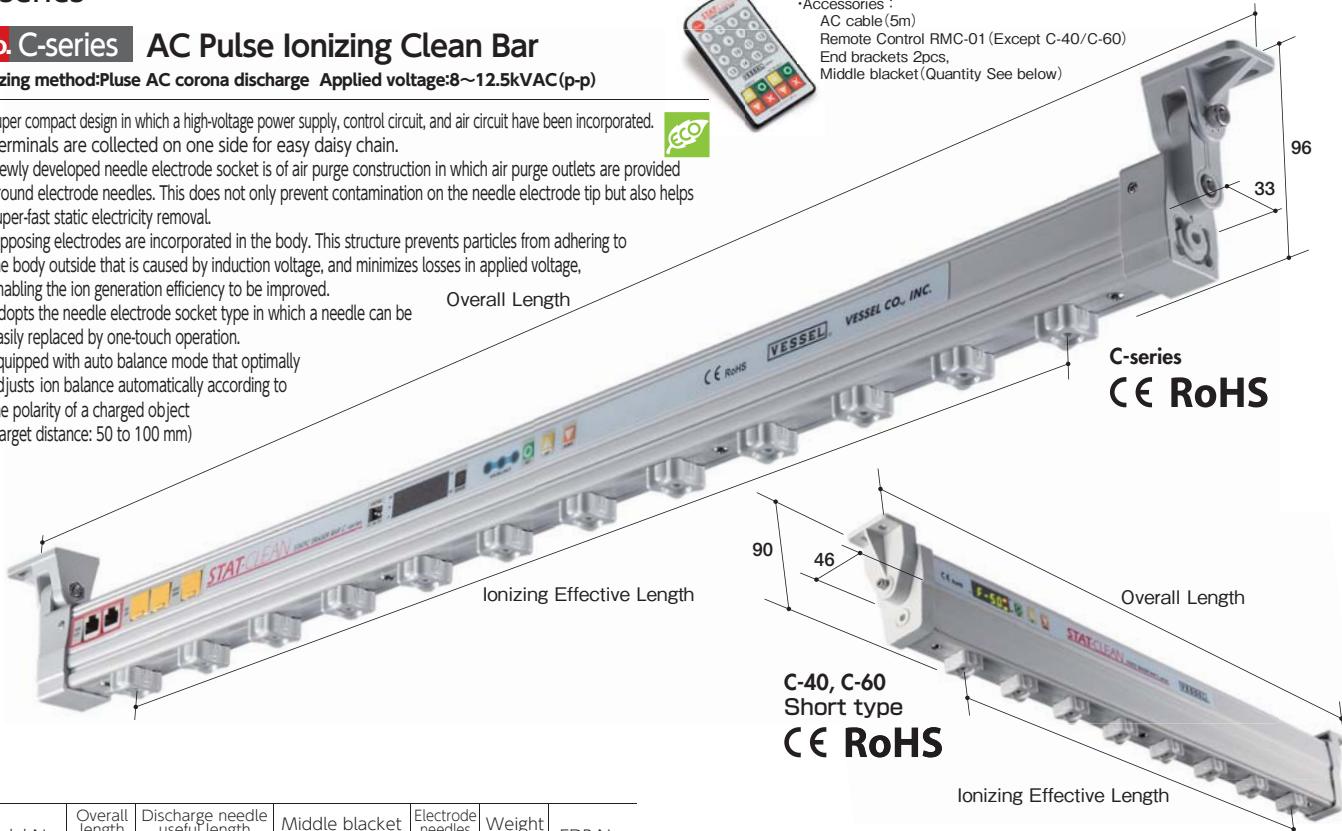
No. C-series AC Pulse Ionizing Clean Bar

Ionizing method:Pluse AC corona discharge Applied voltage:8~12.5kVAC(p-p)

- Super compact design in which a high-voltage power supply, control circuit, and air circuit have been incorporated.
- Terminals are collected on one side for easy daisy chain.
- Newly developed needle electrode socket is of air purge construction in which air purge outlets are provided around electrode needles. This does not only prevent contamination on the needle electrode tip but also helps super-fast static electricity removal.
- Opposing electrodes are incorporated in the body. This structure prevents particles from adhering to the body outside that is caused by induction voltage, and minimizes losses in applied voltage, enabling the ion generation efficiency to be improved.
- Adopts the needle electrode socket type in which a needle can be easily replaced by one-touch operation.
- Equipped with auto balance mode that optimally adjusts ion balance automatically according to the polarity of a charged object (target distance: 50 to 100 mm)



- Accessories :
AC cable (5m)
Remote Control RMC-01 (Except C-40/C-60)
End brackets 2pcs,
Middle bracket (Quantity See below)



Model No.	Overall length (mm)	Discharge needle useful length (mm)	Middle bracket (pcs)	Electrode needles (pcs)	Weight (kg)	EDP No.
C-90	877	660	0	12	0.9	621851
C-100	1078	900	1	16	1	621852
C-120	1318	1140	1	20	1.2	621853
C-150	1558	1380	1	24	1.4	621854
C-170	1798	1620	2	28	1.6	621855
C-200	2038	1860	2	32	1.8	621856
C-220	2278	2100	2	36	2.3	621859
C-250	2518	2340	3	40	2.6	621860
C-270	2758	2580	3	44	2.8	621861
C-300	2998	2820	3	48	3.1	621862

Power supply	Current consumption (mA) max.	Decay time ※	Frequency	Pulse ratio	Voltage level
24VDC±5%	600	within 0.8sec	10steps (0.1~50Hz)	+: 40~70% -: 60~30%	±10steps each

※Decay time :30Hz 10.5kVp-p 300mm directly below at 0.3MPa
 •Air supply pressure: 0 to 0.3MPa, Air supply hose diameter $\Phi 8 \times \Phi 6$ mm (Air supply port: PT1/8)
 •Accessories: Remote controller, Power cable (5m), End brackets (included with device), Middle brackets (included with device)
 •Option: AC Adapter AD24-IT-EX, AD24-ITCF-EX, AD24-IT19-EX, Power Supply cable (5m)CT-5

No. C-40/C-60 AC Pulse Ionizing Clean Bar

Ionizing method:Pluse AC corona discharge Applied voltage:8~12.5kVAC(p-p)

- Short type optimal for installation on a conveyor or in equipment.
- Consolidated terminals on the back side. Power can be supplied by daisy chain wiring.

Model No.	Overall length (mm)	Discharge needle useful length (mm)	Electrode needles (pcs)	Weight (kg)	EDP No.
C-40	422	240	5	0.78	621857
C-60	602	420	8	1.08	621858

Power supply	Current consumption (mA) max.	Decay time ※	Frequency	Pulse ratio	Voltage level
24VDC±5%	600	within 0.8sec	10steps (0.1~50Hz)	+: 40~70% -: 60~30%	±10steps each

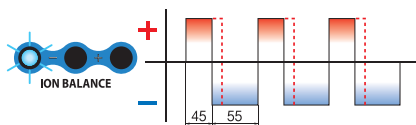
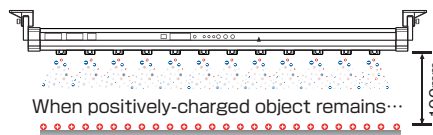
※Decay time :30Hz 10.5kVp-p 300mm directly below at 0.3MPa
 •Air supply pressure: 0 to 0.3MPa, Air supply hose diameter $\Phi 8 \times \Phi 6$ mm (Air supply port: PT1/8)
 •Accessories: Remote controller, Power cable (5m), End brackets (included with device),
 •Option: AC Adapter AD24-IT-EX, AD24-ITCF-EX, AD24-IT19-EX, Power Supply cable (5m)CT-5

One point

AC Pulse Auto Balance Mode

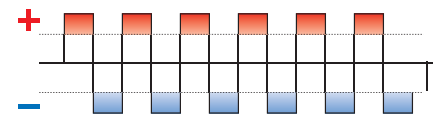
The C series are equipped with a mode to optimally adjust the ion balance automatically according to the polarity of the charged object. (Target distance: 50 to 100 mm)

※C-series

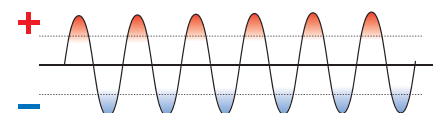


AC pulse method

Generating alternately positive ions and negative ions from each electrode. Since ions are generated at the maximum width of each positive and negative electrode cycle, the ion volume is high and static electricity can be removed quickly.



Typical alternating current



HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

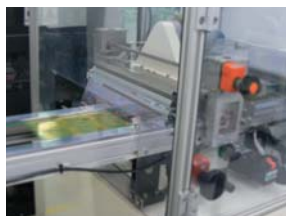
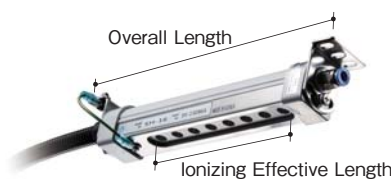
STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

SH-series

No. SH-series Compact AC Pulse Ionizing Bar (separate power supply type)

- Ion balance can be adjusted by changing a pulse ratio.
- The main body is as compact as 30 × 33 mm, ideal for installation in cramped spaces.
- Use of a branch box enables multiple bars to be operated from one power supply equipment.
- High-voltage cable can be attached/detached from the bar's main body.



エアージェット機能

CE RoHS

Model No.	Overall length (mm)	Discharge needle useful length (mm)	Decay time ※ (sec.)	Electrode needles (pcs)	Weight (kg)	EDP No.
SH-16	218	105	within 0.5	8	0.36	621541
SH-20	258	135	within 0.5	10	0.40	621542
SH-30	338	210	within 0.5	7	0.42	621543
SH-40	443	315	within 0.5	10	0.50	621544
SH-50	548	420	within 0.5	13	0.57	621545
SH-60	653	525	within 0.5	16	0.63	621546
SH-70	758	630	within 0.5	19	0.70	621547

Decay time: 30Hz 10.5kVp-p Straight down 300mm at 0.3MPa
 Air supply pressure: 0 to 0.5MPa. Air supply hose diameter $\phi 6 \times \phi 4$ mm
 Options: Branch box SH-SP2, Relay cable (3m)SH-EC3, Relay cable (5m)SH-EC5

No. SH-G3 Power supply units

Ionizing method : Pluse AC corona discharge Applied voltage: 10.5kVAC p-p

- Equipped with two sockets for connecting the SH ionizing bars. They can be installed and wired easily.
- With the ion balance adjustment function (pulse ratio).
- Equipped with a safety circuit that shuts down the output if overcurrent or high-voltage error occurs.
- Lightest-weight body in the industry: 1.5kg.



PS E CE RoHS

Model No.	Input power supply	Power consumption (W)	Frequency (Hz)	Plus ratio	Weight (kg)	EDP No.
SH-G3	100~240V AC (50/60Hz)	10	30	+ : 40~70% - : 60~30%	1.5	621555

Accessories: AC Power cable 1.8m (for 100VAC and input) 2cables



HAND TOOLS

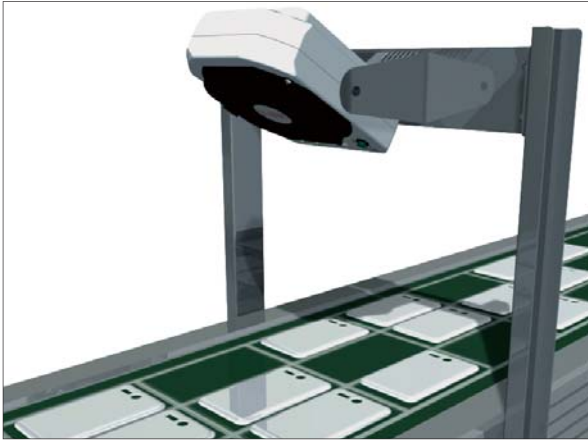
BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS



Dust prevention on molded parts



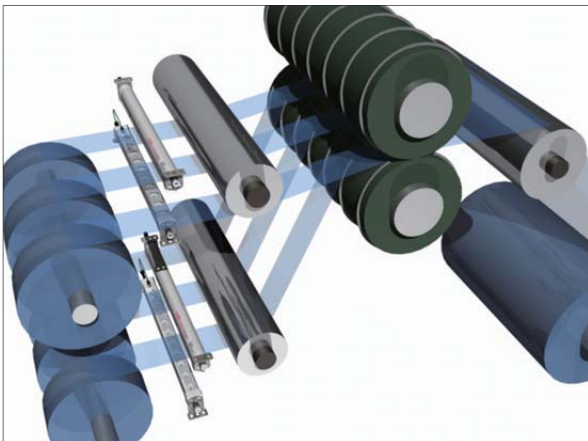
Cell production table



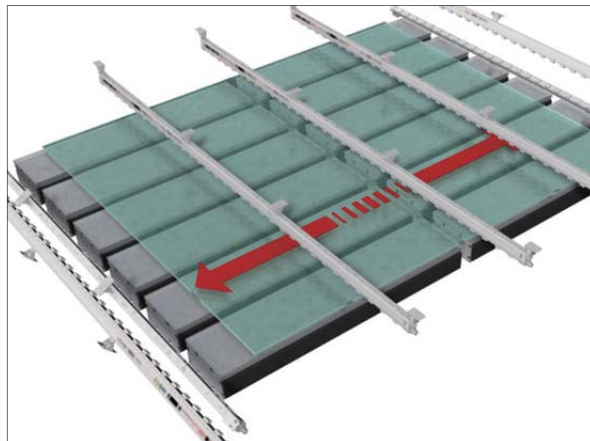
Static electricity removal in a bottle



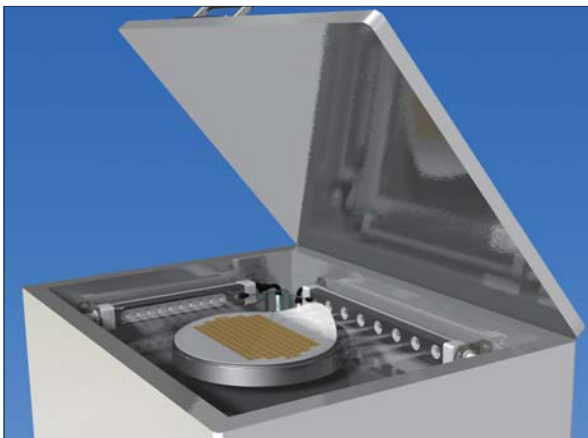
Vibratory bowl feeder (joint nozzle + shower tube)



Film unwinding and widening



Glass substrate transfer



Production of the water film



Filling pills or capsules into a package

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

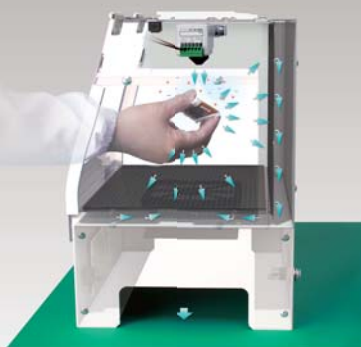
No. IPC-A4

Ion Parts Cleaner



With the Ion parts cleaner applying a unique dust capturing method with an adhesive gel sheet, an installation space for a dust collector or a dust is no longer needed. This gel sheet can be repeatedly used after cleaning off dust.

We provide A4 and A3 sizes on the assumption of cell production work. This allows efficient dust removal work to be done according to line design.



Static electricity elimination and dust removal in a hood. Dust adhered by static electricity is neutralized in the ionized hood and then removed by powerful automatic air blow.



No. IPC-A4 Ion Parts Cleaner

Ion parts cleaners playing an important role in line design of cell production. Assembled parts and devices can be cleaned on the spot and flowed to the next process, enabling line design to be smart.



HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

No. IPC-A4 Ion Parts Cleaner

Ionizing method : Piezoelectric high-frequency AC corona discharge Applied voltage: 10kVAC (p-p)

- Compact bench-top type of 314 mm wide and 253 mm deep
- Eliminates static electricity and removes dust with air controlled by an infrared sensor.
- Time to stop ion blow after sensing a workpiece by a sensor is settable. (1, 3, 5, 10, or 30 sec)
- Adhesive gel collects blown-off dust assuredly.
- Dust on the adhesive gel mat can be washed off with water and the gel mat can be used repeatedly.
- Dust collector is not required; This reduces power consumption significantly and, in the end, the total running cost. Moreover, pulse blow also cuts the amount of air usage.
- In the pulse mode, air is blown intermittently, exerting force of blowing off dust by vibration. It allows low- and high-speed pulses to be selected according to workpiece.
- Incorporates an air regulator.



No. IPC-A3 Ion Parts Cleaner

Ionizing method : Piezoelectric high-frequency AC corona discharge Applied voltage: 10kVAC (p-p)

- Equipped with two ionizing nozzles N-1, blowing air downward from the top side of the hood
- Eliminates static electricity and removes dust with air controlled by an infrared sensor.
- Time to stop ion blow after sensing a workpiece by a sensor is settable. (1, 3, 5, 10, or 30 sec)
- Adhesive gel collects blown-off dust assuredly.
- Dust on the adhesive gel mat can be washed off with water and the gel mat can be used repeatedly.
- Dust collector is not required; This reduces power consumption significantly and, in the end, the total running cost. Moreover, pulse blow also cuts the amount of air usage.
- In the pulse mode, air is blown intermittently, exerting force of blowing off dust by vibration. It allows low- and high-speed pulses to be selected according to workpiece.
- Incorporates an air regulator.



RoHS

Model No.	Power supply	Power consumption (W)	Current consumption (mA)	Dust collection airflow (m ³ /min)	Airflow (l/min)	Weight (kg)	EDP No.
IPC-A4	24VDC±5%	17	700	3.5	150	6	621610

(Noise: 0.3MPa Airflow: 0.3MPa)
 Operating fluid: Clean dry air (0.1 to 0.5MPa), Air supply hose diameter Φ8mm
 Accessories: AC Adapter AD24-IT19E(100~240VAC), AC power cable 1.8m,
 Adhesive gel sheet/plate(attached on the product)(2pcs.)

RoHS

Model No.	Power supply	Power consumption (W)	Current consumption (mA)	Dust collection airflow (m ³ /min)	Airflow (l/min)	Weight (kg)	EDP No.
IPC-A3	24VDC±5%	22	900	1.13	190	9.5	621612

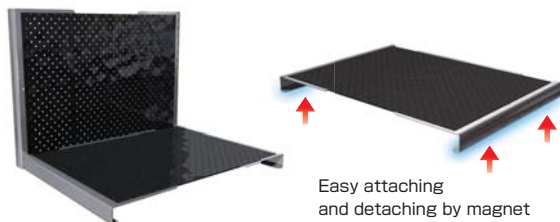
(Noise: 0.3MPa airflow: 0.3MPa)
 Operating fluid: Clean dry air (0.1 to 0.7MPa), Air supply hose diameter Φ10mm
 Accessories: AC Adapter AD24-IT19E(100~240VAC), AC power cable 1.8m,
 Adhesive gel sheet/plate(attached on the product)(2pcs.), Duct flange(For Φ75mm),
 Paper pack filter(6pcs.)

One point

Features of IPC-A4 and -A3

Dust capturing gel sheet for IPC-A4 and -A3

Dust capturing using self-adhesive urethane gel
 Adhesiveness is restored by cleaning such as washing in water.



Easy attaching and detaching by magnet



Paper-pack filter for IPC-A3

A paper-pack filter can be attached to the exhaust port in the back of the cleaner (Standard specifications). Replacement of a flange enables the cleaner to be connected to an exhaust duct of Φ75 mm.



Air regulator equipped

The ion parts cleaners incorporate an air regulator, allowing you to adjust the flow rate of ion air.

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

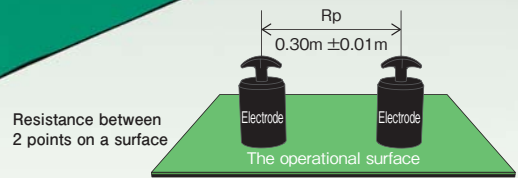
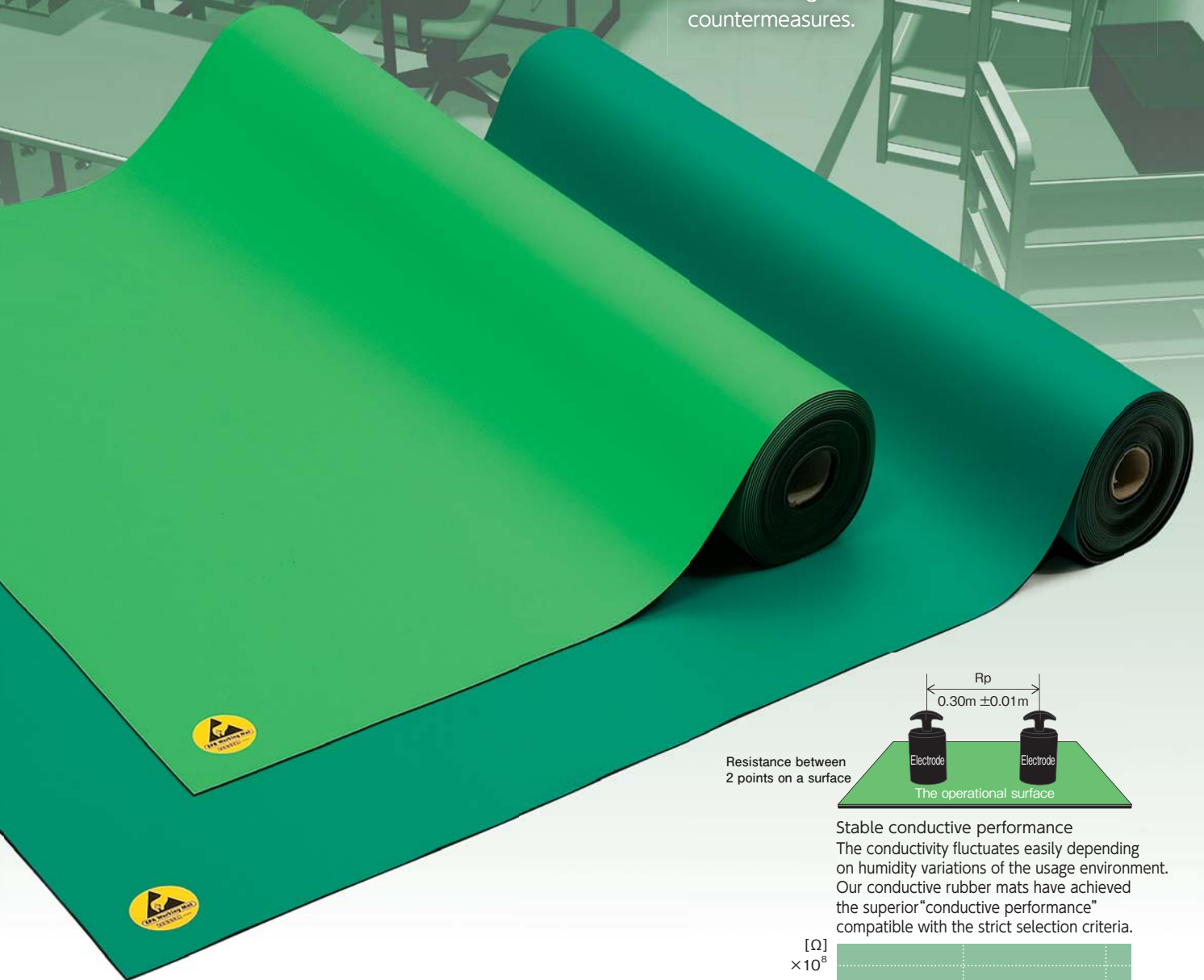
GASOLINE ENGINE TOOLS

No. LG-100/ SG-100

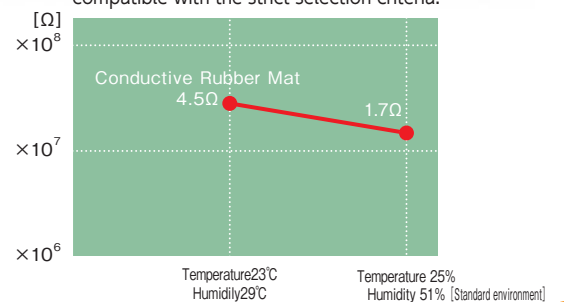
Conductive Rubber Mat



We provide IEC standards-compatible ESD protection items ranging from EPA working mats laid on workbenches, storage racks, and trolley surfaces, EPA flooring for PVC floors or floor coating, and to wrist straps for ESD countermeasures.



Stable conductive performance
The conductivity fluctuates easily depending on humidity variations of the usage environment. Our conductive rubber mats have achieved the superior "conductive performance" compatible with the strict selection criteria.



No. LG-100/ SG-100

Conductive Rubber Mat

Special mats through our unique and strict conductivity standards within 10^7 . They maintain stable conductivity even if humidity and temperature change. Available in two colors: light green and green. A wide choice of accessories such as mat connecting gel and ground taps is also available.

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

EPA Working Mat

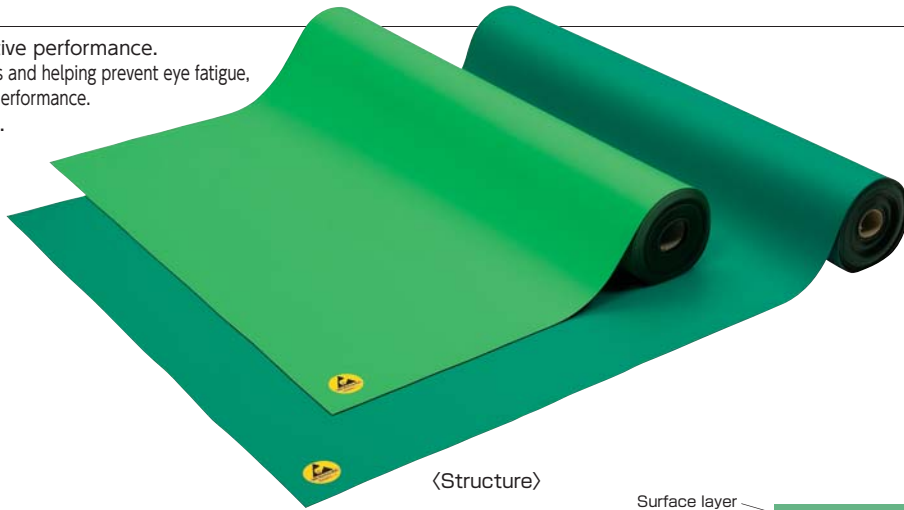
Conductivity $10^6 \leq R \leq 10^7 \Omega$ ※

Work benches-storage shelves-trolley-Wagon, etc.

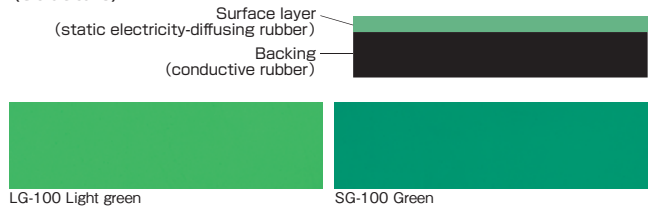
No. LG-100/SG-100 Conductive Rubber Mat

Designed for workbenches that require anti-static measures, such as in the semi-conductors industry, electronic components assembly, and others.
Heat-resistant, ideal for soldering work

- Uniform and consistent conductive performance.
- Matte surface finish, reducing reflections and helping prevent eye fatigue, for the aim at the satisfactory working performance.
- Soft surface that resists bending. (Hardness A type 64)



(Structure)



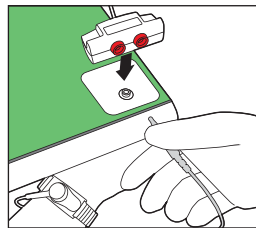
RoHS2

Model No.	Color	Size (Length×Width×Thickness)	Weight	EDP No.
LG-100	Light green	10.0m×1.0m×2.0mm	35kg/roll	621464
SG-100	Green	10.0m×1.0m×2.0mm	35kg/roll	621461

Please contact VESSEL for availability of other colors.
※Resistance value may vary depending on the conditions of the measurement environment such as the temperature and humidity.

No. EPS-GT2 Ground Tap

- Provides ground connection points for anti-static wrist straps and conductive rubber mats.
- Attach the tap to the surface, the lateral or the back side of a workbench when using.



Model No.	Grounding cord (m)	Resistance value	Contents (quantity)	EDP No.
EPS-GT2	Approx. 3.0 (with round jack)	Approx. 1MΩ between device and grounding cord (round jack)	20	621402

Material: Core/ABS plastic Connection hardware /Stainless steel

No. EPC-18 Ground Cord

- Designed to connect to a mat-connecting gel (includes a hook) or grounding tap.



Model No.	Resitance value	Length (m)	Contents (quantity)	EDP No.
EPC-18	1MΩ	Max. length of 1.8m (when contracted 0.5m)	20	621393

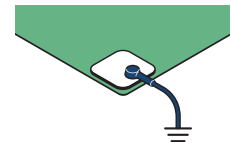
Accessory: 1 alligator clip

No. EPG-01/EPG-02 Mat-connecting gel

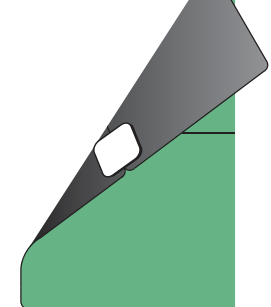
- Made from medical-grade conductive gel.
- No need for grommet; easy to ground and connect multiple mats.



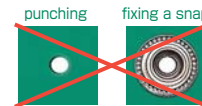
Mat-Connecting Gel (with hook) EPG-01 (set of 2)



Mat-Connecting Gel EPG-02 (set of 2)



No need to make a hole or crimp



Model No.	Product name	Size (mm)	Contents (quantity)	EDP No.
EPG-01	Mat-connecting gel with hook (set of 2)	50×50	20	621481
EPG-02	Mat-connecting gel (set of 2)	50×50	20	621482

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

No. Eye-02 Electrostatic Field Meter

- A hand-held measuring instrument enabling you to measure an invisible electrostatic charge condition or ion balance of the ionizer easily.
- Maximum value (peak value) / pause can be displayed.
- LED cross mark as an index for correct measurement distance.
- Equipped with a female thread for camera screws; using with a tripod or jig enables measurements in stable state. Also provided with a plate for ion balance measurements.
- LCD has backlight and provides a bright, easy-to-see display in low light.
- Provided with a soft housing carrying case.
- Compatible with ISO 9000 traceability. A calibration table and certificate can be issued.



Measurement of charged potential



Ion balance measurement

CE RoHS

Model No.	Measurement range		Measuring distance
	Static charge voltage measuring	Ion Balance voltage measuring	
Eye-02	±0~±1.50kV (LO range) ±1.0~±22.0kV (HI range)	0~±220V	25mm±0.5mm between charged (object and the Eye-02)
Power source	Weight		EDP No.
9V DC (006 battery 1 pce.)	170g: without Ion Balance plate 30g: Ion Balance plate		621603

Accessories: Ion Balance Plate×1, Ground Cord w/alligator clip×1, Carrying Case×1

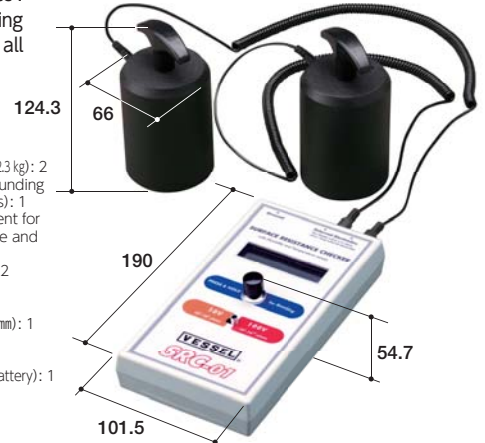
No. SRC-01 Surface Resistance Checker NEW

- Surface resistance checker that facilitates the surface resistance measurement of floor, mat, desk and chair.
- Press and hold the measurement button switch, and the measurement value appears on the display. Automatic power off function is available.
- Voltage can be switched to measure a broad range of resistance values.
- Can measure temperature/humidity at the same time as the surface resistance value.
- Supplied with probes to measure "point-to-point resistance", "resistance to ground" and "volume resistance".
- Comes with a carrying case useful to carry all necessary items for measurement.



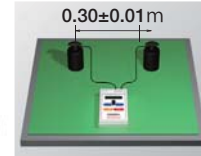
Accessories:

- Probe (outer diameter: about 066mm, about 2.3 kg): 2
- Curled cord for a body grounding (banana plugs at both ends): 1
- Curled cord for measurement for the point-to-point resistance and resistance to ground (banana plug/mono plug): 2
- Crocodile clip: 1
- Large crocodile clip: 1
- Stainless plate (185mm×100mm): 1
- Carrying case: 1
- 9V battery (006P type: manganese dry battery): 1
- Manuals



With a carrying case

Useful to carry all necessary items for measurement



Resistance between 2 points on a surface.



Resistance between a ground and a connecting point by a probe on a surface



Surface resistivity



Volume resistance

CE RoHS

Model No.	Measurement standard	Measurement range	Applied voltage
SRC-01	IEC61340-4-1 JIS-C2170	10 ³ ~10 ¹² Ω (Ω/sq)	10V (R<1.0×10 ⁶ Ω or Ω/sq) 100V (R≥1.0×10 ⁶ Ω or Ω/sq)
Power source	Weight		EDP No.
9V battery (006P type)	Main body: Approx. 340g (including battery) Total weight: Approx. 6.2kg (including carrying case)		621604

※A battery (accessory) is included as a sample. It may be out of use before the estimated number of use with one battery. Replace with a new one in this case.
※Calibration certificate can be issued as option (payable).

EPA Floor Sheet

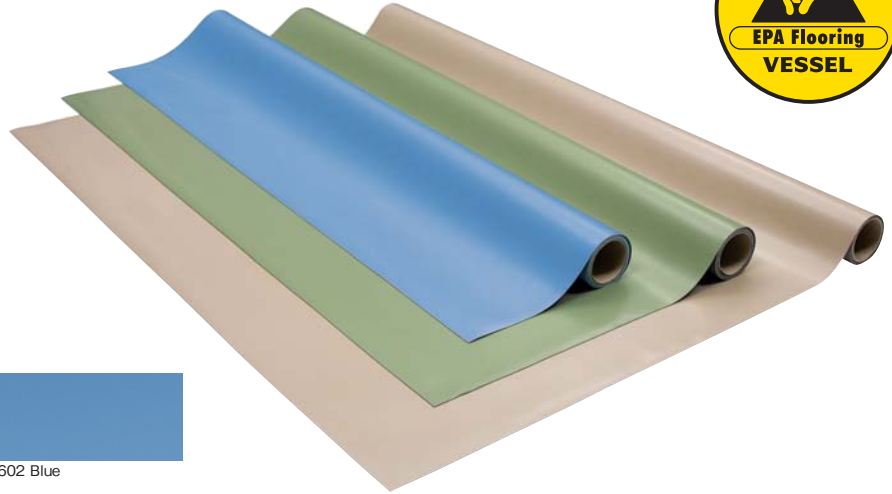
No. CD-134/CD-138/CD-602 Conductive Vinyl Floor Sheet CD-leum

Conductivity $10^6 \sim 10^7 \Omega$ *

Vinyl floor sheet with uniform and consistent anti-static performance. Optimal for locations where static electricity is especially harmful, such as semi-conductor plants and clean rooms.



- Uniform and consistent conductive performance.
- Using a dedicated welding wand, the floor can be laid seamlessly.
- Dust-resistant surface facilitates cleaning and maintenance.
- High level of chemical resistance to acids, alkaline substances, disinfectants, etc.



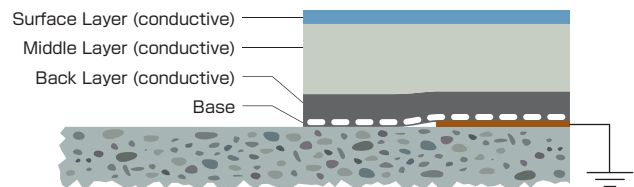
•Optimal for clean rooms in semi-conductor plants, electronics plants, assembly plants, and pharmaceutical plants, or hospitals, sterile rooms., etc.



Model No.	Color	Size (Length×Width×Thickness)	Weight	EDP No.
CD-134	Beige	9.0m×1.82m×2.0mm	3.1kg/m ² 51kg/roll	621492
CD-138	Green			621493
CD-602	Blue			621491

Optional: earth plate/welding wand. If you would like to have colors other than the above, please contact us.
 ※Resistance value may vary depending on the conditions of the measurement environment such as the temperature and humidity.

(Structure)



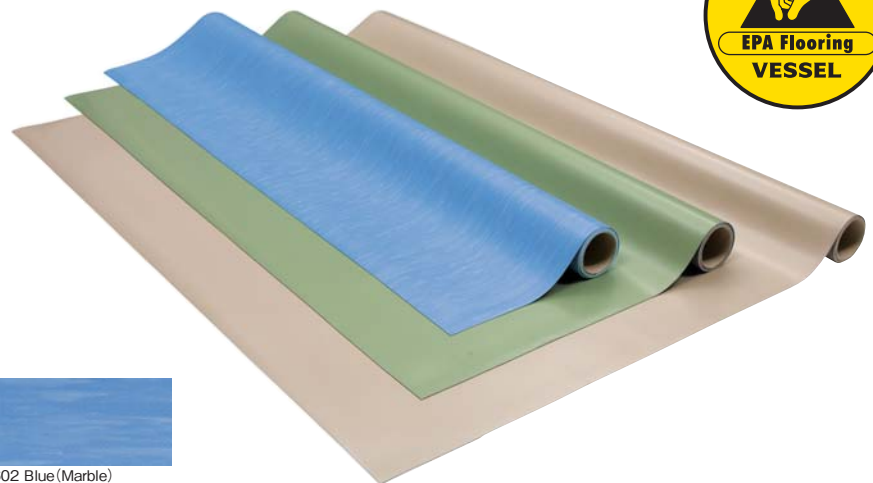
No. LS-134/LS-138/LS-5602 Anti-Static Vinyl Floor Sheet Lonstack

Conductivity $10^8 \Omega$ *

Vinyl floor sheet with uniform and consistent anti-static performance. This prevents static electricity from being generated, resulting in prevention of adhesion of dust and device malfunction.



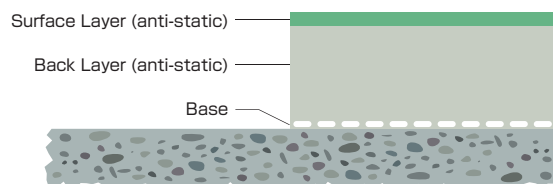
- Uniform and consistent conductive performance.
- Using a dedicated welding wand, the floor can be laid seamlessly.
- Dust-resistant surface facilitates cleaning and maintenance.
- High level of chemical resistance to acids, alkaline substances, disinfectants, etc.



Model No.	Color	Size (Length×Width×Thickness)	Weight	EDP No.
LS-134	Beige	9.0m×1.82m×2.0mm	3.2kg/m ² 52kg/roll	621495
LS-138	Green			621496
LS-5602	Blue(Marble)			621494

Optional: earth plate/welding wand. If you would like to have colors other than the above, please contact us.
 ※Resistance value may vary depending on the conditions of the measurement environment such as the temperature and humidity.

(Structure)



HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

List of EPA Flooring Properties

※All data given in the following table are test values, not value of standard.

Item	CD-leum	Lonstack	Standard	[Standard value]
Dent size (mm)	23°C	0.73		(0.3 or larger)
	45°C	1.18	JIS A5705	(1.5 or smaller)
Remaining dent size (mm)	0.32	0.20	JIS A5705	(25 or smaller)
Change rate of length due to heating (%)	Vertical	-1.40		
	Horizontal	0.30	JIS A5705	(2.0 or smaller)
Thickness reduced by abrasion (mm)	0.06	0.06	Weight 1.0kg, rotate 1000times	
Hardness	[A type]	83		
	[D type]	34		ASTM D2240 value at 15seconds, 20°C
Staining properties	Solution containing sodium hydroxide 2%	◎	◎	JIS A1454, drop 2ml of reagent, leave for 24 hours
	Hydrochloric acid 5%	○	○	◎ indicates no change ○ indicates change in appearance
	Cement paste	◎	◎	[There must be no significant color or luster change and swelling]

Construction [Please note that the construction should be performed by an authorized constructor. Please consult us for more detail, before order.]

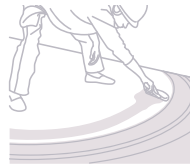
Investigation and analyses

Investigate the current floor conditions (material, cracks, smoothness, surface strength, area and earth connected terminal) and make an estimate. (To the basic price per square meter, expenses for extra work such as crack repair are added).



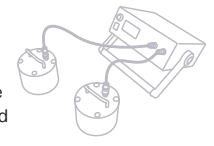
Construction

EPA flooring contractor performs the construction. (Please finish removal of equipment and cure application before construction starts)



Inspection

Within certain period after installation ends, the point-to-point resistance value and resistance value to ground are measured, and a floor installation completion certificate is issued.



Conductivity $R \leq 1.0 \times 10^9 \Omega$

Conductivity $R \leq 1.0 \times 10^9 \Omega$

No. AF-45 Conductive Anti-Fatigue Mat NEW

- Same characteristics as the AF-90.
- Space-saving 600x477mm good for one person.
- Inclined marginal area prevents workers from stumbling or falling.



Fall Prevention
The inclined marginal area prevents workers from stumbling or falling. (AF-45 only)



Air pockets on the back surface distributes the load, to alleviate fatigue.



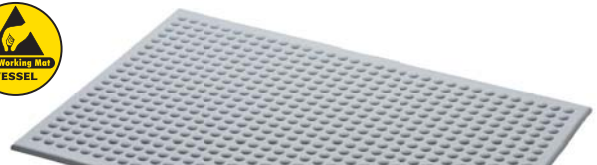
RoHS2

Model No.	Color	Size (mm) (Length×Width×Thickness)	Resistance value	Weight (kg)	EDP No.
AF-45	Gray	600×447×15	$R \leq 1.0 \times 10^9 \Omega$	2.0	621489

※Ground wire is not attached.

No. AF-90 Conductive Anti-Fatigue Mat NEW

- Conductive mat for fatigue alleviation from long standing work.
- Non-slip mat with embossments on the surface.
- Air pockets on the reverse side for spreading the body weight to alleviate fatigue.
- Light gray mat for easy detection of dirt, which may cause the conductive failure.
- 900mm×600mm convenient size for the working stand for cell production.



RoHS2

Model No.	Color	Size (mm) (Length×Width×Thickness)	Resistance value	Weight (kg)	EDP No.
AF-90	Gray	900×600×15	$R \leq 1.0 \times 10^9 \Omega$	4.2	621488

※Ground wire is not attached.

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS

AIR TOOLS

STATIC SOLUTIONS

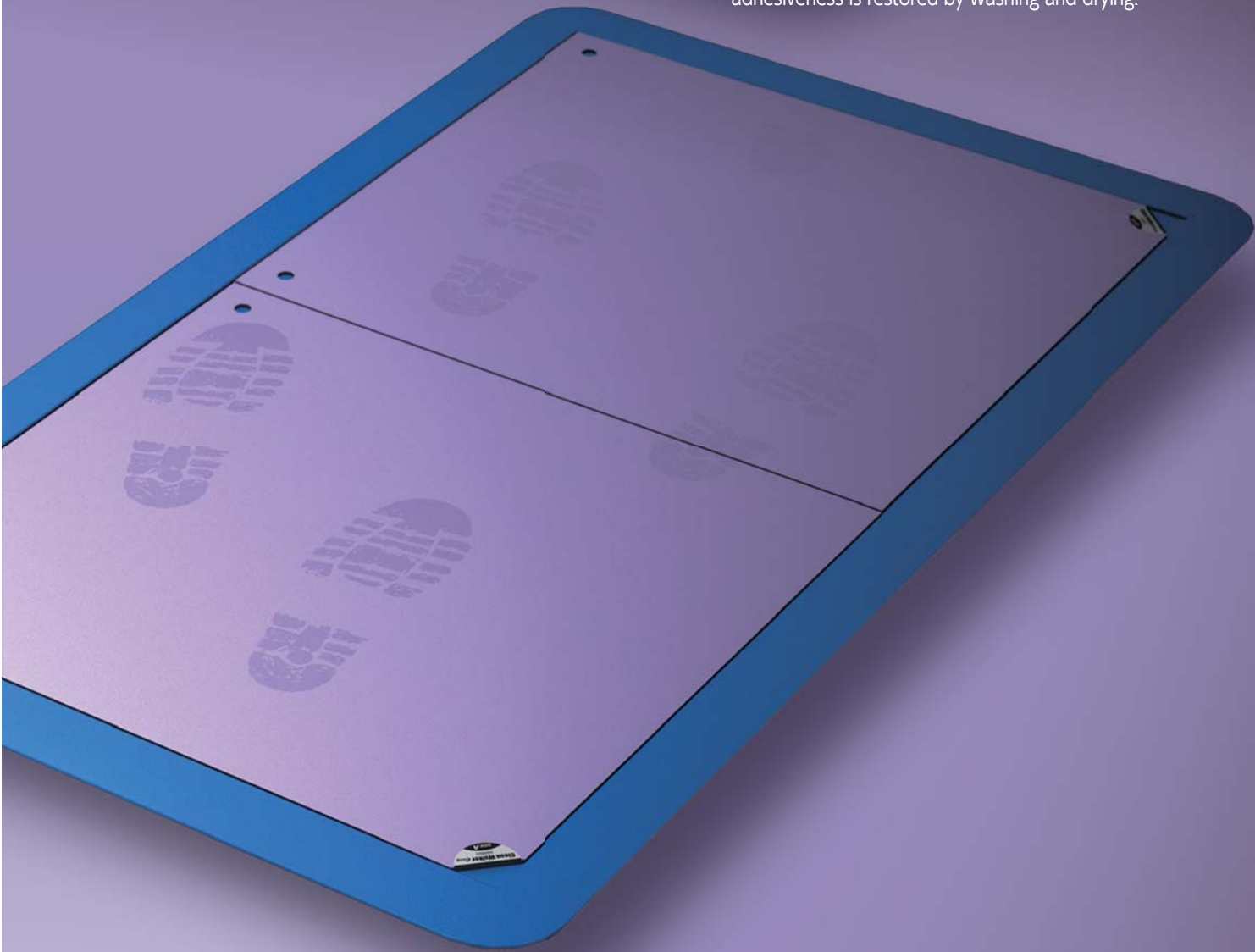
GASOLINE ENGINE TOOLS

No. CW-900EZ

Clean Walker Easy



No more need to peel off films! This is a self-adhesive mat made of high quality urethane gel. Place this mat indoor such as entrance to a clean room, and the dust and dirt adhered to shoes soles or trolley wheels are easily captured. The adhesiveness is restored by washing and drying.



No. CW-900EZ

Clean Walker Easy

This product is a sticky mat that utilizes the self-adherence property of urethane gel. It flexibly changes its shape against dents and projections of shoe soles and wheels of carts, collecting grit and dust well. Dirt can be removed by washing with water.

HAND TOOLS

BITS & SOCKETS

ELECTRIC TOOLS


AIR TOOLS

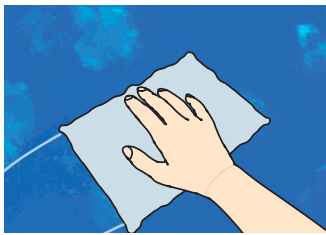
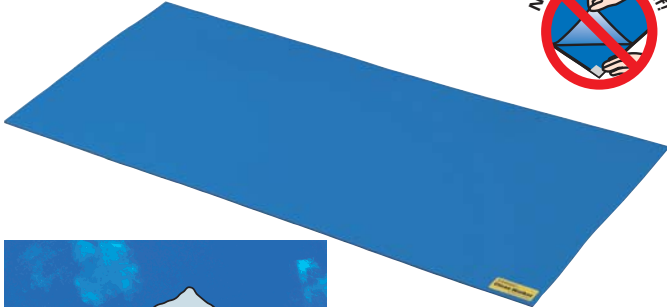
STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

No. CW-900B Clean Walker

For indoor use only (for example, entrance to a clean room).
Urethane gel adheres to shoe soles and catches dusts.

- High elasticity mat of 5 mm thick. Catches dust on shoes soles. 
- Dust adhered on the CW-900B can be easily taken off by wiping with a damp cloth.
- Reversible (both sides can be used); running costs can be reduced.
- Indoor use only (most recommended to use at an entrance to a clean room)




If the surface gets contaminated, simply wipe it with a damp cloth.

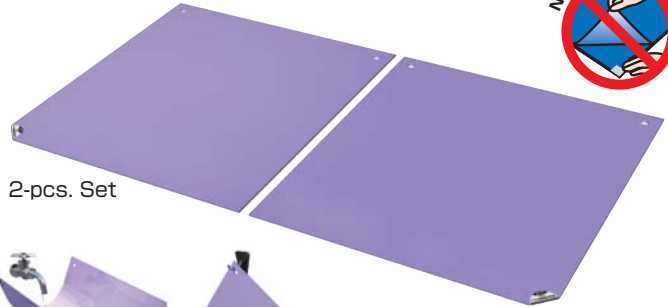
RoHS

Model No.	Color	Conductivity	Size (mm) (Length×Width×Thickness)	Weight (kg)	EDP No.
CW-900B	Blue	Insulator	500×900×5	2.4	621485

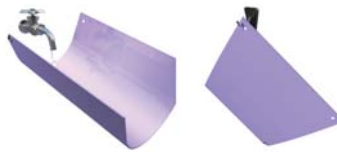
No. CW-900EZ Clean Walker Easy

For dust removal from shoes soles in cleanrooms, entrance to air shower booth, or in a factory. Also good for cleaning of trolley wheels.

- Non-woven textiles are sandwiched by the urethane gel layers. A 3mm thickness, providing high strength and resistant to tears under the pressure of trolleys. It can be stuck together like floor tiles. 
- 2pcs of 450×500mm; Easy to take the mats off the floor and to clean with water.
- Provided with hook holes: hang and leave the mat dry, and the mat restores the adhesiveness.
- Indoor use only (most recommended to use at an entrance to a clean room)



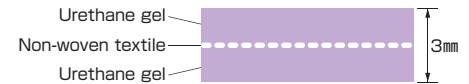
2-pcs. Set



Take the mat out of the floor and wash it with water

Hang from hook holes to dry off

(Structure)




RoHS

Model No.	Color	Conductivity	Size (mm) (Length×Width×Thickness)	Weight (kg)	EDP No.
CW-900EZ	Light purple	Insulator	500×450×3	1.6 (2pcs.)	621486

No. CW-T900 Clean Walker Tray

Inclined tray for easy trolley access. Dedicated to Clean Walker

- Designed to be suitable for the Clean Walker size. 
- The inclination allows trolleys to pass over without being jammed.
- Clean Walker mats can be removed from this tray with a little pulling force.



RoHS

Model No.	Color	Conductivity	Size (mm) (Length×Width×Thickness)	Weight (kg)	EDP No.
CW-T900	Blue	Insulator	600×1000×5	2.45	621487

One point

Clean Walker

It is an adhesive mat that applies the self-adhesive properties of urethane gel. It deforms flexibly along with the unevenness of shoes soles or trolley wheels; dust is reliably captured. Dust and contamination can be washed off with water.



Applications

Ideal for removing dust off shoes soles or cleaning trolley wheels indoor

CW-900B



Air shower booths



Inside the plant

CW-900EZ



Entrance to clean rooms

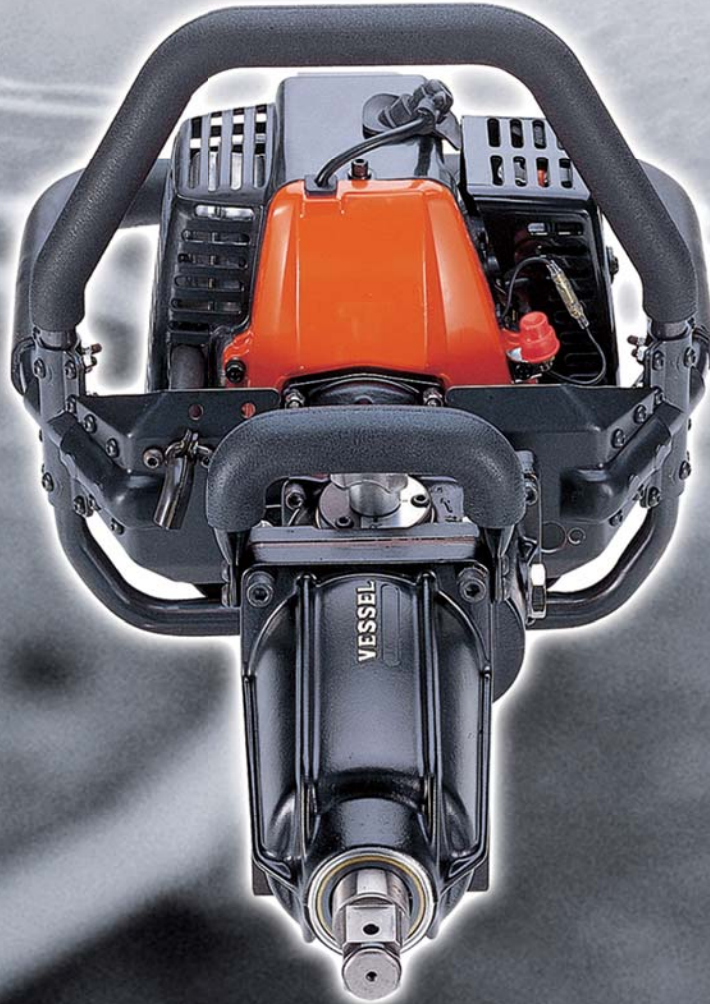


For cleaning trolley wheels

GASOLINE ENGINE SERIES

Outstanding balance characteristics

VESSEL's gasoline engine tools are provided with features to achieve an optimum balance, such as an ergonomically designed body with impact-absorbing grip and a perfectly adjusted hammering mechanism to reduce the backlash to the user's wrists.



No. GT-3500GE Gasoline Engine Impact Wrench



	Type	Two Stroke, Forced, Air Cooled, Single Cylinder
Engine	Displacement	46.5cc, $\phi 43 \times 32$ mm (Inner bore size \times stroke)
	Fuel Tank Capacity	1 liter
	Fuel Mixture Ratio	25:1 (gasoline:2 cycle oil)
	Revolution (idling)	2700 rpm ± 250
	Revolution (loaded, impact)	7120 rpm
	Revolution (non loaded, max)	9880 rpm
Ignition	Type	Electronic
	Spark Plug Type	NGK BPMR6A
Carburetor	Type	Diaphragm
	Square Driver Size	25.4mm (1")
Impact	Fastening Torque Range	1700 N.m (Full Throttle:1255 ft.lbf) 950 N.m (Half Throttle:701 ft.lbf)
	Free Speed	1200 rpm
Capacity	Bolt Diameter	32mm (1 1/4")
Size	W \times L \times H	330 \times 700 \times 390 (mm)
Weight	Without fuel	19.50kg (42.99 lbs)
EDP No.		338510

No. GT-3500GD Impact Wrench in "Yellow Guppy" Carry Case



Size	W450 \times L920 \times H430 (mm)
Weight	25.50kg
EDP No.	338516

※Carry Case alone can be purchased as "3500GD (EDP No.350033)."

"Yellow Guppy" Carry Case

Size	W450 \times L920 \times H430 (mm)
Weight	6kg (13.23 lbs) (Case only)
Model	GT-3500GE, GT-3500GED
EDP No.	350033

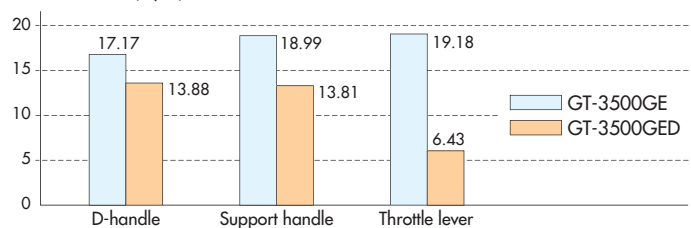
No. GT-3500GED Gasoline Engine Impact Wrench with Damper Unit



Size	W390 \times L680 \times H346 (mm)
Weight	21.3kg (46.96 lbs)
EDP No.	338509

※For more details, refer to the specification table of basic GT-3500 unit above.

Vibration (m/s²)



Driver, Bit and Screw Cross-Reference

HAND TOOLS	Slotted (Reference)		Phillips		Pozi driv		Supadriv		Hex		Ball point		Socket		TORX (Reference)					
	JIS B 1101 JIS B 1135		JIS B 1111 JIS B 1122 JIS B 1112 JIS B 1124 JCS 10-70		JIS B 1176 JIS B 1177		JIS B 1180 JIS B 1181 JIS B 1123		JIS B 1107 JIS B 1128 JIS B 1136 JASO F116-89											
BITS & SOCKETS	Small screw	Wood screw	Small screw	Tapping screw	Wood screw	Drill screw	Hexagon recess drill	Hexagon recess locking screw	Hexagon head bolt	Hexagon nut	Hexagon head tapping screw	Small screw	Tapping screw	TORX recess bolt	TORX recess locking screw					
	e 1.8	1.2(*)																		
	e 2.5	1.6	1.6	1.4	1.6	1.7	2.2(ST)	1.8	—											
	e 3	2	1.8	1.7	2	2.3	2.6													
	e 4	2.2(*)	2.4	2	2.5	2.9(ST)														
	e 4.5	2.5(*)	2.7	2	2.5	2.9(ST)														
	e 5	3	3.1	2.5	3	3.5	3.1													
	e 5.5	(3.5)	3.5	3	3.5	3.8	3.5													
	e 6	(3.5)	3.8	4	4.5	4.8	4.2													
	e 7	4	4.5																	
ELECTRIC TOOLS																				
AIR TOOLS																				
STATIC SOLUTIONS																				
GASOLINE ENGINE TOOLS																				

(*) marked figures are in accordance with old JIS standards. (**) refer to No. 1 for Truss screws. (ST) marked figures are in accordance with JIS standards. W: Refer to the old JIS standards for Whitworth screws. (**S) marked figures are in accordance with old JIS standards for small bolts/nuts.

Guideline for Air Nipper Cutting Capability

For air nipper blades, the cutting capability changes depending on the shape and types of articles to be cut. Use the values in the following table as reference.



Slide-off air nipper blade

Model No.		CapacityΦ			
Body No.	Shape	Soft palastic	Hard Plastic	Copper	Steel
NY03	AJ	2.0	1.3		
NY03	AJL	1.6	1.1		
NY03	AJT	2.0	1.3		
NY03	RAJ	2.0	1.3		
NY05	BJ		2.0	1.6	1.0
NY05	AJ	3.0	2.0		
NY05	AJL	2.8	1.6		
NY05	AJB	3.0	2.0		
NY05	AJT	3.0	2.0		
NY05	AH	3.0	2.0		
NY05	RBJ		2.0	1.6	1.0
NY05	RAJ	3.0	2.0		
NY05	RAH	3.0	2.0		
NY10	AJ	3.5	2.3		
NY10	AJL	3.2	2.1		
NY10	AD	2.3	1.6		
NY10	AJB	3.5	2.3		
NY10	AJT	3.5	2.3		
NY10	AH	3.5	2.3		
NY10	RAJ	3.5	2.3		
NY10	RAH	3.5	2.3		
NY15	AJ	4.0	2.6		
NY15	AJL	3.7	2.3		
NY15	AD	2.6	2.2		
NY15	AJB	4.0	2.6		
NY15	AJT	4.0	2.6		
NY15	AH	4.0	2.6		
NY15	RAJ	4.0	2.6		
NY15	RAH	4.0	2.6		
NY25	AJ	5.0	3.4		
NY25	AJL	4.7	3.0		
NY25	AD	3.3	2.0		
NY25	AJB	5.0	3.4		
NY25	AH	5.0	3.4		
NY25	RAJ	5.0	3.4		
NY25	RAH	5.0	3.4		

For Horizontal-Type
(Normal·Reversed)

Model No.		CapacityΦ			
Body No.	Shape	Soft palastic	Hard Plastic	Copper	Steel
NT03	AJ	1.5	1.0		
NT03	AJT	1.5	1.0		
NT03	AJY	1.5	1.0		
NE5	AJ	2.5	1.5		
NT05	AJ	2.5	1.5		
NT05	AJL	2.0	1.3		
NT05	AJB	2.5	1.5		
NT05	AJT	2.5	1.5		
NT05	AJY	2.5	1.5		
NT05	AD	2.5	1.2		
NT05	AJH	2.5	1.5		
NT05	AJV	2.5	1.5		
NT05	AE	2.5	1.3		
NE10	AJ	3.5	2.3		
NT10	AJ	3.5	2.3		
NT10	AJL	3.0	2.0		
NT10	AJB	3.5	2.3		
NT10	AJT	3.5	2.3		
NT10	AJY	3.5	2.3		
NT10	AD	3.5	2.1		
NT10	AJH	3.5	2.3		
NT10	AJV	3.5	2.3		
NT10	AE	3.5	2.1		
NT20	AJ	5.0	3.4		
NT20	AJL	4.5	3.2		
NT20	AD	5.0	2.0		
NT20	AJB	5.0	3.4		
NT20	AJH	5.0	3.4		

For Vertical-Type
(Normal and Reversed combined)

Air nipper blade

Model No.		CapacityΦ				
Body No.	Shape	Soft palastic	Hard Plastic	Copper	Steel	Piano Wire
N3	AS			1.0	0.5	
N3	HS			1.0	0.5	0.2
N3	AP	2.0				
N3	AE	2.0				
N3	BJ			1.0	0.5	
N5	AS			1.0	0.5	
N5	HS			1.0	0.5	0.3
N5	AP	2.0				
N5	AE	2.0				
N5	BJ			1.0	0.5	
N7	AS			1.6	1.0	
N7	HS			1.6	1.0	0.5
N7	AP	3.0	2.0			
N7	PF	3.0	2.0			
N7	AE	3.0	2.0			
N7	BJ			1.6	1.0	
N10	AS			1.8	1.2	
N10	HS			1.8	1.2	0.5
N10	AP	4.0	2.6			
N10L	AS			1.8	1.2	
N10L	AP	4.0	2.6			
N10L	PF	4.0	2.6			
N12	AS			2.3	1.7	
N12	HS			2.3	1.7	0.6
N12	AP	4.5	4.0			
N20	AS			2.6	2.0	
N20	HS			2.6	2.0	1.0
N20	AG			2.6	2.0	
N20	AP	7.0	5.0			
N20	AJ	7.0	5.0			
N20	AJL	6.0	4.0			
N20	AJB			5.0		
N20	PF	7.0	5.0			
N20	AE	7.0	5.0			
N20	BFB			2.6	2.0	1.2
N20	AH	6.0				
N20	AML	10×1.5	8×1			
N20	AMR	10×1.5	8×1			
N30	AS			3.3	2.8	
N30	BBB			3.3	2.8	1.2
N30	AP	10.0	6.5			
N30	AJ	10.0	6.5			
N30	AJL	8.0	5.0			
N30	PF	10.0	6.5			
N30	AE	10.0	6.5			
N30	ACD	(Bare terminal ^{1.25sq} / _{2.0sq})				
N50	AS			5.5	4.5	
N50	BBB			5.5	4.5	2.0

NM blade

NM20	AJ	7.0	5.0		
NM20	AP	7.0	5.0		
NM20	AE	7.0	5.0		
NM30	AJ	10.0	6.5		
NM30	AP	10.0	6.5		
NM30	AE	10.0	6.5		

For Double Action Air Nipper


NW1	BJ			1.0	0.5
NW10	AJ			4.0	
NW10	BJ			1.8	1.2
NW20	AJ			6.5	
NW20	BJ			2.6	2.0
NW30	AJ			9.5	
NW30	BJ			3.3	2.8

•Steel wire is non-heat treated.

•Piano wire=HV320 or below. The unit of cutting capability of N20AML and N20AMR is(t).

Safety Instructions

Read the instruction manual and observe the safety precautions and warnings.

<p style="writing-mode: vertical-rl; transform: rotate(180deg);">HAND TOOLS</p>	<h2>Hand Tools</h2>  <ul style="list-style-type: none"> • Do not use any tool if cracked, chipped, worn, deformed or otherwise not in perfect working order. • Do not use on live current. Use a driver that fits the screw size. • Do not use drivers as a substitute for chisels, bars or levers. • Wear protective goggles when working.
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">BITS & SOCKETS</p>	<h2>Bits & Sockets</h2>  <ul style="list-style-type: none"> • Do not use any tool if cracked, chipped, worn, deformed or otherwise not in perfect working order. • Do not use on live current. Use bits and sockets of the required size for the target screws, bolts and nuts. • Never drive power tools idly with bits or sockets attached. • Shut off power before mounting or replacing bits. • Wear protective goggles when working.
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">ELECTRIC TOOLS</p>	<h2>Electric Tools</h2>  <ul style="list-style-type: none"> • Do not touch the power plug with wet hands. It incurs the risk of electric shock. • This equipment should not be used in a combustible or flammable environment. • This equipment should not be used in a wet or humid environment or in the presence of solvents or oil, due to the danger of electric shock. • Shut off power before mounting or replacing bits. • Wear protective goggles when working.
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">AIR TOOLS</p>	<h2>Air Tools</h2>  <ul style="list-style-type: none"> • Do not use any tool if cracked, chipped, worn, deformed or otherwise not in perfect working order. • Do not use on live current. Use bits and sockets of the required size for the target screws, bolts and nuts. • Air tools can cause vibration. • Wear ear protection when working. • Wear protective goggles when working.
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">STATIC SOLUTIONS</p>	<h2>Static Solutions</h2>  <ul style="list-style-type: none"> • This equipment should not be disassembled. Conduct maintenance inspections at regular intervals. • This equipment should not be used in a combustible or flammable environment. • This equipment should not be used in a wet or humid environment or in the presence of solvents or oil, due to the danger of electric shock. • The equipment should only be used with a power supply that conforms to specifications. • Do not peer into the air output duct.
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">GASOLINE ENGINE TOOLS</p>	<h2>Gasoline Engine Tools</h2>  <ul style="list-style-type: none"> • In case any crack, chip, or deformation is observed, stop using the unit immediately. • Do not use the unit or fill fuel in presence of flame or spark. • Make sure to use two cycle oil with gasoline at mixture ratio of 1:25. • The unit emit vibration, heat and exhaust fumes. • Always wear eye, head and ear protectors when using this tool.

Model No.	Post page	Model No.	Post page	Model No.	Post page	Model No.	Post page
AD-2	176•177	AMD-4.9	120	AZ162100	92	BH-22H	123
AD-4	174	AMD-5.0	120	AZ162150	92	BH-22HC	123
AF-45	225	AMD-5.2	120	B			
AF-90	225	AMD-5.5	120				
AL14	60	AMD-5.8	120	B06IP	41	BH-23	122
AL142065	92	AMD-6.0	120	B07IP	41	BH-24	122
AMD3S-1	120	AMG14 Φ 2×65H	98	B08IP	41	BH-25	122
AMD3S-2	120	AMG14 Φ 2×110H	98	B09IP	41	BH-261	122
AMD3S-3.5	120	AS14	59	B10IP	41	BH-271	122
AMD6P-3.5	120	AS141065	91	B15IP	41	BH-28	123
AMD-1.0	120	AS142045	91	B33	82	BH-29	122
AMD-1.2	120	AS142065	91	B34	67•78	BH-30	108
AMD-1.5	120	AS142110	91	B35	69•70	BHC-30	108
AMD-1.6	120	AS20P2065F	91	B35 PZ	71	BHW10	165
AMD-1.8	120	AS20P2110F	91	B35 SDV	71	BHX15	41
AMD-2.0	120	AS5P1065F	91	B36	67	BHX20	41
AMD-2.1	120	AS5P2065F	91	B39	71	BHX25	41
AMD-2.2	120	AS5P2110F	91	B39 TW	71	BHX30	41
AMD-2.3	120	ASB-24H	170	B43	68	BHX40	41
AMD-2.4	120	ASB-32	170	B43B	68	BHX50	41
AMD-2.5	120	ASB-32H	170	B43H	68	BMG43 Φ 2×100H	99
AMD-2.6	120	ASC-25-5	170	B43P	68	BPH01	41
AMD-2.7	120	ASC-25-8	171	B44	67•78	BPH02	41
AMD-2.8	120	ASC-50-8	171	B45	72	BPH03	41
AMD-2.9	120	ASF-F-5	170	B-300	27	BT43	69
AMD-3.0	120	ASF-T-5	170	B-330	27	BT43P	69
AMD-3.1	120	AT14	61	B-340TX	28•46	BTX06	41
AMD-3.2	120	AT142065	90	B-370	18•28	BTX07	41
AMD-3.3	120	AT142110	90	B-380NT	28	BTX08	41
AMD-3.4	120	AT14P	61	B-5400BP	19	BTX10	41
AMD-3.5	120	ATD-4	121	B-640TX	10•46	BTX15	41
AMD-3.6	120	ATD-5	121	BB-10	98	BTX20	41
AMD-3.7	120	ATD-6	121	BB-5	98	BW-11	97
AMD-3.8	120	AX142045	92	BBZ-E	213	BW-12	97
AMD-3.9	120	AX142065	92	BH-9	122	BW-13	97
AMD-4.0	120	AX142110	92	BH-11	107	BW-15	97
AMD-4.1	120	AX162065	92	BH-13	107	BW-163	90
AMD-4.2	120	AX162100	92	BH-14	107	BW-164	90
AMD-4.3	120	AZ14	59	BH-15	107	BW-165	90
AMD-4.4	120	AZ142065	92	BH-16	107	BW-172	92
AMD-4.5	120	AZ142110	92	BH-17	107	BW-175	92
AMD-4.6	120	AZ142150	92	BH-19E	122	BW-180	91
AMD-4.7	120	AZ142200	92	BH-20	122	BW-181	91
AMD-4.8	120	AZ162065	92	BH-21	122	BW-182	91
						BW-301	90
						BW-302	90

Model No.	Post page	Model No.	Post page	Model No.	Post page	Model No.	Post page
BW-303	90	CD-602	224	FL-60	165	GT-2000PF	152
BW-305	90	CMD-4	121			GT-2000PL	156
BW-31	95	CMD-5	121	G			
BW-32	111	CW-900B	227	G2-E	213	GT-2500LF	152
BW-33	111	CW-900EZ	227	G7R-E	213	GT-2500PF	152
BW-36	92	CW-T900	227	GA20F101	106	GT-3500GD	229
BW-37	92			GD812082	96	GT-3500GE	229
BW-38	92	D				GT-3500GED	229
BW-39	92	D61	79	GM141065	96	GT-3800LX	152
BW-401	94	D62	79	GM141110	96	GT-3800PX	152
BW-403	94	D71	76	GM141565	96	GT-3900V	151
BW-405	94	D72	76	GM142045	96	GT-3900VL	151
BW-407	94	D73	76-77	GM142065	96	GT-3900VP	151
BW-42	94	D76	77	GM142110	96	GT-4200	156
BW-43	94	D81	62	GM142150	96	GT-4200L	156
BW-44	94	D830082	95	GM142200	96	GT-4200LF	153
BW-45	94	D831045	95	GM142300	96	GT-4200P	156
BW-46	94	D831075	95	GM142500	96	GT-4200PF	153
BW-47	94	D832075	95	GM142665	96	GT-4800VL	151
BW-51	96	D832150	95	GM143065	96	GT-AS10	170
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