

VESSEL

ELECTRIC SCREW DRIVER

VE series MADE IN JAPAN

[Electric Screwdriver Catalog]



**GOOD DESIGN
AWARD 2015**



Stable torque is a key of improvement in operator's performance and quality enhancement.

Torque stability of electric screwdrivers is an important factor, which influences the work quality in assembly and screw-tightening, and thus determines production efficiency and product quality.

VESSEL "VE series" incorporates highly-efficient slotless brushless motor in its heart. Not only the tightening accuracy but also the working and maintenance efficiency can be improved to enhance the performance in the production site.



Slotless/Brushless Characteristics of motor

Point 1

Brushless motor is incorporated; long life and low noise

A brushed motor requires replacement of brushes at regular intervals because the brushes wear out. A brushless motor is free from maintenance since the motor rotation is controlled by an inverter to suppress the abrasion. Also a brushless motor features low annoying sounds and low electrical noises.

Point 2

Slotless structure enables smooth rotation without cogging torque.

Usual brushless motors generate cogging torque (uneven rotation) due to the magnet suction power between the rotor permanent magnet and stator core (iron core). Slotless structure resolves such cogging torque by air core coil not using an iron core.



〈VE-5000〉

Point 3

Less heat generation and stable torque transmission

Heat generation during motor actuation. Normally such heat remains inside the motor and influences the torque and the durability. In the slotless structure, however, coils are placed evenly along the inner periphery of the stator, which enhances radiation performance and suppresses efficiency loss caused by the electrical resistance fluctuation.

Point 4

Circuit design optimizing the motor performance

It is necessary to stabilize the motor rotation at around 15000rpm for the stable output. By driving the motor with an inverter after detecting a position of the rotor magnetic pole with Hall element, the motor rotates smoothly with little vibration and keeps optimal revolution speed.

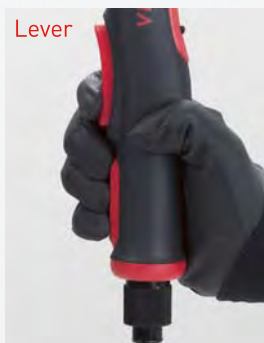
Reliable operation, accurate adjustment, and easy maintenance...
VESSEL's uncompromising approach to the quality is reflected in every design.

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. The VE series is an electric screwdriver for professional use that powerfully supports the production lines.

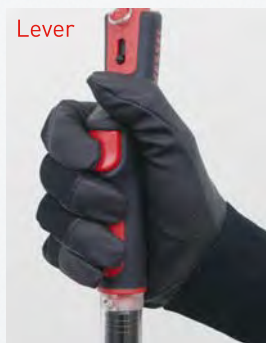
Easy-to-use, anti-fatigue ergonomic design

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 method for vertical driving



A thumb holder assures more stable operation
VE-1500 (EPA), 2000 (EPA)



Push method for horizontal driving



GEL pad on the grip assures a firm hold and absorbs vibration for comfortable operation.

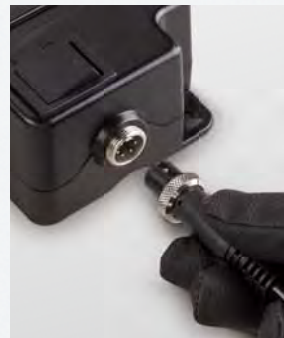
Easy installation and wiring applicable to various working sites

Smooth

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)



Fix onto a pipe of a cell production table

Anti-static model compatible for use with EPA

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



Accurate and secure torque adjustment 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.



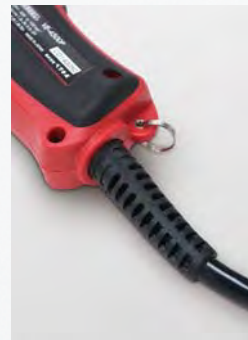
16-step, 5 scale: VE-1500, 2000
16-step, 8 scale: VE-3000, 4000 (P), 4500 (P)
VE-4000 (P) AC, 4500 (P) AC, 5000 (P), 6000 (P)
24-step, 5 scale: VE-1500EPA, 2000EPA



Tamper-proof sleeve is enclosed as an accessory.

Long-life, low-fault design Maintenance free

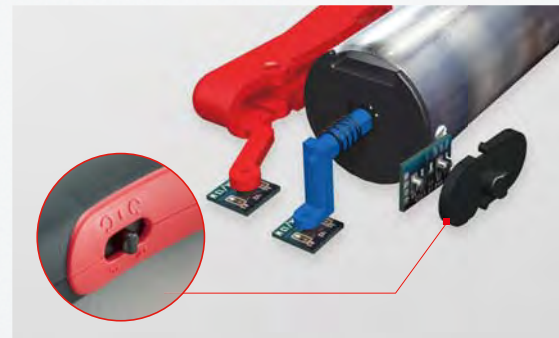
VESSEL electric screwdrivers incorporate a long life brushless motor; no need for replacement for 3 years in normal operating conditions. Brushless motors are not with a carbon brush which requires a regular replacement. In addition, a durable magnet switch is adopted.



Preventing faults caused by disconnection or pulling at cable connector section



Rigid gear clutch



Magnetic switch (non-contact type) reduces part wear and damage

Variety

A full line-up covers from precise/small parts to large devices.

VE-1500

Lever type RoHS
DC Type

VE-2000

Lever type RoHS
DC Type

VE-1500EPA

Lever type RoHS
DC Type

VE-2000EPA

Lever type RoHS
DC Type

VE-3000

Lever type RoHS
DC Type



Model No. (Screwdriver only)	—		VE-1500EPAU	VE-2000EPAU	VE-3000U
EDP No. (Screwdriver only)	—		550108	550109	550103
Model No. (with controller)	VE-1500	VE-2000	VE-1500EPA	VE-2000EPA	VE-3000
EDP No. (with controller)	550001	550002	550201	550202	550003
Output torque range	0.01~0.15N·m	0.06~0.34N·m	0.01~0.15N·m	0.06~0.34N·m	0.15~1.0N·m
Applicable screws	Small screw	M1.0-M1.7	M1.0-M1.7	M1.0-M2.3	M1.6-3.0
	Tapping	1.0-1.5mm	1.0-1.5mm	1.0-2.0mm	1.6-2.6mm
Torque adjustment ring	16-step x 5 scale		24-step x 5 scale		16-stage x 8 scale
No-load rotation speed	HI: 1000min ⁻¹ /LO: 700min ⁻¹		HI: 1000min ⁻¹ /LO: 700min ⁻¹		HI: 1000min ⁻¹ /LO: 700min ⁻¹
Rating	DC12V 15W		DC12V 15W		DC32V 25W
Cable length	2m		2m		2m
Weight	190g		190g		430g
External dimensions	200mm		200mm		222mm
Material	PC + elastomer		Conductive PC + conductive elastomer		PC + elastomer
Package contents	Screwdriver unit, tamperproof sleeve (already attached), two set screws (M3x3), one hexagon wrench (H1.5), one 3P2P conversion adapter, Instruction manual, controller VCT-20, one AC cable (1.8m), one 3P2P conversion adapter		Screwdriver unit, tamperproof sleeve (already attached), two set screws (M3x3), one hexagon wrench (H1.5), one 3P2P conversion adapter, Instruction manual, 3P/6P conversion cord		Screwdriver unit (with power cord), one tamperproof sleeve, two set screws (M3x3), one hexagon wrench (H1.5), Instruction manual
(with controller)			Controller VCT-20, one AC cable (1.8m), one 3P2P conversion adapter		Controller VCT-30, one AC cable (1.8m), one 3P2P conversion adapter
Enclosed bits	D73 +0×1.4×40/+0×1.7×40 one bit each				D73 +0×1.7×40/+1×3×40 one bit each
Applicable VESSEL bits	D73				

Selection

Covering a wide output torque range with all models.

■ Screwdriver Model Selection Table

Model	Output torque range					Applicable screws	
						Small screw	Tapping
VE-1500 VE-1500EPA	0.01~0.15					M1.0-1.7	1.0-1.5 mm
VE-2000 VE-2000EPA	0.06~0.34					M1.0-2.3	1.0-2.0 mm
VE-3000	0.15~1.0					M1.6-3.0	1.6-2.6 mm
VE-4000(AC) VE-4000P(AC)	0.3~1.5					M2.3-4.0	1.6-2.6 mm
VE-4500(AC) VE-4500P(AC)	0.4~1.8					M2.3-4.0	2.3-3.0 mm
VE-5000 VE-5000P	0.6~2.5					M2.6-4.0	2.6-3.5 mm
VE-6000P	1.6~4.5					M3.5-5.0	≤4mm

0 N·m 1.0 N·m 2.0 N·m 3.0 N·m 4.0 N·m 5.0 N·m [Output torque]

VE-4000

Lever type RoHS

DC Type

High-speed revolution

VE-4000P

Push type RoHS

DC Type

High-speed revolution

VE-4500

Lever type RoHS

DC Type

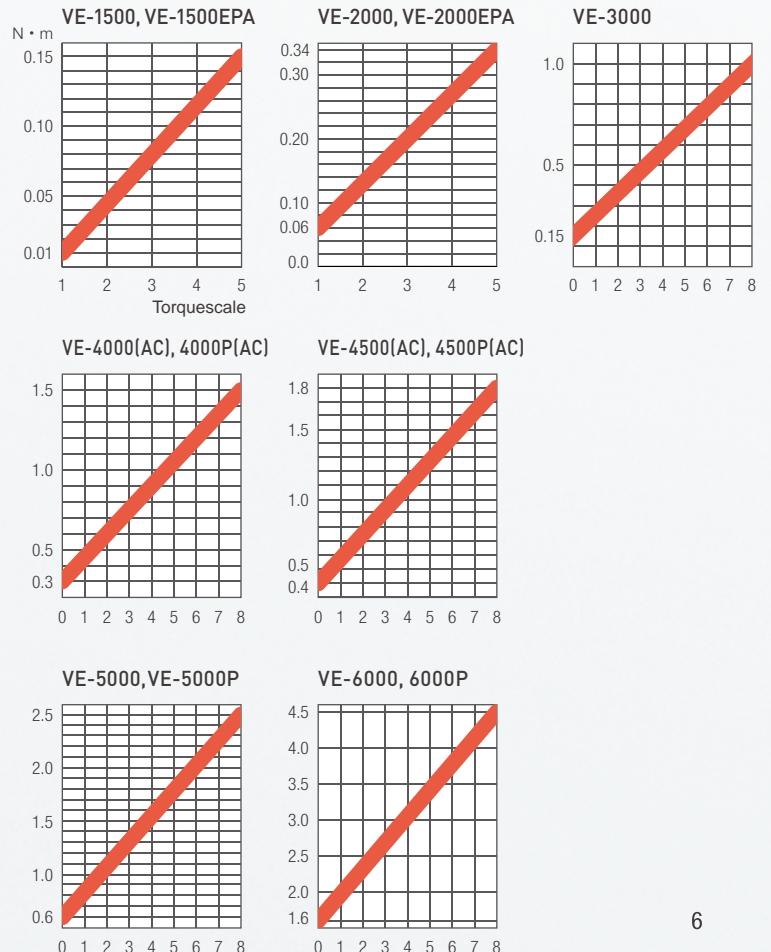
VE-4500P

Push type RoHS

DC Type

■ Guide to Output Torques (at HI input)

Use the scales as a guide.



Model	Part No.	Output Torque Range	Applicable Screws	Speed Scale	Speed (HI/LO)	Power	Length	Weight	Bit Length	Material	Accessories
VE-4000U	550104	0.3~1.5N·m M2.3-4.0 1.6-2.6mm	M2.3-4.0	16-stage x 8 scale	HI: 2000min ⁻¹ (No LO setting)	DC32V 55W	2m	700g	250mm	PC + elastomer	Screwdriver unit (with power cord), one tamperproof sleeve, two set screws (M3x3), one hexagon wrench (H1.5), Instruction manual
VE-4000P	550105										
VE-4500U	550106	0.4~1.8N·m M2.3-4.0 2.3-3.0mm	M2.3-4.0	16-stage x 8 scale	HI: 1000min ⁻¹ /LO: 700min ⁻¹	DC32V 55W	2m	710g	250mm	PC + elastomer	Screwdriver unit (with power cord), one tamperproof sleeve, two set screws (M3x3), one hexagon wrench (H1.5), Instruction manual
VE-4500P	550107										
VE-4000	550004										Controller VCT-45, one AC cable (1.8m), one 3P2P conversion adapter
VE-4000P	550005										Controller VCT-45, one AC cable (1.8m), one 3P2P conversion adapter
VE-4500	550006										Controller VCT-45, one AC cable (1.8m), one 3P2P conversion adapter
VE-4500P	550007										Controller VCT-45, one AC cable (1.8m), one 3P2P conversion adapter

B36 +1×70/+2×70 one bit each

B34 B36

Variety

The AC type is a 100VAC input that requires no controller.



VE-4000AC

Lever type RoHS
AC Type PSE
High-speed revolution

VE-4000PAC

Push type RoHS
AC Type PSE
High-speed revolution

VE-4500AC

Lever type RoHS
AC Type PSE

VE-4500PAC

Push type RoHS
AC Type PSE

VE-5000

Lever type RoHS
AC Type PSE

VE-5000P

Push type RoHS
AC Type PSE






VE-6000

Lever type RoHS
AC Type PSE

VE-6000P

Push type RoHS
AC Type PSE



Model No. (Screwdriver only)	VE-4000AC	VE-4000PAC	VE-4500AC	VE-4500PAC	VE-5000	VE-5000P	VE-6000	VE-6000P
EDP No. (Screwdriver only)	550014	550015	550012	550013	550008	550009	550011	550010
Output torque range	0.3–1.5N·m		0.4–1.8N·m		0.6–2.5N·m		1.6–4.5N·m	
Applicable screws	Small screw M2.3–4.0		M2.3–4.0		M2.6–4.0		M3.5–5.0	
	Tapping 1.6–2.6mm		2.3–3.0mm		2.6–3.5mm		≤4mm	
Torque adjustment ring	16-stage x 8 scale		16-stage x 8 scale		16-stage x 8 scale		16-stage x 8 scale	
No-load rotation speed	2000min ⁻¹		1000min ⁻¹		1000min ⁻¹		1000min ⁻¹	
Rating	AC100V 50/60Hz 40W		AC100V 50/60Hz 40W		AC100V 50/60Hz 90W		AC100V 50/60Hz 120W	
Cable length	2.5m		2.5m		2.5m		2.5m	
Weight	840g(AC cord incl.)		845g(AC cord incl.)		1100g(AC cord incl.)		1100g(AC cord incl.)	
External dimensions	250mm		250mm		290mm		290mm	
Material	PC + elastomer		PC + elastomer		PC + elastomer		PC + elastomer	
Package contents	Screwdriver unit (with AC cord), one tamperproof sleeve, two set screws (M3x3), one hexagon wrench, one 3P2P conversion adapter, Instruction manual		Screwdriver unit (with AC cord), one tamperproof sleeve, two set screws (M3x3), one hexagon wrench, one 3P2P conversion adapter, Instruction manual		Screwdriver unit (with AC cord), one suspension ring, one tamperproof sleeve, two set screws (M3x3), one hexagon wrench, one 3P2P conversion adapter, Instruction manual		Screwdriver unit (with AC cord), one suspension ring, one tamperproof sleeve, two set screws (M3x3), one hexagon wrench, one 3P2P conversion adapter, Instruction manual	
Enclosed bits	B36 +1×70/+2×70 one bit each				MA14 +2×65H two bits			
Applicable VESSEL bits	B34  		B36 		A14 		A16 	

Accessories

DC Type Controller

Compatible models VE-1500(EPA), 2000(EPA), 3000, 4000(P), 4500(P)

Model	VCT-20	VCT-30	VCT-45
Rating	AC100-240V 50/60Hz 31-42VA	AC100-240V 50/60Hz 63-79VA	AC100-240V 50/60Hz 62-78VA
Secondary power	DC9V/12V 1.0A	DC24V/32V 1.0A	DC24V/32V 0.9A
External dimensions	72×170×40mm	72×170×40mm	82×200×55mm
Weight	230g	300g	510g
Applicable standards	PSE	PSE	PSE
Compatible models	VE-1500, 1500EPA VE-2000, 2000EPA	VE-3000	VE-4000, 4000P VE-4500, 4500P
Package contents	Instruction manual, 3P2P conversion adapter, 1.8m AC cable		

VCT-20

EDP No.550301

PSE

VCT-30

EDP No.550302

PSE

VCT-45

EDP No.550303

PSE

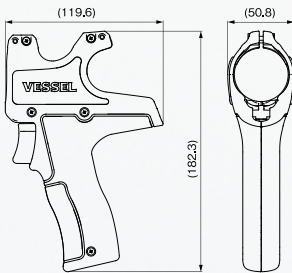


New Pistol Grip

VPG-L EDP No.551038

Compatible models VE-5000,5000P,6000,6000P

Optionally compatible models VE-1500(EPA),2000(EPA),3000,4000(P),4500(P),4000(P)AC,4500(P)AC



Model	VPG-L
Width x depth x height	(119.6)×(50.8)×(182.3)mm
Weight	113g
Material	Polycarbonate
Accessories	Housing upper cover x 1 Housing lower cover x 1 Trigger x 1 Link x 1 Spring x 1 M3 pan-head screw x 5

Increasing workability, and reducing fatigue during screw tightening work

When the piston grip is mounted, the pressing force increases and the screwdriver becomes easier to hold. This reduces the burden applied on the hands.

■ Suspension ring mounting hole

Using the suspension holes provided at two places on the piston grip and one place on the Dendoro body can change the installation angle.



■ Non-tiring trigger

Fatigue during long work is reduced as the entire trigger supports fingers.

The piston grip is available as an option for all models other than the VE-5000 (P) and VE-6000 (P). Contact VESSEL for more information.

New Color Sleeves

Type Available in five colors and four sizes



PINK



RED



GREEN



BLUE



YELLOW

Model	VCS-SS	VCS-S	VCS-M	VCS-L
Compatibility	VE-1500 VE-1500EPA VE-2000 VE-2000EPA	VE-3000	VE-4000(AC) VE-4000P(AC) VE-4500(AC) VE-4500P(AC)	VE-5000 VE-5000P VE-6000 VE-6000P

New Extension Cord(2m)

VE-EC2 EDP No.551036

Compatible models 1500EPA, 2000EPA, 3000, 4000(P), 4500(P)
VCT-20*, VCT-30, VCT-45, VSC-01



*The 3P/6P conversion cord is required to connect to the VCT-20.

Screw Counter

The compact and lightweight body can be installed anywhere.

Screw Counter

VSC-01 EDP No.551002



Compatible models VE-1500EPA, VE-2000EPA, VE-3000, VE-4000(P), VE-4500(P)

Prevent human errors during screw tightening work

Count function



The number of tightened screws is displayed as 0 to 99 on the LCD display.

Channel function



Maximum 5 channels can be preset. This saves time to implement newly the same settings.

Screw tightening time setting



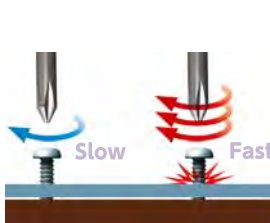
Setting the screw tightening time avoids tightening of wrong screws.

POKA YOKE careless mistake prevention



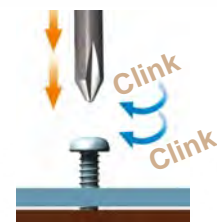
Improved ease-of-use

Slow start function



In the beginning of screw tightening, the electric screwdriver starts operating slowly by reducing the revolution speed to avoid the damages on the screw.

Final tightening function



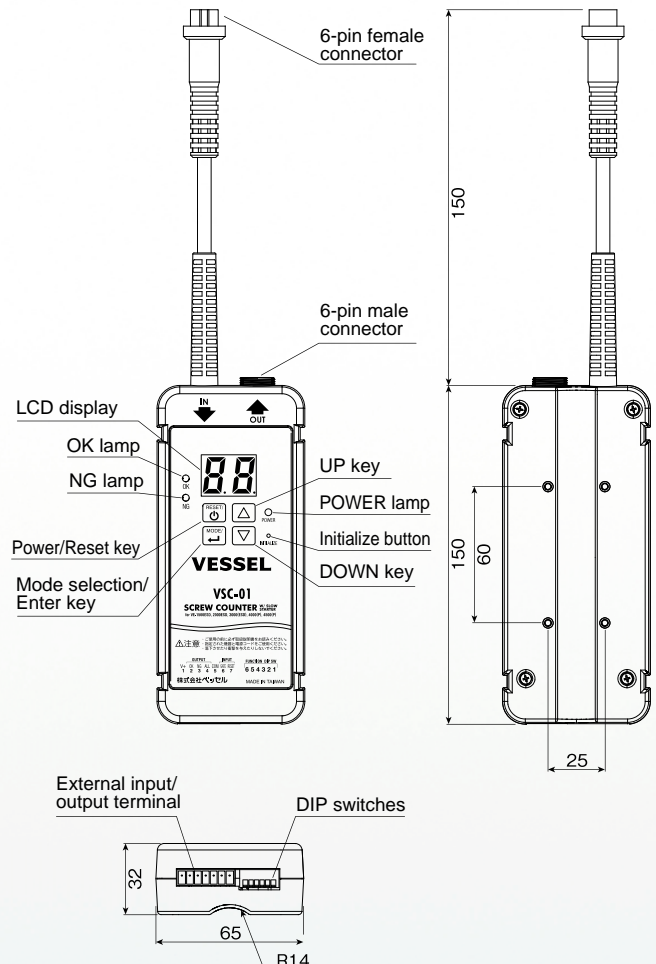
In order to reassure the tightening torque, the electric screwdriver may perform the final tightening. Such torque-up is not counted.

Managing processes by exchanging signals

External input/output

Signals can be input and output from the external input/output terminal to control the process and link with external devices.

Output	VCT-20	HI:DC12V, LO:DC9V
	VCT-30	HI:DC32V, LO:DC24V
	VCT-45	HI:DC32V, LO:DC24V
Channel	5 channels	
Count number	1-99	
Count method	Count up/count down (selective)	
Automatic reset time	0.0-9.9 seconds	
Slow start setting time	0.0-9.9 seconds	
Speed during slow start	30, 35, 40, 45, 50, 60, 65, 70, 80, 85%(10steps)	
Screw tightening time (upper limit time)	0.01-9.90 seconds	
Screw tightening time (lower limit time)	0.01-9.90 seconds	
Connector	Dedicated connector (open collector 7 contacts)	
Dimensions	150×65×32 mm	
Weight	180g	
Working temperature/humidity	0-40°C/ 10-80%RH	
Compatible models	VE-1500EPA, VE-2000EPA, VE-3000, VE-4000, VE-4000P, VE-4500, VE-4500P	



Screw Feeder

Accurately pickup precision small screws and thin-headed screws without fail.

Screw Feeder

VSF-5 EDP No.551001

Compatible screws **M1~M5**

Supporting a variety of screw sizes with one unit

Compatible with a variety of screw sizes

Screw sizes from M1 to M5 x 20 are supported with one unit.

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.



Spare parts

Adjustment procedure movie

Watch a movie showing how to change the screw size.



<http://www.vessel.co.jp/html/info/movie-ve.html>



Model	VSF-5
Input voltage/current	DC15V 0.7A
Compatible screw sizes	Regular screws / tapping screws: M1.0 to M5.0 Screw under head length maximum 20 mm
Screw capacity	200cc
Width x depth x height	126x182x147mm (excluding protrusions)
Weight	2.2kg (excluding accessories)
Working temperature/humidity	0~40° 10~95%RH (with no dew condensation)
Installation place	Limited to indoors

AC adapter	Model : AD15-VSF
	Rated input voltage : AC100-240V(50/60Hz) 0.8A
	Rated output voltage: DC15V 1.5A
	Working temperature/humidity : 0~40°C 10~95%RH (with no dew condensation)
	Cord length : Cord approx. 1.8m
	Weight : 136g

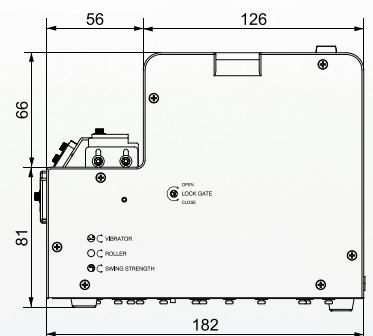
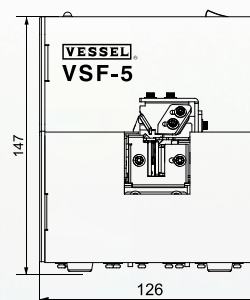
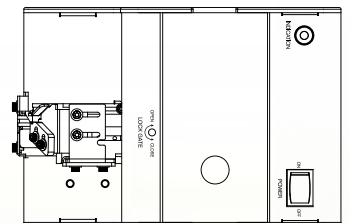
Spare parts	Stopper: For M1.0 to 2.0 ... 1 pc., for M2.3 to 5.0 ... 1 pc.
	Rail width front section adjustment plate (mm): 70 x 90 x t0.8, t1.0, t1.2, t1.5, t2.0 ... one plate each
	Rail width rear section adjustment plate (mm): 20 x 10 x t0.2 ... two plates, 20 x 10 x t0.5 ... ten plates
	L-shape hexagon wrench H2.0 mm x 108 mm, grounding wire, Instruction manual

● Spare parts

SP-VSF EDP No.551071

● AC adapter

AD15-VSF EDP No.551072



Torque Meter

Ensure secure screw tightening with daily torque checks.

Torque Meter VTM-8 / 10 / 100

Realize accurate screw tightening

The torque measurement accuracy is within $\pm 0.5\%$, so the torque can be measured accurately. By setting the upper limit and lower limit values, the acceptability of the measurement results can be judged.

Two measurement mode types

Either the Peak Hold measurement mode suitable for measuring electric screwdrivers, or the Peak Down Hold measurement mode suitable for manual tools can be selected.



Peak Hold mode

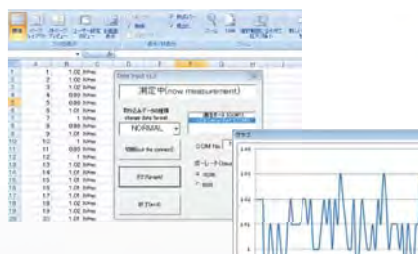


Peak Down Hold mode

Model	VTM-8	VTM-10	VTM-100
EDP No.	551011	551012	551013
Measurement range	0.002-0.8 N·m	0.01-1.0 N·m	0.1-10.0 N·m
Precision *	$\pm 0.5\%$ (± 3 digits below 499 digits)	$\pm 0.5\%$ (± 1 digit below 199 digits)	
Unit measurement	cN·m / mN·m	N·m / cN·m	
Data memory	Data for 800 measurement values		
Data output	ASCII format (baud rate 19200 bps)		
Power supply	Nickel-cadmium battery 1.2V x 5 cells (700 mAh)		
Charging/usage time	Charging approx. 3 hours/max. 12 hours of use		
Battery life	300 or more charges (varies according to the usage state)		
Automatic power OFF	Power OFF if left idle for 10 minutes		
Socket fitting section dimensions	20 x 20 mm / 9.5 x 9.5 mm		
Working temperature/humidity range	Temperature 19°C to 29°C/humidity 48 to 63%RH (with no dew condensation)		
External dimensions	160(W) x 125(D) x 55(H)		
Weight	Approx. 1.0 kg		
Accessories	Torque adapter · VJ-3	Torque adapter · VJ-3 · VJ-10	Torque adapter · VJ-10K · VJ-50
	Four types of H5 mm bit, one each		Four types of H6 mm bit, one each
	AC adapter (input 100 to 240 VAC, 50/60 Hz, 0.3A output 12 VDC, 0.5A)		
	Test Results, Proof of Calibration, Traceability System Diagram		
	Instruction manual		
	Torque adapter usage range (N.m)	VJ-3 : 0.25 or less VJ-10(K) : 0.3-1.0 VJ-50 : 0.5-5.0	

Manage measurement data

The torque measurement accuracy is within $\pm 0.5\%$. The upper and the lower value can be preset for judgement of acceptance.



● Torque adapter

VJ-3	EDP No.551021
VJ-10	EDP No.551022
VJ-10K	EDP No.551023
VJ-50	EDP No.551024



● Measurement bits

H5 mm bits

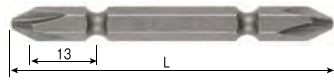
- D73 H5×50
- D76 H5×50
- B34 H5×50
- A16 H5×50

H6 mm bits

- D73 H6×50
- D76 H6×50
- B34 H6×50
- A16 H6×50



Bits Lineup



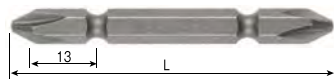
No. A14

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.
⊕ 1× 45	H	10	100
65	H	10	100
65	G	10	100
110	H	10	100
110	G	10	100
⊕ 2× 45	X	10	100
45	H	10	100
45	G	10	100
65	X	10	100
65	H	10	100
65	G	10	100
65	E	10	100
110	X	10	100
110	H	10	100
110	G	10	100
110	E	10	100
150	X	10	100
150	H	10	100
150	G	10	100
150	E	10	100
200	X	10	150
200	H	10	150
200	G	10	150
200	E	10	150
300	G	10	100
⊕ 3× 45	H	10	100
45	E	10	100
65	X	10	100
65	H	10	100
65	E	10	100
110	H	10	100
110	E	10	100



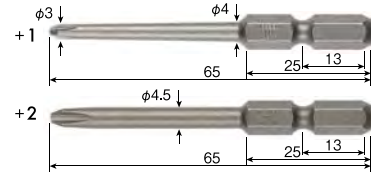
No. M-A14

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.
⊕ 1× 45	H	10	100
65	H	10	100
110	H	10	100
⊕ 2× 45	H	10	100
45	G	10	100
65	H	10	100
65	G	10	100
110	H	10	100
110	G	10	100
150	H	10	100



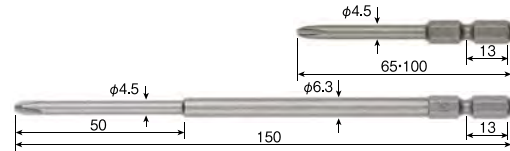
No. A16

Recessed Bit



- Bit with recessed type. Thin shank allows for use in narrow spaces.

Size Tip×Overall Length (mm)	Heat treatment classification	Inner Ctn.	Outer Ctn.
⊕ 1×3 ×65	H	10	100
⊕ 2×4.5×65	H	10	100



No. M-A16

Recessed Bit (Magnetized)



- Stepped type. Thin shank allows for use in narrow spaces.
- Power magnetized

Size Tip×Overall Length (mm)	Heat treatment classification	Inner Ctn.	Outer Ctn.
⊕ 2×4.5×65	H	10	100
100	H	10	100
150	H	10	100



No. A16

Hex Bit



- For assembly work focusing on workability

Size Tip×Overall Length (mm)	Heat treatment classification	Inner Ctn.	Outer Ctn.
H 2×65	H	10	100
110	H	10	100
2.5×65	H	10	100
110	H	10	100
3×65	H	10	100
110	H	10	100
4×65	H	10	100
110	H	10	100
5×65	G	10	100
110	G	10	100
6×65	G	10	100
110	G	10	100

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.

*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.

- Outline for made-to-order bit

Arrangement

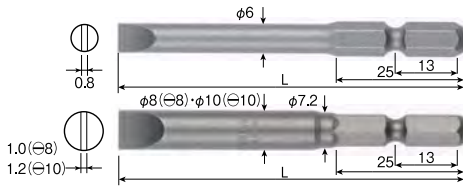
We receive a minimum order of 10 pieces including test samples. Since the more the number of bits ordered, the less the unit price becomes, we recommend you to make a bulk purchase for production.

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.

H 6.35 mm

VE-5000 / 5000P / 6000 / 6000P

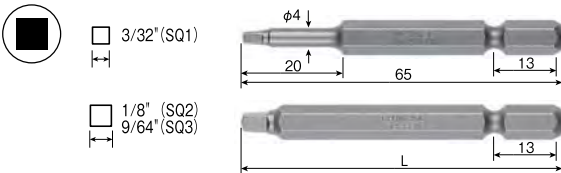


No. A16

Recessed Bit

● For assembly work focusing on workability

Size Tip×Overall Length (mm)	Heat treatment classification	Inner Ctn.	Outer Ctn.
⊖ 6 × 45	G	10	100
70	G	10	100
⊖ 8 × 45	G	10	300
70	G	10	250
⊖ 10 × 52	G	10	200
70	G	10	200

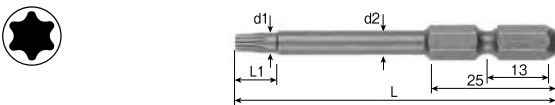


No. A16

Square Bit

● For assembly work focusing on workability

Size Tip×Overall Length (mm)	Heat treatment classification	Inner Ctn.	Outer Ctn.
SQ 1×4× 65	H	10	100
SQ 2× 65	H	10	100
110	H	10	100
150	H	10	100
SQ 3× 65	H	10	100
110	H	10	100
150	H	10	100



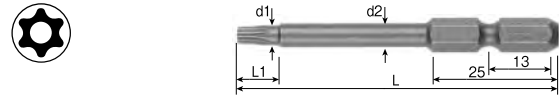
No. V

TORX Bit

● For TORX screws used in the automobile field

Size Tip×Overall Length (mm)	d1 (mm)	L1 (mm)	d2 (mm)	Inner Ctn.
T6 × 65▲	1.65	1.95	6.5	4.0
110▲	1.65	1.95	6.5	4.0
T8 × 65▲	2.3	2.60	7.0	4.5
110▲	2.3	2.60	7.0	4.5
T10× 65	2.72	3.02	7.5	4.5
110	2.72	3.02	7.5	4.5
T15× 65	3.26	3.56	7.5	4.5
110	3.26	3.56	7.5	4.5
T20× 65	3.84	4.14	7.5	5.0
110	3.84	4.14	7.5	5.0
T25× 65	4.4	4.70	8.0	5.0
110	4.4	4.70	8.0	5.0
T27× 65	4.96	5.26	8.0	5.5
110	4.96	5.26	8.0	5.5
T30× 65	5.49	5.79	8.5	6.0
110	5.49	5.79	8.5	6.0
T40× 65	6.6	H6.35	—	H6.35
110	6.6	H6.35	—	H6.35

▲ For the date of delivery, consult VESSEL

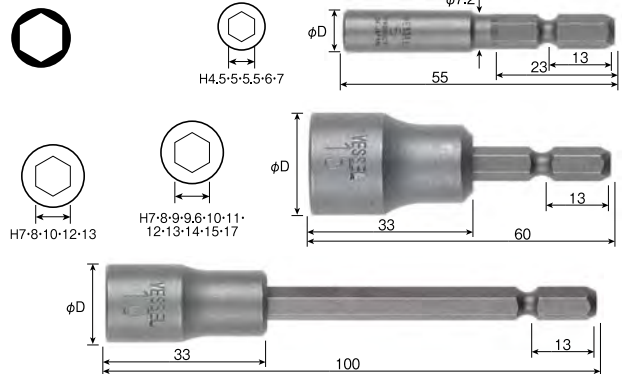


No. V

TORX Bit (Tamper-Proof)

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

Size Tip×Overall Length (mm)	d1 (mm)	L1 (mm)	d2 (mm)	Inner Ctn.
T8H × 65	2.3	2.60	7.0	4.5
110	2.3	2.60	7.0	4.5
T10H× 65	2.72	3.02	7.5	4.5
110	2.72	3.02	7.5	4.5
T15H× 65	3.26	3.56	7.5	4.5
110	3.26	3.56	7.5	4.5
T20H× 65	3.84	4.14	7.5	5.0
110	3.84	4.14	7.5	5.0
T25H× 65	4.4	4.70	8.0	5.0
110	4.4	4.70	8.0	5.0
T27H× 65	4.96	5.26	8.0	5.5
110	4.96	5.26	8.0	5.5
T30H× 65	5.49	5.79	8.5	6.0
110	5.49	5.79	8.5	6.0
T40H× 65	6.6	H6.35	—	H6.35
110	6.6	H6.35	—	H6.35



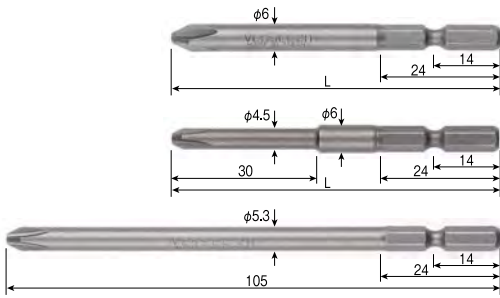
No. A20

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)	phi D (mm)	Drilling holes depth (mm)	Inner Ctn.	Outer Ctn.
A/F 4.5× 55	7.5	20	10	250
5 × 55	8.5	20	10	250
5.5× 55	9	20	10	250
100	9	25	10	250
6 × 55	10	20	10	200
100	10	25	10	200
7×11× 55	11	20	10	200
100	11	25	10	150
7 × 60	☆ 13.5	22	10	200
100	☆ 13.5	25	10	150
8 × 60	☆ 13.5	22	10	200
100	☆ 13.5	22	10	150
9 × 60	☆ 15	22	10	150
9.6× 60	☆ 15	22	10	150
10× 60	☆ 16	22	10	150
100	☆ 16	22	10	100
11 × 60	☆ 17	22	10	150
12 × 60	☆ 18	22	10	100
100	☆ 18	22	10	100
13 × 60	☆ 19	22	10	100
100	☆ 19	22	10	50
14 × 60	☆ 20	22	10	100
15 × 60	☆ 21	22	10	50
17 × 60	☆ 23	22	10	50

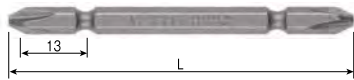
☆...Press-fit type



No. B34 Bit

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

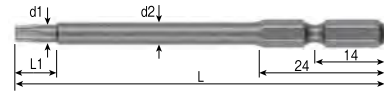
Size Tip×Overall Length (mm)	Heat treatment classification	Inner Ctn.	Outer Ctn.
⊕ 1 × 70	H	10	100
100	H	10	100
150	H	10	100
⊕ 1×4 × 70	H	10	100
⊕ 1×5.3×105	H	10	100
120	X	10	100
120	H	10	100
⊕ 2 × 70	H	10	100
100	H	10	100
120	H	10	100
150	H	10	100
200	H	10	100
⊕ 2×4.5× 70	H	10	100
⊕ 2×5.3×105	H	10	100
120	H	10	100
H 2 × 70	H	10	100
2.5× 70	H	10	100
3 × 70	H	10	100
4 × 70	H	10	100
5 × 70	H	10	100



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.
⊕ 1× 70	H	10	100
100	X	10	100
100	H	10	100
⊕ 2× 70	H	10	100
100	H	10	100
150	H	10	100
200	H	10	100

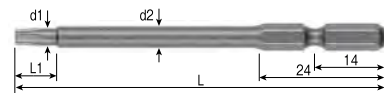


No. N TORX Bit

- For TORX screws popular in the automobile industries

Size Tip×Overall Length (mm)	mm	d1 (mm)	L1 (mm)	d2 (mm)	Inner Ctn.
T5 × 75	1.37	1.67	6.5	4.0	10
100	1.37	1.67	6.5	4.0	10
T6 × 75	1.65	1.95	6.5	4.0	10
100	1.65	1.95	6.5	4.0	10
T8 × 75	2.3	2.60	7.0	4.5	10
100	2.3	2.60	7.0	4.5	10
T10× 75	2.72	3.02	7.5	4.5	10
100	2.72	3.02	7.5	4.5	10
T15× 75	3.26	3.56	7.5	4.5	10
100	3.26	3.56	7.5	4.5	10
T20× 75	3.84	4.14	7.5	5.0	10
100	3.84	4.14	7.5	5.0	10
T25× 75	4.4	4.70	8.0	5.0	10
100	4.4	4.70	8.0	5.0	10
T27× 75	4.96	5.26	8.0	5.5	10
100	4.96	5.26	8.0	5.5	10

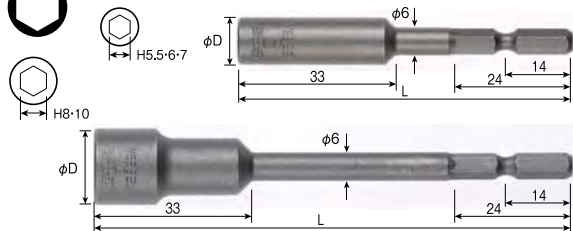
▲ For the date of delivery, consult Vessel.



No. N TORX Bit (Tamper-Proof)

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

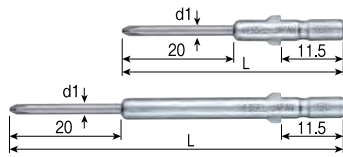
Size Tip×Overall Length (mm)	mm	d1 (mm)	L1 (mm)	d2 (mm)	Inner Ctn.
T10H× 75	2.72	3.02	7.5	4.5	10
100	2.72	3.02	7.5	4.5	10
T15H× 75	3.26	3.56	7.5	4.5	10
100	3.26	3.56	7.5	4.5	10
T20H× 75	3.84	4.14	7.5	5.0	10
100	3.84	4.14	7.5	5.0	10
T25H× 75	4.4	4.70	8.0	5.0	10
100	4.4	4.70	8.0	5.0	10



No. B44 Socket Bit

- Socket Bit for Hex Screw

Size Tip×Overall Length (mm)	φD (mm)	Drilling holes depth (mm)	Inner Ctn.	Outer Ctn.
A/F 5.5× 70	9	25	10	250
100	9	25	10	250
6× 70	10	25	10	200
100	10	25	10	200
7× 70	11	25	10	200
100	11	25	10	150
8× 70	13	25	10	200
100	13	25	10	150
10×100	16	25	10	100



No. DS73

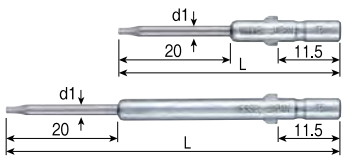
Shockless Bit **NEW**



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

PAT.

Size	d1 (mm)	Inner Ctn.	Outer Ctn.
Tip×Overall Length (mm)			
⊕ 00 ×1.5×40	1.5	10	100
60	1.5	10	100
⊕ 0 ×1.5×40	1.5	10	100
60	1.5	10	100
⊕ 0 ×1.7×40	1.7	10	100
60	1.7	10	100
⊕ 0 ×2.0×40	2.0	10	100
60	2.0	10	100



No. DS73

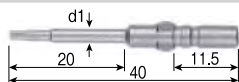
Shockless Bit **NEW**



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

PAT.

Size	mm	d1 (mm)	Inner Ctn.	Outer Ctn.
Tip×Overall Length (mm)				
T5 ×2.0×40	1.37	2.0	10	100
60	1.37	2.0	10	100
T6 ×2.0×40	1.65	2.0	10	100
60	1.65	2.0	10	100



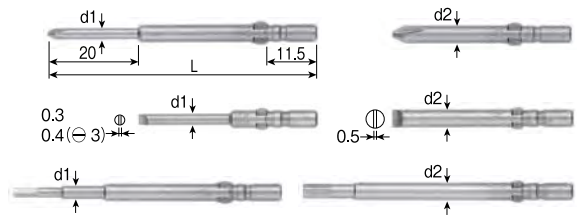
No. D73

TORX Bit



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

Size	mm	d1 (mm)	Inner Ctn.	Outer Ctn.
Tip×Overall Length (mm)				
T1 ×40	0.84	1.5	10	100
T2 ×40	0.94	1.5	10	100
T3 ×40	1.12	1.7	10	100
T4 ×40	1.3	1.8	10	100
T5 ×40	1.37	2.0	10	100
T6 ×40	1.65	2.5	10	100
T7 ×40	1.97	2.5	10	100
T8 ×40	2.3	3.0	10	100
T9 ×40	2.48	3.0	10	100
T10×40	2.72	3.0	10	100



No. D73

Bit



- For fastening small screws for watches glasses and camera.
- Bit tip high-precision-machined to thread standards.

Size	d1 (mm)	d2 (mm)	Inner Ctn.	Outer Ctn.
Tip×Overall Length (mm)				
⊕ 00 ×1.2×20×40	1.2	—	10	100
⊕ 00 ×1.5 ×40	1.5	—	10	100
60	1.5	—	10	100
⊕ 00 ×2 ×40	2.0	—	10	100
60	2.0	—	10	100
⊕ 0 ×1.4×20×40	1.4	—	10	100
60	1.4	—	10	100
⊕ 0 ×1.7 ×40	1.7	—	10	100
60	1.7	—	10	100
⊕ 0 ×2.0×20×40	2.0	—	10	100
60	2.0	—	10	100
80	2.0	—	10	100
100	2.0	—	10	100
⊕ 0 ×2.5 ×40	2.5	—	10	100
60	2.5	—	10	100
⊕ 0 ×2.5×20×80	2.5	—	10	100
100	2.5	—	10	100
⊕ 1 ×3 ×40	3.0	—	10	100
⊕ 1 ×3 ×20×60	3.0	—	10	100
80	3.0	—	10	100
100	3.0	—	10	100
120	3.0	—	10	100
⊕ 1 ×4 ×40	—	4.0	10	100
60	—	4.0	10	100
⊕ 2 ×4 ×40	—	4.0	10	100
60	—	4.0	10	100
80	—	4.0	10	100
100	—	4.0	10	100
120	—	4.0	10	100
⊖ 2 ×0.3 ×40	2.0	—	10	100
⊖ 2.5×0.3 ×40	2.5	—	10	100
⊖ 3 ×0.4 ×40	3.0	—	10	100
⊖ 4 ×0.5 ×40	—	4.0	10	100
A/F 1.5×2 ×60	2.0	—	10	100
A/F 2 ×3 ×60	3.0	—	10	100
A/F 2.5×3 ×60	3.0	—	10	100
A/F 3 ×4 ×60	—	4.0	10	100



Environmental measures

Complies with VESSEL's environmental countermeasure standards that meet the RoHS guidelines.



Magnetized Tip-End

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

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)

X: Possible highest hardness H: High hardness
G: Standard hardness E: Low hardness

Distributed by

VESSEL Co., Inc.

17-25, Fukae-Kita 2-chome, Higashinari-ku, Osaka 537-0001 JAPAN
Tel : +81(0)6 6976 7778 Fax : +81(0)6 6972 9441
E-mail : export@vessel.co.jp URL : http://www.vessel.co.jp/english/

17031651.02