

VESSEL

Electric Screwdrivers

ELECTRIC TOOLS





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ELECTRIC TOOLS

HAND TOOLS

INDUSTRIAL BITS

CONSTRUCTION BITS

RECIPROCATING SAW BLADES

ELECTRIC TOOLS

AIR TOOLS

AIR NIPPERS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS



16-step, 8scale: VE-3000, 4000 (P), 4500 (P), 4000 (P) AC, 4500 (P) AC, 6000P, 4500 (P)-HS4, 5000 (P)-DL5, 6000 (P)-DL5, 5000 (P) R, 6000 (P) R, 5000 (P) RSOP, 6000 (P) RSOP, 5000 (P) S, 5000 (P) SSOP
24-step, 5scale: VE-1500EPA, 2000EPA

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) / PBDE (polybrominated diphenyl ether) / DEHP, BBP, DBP, DIBP (phthalate esters)

The products with this mark in this catalogue are compliant with the RoHS directives (EU) (usage limit of the above 10 substances).

※Note: For the updated information on RoHS compliant products, visit our homepage, because some products or sizes are under investigation or are not compliant at the time of publication of this catalogue.



Easy-to-use, anti-fatigue ergonomic design

The ergonomically designed handle has a shape that fingers naturally fit at the lever position when the handle is gripped, a soft gel pad that absorbs vibration, and a non-slip surface finish, etc.



Lever

Lever method for vertical driving.



Lever

A thumb holder assures more stable operation. (1500EPA, 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.



Anti-static model suitable for use in the ESD protected area (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

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.

Fix onto a pipe of a cell production table



External controller capable of HI or LOW selection



Easy cord connection (DC type)

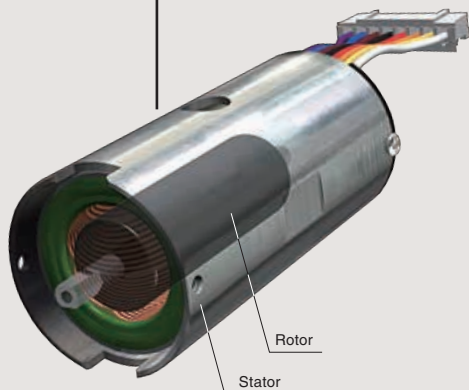


SOP type: Equipped with signal output function. Can connect to the counter and the PLC.



Long-life, low-fault design Maintenance free

VESSEL electric screwdrivers incorporate a long life brushless motor; no need for replacement for 3 years (according to our tests). Brushless motors are not with a carbon brush which requires a regular replacement. In addition, a durable magnet switch is adopted.



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.



Magnetic switch (non-contact) is used to reduce wear and damage.

VE

Electric Screwdrivers

**Quality
from your hand.**

The ergonomic design reduces the burden on the operator when tightening screws in continuous assembly processes. The maintenance-free design ensures smooth installation, precise torque adjustment, and long and stable use. The VE series supports production sites strongly as a professional-use electric screwdriver.



**VE-4000
Electric Screwdrivers**

High performance, slot-less and brush-less motor is used in the heart of the electric screwdriver. Improves not only the tightening accuracy but also the efficiency and the ease of maintenance, to enhance the performance of production sites.



**GOOD DESIGN
AWARD 2015**



VE series
MADE IN JAPAN

Subject to conditions for the warranty.
Please contact us for details.

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Electric Screwdrivers (DC Type)

- 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-3000

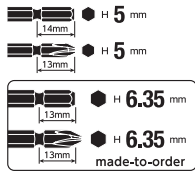


Lever type DC Type 16-step X8scales RoHS



Grip ϕ 31.4mm

VE-4000

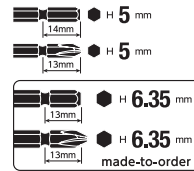


Lever type DC Type High-speed revolution 16-step X8scales RoHS



Grip ϕ 37mm

VE-4000P

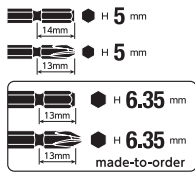


Push type DC Type High-speed revolution 16-step X8scales RoHS



Grip ϕ 37mm

VE-4500

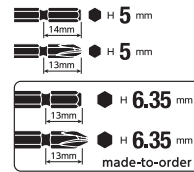


Lever type DC Type 16-step X8scales RoHS



Grip ϕ 37mm

VE-4500P



Push type DC Type 16-step X8scales RoHS



Grip ϕ 37mm

Code No.	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)	Accessory (Bit)	Accessory (Controller)	JAN (4907587)
550003	VE-3000	0.15~1.0	M2.0~3.0	1.6~2.6	HI 1000/LO 700	32VDC 25W	222	430	D73 ϕ 0 \times 1.7 \times 40...1/ ϕ 1 \times 3 \times 40...1	VCT-30	311030
550103	VE-3000U									-	311344
550004	VE-4000	0.3~1.5	M2.5~4.0	1.6~2.6	HI 2000/No LO setting	32VDC 55W	250	700	B36 ϕ 1 \times 70...1/ ϕ 2 \times 70...1	VCT-45	311047
550104	VE-4000U									-	311351
550005	VE-4000P	0.3~1.5	M2.5~4.0	1.6~2.6	HI 2000/No LO setting	32VDC 55W	250	700	B36 ϕ 1 \times 70...1/ ϕ 2 \times 70...1	VCT-45	311054
550105	VE-4000PU									-	311412
550006	VE-4500	0.4~1.8	M3.0~4.0	2.3~3.0	HI 1000/LO 700	32VDC 55W	250	710	B36 ϕ 1 \times 70...1/ ϕ 2 \times 70...1	VCT-45	311061
550106	VE-4500U									-	311368
550007	VE-4500P	0.4~1.8	M3.0~4.0	2.3~3.0	HI 1000/LO 700	32VDC 55W	250	710	B36 ϕ 1 \times 70...1/ ϕ 2 \times 70...1	VCT-45	311078
550107	VE-4500PU									-	311375

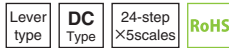
*Common accessories for products with controllers: 1 tamper-proof sleeve, 2 set screws (M3 \times 3), 1 hexagonal wrench (H1.5), 1 AC cable (1.8 m), 1 3P2P conversion adapter, user manual
Material: PC+elastomer

*Common accessories for products without controllers: 1 tamper-proof sleeve, 2 set screws (M3 \times 3), 1 hexagonal wrench (H1.5), user manual Material: PC + elastomer

Electric Screwdrivers(DC Type)

● 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.

VE-1500EPA



Grip φ28.5mm

ONE POINT

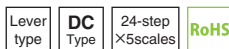
Conductive resin body

Anti-static resin is used for the body, switch lever and sleeve. Prevents static electricity from damaging the assembled items. Resistance : 10⁵ to 10¹⁰ Ω or smaller



VE-1500EPA
VE-2000EPA

VE-2000EPA



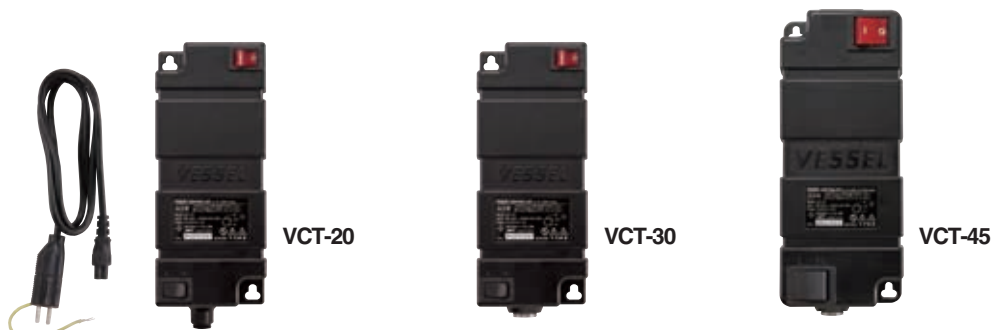
Grip φ28.5mm

Code No.	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)	Accessory (Bit)	Accessory (Controller)	JAN (4907587)
550201	VE-1500EPA	0.01~0.15	M1.0~1.7	1.0~1.5	HI: 1000/ LO: 700	12VDC 15W	200	190	D73 φ0×1.4×40...1	VCT-20	311115
550108	VE-1500EPAU								D73 φ0×1.7×40...1	-	311320
550202	VE-2000EPA	0.06~0.34	M1.0~2.3	1.0~2.0	HI: 1000/ LO: 700	12VDC 15W	200	190	D73 φ0×1.4×40...1	VCT-20	311122
550109	VE-2000EPAU								D73 φ0×1.7×40...1	-	311337

※Common accessories for products with controller: 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 controller: 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

Controller for DC Type

- 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.



Code No.	Model No.	Rating	Secondary power	Dimensions (mm)	Weight (g)	Compatible models	Package contents	JAN (4907587)
550301	VCT-20	100~240VAC 50/60Hz 31~42VA	HI: 12VDC/ LO: 9VDC 1.0A	72×170×40	230	VE-1500, 1500EPA, 2000EPA	AC cable(1.8m)···1, 3P2P conversion adapter···1	311290
550302	VCT-30	100~240VAC 50/60Hz 63~79VA	HI: 32VDC/ LO: 24VDC 0.9A	72×170×40	300	VE-3000	AC cable(1.8m)···1, 3P2P conversion adapter···1	311306
550303	VCT-45	100~240VAC 50/60Hz 62~78VA	HI: 32VDC/ LO: 24VDC 1.0A	82×200×55	510	VE-4000,4000P, 4500,4500P, 4500-HS4, 4500P-HS4	AC cable(1.8m)···1, 3P2P conversion adapter···1	311313

HAND TOOLS

INDUSTRIAL BITS

CONSTRUCTION BITS

RECIPROCATING SAW BLADES

ELECTRIC TOOLS

AIR TOOLS

AIR NIPPERS

STATIC SOLUTIONS

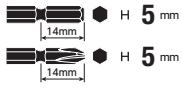
GASOLINE ENGINE TOOLS

Electric Screwdrivers (AC Type)

- 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.

VE-4000AC

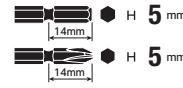
Lever type AC Type 16-step X8scales RoHS



Grip ϕ 37mm

VE-4000PAC

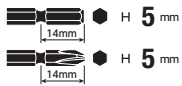
Push type AC Type 16-step X8scales RoHS



Grip ϕ 37mm

VE-4500AC

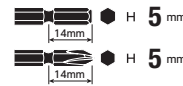
Lever type AC Type 16-step X8scales RoHS



Grip ϕ 37mm

VE-4500PAC

Push type AC Type 16-step X8scales RoHS



Grip ϕ 37mm



The AC type works with 100VAC input. Controller is not needed.

Code No.	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)	Accessory (Bit)	JAN (4907587)
550014	VE-4000AC	0.3~1.5	M2.5~4.0	1.6~2.6	2000	100VAC 50/60Hz 40W	250	840	B36 \oplus 1×70···1	311429
550015	VE-4000PAC								B36 \oplus 2×70···1	311436
550012	VE-4500AC	0.4~1.8	M3.0~4.0	2.3~3.0	1000	100VAC 50/60Hz 40W	250	845	B36 \oplus 1×70···1	311382
550013	VE-4500PAC								B36 \oplus 2×70···1	311399

※<VE-4000(P)AC, VE-4500(P)AC> Common accessories: Tamper-proof sleeve x 1, Set screw (M3×3) x 2, Hex wrench (H1.5) x 1, 3P2P conversion adapter x 1, Instruction manual
Material: PC+Elastomer

HAND TOOLS

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ELECTRIC TOOLS

AIR TOOLS

AIR NIPPERS

STATIC SOLUTIONS

GASOLINE ENGINE TOOLS

Electric Screwdrivers (AC Type)(High Speed Type)

- 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(2.5m) integrated type without a connector on the main body.

VE-5000R

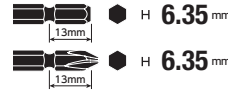
Lever type AC Type 16-step X8scales RoHS



Grip φ40mm

VE-5000PR

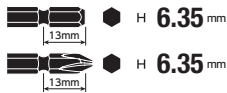
Push type AC Type 16-step X8scales RoHS



Grip φ40mm

VE-5000S

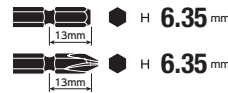
Lever type AC Type 16-step X8scales RoHS



Grip φ40mm

VE-5000PS

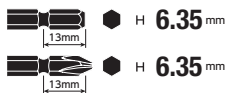
Push type AC Type 16-step X8scales RoHS



Grip φ40mm

VE-6000R

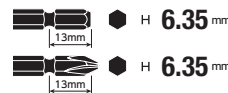
Lever type AC Type 16-step X8scales RoHS



Grip φ40mm

VE-6000PR

Push type AC Type 16-step X8scales RoHS



Grip φ40mm



The AC type works with 100VAC input. Controller is not needed.

Code No.	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)	Accessory (Bit)	JAN (4907587)
550028	VE-5000R	0.6~2.5	M3.0~4.0	2.6~3.5	1200	100VAC 50/60Hz 120W	290	1100	M-A14 Φ2×65H···2	008534
550029	VE-5000PR									008541
550036	VE-5000S	0.6~2.5	M3.0~4.0	2.6~3.5	2000	100VAC 50/60Hz 150W	290	1100	M-A14 Φ2×65H···2	010681
550037	VE-5000PS									010698
550030	VE-6000R	1.6~4.5	M4.0~5.0	≤4	1200	100VAC 50/60Hz 135W	290	1100	M-A14 Φ2×65H···2	008558
550031	VE-6000PR									008565

※Common accessories: Suspension ring x 1, Tamper-proof sleeve x 1, Set screw (M3×3) x 2, Hex wrench(H1.5) x 1, 3P2P conversion adapter x 1, Instruction manual

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Electric Screwdrivers(DC·AC Type)

- 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(2.5m) integrated type without a connector on the main body.

VE-4500-HS4

Lever type DC Type 16-step X8scales RoHS



Grip ϕ 37mm

VE-4500P-HS4

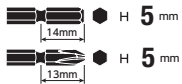
Push type DC Type 16-step X8scales RoHS



Grip ϕ 37mm

VE-5000-DL5

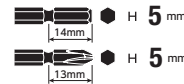
Lever type AC Type 16-step X8scales RoHS



Grip ϕ 40mm

VE-5000P-DL5

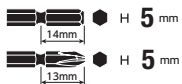
Push type AC Type 16-step X8scales RoHS



Grip ϕ 40mm

VE-6000-DL5

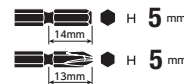
Lever type AC Type 16-step X8scales RoHS



Grip ϕ 40mm

VE-6000P-DL5

Push type AC Type 16-step X8scales RoHS



Grip ϕ 40mm

ONE POINT

VE-4500HS4 / PHS4

DC type electric screwdriver that ϕ 4mm bit can be used with.



VE-5000DL5 / PDL5 | VE-6000DL5 / PDL5

AC type electric screwdriver that H5mm bit can be used with.



※B36 ϕ 1 bit cannot be used.



The AC type works with 100VAC input. Controller is not needed.

Code No.	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)	Accessory (Bit)	Accessory (Controller)	JAN (4907587)
550020	VE-4500-HS4	0.4~1.8	M3.0~4.0	2.3~3.0	Hi 1000 Lo 700	32VDC 55W	250	710	D73 ϕ 1×40...1 D73 ϕ 2×40...1	VCT-45	007148
550021	VE-4500P-HS4										007155
550022	VE-5000-DL5	0.6~2.5	M3.0~4.0	2.6~3.5	1000	100VAC 50/60Hz 90W	290	1100	B36 ϕ 2×70...2	—	007162
550023	VE-5000P-DL5										007179
550024	VE-6000-DL5	1.6~4.5	M4.0~5.0	≤4	1000	100VAC 50/60Hz 120W	290	1100	B36 ϕ 2×70...2	—	007186
550025	VE-6000P-DL5										007193

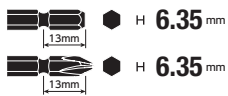
※<VE-4500(P)-HS4> Common accessories: Tamper-proof sleeve x 1, Set screw(M3×3) x 2, Hex wrench(H1.5) x 1, AC cable(1.8m) x 1, 3P2P conversion adapter x 1, Instruction manual

※<VE-6000(P)-DL5> Common accessories: Suspension ring x 1, Tamper-proof sleeve x 1, Set screw(M3×3) x 2, Hex wrench(H1.5) x 1, 3P2P conversion adapter x 1, Instruction manual
Material: PC+Elastomer

Electric Screwdrivers (AC Type)(w/Signal Output Function)

- Provided with 3 types of output signals and 1 type of input signal to control external device (PLC).
- 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(2.5m) integrated type without a connector on the main body.

VE-5000RSOP

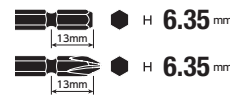


Lever type AC Type 16-step X8scales Output signal RoHS



Grip ϕ 40mm

VE-5000PRSOP

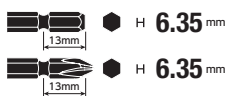


Push type AC Type 16-step X8scales Output signal RoHS



Grip ϕ 40mm

VE-5000SSOP

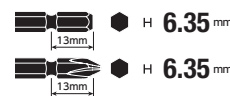


Lever type AC Type 16-step X8scales Output signal RoHS



Grip ϕ 40mm

VE-5000PSSOP

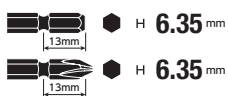


Push type AC Type 16-step X8scales Output signal RoHS



Grip ϕ 40mm

VE-6000RSOP

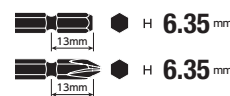


Lever type AC Type 16-step X8scales Output signal RoHS



Grip ϕ 40mm

VE-6000PRSOP



Push type AC Type 16-step X8scales Output signal RoHS



Grip ϕ 40mm



The AC type works with 100VAC input. Controller is not needed.

Code No.	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)	Accessory (Bit)	JAN (4907587)
550032	VE-5000RSOP	0.6~2.5	M3.0~4.0	2.6~3.5	1200	100VAC 50/ 60Hz 120W	290	1200	M-A14 \oplus 2 \times 65H...2	008572
550033	VE-5000PRSOP									008589
550038	VE-5000SSOP	0.6~2.5	M3.0~4.0	2.6~3.5	2000	100VAC 50/ 60Hz 150W	290	1200	M-A14 \oplus 2 \times 65H...2	011558
550039	VE-5000PSSOP									011565
550034	VE-6000RSOP	1.6~4.5	M4.0~5.0	\leq 4	1200	100VAC 50/ 60Hz 135W	290	1200	M-A14 \oplus 2 \times 65H...2	008596
550035	VE-6000PRSOP									008602

*Weight includes cords. *Common accessories: Suspension ring x 1, Tamper-proof sleeve x 1, Set screw(M3X3) x 2, Hex wrench(H1.5) x 1, 3P2P conversion adapter x 1, Instruction manual

ONE POINT

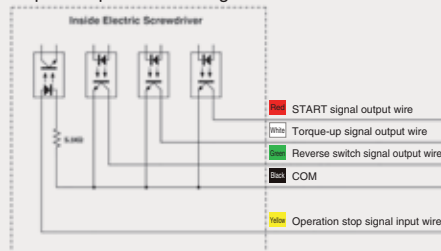
SOP series

Electric Screwdriver (w/Signal Output Function)

Provided with wires for 3 types of output signals and 1 type of input signal for external device (PLC) control.



(Input/Output Circuit Diagram)



(Detail of Cables)

Output signal cables	
Color of lead wire	Function
Red	START signal output
White	Torque-up signal output
Green	Reverse switch signal output
Black	COM

Input signal cables	
Color of lead wire	Function
Yellow	Operation stop signal input



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Screwdriver Model Selection Table

Type	Model	Output torque range				Applicable screws		Working voltage
						Small screw	Tapping	
DC Type	VE-1500EPA	0.01~0.15				M1.0~1.7	1.0~1.5mm	100-240VAC (w/VCT-20)
	VE-2000EPA	0.06~0.34				M1.0~2.3	1.0~2.0mm	100-240VAC (w/VCT-20)
	VE-3000	0.15~1.0				M2.0~3.0	1.6~2.6mm	100-240VAC (w/VCT-30)
	VE-4000(P)	0.3~1.5				M2.5~4.0	1.6~2.6mm	100-240VAC (w/VCT-45)
	VE-4500(P)	0.4~1.8				M3.0~4.0	2.3~3.0mm	100-240VAC (w/VCT-45)
	VE-4500(P)-HS4							
AC Type	VE-4000(P) AC	0.3~1.5				M2.5~4.0	1.6~2.6mm	100VAC
	VE-4500(P) AC	0.4~1.8				M3.0~4.0	2.3~3.0mm	100VAC
	VE-5000(P)S	0.6~2.5				M3.0~4.0	2.6~3.5mm	100VAC
	VE-5000(P)R	0.6~2.5				M3.0~4.0	2.6~3.5mm	100VAC
	VE-5000(P)-DL5	0.6~2.5				M3.0~4.0	2.6~3.5mm	100VAC
	VE-5000(P)RSOP	0.6~2.5				M3.0~4.0	2.6~3.5mm	100VAC
	VE-5000(P)SSOP	0.6~2.5				M3.0~4.0	2.6~3.5mm	100VAC
	VE-6000(P)R		1.6~4.5			M4.0~5.0	≦ 4mm	100VAC
	VE-6000(P)-DL5		1.6~4.5			M4.0~5.0	≦ 4mm	100VAC
	VE-6000(P)RSOP		1.6~4.5			M4.0~5.0	≦ 4mm	100VAC

0 N·m 1.0 N·m 2.0 N·m 3.0 N·m 4.0 N·m 5.0 N·m

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Screw Counter

VSC-02

- Multi-control of up to 3 VESSEL electric screwdrivers, signal output type (SOP).
- Sequence function that can be set for each of the 3 units individually.
- Channel function for registering screw tightening conditions. External output terminal can be used to connect to warning lights and speakers.

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AIR NIPPERS

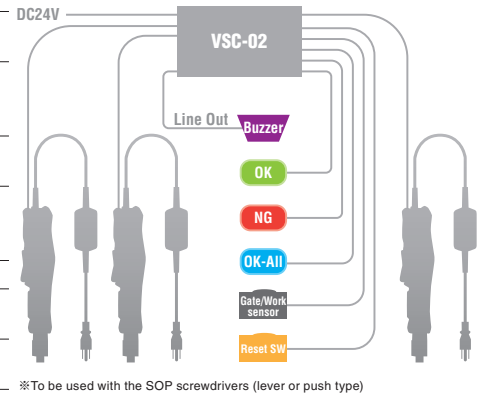
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Specifications

Number of channels that can be preset	32 channels
Number of sequences that can be preset	16 sequences
Number of counts that can be preset	1 to 99
Count method	Count-up, Count-down (can be switched)
Auto-reset time	0.00 to 9.99 sec.
Screw tightening time (upper limit time)	0.01 to 9.99 sec.
Screw tightening time (lower limit time)	0.00 to 9.99 sec.
Signal input/output terminal	Input 2 terminals (TLP785) Output 3 terminals (TLP627) Line output (Output impedance 1kΩ)



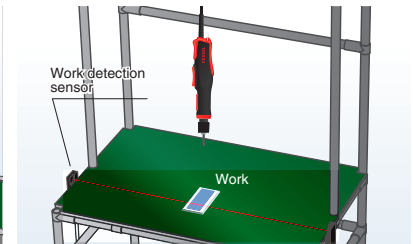
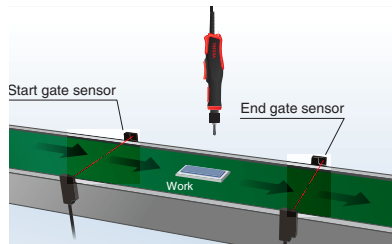
Code No.	Model No.	No. of connectable VE series	Output	Dimensions (mm)	Weight (g)	Compatible models	JAN (4907587)
551003	VSC-02	3	24VDC	64×122×37	420	All SOP series	008190

Power Adapter AD24-SC2

■ Interlocked with sensor

Interlocked with gate sensor

Interlocked with work detection sensor



Code No.	Model No.	Input	Output	Body OAL (mm)	Compatible models	JAN (4907587)
551073	AD24-SC2	100~240VAC	24VDC	70	VSC-02	007940

- 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.

- 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.

ONE POINT

VSC-02

Prevents human error in screw tightening operations (forgetting to tighten, incomplete tightening...) Compact size suitable for cell workbench. 1 unit can control 3 VE electric screwdrivers.

Multi-control

point

3 Control

Can use max 3 pieces of VESSEL electric screwdriver SOP type in order of preset sequence.

Sequence Function

point

16 Sequence

Can set a series of process, combining together arbitrary channels which are preset. Sequence setting up to 16 patterns and channel setting up to 64 per sequence are available.

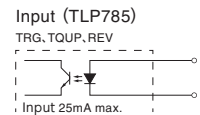
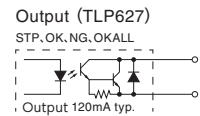
Sequence No. Processing order Channel No.



External Input/Output

Can manage the operation appropriately in combination with a work detection sensor or a gate sensor. Also can convert the OK output signal to a laminated signal lamp or convert the buzzer to emit through an amplifier.

Terminal No.	Name	Input/output signal type	Functions	Input/output signal type	Remarks
1	GND	-	Ground (COM)	-	Ground (COM)
2	VCC24	-	Power input	-	Terminal for power input. Input 24V DC.
3	DR1-TRG	Input signal type	Trigger start	OFF ON	Signal triggered is input. (VE ①)
4	DR1-TQUP	Input signal type	Torque-up	OFF ON	Signal is input at torque-up. (VE ①)
5	DR1-REV	Input signal type	Inverse rotation	OFF ON	Signal converted to inverse rotation is input. (VE ①)
6	DR1-STP	Output signal type	Operation stop	OFF ON	Stop signal is output to stop VE (VE ①)
7	DR2-TRG	Input signal type	Trigger start	OFF ON	Signal triggered is input. (VE ②)
8	DR2-TQUP	Input signal type	Torque-up	OFF ON	Signal is input at torque-up. (VE ②)
9	DR2-REV	Input signal type	Inverse rotation	OFF ON	Signal converted to inverse rotation is input. (VE ②)
10	DR2-STP	Output signal type	Operation stop	OFF ON	Stop signal is output to stop VE (VE ②)
11	LINE	Output signal type	Buzzer LINE OUT	-	Buzzer LINE OUT
12	-	-	-	-	-
13	-	-	-	-	-
14	-	-	-	-	-
15	DR3-TRG	Input signal type	Trigger start	OFF ON	Signal triggered is input. (VE ③)
16	DR3-TQUP	Input signal type	Torque-up	OFF ON	Signal is input at torque-up. (VE ③)
17	DR3-REV	Input signal type	Inverse rotation	OFF ON	Signal converted to inverse rotation is input. (VE ③)
18	DR3-STP	Output signal type	Operation stop	OFF ON	Stop signal is output to stop VE (VE ③)
19	OK	Output signal type	Screw tightening (every piece)	OFF ON	Signal is output per screw tightened.
20	NG	Output signal type	When tightening error occurs	OFF ON	Signal output when screw tightening failure occurs.
21	OKALL	Output signal type	Sequence ends	OFF ON	Signal output when the sequence ends.
22	GATE	Input signal type	Workpiece sensor detection	OFF ON	Workpiece detection is received as a level input signal.
			Gate sensor detection	OFF ON	Commencement and termination of the process is received as a pulse signal.
23	RESET	Input signal type	External reset input	OFF ON	Ends the process and resumes to standby for restart.
24	COM	-	Ground (COM)	-	Common terminal, for external device power supply (-) and so on.



Channel Function

32 Channel

Max. 32 screw tightening conditions can be preset (tightening/re-tightening + screwdriver No.)

Channel No. (1~32) Screwdriver No. (VE①~③) No. of tightened screws (1~99pcs)

Upper limit of screw tightening time (0.00~9.99sec.) Lower limit of screw tightening time (0.00~9.99sec.) Retightening time of delay (0.00~9.99sec.)

Tightening Time Setting

Time

Function to judge a difference in screw thread length and a screw jamming by upper/lower limit tightening time and to show the deviation as error.

Count Function

0~99

The number of tightened screws from 1 to 99pcs is counted and shown on the display. Display for either count-down or count-up can be voluntarily selected.

Retightening

Retorquing

Supports to retightening (torque-up of a screw for twice or more). The delay time setting is available, which does not count the torque-up just after the screw is completely tightened.

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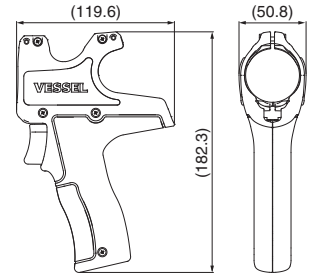
Pistol Grip

VPG-L

- 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 Dendorra body can change the installation angle.



Code No.	Model No.	Dimensions (mm)	Weight (g)	Material	Accessories	Compatible models	Optionally compatible models	JAN (4907587)
551038	VPG-L	119.6×50.8×182.3	113	Polycarbonate	Housing upper cover × 1, Housing lower cover × 1 Trigger × 1, Link × 1, Spring × 1, M3 pan-head screw × 5	All VE-6000 series	VE-1500EPA, 2000EPA, 3000, 4000 (P), 4500 (P), 4000 (P) C, 4500 (P) AC	311269

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.

Extension Cord (2m)

VE-EC2



RoHS

Code No.	Model No.	Compatible models	Weight (g)	JAN (4907587)
551036	VE-EC2	VE-3000, 4000, 4000P, 4500, 4500P, 4500-HS4, 4500P-HS4 VE-1500EPA, 2000EPA VSC-01, VCT-20*, VCT-30, VCT-45,	120g	311252

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

Color Sleeves

VCS

- 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.

RoHS



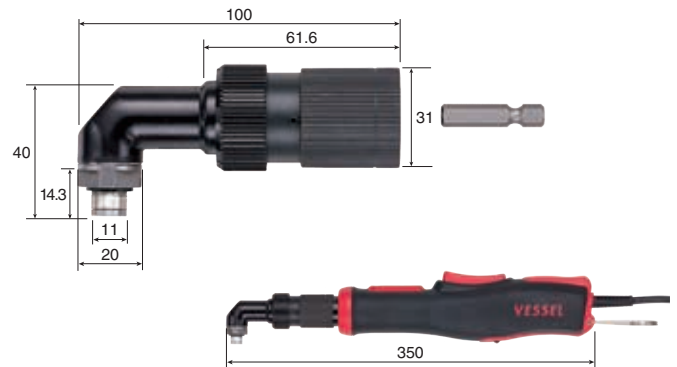
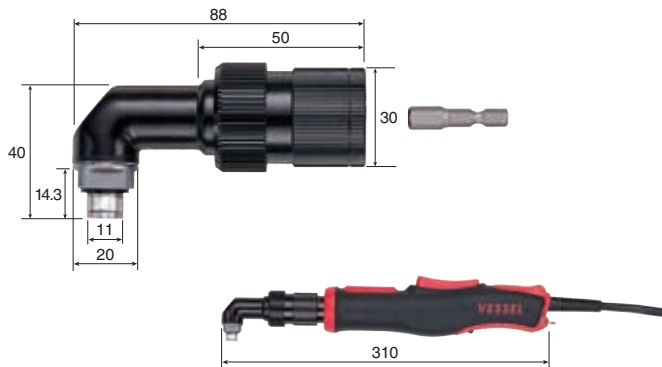
Code No.	Model No.	Size	Compatible models	Code No.	Model No.	Size	Compatible models
551053	VCS-SSP	SS	VE-2000	551055	VCS-MP	M	VE-4000 (AC, PAC) VE-4000P (AC, PAC) VE-4500 (AC, PAC) VE-4500P (AC, PAC) VE-4500 (P) VE-4500 (P)-HS4
551045	VCS-SSR			551047	VCS-MR		
551057	VCS-SSG			551059	VCS-MG		
551049	VCS-SSB			551051	VCS-MB		
551061	VCS-SSY			551063	VCS-MY		
551054	VCS-SP	S	VE-3000	551056	VCS-LP	L	VE-5000 (P)-DL5, VE-5000 (P)R, VE-5000 (P)RSOP, VE-5000 (P)S, VE-5000 (P)SSOP, VE-6000P, VE-6000 (P)-DL5, VE-6000 (P)R, VE-6000 (P)RSOP
551046	VCS-SR			551048	VCS-LR		
551058	VCS-SG			551060	VCS-LG		
551050	VCS-SB			551052	VCS-LB		
551062	VCS-SY			551064	VCS-LY		

Corner Angle Attachment (for VE-4000, 4500 series)

VCA-M

Corner Angle Attachment (for VE-5000, 6000 series)

VCA-L



Code No.	Model No.	Weight (g)	Material	Applicable models	JAN (4907587)
550026	VCA-M	168	Steel	VE-4000, 4500, 4000AC, 4500AC (Push type is not supported)	007209

Code No.	Model No.	Weight (g)	Material	Applicable models	JAN (4907587)
550027	VCA-L	219	Steel	5000SSOP, 5000R, 5000RSOP, 6000R, 6000RSOP (Push type is not supported)	007216

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Screw Feeder

VSF-5



- Supports various screws from M1 to M5.
- Lightweight and compact. Small footprint only takes up 126×182mm area.
- All required replacement parts for feeding the different type of screw are included as accessory.
- 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.
- Supports counter sunk screws, pan head screws, truss head screws, screws with washers, etc. (Not support washer built-in screws.)



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.

RoHS

Code No.	Model No.	Compatible Screw	Screw	Thread Length	Screw capacity	Rating	Dimensions (mm)	Weight (kg)	JAN (4907587)
551001	VSF-5	Regular screws Tapping screws	M1~M5	20mm	200cc	15VDC 0.7A	126×182×147	2.2	311153

※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	100~240VAC 50/60Hz 0.8A
Rated output voltage	15VDC 1.5A
Cord length (m)	Cord approx. 1.8
Weight (g)	136

Accessories

Stopper	For M1 to M2...1 pc., for M2.3 to M5...1 pc.
Rail width adjustment plate(mm)	Front 70×90×t0.8,t1.0,t1.2,t1.5,t2.0...1 plate each Rear 20×10×t0.2...2 plates, 20×10×t0.5...10 plates
L-shape hexagon wrench	H2×108mm...1
Grounding wire	
Instruction manual	

Torque Meter

VTM

- 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).

RoHS



VTM-8



VTM-10



VTM-100

AC adapter

Applicable standards	PSE
Rated input voltage	100~240VAC 50/60Hz 0.3A
Rated output voltage	12VDC 0.5A
Cord length (m)	1.5
Weight (g)	70

Code No.	Model No.	Measurement range (N·m)	Precision	Unit measurement	Socket Outlet (mm)	Dimensions (mm)	Weight (kg)	Accessory (Torque Adapter)	Accessory (Bit)	JAN (4907587)
551011	VTM-8	0.002~0.8	±0.5%(±3 digits below 499 digits)	cN·m /mN·m	20×20, SQ9.5	160×125×55	1.0	VJ-3	H5mm (4 types): 1 ea.	311160
551012	VTM-10	0.01~1.0	±0.5%(±1 digit below 199 digits)	N·m /cN·m	20×20, SQ9.5	160×125×55	1.0	VJ-3, VJ-10	H5mm (4 types): 1 ea.	311177
551013	VTM-100	0.1~10.0	±0.5%(±1 digit below 199 digits)	N·m /cN·m	20×20, SQ9.5	160×125×55	1.0	VJ-10K, VJ-50	H6mm (4 types): 1 ea.	311184

※One digit refers to the minimum value of the last digit that can be displayed regardless of the decimal point position. (VTM-8:3digit=0.0003N·m/0.3mN·m, VTM-10:1digit=0.001N·m/0.1cN·m, VTM-100:1digit=0.01N·m/1cN·m)

※Accessories: AC adapter 1, Torque adapter, Measurement bits set, Test Results, Proof of Calibration, Traceability System Diagram, Instruction manual

※Ni-MH battery 1.2V x 5 cells (1100mAh) Charging/usage time: Charging approx.3 hours / max.12 hours of use Battery life: 300 or more charges (varies according to the usage state)

Replacement Parts

Bit for Measurement		Torque Adapter	Applicable model	Usage range	Applicable bit	
H5mm bit	H6mm bit	VJ-3	VTM-8	0.25 N·m or below	H5mm bit	
D73 H5×50	D73 H6×50		VTM-10	0.25 N·m or below	H5mm bit	
D76 H5×50	D76 H6×50		VJ-10	VTM-10	0.3~1.0 N·m	H5mm bit
B34 H5×50	B34 H6×50		VJ-10K	VTM-100	0.3~1.0 N·m	H6mm bit
A16 H5×50	A16 H6×50		VJ-50	VTM-100	0.5~5.0 N·m	H6mm bit
		VJ-100	VTM-100	~10 N·m	A/F17mm socket	

ONE POINT

Measurement data management

Can store 800 measurement data in the body. Also can manage the data by exporting to a personal computer through USB cable.

※Dedicated format (32bit) can be downloaded on our homepage. (Japanese only)
www.vessel.co.jp/support/product/electric/index02.html

Two measurement mode types

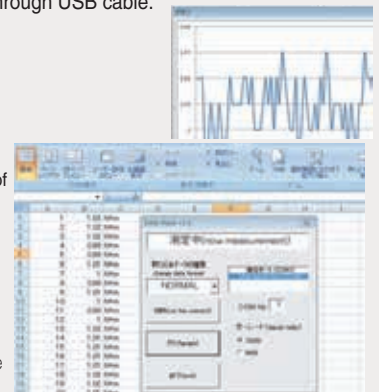


Either the Peak Hold measurement mode suitable for measuring electric screw-drivers, or the Peak Down Hold measurement mode suitable for manual tools can be selected.

For measurement of electric screwdrivers and torque drivers
Peak Hold mode
The max torque which is being measured is always displayed.



For measurement of torque wrenches
Peak Down Hold mode
The value when the load torque value peaks then starts to drop is displayed. No influence by the torque excessively imposed.



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 Read the instruction manual before using, and follow the instructions when using.

<p>HAND TOOLS</p> <p>Hand Tools</p> 	<p>https://www.vessel.co.jp/english/support/safety/handtools.html</p> <ul style="list-style-type: none"> • Always wear protective goggles when working with the product. • Do not use the product if any abnormality such as cracks, chipping, abrasion, or deformation is found. • Make sure of the applications, size, and usage that are suitable for the product before use. • Do not use the product in place of a hammer, crowbar, or lever. • Do not use the product in which electricity is running. • Do not modify the product. 
<p>INDUSTRIAL BITS</p> <p>Industrial Bits</p> 	<p>https://www.vessel.co.jp/english/support/safety/bit.html</p> <ul style="list-style-type: none"> • Read the instruction manual of the power tool carefully before use. • Always wear protective goggles when working with the product. • Be sure to shut off the power source before mounting or replacing bits. • Do not use the product if any abnormality such as cracks, chipping, abrasion, or deformation is found. • Never attempt to operate the power tool at no-load with the product attached. • Do not use the product in which electricity is running. • Do not modify the product. 
<p>CONSTRUCTION BITS</p> <p>Construction Bits</p> 	<p>https://www.vessel.co.jp/english/support/safety/bit.html</p> <ul style="list-style-type: none"> • Read the instruction manual of the power tool carefully before use. • Always wear protective goggles when working with the product. • Be sure to shut off the power source before mounting or replacing bits. • Do not use the product if any abnormality such as cracks, chipping, abrasion, or deformation is found. • Never attempt to operate the power tool at no-load with the product attached. • Do not use the product in which electricity is running. • Do not modify the product. 
<p>RECIPROCATING SAW BLADES</p> <p>Reciprocating Saw Blades</p> 	<p>https://www.vessel.co.jp/english/support/safety/saw_blades.html</p> <ul style="list-style-type: none"> • Check the applications and capabilities of the blade. • Read the instruction manual of the power tool carefully. • Always shut off the power source when replacing blades. • Before use, make sure that the blade is not loosely mounted. • Do not overload the product as this may cause damage to the blade. • Do not touch the blade just after stopping to use because they are hot. • Wear protective goggles and gloves when using the product. • Stop using the product if any abnormality is found. 
<p>ELECTRIC TOOLS</p> <p>Electric Tools</p> 	<p>https://www.vessel.co.jp/english/support/safety/electric.html</p> <ul style="list-style-type: none"> • Always wear protective goggles when working with the product. • Be sure to shut off the power source before mounting or replacing the tip tools. • Be sure to use a tip tool for power tools. • Do not use the product if any abnormality such as cracks, chipping, abrasion, or deformation is found. • Never attempt to operate the product at no-load with a tip tool mounted on the product. • Do not use the product in which electricity is running. • Do not disassemble or modify the product. 
<p>AIR TOOLS</p> <p>Air Tools</p> 	<p>https://www.vessel.co.jp/english/support/safety/airtools.html</p> <ul style="list-style-type: none"> • Use protective items such as a helmet, safety glasses, earplugs, dust mask, safety shoes, and others, depending on the work. • When installing or replacing the tip tools, be sure to shut off the air supply source. • Be sure to use a tip tool for power tools. • Do not use the product if any abnormality such as cracks, chipping, abrasion, or deformation is found. • Never attempt to operate the product at no-load with a tip tool mounted on the product. • Do not use the product in which electricity is running. • Do not modify the product. 
<p>AIR NIPPERS</p> <p>Air Nippers</p> 	<p>https://www.vessel.co.jp/english/support/safety/airnipper.html</p> <ul style="list-style-type: none"> • Do not touch the blade. • Always wear protective goggles and earplugs when working with the product. • When installing or replacing blades or the nipper, be sure to shut off the power source. • Do not use the product if any abnormality such as cracks, chipping, abrasion, or deformation is found. • Do not use the product in which electricity is running. • The product may cause vibration. • Do not modify the product. 
<p>STATIC SOLUTIONS</p> <p>Static Solutions</p> 	<p>https://www.vessel.co.jp/english/support/safety/staticelectric.html</p> <ul style="list-style-type: none"> • Do not use the product in the environments requiring the explosion-proof measures. • Do not use the product in an atmosphere containing flammable or combustible substances. • Do not use the product in an environment subject to rapid temperature changes or where condensation occurs. • Do not use the product in a place where it is exposed to water, solvents, oil, etc. or in a humid place. • Do not use the product with the power supply standard or the air pressure other than those specified in the specifications. • Do not disassemble or modify the product. 
<p>GASOLINE ENGINE TOOLS</p> <p>Gasoline Engine Tools</p> 	<p>https://www.vessel.co.jp/english/support/safety/gasolineengine.html</p> <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. 