

HIOS®

NEW

Next-generation model
with improved quality and
durability



MADE IN JAPAN

BRUSHLESS
SCREWDRIVER FOR
AUTOMATION

BLFA
Time & Pulse Error Check

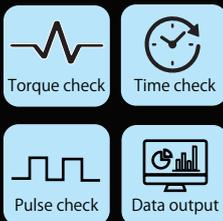
PGFA
Torque, Time & Pulse Error Check



BLFA Series | Time & pulse error check

A standard model that combines stable fastening quality with cost-effectiveness.

- A cost-effective model that adds control integration functionality to the existing BLF series.
- By linking with the BLOP-AY01 Series, pulse and time detection for automatic pass/fail judgment is enabled.
- Supports a variety of operating modes, including forward/reverse rotation, temporary fastening, and speed switching.
- Efficiently manages multiple processes to achieve consistent, stable fastening quality.



PGFA Series | Torque, time & pulse error check

Detects torque and time for highly accurate quality judgment and digital transformation.

- High-precision fastening control on automation lines.
- Detects torque values and operation time in real time and automatically judges pass/fail.
- Integrates with BLOP-AY01 to optimize operation and pulse control.
- Easily set fastening reference values and conditions through direct teaching.
- Supports data collection app for history management and digital transformation in quality assurance.



Accurately detects screw tightening errors and automatically determines pass or fail.



Missing part



Missing screw



Unseated screw



Screw mix-up



Wrong length



Oblique fastening



Cam out



Seized part



Stripped screw hole



Wrong pitch

er operations.

Common to PGFA/BLFA

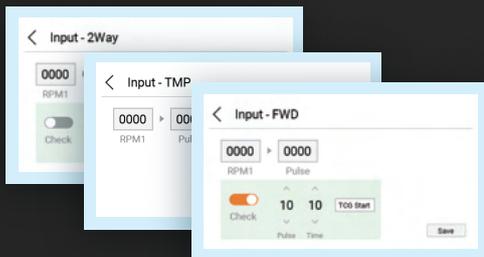
Operation box BLOP-AY01 | Control Unit

Optimize screwdriver operation and control the quality and efficiency of the entire process.

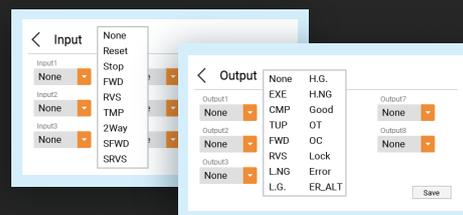
- Supports a variety of action modes, including forward, reverse, temporary fastening, and variable speed.
- Supports condition setting for up to 8 channels with multi-assignment.
- Prevents outflow of defective products with pass/fail judgment based on pulse/operation time.
- Learns rotation speed and fastening time through direct teaching.
- Serial connection to external devices to support enhanced DX and traceability.



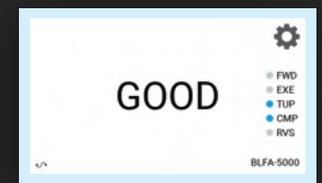
Action mode



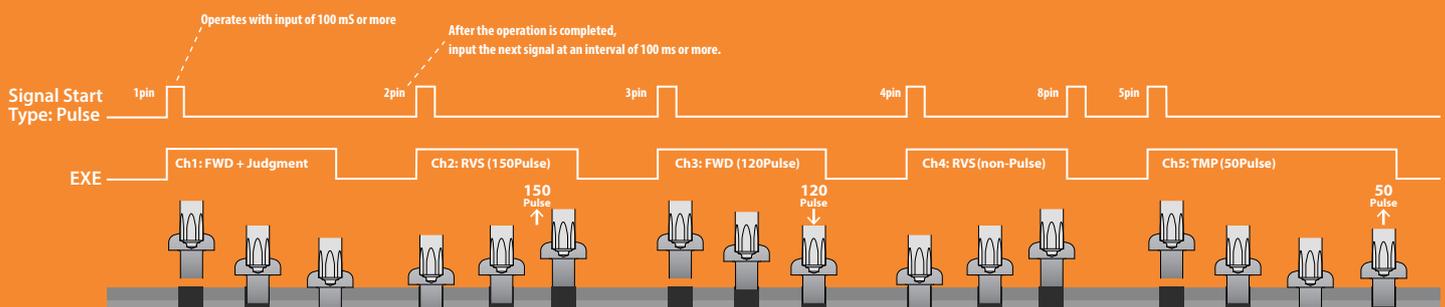
Multi-assignment



Pass/fail judgment function



A variety of action modes allow versatile fastening process



BLFA

High-precision control of screw fastening using pulse and time. Smartly manage stable fastening and process & quality.

- High-precision pulse control reduces variation in fastening quality.
- By combining with BLOP-AY01, optimal management of operating conditions for each process becomes possible, ensuring smooth operation of multi-process lines.
- Uses a brushless motor to achieve stable torque accuracy and excellent durability.
- A high-cost performance model ideal for auto equipment and mid-volume production lines.



Quality, efficiency and support all in one

HIOS automation solutions that support manufacturing by staying close to manufacturing sites

High-precision torque control ensures stable fastening

The brushless motor and clutch mechanism maintain high precision even over long operation, ensuring reliable fastening to enhance the reliability of automation lines



Prevents outflow of defectives and stabilizes fastening accuracy

Reducing variability on automation lines ensures consistent quality and improved production efficiency.



Collaboration with automation partners

By partnering with system integrators and screw distributors to provide one-stop solutions to screw fastening challenges, we offer optimal solutions, from installation support to tool selection.



FQ/FR suction attachments

Available for difficult areas such as non-ferrous metals and deep holes. The attachment interfaces with a screw feeder



Automation-promoting screws enable

Highest level of mating accuracy decreases screw fastening errors almost to zero

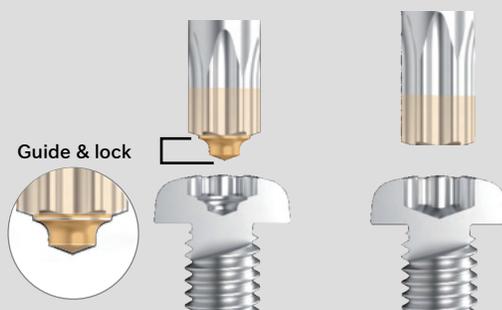
Top performance in screw fastening improvement*



Intrtorque® PAT



Hexalobular



The tip guide quickly guides the screw to the center of the hole and locks in place to prevent wobbling

DX-enabled, automation-promoting screw

- High-precision mating design ensures hexalobular compatibility.
- Prevents bit wobble, providing superior performance for horizontal and diagonal fastening.
- Bit durability is about 10 times longer than that of cross bits, allowing for digital replacement control.
- Excellent stability, passing offset tests up to 2.5 mm (M5 screws).
- Also available: Intrtorque® minus, ideal for maintenance.

Prevents "cam-out"

Cross head automation-promoting screw

- Totupla® screw (cross head/automation compatible)



*Based on our own research

Basic Configuration



Screwdriver
BLF

+



Operation box
BLOP-AY01

+



Controller BLC



Model name	BLFA-2000	
Part No.	BLFA-2000	
Output torque*1	0.03–0.35	
RPM	200–950	
Slow rotation*2 (min-1)	100–950	
Compatible screws*3	Machine screw	1.0–2.3
	Tapping screw	1.0–2.0
Bit driver	H4	
Compatible suction	FQ	
Controller	BLC-45/BLC-70	
Weight (g)	345	



Model name	BLFA-5000	
Part No.	BLFA-5000	
Output torque*1 (N·m)	0.3–1.0	
RPM (min-1)	200–950	
Slow rotation*2 (min-1)	100–950	
Compatible screws*3	Machine screw	2.0–3.0
	Tapping screw	2.0–2.6
Bit driver	H5 and 5HEX(Compatible)	
Compatible suction	FQ/FR	
Controller	BLC-70	
Weight (g)	470	



Model name	BLFA-7000	BLFA-7000X	BLFA-7025X
Part No.	BLFA-7000	BLFA-7000X BLFA-7000XC (for FR)	BLFA-7025X BLFA-7025XC (for FR)
Output torque*1	0.7–2.0	0.7–2.0	1.2–2.5
RPM	200–700	200–700	150–550
Slow rotation*2 (min-1)	150–700	150–700	100–550
Compatible screws*3	Machine screw	3.0–4.0	3.0–4.0
	Tapping screw	3.0–4.0	3.0–4.0
Bit driver	H5	1/4HEX	1/4HEX
Compatible suction	FQ	FR	FR
Controller	BLC-80	BLC-80	BLC-80
Weight (g)	780	780	780

Accessories | 4.5m screwdriver cord, torque adjustment spring (BLFA-2000 only), manual and warranty

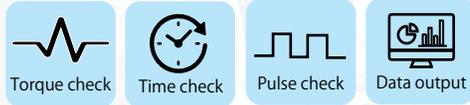
*1 The output torques were measured using HIOS torquemeter and Fidaptor. The torque generated when fastening a screw varies depending on various factors, such as materials of the screw and mating part, mating condition, fastening speed, and load. Therefore, please repeatedly evaluate and verify the product under actual screw fastening conditions before use.

*2 Cannot be used in situations where loads are applied, such as when fastening screws.

*3 Just examples for your reference.

PGFA

High-precision torque management and interface with the BLOP-AY01 control screwdriver operation that optimize quality and efficiency of automation lines.

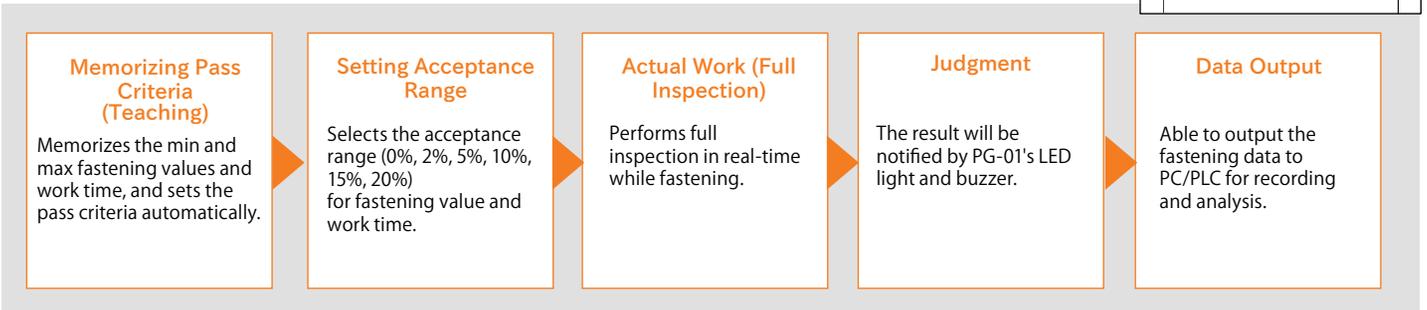
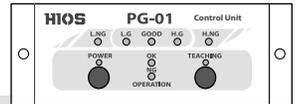


- Detects torque and time with high accuracy and automatically judges pass/fail based on set parameters.
- Interfaces with BLOP-AY01 to optimize pulse control and screwdriver operation, improving the efficiency of multi-process lines.
- Monitors fastening status in real-time to maintain consistent quality without variation.
- Direct teaching makes it easy to register fastening reference values and conditions on the operation panel.
- Compatible with the screwdriver's data collection apps and data output, promoting work history management and digital transformation.
- Uses a brushless motor to achieve stable torque accuracy and excellent durability.



Real-time judgment ensures fastening quality

PG-01 detects torque and time, automating everything from pass/fail to output.



Centralized Tightening Data Management via Software

Checks pass/fail results in real-time, and records and saves them.

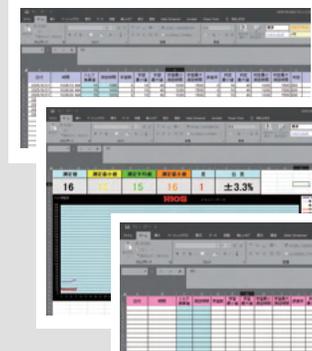
Screwdriver Data Collection (Application)

Collects fastening data in the same way as the data import sheet. The imported data can be saved in CSV format.



Data Import Sheet (Excel)

The imported data can be aggregated and analyzed on an Excel sheet for visualizing quality trends and process-specific variations.



Data sheet
Measurement data is recorded

Graph
Measurement data is plotted in a graph

Irregular sheet
Irregular data items such as non-judgeable fastening, measurement time NG, etc., are recorded

Basic Configuration



Screwdriver
PGFA



Operation box
BLOP-AY01



Controller BLC



Fastening torque
judge device



Model name	PGFA-3000	
Part No.	PGFA-3000	
Output torque*1 (N·m)	0.2–0.55	
RPM (min-1)	200–900	
Slow rotation*2 (min-1)	100–900	
Compatible screws*3	Machine screw	1.7–2.3
	Tapping screw	2.0–2.3
Bit driver	H4	
Compatible suction	FQ	
Controller	BLC-45 / BLC-70	
Weight (g)	330	



Model name	PGFA-5000	
Part No.	PGFA-5000	
Output torque*1 (N·m)	0.4–1.2	
RPM (min-1)	200–950	
Slow rotation*2 (min-1)	100–950	
Compatible screws*3	Machine screw	2.3–3.0
	Tapping screw	2.0–2.3
Bit driver	H4	
Compatible suction	FQ/FR	
Controller	BLC-70	
Weight (g)	480	



Model name	PGFA-7000	
Part No.	PGFA-7000 PGFA-7000XC (For FR)	
Output torque*1 (N·m)	1.0–2.8	
RPM (min-1)	300–900	
Slow rotation*2 (min-1)	200–900	
Compatible screws*3	Machine screw	2.6–5.0
	Tapping screw	2.6–4.0
Bit driver	Standard	H5 and 5HEX(Compatible)
	Special order	1/4HEX
Compatible suction	FQ/FR	
Controller	BLC-80	
Weight (g)	780	



	PG-01FA
Part No.	PG-01FA
Power	Input: AC100-240V (50/60Hz) / Output: DC12V
Weight	520g
Dimensions	149 x 120 x 49 mm
Communication Method	Serial (RS-232C port)
I/O Input	Common to plus and minus / Output: sink type

Accessories

PGFA screwdriver cord 4.5m, PG-01FA (sold separately), PG-01FA AC adapter 1.5m, sensor cord 3m, PG-01FA I/O connector, PG-01FA sensor cord 0.4m, manual and warranty

*1 The output torques were measured using HIOS torquemeter and Fidaptor. The torque generated when fastening a screw varies depending on various factors, such as materials of the screw and mating part, mating condition, fastening speed, and load. Therefore, please repeatedly evaluate and verify the product under actual screw fastening conditions before use.

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*3 Just examples for your reference.

BLOP-AY01

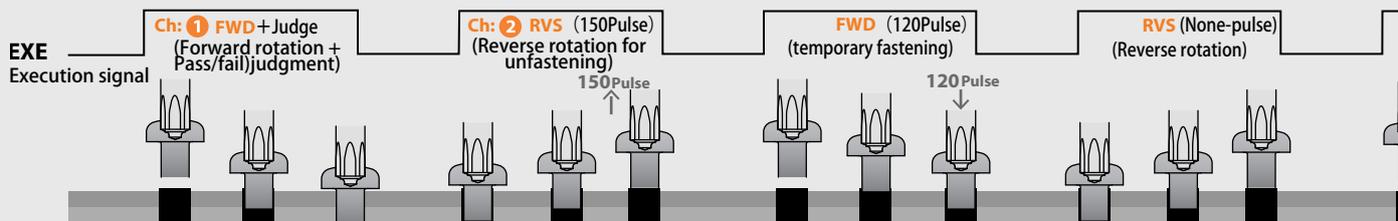
Centralized control of screwdriver operation, judgment, and communication. Smarter quality control accelerates digital transformation.

- Optimize fastening by controlling screwdriver operation with action modes including forward, reverse, temporary fastening, and variable speed.
- Multi-assignment supports condition settings for up to 8 channels, streamlining multi-process lines.
- Inputs pulse and torque-up signals from the screwdriver and automatically judges pass/fail based on set conditions.
- Links with PLC and PC via external I/O and communications functions (RS-232C) and outputs judgment signals. Supports digital transformation and traceability.

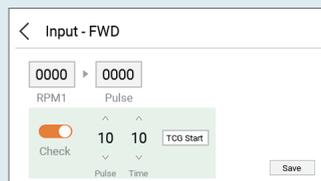


Flexible operation pattern setting for up to 8 channels

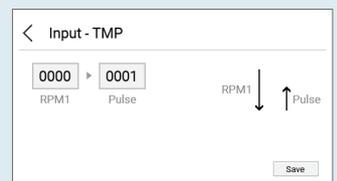
<p>FWD (forward rotation)</p> <p>Supports basic and unique forward fastening methods, from one-by-one pass/fail judgment to temporary fastening that stops before seating by specifying the number of pulses.</p>	<p>TMP(reverse rotation after seating)</p> <p>Temporary fastening mode to reverse a screw for the specified number of pulses after seating. Ideal for removing coating agent stuck in screw holes.</p>	<p>SRVS (slow reverse rotation)</p> <p>Picks up screws at a slow rotation that is not possible with normal specifications. Cannot be used for screw fastening with too heavy load.</p>	<p>2-way (variable speed)</p> <p>Two-step automatic variable speed mode allows you to switch from a slow start to high, or from high to low, by specifying the number of pulses.</p>
<p>RVS (reverse rotation)</p> <p>In addition to the reverse that allows for stopping at any time, a new precise stop mode with a specified number of pulses</p>	<p>SFWD (slow forward rotation)</p> <p>Picks up screws at a slow rotation that is not possible with normal specifications. Cannot be used for screw fastening with too heavy load.</p>	<p>Reset</p> <p>Stops operation to reset error (only one channel)</p>	<p>Stop</p> <p>Stops operation (only one channel)</p>



3 FWD
Forward rotation. Rotates at the maximum speed of the connected screwdriver.



5 TMP
After being seated in forward rotation, reverse rotation is performed by the specified number of pulses.



Smartly optimizes processes with multi-channel control and real-time judgment

Controls multiple processes in action

controls forward and reverse rotation, temporary fastening, as well as RPM and speed. Supports speed switching from low to high and automatic reverse rotation after seating, ensuring optimal fastening process.



Judges fastening quality in real-time

Detects pulse and time in real-time to instantly judge fastening quality. Learns RPM and screw fastening time with direct teaching and determines pass/fail.



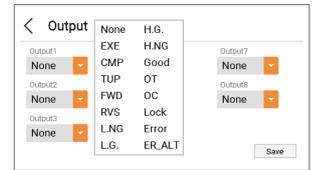
Data communication and expansion mode

outputs data with serial communication. Expanded mode allows remote control and setting changes, supporting factory automation.



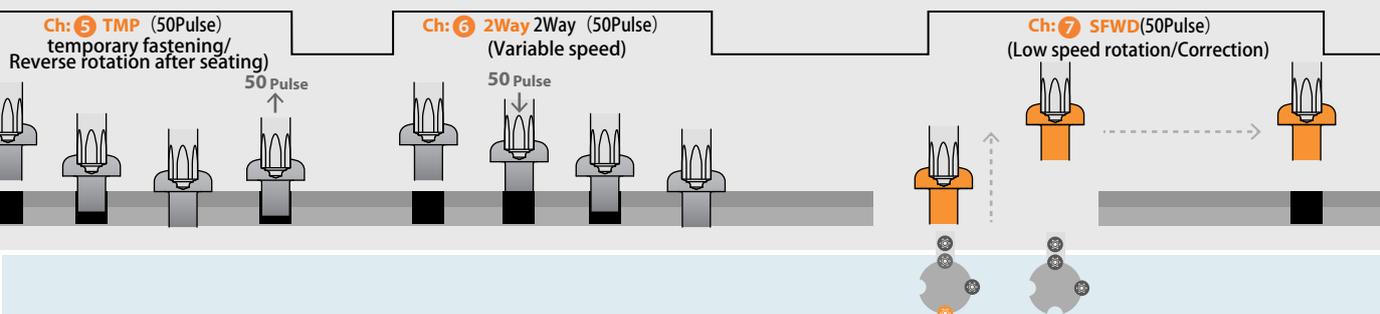
Process optimization with multi-channel control

Multi-channel that enables setting of maximum eight screw fastening conditions. Automatically switches conditions for each process or workpiece, efficiently controlling multiple screwdrivers.



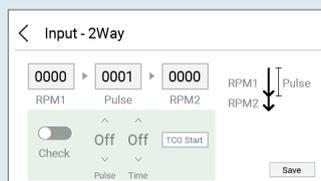
Model	BLOP-AY01
Part No.	BLOP-AY01
Compatible screwdrivers	BLFA Series / PGFA Series *1
No. of channels	Input: 8, Output: 8
I/O	NPN/PNP switching is available
Action mode	Forward and reverse rotation, RPM setting, variable speed, reverse rotation after seating
Direct teaching	Learns pulse count and time to reflect pass/fail judgment
Power Input	AC100-240V 50/60Hz
External dimensions	140×76×100Mm (W×D×H, excluding maximum protrusion)
Weight	About
Communication interface	RS-232C serial communication
Accessories	Control cord, AC adapter, I/O connector, connector assembly tool, manual and warranty, bracket. *RS-232C cable not included.

*1 Pass/fail judgment by work time is disabled on this device.



6 2Way

Forward rotation is performed in two different speeds.



7 SFWD(no screw fastening)

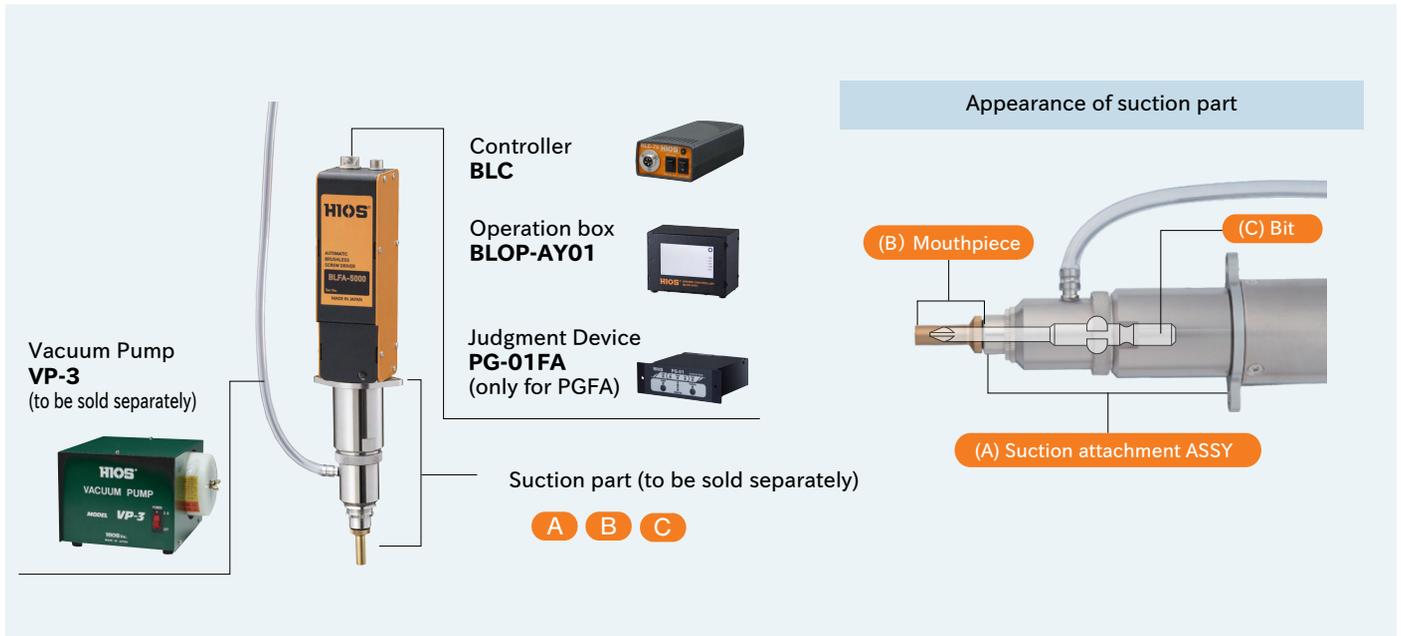
Forward rotation at a lower speed than normal. (Used for light load operation)



FQ Suction Attachment

With negative pressure, it sucks up screws, eliminating the need to pick them up. It can also pick up screws made of non-ferrous metals, i.e., stainless steel, allowing for more efficient work. It can also remove dust generated during the screw fastening process.

Configuration of suction screwdriver



List of suction part (to be sold separately)

Model	Bit drive	(A) Suction Attachment	(B) Mouthpiece	(C) Bit	Appearance	
BLFA-2000	H4	BLFQ2-SET	F3 standard 18mm	60mm		
BLFA-5000	H5	BLFQ5-SET [*]	F6 standard 31mm	100mm		
BLFA-7000	H5	BLFQ7-SET	F6 standard 31mm	100mm		
PGFA-3000	H4	PGFQ3-SET	F3 standard 18mm	80mm		
PGFA-5000	H4	PGFQ5-SET	F3 standard 18mm	80mm		
PGFA-7000	H5	PGFQ7-SET	F6 standard 31mm	100mm		

*Includes a low-torque adjustment spring (0.2–0.5 N·m).

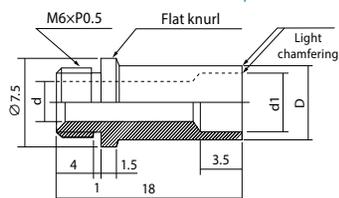
Supplied Accessories

FQ Suction, Hose (ID4mm×OD7mm,Length 3.5m)、Zip ties、Torque adjustment spring (BLFQ5-SET only)

B Mouthpiece

F3 Std. 18mm (Total Length)

Cross-sectional view of a mouthpiece



Order Code	Mouthpiece Reference Dimensions (mm)			Screw Head Shape and Screw Size		
	D	d	d1	JIS Plus (Machine Screw)	JCIS Plus	JIS Minus (Machine Screw)
F3-00	7.5	—	—	Custom screw	Custom screw	Custom screw
F3-01	3.3	2.1	2.1		Class 1 M1.4	
F3-02	3.6	2.6	2.6		Class 1 M1.7 / Class 3 M1.4	
F3-03	4.1	3.1	3.1		Class 1 M2.0 / Class 3 M1.7	
F3-04	4.6	3.6	3.6	Pan, round M2.0	Class 1 M2.3 / Class 3 M2.0	Pan, round, flat M2.0 / countersunk, round countersunk M1.7
F3-05	5.1	4.1	4.1	Pan, round M2.3 / countersunk, round countersunk M2.0	Class 1 M2.6 / Class 3 M2.3	countersunk, round countersunk M2.0
F3-06	5.8	4.3	4.5	Pan, round M2.6	Class 3 M2.6	Binding M2.0
F3-07	7.0	4.3	5.5	Pan, round M3.0 / Binding M2.6		Pan, round, flat M3.0 / Binding M2.6
F3-10	5.5	4.3	4.3	Binding M2.0		Pan, round, flat M2.3
F3-11	6.0	4.0	4.9	Binding M2.3		Binding M2.3
F3-15	3.8	2.8	2.8			Pan, round, flat M1.4
F3-16	3.5	2.5	2.5			countersunk, round countersunk, M1.2
F3-17	4.3	3.3	3.3			Pan, round, flat M1.7

● For different specifications, please contact the HIOS distributor. ● 3 mouthpieces per pack.

C Applicable bit

H4	Screw Recess	Screw Size	Bit	Order Code
	JIS plus	M2.0-M2.6	BP-H4-#1-3.0-40 (60)(80)	BP4130040(60)(80)
	JIS plus	M3.0	BP-H4-#2-4.0-40 (60)(80)	BP4240040(60)(80)
	JCIS plus	M1.4 Class 1	BP-H4-#0-1.8-40 (S)(60)(80)	BP4018040 (S)(60)(80)
	JCIS plus	M1.4-M1.7	BP-H4-#0-2.0-40(60)(80)	BP4020040(60)(80)
	JIS minus	M2.0-M2.6	BP-H4-#0-2.5-40(60)(80)	BP4025040(60)(80)
	JIS minus	M1.2	BS-H4-2.0-40(60)(80)	BS420040(60)(80)
	JIS minus	M1.4	BS-H4-2.5-40(60)(80)	BS425040(60)(80)
	JIS minus	M1.7-M2.0	BS-H4-3.0-40(60)(80)	BS430040(60)(80)
	JIS minus	M2.3-M3.0	BS-H4-4.0-40(60)(80)	BS440040(60)(80)

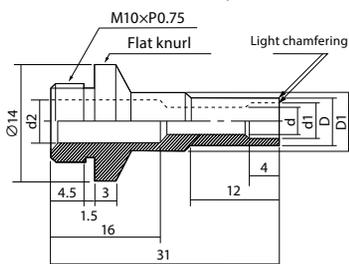
● The () in the list means total length of the bit.
● For special order item 1.8 x 40, please contact the HIOS distributor.

The material of the mouthpiece is BS (brass) only.

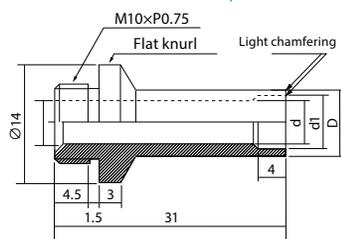
B Mouthpiece

F6 Std. 31mm (Total length)

Cross-sectional view of mouthpiece A



Cross-sectional view of mouthpiece B



Drawing	Order Code	Mouthpiece Reference Dimensions (mm)					Screw Head Shape and Screw Size	
		D	D1	d	d1	d2	JIS Plus (Machine screw)	JIS Minus (Machine Screw)
B	F6-00	8.0	—	—	—	—	Custom screw	Custom screw
	F6-01	4.6	7.0	3.5	3.6	5.5	Pan, round M2.0	Pan, round M2.0
A	F6-02	5.1	7.0	3.5	4.1	5.5	Pan, round M2.3 / countersunk, round countersunk M2.0	Pan, round M2.3
	F6-03	5.8	7.0	3.5	4.5	5.5	Pan, round M2.6 / Binding, truss M2.0	Binding, truss M2.0
	F6-04	7.0	—	5.5	5.5	—	Pan, round M3.0 / Binding M2.6	Pan, round M3.0 / Binding M2.6
B	F6-05	7.5	—	5.5	6.0	—	Countersunk, round countersunk M3.0	Truss M2.6
	F6-06	8.5	—	5.5	7.0	—	Pan, round M4.0 / truss M3.0	Pan, round M4.0 / truss M3.0
A	F6-09	6.5	7.0	3.5	5.2	5.5	Countersunk, round countersunk M2.6	Truss M2.3
B	F6-10	14.0	—	—	—	—	Custom screw	Custom screw
	F6-11	7.7	—	5.5	6.3	—	Binding M3.0	Binding M3.0
	F6-13	9.7	—	5.5	8.3	—	Binding M4.0	
	F6-16*	9.4	—	5.5	8.0	—	Countersunk, round countersunk M4.0	
	F6-22*	9.7	—	7.5	8.3	—		Binding M4.0

* Special order ● For different specifications, please contact the HIOS distributor. ● 3 mouthpieces per pack.

C Applicable Bit

H5	Screw Recess	Screw Size	Bit	Order Code
	JIS plus	M2.0-M2.6	BP-H5-#1-3.0x80	BP5130080
	JIS plus	M3.0-M5.0	BP-H5-#2-5.0x80	BP5250080
	JIS minus	M2.0-M2.3	BS-H5-3.0x80	BS530080
	JIS minus	M3.0-M4.0	BS-H5-5.0x80	BS550080

Screw Recess	Screw Size	Bit	Order Code
JIS plus	M2.0-M2.6	BP-H5-#1-3.0-100	BP5130100
	M3.0-M5.0	BP-H5-#2-5.0-100	BP5250100
JIS minus	M3.0-M4.0	BS-H5-5.0-100	BS550100

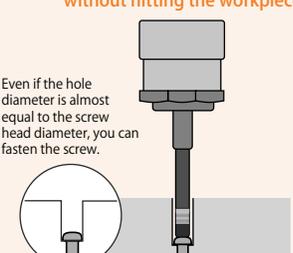
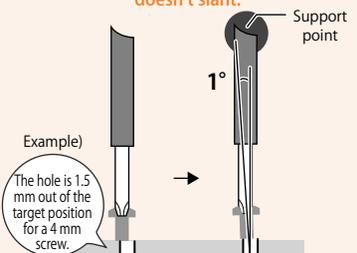
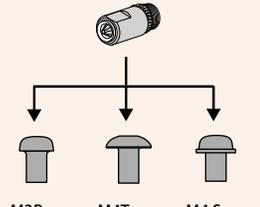
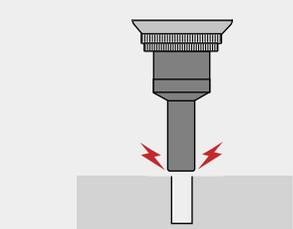
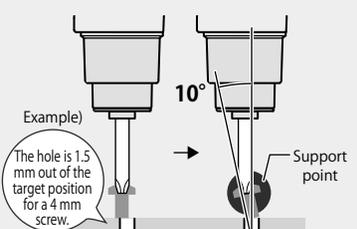
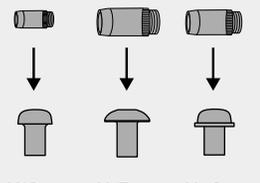
● Truss: For M3.0, use +#1.

The material of a mouthpiece is BS (brass) only.

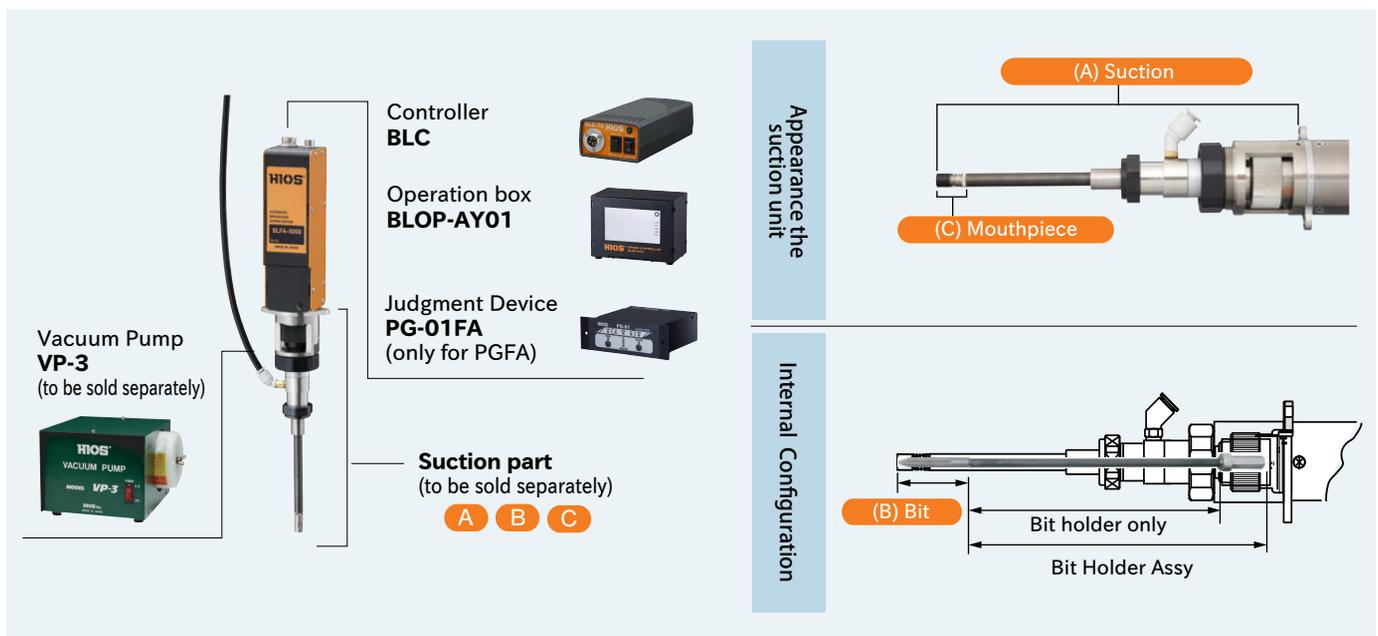
For deep hole FR Suction Attachment

It can also be used effectively in difficult screw fastening locations such as deep holes or obstructed walls where a normal suction attachment would interfere with the workpiece. The mouthpiece on the tip has a built-in spring: two types are available; inner or outer diameter is movable. Some don't contact with the workpiece during fastening and prevent damage to the part. The use of a long bit holder prevents screws from falling or cross-thread fastening.

Advantages of PGFR suction

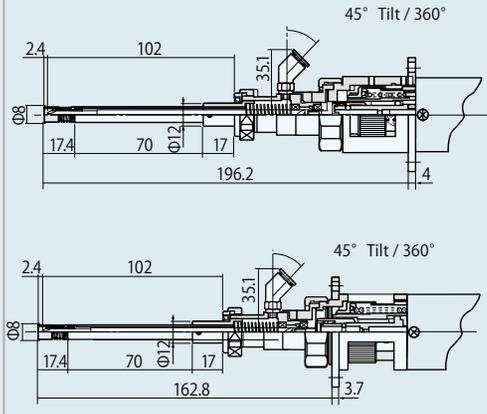
	Prevent interference with the workpiece	Prevent slanted fastening	Highly versatile mouthpiece
PGFAR (for deeply recessed screws)	<p>The mouthpiece reaches far into the hole without hitting the workpiece</p> <p>Even if the hole diameter is almost equal to the screw head diameter, you can fasten the screw.</p> 	<p>Because the support point is high, the screw doesn't slant.</p> <p>Example) The hole is 1.5 mm out of the target position for a 4 mm screw.</p> 	<p>Common mouthpiece</p>  <p>M3Pan M4Truss M4 Sems</p>
Conventional model	<p>The mouthpiece hits the workpiece, you cannot fasten the screw.</p> 	<p>Because the hole is out of the target position, the screw slants.</p> <p>Example) The hole is 1.5 mm out of the target position for a 4 mm screw.</p> 	<p>Dedicated mouthpieces</p>  <p>M3Pan M4Truss M4 Sems</p>

Configuration of Suction Screwdriver



A Suction

B Bit

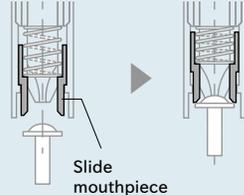
Model	Bit drive	(A) Suction Attachment	Bit Holder ASSY Specifications	(B)Bit	External Dimensions
BLFA-5000	5HEX	 BLFR5-SA	Bit Holder Length (Unit Only) : 122.8mm Model : BLFR5-3060	Screw-on bit Φ#1 40mm (RBP4140S) Screw-on bit Φ#2 40mm (RBP4240S)	 45° Tilt / 360° 2.4, 102, 17.4, 70, 17, 196.2, 3.51, 0.8, 4
PGFA-5000	H4	 PGFR5-SA	Bit Holder Length (Unit Only) : 122.8mm Model : PGFR5-3060		
BLFA-7000X BLFA-7025X	1/4HEX	 BLFR7-SA	Bit Holder Length (Unit Only) : 122.8mm Model : BLFR7-3060		
PGFA-7000	1/4HEX	 PGFR7-SA	Bit Holder Length (Unit Only) : 122.8mm Model : BLFR7-3060		

Supplied Accessories | FR Suction, Adjustment washer
 *Hose is not included. Please purchase it separately or contact us. Hose dimensions: Ø4 (inner diameter) x Ø6 (outer diameter), length: 3.5m

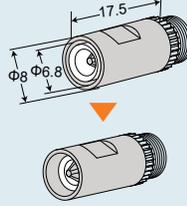
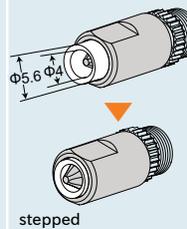
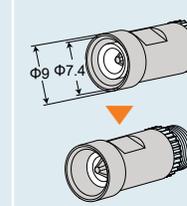
C Mouthpiece with spring

Movement of the Inner Sleeve Type

When a screw and the bit are fitted by vacuum pressure, the sliding mouthpiece moves horizontally to keep the screw vertical and supports the screw head.

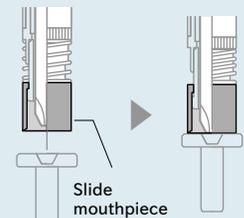


Slide mouthpiece

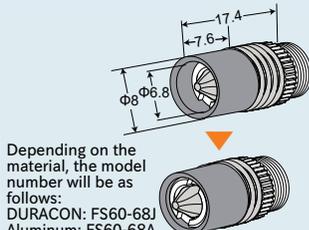
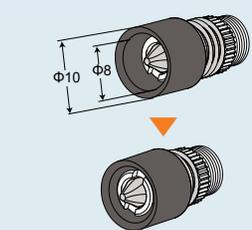
Order Code		
FS61-68	FS61-68S	FS61-74
		
17.5, Φ8, Φ6.8	stepped, Φ5.6, Φ4	Φ9, Φ7.4

Movement of the Inner Sleeve Type

When a screw and the bit are fitted by vacuum pressure, the sliding mouthpiece moves horizontally to keep the screw vertical and supports the screw head. Since the diameter of the mouthpiece is smaller than the outer diameter of a screw, it is good for screw tightening in a tight space.



Slide mouthpiece

Order Code	
FS60-68J / FS60-68A	FS60-80J
	
17.4, 7.6, Φ8, Φ6.8	Φ10, Φ8

Depending on the material, the model number will be as follows:
 DURACON: FS60-68J
 Aluminum: FS60-68A

C Mouthpiece with spring and compatible screws

Size	M2.6			M3.0			M4.0		
Screw type									
	Pan	Binding	Truss	Pan	Binding	Truss	Pan	Binding	Truss
BLFA-5000 PGFA-5000							FS60-68J FS60-68A	FS60-68J FS60-68A	—
BLFA-7000X BLFA-7025X PGFA-7000	FS61-68 FS61-68S			FS61-68 FS61-68S			FS61-68S FS61-74	FS61-68S FS61-74	FS60-80J

● Special products to be able to hold small screws (less than 2.6mm) are available. Contact us for details.
 ● It may take some time for the delivery of the products with special specifications depending on inventory. Contact us before placing an order.

For brushless Controller

Dedicated quiet controller designed to safely operate DC screwdrivers

- ACConnected to an AC outlet. It converts power to low output for DC screwdrivers.
- Please use HIOS screwdrivers in combination with a HIOS Controller for safe screw fastening.
- For BLFA/PGFA Series, set the output voltage switch to “2” before use.

BLC-45

(for one screwdriver)



Model name	BLC-45
Part No.	BLC-45
Compatible screwdrivers	BLFA-2000 / PGFA-3000
Primary input power	AC100-240V (47-63Hz)
External dimensions (mm)	71.5 (W) × 146 (D) × 42.6 (H)
Weight (g)	320
Accessories:	1.8m power cord x 1, flat 2-pin adapter plug x 1 (for 100V models only), mounting bracket and mounting screws
Plug type	A / A-2 / A-3 / C / BF / S

BLC-70

(for one screwdriver)



Model name	BLC-70
Part No.	BLC-70
Compatible screwdrivers	BLFA -2000 / BLFA-5000 / PGFA-3000 / PGFA-5000
Primary input pow	AC100-240V (47-63Hz)
External dimensions (mm)	88 (W) × 210 (D) × 52 (H)
Weight (g)	685
Accessories	1.8m power cord x 1, flat 2-pin adapter plug x 1 (for 100V models only), mounting bracket and mounting screws
Plug type	A / A-2 / A-3 / C / BF / S

BLC-80

(for one screwdriver)



Model name	BLC-80
Part No.	BLC-80
Compatible screwdrivers	BLFA -7000 / BLFA-7000X / BLFA-7025X / PGFA-7000
Primary input pow	AC100-240V (47-63Hz)
External dimensions (mm)	116 (W) × 210 (D) × 55 (H)
Weight (g)	1,370 g
Accessories	1.8m power cord x 1, flat 2-pin adapter plug x 1 (for 100V models only), mounting bracket and mounting screws
Plug type	A / A-2 / A-3 / C / BF / S

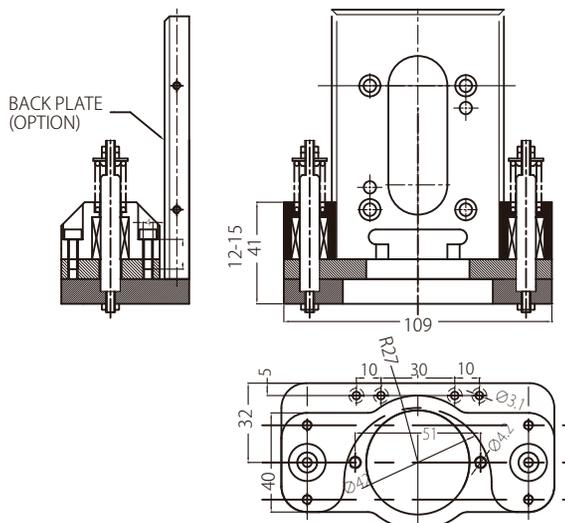
Accessories & Peripherals

Damper Unit **BLF-DP**

- When the Z-axis descends, it can absorb the impact on the workpiece, reducing the load on the screws and screwdriver.



Model name	BLF-DP
Thrust load	Initial load: About 21.4N Stroke: About 80.4N



DXF FILE

The external dimensions (DXF files) can be downloaded from the official HIOS website.
www.hios.com



Vacuum pump for suction screwdrivers **VP-3**

- A vacuum is generated to suck a screw onto the tip of the bit.



Model name(Part No.)	VP-3
Primary input power	AC100V, 120V, 220-240V ±5%
Power consumption	39W±20%
Ultimate vacuum	-350mm Hg
Air flow	25L/min
Dimensions (mm)/Weight	200×188×142(H)(mm)/3.8kg
Plug type	A-1/A-2/A-3/C/BF/S

Screw feeder **HS Series**

- One unit can handle multiple types of screws. It supplies screws quickly and stably and is compatible with suction-type screwdrivers.

HSV-RB

Compatible with eight screw diameters from M1.0 to M3.0



HS-RB

Compatible with three screw diameters from M3.5 to M5.0



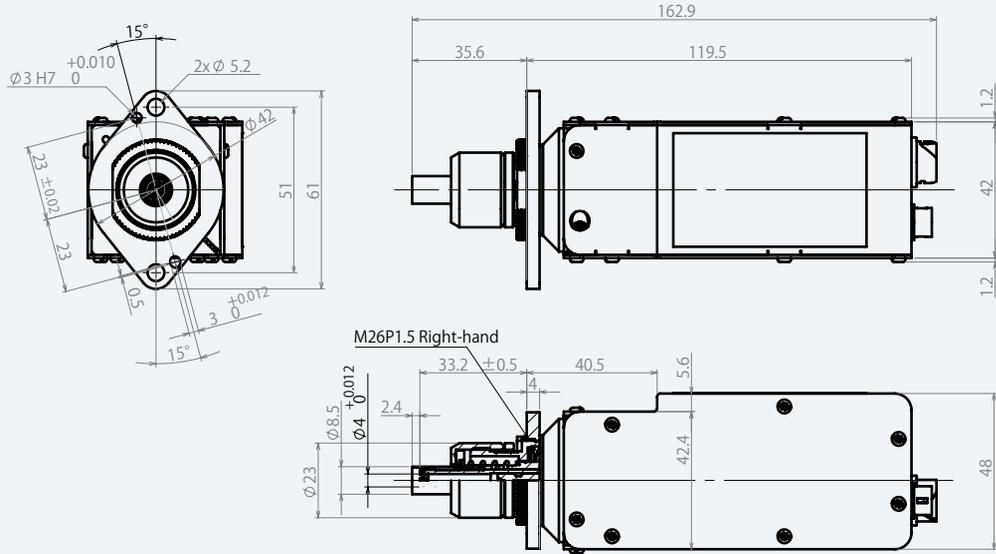
Model name	HSV-RB	HS-RB
Part *	JHSV-□□RB	JHS-□□RB
Compatible screw	M1.0/M1.2/M1.4/M1.7/M2.0/M2.3/M2.6/M3.0	M3.5/M4.0/M5.0
Take out method	Rotating escaper	Slide
Nominal length (max.)	20mm	18mm
Screw stock capacity	80cc	150cc
Takt time	0.9sec	1.5sec
Screw presence/absence signal	●	●
Overload protection and recovery circuit	In the case of overload, reverse. After recovery,	
Power supply (AC adapter)	Input	AC100-240V 50/60Hz
	Output	DC15V2.4A
External dimensions WxDxH	123×181×146	134×274×139
Weight	3.0Kg (including rail)	4.4Kg(レールを含む)

* When ordering, please enter the appropriate screw diameter (size M) in the box. Please enter without decimal points. [Examples] M2.6 → 26 / M3.5 → 35

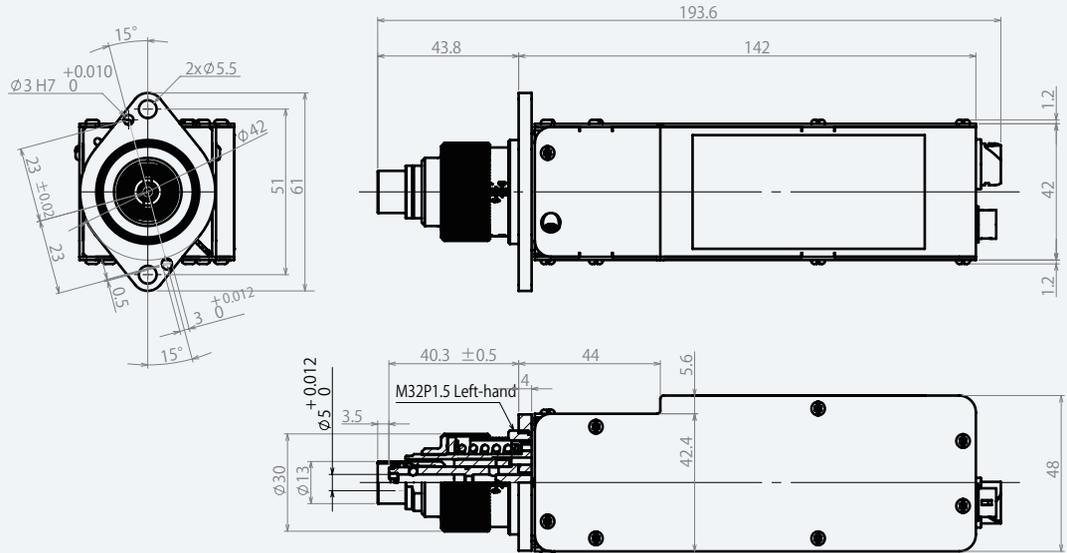
External dimensions

BLFA

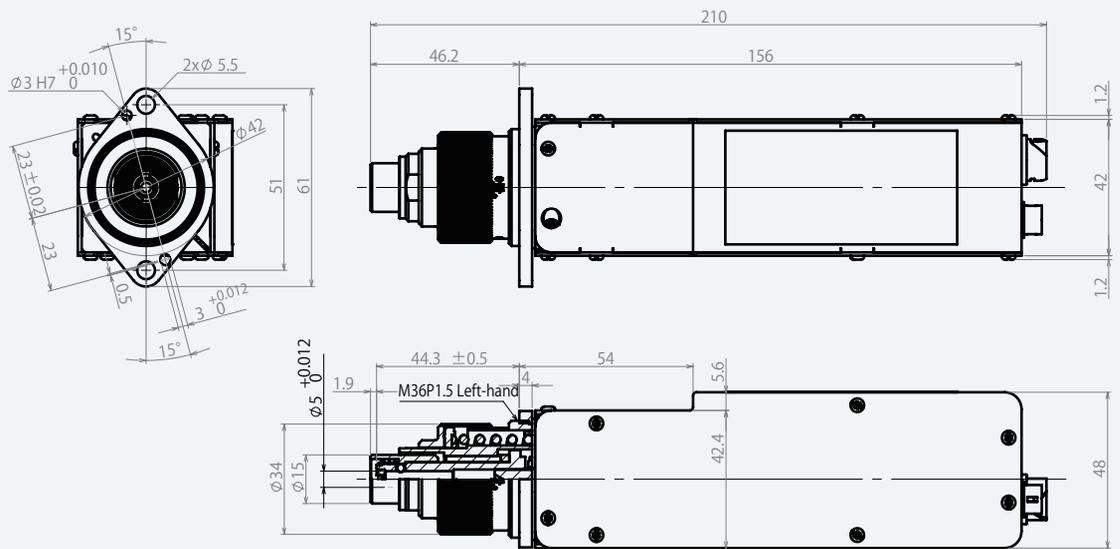
BLFA-2000



BLFA-5000



BLFA-7000

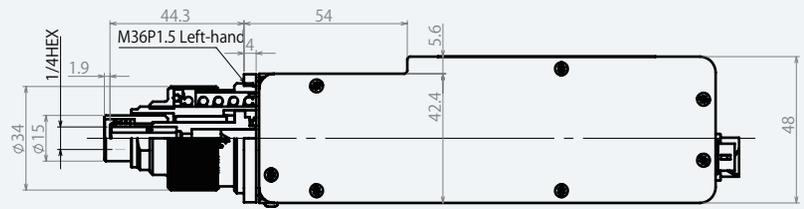
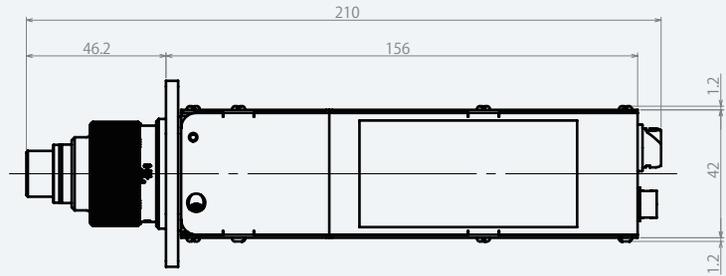
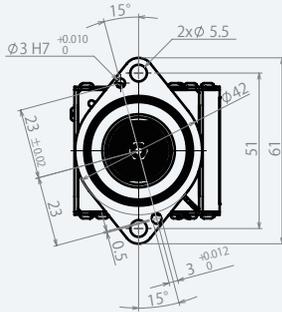


External dimensions

BLFA



BLFA-7000X
BLFA-7025X

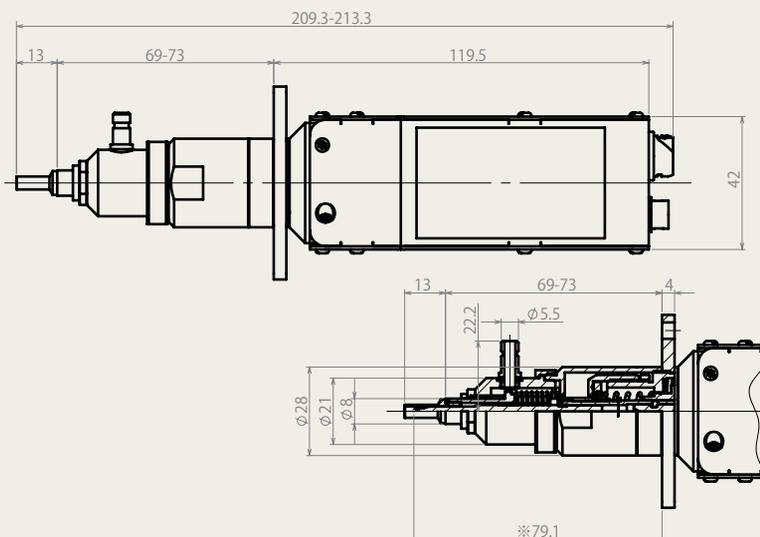


BLFA (FQ)



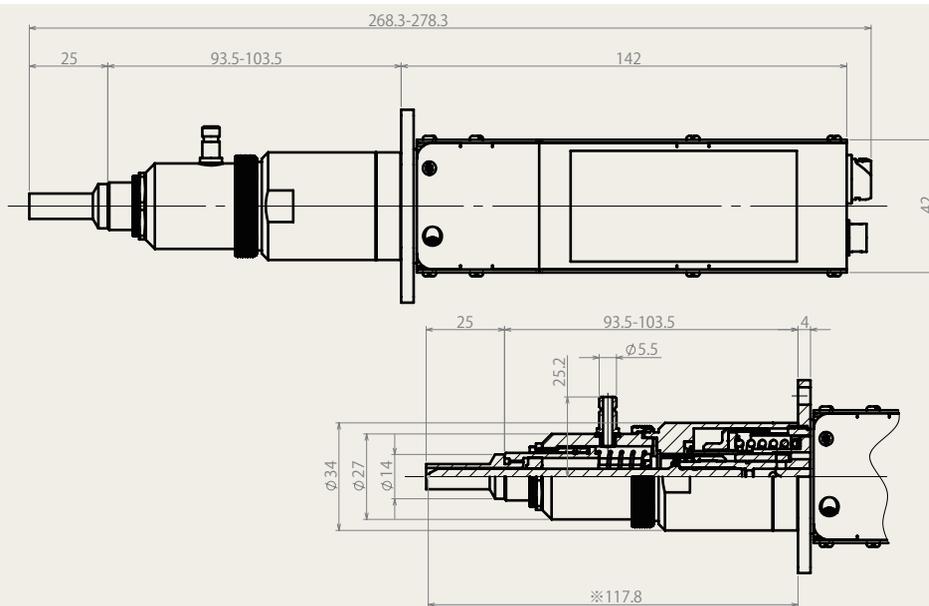
BLFA-2000

- The distance from the flange to the tip of the bit is 79.1mm
- The value* may vary depending on the bit.
- Uses a H4, 60mm bit.



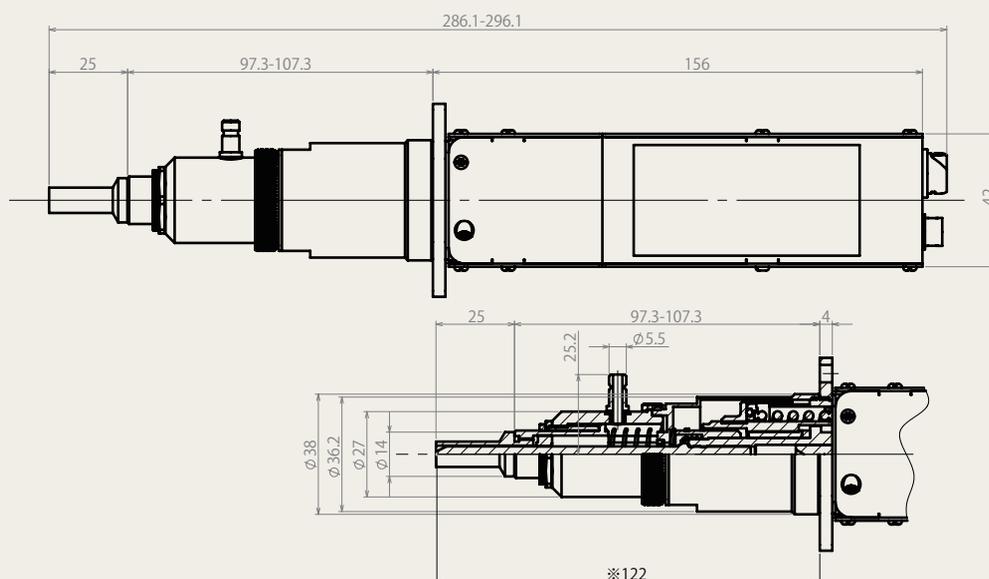
BLFA-5000

- The distance from the flange to the tip of the bit is 117.8mm
- The value* may vary depending on the bit.
- Uses a H5, 100mm bit.



BLFA-7000

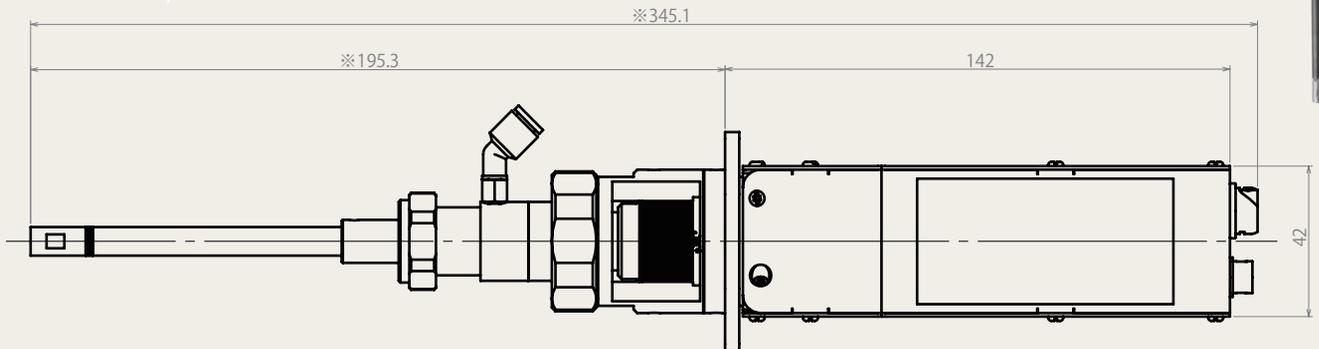
- The distance from the flange to the tip of the bit is 122mm
- The value* may vary depending on the bit.
- Uses a H5, 100mm bit.



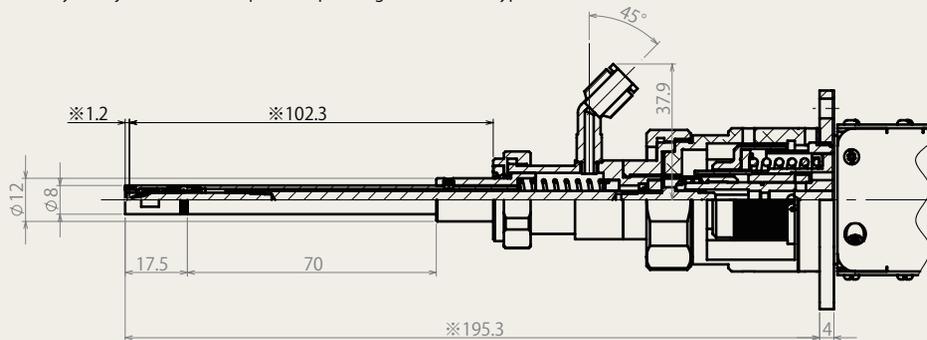
BLFA (FR)



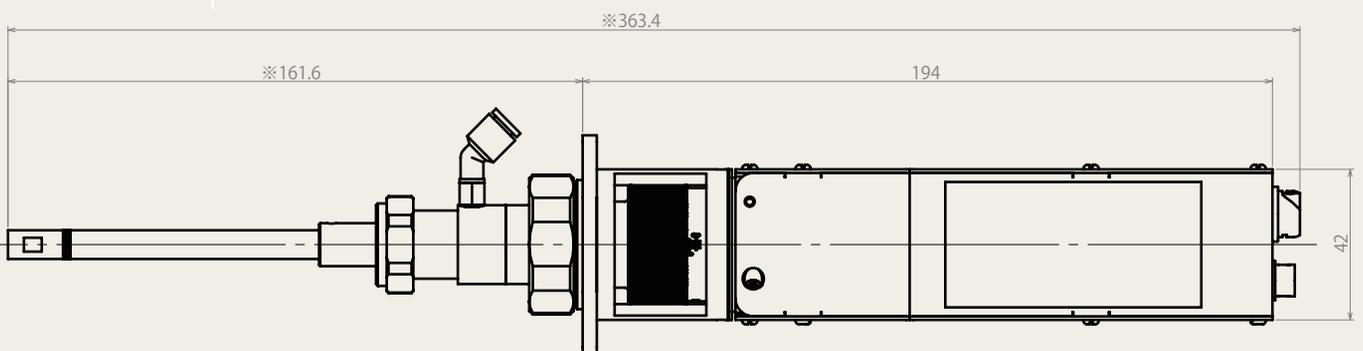
BLFA-5000



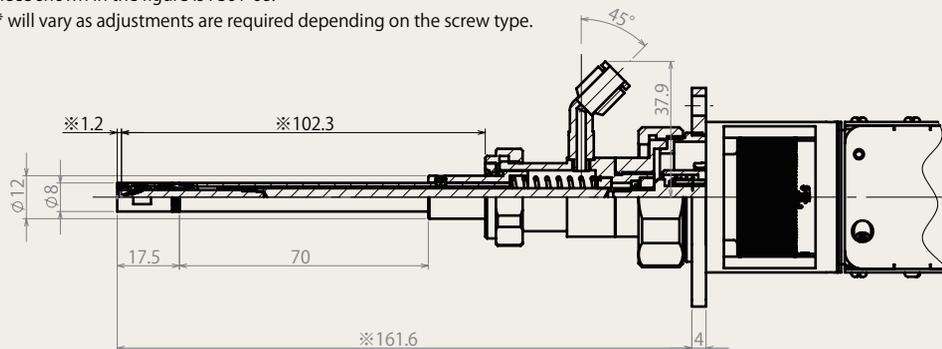
- The mouthpiece shown in the figure is FS61-68.
- Dimensions* will vary as adjustments are required depending on the screw type.



BLFA-7000X



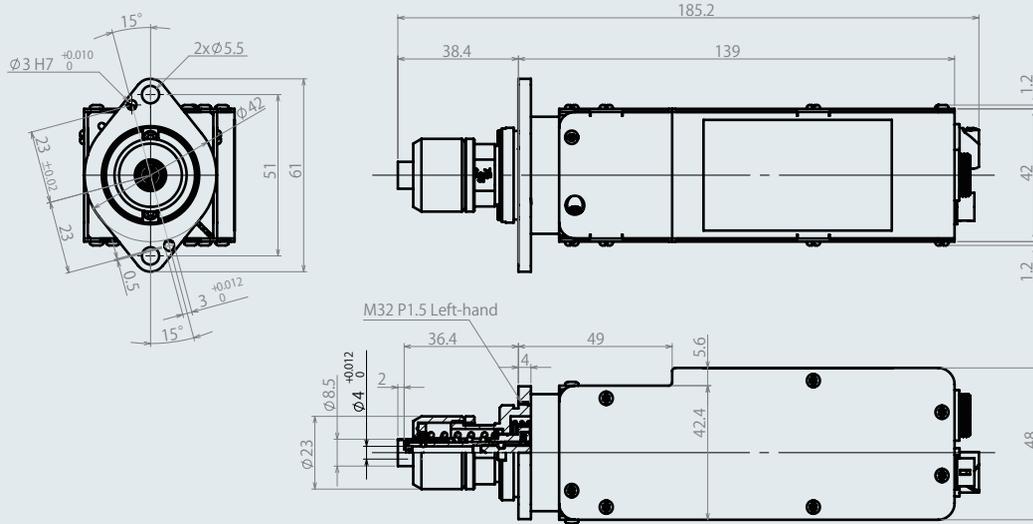
- The mouthpiece shown in the figure is FS61-68.
- Dimensions* will vary as adjustments are required depending on the screw type.



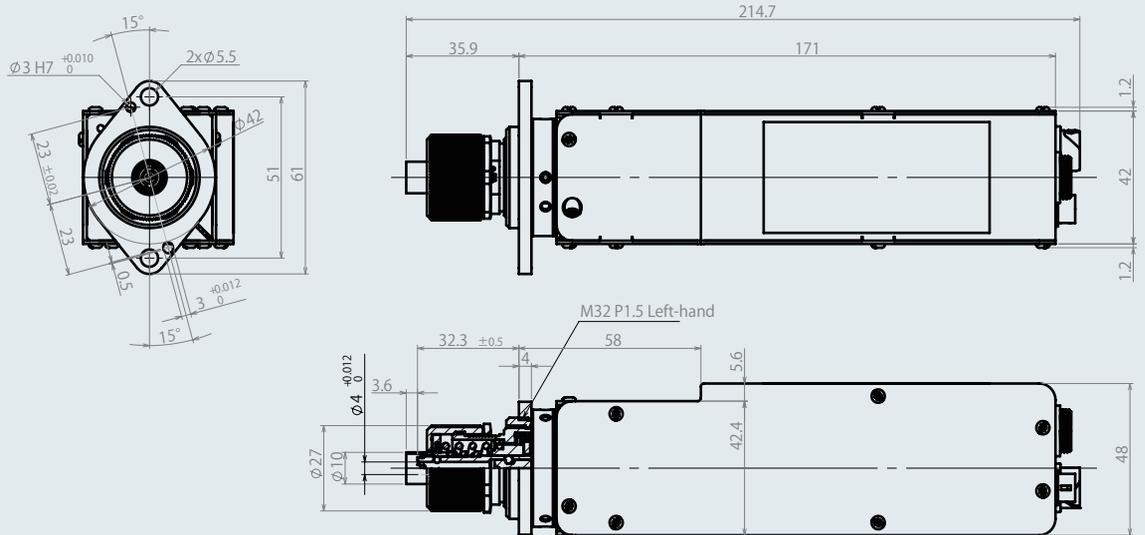
PGFA



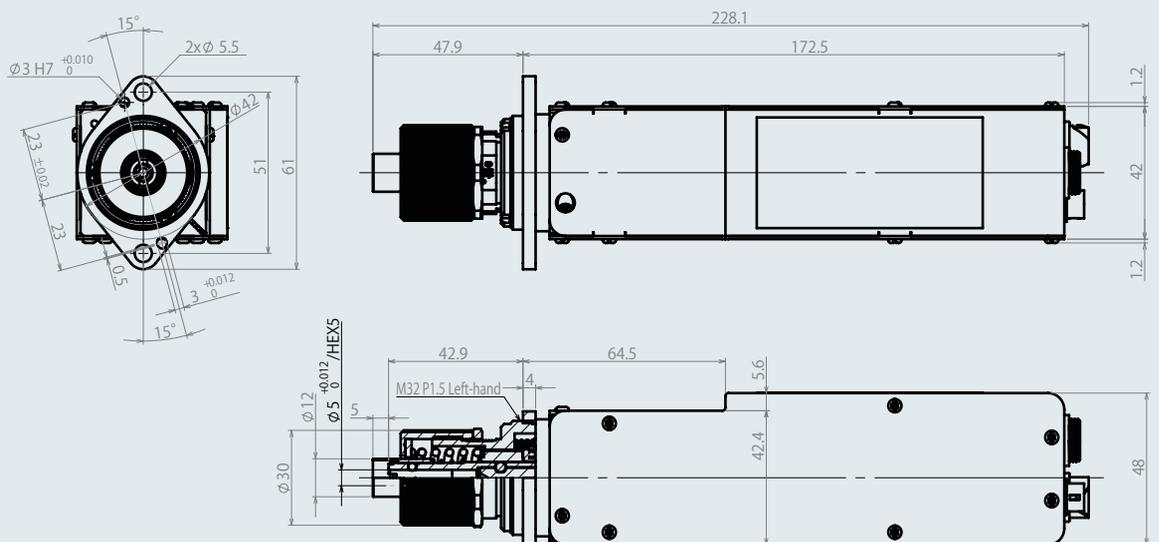
PGFA-3000



PGFA-5000



PGFA-7000

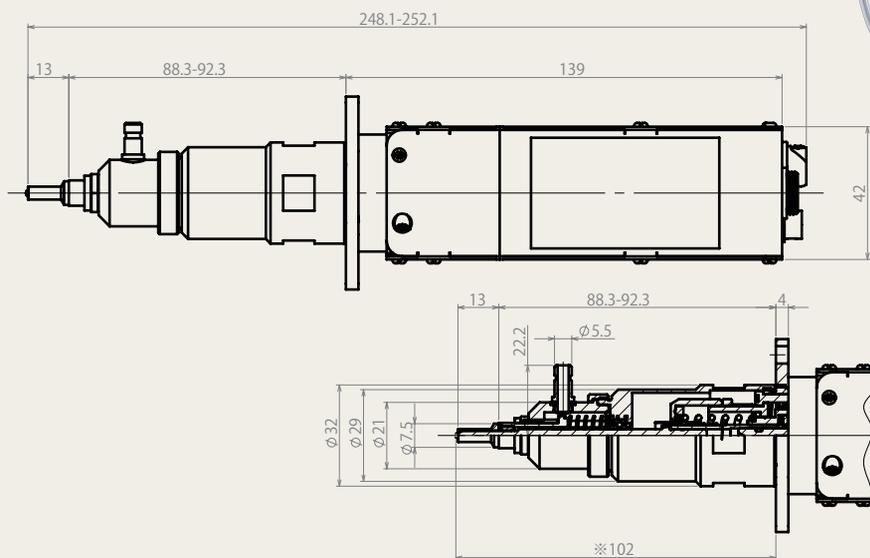


PGFA (FQ)



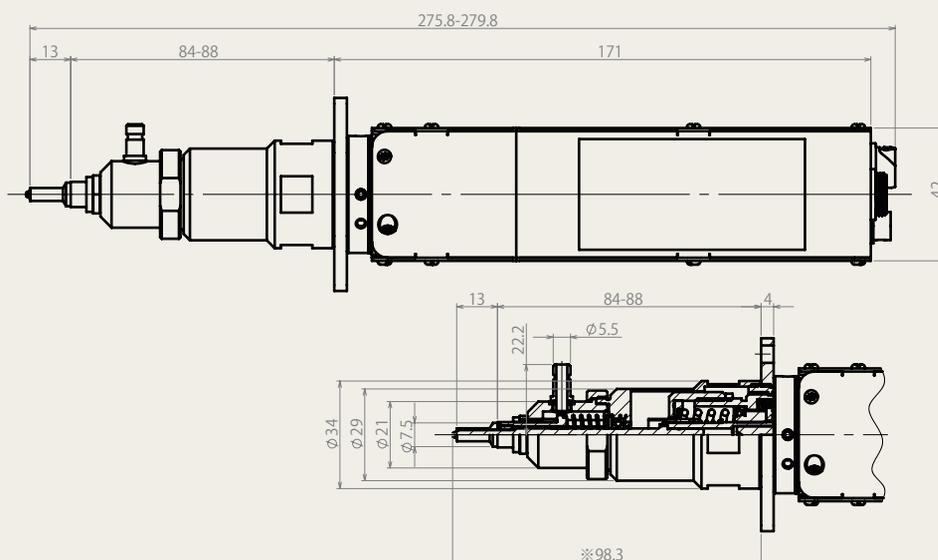
PGFA-3000

- The distance from the flange to the tip of the bit is 102mm
- The value* may vary depending on the bit.
- Uses a H4, 80mm bit.



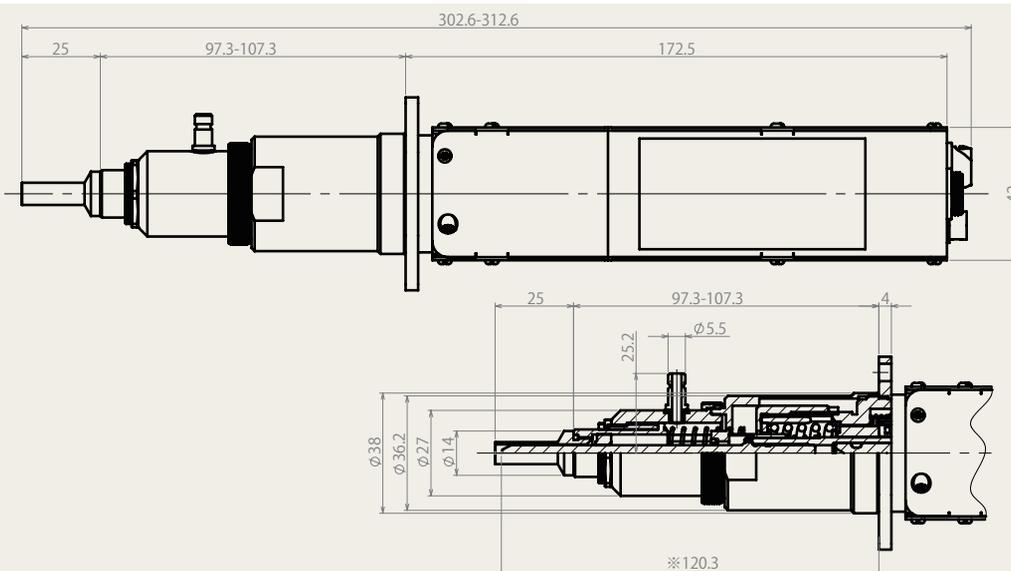
PGFA-5000

- The distance from the flange to the tip of the bit is 98.3mm
- The value* may vary depending on the bit.
- Uses a H4, 80mm bit.



PGFA-7000

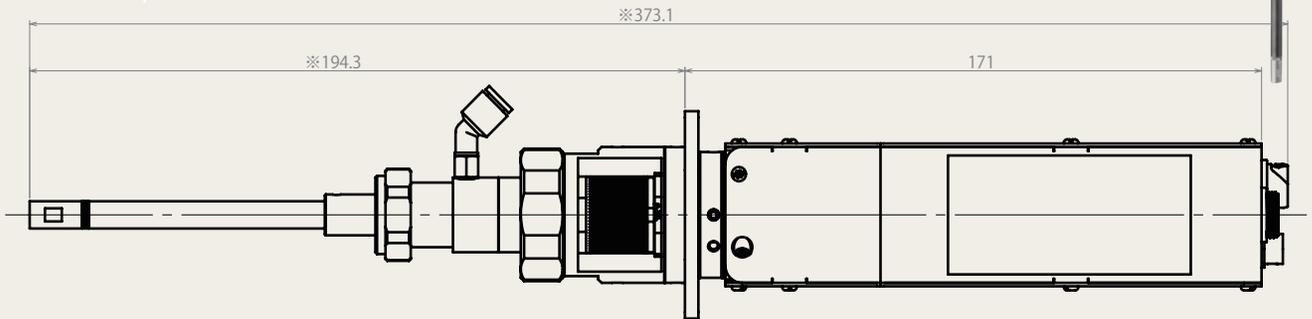
- The distance from the flange to the tip of the bit is 120.3mm
- The value* may vary depending on the bit.
- Uses a H5, 100mm bit.



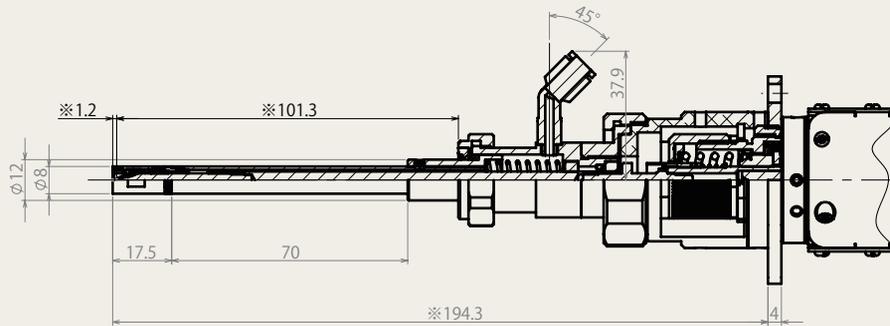
PGFA (FR)



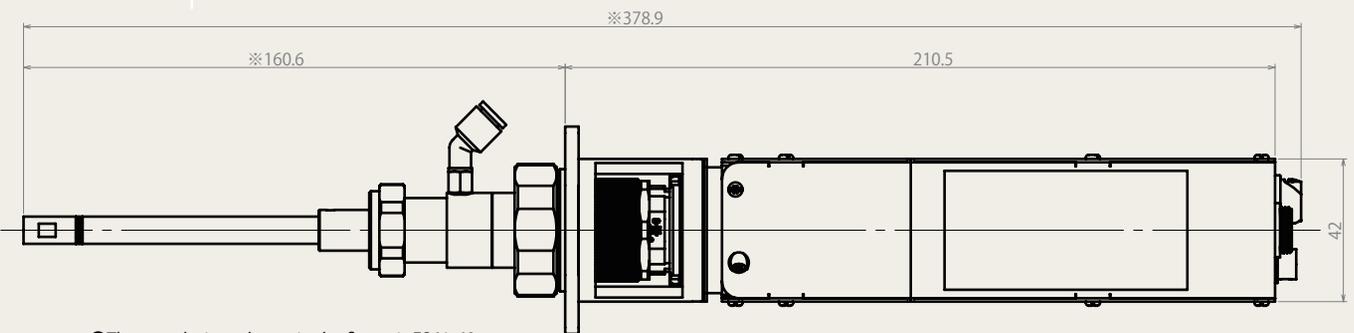
PGFA-5000



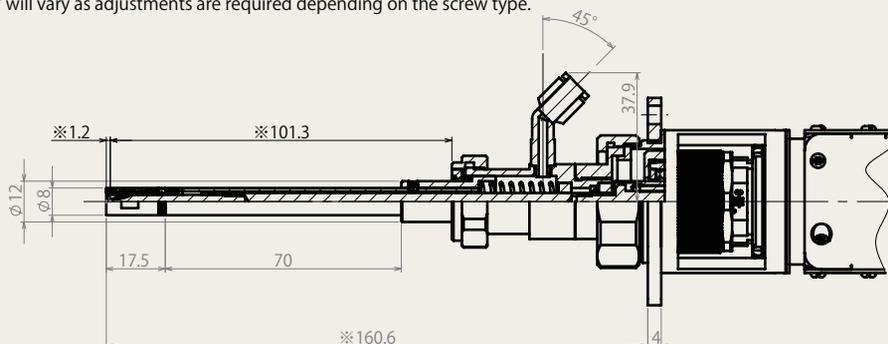
- The mouthpiece shown in the figure is FS61-68.
- Dimensions* will vary as adjustments are required depending on the screw type.



PGFA-7000



- The mouthpiece shown in the figure is FS61-68.
- Dimensions* will vary as adjustments are required depending on the screw type.



Order Codes

Screwdrivers

BLFA Series

Model	Order Code	Bit Drive	Suction Compatible	
			FQ	FR
BLFA-2000	BLFA-2000	H4	✓	—
BLFA-5000	BLFA-5000	H5 and 5HEX	✓	✓
BLFA-7000	BLFA-7000	H5	✓	—
BLFA-7000X	BLFA-7000X	1/4HEX	—	—
	BLFA-7000XC	1/4HEX	—	✓
BLFA-7025X	BLFA-7025X	1/4HEX	—	—
	BLFA-7025XC	1/4HEX	—	✓

PGFA Series

Model	Order Code	Bit Drive	Suction Compatible	
			FQ	FR
PGFA-3000	PGFA-3000	H4	✓	—
PGFA-5000	PGFA-5000	H4	✓	✓
PGFA-7000	PGFA-7000	H5 and 5HEX	✓	—
	PGFA-7000X	1/4HEX	—	—
PGFA-7000XC	PGFA-7000XC	1/4HEX	—	✓

Judgment Device

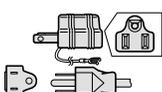
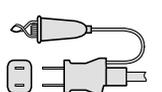
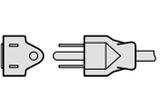
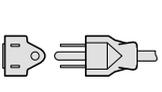
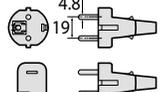
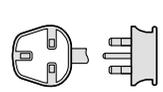
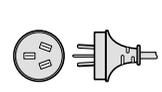
Model	Order Code	Notes
PG-01FA	PG-01FA	

For BLFA/PGFA Operation box

BLOP-AY01

Model	Order Code	Plug Shape
BLOP-AY01	BLOP-AY01-EU	
	BLOP-AY01-CN	
	BLOP-AY01-USA	
	BLOP-AY01-BF	
	BLOP-AY01-TH	

Plug Types

Voltage	100V		120V	220-240V			
	Type A	Type A-1	Type A-2	Type A-3	Type C	Type BF	Type S
Plug Shape							

Suction Attachments

BLFA Series

Model	Order Code	Bit Drive
BLFA-2000	BLFQ2-SET	H4
BLFA-5000	BLFQ5-SET	H5 and 5HEX
BLFA-7000	BLFQ7-SET	H5

FQ Suction Attachments

for Screws for Deep Recessed Holes

FR Suction Attachments

BLFA-5000	BLFR5-SA	H5 & 5HEX
BLFA-7000X	BLFR7-SA	1/4HEX
BLFA-7025X	BLFR7-SA	1/4HEX

PGFA Series

Model	Order Code	Bit Drive
PGFA-3000	PGFQ3-SET	H4
PGFA-5000	PGFQ5-SET	H4
PGFA-7000	PGFQ7-SET	H5 and 5HEX

FQ Suction Attachments

for Screws for Deep Recessed Holes

FR Suction Attachments

PGFA-5000	PGFR5-SA	H4
PGFA-7000	PGFR7-SA	1/4HEX

Controller for Brushed Screwdrivers

Model	Order Code	Plug
BLC-45	BLC-45	A (100V)
	BLC-45-UL	A-2 (120V)
	BLC-45-TH	A-3 (220-240V)
	BLC-45-EU-HK	C (220-240V)
	BLC-45-UK-SP	BF (220-240V)
BLC-70	BLC-70	A (100V)
	BLC-70-UL	A-2 (120V)
	BLC-70-TH	A-3 (220-240V)
	BLC-70-EU-HK	C (220-240V)
	BLC-70-UK-SP	BF (220-240V)
BLC-80	BLC-80	A (100V)
	BLC-80-UL	A-2 (120V)
	BLC-80-TH	A-3 (220-240V)
	BLC-80-EU-HK	C (220-240V)
	BLC-80-UK-SP	BF (220-240V)

Peripherals and Accessories

Vacuum Pump

Model	Order Code	Plug
VP-3	VP-3	A-1(100V)
	VP-3-120USA	A-2(120V)
	VP-3-3-220RCH	S(220-240V)
	VP-3-TH	A-3(220-240V)
	VP-3-230HK	C(220-240V)
	VP-3-230SP	BF(220-240V)

Damper Unit

Model	Order Code	Notes
BLF-DP	BLF-DP	—

Screwdriver Cords (For BLFA/PGFA)

Cable Length	Order Code	Appearance
4.5m	BLFA-0100	

Operation Box Control Cable

7m	BLFA-0110	
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- Please note that some of the specifications and appearance of the products may be changed for improvement without prior notice.
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