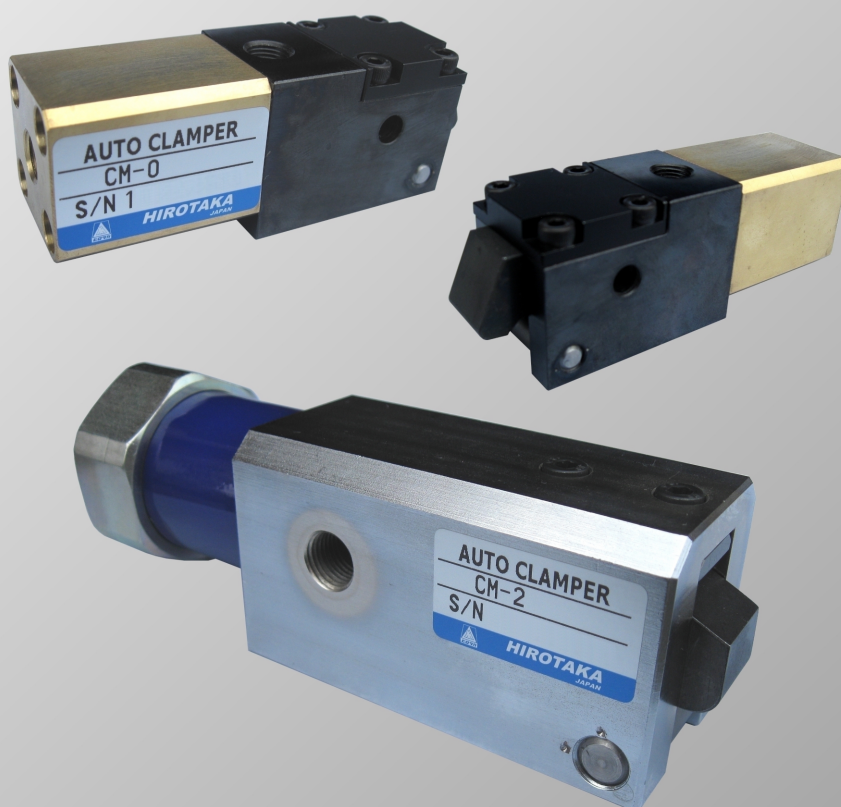




Useable both pneumatic and hydraulic

AUTO CLAMPER

Compact clamping tool.



HIROTA MFG. CO.,LTD.

AUTO CLAMPER

Compact, lightweight and easy-to-use pneumatic and hydraulic clamp.
Use this clasper for automation and labor saving of JIG.

Overview

The auto clasper CM series is a device that saves the trouble of designing complicated JIG and reduces the burden on workers.

The clasper arm moves forward and then descends to clasper the workpiece so that it can be claspered even in narrow working spaces.

Either pneumatic or hydraulic fluid can be used depending on the work application.

How to order

CM W - 1 - 2

Series
Auto Clasper

Symbol	With auto switch (Built-in magnet)
Nil	Without magnet
W	Magnet sensing

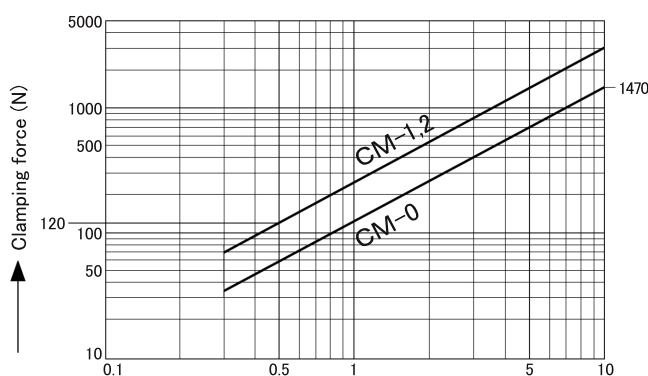
Symbol	Body type
0	CM - 0
1	CM - 1
2	CM - 2

Symbol	Number of Auto switches
1	1 pc.
2	2 pcs.

Specification

Model number	CM - 0	CM - 1	CM - 2
Cylinder diameter	$\phi 20$	$\phi 30$	$\phi 30$
Cylinder stroke	15 mm	20 mm	30 mm
Fluid	Air or Oil		
Operating pressure	Port 1 : 0.4 to 1.0 MPa Port 2 : 0.4 to 10.0 MPa		
Amount of oil	4.8 cm ³	15 cm ³	22 cm ³
Clamping force	At 0.5 MPa At 10 MPa	60 N 1470 N	120 N 3000 N
Mass	0.6 kg	1.7 kg	1.8 kg

Operating pressure and clamping force



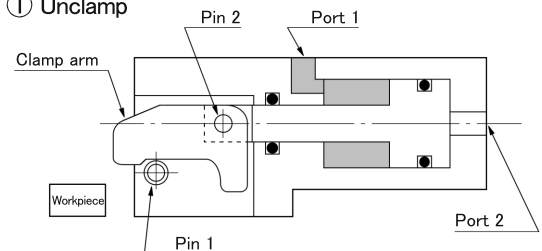
CMW-1 and 2 have the same clamping force as CM-1 and 2.

Feature

- 1 It is a compact type that can be easily incorporated into JIG.
- 2 Clasper arm that can move forward and backward to easily mount and remove workpieces.
- 3 Zero trouble due to simple structure.
- 4 Actuation by air can be used as a claspering device for light loads.
- 5 By using our product Rush Booster, the tightening force can be greatly increased from pneumatic to hydraulic.
- 6 There is also type with switch.

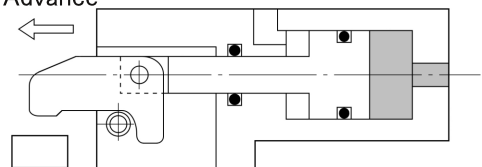
Action description

① Unclasper



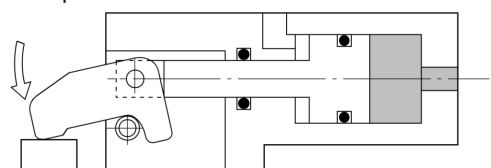
The clasper arm returns when fluid is supplied to the port 1.

② Advance



When fluid is supplied to port 2, the clasper arm moves forward until it hits pin 1 and reaches the top of the workpiece.

③ Clasper



Furthermore, when fluid flows into port 2, the clasper arm rotates around pin 2, and the tip descends to clasper the workpiece. When fluid is supplied to port 1, it advances from ② to ① and returns to the initial position.

[illegible][illegible]

Unit: mm

Symbol Model No.	A	B	C	S
CM - 1	85	45	16	11
CM - 2	95	55	6	21

Technical drawing of the 300 Series Solenoid Valve, showing three views: front, side, and top. The front view shows a cylindrical body with a diameter of 50 mm and a total height of 51 mm. The side view shows a solenoid coil with a length of 32 mm and a mounting bracket with a height of 40 mm. The top view shows the valve body with a length of 46 mm and a mounting bracket with a width of 29 mm. The drawing includes labels for Port (1) 2-Rc1/4, Auto switch, Air release valve, Port (2) Rc1/4, and 4-M8 x 1.25 Depth 15. Dimensions are given in millimeters.

Unit: mm

Model No. \ Symbol	A	B	C	S
CMW-1-1	85	78	16	11
CMW-2-2	95	88	6	21

Model number	SWC-1R
Color	Red
Load current range	3 to 50 mA
Internal voltage drop	2.5 V or less
Load voltage	5 to 100 VAC/VDC
Contact type	Read, LED illuminates when turned ON
Lead wire	Two-core cable, 1 m
Impact resistance	30 G (11 msec)
Vibration resistance	20 G (10 to 1000 Hz)
Working temperature range	-10 to 60 °C
Protection structure	IP67 (IEC)

Internal circuit

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graph LR
    B[+] --- LED((LED)) --- R[Resistor] --- Z[Zener diode] --- B[-]
    AS[Auto switch] --- Z
    
```

(+) Brown lead wire

(-) Blue lead wire

Auto switch



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RUSH BOOSTER

HYDRAULIC CYLINDER

FREE LOCK PAD

SELLOCK CYLINDER

FLOATING CONNECTOR

AUTO CLAMPER

SEL NUT

LINEA BRAKE

**PNEUMATIC AND HYDRAULIC
EQUIPMENT**