

Hydraulic Piston Clamp Swing Rod Clamp for Lower Die

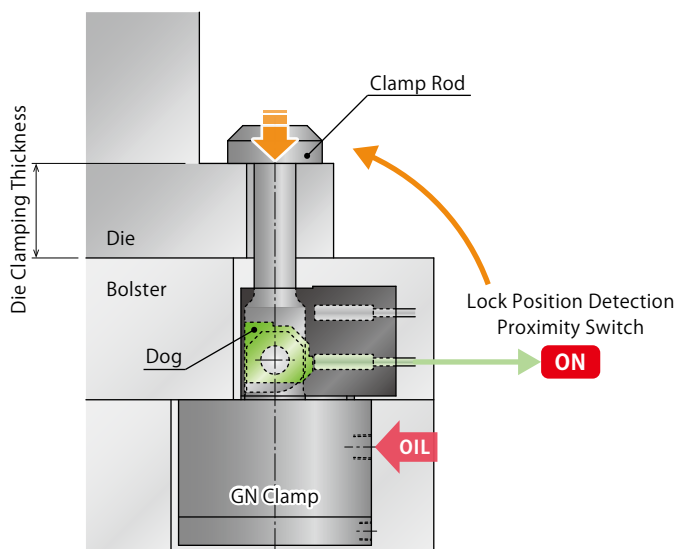
Model GN



The rod swings away in a released state.

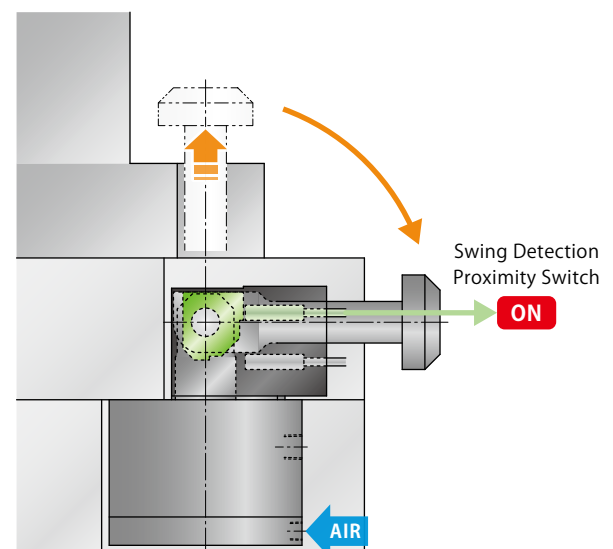
Avoids interference during die loading/unloading. Clamps with hydraulic pressure + spring force, and releases with air pressure.

● Action Description



Locked State

The clamp rod swings to the lock side with spring force. By supplying hydraulic pressure the clamp rod descends to lock the die. Lock Position Detection Proximity Switch and Pressure Switch detect the lock completion.



Released State

By releasing hydraulic pressure and supplying air pressure the clamp rod ascends and swings to the release side. Swing Detection Proximity Switch detects the release completion.

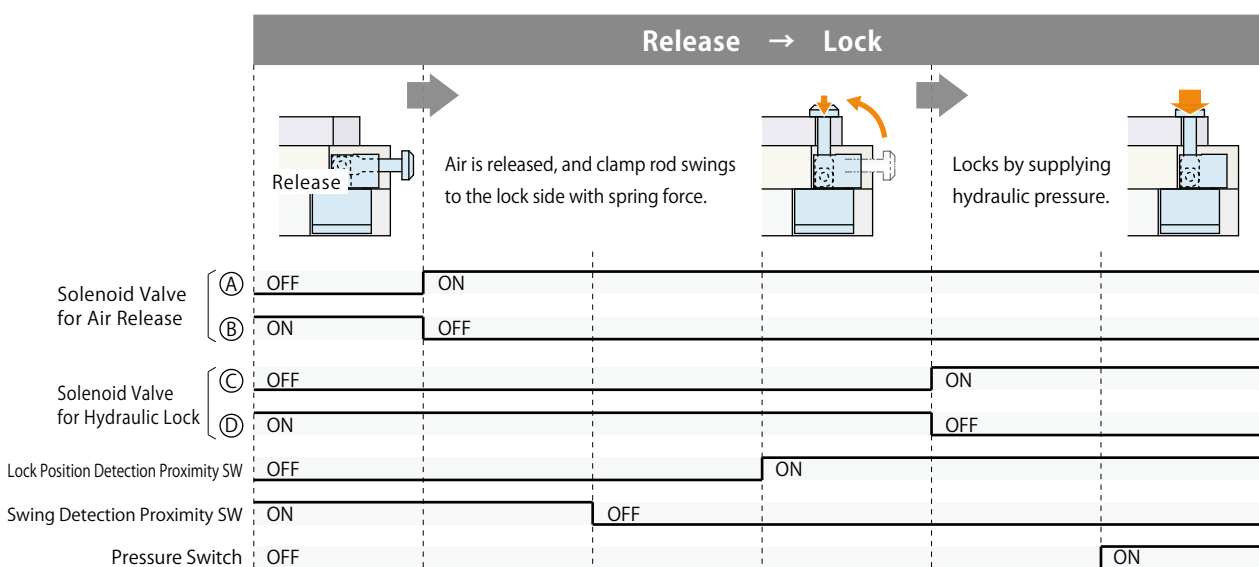
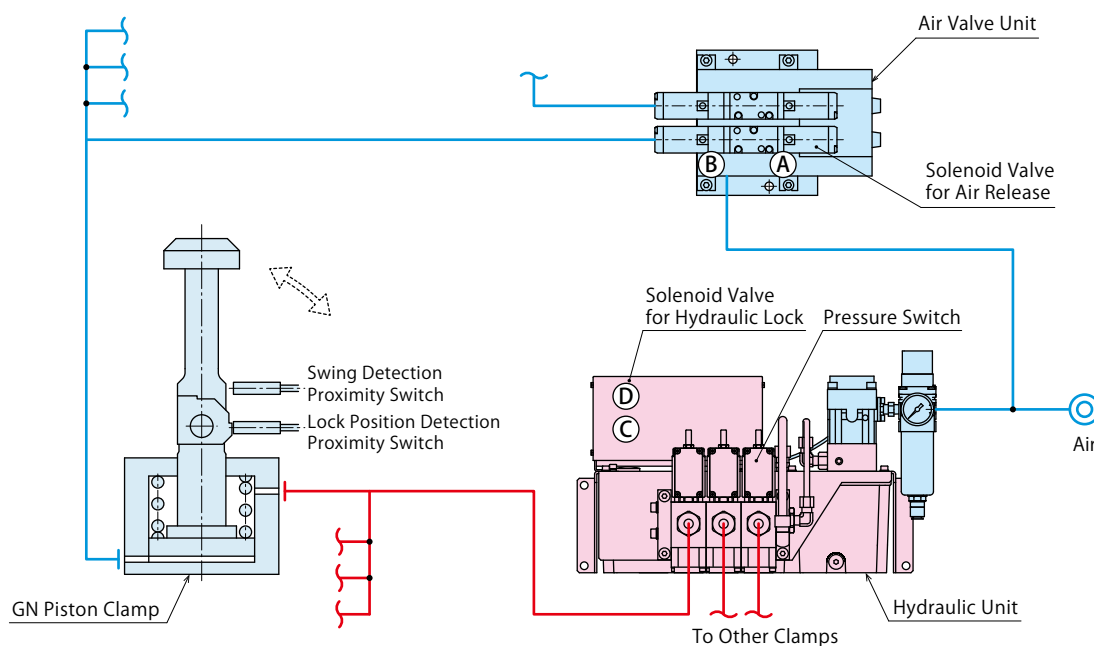
Lock Position Detection Proximity Switch **ON**
Swing Detection Proximity Switch **OFF**

Lock Position Detection Proximity Switch **OFF**
Swing Detection Proximity Switch **ON**

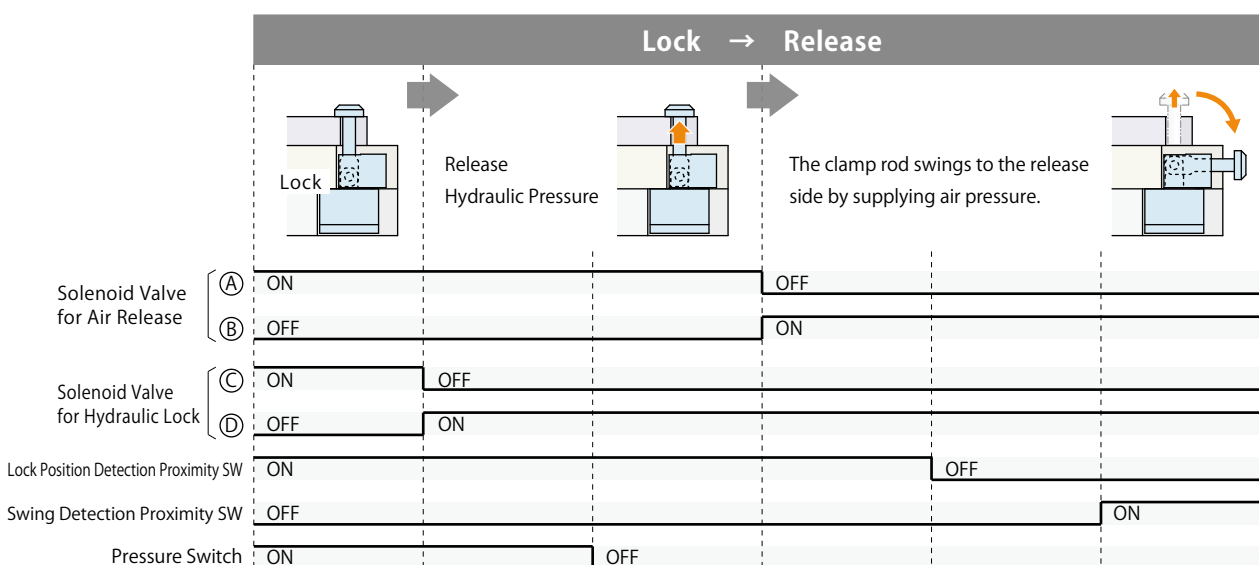
※ GN clamp is not applicable to an upper die or the place where the clamp rod faces downward.

※ We provide GN clamps according to die clamping thickness. Refer to the external dimensions for further information.

Circuit Reference



※ Lock action is completed when both Lock Position Detection Proximity Switch and Pressure Switch are **[ON]**.



※ Release action is completed when Swing Detection Proximity Switch is **[ON]** and Pressure Switch is **[OFF]**.

Note :

- Although GN clamp is a hydraulic single-acting clamp, the unit circuit of the clamp is the **U** circuit because the clamp is controlled with double solenoid. When using GN clamp combining with other single-acting clamps, the clamp circuit should be **G** circuit. When using GN clamp combining with RQA/RA die lifters, the circuit should be **H** circuit. Please contact us for further information.

Clamp • Unit
Operation Panel
Control Unit

Die Lifter
Pre-Roller

Accessories

Cautions
Company Profile

Clamp

GA

GD

GBB

GBC

GBE

GBF

GBP

GBQ

GN

GHA

Hydraulic Unit

CP

CR

CPB

CPD

CPC

CPE

CQC

CQE

Pump Unit

CB

CD

CC

Valve Unit

BC

BH

MV

Operation Panel Control Unit

YP

YAA

Model No. Indication

GN **040** **2** - **35** - **5** - **V** ^{※1}

1 2 3 4 5

Notes :

- ※1. For any specifications other than those described in "Model No. Indication" and "Specifications" sections, please contact us.
"-Z□□□□□" is added to the end of model number as a sign of a custom-made model.

1 Clamping Force

025 : 25 kN
040 : 40 kN
063 : 63 kN
100 : 100 kN

4 Proximity Switch Load Voltage (Current)

1 : AC100V
2 : AC200V
5 : DC24V

2 Design No.

2 : Revision Number

3 Die Clamping Thickness ^{※2 ※3}

25 : Die Clamping Thickness h= 25mm
 }
50 : Die Clamping Thickness h= 50mm

- ※2. The Die Clamping Thickness (h) can be selected from 25 ~ 50mm.
 ※3. For **5** Option **N** : NPT Port, each dimension is written in inches in the specifications and other documents. However, the die clamping thickness is shown by mm value as a symbol.

5 Option

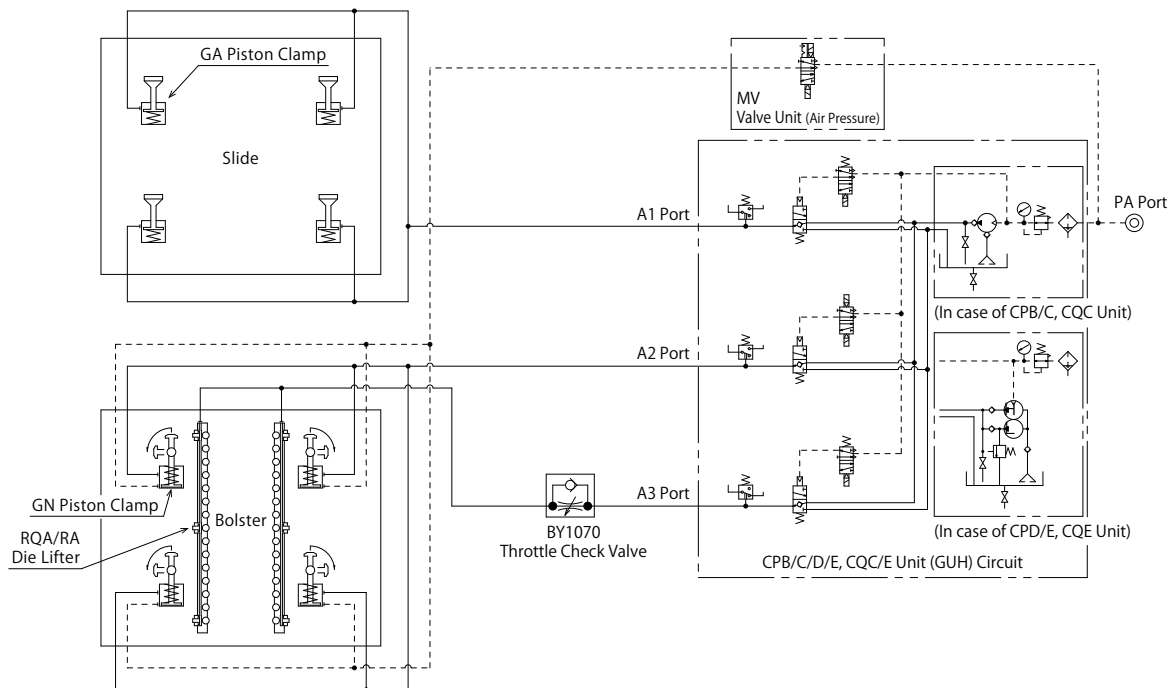
Blank : Standard
N : NPT Port ^{※4}
V : High Temperature (0 ~ 120°C) ^{※5}

- ※4. For Option **N** : NPT Port, each dimension is written in inches in the specifications and other documents.
 ※5. Select the hydraulic unit with pressure relief valve when using under high temperature since there may be pressure fluctuation caused by temperature change.

Specifications

Model No.		GN0252	GN0402	GN0632	GN1002
Clamping Force	kN	25	40	63	100
Working Pressure	MPa	25 (For Rated Clamping Force)			
Withstanding Pressure	MPa	37			
Full Stroke	mm	6	7.5	10	12
Clamp Stroke	mm	4	5	7	9
Extra Stroke	mm	2	2.5	3	3
Swing Angle		90°			
Cylinder Capacity cm ³	Lock	18.6	36	73.9	157.9
	Release	27.4	53.5	115.5	241.8
Air Pressure for Swing Action	MPa	0.4 ~ 0.5			
Proximity Switch Voltage		AC100V / AC200V / DC24V			
Operating Temperature ^{※6}	°C	0 ~ 70 (V : High Temperature option is available for 0 ~ 120°C)			
Use Frequency ^{※7}		20 Cycles / Day or less			
Usable Fluid ^{※8 ※9 ※10}		General Hydraulic Oil Equivalent to ISO-VG-32			
Weight ^{※11}	kg	3.8	6.0	10.2	16.5

- Notes :
- ※6. Option **V** : High Temperature (0 ~ 120°C) is for operating in temperatures of 70°C or more.
 - ※7. Please contact us for more frequent use.
 - ※8. Please contact us for fluids other than those mentioned on the list.
 - ※9. If hydraulic viscosity is higher than specified, action time will be longer.
 - ※10. If using it at low temperature, action time will be longer because the viscosity of hydraulic oil becomes higher.
 - ※11. It shows the weight when die clamping thickness (Dimension h) is 25 mm.
 - 1. Hydraulic pressure for lock should be 25MPa , and air pressure for release should be 0.4 ~ 0.5MPa.
 - 2. GN clamp is not applicable to the upper die or the place where the clamp rod is downward.
 - 3. Combination Use of GN Piston Clamp, RQA/RA Die Lifter and Hydraulic Unit :
When RQA/RA Die Lifter is in a lift-down state, back pressure is applied to the lock port of GN clamp so that the proximity switch may come off. When using GN Piston Clamp with RQA/RA Die Lifter and Hydraulic Unit, please install BY1070 Throttle Check Valve to hydraulic piping of RQA/RA Die Lifter.




Proximity Switch Specifications

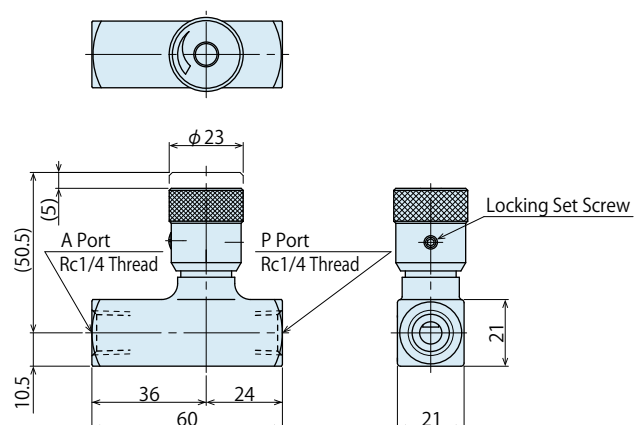
4 Proximity Switch Load Voltage	1 : AC100V	2 : AC200V	5 : DC24V
Manufacturer	OMRON	OMRON	OMRON
Model No.	E2E-X2Y1	E2E-X2Y1	E2E-X2D1-N
Voltage	AC100V	AC200V	DC12~24V
Internal Voltage Drop	20V or less	40V or less	3V or less
Load Current	5~200mA	5~200mA	3~100mA

Throttle Check Valve Specifications / External Dimensions

- Specifications

Model No.	BY1070
Max. Flow Rate	30 ℓ /min
Max. Working Pressure	28MPa
Cracking Pressure	0.05MPa
Circuit Symbols	

- External Dimensions



**Clamp • Unit
Operation Panel
Control Unit**

Die Lifter Pre-Roller

Accessories

Cautions
Company Profile

ClampGAGD

CR

GB

GBGBGBGBGNGH

Hydraulic UnitCP

CP

CPOCPICQCQ

Pump Unit

CBCD

Valve UnitBC

DU

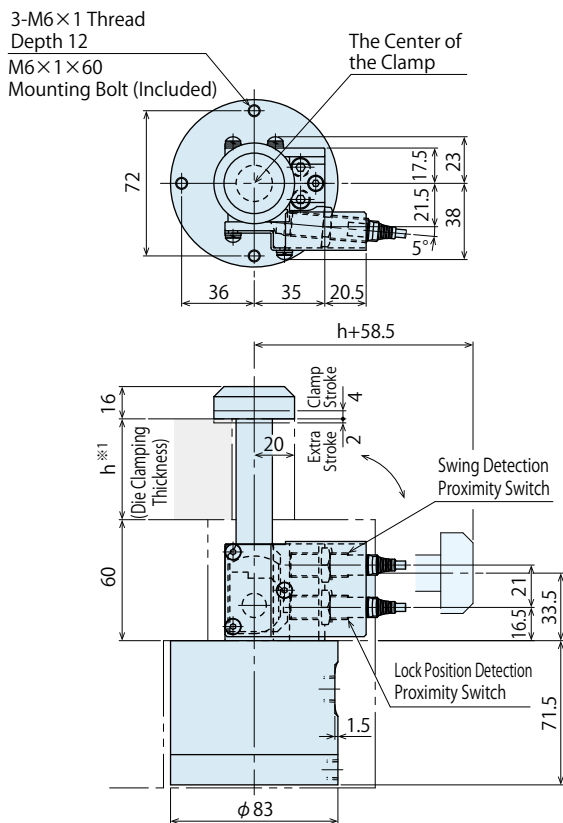
Operation Panel
Control Unit

YPVAA

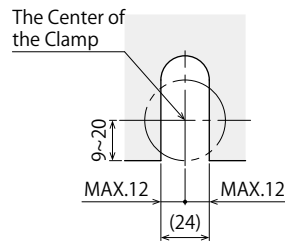
External Dimensions

GN0252-□-1, GN0252-□-2

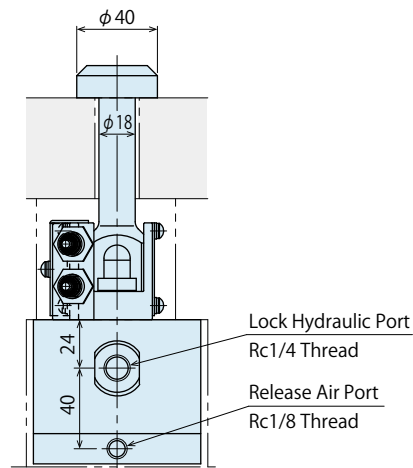
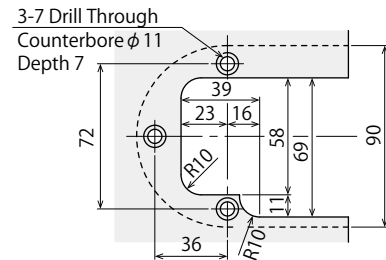
The drawing shows the clamped state with **4** Proximity Switch Load Voltage **1** : AC100V or **2** : AC200V, and **5** Option **Blank** : Standard.



Die U-Cut Dimensions
(Machined by customer)

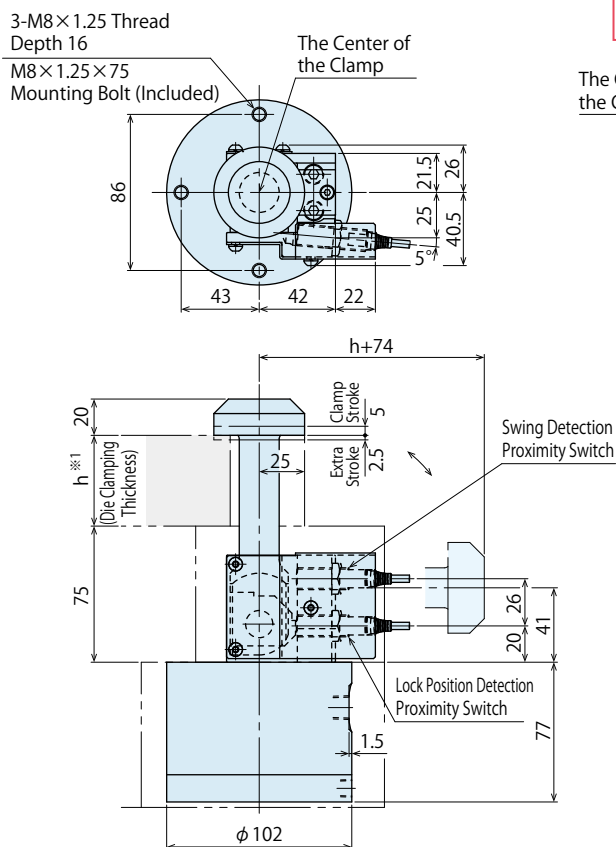


Machining Dimensions of Mounting Area
(Machined by customer)

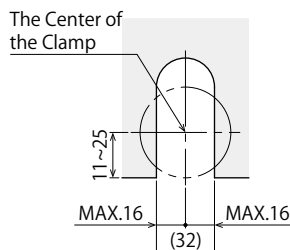


GN0402-□-1, GN0402-□-2

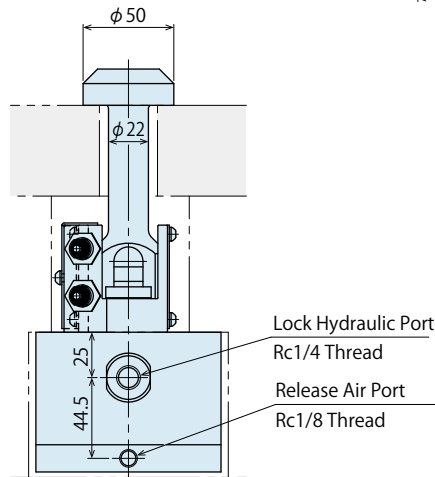
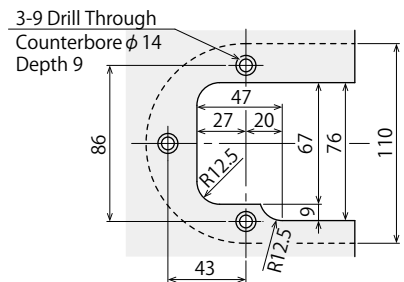
The drawing shows the clamped state with **4** Proximity Switch Load Voltage **1** : AC100V or **2** : AC200V, and **5** Option **Blank** : Standard.



Die U-Cut Dimensions
(Machined by customer)

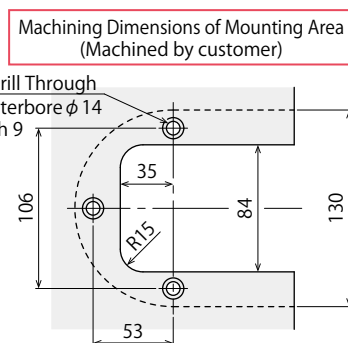
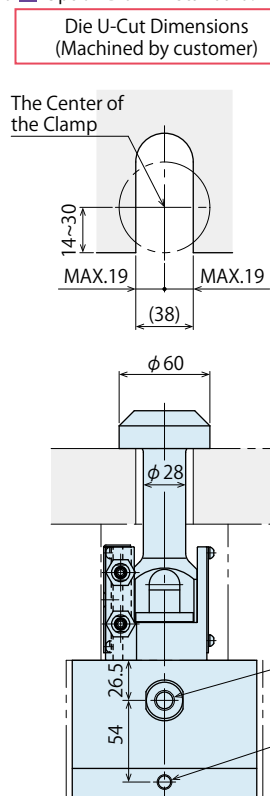
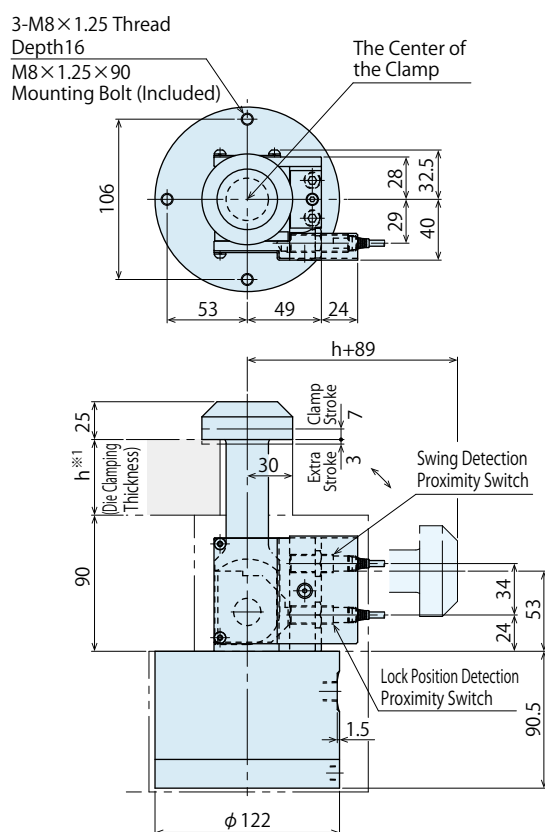


Machining Dimensions of Mounting Area
(Machined by customer)



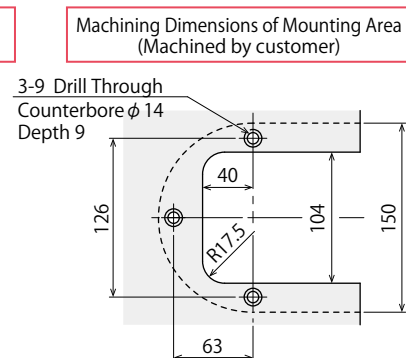
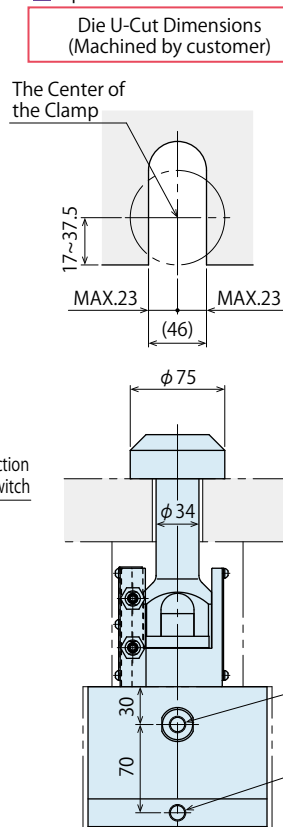
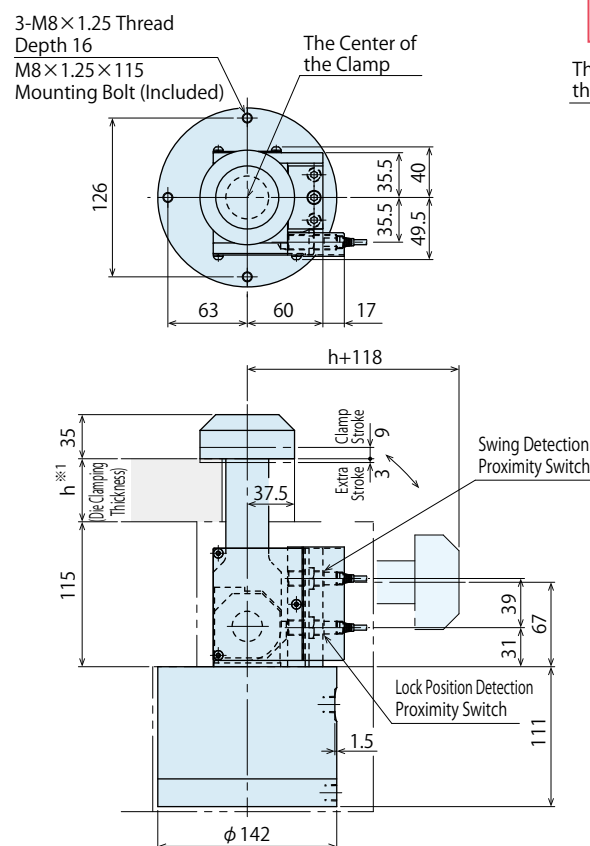
● GN0632-□-1, GN0632-□-2

The drawing shows the clamped state with 4 Proximity Switch Load Voltage 1 : AC100V or 2 : AC200V, and 5 Option **Blank** : Standard.



● GN1002-□-1, GN1002-□-2

The drawing shows the clamped state with 4 Proximity Switch Load Voltage 1 : AC100V or 2 : AC200V, and 5 Option **Blank** : Standard.



Clamp • Unit
Operation Panel
Control Unit

Die Lifter
Pre-Roller

Accessories

Cautions
Company Profile

Clamp

GA
GD
GBB
GBC
GBE
GBF
GBP
GBQ
GN
GHA

Hydraulic Unit

CP
CR
CPB
CPD
CPC
CPE
CQC
CQE

Pump Unit

CB
CD
CC

Valve Unit

BC
BH
MV

Operation Panel Control Unit

YP
YAA

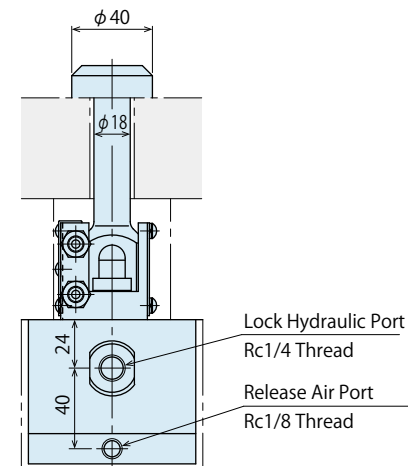
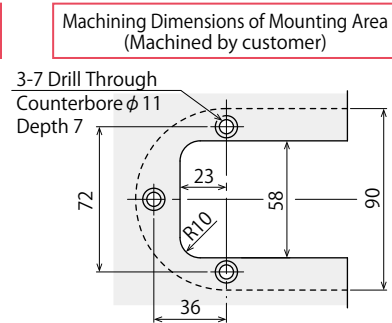
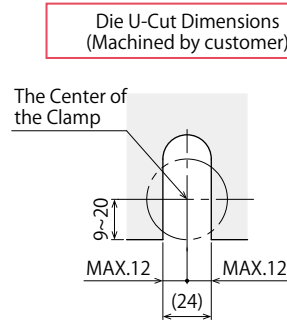
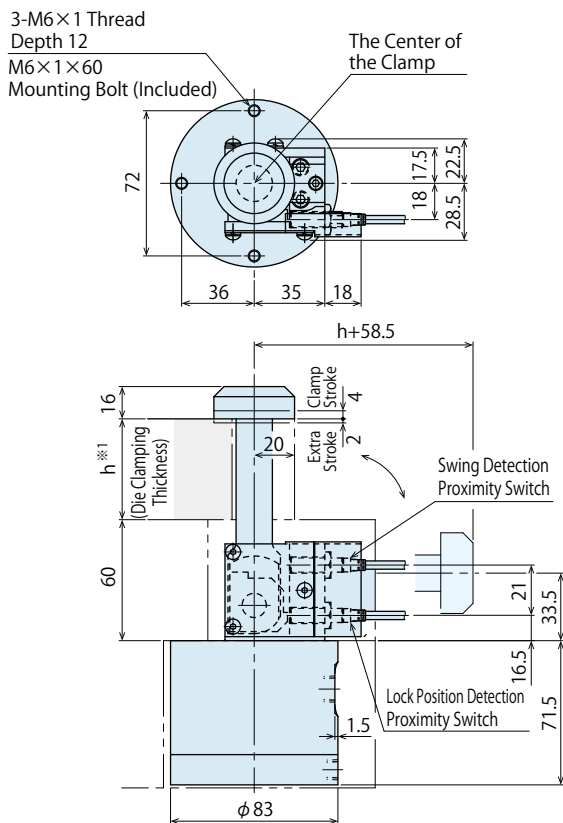
Notes:

- The external dimensions are for 5 Option **Blank** : Standard.
Please contact us for external dimensions for other options.
 - Clamp surface must be level with clamp mounting surface.
 - Make sure that dust, sand, cutting chips or blank pieces do not enter the clamp.
- ※1. Die clamping thickness (Dimension h) can be selected within the range of 25 ~ 50mm.
Allowance of die clamping thickness should be h ±0.5mm.

External Dimensions

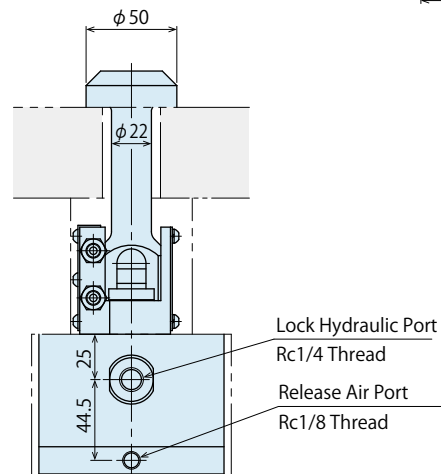
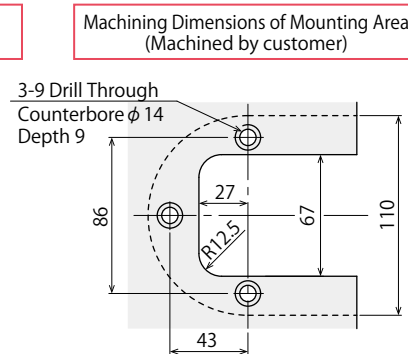
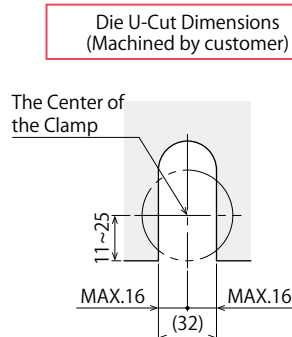
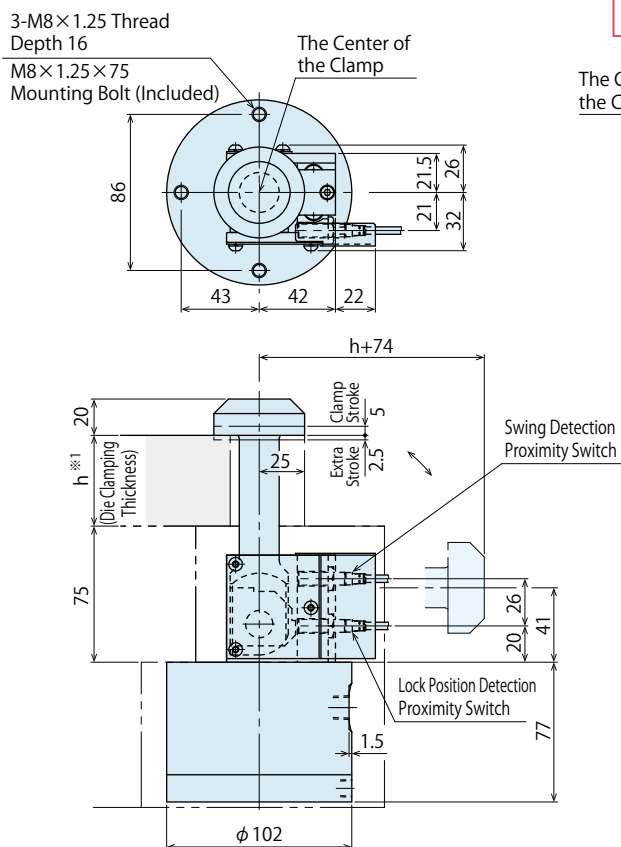
GN0252-□-5

The drawing shows the clamped state with **4** Proximity Switch Load Voltage **5** : DC24V and **5** Option **Blank** : Standard.

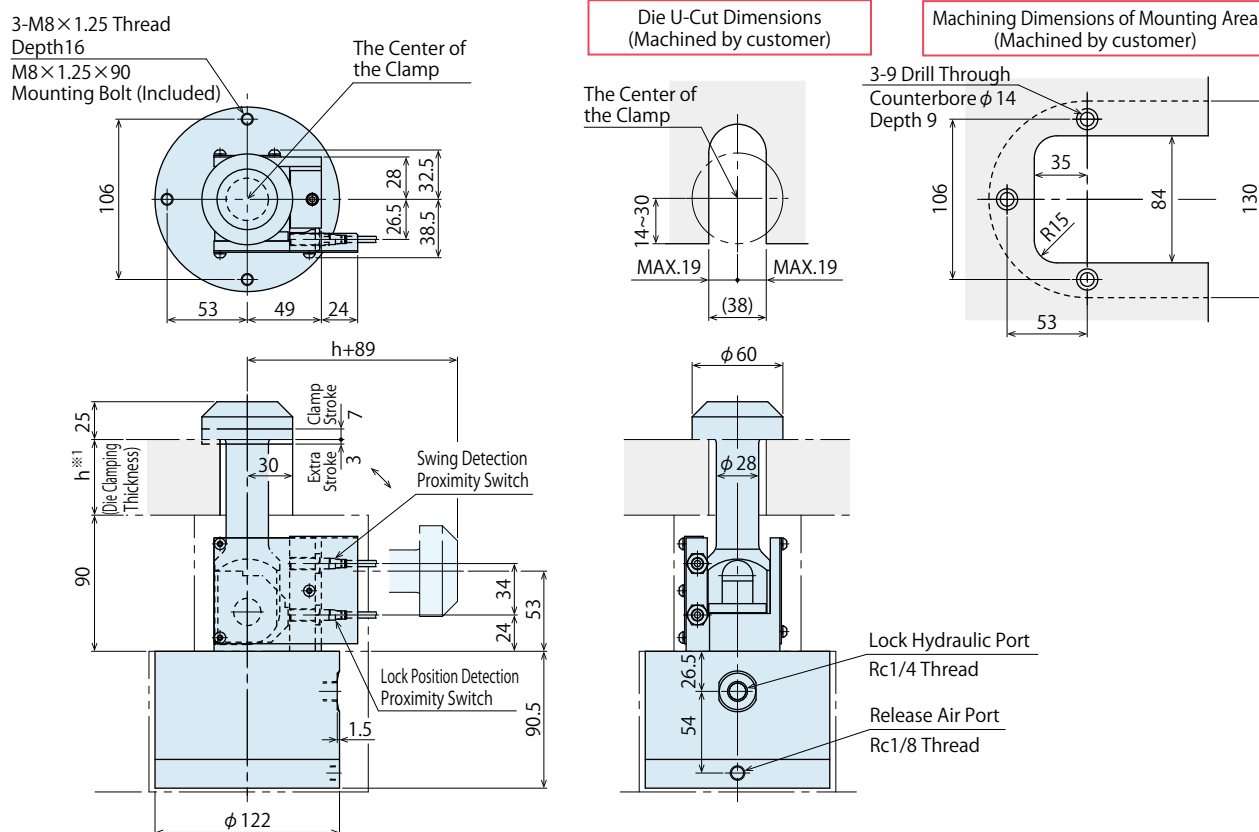


GN0402-□-5

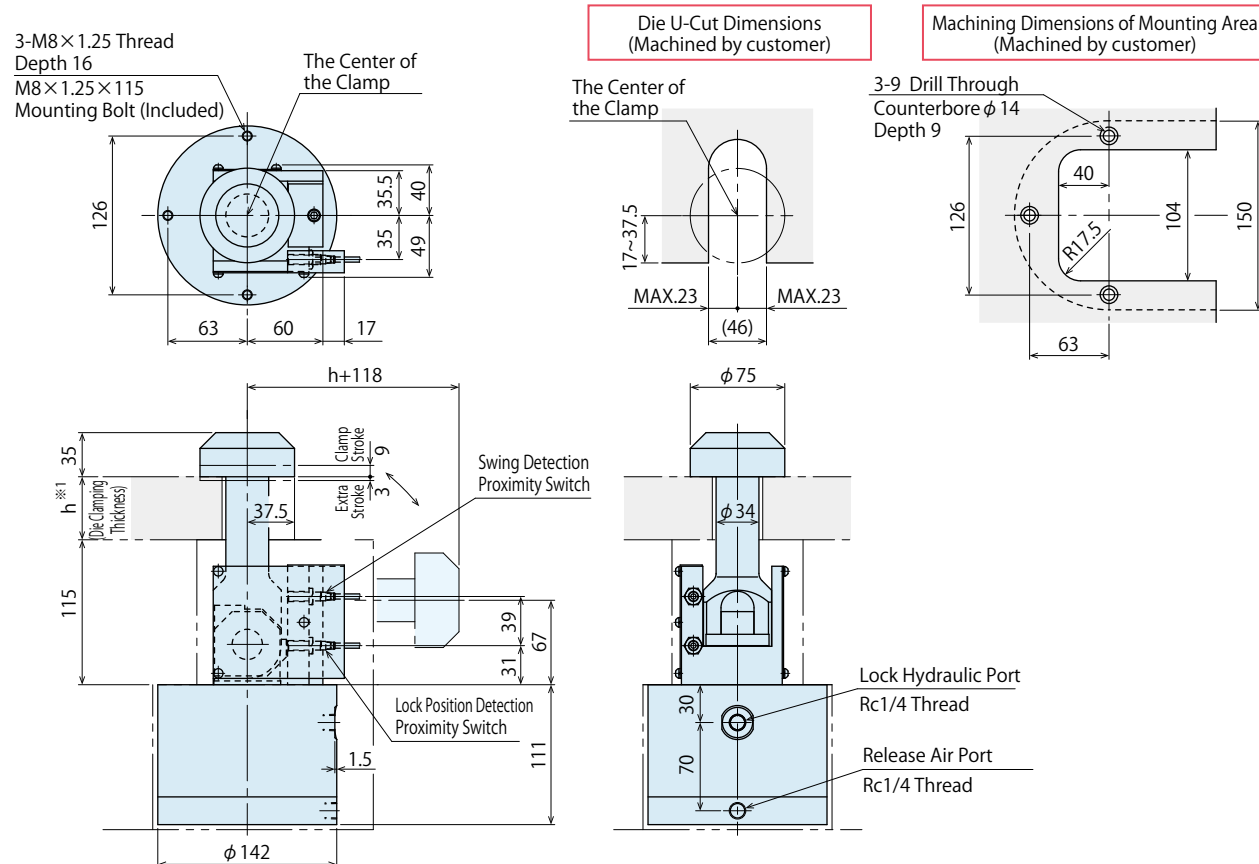
The drawing shows the clamped state with **4** Proximity Switch Load Voltage **5** : DC24V and **5** Option **Blank** : Standard.



- **GN0632**-□-5 The drawing shows the clamped state with 4 Proximity Switch Load Voltage 5 : DC24V and 5 Option **Blank** : Standard.



- **GN1002**-□-5 The drawing shows the clamped state with 4 Proximity Switch Load Voltage 5 : DC24V and 5 Option **Blank** : Standard.



- Notes:
- The external dimensions are for 5 Option **Blank** : Standard. Please contact us for external dimensions for other options.
 - Clamp surface must be level with clamp mounting surface.
 - Make sure that dust, sand, cutting chips or blank pieces do not enter the clamp.
- ※1. Die clamping thickness (Dimension h) can be selected within the range of 25 ~ 50mm. Allowance of die clamping thickness should be $h \pm 0.5\text{mm}$.

Clamp • Unit
Operation Panel
Control Unit

Die Lifter
Pre-Roller

Accessories

Cautions
Company Profile

Clamp

GA
GD
GGB
GBC
GBE
GBF
GBP
GBQ
GN
GHA

Hydraulic Unit

CP
CR
CPB
CPD
CPC
CPE
CQC
CQE

Pump Unit

CB
CD
CC

Valve Unit

BC
BH
MV

Operation Panel
Control Unit

YP
YAA

Cautions

Notes for Design

1) Check Specifications

- Please use each product according to its specifications.

- Operating pressure is 25MPa.

[In case of GN Clamp] Locking Hydraulic Pressure : 25MPa

Releasing Air Pressure : 0.4 ~ 0.5MPa

Do not exceed the specified operating pressure.

Failure to do so may result in damage on the product, falling of a die and an injury. When required to reduce clamping force, use the product with lower operating pressure.

2) Check Die Clamping Thickness

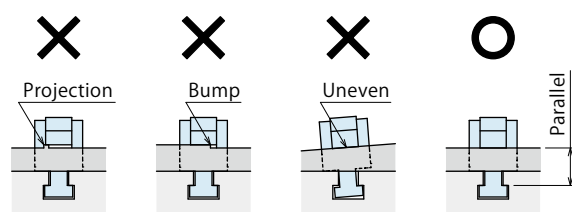
- Please check the die clamping thickness.

Die clamping thickness of GN/GHA clamp should be $h \pm 0.5\text{mm}$.

Using dies other than specified causes locking malfunction of die clamp leading to falling of a die and an injury.

3) Clamping surface and T-slot must be parallel with die mounting surface.

- If a clamping surface is not even or parallel, excessive force will be applied to the clamp, deforming the clamp body, lever and pin. This causes an accident and an injury.



4) Make sure that advance and retract actions of a clamp are smoothly conducted. (Model GD / GBE / GBF)

- Please control air cylinder for slide with 2-position double solenoid (with detent).
- Supply 0.4MPa or more air pressure to an air cylinder.
- Please adjust the moving speed of a clamp with a speed controller to be fully stroked within 1 to 2 seconds.
- Do not set the proximity switch to a die surface near U-cut, since it is used as forward-end detection.
- The clamp sliding surface must be smooth (without any bumps).

5) Make sure that dust, sand, cutting chips or blank pieces do not enter a clamp.

- Otherwise, the clamp does not operate smoothly and may be damaged.

6) When the clamp cylinder sticks out of U-cut or T-slot, please use it within the allowable protrusion amount.

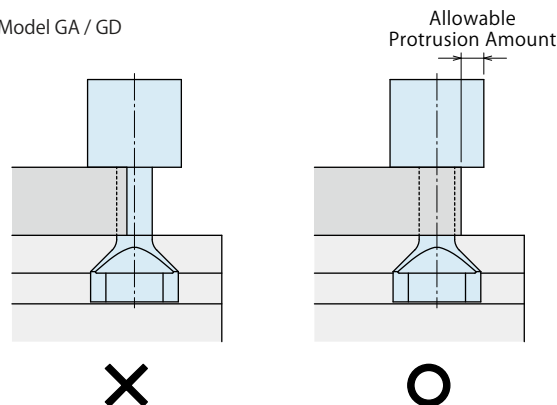
U-Cut of the Die

• • • Model GA / GD

T-Slot of the Slider / Bolster

• • • Model GBB / GBE / GBC / GBF

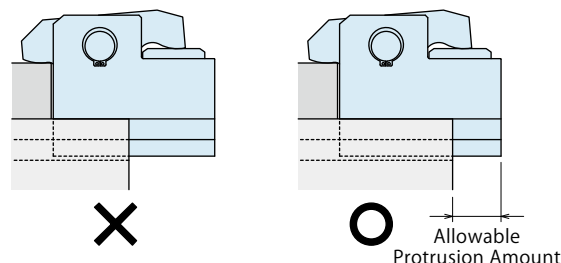
Model GA / GD



Allowable Protrusion Amount

Model No.	Allowable Protrusion Amount (mm)
GA0100	13
GA0160	14
GA0250 / GD0250	17
GA0400 / GD0400	20
GA0630 / GD0630	26
GA1000 / GD1000	32
GA1600 / GD1600	42
GA2500	50

Model GBB / GBC / GBE / GBF

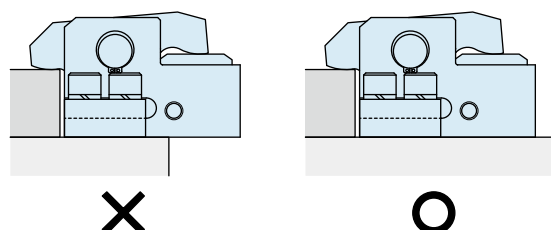


Allowable Protrusion Amount

Model No.	Allowable Protrusion Amount (mm)
GBB0100 / GBC0100	17.5
GBB0160 / GBC0160	21
GBB0250 / GBC0250 / GBE0250 / GBF0250	25
GBB0400 / GBC0400 / GBE0400 / GBF0400	32
GBB0630 / GBC0630 / GBE0630 / GBF0630	39
GBB1000 / GBC1000 / GBE1000 / GBF1000	45
GBB1600 / GBC1600 / GBE1600 / GBF1600	57
GBB2500 / GBC2500 / GBE2500 / GBF2500	69.5

7) Be careful with a mounting position of a clamp. (Model GBP/GBQ only)

- Make sure that the clamp body is set within the mounting surface. Otherwise, an excessive force will be applied to the clamp and it deforms the clamp or damages mounting bolt resulting in falling off of a die and an accident or an injury.



● Installation Notes

1) Check the Usable Fluid

- Please use appropriate fluid by referring to the Hydraulic Fluid List.
- If viscosity grade of hydraulic oil is higher than ISO-VG-32, action time becomes longer.
- If using it at low temperature, action time will be longer because the viscosity of hydraulic oil becomes higher.

2) Procedure before Piping

- Pipelines, piping connectors and others should be cleaned by thorough flushing.
Dust and cutting chips in the circuit may lead to fluid leakage and malfunction. (There is no filter that prevents contamination.)

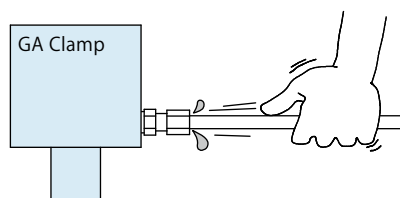
3) Applying Sealing Tape

- Wrap with tape 1 to 2 times following the screw direction.
Pieces of the sealing tape can lead to oil leakage and malfunction.
Please implement piping construction in a clear environment to prevent anything getting in products.

4) Air Bleeding of the Hydraulic Circuit

- If the hydraulic circuit has excessive air, the action time may become very long. If air enters the circuit after connecting the hydraulic port or under the condition of no air in the oil tank, please perform the following steps.

- ① Reduce hydraulic pressure to less than 2MPa.
- ② Loosen the cap nut of pipe fitting closest to the clamp • RQA/RA die lifter by one full turn.
- ③ Shake the pipeline to loosen the outlet of pipe fitting.
Hydraulic fluid mixed with air comes out.



- ④ Tighten the cap nut after bleeding.
 - ⑤ It is more effective to release air at the highest point inside the circuit or at the end of the circuit.
- 5) Checking Looseness and Retightening
- At the beginning of the machine installation, the bolt and nut may be tightened lightly. Check the looseness and re-tighten as required.

6) Installation of the Product

- After setting the clamp in the T-slot, use hexagonal socket bolts and tighten them with the following torque. (Model GD / GBE / GBF)

Model No.	Thread Size	Tightening Torque (N·m)
GD0250	M6×1	10
GD0400	M6×1	10
GD0630	M6×1	10
GD1000	M8×1.25	25
GD1600	M8×1.25	25

Model No.	Thread Size	Tightening Torque (N·m)
GBE0250 / GBF0250	M5×0.8	6.3
GBE0400 / GBF0400	M5×0.8	6.3
GBE0630 / GBF0630	M6×1	10
GBE1000 / GBF1000	M8×1.25	25
GBE1600 / GBF1600	M10×1.5	50
GBE2500 / GBF2500	M12×1.75	80

- Use hexagonal socket bolts and tighten them with the following torque. (Model GBP / GBQ / GN / GHA)

Model No.	Thread Size	Tightening Torque (N·m)
GBP0100 / GBQ0100	M8×1.25	25
GBP0160 / GBQ0160	M10×1.5	50
GBP0250 / GBQ0250	M12×1.75	80
GBP0400 / GBQ0400	M14×2	125
GBP0630 / GBQ0630	M16×2	200
GBP1000 / GBQ1000	M20×2.5	400
GBP1600 / GBQ1600	M24×3	630
GBP2500 / GBQ2500	M30×3.5	1250

Model No.	Thread Size	Tightening Torque (N·m)
GN0252	M6×1	12
GN0402	M8×1.25	30
GN0632	M8×1.25	30
GN1002	M8×1.25	30

Model No.	Thread Size	Tightening Torque (N·m)
GHA0250	M8×1.25	25
GHA0400	M8×1.25	25
GHA0630	M10×1.5	50

7) Wiring of the Forward End Detection Switch

- Make sure there is enough slack in the wire so that the clamp can complete the sliding action without putting tension on the wire.

● Hydraulic Fluid List

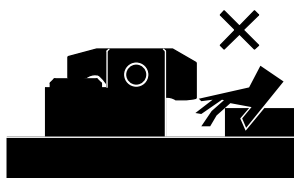
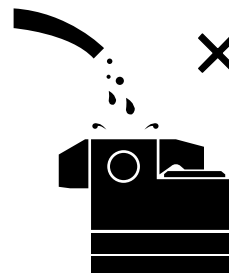
Maker	ISO Viscosity Grade ISO-VG-32	
	Anti-Wear Hydraulic Oil	Multi-Purpose Hydraulic Oil
Showa Shell Sekiyu	Tellus S2 M 32	Morlina S2 B 32
Idemitsu Kosan	Daphne Hydraulic Fluid 32	Daphne Super Multi Oil 32
JX Nippon Oil & Energy	Super Hyrando 32	Super Mulpus DX 32
Cosmo Oil	Cosmo Hydro AW32	Cosmo New Mighty Super 32
ExxonMobil	Mobil DTE 24	Mobil DTE 24 Light
Matsumura Oil	Hydol AW-32	
Castrol	Hyspin AWS 32	

Note : Please contact manufacturers when customers require products in the list above.

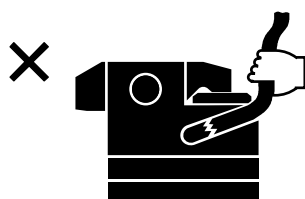
● Cautions

● Notes on Handling

- 1) Shutting down of the machine should be done without load applied to the clamp.
 - Failure to do so results in a die fall and an injury.
 - For press machine use, make sure to stop the slide at bottom dead point.
- 2) It should be operated by qualified personnel.
 - Hydraulic products, machines and devices should be operated and maintained by qualified personnel.
- 3) Do not operate or remove the product unless the safety protocols are ensured.
 - ① The machine and equipment can only be inspected or prepared when it is confirmed that the safety devices are in place.
 - ② Before removing the product, make sure that the above-mentioned safety devices are in place. Shut off the pressure and power source, and make sure no pressure exists in the hydraulic circuits.
 - ③ After stopping the product, do not remove until the temperature drops.
 - ④ Make sure there is no abnormality in the bolts and respective parts before restarting the machine or equipment.
- 4) Do not touch a clamp (cylinder) while it is working. Otherwise, your hands may be injured.
- 7) Do not disassemble or modify.
 - If the product is taken apart or modified, the warranty will be voided even within the warranty period.
- 8) Do not pour water or oil over the product.
 - Failure to do so causes malfunctions and deterioration of the product leading to an accident.



- 5) When changing a die width, make sure to check the allowable protrusion amount.
 - If using it with beyond allowable protrusion amount, excessive force is applied to the clamp which deforms or damages the clamp resulting in falling off of the die and accident or injury. Please refer to "Notes for Design (6)" on P.087 for the allowable protrusion amount.
- 6) Hold the clamp body when moving and removing the clamp.
 - Pulling on hydraulic hose or air tube leads to a clamp fall and an injury. Also, rivet part of the hose will be loosened leading to fluid leakage.



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GBB

GBC

GBE

GBF

GBP

GBQ

GN

GHA

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CP

CR

CPB

CPD

CPC

CPE

CQC

CQE

Pump Unit

CB

CD

CC

Valve Unit

BC

BH

MV

Operation Panel
Control Unit

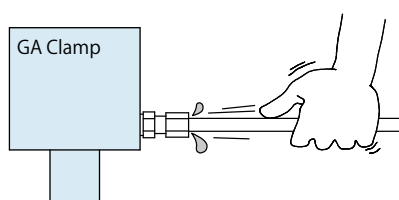
YP

YAA

● Cautions

● Installation Notes (Cautions for Hydraulic Series)

- 1) Check the Usable Fluid
 - Please use the appropriate fluid by referring to the Hydraulic Fluid List.
 - If viscosity grade of hydraulic oil is higher than ISO-VG-32, action time becomes longer.
 - If using it at low temperature, action time will be longer because the viscosity of hydraulic oil becomes higher.
- 2) Procedure before Piping
 - Pipelines, piping connectors and others should be cleaned by thorough flushing.
 - Dust and cutting chips in the circuit may lead to fluid leakage and malfunction.
 - Our products except some valves are not equipped with protective function that prevents contamination.
- 3) Applying Sealing Tape
 - Wrap with tape 1 to 2 times following the screw direction.
 - Pieces of the sealing tape can lead to fluid leakage and malfunction.
 - Please implement piping construction in a clear environment to prevent anything getting in products.
- 4) Air Bleeding of the Hydraulic Circuit
 - If the hydraulic circuit has excessive air, the action time may become very long. If air enters the circuit after connecting the hydraulic port or under the condition of no air in the oil tank, please perform the following steps.
 - ① Reduce hydraulic pressure to less than 2MPa.
 - ② Loosen the cap nut of pipe fitting closest to the clamp, RQA/RA Die Lifter by one full turn.
 - ③ Shake the pipeline to loosen the outlet of pipe fitting.
Hydraulic fluid mixed with air comes out.



- ④ Tighten the cap nut after air bleeding.
 - ⑤ It is more effective to release air at the highest point inside the circuit or at the end of the circuit.
- 5) Checking Looseness and Retightening
 - At the beginning of the machine installation, the bolt and nut may be tightened lightly. Check the looseness and re-tighten as required.

● Hydraulic Fluid List

Maker	ISO Viscosity Grade ISO-VG-32	
	Anti-Wear Hydraulic Oil	Multi-Purpose Hydraulic Oil
Showa Shell Sekiyu	Tellus S2 M 32	Morlina S2 B 32
Idemitsu Kosan	Daphne Hydraulic Fluid 32	Daphne Super Multi Oil 32
JX Nippon Oil & Energy	Super Hyrando 32	Super Mulpus DX 32
Cosmo Oil	Cosmo Hydro AW32	Cosmo New Mighty Super 32
ExxonMobil	Mobil DTE 24	Mobil DTE 24 Light
Matsumura Oil	Hydol AW-32	
Castrol	Hyspin AWS 32	

Note : Please contact manufacturers when customers require products in the list above.

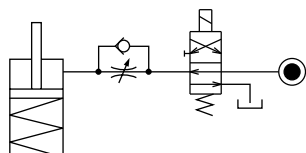
● Notes on Hydraulic Cylinder Speed Control Unit



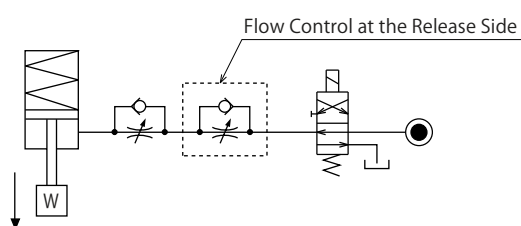
Please pay attention to the cautions below. Design the hydraulic circuit for controlling the action speed of hydraulic cylinder. Improper circuit design may lead to malfunctions and damages. Please review the circuit design in advance.

● Flow Control Circuit for Single Acting Cylinder

For spring return single-acting cylinders, restricting flow during release can extremely slow down or disrupt release action. The preferred method is to control the flow during the lock action using a valve that has free-flow in the release direction. It is also preferred to provide a flow control valve at each actuator.



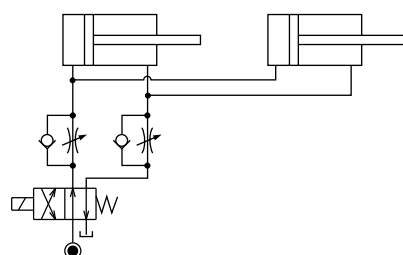
Accelerated clamping speed by excessive hydraulic flow to the cylinder may sustain damage. In this case add flow control to regulate flow.



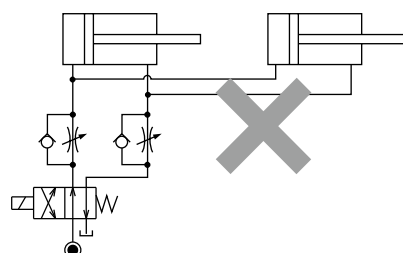
● Flow Control Circuit for Double-Acting Cylinder

Flow control circuit for double-acting cylinder should have meter-out circuits for both the lock and release sides. Meter-in control can have adverse effect by presence of air in the system.

【Meter-out Circuit】

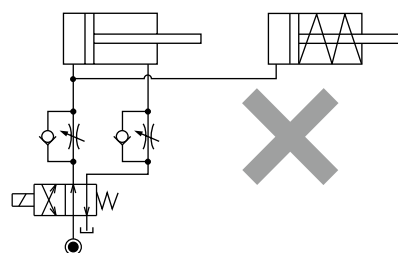


【Meter-in Circuit】



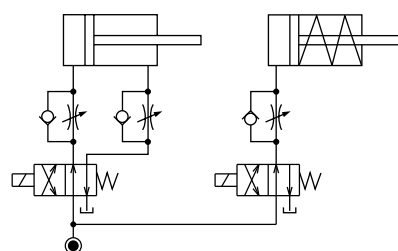
In the case of meter-out circuit, the hydraulic circuit should be designed with the following points.

- ① Single-acting components should not be used in the same flow control circuit as the double acting components. The release action of the single-acting cylinders may become erratic or very slow.

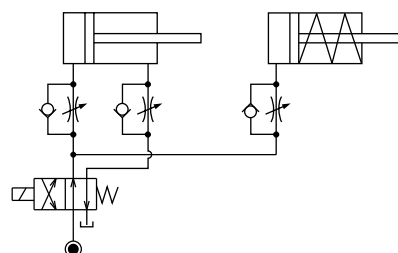


Refer to the following circuit when both the single-acting cylinder and double-acting cylinder are used together.

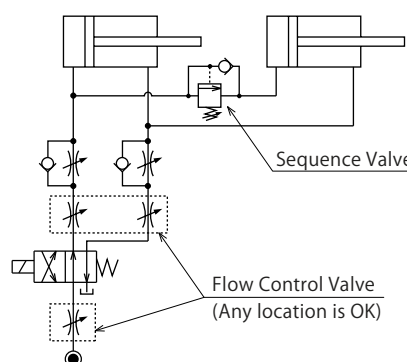
- Separate the control circuit.



- Reduce the influence of double-acting cylinder control unit. However, due to the back pressure in tank line, single-acting cylinder is activated after double-acting cylinder works.



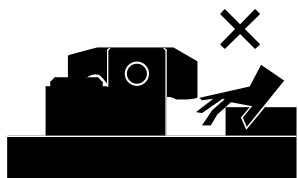
- ② In the case of meter-out circuit, the inner circuit pressure may increase during the cylinder action because of the fluid supply. The increase of the inner circuit pressure can be prevented by reducing the supplied fluid beforehand via the flow control valve. Especially when using sequence valve or pressure switches for clamping detection. If the back pressure is more than the set pressure then the system will not work as it is designed to.



● Cautions

● Notes on Handling

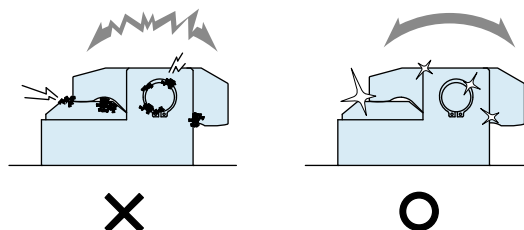
- 1) It should be operated by qualified personnel.
- Hydraulic products, machines and devices should be operated and maintained by qualified personnel.
- 2) Do not operate or remove the product unless the safety protocols are ensured.
 - ① The machine and equipment can only be inspected or prepared when it is confirmed that the safety devices are in place.
 - ② Before the product is removed, make sure that the above-mentioned safety devices are in place. Shut off the pressure and power source, and make sure no pressure exists in the hydraulic and air circuits.
 - ③ After stopping the product, do not remove until the temperature drops.
 - ④ Make sure there is no abnormality in the bolts and respective parts before restarting the machine or equipment.
- 3) Do not touch a clamp (cylinder) while it is working. Otherwise, your hands may be injured.



- 4) Do not disassemble or modify.
- If the product is taken apart or modified, the warranty will be voided even within the warranty period.

● Maintenance • Inspection

- 1) Removal of the Product and Shut-off of Pressure Source
 - Before removing the product, make sure that safety devices are in place. Shut off the pressure and power source, and make sure no pressure exists in the air and hydraulic circuits.
 - Make sure there is no abnormality in the bolts and respective parts before restarting.
- 2) Regularly clean the area around the product.
 - If it is used when the surface is contaminated with dirt, it may lead to packing seal damage, malfunctioning and fluid leakage.



- 3) If disconnecting by couplers, air bleeding should be carried out on a regular basis to avoid air mixed in the circuit.
- 4) Regularly tighten bolts, pipe line, mounting bolt, nut, snap ring, cylinder and others to ensure proper use.
- 5) Make sure the hydraulic fluid has not deteriorated.
- 6) Make sure there is a smooth action without an irregular noise.
 - Especially when it is restarted after left unused for a long period, make sure it can be operated correctly.
- 7) The products should be stored in the cool and dark place without direct sunshine or moisture.
- 8) Please contact us for overhaul and repair.

● Warranty

1) Warranty Period

- The product warranty period is 18 months from shipment from our factory or 12 months from initial use, whichever is earlier.

2) Warranty Scope

- If the product is damaged or malfunctions during the warranty period due to faulty design, materials or workmanship, we will replace or repair the defective part at our expense.
Defects or failures caused by the following are not covered.

- ① If the stipulated maintenance and inspection are not carried out.
- ② If the product is used while it is not suitable for use based on the operator's judgment, resulting in defect.
- ③ If it is used or operated in an inappropriate way by the operator.
(Including damage caused by the misconduct of the third party.)
- ④ If the defect is caused by reasons other than our responsibility.
- ⑤ If repair or modifications are carried out by anyone other than Kosmek, or without our approval and confirmation, it will void warranty.
- ⑥ Other caused by natural disasters or calamities not attributable to our company.
- ⑦ Parts or replacement expenses due to parts consumption and deterioration.
(Such as rubber, plastic, seal material and some electric components.)

Damages excluding from direct result of a product defect shall be excluded from the warranty.

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KOSMEK LTD. Head Office

Company Name	KOSMEK LTD.
Established	May 1986
Capital	¥99,000,000
Chairman & CEO	Tsutomu Shirakawa
President & CEO	Koji Kimura
Employee Count	270
Group Company	KOSMEK LTD. KOSMEK ENGINEERING LTD. KOSMEK (USA) LTD. KOSMEK EUROPE GmbH KOSMEK (CHINA) LTD. KOSMEK LTD. - INDIA
Business Fields	Design, Production and Sales of Precision Products, and Hydraulic and Pneumatic Equipment
Customers	Manufacturers of Automobiles, Industrial Machinery, Semiconductors and Electric Appliances
Banks	Resona Bank and Bank of Tokyo-Mitsubishi UFJ

Major Industrial Property Rights

(Including Patent Right and Patent Pending as of March 2022)

- Domestic : 120
- International : 250 (USA, EU, Taiwan, South Korea, China, India, Brazil, Mexico, Thailand, Indonesia)

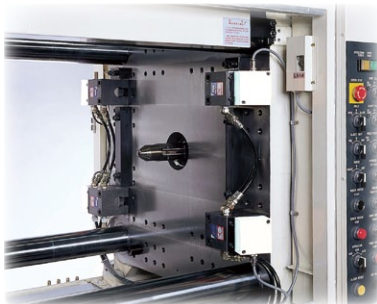
Product Line-Up



QUICK DIE CHANGE SYSTEMS

For Press Machines

Kosmek Quick Die Change Systems are a cost effective tool to improve the working environment, allow diversified and small-lot production, and reduce press down time. Available for a wide range of machines; from large size transfer-presses to smaller high speed presses.

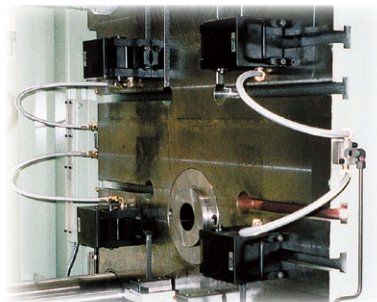


QUICK MOLD CHANGE SYSTEMS

For Injection Molding Machines

Automatic clamping systems have reduced mold change times and increased production efficiency for plastics manufacturers in a multitude of industries.

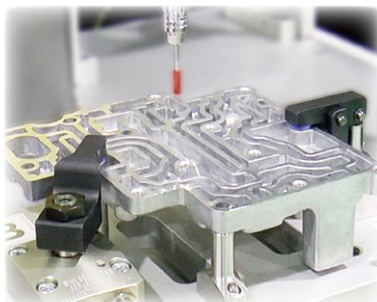
We offer a variety of different clamping options, including hydraulically powered clamps, pneumatic clamps with a force multiplying mechanism, and magnetic clamping systems.



DIECAST CLAMPING SYSTEMS

For Diecast Machines

Kosmek Diecast Clamping Systems (KDCS) save the time of the changeover of die casting and magnesium molding machines under severe conditions. ex) mold release agents and high temperature.



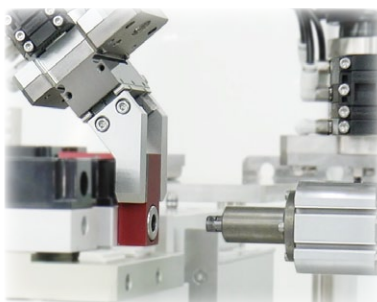
KOSMEK WORK CLAMPING SYSTEMS

Machine Tool Related Products

Our clamping system enables boltless automation to load and unload workpieces easier.

Non-leak valve enables the use of hydraulic source and fixtures in a disconnected condition after locking (clamping action).

We offer a wide range of products such as hydraulic/pneumatic actuators, supports, positioning equipment, valves, couplers, etc.



KOSMEK FACTORY AUTOMATION SYSTEMS

FA • Industrial Robot Related Products

KOSMEK robotic hand changer, robotic hand, positioning equipment and other products improve automation, precision and setup of transfer, assembly, deburring, testing and various other processes.

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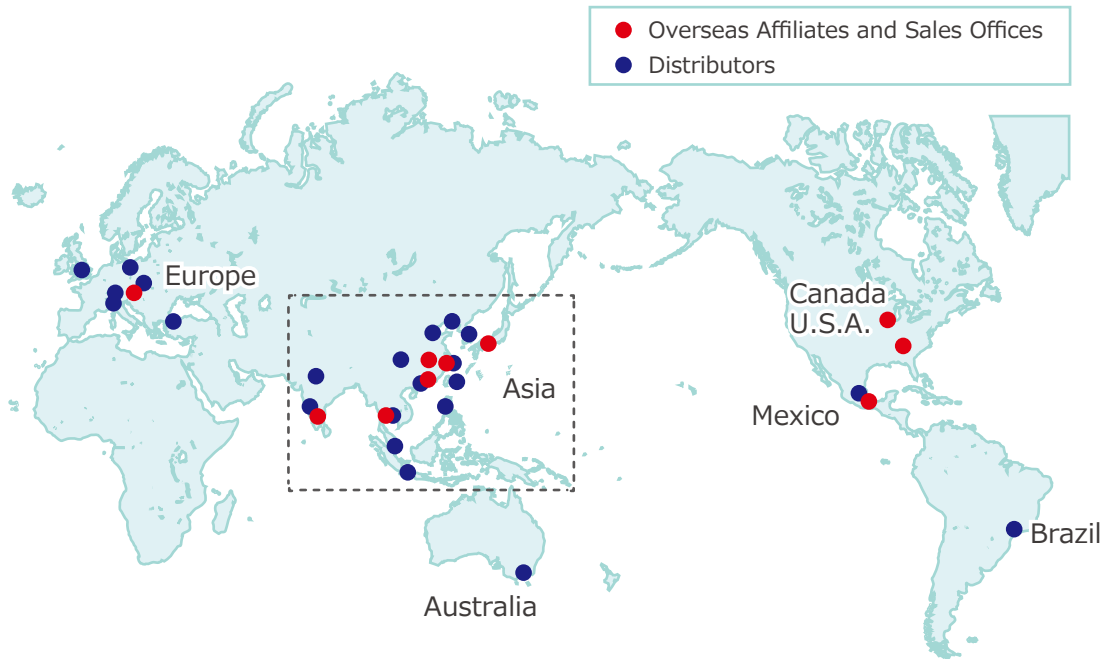
Sales Offices across the World

Japan	KOSMEK LTD. HEAD OFFICE	TEL. +81-78-991-5162 FAX. +81-78-991-8787 1-5, 2-chome, Murotani, Nishi-ku, Kobe-city, Hyogo, Japan 651-2241
USA	KOSMEK (USA) LTD. Overseas Affiliate	TEL. +1-630-620-7650 FAX. +1-630-620-9015 650 Springer Drive, Lombard, IL 60148 USA
	KOSMEK (USA) LTD. Atlanta Branch Office	TEL. +1-708-577-3275 303 Perimeter Center North, Suite 300, Atlanta, GA 30346 USA
Mexico	KOSMEK (USA) LTD. Mexico Branch Office	TEL. +52-1-55-3044-9983 Av. Santa Fe 103, Int. 59, col. Santa Fe Juriquilla, Queretaro, QRO, 76230, Mexico
Europe	KOSMEK EUROPE GmbH Overseas Affiliate	TEL. +43-463-287587 FAX. +43-463-287587-20 Schleppplatz 2 9020 Klagenfurt am Wörthersee Austria
China	KOSMEK (CHINA) LTD. Overseas Affiliate	TEL.+86-21-54253000 FAX. +86-21-54253709 Room601, RIVERSIDE PYRAMID No.55, Lane21, Pusan Rd, Pudong Shanghai 200125, China
	KOSMEK (CHINA) LTD. Dongguan Office Overseas Affiliate (Sales Office)	TEL.+86-769-85300880 Room301, AcerBuilding No.15, Dezheng(W)Road, Changan Town Dongguan Guangdong 523843., P.R.China
	KOSMEK (CHINA) LTD. Wuhan Office Overseas Affiliate (Sales Office)	TEL.+86-27-59822303 Room502, Building A, Jingkai Future City, Zhuankou Economic Development Zone, Wuhan City, Hubei Province, 430050 China
India	KOSMEK LTD. - INDIA Branch	TEL. +91-9880561695 4A/Old No:649, Ground Floor, 4th D cross, MM Layout, Kavalbyrasandra, RT Nagar, Bangalore -560032 India
Thailand	KOSMEK Thailand Representative Office Representative Office	TEL. +66-2-300-5132 FAX. +66-2-300-5133 67 Soi 58, RAMA 9 Rd., Phatthanakan, Suanluang, Bangkok 10250, Thailand
Taiwan	FULL LIFE TRADING CO., LTD. Taiwan Exclusive Distributor	TEL. +886-2-82261860 FAX. +886-2-82261890 16F-4, No.2, Jian Ba Rd., Zhonghe District, New Taipei City Taiwan 23511
Philippines	G.E.T. Inc, Phil. Philippines Exclusive Distributor	TEL.+63-2-310-7286 FAX. +63-2-310-7286 Victoria Wave Special Economic Zone Mt. Apo Building, Brgy. 186, North Caloocan City, Metro Manila, Philippines 1427
Indonesia	PT. Yamata Machinery Indonesia Exclusive Distributor	TEL. +62-21-29628607 FAX. +62-21-29628608 Delta Commercial Park I, Jl. Kenari Raya B-08, Desa Jayamukti Kec. Cikarang Pusat Kab. Bekasi 17530 Indonesia

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Head Office Osaka Sales Office Overseas Sales	TEL. 078-991-5162 FAX. 078-991-8787 1-5, 2-chome, Murotani, Nishi-ku, Kobe-city, Hyogo, 651-2241, Japan
Tokyo Sales Office	TEL. 048-652-8839 FAX. 048-652-8828 81, 4-chome, Onari-cho, Kita-ku, Saitama City, Saitama, 331-0815, Japan
Nagoya Sales Office	TEL. 0566-74-8778 FAX. 0566-74-8808 10-1, 2-chome, Misono-cho, Anjo City, Aichi, 446-0076, Japan
Fukuoka Sales Office	TEL. 092-433-0424 FAX. 092-433-0426 8-10-101, 1-chome, Kamimuta, Hakata-ku, Fukuoka City, Fukuoka, 812-0006, Japan

Global Network



Asia Detailed Map



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