

Accessories



Model JBA
Pressure Switch



Model JGA/JGB
Pressure Gauge



Model JX
Manifold



Model PS
Coupler Switch

Pressure Switch

Most suitable for checking circuit pressure. Resistant to vibration of 30 G and long life of more than one million cycles.

The switch equipped with light enables to check the action easily.



Model No. Indication

JBA **270** **0** - **0** **G** **D** **C** - **(INC.18.6MPa)** **(INC.23.0MPa)**

1 2 3 4 5 6 7

1 Pressure Range

070
270
380

Refer to the specifications for setting pressure range.

2 Design No.

0 : Revision Number

3 Piping Option

Blank : Piping Option (Rc1/4 Thread)
G : Gasket Option (O-ring Sealing)

4 Option

Blank : Micro Switch 1 Contact Model, without Action Light
D : Micro Switch 2 Contact Model, without Action Light
L : Micro Switch 1 Contact Model, with LED Light

5 Cable

Blank : Without Cable
C : With Cable, Cable Length 160mm
(1 Contact Model: 2 Core, 2 Contact Model: 4 Core)

6 Set Pressure 1

Specify the set pressure (with proper unit symbols) along with INC. (Pressure Increase Detection) or DEC. (Pressure Decrease Detection).

(ex.) Boosted Pressure Detection : 18.6MPa → **(INC.18.6MPa)**
Decreased Pressure Detection : 4.0MPa → **(DEC.4.0MPa)**
Boosted Pressure Detection : 700PSI → **(INC.700PSI)**

7 Set Pressure 2 Only when selecting 4 Option : D

The set pressure of the second contact for 4 D.
Specify the set pressure (with proper unit symbols).

(ex.) Detecting normal pressure with Set Pressure 1 and abnormal pressure with Set Pressure 2.
※ Contact us when combining Pressure Increase Detection (INC.) and Pressure Decrease Detection (DEC.) for Set Pressure 1 and 2.

Specifications

Model No.		JBA0700		JBA2700		JBA3800	
		1 Contact Model	2 Contact Model	1 Contact Model	2 Contact Model	1 Contact Model	2 Contact Model
Set Pressure 1	INC. (Pressure Increase Detection) MPa	2.0 ~ 7.0	1.0 ~ 6.0	7.0 ~ 27.0	2.3 ~ 22.4	14.0 ~ 38.0	5.6 ~ 29.6
	DEC. (Pressure Decrease Detection) MPa	1.4 ~ 6.0	0.5 ~ 5.1	5.8 ~ 23.8	1.6 ~ 19.7	11.7 ~ 32.6	4.4 ~ 25.3
	Open/Close Pressure Difference ※1 MPa	0.6 ~ 1.0	0.5 ~ 0.9	1.2 ~ 3.2	0.7 ~ 2.7	2.3 ~ 5.4	1.2 ~ 4.3
Set Pressure 2	INC. (Pressure Increase Detection) ※2 MPa	-	(Set Pressure 1) ~ (Set Pressure 1) + 1.0	-	(Set Pressure 1) ~ (Set Pressure 1) + 4.6	-	(Set Pressure 1) ~ (Set Pressure 1) + 10.8
	DEC. (Pressure Decrease Detection) ※3 MPa	-	(Set Pressure 1) ~ (Set Pressure 1) + 0.9	-	(Set Pressure 1) ~ (Set Pressure 1) + 4.1	-	(Set Pressure 1) ~ (Set Pressure 1) + 7.3
	Open/Close Pressure Difference ※1 MPa	-	0.6 ~ 1.0	-	1.2 ~ 3.2	-	2.3 ~ 5.4
Max. Operating Pressure MPa		40					
Adjusting Screw Turn Ratio (Reference) MPa/Rev		0.5		2.2		3.9	
Shock Tolerance ※4		30G					
Repeat Accuracy (of Maximum Set Pressure)		±1%					
Micro Switch	Electrical Rating	5A-250V (125V: with LED Light) AC, 5A-30V DC					
	Contact Model	Single-Pole Double-Throw (SPDT)					
LED Light	Rated Voltage ※5	12 ~ 125V AC/DC					
	Internal Resistance	33kΩ					
The Shape of the Terminal ※6		#110 Tab Terminal (t=0.5)					
Mounting		Optional					
Operating Temperature		0 ~ 70 °C					
Usable Fluid		General Hydraulic Oil Equivalent to ISO-VG-32					
Mass kg		0.6					

Clamp
Hydraulic Unit
Operation Control PanelDie Lifter
Pre-Roller

Accessories

Cautions
Company Profile

Press Load Monitor

YK

Pressure Switch

JBA

Pressure Gauge

JGA/JGB

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Coupler Switch

PS

- ※1. It shows the difference of pressure when the switch shifts during pressure increase and decrease. It varies in proportion to the increase of set pressure.
 ※2. Set pressure range of 'Set Pressure 2' when 'Set Pressure 1' is specified as INC. (Contact us for the combination of INC. and DEC.)
 ※3. Set pressure range of 'Set Pressure 2' when 'Set Pressure 1' is specified as DEC. (Contact us for the combination of INC. and DEC.)
 ※4. Shock tolerance of the 2 contact model may become less than 30G depending on the set pressure and operating pressure.
 ※5. Make sure to install the load on the light circuit.
 ※6. For connection, use the special receptacle for #110 Tab and insert it parallel to the terminal.

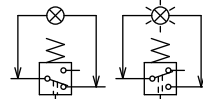
Circuit Symbol

Option	Blank: 1 Contact Model	D: 2 Contact Model	L: 1 Contact Model, Attached LED
Circuit Symbol			

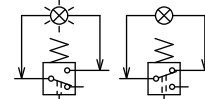
About the Light Circuit

- The contact point of the micro switch (NC or NO) can be selected.
- The light turns on at the opened state of the micro switch.

[NC Contact]
Turns ON when exceeding the set pressure.

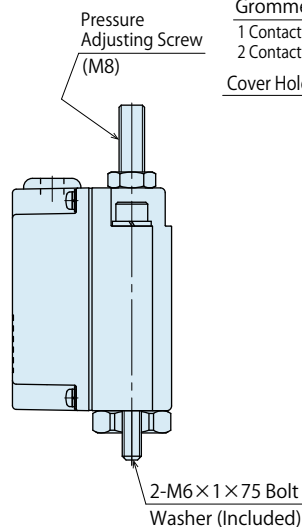
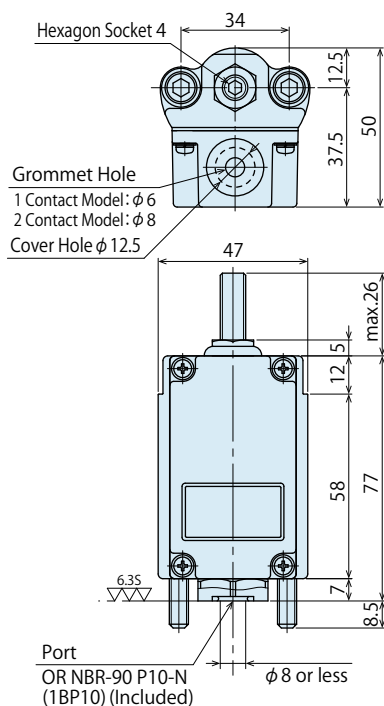


[NO Contact]
Turns OFF when exceeding the set pressure.

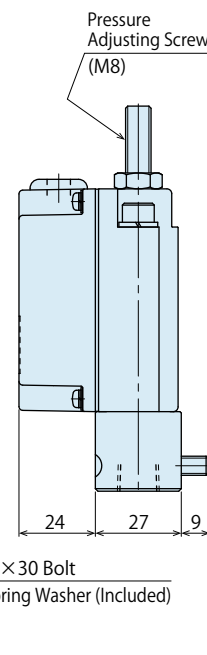
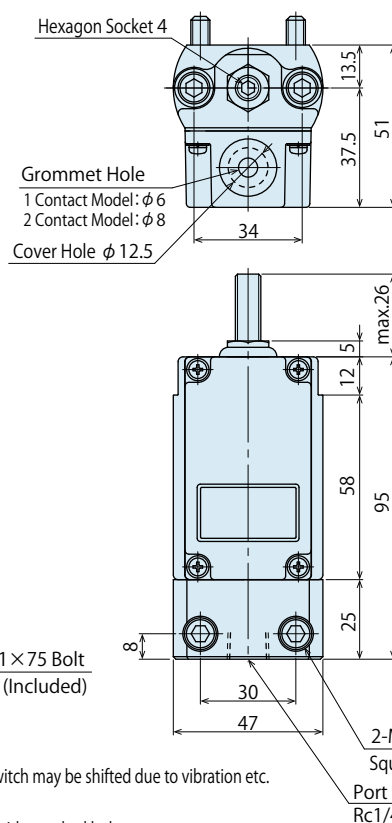


External Dimensions

JBA□0-0G: Gasket Option



JBA□0-0: Piping Option



Notes for Use

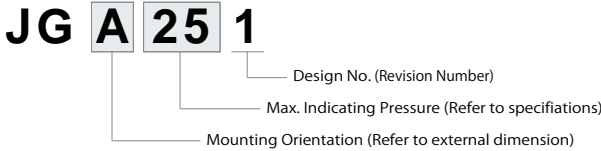
- If there is only a slight difference between set pressure and operating pressure, the switch may be shifted due to vibration etc. Recommended difference of set pressure and operating pressure is 2MPa or more.
- When mounting the piping option, securely fix the cylinder to the mounting surface with attached bolts. Fixing only the pipe leads to piping damage due to vibration etc.

Pressure Gauge

Indicates pressure of hydraulic circuit.
Filled with glycerin for vibration resistance.



Model No. Indication



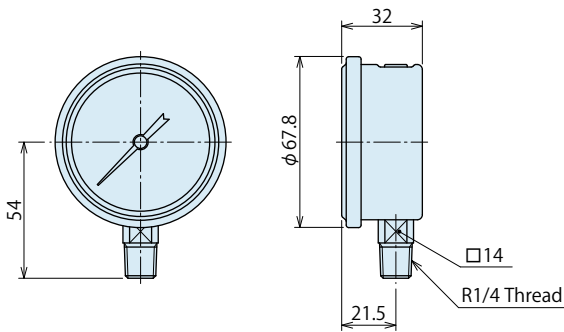
Specifications

Model No.	JGA161	JGA251	JGA401	JGA601
	JGB161	JGB251	JGB401	JGB601
Max. Indicating Pressure※1 MPa	16.0	25.0	40.0	60.0
Accuracy	JIS 1.6 Class			
Mass kg	0.2			

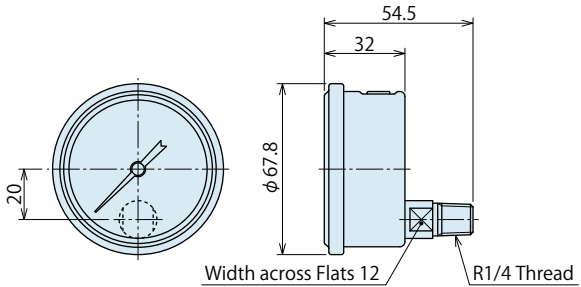
Note: ※1. Products with PSI unit are not available.
We recommend purchasing locally.

External Dimensions

JGA□1



JGB□1

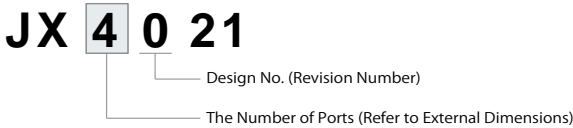


Manifold

Relaying and manifold pipe is available.



Model No. Indication

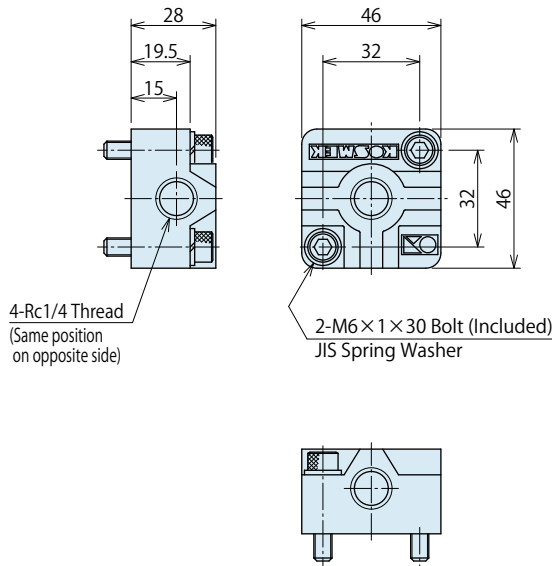


Specifications

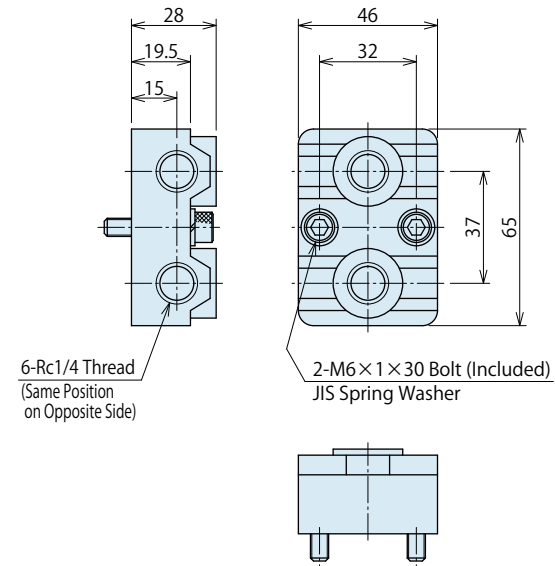
Model No.	JX4021	JX6021
Mass kg	0.2	0.3

External Dimensions

JX4021



JX6021



Coupler Switch

Enables interlocking between the clamping system and the hydraulic source by detecting a disconnection of the hydraulic couplers.



Model No. Indication

PS 010 1 - H

1 2 3

1 Adapted Coupler

010 : Coupler made by Nitto Kohki Corp. 2HS (Rc1/4 thread)

071 : Coupler made by Nitto Kohki Corp. 3HS (Rc3/8 thread)

2 Design No.

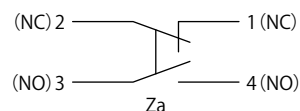
1 : Revision Number

3 Maker of Switch

H : Made by Azbil Corp. (Standard)

T : Made by Omron Corp. (Option)

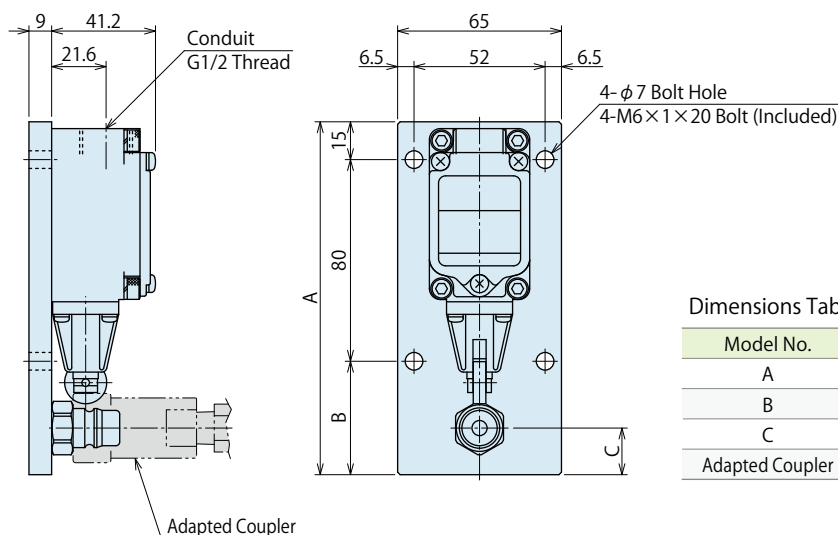
Circuit Symbols (Limit Switch)



Specifications

Model No.	PS0101-H	PS0711-H
Limit Switch	5LS1-J (Made by Azbil Corp.)	
	10A-125,250,480VAC	
Electric Rating	0.8A-115VDC	
	0.4A-230VDC	
	0.1A-550VDC	
Circuit Composition	2-Circuit Double Off Type (1a1b)	
Compatible Coupler Model No.	2HS	3HS
Mass kg	0.9	

External Dimensions



Dimensions Table

Model No.	PS0101-H	PS0711-H
A	140	145
B	45	50
C	18.5	21
Adapted Coupler	2HS	3HS

Clamp
Hydraulic Unit
Operation Control Panel

Die Lifter
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Accessories

Cautions
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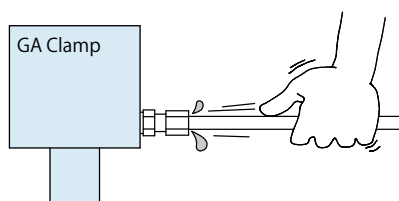
Coupler Switch

PS

Cautions

Installation Notes (Cautions for Hydraulic Series)

- 1) Check the fluid to use
 - Please use the appropriate fluid by referring to the Hydraulic Fluid List.
 - If hydraulic oil with viscosity grade higher than ISO-VG-32 is used, action time would be longer.
 - If using it at low temperature, action time will be longer because the viscosity of hydraulic oil becomes higher.
- 2) Procedure before Piping
 - The pipeline, piping connector and fixture circuits should be cleaned by thorough flushing.
 - The 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 to prevent dust and cutting chips going into the hydraulic system and pipeline.
- 3) Applying Sealing Tape
 - Wrap with tape 1 to 2 times following the screwing direction.
 - Pieces of the sealing tape can lead to air leaks and malfunction.
 - In order to prevent a foreign substance from going into the product during piping, it should be carefully cleaned.
- 4) Air Bleeding in the Hydraulic Circuit
 - If the hydraulic circuit has excessive air, the action time may become very long.
After installing the hydraulic circuit, or if the pump run out of oil, be sure to bleed air by the following step.
 - ① Reduce hydraulic supply pressure to less than 2MPa.
 - ② Please loosen the cap nut of pipe fitting that is closest to clamps • RA die lifters by one full turn.
 - ③ Wiggle the pipeline to loosen the outlet of pipeline fitting.
The hydraulic fluid mixed with air comes out.



- ④ Tighten the cap nut after bleeding.
 - ⑤ It is more effective to bleed 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/nut may be tightened lightly.
Check torque and re-tighten as required.

Hydraulic Fluid List

ISO Viscosity Grade ISO-VG-32		
Maker	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 : As it may be difficult to purchase the products as shown in the table from overseas, please contact the respective manufacturer.

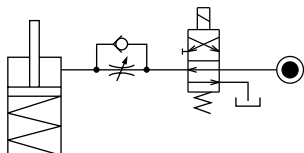
Notes on Hydraulic Cylinder Speed Control Unit



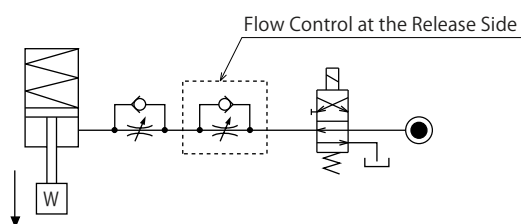
Please pay attention to the cautions below. Design the hydraulic circuit for controlling the action speed of hydraulic cylinder. Improper circuit design may lead to malfunctions and damages. Please review the circuit design in advance.

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.



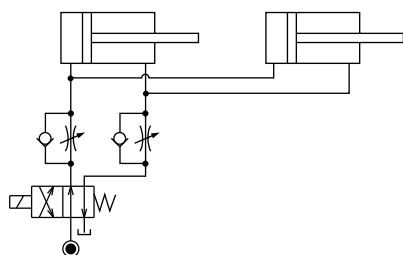
Accelerated clamping speed by excessive hydraulic flow to the cylinder may sustain damage. In this case add flow control to regulate flow.



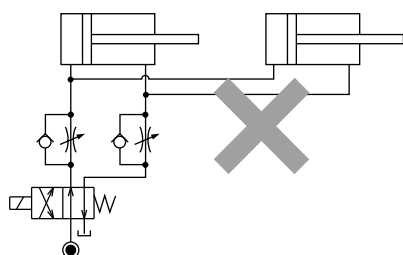
Flow Control Circuit for Double Acting Cylinder

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】

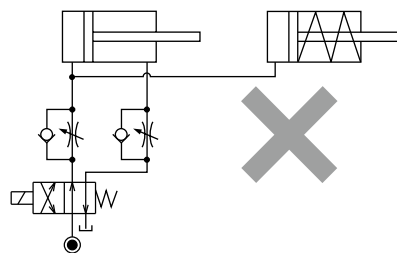


【Meter-in Circuit】



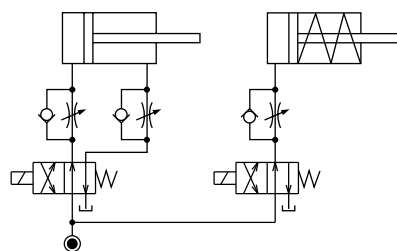
In the case of meter-out circuit, the hydraulic circuit should be designed with the following points.

- 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.

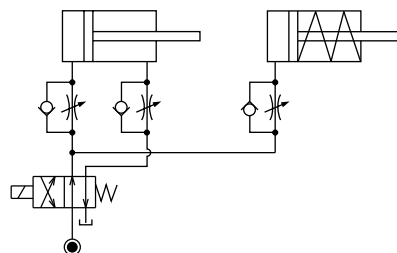


Refer to the following circuit when both the single acting cylinder and double acting cylinder are used together.

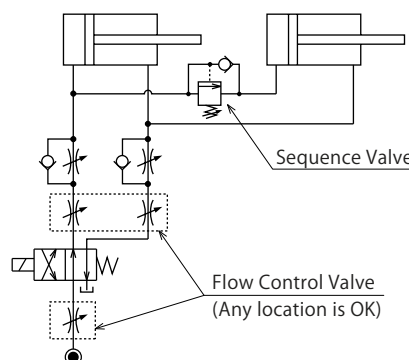
- Separate the control circuit.



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



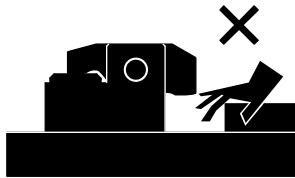
- ② In the case of meter-out circuit, the inner circuit pressure may increase during the cylinder action because of the fluid supply. The increase of the inner circuit pressure can be prevented by reducing the supplied fluid beforehand via the flow control valve. Especially when using sequence valve 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

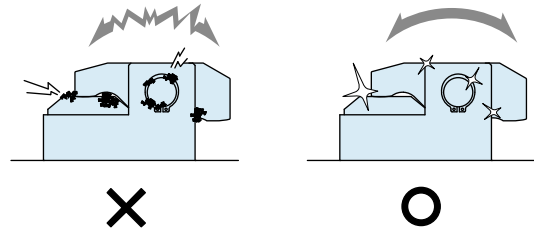
- 1) It should be handled by qualified personnel.
- The hydraulic machine / air compressor should be handled and maintained by qualified personnel.
- 2) Do not handle or remove the machine unless the safety protocols are ensured.
 - ① The machine and equipment can only be inspected or prepared when it is confirmed that the preventive devices are in place.
 - ② Before the machine is removed, make sure that the above-mentioned safety measures are in place. Shut off the air of hydraulic source and make sure no pressure exists in the hydraulic and air circuit.
 - ③ After stopping the machine, do not remove until the temperature cools down.
 - ④ Make sure there is no abnormality in the bolts and respective parts before restarting the machine or equipment.
- 3) Do not touch clamps (cylinders) while they are working. Otherwise, your hands may be injured.



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

● Maintenance • Inspection

- 1) Removal of the Machine and Shut-off of Pressure Source
 - Before the machine is removed, make sure that the above-mentioned safety measures are in place. Shut off the air of hydraulic source and make sure no pressure exists in the hydraulic and air circuit.
 - Make sure there is no abnormality in the bolts and respective parts before restarting.
- 2) Regularly clean the area around the equipment.
 - If it is used when the surface is contaminated with dirt, it may lead to packing seal damage, malfunctioning, fluid leakage and air leaks.



- 3) If disconnecting by couplers on a regular basis, air bleeding should be carried out daily to avoid air mixed in the circuit.
- 4) Regularly tighten bolts and pipe line, mounting bolts, nuts, circlips and cylinders to ensure proper use.
- 5) Make sure the hydraulic fluid has not deteriorated.
- 6) Make sure there is smooth action and no abnormal 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.

Cautions

Installation Notes
(For Hydraulic Series)

Hydraulic Fluid List

Notes on Hydraulic Cylinder
Speed Control Unit

Notes on Handling

Maintenance / Inspection

Warranty

Company Profile

Company Profile

Our Products

History

Sales Office

● 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 handled in 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.

Sales Offices

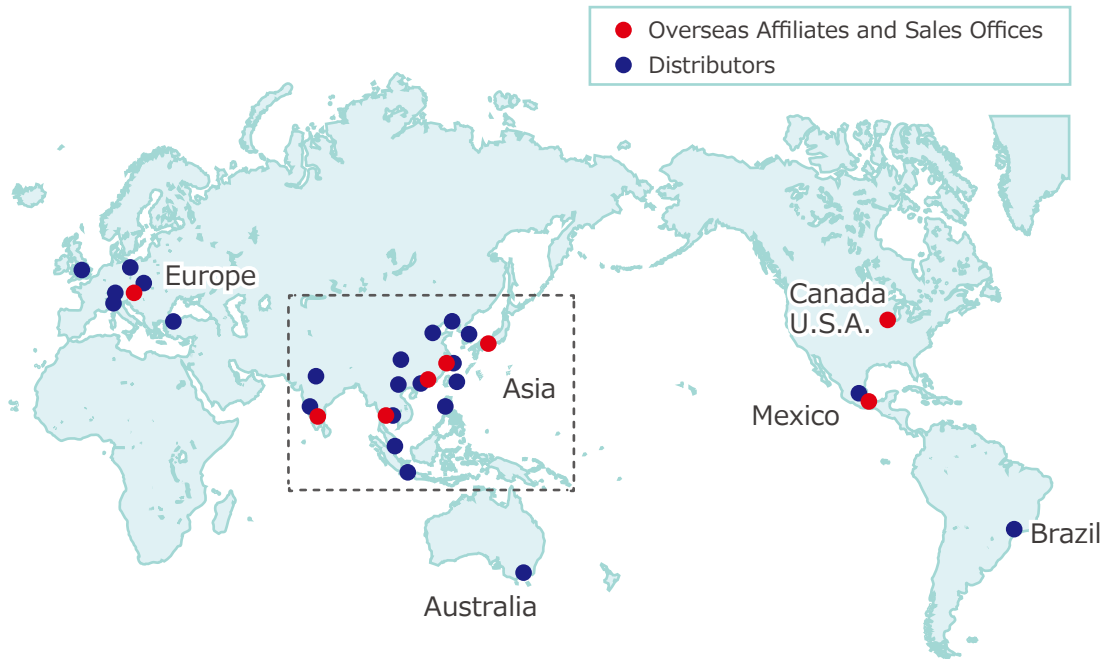
Sales Offices across the World

Japan	TEL. +81-78-991-5162	FAX. +81-78-991-8787
Overseas Sales	KOSMEK LTD. 1-5, 2-chome, Murotani, Nishi-ku, Kobe-city, Hyogo, Japan 651-2241 〒651-2241 兵庫県神戸市西区室谷2丁目1番5号	
USA	TEL. +1-630-620-7650	FAX. +1-630-620-9015
KOSMEK (USA) LTD.	650 Springer Drive, Lombard, IL 60148 USA	
Mexico	TEL. +52-442-161-2347	
KOSMEK USA Mexico Office	Blvd Jurica la Campana 1040, B Colonia Punta Juriquilla Queretaro, QRO 76230 Mexico	
EUROPE	TEL. +43-463-287587	FAX. +43-463-287587-20
KOSMEK EUROPE GmbH	Schleppeplatz 2 9020 Klagenfurt am Wörthersee Austria	
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KOSMEK (CHINA) LTD. 考世美(上海)贸易有限公司	Room601, RIVERSIDE PYRAMID No.55, Lane21, Pusan Rd, Pudong Shanghai 200125, China 中国上海市浦东新区浦三路21弄55号银亿滨江中心601室 200125	
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KOSMEK LTD - INDIA	F 203, Level-2, First Floor, Prestige Center Point, Cunningham Road, Bangalore -560052 India	
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Thailand Representative Office	67 Soi 58, RAMA 9 Rd., Suanluang, Suanluang, Bangkok 10250, Thailand	
Taiwan (Taiwan Exclusive Distributor)	TEL. +886-2-82261860	FAX. +886-2-82261890
Full Life Trading Co., Ltd. 盈生貿易有限公司	16F-4, No.2, Jian Ba Rd., Zhonghe District, New Taipei City Taiwan 23511 台湾新北市中和區建八路2號 16F-4 (遠東世紀廣場)	
Philippines (Philippines Exclusive Distributor)	TEL. +63-2-310-7286	FAX. +63-2-310-7286
G.E.T. Inc, Phil.	Victoria Wave Special Economic Zone Mt. Apo Building, Brgy. 186, North Caloocan City, Metro Manila, Philippines 1427	
Indonesia (Indonesia Exclusive Distributor)	TEL. +62-21-29628607	FAX. +62-21-29628608
PT. Yamata Machinery	Delta Commercial Park I, Jl. Kenari Raya B-08, Desa Jayamukti, Kec. Cikarang Pusat Kab. Bekasi 17530 Indonesia	

Sales Offices in Japan

Head Office Osaka Sales Office Overseas Sales	TEL. 078-991-5162	FAX. 078-991-8787
	〒651-2241 兵庫県神戸市西区室谷2丁目1番5号	
Tokyo Sales Office	TEL. 048-652-8839	FAX. 048-652-8828
	〒331-0815 埼玉県さいたま市北区大成町4丁目81番地	
Nagoya Sales Office	TEL. 0566-74-8778	FAX. 0566-74-8808
	〒446-0076 愛知県安城市美園町2丁目10番地1	
Fukuoka Sales Office	TEL. 092-433-0424	FAX. 092-433-0426
	〒812-0006 福岡県福岡市博多区上牟田1丁目8-10-101	

Global Network



Asia Detailed Map



KOSMEK
Harmony in Innovation

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