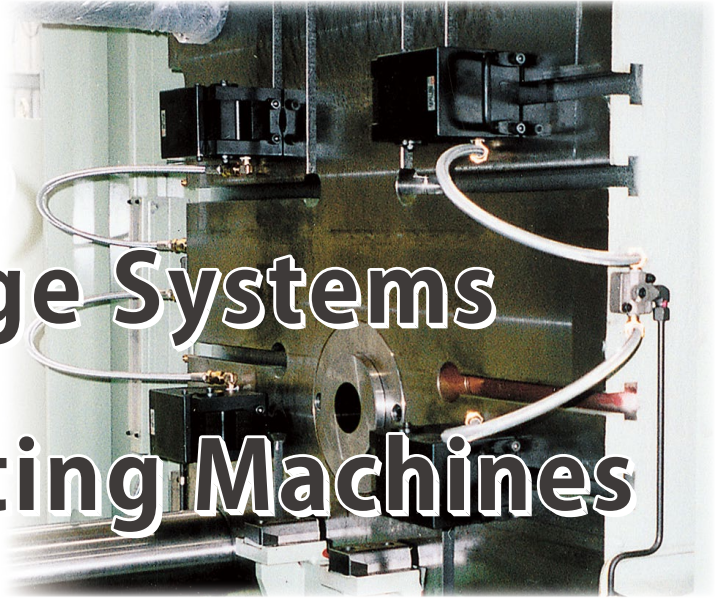


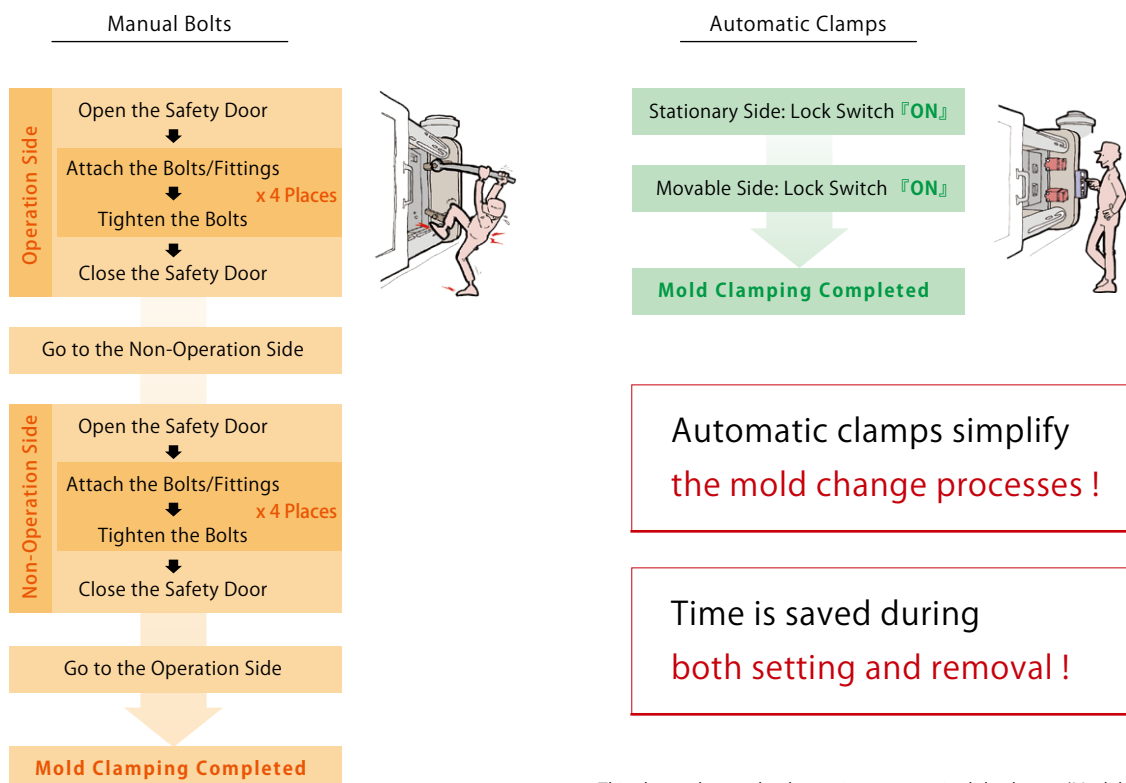
Kosmek Mold Change Systems for Die Casting Machines



Point !

Reduces **Mold Change Time!**

Clamps the Mold with the Touch of a Button

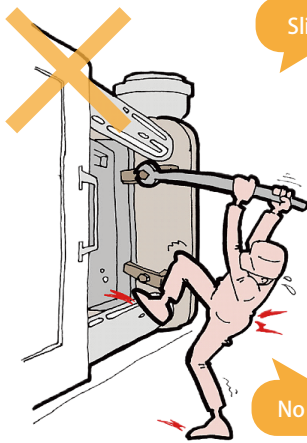


※ This shows the result when using automatic slide clamps (Model GKE/GKF).

Point !

Mold Changing Becomes **Safer!**

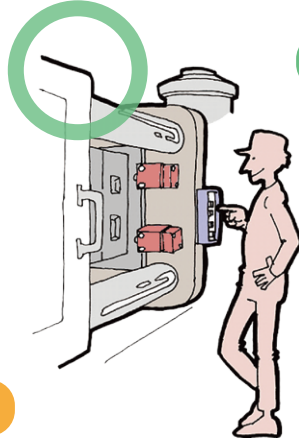
No tools are required. Clamping the mold with the touch of a button prevents injuries and accidents.



- Slippery due to mold lubricant...
- Can cause back injuries...
- Tools are required...
- Can forget to tighten bolts...
- No space on the Non-Operation side...

Manual Bolts

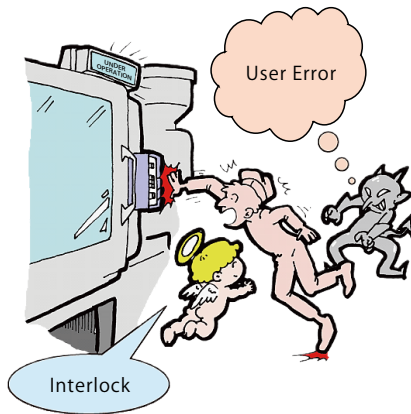
Unsafe/Unstable Work



- Push-button operation!
- No tools are required!
- Safe interlock function!

Automatic Clamps

Safe/Stable Work



Safety functions prevent the mold from falling.

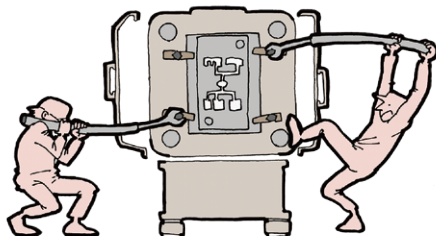
The Kosmek operation control panel has interlocks with the machine and is **designed to prevent an operator error.**

Point !

Automatic Clamps **Improve Quality!**

Anyone can attach the mold with the same clamping force allowing for standardization.

Equal and sequential tightening of the bolts is essential to maintain proper clamping force, but some bolts are easier to tighten than others...



Less Mold Deformation

Automatic clamps allow for equal tightening, **reducing mold deformation and burrs.**

No Skilled Labor Required

No skilled labor is required with automatic clamps and equal tightening force is ensured.



Kosmek Automatic Clamp

Stable Performance

Point !

Special Coating Enables a Longer Operational Life Span!

Special Coating

Special coating on the lever and body prevents rust caused by mold lubricant.

Protective Cover

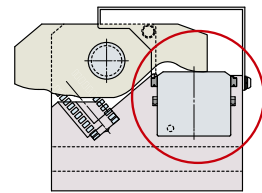
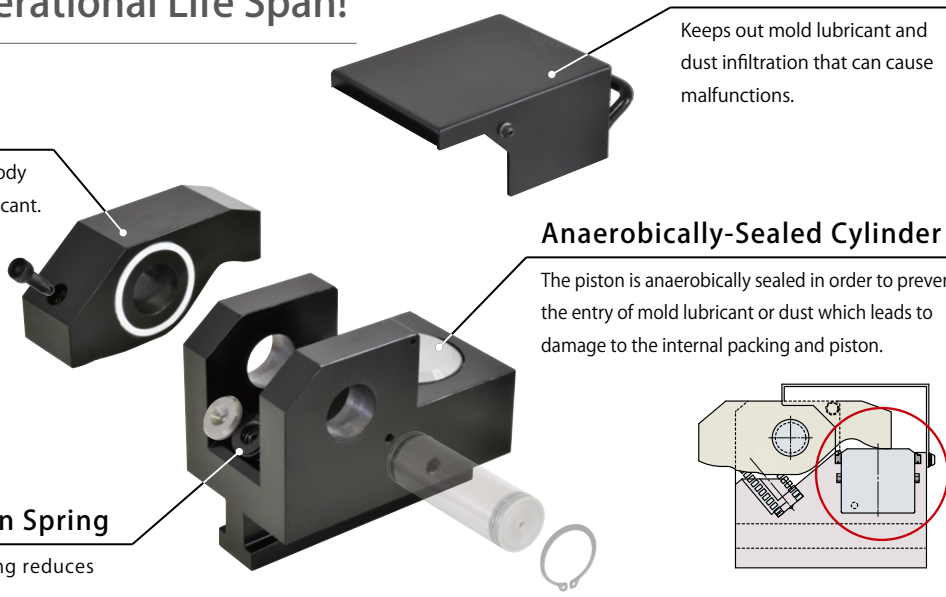
Keeps out mold lubricant and dust infiltration that can cause malfunctions.

Anaerobically-Sealed Cylinder

The piston is anaerobically sealed in order to prevent the entry of mold lubricant or dust which leads to damage to the internal packing and piston.

Powerful Lever Return Spring

The powerful lever return spring reduces the release time.



Point !

Exclusive Sealing Enables a Longer Operational Life Span!

Reduces release errors caused by corrosion of the fulcrum shaft.

Special Seal

★ **Low Friction and Smooth Operation**

Special wear resistant sealing is used on the sliding surface.

★ **High Durability and Longer Operating Life**

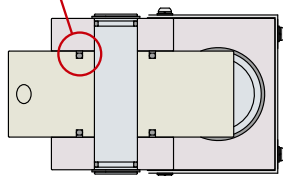
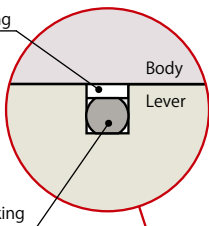
Maintains high-quality sealing due to the resilience of the Viton seal that presses the special seal to the sliding surface of the body.

Scrapper

Keeps out foreign substances in conjunction with the protective cover.

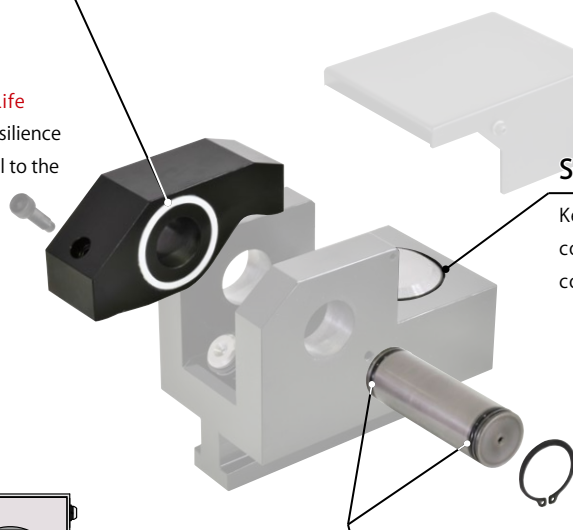
Special Sealing

Viton Packing



Packing for the Fulcrum Shaft

This packing, which is set on the fulcrum shaft, keeps out mold lubricant and dust.

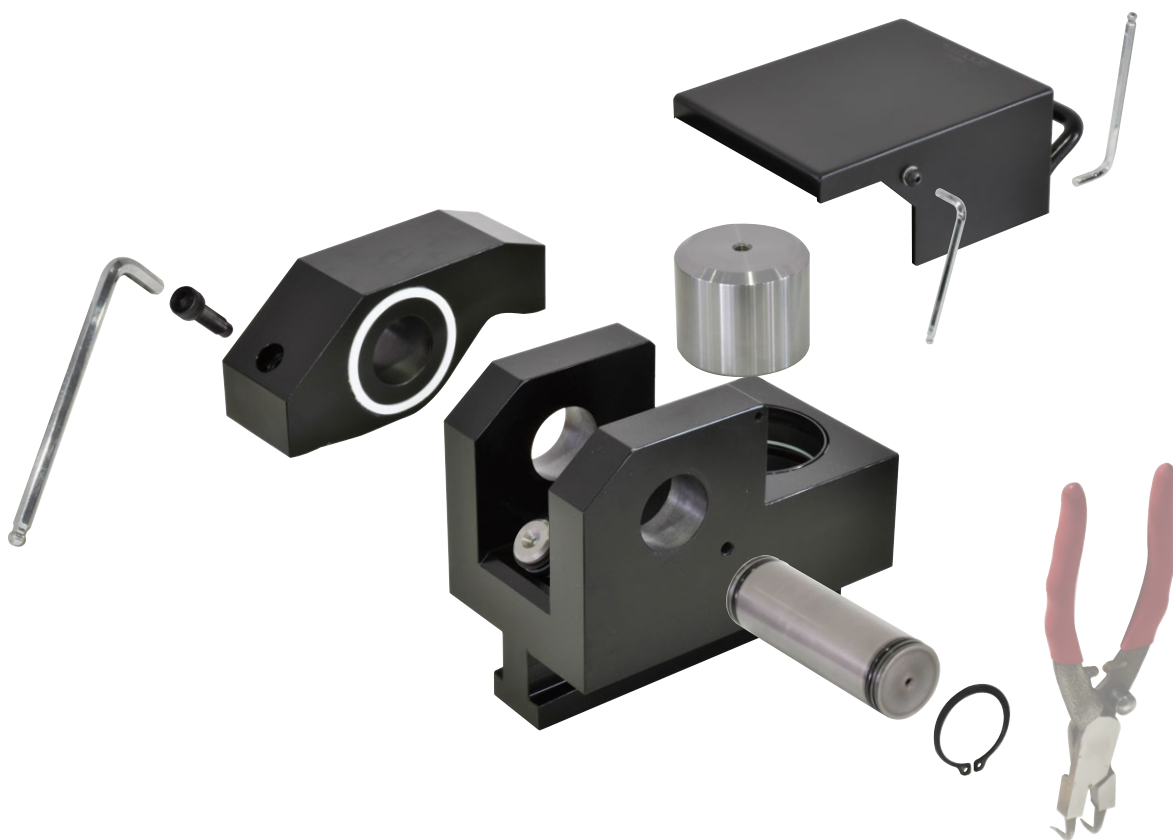


Improved Maintenance

Point !

No Special Tools are Required to Assemble/Disassemble!

The structure has been redesigned. It's simple and easy to maintain.



No special tools are required.

No skilled labor is required.

Small clamps can be **assembled and disassembled on the platens.**

Simple structure with high durability.

※ For larger models, it is recommended to remove them from the platen during assembly/disassembly for safety.

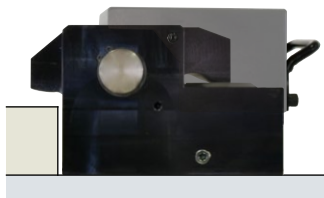
Additional Standard Models

Longer Stroke Model

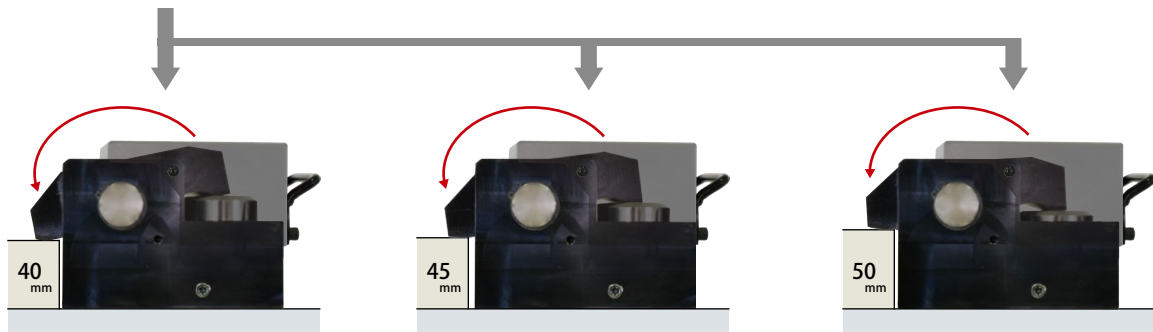
Point !

The World's Best Long Stroke Clamp!

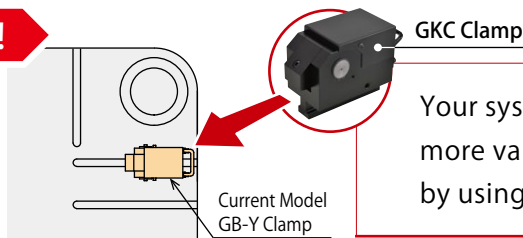
0100~0400 Size: St. 8~12mm, 0630~5000 Size: St. 15~16.5mm



For model 0630, the full stroke is 15 mm!
(Ex.) This model works with
three mold thicknesses: 40, 45 and 50mm!



Point!



Your system will be capable of handling more variations in backplate thickness by using the new longer stroke clamps.

T-Slot Automatic Slide Model

Point !

Push Button Operation Completes the Clamp Positioning and Lock Operation

There is no need to go to the non-operation side. Clamp movement is automated.

Clamp Operation Time Drastically Reduced



Point !

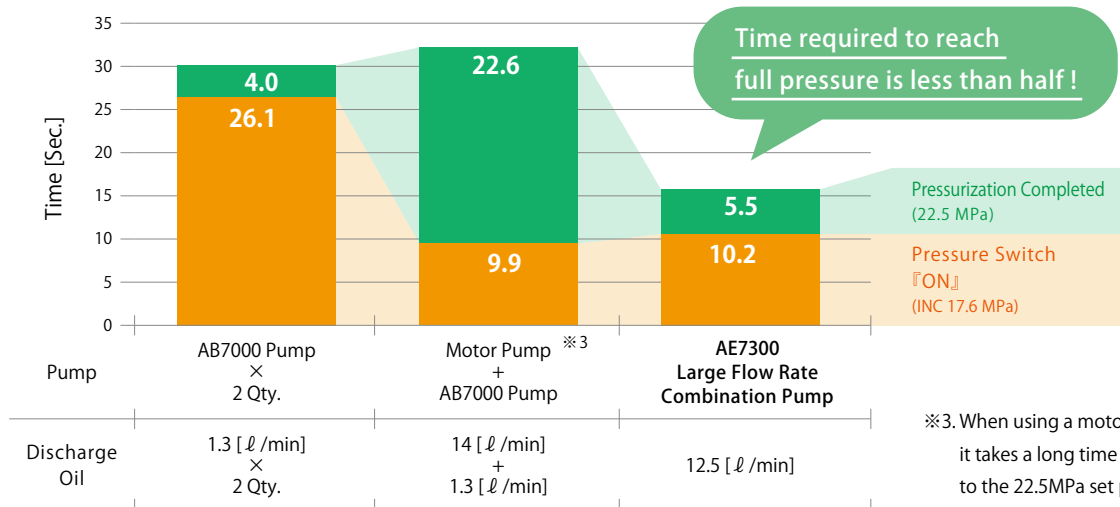
Newly Developed Large Flow Air-Hydraulic Combination Pump

Reduces 50% of O.T.*¹ (In comparison with our products.)

*1. O.T. = Operation Time
Reduced time varies depending on piping, etc.

(Ex.) For an 850 ton machine with eight 2500 clamps,^{*2}
clamp operation time is **16 seconds!!**

*2. Cylinder Capacity : About 700 mℓ



*3. When using a motor pump, it takes a long time to pressurize to the 22.5MPa set pressure after the pressure switch turns "ON".

Pump Pressurization Time Comparison

Point !

Compact and **Space-Saving!**



Pressure relief valve allows for temperature change in hydraulic circuit.

Compact, High Pressure and Large Discharge

Various Sizes Available

Standard System

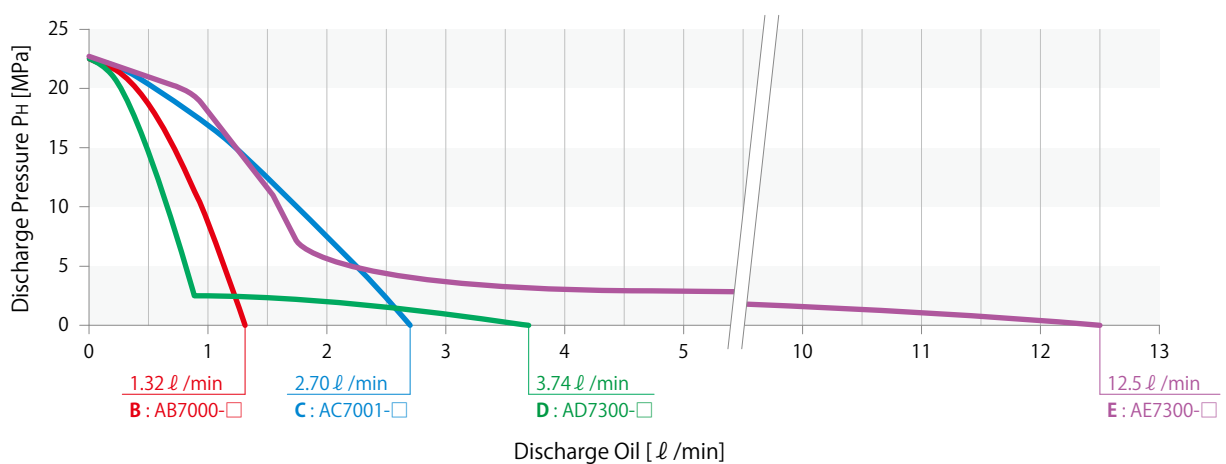
Die Casting Machine Capacity	Clamp Size ^{※1}	Clamp Qty.	Stationary / Movable Total Clamping Force [kN]	Hydraulic Unit			Air Valve Unit (Only GKE/GKF)
				Unit Model	Pump Model	Clamp Operation Speed	
~ 350	0100	8 (Stationary : 4 Movable : 4)	40	CPBNO□0 CPDNO□0 CPCNO□0 CPENO□0	AB7000-□ AD7300-□ AC7001-□ AE7300-□	↓ Faster	-
~ 500	0160		64				
~ 750	0250		100				
~ 1500	0400		160				
~ 2500	0630		252				
~ 5000	1000		400	CPDNO□0 CPCNO□0 CPENO□0	AD7300-□ AC7001-□ AE7300-□		MV3023
~ 6500	1600		640				
~ 11000	2500		1000	CPCNO□0 CPENO□0	AC7001-□ AE7300-□		
~ 16500	4000		1600	CQENO□0	AE7300-□		MV3033
~ 22500	5000		2000				
~ 25000	4000	2400					
~ 30000	5000	3000	12 (Stationary : 6 Movable : 6)				

Notes :

※1. T-Slot Manual Slide (Model GKB/GKC) : sizes 0100~5000, T-Slot Automatic Slide (Model GKE/GKF) : sizes 0400~5000.
Please contact us for T-slot automatic slide clamp sizes smaller than 0400.

1. The standard system above is just a reference. Please contact us for exact specifications for your machine.

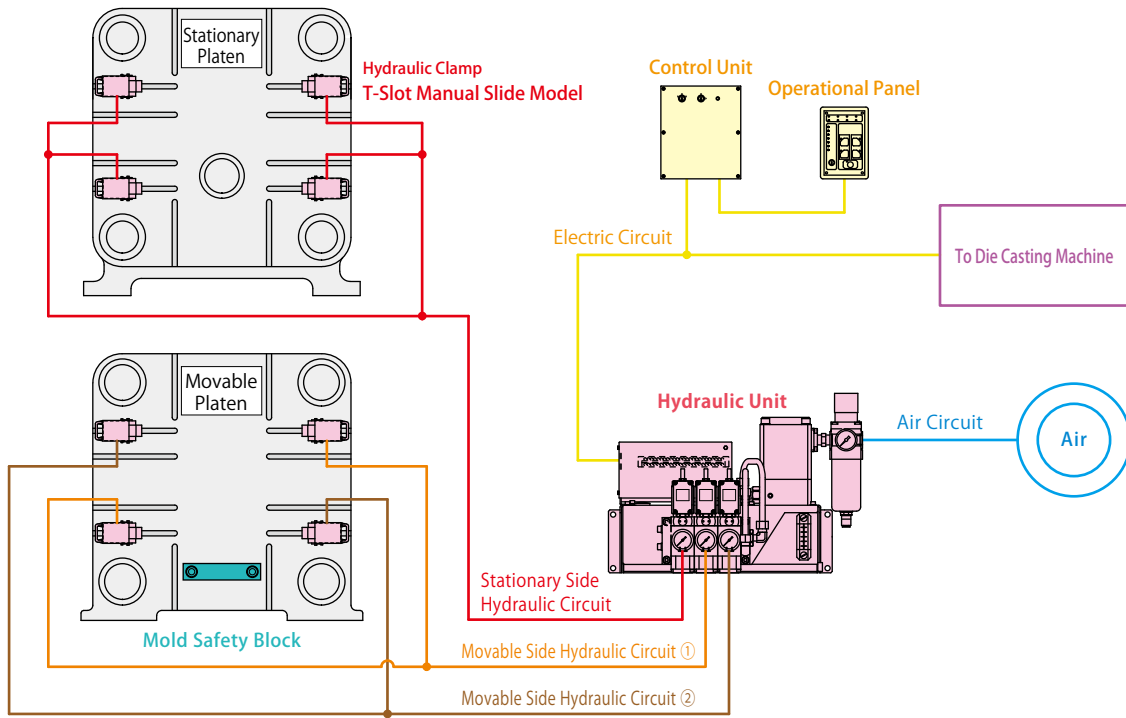
Pump Performance Curve



System Structure

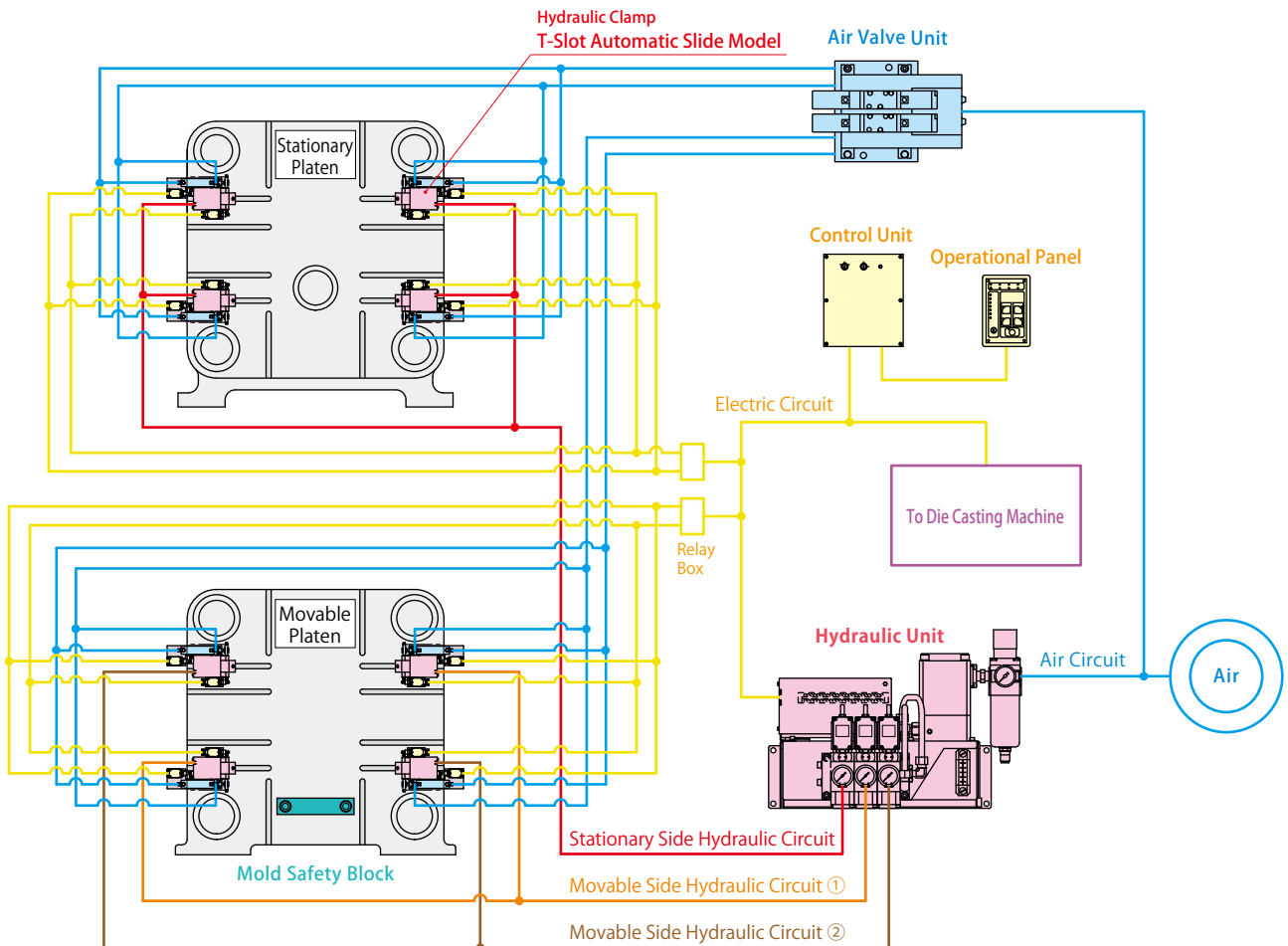
Hydraulic Clamp

T-Slot Manual Slide Model

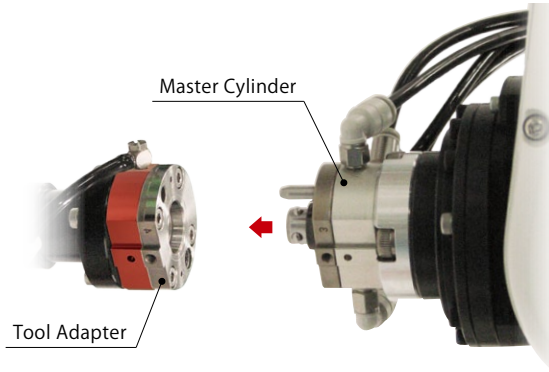


Hydraulic Clamp

T-Slot Automatic Slide Model



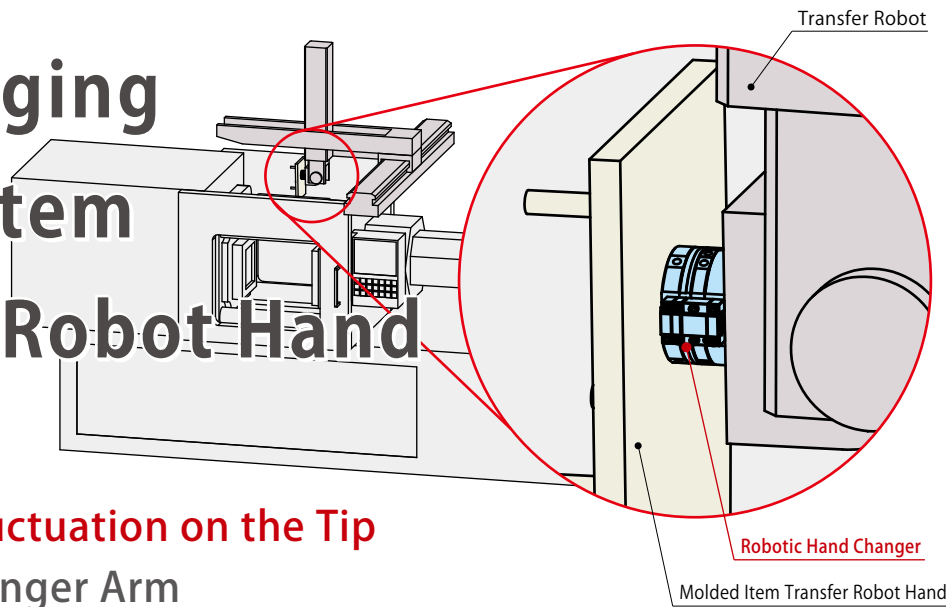
Zero Backlash ~ The World's Only Robotic Hand Changer ~



Specifications < Model SWR >

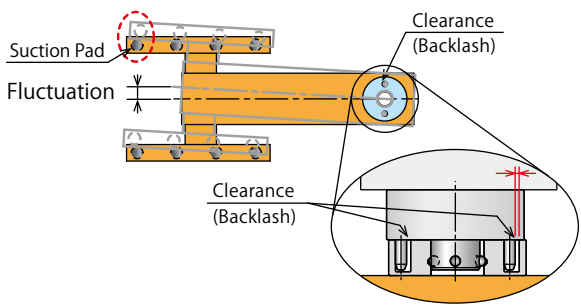
- Payload (at 0.5MPa) : 3 kg / 7 kg / 12 kg / 25 kg / 50 kg / 75 kg / 120 kg / 230 kg • Maximum Operating Air Pressure : 1.0 MPa
- Repeatability : 3 μm • Operating Temperature : 0 ~ 70 °C
- ※ Please refer to the product catalog on our website for further information.

For Changing Molded Item Transfer Robot Hand

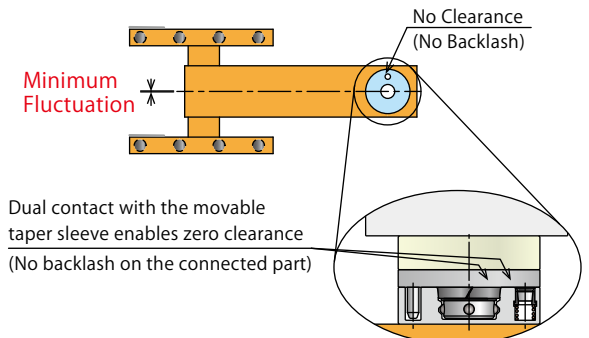


Point 1 Minimum Fluctuation on the Tip even with Longer Arm

Before General Robotic Hand Changer



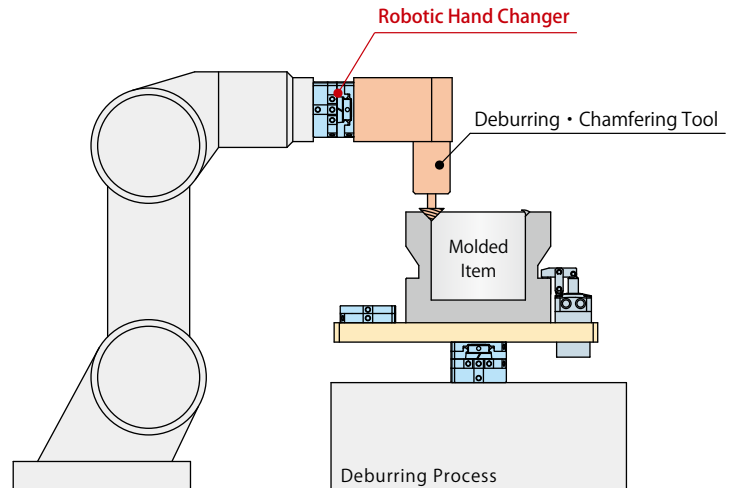
After Kosmek Robotic Hand Changer



Exchange of Deburring Tool

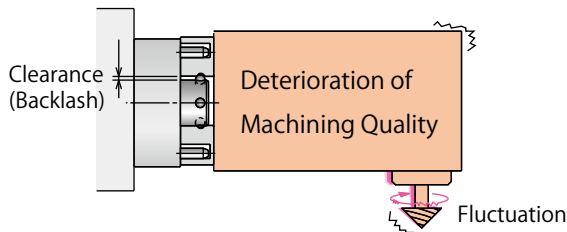
Point !

Zero Backlash!
Suitable for Heavy Load Work



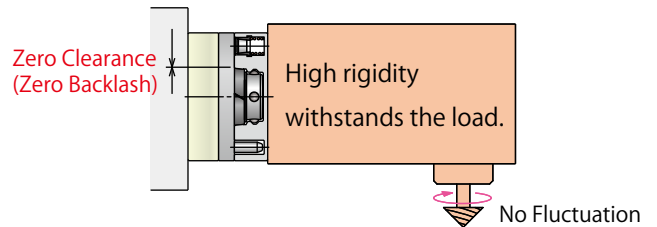
Before

General Robotic Hand Changer



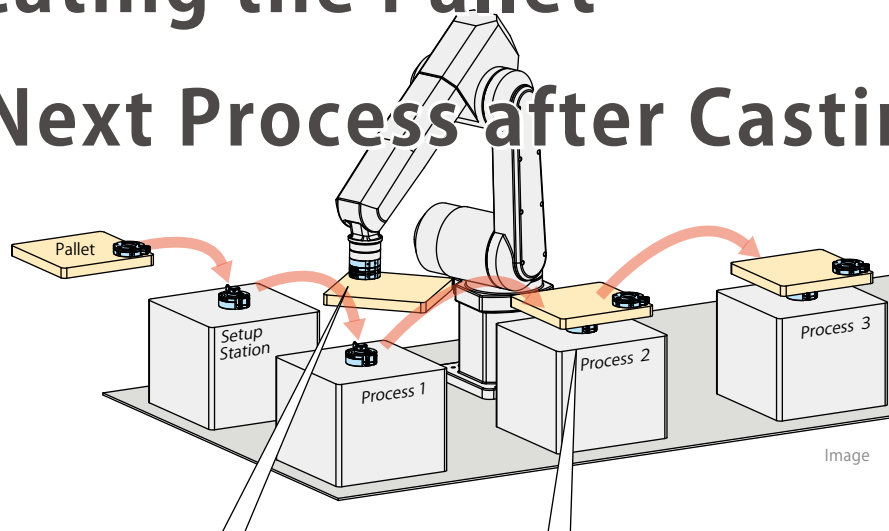
After

Kosmek Robotic Hand Changer

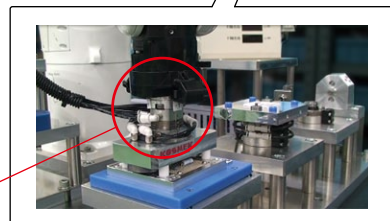


Repeatability during Tool Change $3\mu\text{m}$

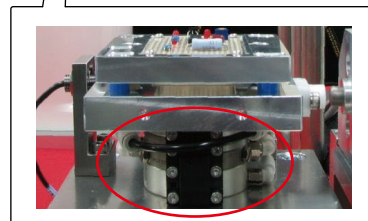
For Locating the Pallet in the Next Process after Casting



Robotic Hand Changer

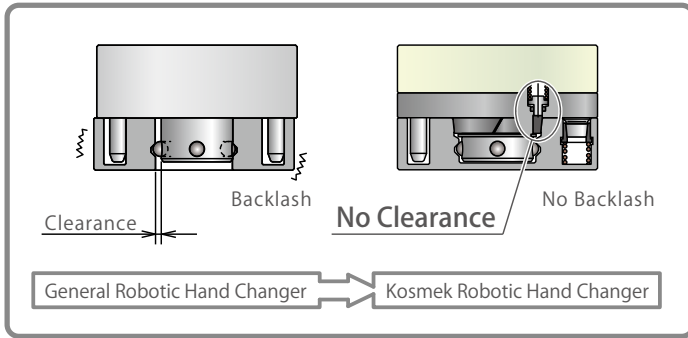


Transfer Robot



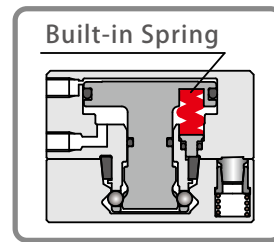
Pallet Locating

6 Reasons to Choose **KOSMEK**



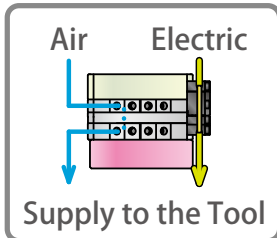
No Backlash on Connected Part

No clearance or backlash with dual contact by the taper sleeve. It prevents core deflection and chattering due to the work load and enhances productivity.



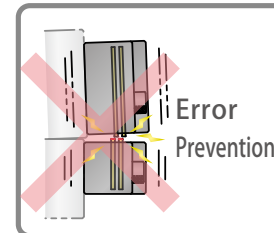
Prevents the Tool from Falling

Even without pressure, the built-in spring maintains the connection, which prevents the tool from falling.



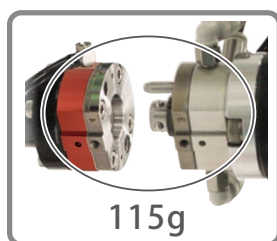
Connect Air/Electricity to the Tool Side

Air and electricity can be connected to the tool through air port and electrodes. Solder terminals, D-sub connectors and power transmission connectors are available.



Better Work Efficiency with Electrode

No backlash on connected part. Highly reliable electrodes prevent momentary stop caused by communication error.



Light and Compact

Suitable for robotic hands which have critical weight limits. Light weight but highly portable.

※ Shows the weight of SWR0030 without an electrode option.



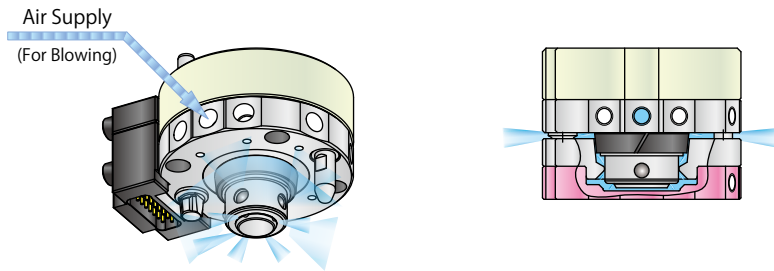
Prevents Fluctuation

The repeatability of tool change is 0.003mm. Reduces the fluctuation of the hand tool and conducts a high accurate operation.

This catalog (KDCS : Kosmek Diecast Clamping System Complete Catalog) does not include the details about SWR. Please contact us or visit our website (<http://www.kosmek.com>) for further information.

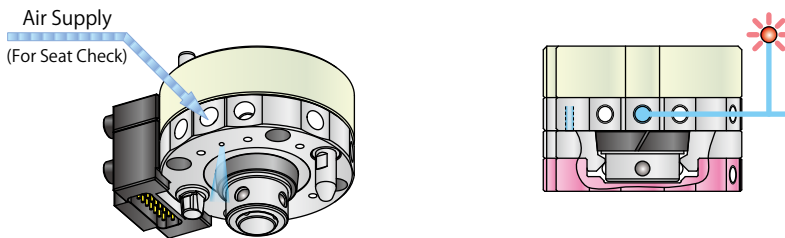
Port Options

A: With Air Blow Port



When connecting, there is moderate clearance between the taper reference surface and seating surface that enables high accuracy. This allows for effective cleaning with air blow, foreign substance prevention and longer operating life.

F: With Seat Check Port



Close contact check detects secure connection of the master cylinder and tool adapter. This prevents connection error of the robotic hand changer. A close contact check is conducted with the air catch sensor. (The air catch sensor must be installed separately.)

Waterproof Electrodes

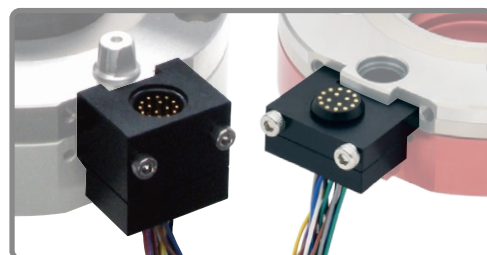
Point !

Waterproof Electrodes

Prevent Mold Lubricant and Dust Infiltration!



Waterproof Electrode (Non-contact Waterproof Option)
IP67



Waterproof Electrode (Simple Waterproof Option)
Equivalent to IP54 only When Connected



KOSMEK LTD. Head Office

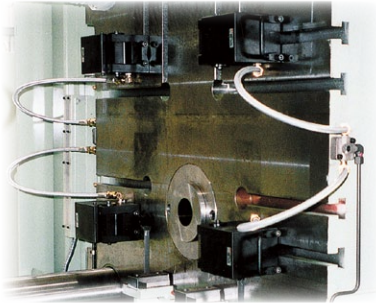
Company Name	KOSMEK LTD.
Established	May 1986
Capital	¥99,000,000
Chairman & CEO	Tsutomu Shirakawa
President & CEO	Koji Kimura
Employee Count	270
Group Company	KOSMEK LTD. KOSMEK ENGINEERING LTD. KOSMEK (USA) LTD. KOSMEK EUROPE GmbH KOSMEK (CHINA) LTD. KOSMEK LTD. - INDIA
Business Fields	Design, Production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

Major Industrial Property Rights

(Including Patent Right and Patent Pending as of March 2019)

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

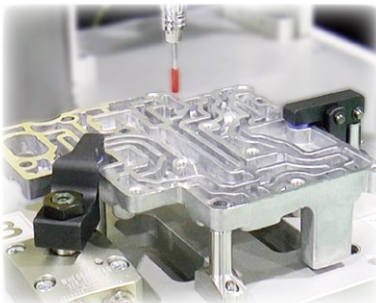
Product Line-Up



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.



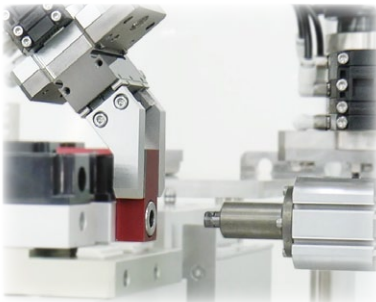
KOSMEK WORK CLAMPING SYSTEMS

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.

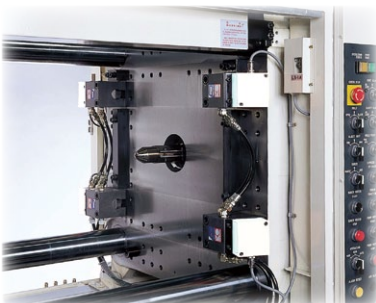


QUICK DIE CHANGE SYSTEMS

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.

Hydraulic Clamp

Hydraulic Unit

Operational Control Unit

Cautions Company Profile

Hydraulic Clamp

GKB

GKC

GKE

GKF

Hydraulic Unit

CTB

CTD

CTC

CTE

CUC

CUE

Air Valve Unit

MV

Operational Control Unit

YMB080

Cautions

Notes on Design

Installation Notes

Hyd. Fluid List

Notes on Hyd. Cylinder Speed Control Circuit

Notes on Handling

Maintenance/ Inspection

Warranty

Our Products

QMCS

QDCS

KWCS

FA and Industrial Robot Related Products

Company Profile

Company Profile

History

Sales Offices

Sales Offices

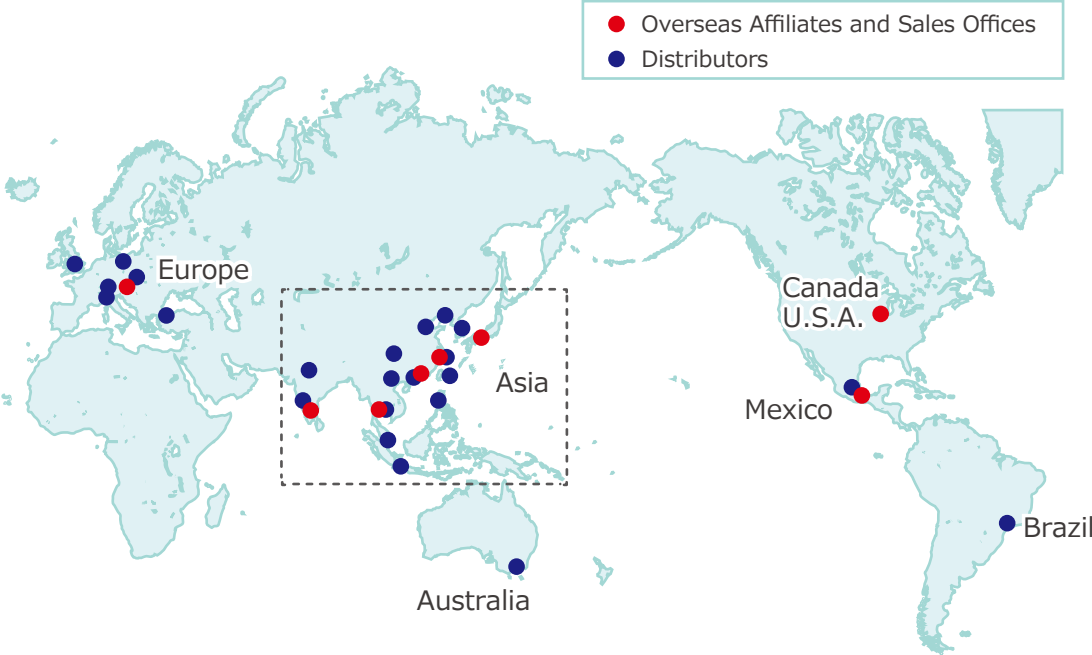
Sales Offices across the World

JAPAN HEAD OFFICE Overseas Sales	TEL. +81-78-991-5162	FAX. +81-78-991-8787
	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	
United States of America SUBSIDIARY KOSMEK (USA) LTD.	TEL. +1-630-620-7650	FAX. +1-630-620-9015
	650 Springer Drive, Lombard, IL 60148 USA	
MEXICO REPRESENTATIVE OFFICE KOSMEK USA Mexico Office	TEL. +52-442-161-2347	
	Av. Santa Fe #103 int 59 Col. Santa Fe Juriquilla C.P. 76230 Queretaro, Qro Mexico	
EUROPE SUBSIDIARY KOSMEK EUROPE GmbH	TEL. +43-463-287587	FAX. +43-463-287587-20
	Schleppeplatz 2 9020 Klagenfurt am Wörthersee Austria	
CHINA KOSMEK (CHINA) LTD. 考世美(上海)貿易有限公司	TEL. +86-21-54253000	FAX. +86-21-54253709
	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	
INDIA BRANCH OFFICE KOSMEK LTD - INDIA	TEL. +91-9880561695	
	4A/Old No:649, Ground Floor, 4th D cross, MM Layout,Kavalbyrasandra, RT Nagar, Bangalore -560032 India	
THAILAND REPRESENTATIVE OFFICE KOSMEK Thailand Representation Office	TEL. +66-2-300-5132	FAX. +66-2-300-5133
	67 Soi 58, RAMA 9 Rd., Suanluang, Suanluang, Bangkok 10250, Thailand	
TAIWAN (Taiwan Exclusive Distributor) Full Life Trading Co., Ltd. 盈生貿易有限公司	TEL. +886-2-82261860	FAX. +886-2-82261890
	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) G.E.T. Inc, Phil.	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 (Indonesia Exclusive Distributor) PT. Yamata Machinery	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	

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



● FOR FURTHER INFORMATION ON UNLISTED SPECIFICATIONS AND SIZES, PLEASE CALL US.
 ● SPECIFICATIONS IN THIS CATALOG ARE SUBJECT TO CHANGE WITHOUT NOTICE.

