

Clamp Operation Time Drastically Reduced



Point !

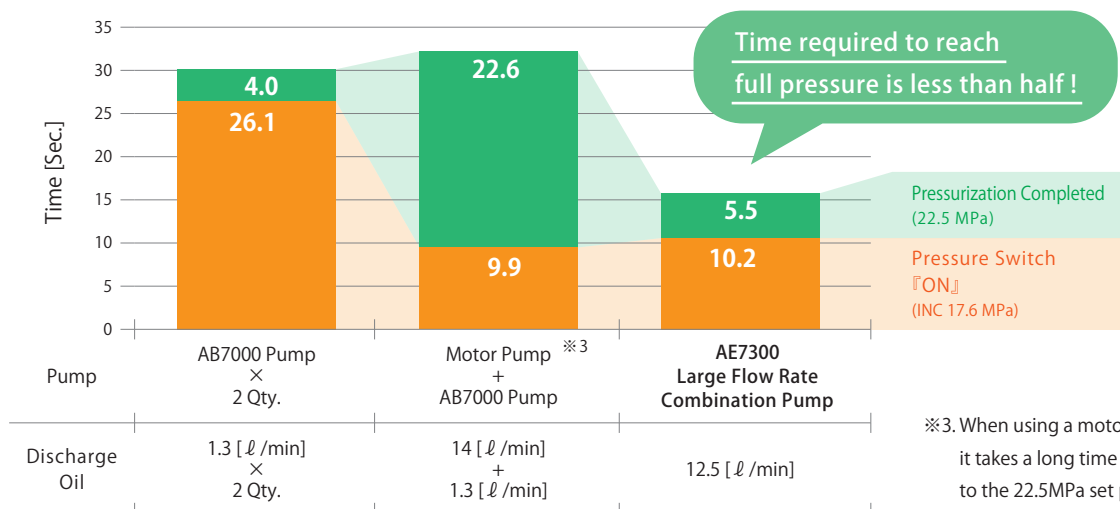
Newly Developed Large Flow Air-Hydraulic Combination Pump

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



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	CPBN□0 CPDN□0 CPCN□0 CPEN□0	AB7000-□ AD7300-□ AC7001-□ AE7300-□	 Faster	—	
～ 500	0160		64					
～ 750	0250		100					
～ 1500	0400		160				MV3013	
～ 2500	0630		252					
～ 5000	1000		400	CPDN□0 CPCN□0 CPEN□0	AD7300-□ AC7001-□ AE7300-□		MV3023	
～ 6500	1600		640					
～ 11000	2500		1000					
～ 16500	4000		1600	CQEN□0	AE7300-□		MV3033	
～ 22500	5000		2000					
～ 25000	4000	12 (Stationary : 6 Movable : 6)	2400					
～ 30000	5000		3000					

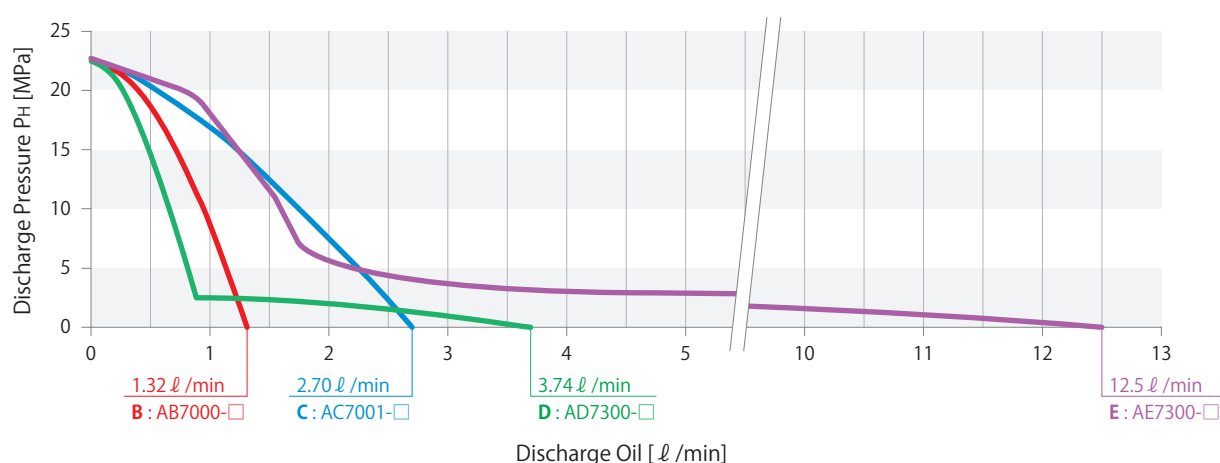
Notes :

※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



Hydraulic Unit

[without Cover (Standard Model)]

Model CPB/CPD/CPC/CPE (5 ℓ Tank)

Model CQC/CQE (10 ℓ Tank)

[with Cover]

Model CTB/CTD/CTC/CTE (5 ℓ Tank)

Model CUC/CUE (10 ℓ Tank)



Converts Factory Compressed Air into Hydraulic Pressure.

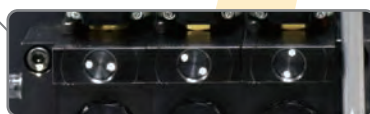
Compact Hydraulic Unit Composed of Pump, Non-Leak Valve, Pressure Relief Valve, Pressure Switch and Oil Tank



Pump

Pressure Supply when Hydraulic Pressure Decreases

The pump supplies pressure when the hydraulic pressure in the circuit decreases because of temperature reduction, etc. This ensures a consistent clamping force.



Pressure Relief Valve

Maintains Set Pressure with Pressure Relief Valve

The set pressure: 25MPa^{+2}_0 is maintained by the pressure relief valve (BR valve) even when hydraulic pressure rises during IMM operation.



Non-Leak Valve

Maintains Hydraulic Pressure with Non-Leak Valves

Non-leak valve (BA valve) maintains hydraulic pressure even when air supply is stopped. This prevents the mold from falling.

Larger Flow Rate Increases Clamping Speed

Wider oil path allows for larger flow rate. Increase of hydraulic clamp operation speed reduces mold change time.

Model No. Indication

C P D N 0 G 0 - 3US - 5 A - K1

1 2 3 4 5 6 7 8 9

Notes :

※ 1. When selecting **9** Option **N** : NPT Port, dimensions in the specification sheet and other documents are in inches.

1. Please contact us for specifications and external dimensions for these options.

1 Unit Model

【Without Cover (Standard Model)】

P : For Small/Medium Clamp (5 ℓ Tank)

Q : For Large Clamp (10 ℓ Iron Tank)



【With Cover】

T : For Small/Medium Clamp (5 ℓ Tank)

U : For Large Clamp (10 ℓ Iron Tank)



2 Pump Model

B : AB Pump

D : AD Pump

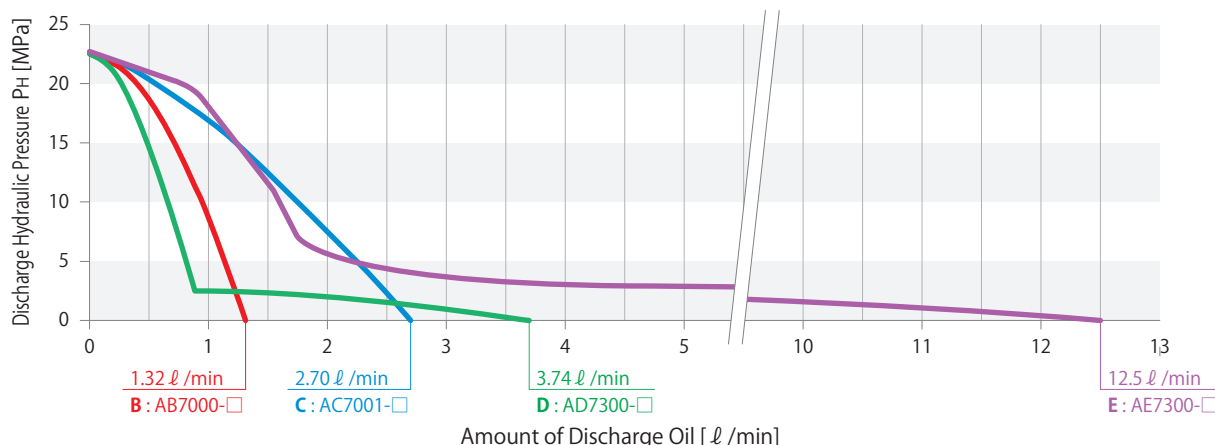
C : AC Pump

E : AE Pump

● = Available Pump

2 Pump Model	1 Unit Model			
	P	Q	T	U
B : AB Pump	●		●	
D : AD Pump	●		●	
C : AC Pump	●	●	●	●
E : AE Pump	●	●	●	●

Pump Performance Curve



3 Pressure Code

N : Working Pressure 25MPa, Pressure Switch Set Pressure INC. 17.6MPa (Normal Pressure Rise Confirmation), 28.4MPa (Abnormal Pressure Rise Confirmation) / DEC. 2.94MPa, with Pressure Relief Valve

4 Fluid Code

0 : General Hydraulic Oil (equivalent to ISO-VG-32)

G : Water·Glycol (Iron Tank)

S : Silicon Oil

F : Fatty Acid Ester

5 Design No.

0 : Revision Number

6 Circuit Symbol (Indicate with the number of circuits and circuit symbol.)

US : For Clamp Double Solenoid
With Pressure Relief Valve

7 Voltage Code

1 : AC100V (50/60Hz) **4** : AC220V (50/60Hz)

2 : AC200V (50/60Hz) **5** : DC24V

3 : AC110V (50/60Hz)

8 Common (Only when selecting 7 Voltage Code 5:DC24V)

A : + Common (Standard)

B : - Common

9 Option

Blank : Standard

D0 : Digital Pressure Sensor (PNP) (DC24V only)

CD1 : Digital Pressure Sensor (NPN) (DC24V only) (+Common)

E : Without Filter Regulator

F : Manual-Drain Filter Regulator

G : With Primary Pressure Gauge

H : With Piping Block on the Left

J : With Air Regulator

K0 : With Pressure Gauge for Each Circuit (w/o Primary Pressure Gauge)

K1 : With Color Displayed Pressure Gauge for Each Circuit (w/o Primary Pressure Gauge)

KG0 : With Pressure Gauge for Each Circuit (with Primary Pressure Gauge)

KG1 : With Color Displayed Pressure Gauge for Each Circuit (with Primary Pressure Gauge)

L : With Pressure Switch Light

N : NPT Port, Pressure Gauge in both PSI/MPa^{※1}

P : Pressure Gauge in both PSI/MPa

Q0 : With Oil Level Switch (ON when Oil Level Drops)

Q1 : With Oil Level Switch (OFF when Oil Level Drops)

T : Iron Tank (Only for CP□/CT□.)

Hydraulic Clamp

Hydraulic Unit

Operation Panel
Control UnitCautions
Company Profile

Hydraulic Clamp

GKB

GKC

GKE

GKF

Hydraulic Unit

CPB/CPD

/CPC/CPE

CQC/CQE

CTB/CTD

/CTC/CTE

CUC/CUE

Air Valve Unit

MV

Operation Panel
Control Unit

YMD

Cautions

Notes on Design

Installation Notes

Hydraulic 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

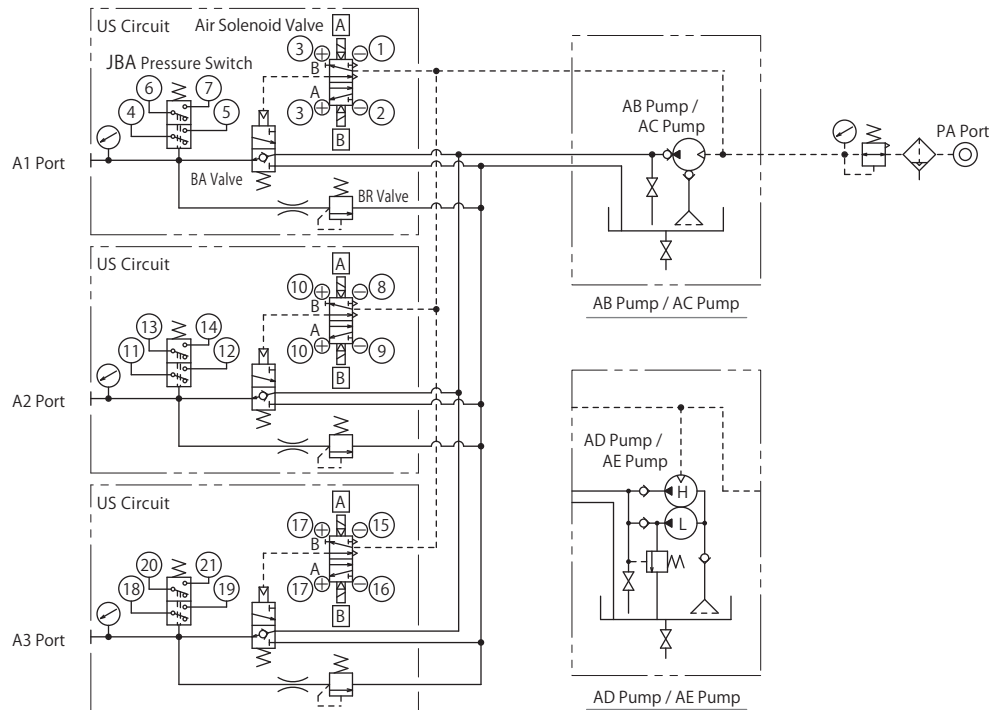
Specifications

Model No.		CPBN0□0 CTBN0□0	CPDN0□0 CTDN0□0	CPCN0□0 CTCN0□0	CPEN0□0 CTEN0□0	CQC�0□0 CUCN0□0	CQEN0□0 CUEN0□0	
Working Hydraulic Pressure	MPa	25						
Withstanding Pressure	MPa	37						
Tank Capacity	ℓ	5 ℓ (Actual Amount for Use 3.7 ℓ : H.L.5 ℓ -L.L.1.3 ℓ) ※1				10 ℓ (Actual Amount for Use 7 ℓ : H.L.10 ℓ -L.L.3 ℓ)		
Operating Temperature	℃	0 ~ 70						
Use Frequency		Less than 20 Cycles / Day Pressure Rising Time : Less than 2.5 min. / Cycle						
Main Components	Pump	Model No.	AB7000-□	AD7300-□	AC7001-□	AE7300-□	AC7001-□	AE7300-□
		Set Discharge Pressure MPa	22.5	22.5	22.5	22.5	22.5	22.5
		Discharge Oil under No Load ℓ /min	1.32	3.74	2.70	12.5	2.70	12.5
		Set Air Pressure MPa	0.41	0.41	0.43	0.43	0.43	0.43
		Air Consumption m³(normal)/min	max. 0.4	max. 0.4	max. 1.0	max. 1.0	max. 1.0	max. 1.0
	Suction Filter	Model No.	JF1030	JF1030	JF1030	JF1040	JF1030	JF1040
		Filtration Degree	174 μm (100 Mesh)					
	Non-Leak Valve	Model No.	BA5R11-0	BA5R11-0	BA5R11-0	BA5R11-0-Z00102	BA5R01-0	BA5R01-0-Z00108
		Model No.	JBA3800-0GD					
	Pressure Switch	Operation Mode/Set Pressure MPa	Normal Pressure Rise Confirmation / INC. 17.6 Abnormal Pressure Rise Confirmation / INC. 28.4					
		Model No.	BR5N11-0					
	Pressure Relief Valve	Set Pressure MPa	25 ⁺² ₀					

Notes :

- ※1. Iron Tank Capacity is 5 ℓ (Actual Amount for Use 2.9 ℓ : H.L. 5.1 ℓ -L.L. 2.2 ℓ).
- If hydraulic viscosity is higher than specified, action time will be longer. Please refer to Hydraulic Fluid List on P.56.
 - If using it at low temperature, action time will be longer because the viscosity of hydraulic oil becomes higher.
 - When using a pressure gauge on a hydraulic circuit, install a damper or use an oil filled (glycerin) pressure gauge in order to prevent damage caused by surging pressure.
 - When installing, provide enough space at the top of the unit, taking into consideration the maintenance of the pump.
 - The pump stops in balance at 22.5MPa in order to prevent abnormal continuous operation considering 25.0 MPa relief pressure of the pressure relief valve.

Circuit Symbol ※ This shows the circuit symbol of C□□N0□0-3US-5A-K□.



Notes :

- In the drawing, the ○ symbol indicates the terminal number and the □ symbol indicates the coil symbol.
- The red cable of the solenoid valve is "+", and the black cable is "-".

Hydraulic Clamp

Hydraulic Unit

Operation Panel Control Unit

Cautions Company Profile

Hydraulic Clamp

GKB

GKC

GKE

GKF

Hydraulic Unit

CPB/CPD

/CPC/CPE

CQC/CQE

CTB/CTD

/CTC/CTE

CUC/CUE

Air Valve Unit

MV

Operation Panel Control Unit

YMD

Cautions

Notes on Design

Installation Notes

Hydraulic 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

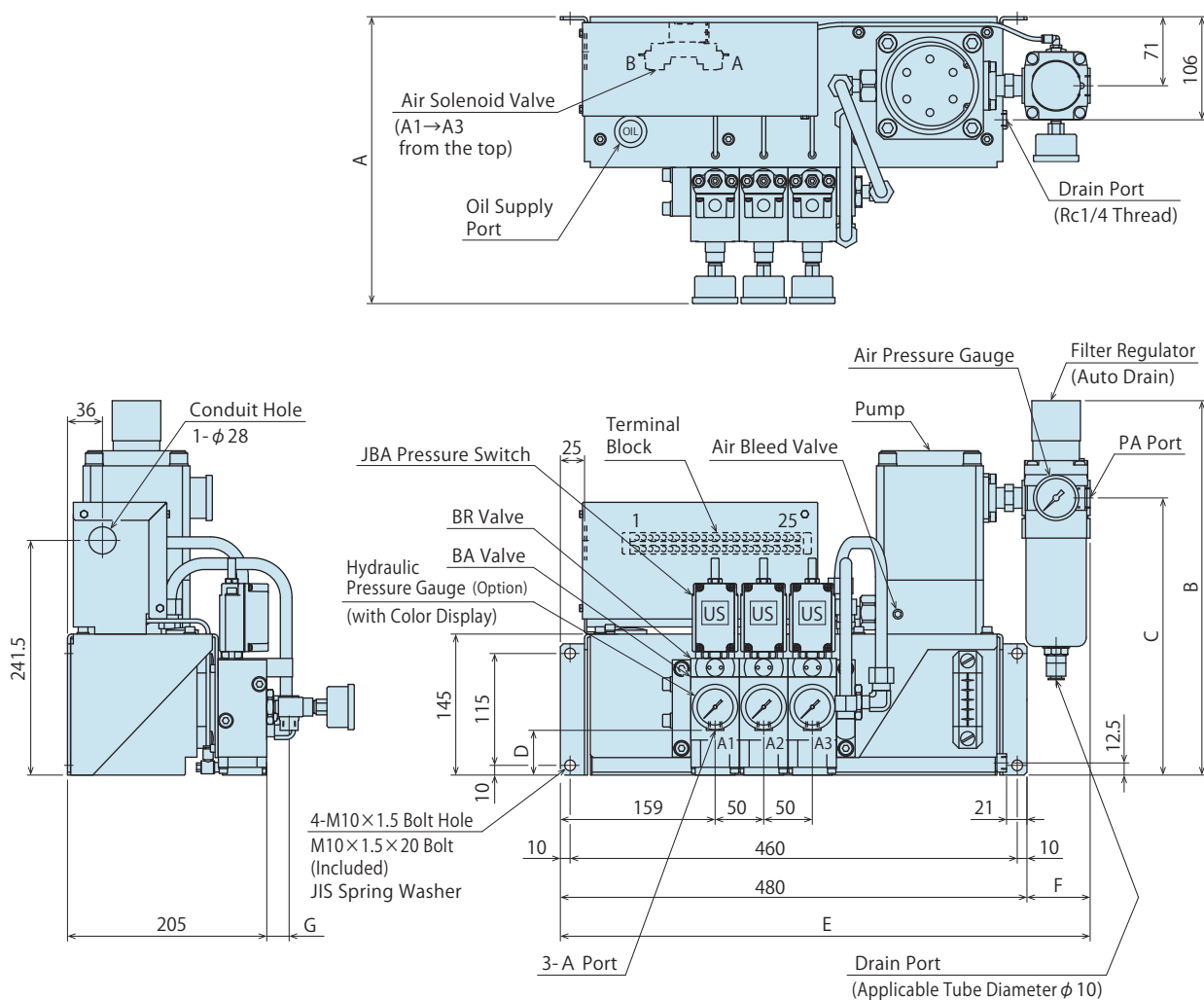
Company Profile

History

Sales Offices

External Dimensions : CPB/CPD/CPC/CPE (5 ℓ Tank)

※ This drawing shows CP□N0G0-3US-□-K1 (Fluid Code **G**: Water • Glycol, Iron Tank).
Please contact us for other specifications and external dimensions for options.



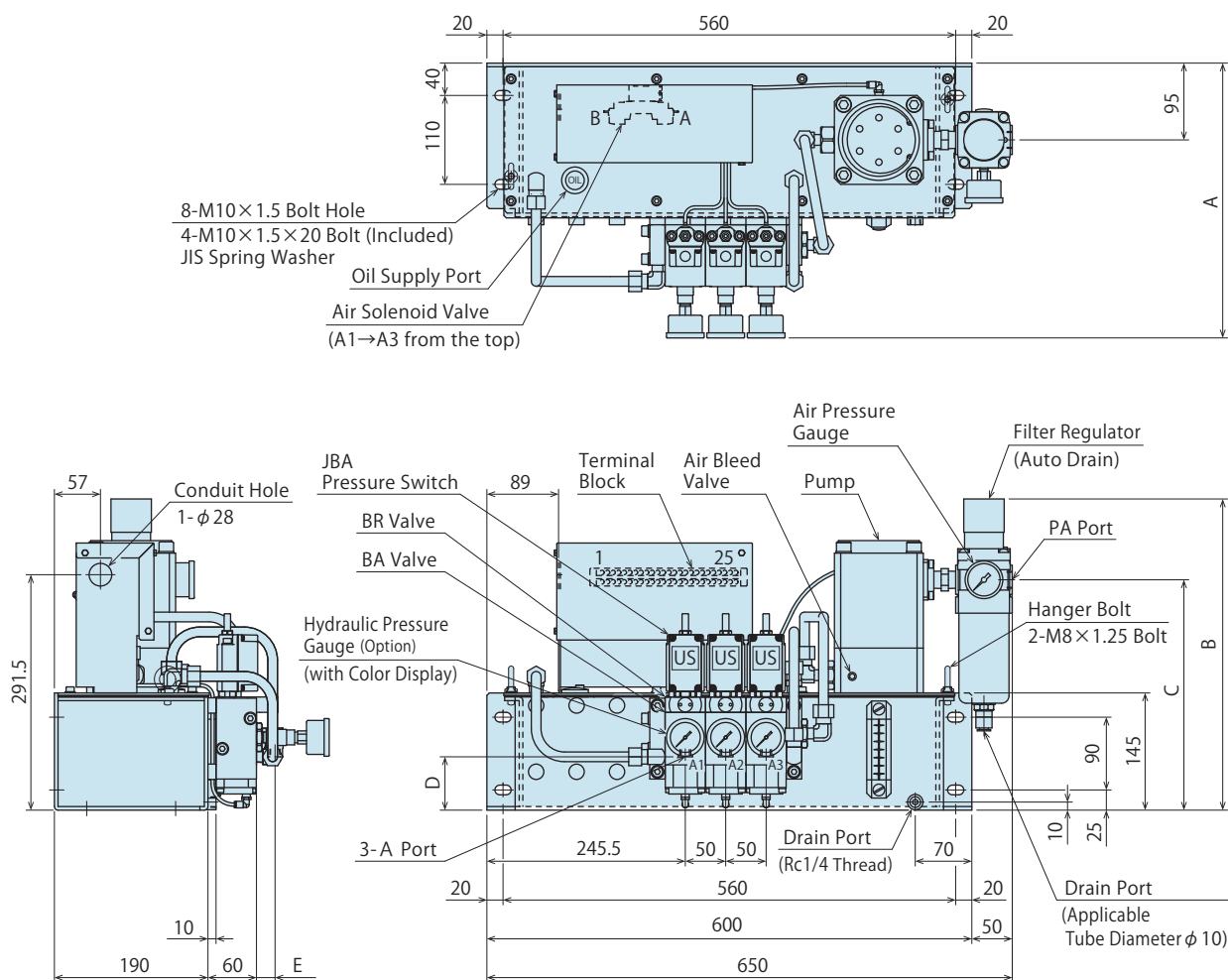
External Dimensions

Model No.	CPBN0G0-3US-□-K1	CPDN0G0-3US-□-K1	CPCN0G0-3US-□-K1	CPEN0G0-3US-□-K1
Pump	AB7000-G	AD7300-G	AC7001-G	AE7300-G
A	295	295	295	321
B	317	337	385	420
C	233.5	253.5	285	320
D	46	46	46	41
E	513	513	545	545
F	33	33	65	65
G	23	23	23	30
PA Port	Rc1/4 Thread	Rc1/4 Thread	Rc1/2 Thread	Rc1/2 Thread
A Port	Rc1/4 Thread	Rc1/4 Thread	Rc1/4 Thread	Rc3/8 Thread

External Dimensions : CQC/CQE (10 ℓ Tank)

※ This drawing shows CQ□N0□0-3US-□-K1.

Please contact us for other specifications and external dimensions for options.



External Dimensions

Model No.	CQC□N0□0-3US-□-K1	CQEN0□0-3US-□-K1
Pump	AC7001-□	AE7300-□
A	340	366
B	385	420
C	285	320
D	66	61
E	23	30
PA Port	Rc1/2 Thread	Rc1/2 Thread
A Port	Rc1/4 Thread	Rc3/8 Thread

Hydraulic Clamp

Hydraulic Unit

Operation Panel
Control UnitCautions
Company Profile

Hydraulic Clamp

GKB

GKC

GKE

GKF

Hydraulic Unit

CPB/CPD

/CPC/CPE

CQC/CQE

CTB/CTD

/CTC/CTE

CUC/CUE

Air Valve Unit

MV

Operation Panel
Control Unit

YMD

Cautions

Notes on Design

Installation Notes

Hydraulic Fluid List

Notes on Hyd. Cylinder

Speed Control Circuit

Notes on Handling

Maintenance/Inspection

Warranty

Our Products

QMCS

QDCS

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FA and
Industrial Robot
Related Products

Company Profile

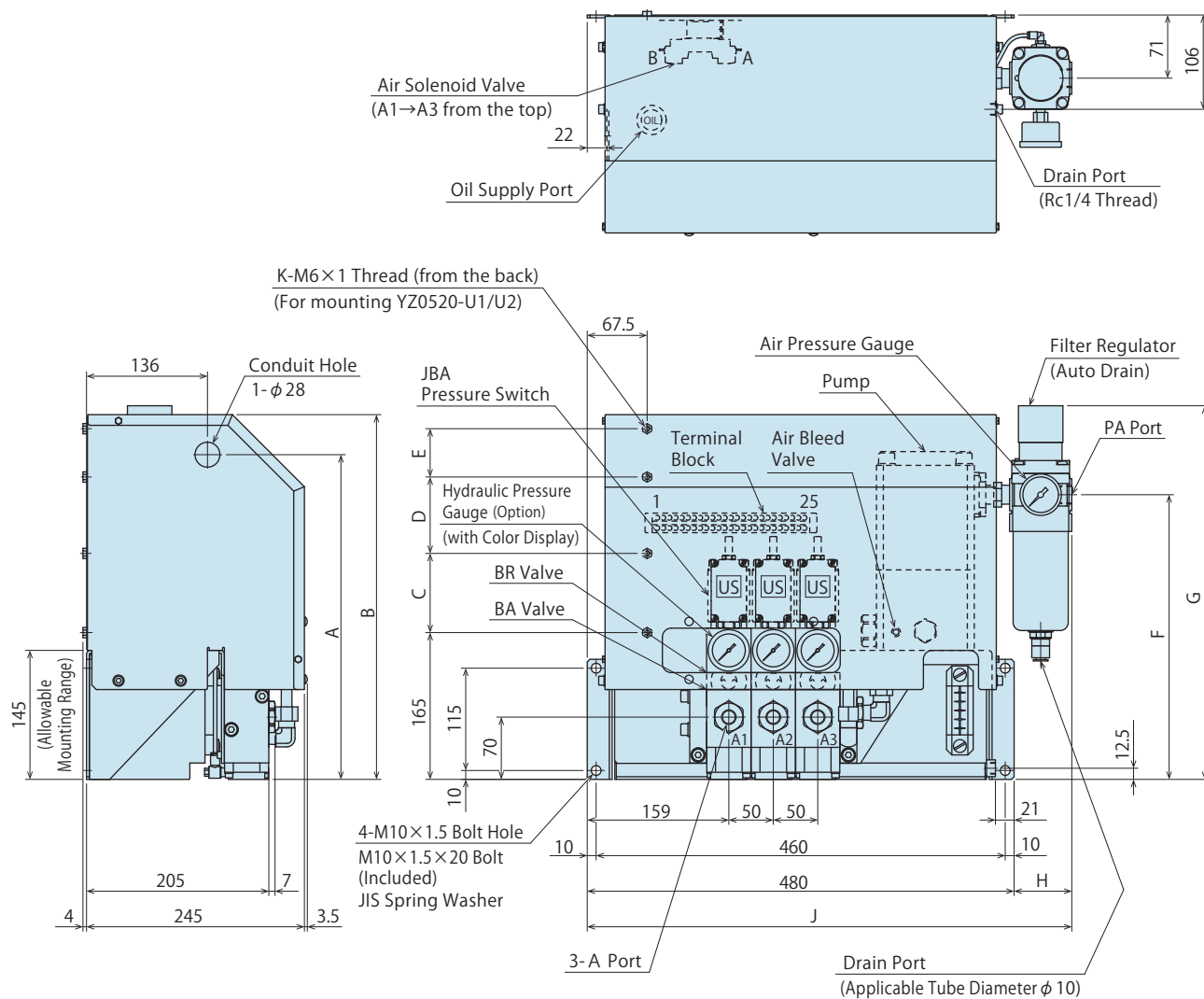
Company Profile

History

Sales Offices

External Dimensions : CTB/CTD/CTC/CTE (5 ℓ Tank)

※ This drawing shows CT□N0G0-3US-□-K1 (Fluid Code **G**: Water • Glycol, Iron Tank).
Please contact us for other specifications and external dimensions for options.



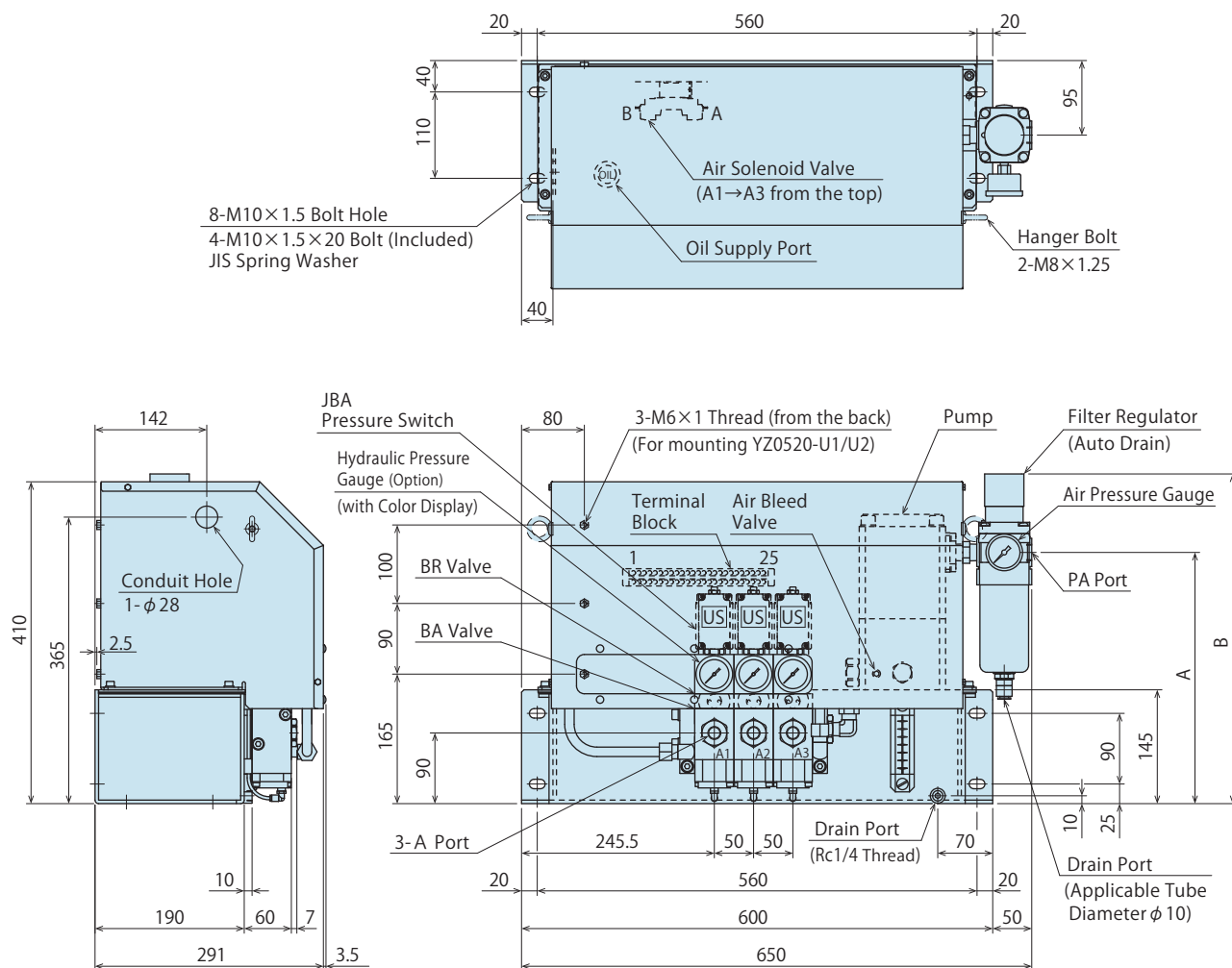
External Dimension List

Model No.	CTBN0G0-3US-□-K1	CTDN0G0-3US-□-K1	CTCN0G0-3US-□-K1	CTEN0G0-3US-□-K1
Pump	AB7000-G	AD7300-G	AC7001-G	AE7300-G
A	290	290	365	365
B	335	335	410	410
C	55	55	90	90
D	40	40	100	100
E	60	60	-	-
F	233.5	253.5	285	320
G	317	337	385	420
H	33	33	65	65
J	513	513	545	545
K	4	4	3	3
PA Port	Rc1/4 Thread	Rc1/4 Thread	Rc1/2 Thread	Rc1/2 Thread
A Port	Rc1/4 Thread	Rc1/4 Thread	Rc1/4 Thread	Rc3/8 Thread

External Dimensions : CUC/CUE (10 ℓ Tank)

※ This drawing shows CU□N0□0-3US-□-K1.

Please contact us for other specifications and external dimensions for options.



External Dimension List

Model No.	CUCN0□0-3US-□-K1	CUEN0□0-3US-□-K1
Pump	AC7001-□	AE7300-□
A	285	320
B	385	420
PA Port	Rc1/2 Thread	Rc1/2 Thread
A Port	Rc1/4 Thread	Rc3/8 Thread

Hydraulic Clamp

Hydraulic Unit

Operation Panel
Control UnitCautions
Company Profile

Hydraulic Clamp

GKB

GKC

GKE

GKF

Hydraulic Unit

CPB/CPD

/CPC/CPE

CQC/CQE

CTB/CTD

/CTC/CTE

CUC/CUE

Air Valve Unit

MV

Operation Panel
Control Unit

YMD

Cautions

Notes on Design

Installation Notes

Hydraulic 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

Accessory : Unit Stand

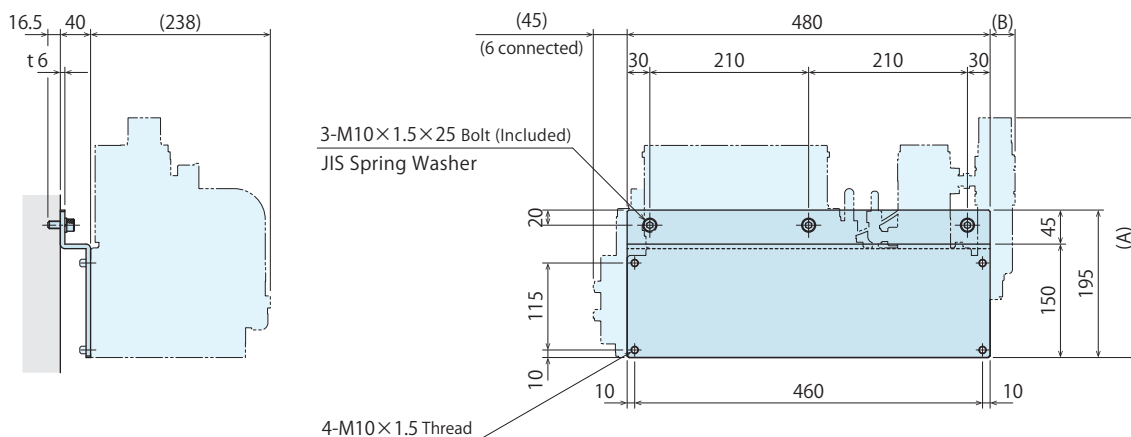
- ※ The external dimensions of the applicable units in these drawings show the standard model.
Please contact us for external dimensions of other specifications and options.

Wall Mounted Model

Model No. Indication

CPSH000

External Dimensions

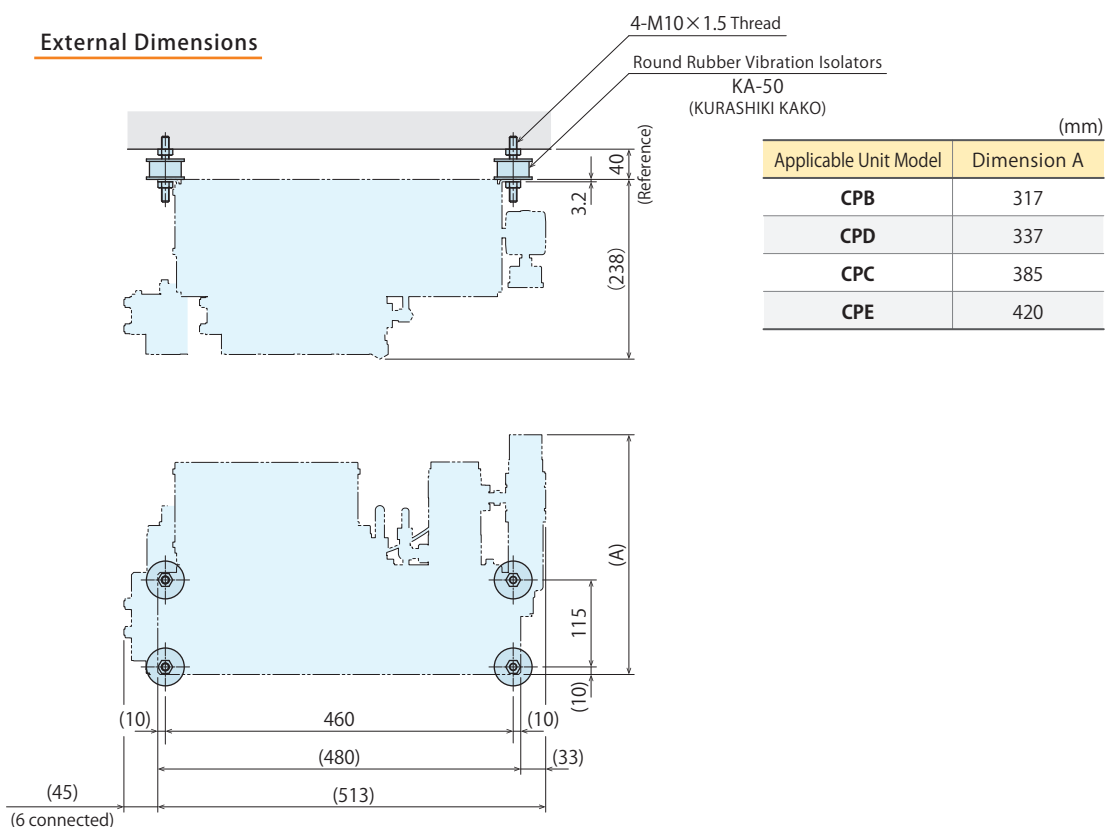


Anti-Vibration Rubber Model

Model No. Indication

CPSR000

External Dimensions



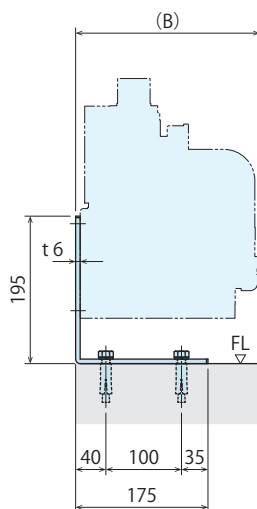
(mm)	
Applicable Unit Model	Dimension A
CPB	317
CPD	337
CPC	385
CPE	420

● Floor Mounted Model 1

Model No. Indication

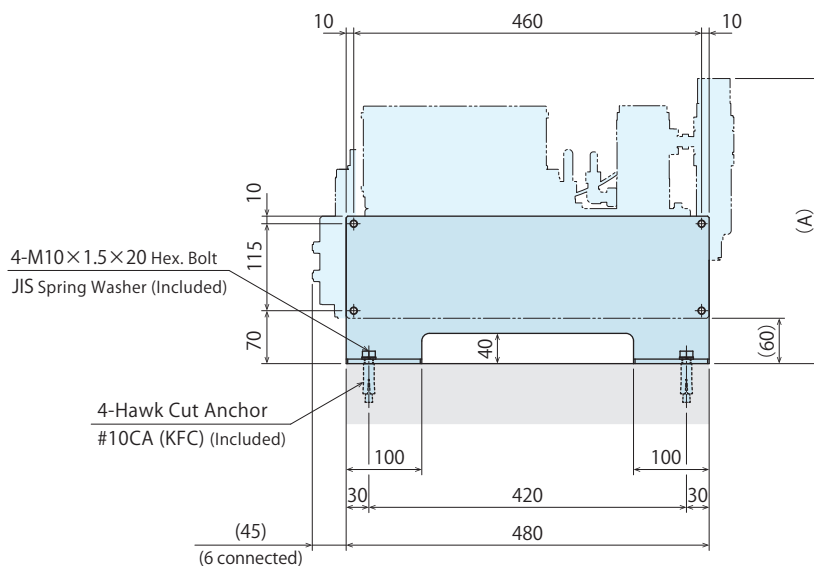
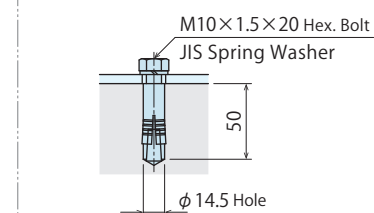
CPSV000

External Dimensions



Applicable Unit Model	Dimension A	Dimension B
CPB	377	244
CPD	397	
CPC	445	
CPE	480	
CTB	395	254.5
CTD	397	
CTC	470	
CTE	480	

Hawk Cut Anchor Machining Dimensions



● Floor Mounted Model 2

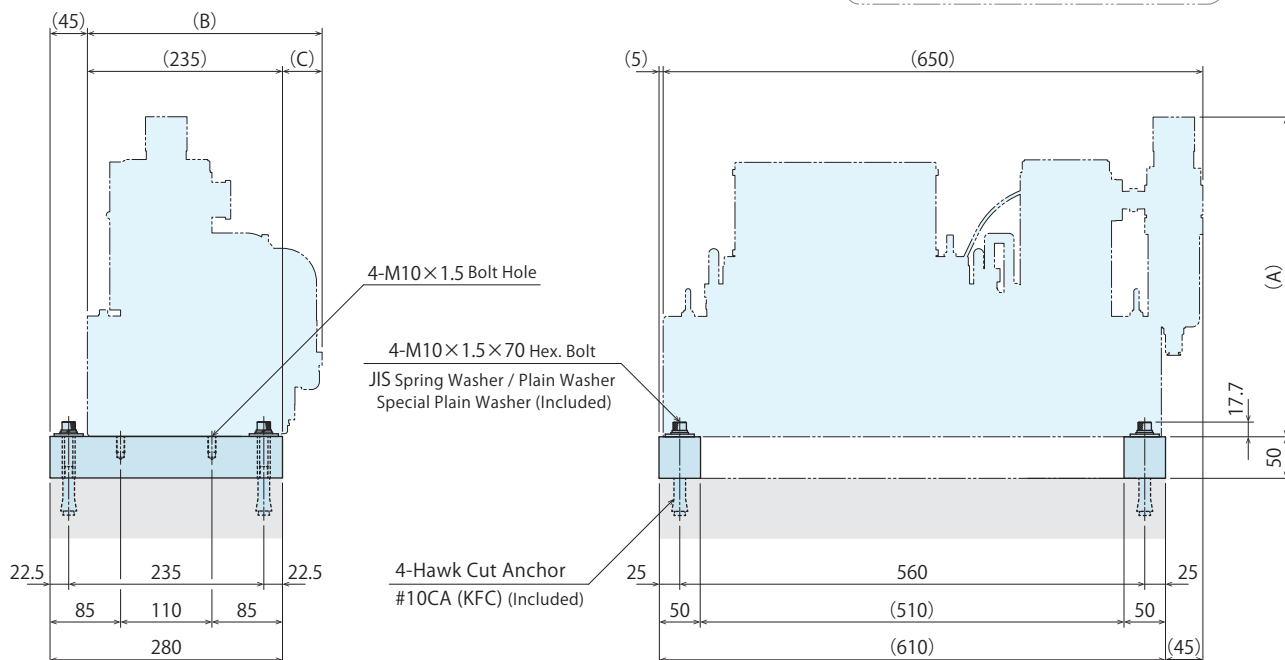
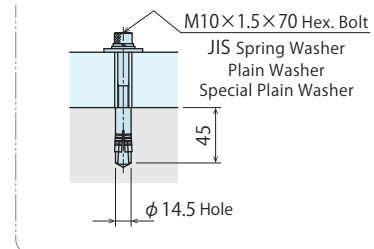
Model No. Indication

CQSV000

External Dimensions

Applicable Unit Model No.	Dimension A	Dimension B	Dimension C
CQC	385	283	48
CQE	420		
CUC	410	294.5	59.5
CUE	420		

Hawk Cut Anchor Machining Dimensions



Hydraulic Clamp

Hydraulic Unit

Operation Panel
Control UnitCautions
Company Profile

Hydraulic Clamp

GKB

GKC

GKE

GKF

Hydraulic Unit

CPB/CPD

/CPC/CPE

CQC/CQE

CTB/CTD

/CTC/CTE

CUC/CUE

Air Valve Unit

MV

Operation Panel
Control Unit

YMD

Cautions

Notes on Design

Installation Notes

Hydraulic 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

Cautions

Notes for Design

1) Check Specifications

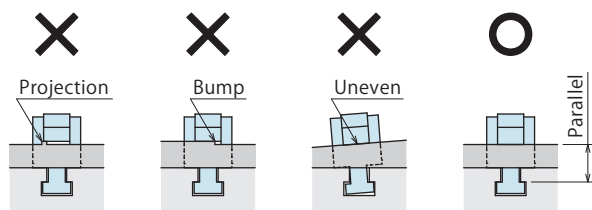
- Please use each product according to its specifications.
- Operating hydraulic pressure is 25 MPa.
Do not use clamps with excessive operating pressure.
Falling down of the mold due to the damage on clamps leads to injury accident. In order to reduce clamping force, use them with lower operating pressure.

2) Check the thickness of the mold clamping part.

- Please check the thickness of the mold clamping part.
If using molds other than specified, clamps cannot conduct locking action properly leading to injury accident.

3) The mold clamping surface and T-slot must be parallel to mounting surface of the mold.

- If a clamping surface is not even or parallel, excessive force will be applied to the clamp and it will deform the main body and the lever of the clamp resulting in falling off of the clamp and injury accident.



4) Make sure that advance/retraction of the clamp is smoothly conducted. (model GKE / GKF)

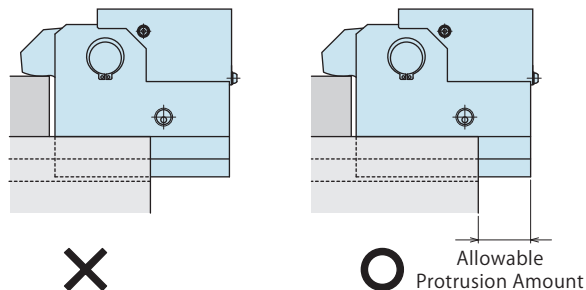
- Please control air cylinder for slide with 2-position double solenoid (with detent).
- Supply more than 0.4MPa air pressure to air cylinder.
- Please adjust the moving speed of the clamp with speed controller to fully stroke within 1 to 2 seconds.
- Do not set the limit switch to the mold surface near the U-slot, because 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 the clamp.

- Clamp does not operate smoothly and may be damaged.

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

Model GKB / GKC / GKE / GKF



Allowable Protrusion Amount

Model No.	Allowable Protrusion Amount (mm)
GKB0100 / GKC0100	17.5
GKB0160 / GKC0160	21
GKB0250 / GKC0250	25
GKB0400 / GKC0400 / GKE0400 / GKF0400	32
GKB0630 / GKC0630 / GKE0630 / GKF0630	39
GKB1000 / GKC1000 / GKE1000 / GKF1000	45
GKB1600 / GKC1600 / GKE1600 / GKF1600	57
GKB2500 / GKC2500 / GKE2500 / GKF2500	69.5
GKB4000 / GKC4000 / GKE4000 / GKF4000	0
GKB5000 / GKC5000 / GKE5000 / GKF5000	0

● Installation Notes

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

2) Preparation before piping

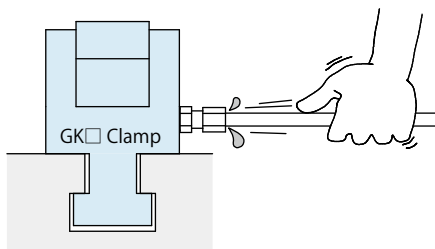
- The pipeline, piping connector and fixture circuits should be cleaned by thorough flushing. The dust and cutting chips in the circuit may lead to fluid leakage and malfunction. (The filter which removes contaminant in the hydraulic piping or hydraulic system is not provided.)

3) Applying Sealing Tape

- Wrap with tape 1 to 2 times following the screwing direction. When piping, be careful that contaminants such as sealing tape do not enter in products. Pieces of the sealing tape can lead to air leaks and malfunction.

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 supply pressure to less than 2MPa.
 - ② Loosen the cap nut of pipe fitting closest to the clamp 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/nut may be tightened lightly. Check torque and re-tighten as required.
 - 6) Installation of the Clamp
 - After setting the clamp in the T-slot, use attached hex. socket bolts and tighten them with the torque shown below (model GKE/GKF).

Model No.	Thread Size	Tightening Torque (N·m)
GKE0400 / GKF0400	M5×0.8	6.3
GKE0630 / GKF0630	M6×1	10
GKE1000 / GKF1000	M8×1.25	25
GKE1600 / GKF1600	M10×1.5	50
GKE2500 / GKF2500	M12×1.75	80
GKE4000 / GKF4000	M16×2	200
GKE5000 / GKF5000	M16×2	200

7) Wiring of the Forward-End Confirmation 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

- Please use appropriate fluid referring to the fluid lists below.
- Select the same fluid as Fluid Code of hydraulic clamp and unit.

● General Hydraulic Oil

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	—

● Water · Glycol

ISO Viscosity Grade ISO-VG-32

Maker	Water · Glycol
JX Nippon Oil & Energy	Hyrando FRZ32
Cosmo Oil	Cosmo Fluid HQ46
Matsumura Oil	Hydol HAW32

● Silicon Oil

ISO Viscosity Grade ISO-VG-68

Maker	Silicon Oil
Shin-Etsu Chemical	KF-50-100cs

● Fatty Acid Ester

Maker	Fatty Acid Ester	ISO Viscosity Grade
Showa Shell Sekiyu	Shell Iru Fluids DU56	(ISO-VG-56)
Idemitsu Kosan	Firgist ES	ISO-VG-68
JX Nippon Oil & Energy	Hyrando SS56	(ISO-VG-56)
Cosmo Oil	Cosmo Fluid E46	ISO-VG-46
Nippon Quaker Chemical	Quintolubric 888 46	ISO-VG-46

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

Hydraulic Clamp

Hydraulic Unit

Operation Panel Control Unit

Cautions Company Profile

Hydraulic Clamp

GKB

GKC

GKE

GKF

Hydraulic Unit

CPB/CPD

/CPC/CPE

CQC/CQE

CTB/CTD

/CTC/CTE

CUC/CUE

Air Valve Unit

MV

Operation Panel Control Unit

YMD

Cautions

Notes on Design

Installation Notes

Hydraulic 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

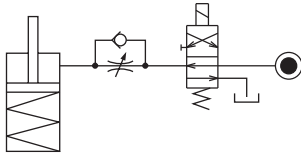
● Notes on Hydraulic Cylinder Speed Control Unit



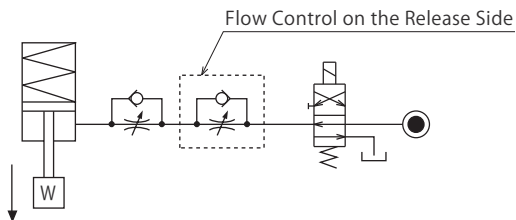
Please pay attention to the cautions below. Design the hydraulic circuit for controlling the action speed of hydraulic cylinder. Improper circuit design may lead to malfunctions and damages. Please review the circuit design in advance.

● 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 only using a flow control valve with a check valve. It is also preferred to provide a flow control valve at each actuator.



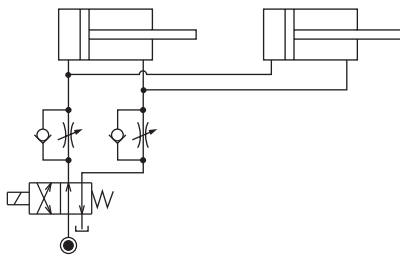
If a load is applied in the direction of release action during release, which may damage the cylinder, use a flow control valve with a check valve to control the flow rate on the release side as well.



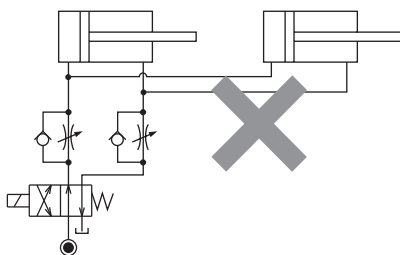
● Flow Control Circuit for Double Acting Cylinder

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】

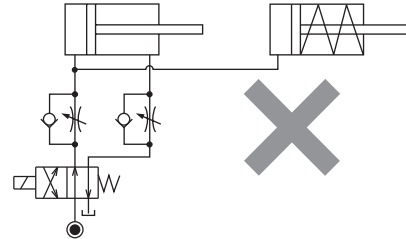


【Meter-in Circuit】



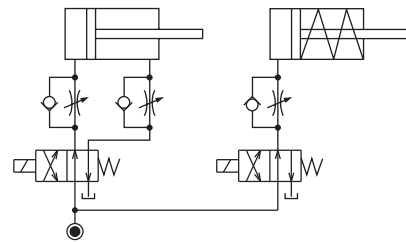
In the case of meter-out circuit, the hydraulic circuit should be designed with the following points.

- 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.

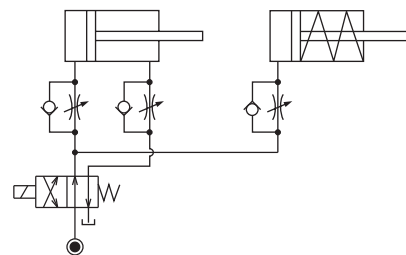


Refer to the following circuit when both the single acting cylinder and double acting cylinder are used together.

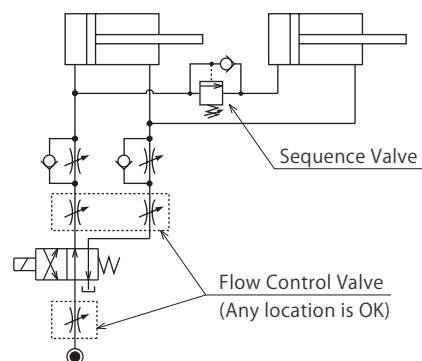
- Separate the control circuit.



- 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.



Hydraulic Clamp

Hydraulic Unit

Operation Panel Control Unit

Cautions Company Profile

Hydraulic Clamp

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GKF

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CPB/CPD

/CPC/CPE

CQC/CQE

CTB/CTD

/CTC/CTE

CUC/CUE

Air Valve Unit

MV

Operation Panel Control Unit

YMD

Cautions

Notes on Design

Installation Notes

Hydraulic 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

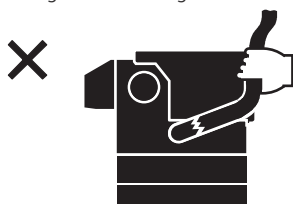
Sales Offices

Notes on Handling

- When stopping a machine, make sure no load is applied on clamps. Otherwise, a mold may fall causing an injury accident.
- It should be operated by qualified personnel.
 - The hydraulic machine should be operated and maintained by qualified personnel.
- Do not operate or remove the machine unless the safety protocols are ensured.
 - The machine and equipment can only be inspected or prepared when it is confirmed that the safety devices are in place.
 - Before the product is removed, make sure that the above-mentioned safety devices are in place. Shut off the air of hydraulic source and make sure no pressure exists in the hydraulic circuit.
 - After stopping the product, do not remove until the temperature cools down.
 - Make sure there is no trouble/issue in the bolts and respective parts before restarting the machine or equipment.
- Do not touch clamps while they are working.
 - Otherwise, your hands may be injured.



- If there is a change for mold width, make sure to check the allowable protrusion amount.
 - If exceeding the allowable protrusion amount, excessive force is applied on clamps leading to deformation or dislocation which cause falling of a mold or an injury accident. Please refer to "Notes for Design 6" for allowable protrusion amount.
- Please hold the main body of the clamp when moving or removing it.
 - If pulling on hydraulic hose or air tube, the clamp will fall off leading to injury accident. Also, rivet part of the hose will be loosened leading to fluid leakage.

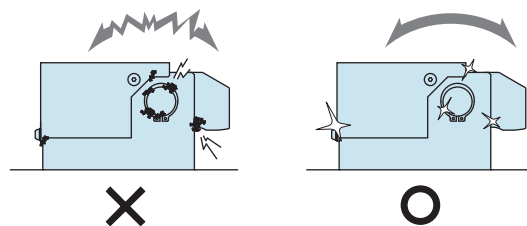


- Do not disassemble or modify.
 - If the equipment is taken apart or modified, the warranty will be voided even within the warranty period.
- Do not pour water / oil over the product.
 - It may lead to malfunction or deterioration of the product and cause an accident.



Maintenance and Inspection

- Removal of the Product and Shut-off of Pressure Source
 - Before removing the product, make sure that safety devices and preventive 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 trouble/issue in the bolts and respective parts before restarting.
- Regularly clean the area around the product.
 - If it is used when the surface is contaminated with dirt, it may lead to malfunctioning and fluid leakage.



- If disconnecting by couplers, air bleeding should be carried out on a regular basis to avoid air mixed in the circuit.
- Regularly tighten pipe line, mounting bolts, nuts, circlips and cylinders to ensure proper use.
- Make sure the hydraulic fluid has not deteriorated.
- 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.
- The products should be stored in the cool and dark place without direct sunshine or moisture.
- Please contact us for overhaul and repair.

Warranty

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

- If the stipulated maintenance and inspection are not carried out.
- Failure caused by the use of the non-confirming state at the user's discretion.
- If it is used or operated in an inappropriate way by the operator. (Including damage caused by the misconduct of the third party.)
- If the defect is caused by reasons other than our responsibility.
- If repair or modifications are carried out by anyone other than Kosmek, or without our approval and confirmation, it will void warranty.
- Other caused by natural disasters or calamities not attributable to our company.
- 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.



KOSMEK LTD. Head Office

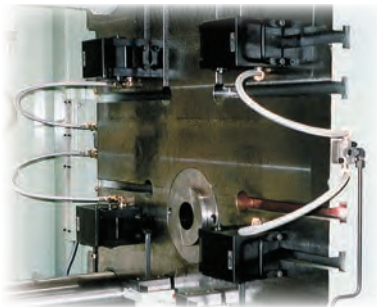
Company Name	KOSMEK LTD.
Established	May 1986
Capital	¥99,000,000
Chairman & CEO	Tsutomu Shirakawa
President & CEO	Koji Kimura
Employee Count	270
Group Company	KOSMEK LTD. KOSMEK ENGINEERING LTD. KOSMEK (USA) LTD. KOSMEK EUROPE GmbH KOSMEK (CHINA) LTD. KOSMEK LTD. - INDIA
Business Fields	Design, Production 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)

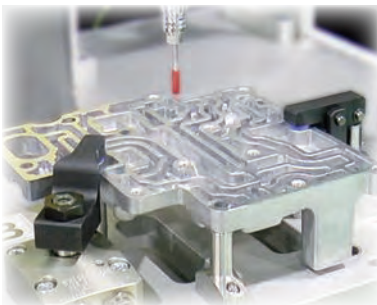
Product Line-Up



DIECAST CLAMPING SYSTEMS

For Diecast Machines

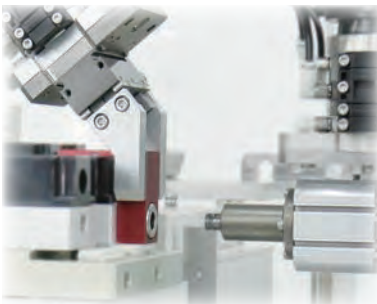
Kosmek Diecast Clamping Systems (KDCS) save the time of the changeover of die casting and magnesium molding machines under severe conditions. ex) mold release agents and high temperature.



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

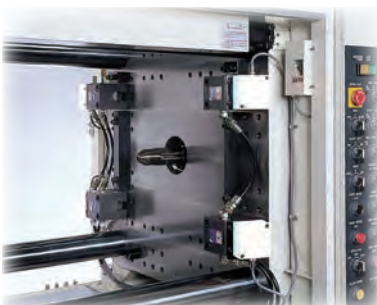
KOSMEK robotic hand changer, robotic hand, positioning equipment and other products improve automation, precision and setup of transfer, assembly, deburring, testing and various other processes.



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

Operation Panel
Control Unit

Cautions
Company Profile

Hydraulic Clamp

GKB

GKC

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Hydraulic Unit

CPB/CPD

/CPC/CPE

CQC/CQE

CTB/CTD

/CTC/CTE

CUC/CUE

Air Valve Unit

MV

Operation Panel
Control Unit

YMD

Cautions

Notes on Design

Installation Notes

Hydraulic 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

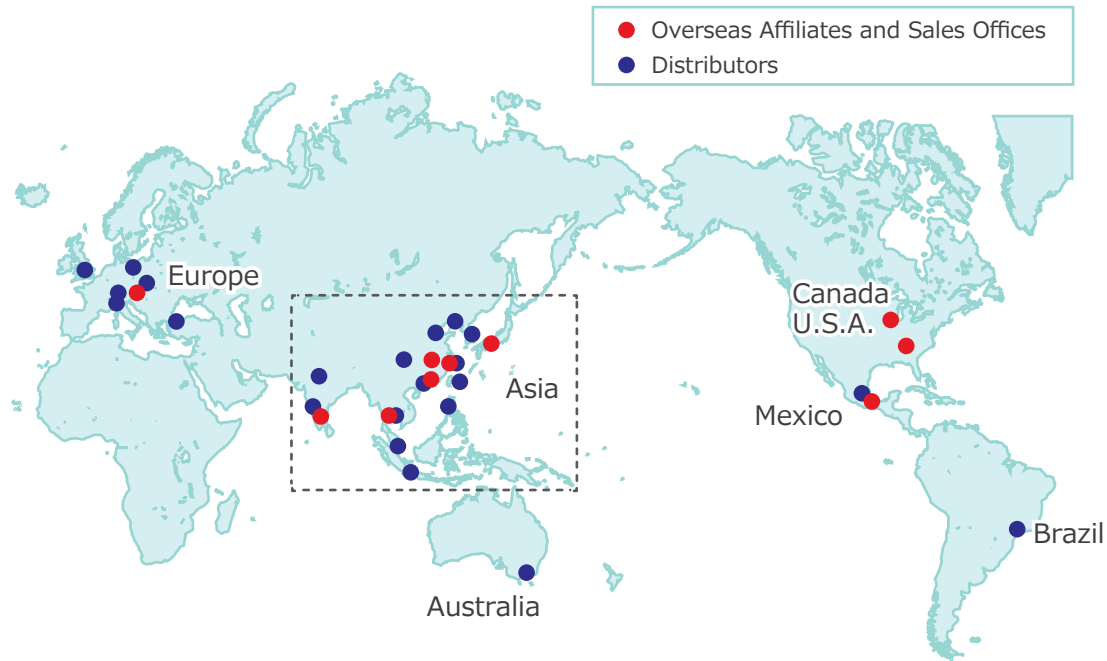
Sales Offices across the World

Japan	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
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	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
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	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
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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
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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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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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