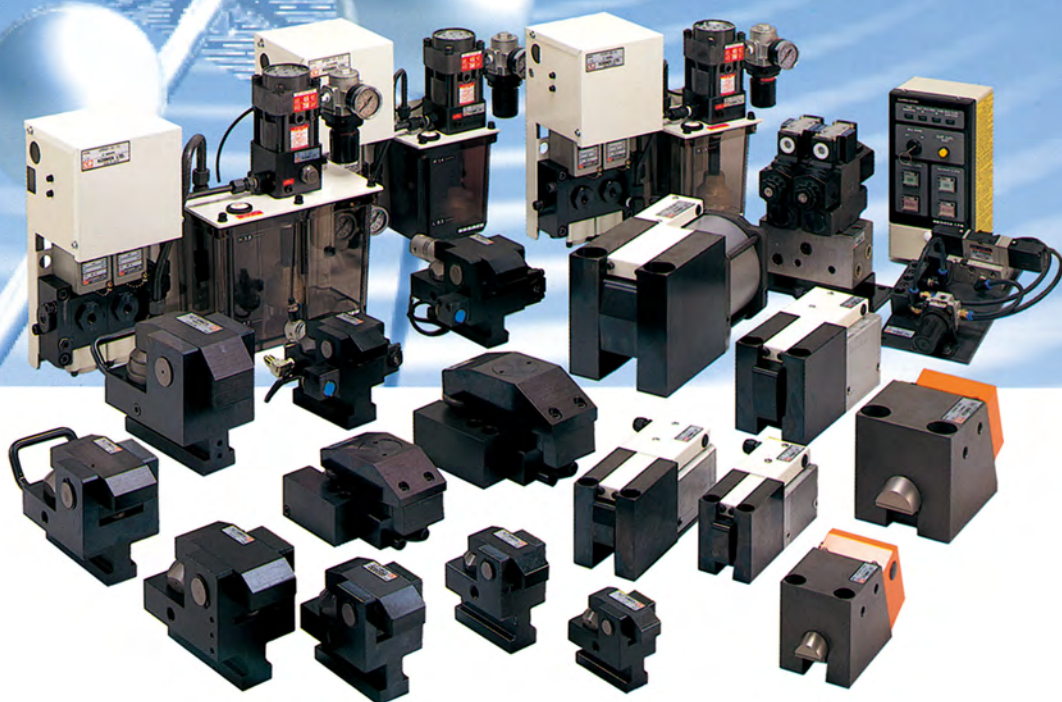


QUICK MOLD CHANGE SYSTEMS

QMCS

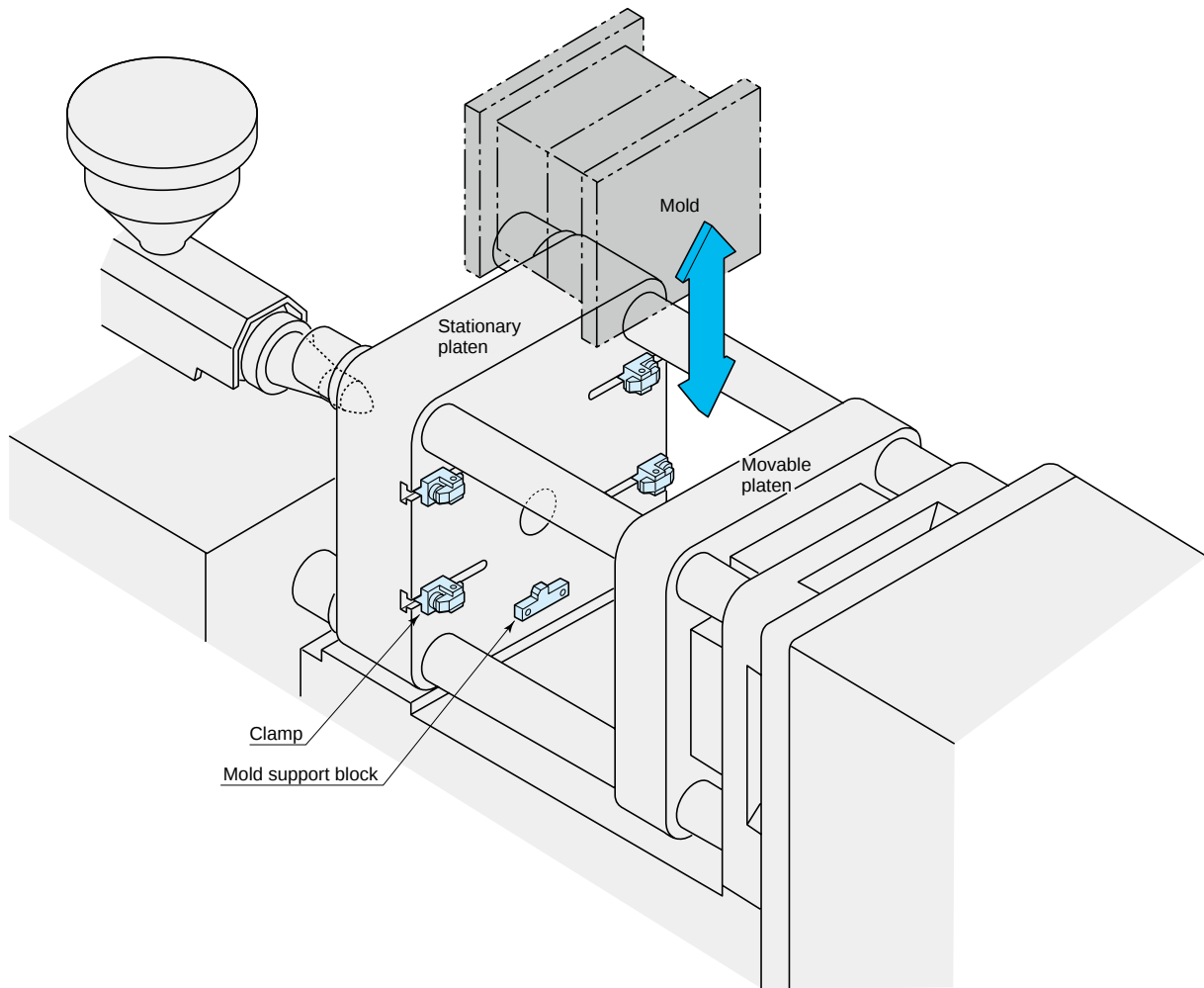


KOSMEK
Harmony in Innovation

KOSMEK QUICK MOLD CHANGE SYSTEMS

"Vertical loading" is the system whereby the mold is set from the top of the molding machine by crane. The mold will be secured in the I.M.M.(Injection Molding Machine) by hydraulic clamp. You can choose T-slot type (GB and GE), stationary type (GWA) or sliding type (GM) according to the conditions of both the mold and I.M.M.

Vertical loading



KOSMEK QMCS EQUIPMENT

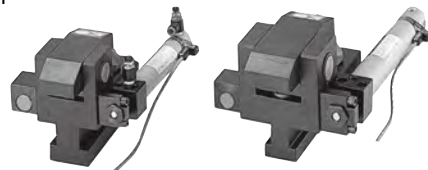
GWA CLAMP



GB CLAMP



GE CLAMP

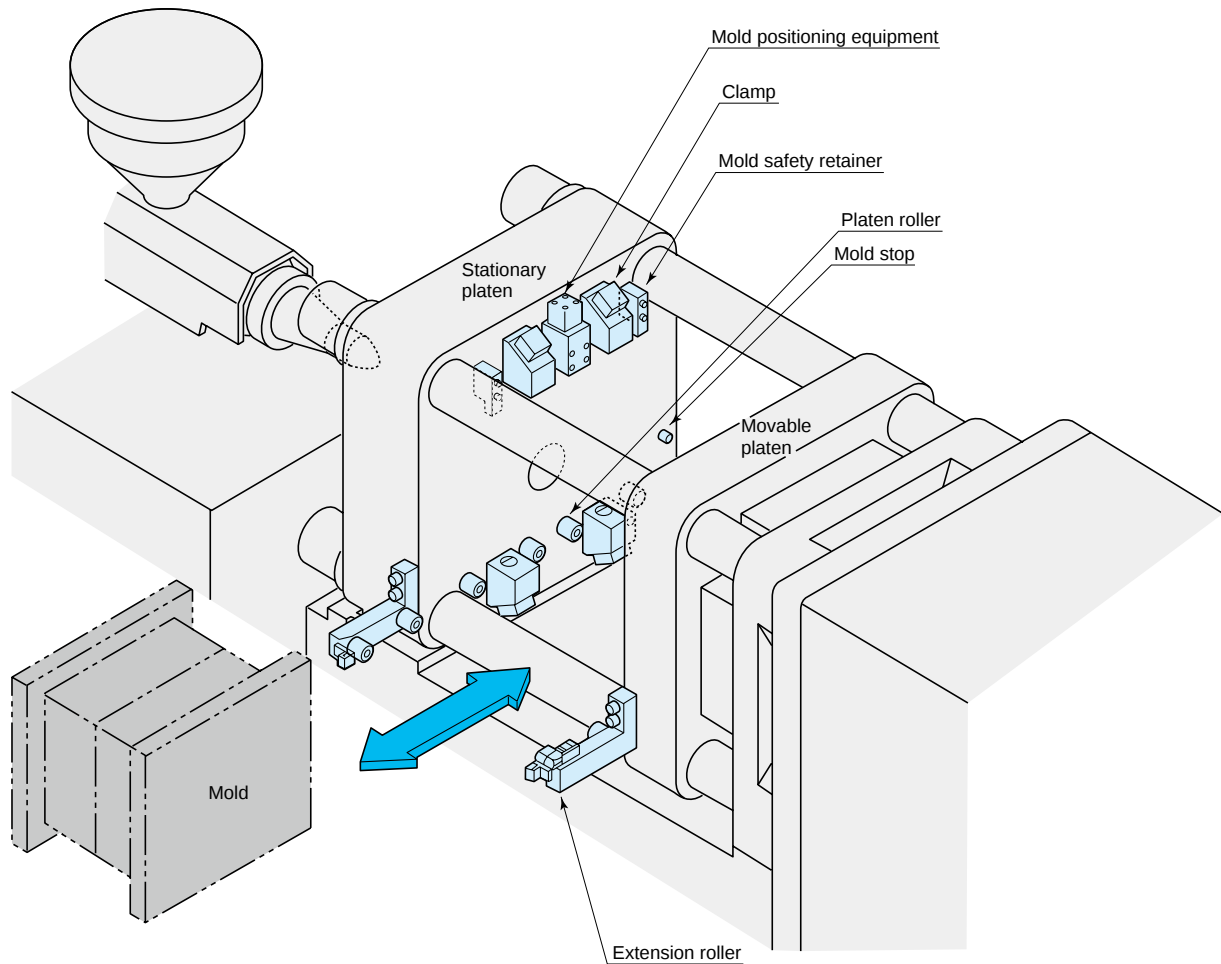


GM CLAMP



"Horizontal loading" is the system whereby the mold is set from either operation side or non-operation side using cart or table. You may choose the most suitable arrangement according to the frequency of change of molds and layout of the factory.

Horizontal loading



YMB080
CONTROL UNIT / OPERATION PANEL



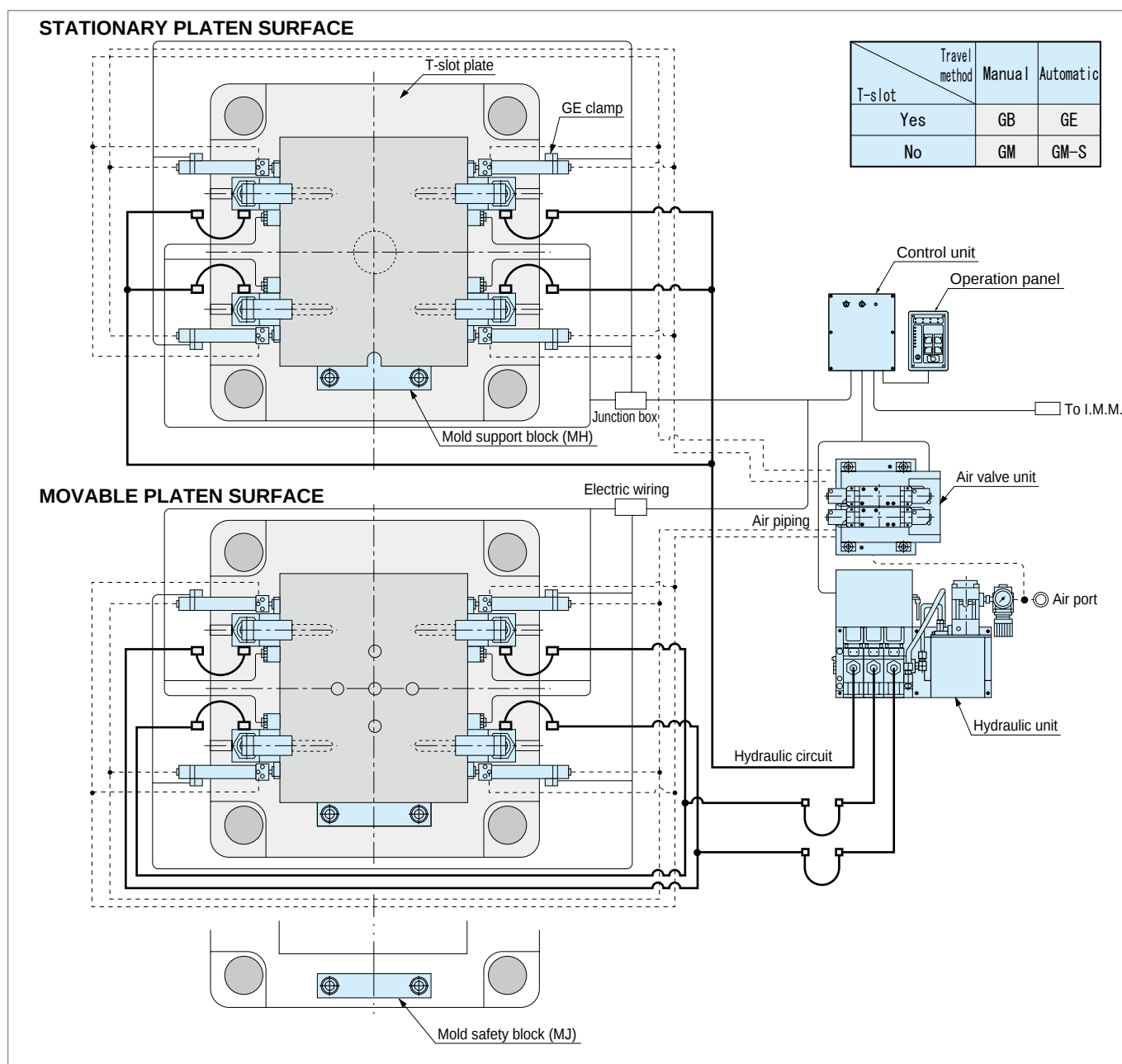
HYDRAULIC UNIT





VERTICAL LOADING

<FOR VARIABLE WIDTH MOLDS>



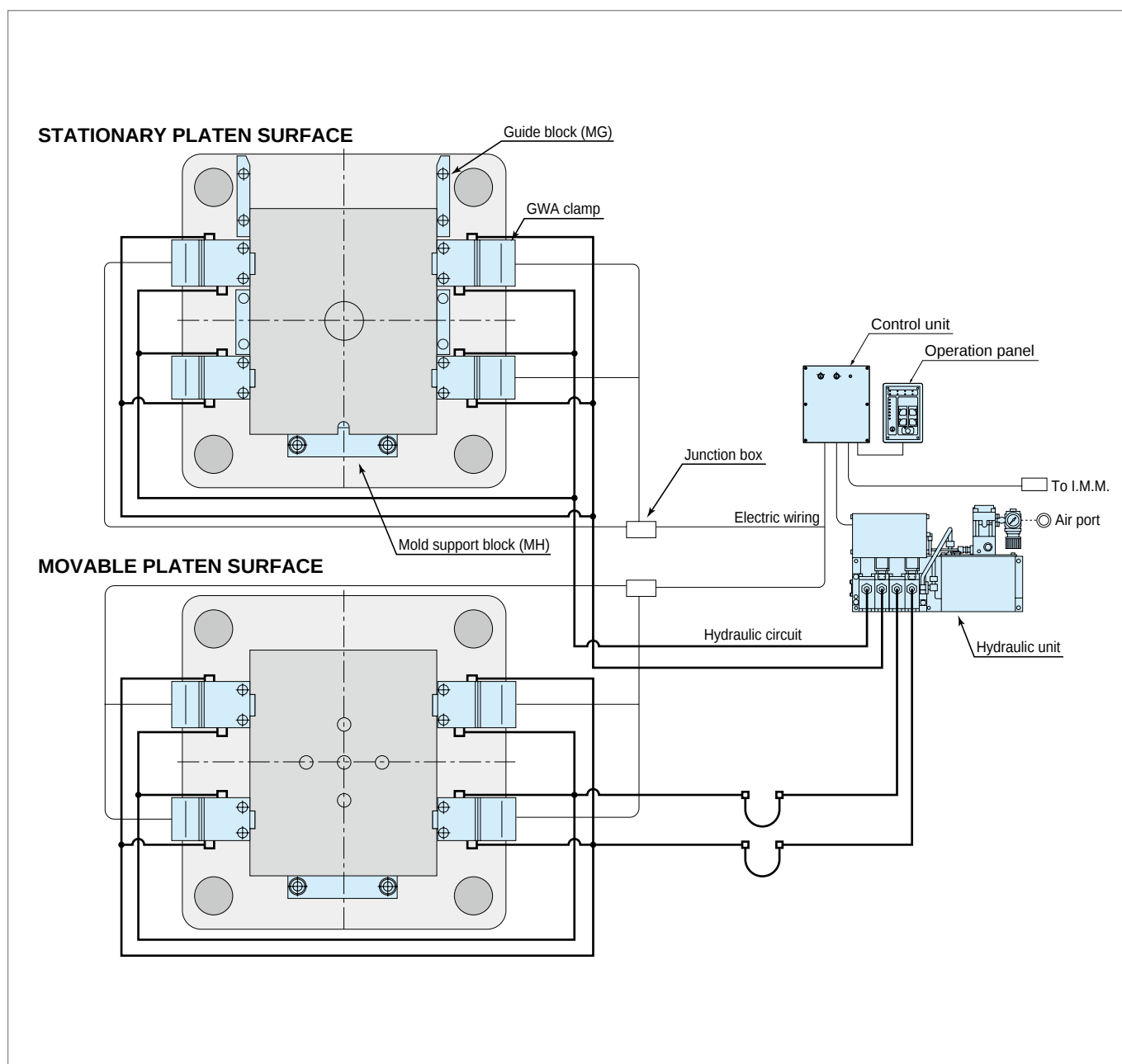
STANDARD SYSTEM

I.M.M. capacity (kN)	Clamp						Hydraulic unit		Mold support block	Mold safety block	Air valve unit (GE / GM-S)
	GB clamp	GE clamp	GM clamp	GM-S clamp	Qty.	Stationary or movable side clamping capacity (kN)	Standard	High-speed			
~ 500	GB0100	-	-	-	8	39.2	CP20N1- URURUR-□0	CR2N31- URURUR-□0	MH03	MJ0010	MV3012-25
~ 750	GB0160	-	-	-	8	62.7			MH03	MJ0010	
~ 1500	GB0250	GE0251	GM0250	GM0250-S	8	98			MH04	MJ0020	
~ 2500	GB0400	GE0401	GM0400	GM0400-S	8	157			MH04	MJ0020	
~ 3500	GB0630	GE0631	GM0630	GM0630-S	8	247			MH04	MJ0020	
~ 5500	GB1000	GE1001	GM1000	GM1000-S	8	392	CR5N31- URURUR-□0	CS50N0- URURUR-□0	MH06	MJ0030	MV3022-25
~ 8500	GB1600	GE1601	-	-	8	627			MH06	MJ0040	
~ 13000	GB2500	GE2501	-	-	8	980	CS50N0- URURUR-□0	CY3701- URURUR-□0	MH08	MJ0050	
~ 20000	-	GE4001	-	-	8	1568	CY3701- URURUR-□0		MH08	MJ0050	



VERTICAL LOADING

<FOR UNIFORM WIDTH MOLDS>



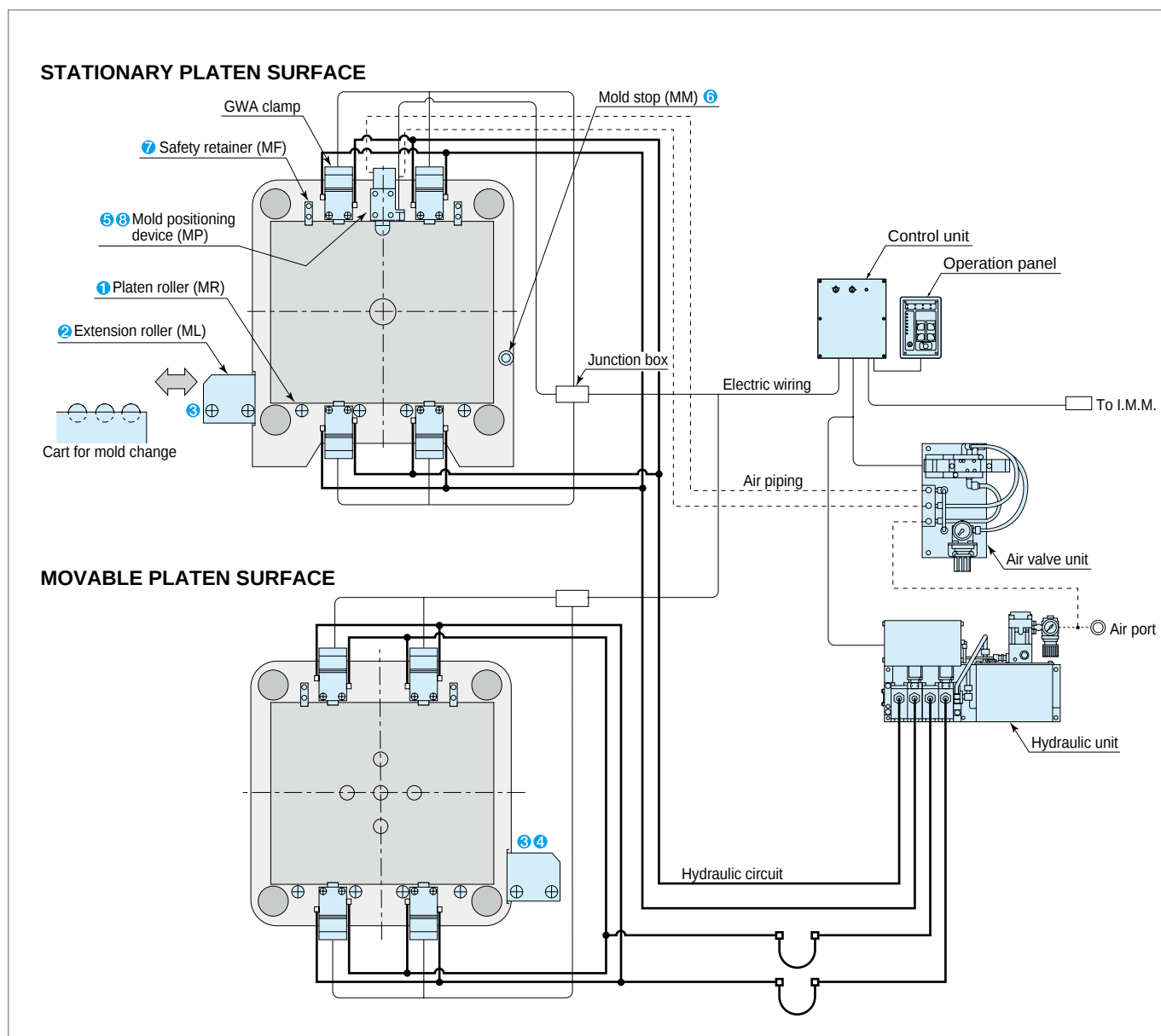
■ STANDARD SYSTEM

I.M.M. capacity (kN)	Clamp			Hydraulic unit (KOSMEK)		Hydraulic power from I.M.M.	Mold support block
	GWA clamp	Qty.	Stationary or movable side clamping capacity (kN)	Standard	High-speed		
~ 500	GWA0100	8	39.2	CP20L1- PPRPPR-□0	CR2L31- PPRPPR-□0	MV0011-5 (Hydraulic pressure) 13.7MPa	MH03
~ 750	GWA0160	8	62.7				MH03
~ 1500	GWA0250	8	98				MH04
~ 2500	GWA0400	8	157				MH04
~ 3500	GWA0630	8	247	CR5L31- PPRPPR-□0	CS50L0- PPRPPR-□0	MV0021-5 (Hydraulic pressure) 13.7 ~ 20.6MPa	MH04
~ 5500	GWA1000	8	392	CS50L0- PPRPPR-□0			MH06
~ 8500	GWA1600	8	627	CY3691- PPRPPR-□0			CY3691- PPRPPR-□0
~ 13000	GWA2500	8	980		MH08		
~ 20000	GWA4000	8	1568		MV0061-5 (Hydraulic pressure) 13.7 ~ 20.6MPa	MH08	
~ 30000	GWA5000	8	1960	MH10			



HORIZONTAL LOADING

＜MOLD SIZE MUST BE UNIFORM＞

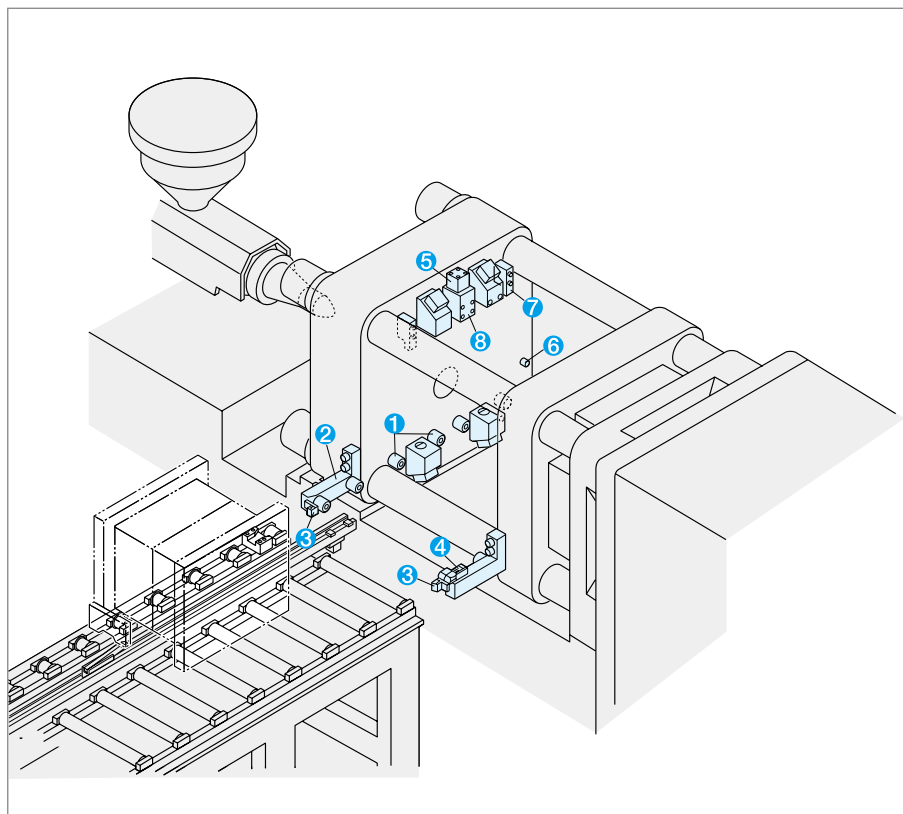


STANDARD SYSTEM

I.M.M. capacity (kN)	Clamp			Hydraulic unit (KOSMEK)		Hydraulic power from I.M.M.	Platen components ※1 ※2		
	GWA clamp	Qty.	Stationary or movable side clamping capacity (kN)	Standard	High-speed		① Platen roller	② Extension roller	③ Movable platen opening upper limit DETECTOR
～ 500	GWA0100	8	39.2	CP20L1- PPRPPR-□0	CR2L31- PPRPPR-□0	MV0011-5 (Hydraulic pressure 13.7MPa)	MR0270	ML02	MS4011-5
～ 750	GWA0160	8	62.7				MR0270	ML02	MS4011-5
～ 1500	GWA0250	8	98				MR0400	ML04	MS4011-5
～ 2500	GWA0400	8	157				MR0400	ML04	MS4011-5
～ 3500	GWA0630	8	247	CR5L31- PPRPPR-□0	CS50L0- PPRPPR-□0	MV0021-5 (Hydraulic pressure 13.7 ～ 20.6MPa)	MR0400	ML04	MS4011-5
～ 5500	GWA1000	8	392	CS50L0- PPRPPR-□0			MR0600	ML06	MS4021-5
～ 8500	GWA1600	8	627	CY3691- PPRPPR-□0	CY3691- PPRPPR-□0	MV0061-5 (Hydraulic pressure 13.7 ～ 20.6MPa)	MR0800	ML08	MS4021-5
～ 13000	GWA2500	8	980				MR1000	ML10	MS4031-5
～ 20000	GWA4000	8	1568				MR1600	ML16	MS4041-5
～ 30000	GWA5000	8	1960				MR1600	ML16	MS4041-5

OUTLINE OF PLATEN COMPONENTS

- ① PLATEN ROLLER**
Transfers molds and maintains proper vertical distance to centerline
- ② EXTENSION ROLLER**
Bridge from platen rollers to safety gate
- ③ MOVABLE PLATEN OPENING UPPER LIMIT DETECTOR**
Senses when the thickness of movable platen of I.M.M. is larger than that of mold (dimension D), detector checks it and stops mold to prevent it from roller/extension roller.
- ④ MOVABLE PLATEN OPENING LOWER LIMIT DETECTOR**
Senses when the thickness of movable platen of I.M.M. is smaller than that of mold (dimension D), detector checks it and stops mold.
- ⑤ MOLD POSITIONING EQUIPMENT**
Horizontal positioning of mold.
- ⑥ MOLD STOP**
Prevents mold from overrunning if mold positioning equipment fails.
- ⑦ MOLD SAFETY RETAINER**
When movable platen opens to far after clamp is unlocked, it will hold the mold.
- ⑧ MOLD SENSOR**
Checks for presence of mold.



Platen components ※1 ※2				Standard mold weight (ton)
④ Movable platen opening lower limit DETECTOR	⑤⑧ Mold positioning device	⑥ Mold stop	⑦ Safety retainer	
MS2030-5 (Limit switch type)	MP03	MM	MF0010	0.6
	MP03		MF0010	0.6
	MP04		MF0010	1.0
	MP04		MF0010	1.5
	MP06		MF0010	2.5
MS2041-5 (Proximity switch type)	MP06		MF0020	4.5
	MP08		MF0020	8.0
	MP08		MF0030	15
	MP08		MF0030	20
	MP10		MF0040	30

Cautions

- ※1. Please refer to the above drawing for detailed specifications of platen components.
 ※2. Application of platen components may differ, due to I.M.M. or mold conditions.

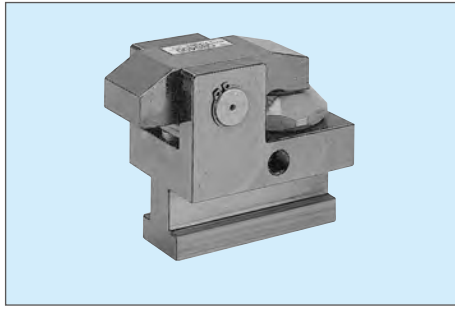
■ Suitable oil should be used for KOSMEK hydraulic products to maximize performance and to assure trouble free operation for a long time.

ISO viscosity grade : ISO-VG-32

Manufacturer	Abrasion Resisting Hydraulic oil	Multi-Purpose Hydraulic oil
Idemitsu Kosan	Daphne Hydraulic Fluid 32	Daphne Super Multi Oil 32
Cosmo Oil	Cosmo Hydro AW32	Cosmo New Mighty Super 32
Showa Shell	Tellus S2 M 32	Morlina S2 B 32
JX Nippon Oil & Energy	Super Hi-land 32	Super Mulpus DX 32
Matsumura Oil	Hydaul AW-32	
Exxon Mobil	Mobil DTE 24	Mobil DTE 24 light
Castrol	Hyspin AWS 32	

MODEL GB CLAMP

GB clamp is a common type of clamp with T-slot, which can be used with molds of various widths.



MODEL CODE

GB 063 0 - KLP - 5 L - T

① ② ③ ④

Design No.

This number represents the main specification of the clamp's T-slot stem and the clamping height. After the specification is confirmed, we will create a number.

① Clamping capacity (See specifications)

② Options

- C : With locking check switch
- D : With handle (0630 and larger)
- E : Reinforced body (to be manufactured after receiving an order.)
- J : Low lever type (less than min "h")
- K : Rear port
- L : Wide lever (for U-cut in die) ※4
- N : NPT port
- P : With proximity switch for die detection (0400 and larger) ※5
- S : Long stroke (0400 and larger)
- V : High temperature type (0 ~ 120°C)
- W : With check valve (1000 and larger)
- Y : For diecast machine

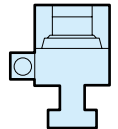
※4. Always specify U-cut dimension of the mold.
 ※5. The following code is required only when "P" is selected from options.

③ Switch load voltage (current)

- 1 : AC100V
- 2 : AC200V
- 5 : DC 24V (5 ~ 40mA)

④ Switch mounting position

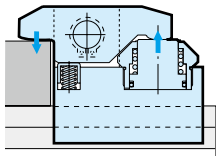
- L : As illustrated
- R : Reverse of illustration



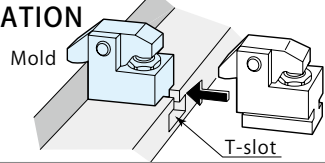
Example: GB0630-DP-1R-T111

- Clamping capacity 61.7kN
- With handle
- With proximity switch for die detection AC100V
- Switch position is right side when viewed from rear
- T111 ⇒ h=40 A=26.5 B=44 C=17.2 D=24.3

STRUCTURE



APPLICATION



SPECIFICATIONS

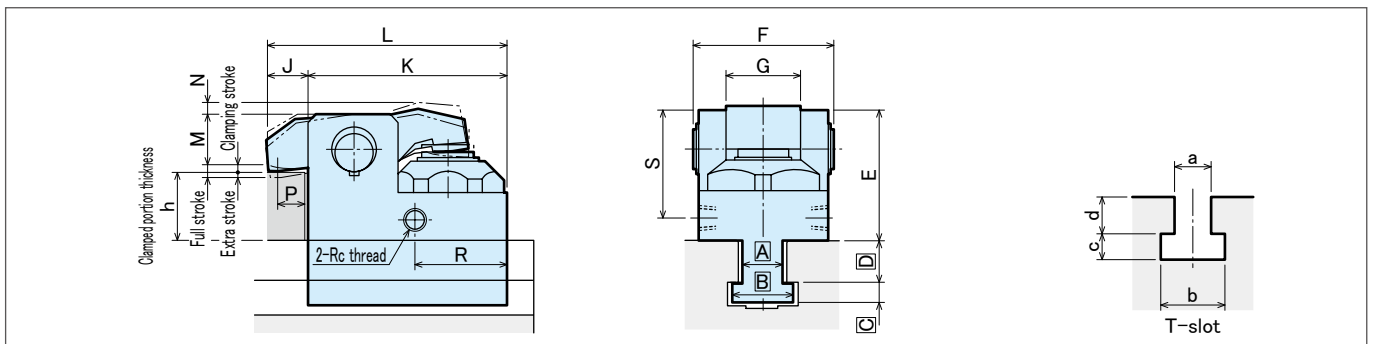
Model		GB0100	GB0160	GB0250	GB0400	GB0630	GB1000	GB1600	GB2500
Clamping capacity	kN	9.8	15.7	24.5	39.2	61.7	98	157	245
Operating pressure	MPa	24.5 (for rated clamp force)							
Design pressure	MPa	27.0							
Design pressure	MPa	36.8							
Full stroke	mm	6	7			8			
Clamping stroke	mm	3	3.5			4			
Extra stroke	mm	3	3.5			4			
Cylinder volume(at full stroke)	cm ³	2.5	4.8	7.2	11.9	21.6	34.7	55.2	85.9
Operating temperature		0 ~ 70°C (V type is available for 0 ~ 120°C)							
Frequency of use		20 times / day (please contact us for more frequently)							
Working fluid	※1 ※2 ※3	ISO-VG-32 or equivalent							
MIN. T-slot dimension	"a" (JIS) mm	10	12	14	18	22	24	28	36
MAX. T-slot dimension	"a" (JIS) mm	20	24	32	42	42	54	54	54

Cautions ※1. For other fluids, consult us.

※2. If fluid viscosity is higher, action will be slower.

※3. Action at low temperature will be slower as fluid viscosity is higher.

OUTLINE (This dimension is standard type. Consult us Option type.)



OUTLINE DIMENSIONS (This dimension is standard type. Consult us -S:Long stroke type.)

Model	min. E	F	G	J	K	L	M (h)			max. N	P	R	S	Rc	min. C	max. h
GB0100	44.5	43	20	15	58	73	16.5(25 over)	21.5(20-25)	-	5.5	10	33	34.5	Rc1/8	6.5	40
GB0160	51	53	26	18	70	88	17.5(30 over)	22.5(25-30)	27.5(20-25)	6.5	12.5	37	41	Rc1/8	8	40
GB0250	59	63	32	20	84	104	21.5(34 over)	26.5(29-34)	31.5(24-29)	6.5	14	43.5	47	Rc1/4	9.5	50
GB0400	67.5	73	40	23	105.5	128.5	29.5(35 over)	34.5(30-35)	39.5(25-30)	6.5	16	51.5	56	Rc1/4	12	50
GB0630	81	93	50	30	130	160	29.5(47.5 over)	39.5(37.5-47.5)	49.5(27.5-37.5)	8	20	49	69	Rc1/4	14	60
GB1000	108	103	55	30	159	189	44(60 over)	54(50-60)	64(40-50)	8	20	68	95	Rc1/4	16.5	70
GB1600	130	124	60	30	199	229	61(65 over)	71(55-65)	81(45-55)	9	20	73	116	Rc1/4	20	80
GB2500	152	152	73	30	240	270	78(70 over)	88(60-70)	98(50-60)	9.5	20	69.5	135	Rc1/4	23	80

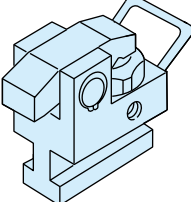
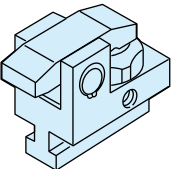
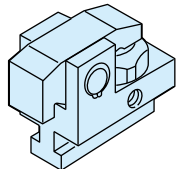
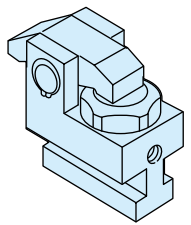
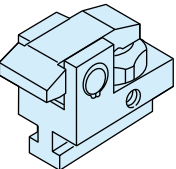
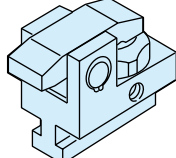
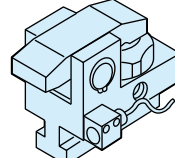
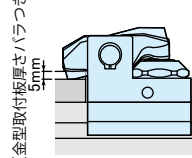
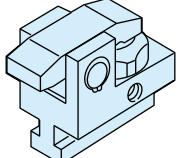
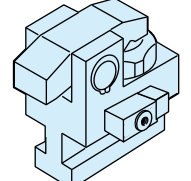
Cautions 1. Clamping strokes and extra strokes shown are standard; Custom strokes are available upon request.

2. Dimension A, B, C and D are determined from T-slot dimensions.

3. Specify T-slot dimensions (a, b, c, d) and clamping height (h) when ordering.

4. Specify (d) and (h) within 0.1mm.

5. Clamps with a dimension greater than max. h are optionally available (H type).

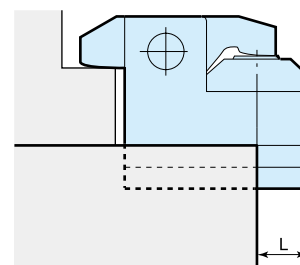
C	D	E	J	K	L
With locking check switch Please refer for the details separately.	With handle (GB0630 or more) 	Reinforced body 	Low lever (less than min. h) 	Rear port 	Wide lever (For U-cut) 
N	P	S	V	W	Y
NPT port 	With proximity switch for die detection (GB0400 or more) 	Long stroke (GB0400 or more) 	High temperature (0~120°C) 	With check valve (GB1000 or more) 	For diecast machine Please refer to the KDCS catalog (DQ-□□-02).

Option model	Symbol	GB0100	GB0160	GB0250	GB0400	GB0630	GB1000	GB1600	GB2500
With locking check switch	C								
With handle	D	-	-	-	-	○	○	○	○
Reinforced body	E	○	○	○	○	○	○	○	○
Low lever	J	h < 20	h < 20	h < 25	h < 25	h < 30	h < 40	h < 45	h < 50
Rear port	K	○	○	○	○	○	○	○	○
Wide lever	L	width 35	width 48	width 48	width 58	width 72	width 85	width 97	width 107
NPT port	N	○	○	○	○	○	○	○	○
With proximity switch for die detection	P	-	-	-	○	○	○	○	○
Long stroke	S	-	-	-	○	○	○	○	○
High temperature	V	○	○	○	○	○	○	○	○
With check valve	W	-	-	-	-	-	○	○	○
For diecast machine	Y	-	-	-	○	○	○	○	-

< Precautions for mounting and operation >

- Working pressure should be 24.5MPa.
- T-slot and clamp surface must be parallel.
Otherwise, the clamp may be damaged or oil leakage may occur.
- Never allow clamp overhang to exceed L (as illustrated) .

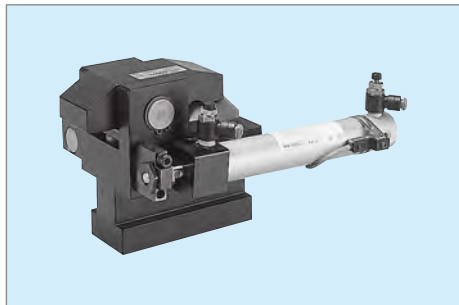
● GB clamp : ALLOWABLE OVERHANG



Model	L (mm)
GB0100	17.5
GB0160	21.0
GB0250	25.0
GB0400	32.0
GB0630	39.0
GB1000	45.0
GB1600	57.0
GB2500	69.5

MODEL GE CLAMP

GE clamp has the ability to slide and lock molds of different sizes by remote control.



MODEL CODE

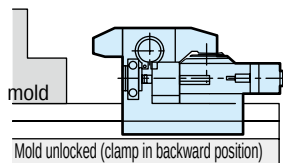
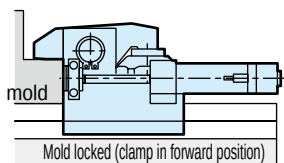
GE 040 1 - 125 - 1 L - E - T

① ② ③ ④ ⑤

Design No.

This number represents the main specification of the clamp's T-slot stem and the clamping height. After the specification is confirmed, we will create a number.

APPLICATION



- ① Clamping capacity (See specifications)
- ② Slide stroke (See outline dimensions)
075: Clamp travel distance 75mm
180: Clamp travel distance 180mm
The calculation of the movement distance, please consider extra stroke.
- ③ Switch load voltage (current)
1 : AC100V
2 : AC200V
5 : DC24V (5 ~ 40mA)
- ④ Air cylinder mounting position
L : As illustrated
R : Reverse of illustration
- ⑤ Options
Blank : Standard
E : Reinforced body material
J : Low type lever (when lower than minimum height)
K : Rear side piping
L : Wide lever (for U cut mold) ※3
N : Piping port with NPT ※4
Q : Double cylinder
S : Special spacer
V : For high temperature (0 ~ 120°C)
Y : For diecast machine

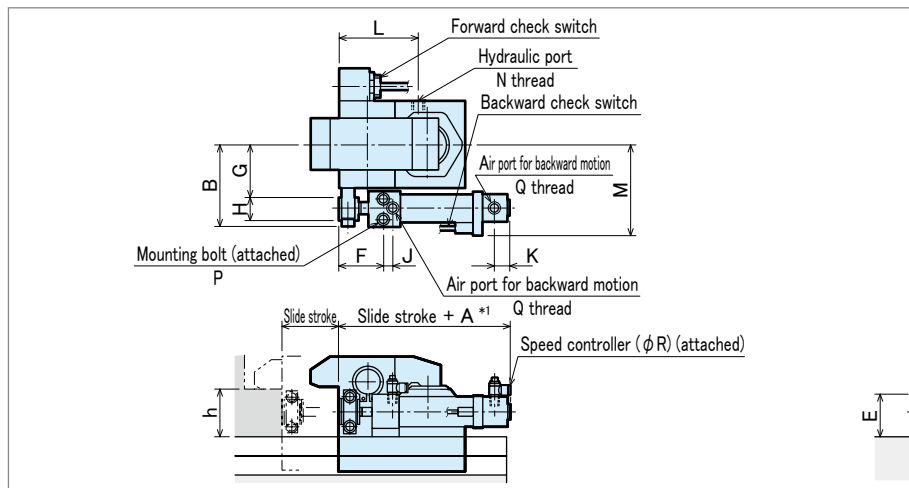
※3. Always specify U cut dimension of the mold.
※4. When "N" is selected from options, each dimension is described in "inch" in the specification and other documents. However the slide stroke is shown by mm value as a symbol.

SPECIFICATIONS

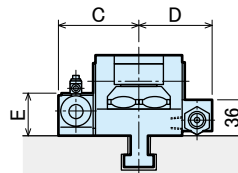
Model	GE0251	GE0401	GE0631	GE1001	GE1601	GE2501	GE4001	
Clamping capacity	kN	24.5	39.2	61.7	98	157	245	392
Operating pressure	kN	24.5 (for rated clamp force)						
Max. operating pressure	MPa	27.0						
Design pressure	MPa	36.8						
Slide stroke ※ ¹	mm	25 ~ 200		50 ~ 200		50 ~ 300		
Driving air pressure ※ ²	MPa	0.39 ~ 0.49						
Limit switch voltage		AC100V / AC200V / DC24V						
Operating temperature		0 ~ 70°C (-V type is available for 0 ~ 120°C)						
Frequency of use		20 times / day (Please contact us for more frequently.)						
Working fluid		ISO-VG-32 or equivalent						

Cautions ※1. If the stroke exceeds the value shown in the specifications, contact us because the dimension "A" in the outline drawing is different.
※2. Air pressure less than 0.39MPa may result in malfunction.

OUTLINE (This dimension is standard type. Consult us Option type.)



Example: GE0401-125-1L-L-T111
• Clamping capacity 39.2kN
• Slide distance 125mm
• For AC100V
• Switch position as illustrated
• Wide lever type
• T111 ⇒ h=40 A=26.5 B=44 C=17.2 D=24.3



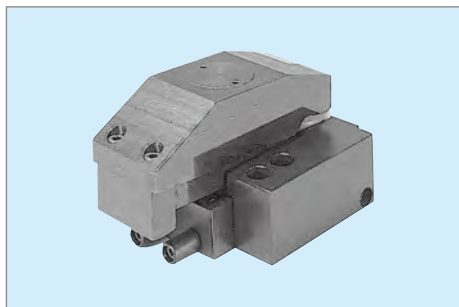
OUTLINE DIMENSIONS (This dimension is standard type. Consult us Option type.)

Model	GB model	A	B	C	D	E	F	G	H	J	K	L	M	N	P		Q	R
															Mounting bolt	Tapping		
GE0251	GB0250	105	60.5	63.5	59	37	39	39	18	9	12	73	75.5	Rc1/8	M5×0.8×40	M5×0.8 Depth10	Rc1/8	φ 6
GE0401	GB0400	105	65.5	68.5	64	37	39	44	18	9	12	93	80.5	Rc1/4	M5×0.8×40	M5×0.8 Depth10	Rc1/8	φ 6
GE0631	GB0630	112	81.5	84.5	74	48	45	55	22	10	12	81	96	Rc1/4	M6×50	M6× Depth12	Rc1/8	φ 6
GE1001	GB1000	118	92.5	94.5	78.5	54	46	61	24	13	12	91	106.5	Rc1/4	M8×55	M8× Depth16	Rc1/8	φ 6
GE1601	GB1600	136	112	116.5	88.5	65	56	74	32	14	12	126	128	Rc1/4	M10×70	M10× Depth20	Rc1/8	φ 6
GE2501	GB2500	157	137	142	102	78	64	89	41	16	14	170.5	153	Rc1/4	M12×85	M12× Depth24	Rc1/4	φ 10
GE4001	-	184	189	218.5	117.5	119	57	134	41	36	19	215	213.5	Rc3/8	M16×130	M16× Depth32	Rc3/8	φ 10

Cautions 1. Refer to GB clamp (P7) for clamp details. Please contact us GE4001.

MODEL GM CLAMP

GM clamp is suitable for I.M.M. without T-slot.
It can be used with molds of various widths and allows for the variation of "h" dimension up to 5 mm.



MODEL CODE

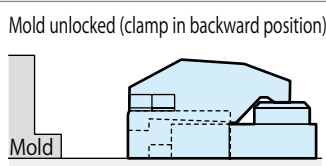
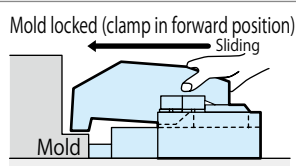
GM 040 0 - 35 - PV - 5 R

① ② ③ ④ ⑤

Design No.

- ① Clamping capacity (See specifications)
- ② Mold thickness (dimension "h") ※1
25 : Dimension "h"
5 : See allowable clamp
60 : Dimension "h" } thickness table
- ③ Special symbols
N : Piping port with NPT ※1
P : With proximity switch for detecting mold ※2
V : For high temperature (0 ~ 120°C)
- ④ Switch load voltage (current)
1 : AC100V
2 : AC200V
5 : DC24V (5 ~ 40mA)
- ⑤ Switch mounting location
Please refer for the details separately.

APPLICATION



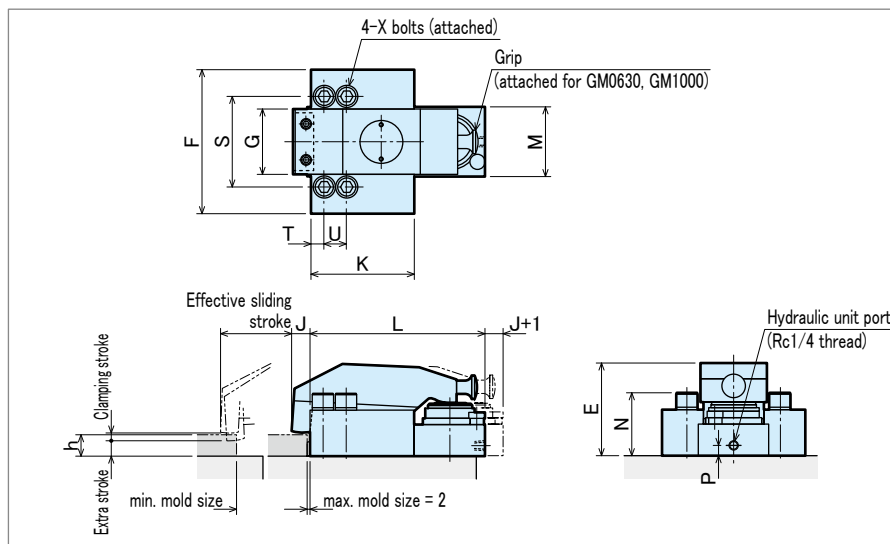
SPECIFICATIONS

Model	GM0250	GM0400	GM0630	GM1000
Clamping capacity (at 24.5MPa) kN	24.5	39.2	61.7	98
Effective sliding stroke mm	50	75	100	100
Clamping stroke mm	1.5	2	2	2
Extra stroke mm	7.5	8	8	8
Cylinder capacity at full stroke cm ³	9	18	26	41
Operating temperature	0 ~ 70°C (-V type is available for 0 ~ 120°C)			
Frequency of use	20 times / day (Please contact us for more frequently.)			

- ※1. Note that the allowable mold thickness varies depending on the clamp capacity. And when "N" is selected from the special symbols, each dimension is described in "inch". However, the mold thickness is shown by mm value as a symbol.
- ※2. When "P" is selected from the special symbols, ④ and ⑤ must be specified.

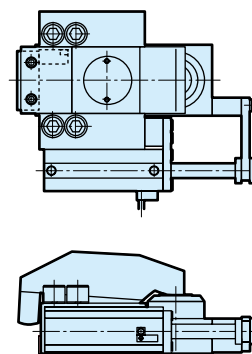
Example: GM0400-30
 • Clamping capacity 39.2kN
 • Mold thickness 30mm

OUTLINE (This dimension is standard type. Consult us Option type.)



GM-S clamp

- Clamps with slider are also available.



OUTLINE DIMENSIONS (This dimension is standard type. Consult us Option type.)

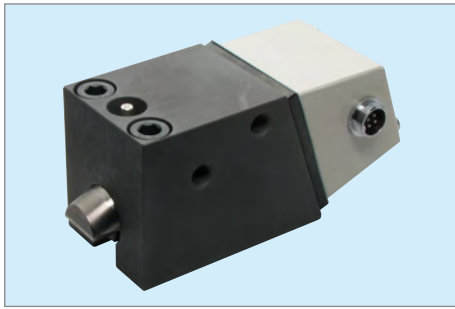
Model	E	F	G	J	K	L	M	N	P	Q	S	T	U	X	min. R
GM0250	89	130	54	21	95	145	65	59.5	12	-	85	12	20	M12	95
GM0400	113	150	62	24	115	188	75	74.5	12	-	100	15	25	M16	115
GM0630	130	200	80	24	145	245	96	89.5	15	17.5	125	18	32	M20	145
GM1000	158.5	250	96	29	190	288	114	107	17	17.5	150	23	40	M24	190

ALLOWABLE CLAMP THICKNESS

h (clamp thickness)	25	30	35	40	45	50	55	60
Range of allowable h (mm)	20.0 ~ 25.0	25.0 ~ 30.0	30.0 ~ 35.0	35.0 ~ 40.0	40.0 ~ 45.0	45.0 ~ 50.0	50.0 ~ 55.0	55.0 ~ 60.0
GM0250	○	○	○	-	-	-	-	-
GM0400	-	○	○	○	○	-	-	-
GM0630	-	○	○	○	○	○	-	-
GM1000	-	-	-	○	○	○	○	○

MODEL GWA CLAMP

GWA clamp adopting a mechanical locking system, is a highly reliable clamp which maintains its clamping power when the hydraulic pressure for locking drops to 0.



MODEL CODE

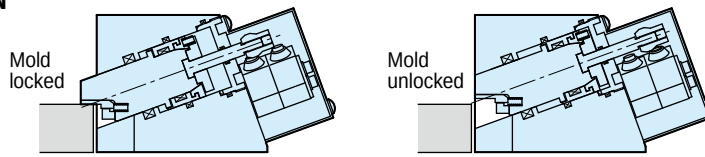
GWA 040 0 - 30 M0 R - K V

① ② ③ ④ ⑤ ⑥

Design No.

- ① Clamping capacity (See specifications)
- ② Clamped portion thickness
30 : Dimension "h" in the drawing 30mm
50 : Dimension "h" in the drawing 50mm
- ③ Wiring system
M0 : Metallic conduit specification ※1
M4 : Metallic conduit specification with 4m cable ※2
C1 : Conduit with ϕ 16mm hole
C2 : Conduit with ϕ 22mm hole
- ④ Piping and wiring connection direction ※3
L : On the left viewed from the back (switch side)
R : On the right viewed from the back (switch side)
- ⑤ Electrical rating
Blank: 3A rating
K : For extremely small load
- ⑥ Special symbols
Blank: Standard (0 ~ 70°C)
V : For high temperature (0 ~ 120°C)

APPLICATION



SPECIFICATIONS

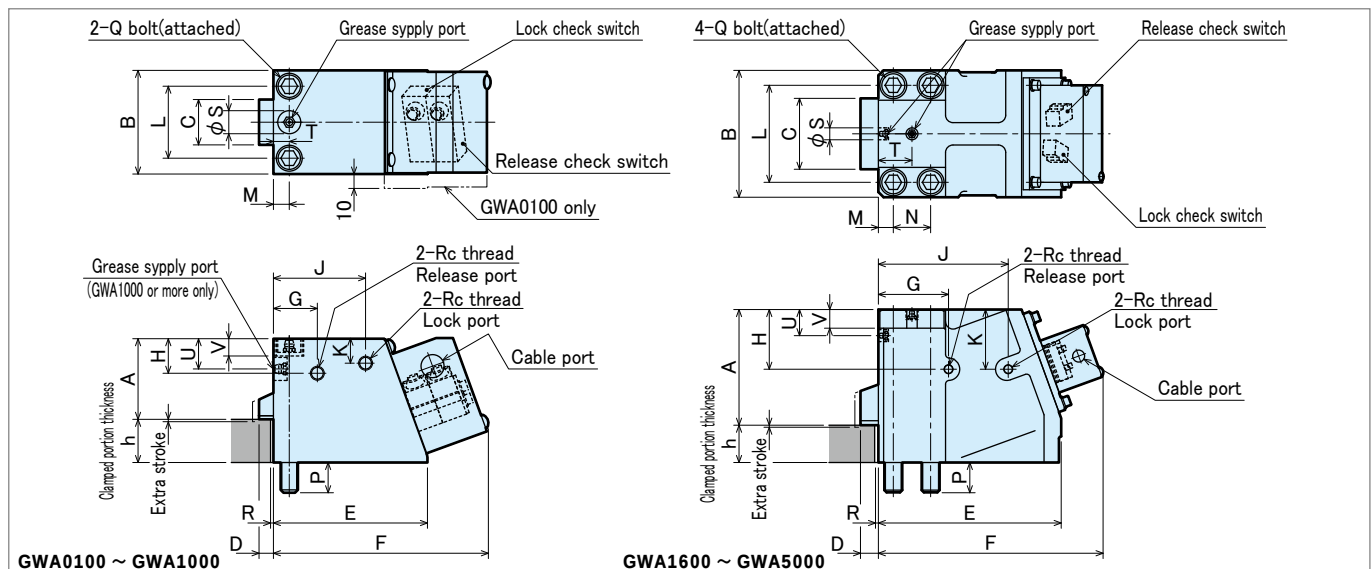
Model	GWA0100	GWA0160	GWA0250	GWA0400	GWA0630	GWA1000	GWA1600	GWA2500	GWA4000	GWA5000
Clamping capacity kN	9.8	15.7	24.5	39.2	61.7	98	157	245	392	490
Clamping force(at 13.7MPa) kN	9.8	15.7	24.5	39.2	61.7	98	157	245	392	392
Retaining force(at 0MPa) kN	3.9	6.3	9.8	15.7	24.7	39.2	62.8	98	157	157
Extra stroke mm	1.0					1.5				
Cylinder capacity cm ³	locked	6	11	19	35	64	121	227	411	758
	unlocked	3	4	8	13	24	48	102	177	349
Operating temperature	0 ~ 70°C (-V type is available for 0 ~ 120°C)									
Frequency of use	20 times / day (Please contact us for more frequently.)									

Cautions 1. Tolerance of "h" (clamp height) should be less than ± 0.5 mm.

- ※1. Use metallic conduit plug SCK-14(Sanwa) for cable side.
 ※2. Cable end is composed of non-stranded wires covered by marker tube.
 ※3. Both sides of hydraulic port usable.

Example: GWA0400-30M4R
 • Clamping capacity 39.2kN
 • Wiring connection direction on the left viewed from the back
 • Clamped portion thickness 30mm
 • Metallic conduit specification with 4m cable

OUTLINE (This dimension is standard type. Consult us Option type.)

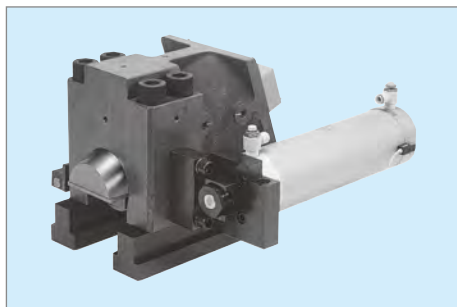


OUTLINE DIMENSIONS (This dimension is standard type. Consult us Option type.)

Model	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	U	V	Rc	Standard h ± 0.5
GWA0100	41	48	20	8	81	129	21.5	19.5	48.5	8	33	8	-	12	M8	1.5	16	10	-	8	Rc1/8	20
GWA0160	48	58	25	9	93	140	28	23	56.5	9.5	39	9.5	-	17	M10	1.5	16	12	-	10	Rc1/8	20
GWA0250	56	72	31.5	10	107	150	30.5	24	64	17	50	11	-	21	M12	2	16	11	-	12	Rc1/8	30
GWA0400	69	90	40	12	123	173	38	30	70.5	14	62	14	-	27	M16	2	16	14	-	16	Rc1/4	30
GWA0630	82	110	50	14	140	194	41	33	83	22	76	17	-	33	M20	3	16	15	-	20	Rc1/4	35
GWA1000	98	135	63	17	152	208	44	50	102	50	95	20	-	36	M24	3	16	20	35	24	Rc1/4	40
GWA1600	128	138	75	20	205	256	80	63	143.5	63	104	17	40	33	M20	5	16	40	35	21	Rc1/4	40
GWA2500	155	170	95	24	245	302	94	80	174	80	130	20	50	40	M24	5	16	45	35	25	Rc1/4	50
GWA4000	195	215	118	28	305	355	119	90	208	90	162	27	60	50	M30	5	16	65	40	35	Rc3/8	50
GWA5000	195	215	118	28	305	355	119	90	208	90	162	27	60	50	M33	5	16	65	40	35	Rc3/8	50

MODEL GLA CLAMP

GLA clamp developed from the GWA clamp, is capable of sliding and locking variable width molds by remote control.



MODEL CODE

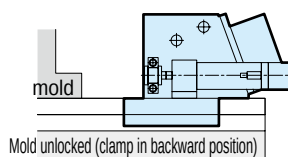
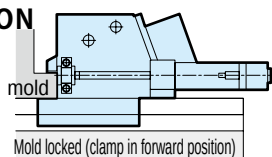
GLA 160 0 - 40 M0 - 200 - 5 K L - V - T

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

Design No.

This number represents the main specification of the clamp's T-slot stem and the clamping height. After the specification is confirmed, we will create a number.

APPLICATION



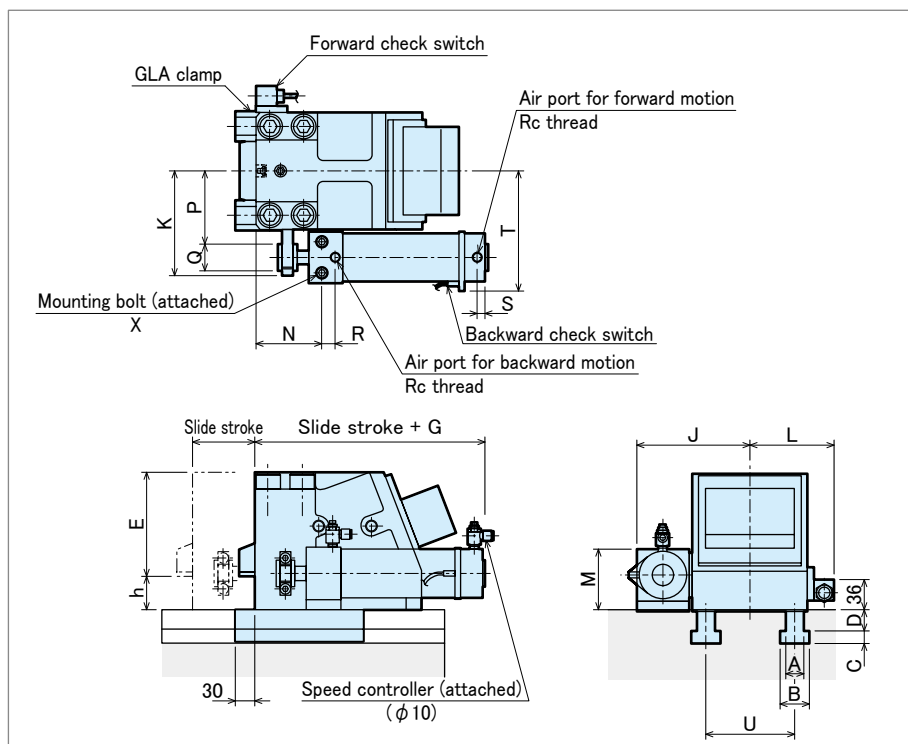
- ① Clamping capacity (See specifications)
- ② Clamped portion thickness
30 : Dimension "h" in the drawing 30mm
50 : Dimension "h" in the drawing 50mm
- ③ Wiring connection system
M0 : Metallic conduit specification ^{※1}
M4 : Metallic conduit specification with 4m cable ^{※2}
C1 : Conduit with ϕ 16mm hole
C2 : Conduit with ϕ 22mm hole
- ④ Slide stroke (Select from standard strokes)
075 : Clamp travel distance 75mm
200 : Clamp travel distance 200mm
[※] Take extra distance into consideration to determine the travel distance.
- ⑤ Switch load voltage (current)
1 : AC100V
2 : AC200V
5 : DC24V (5 ~ 40mA)
- ⑥ Electrical rating
Blank : 3A rating
K : For extremely small load
- ⑦ Cylinder mounting location
L : As shown in outline drawing
R : Opposite to the above
- ⑧ Special symbols
Blank : Standard
Q : Double cylinder
V : For high temperature (0 ~ 120°C)

^{※1}. Use metallic conduit plug SCK-14(Sanwa) for cable side.
^{※2}. Cable end is composed of non-stranded wires covered by marker tube.

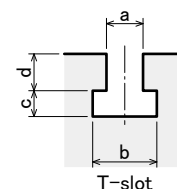
SPECIFICATIONS

Model		GLA1600	GLA2500	GLA4000	GLA5000
Clamping capacity	kN	157	245	392	490
Clamping force(at 13.7MPa)	kN	157	245	392	392
Slide stroke	mm	50 ~ 300			
Driven air pressure	MPa	0.39 ~ 0.49			
Min. T-slot width	(a)	28	32	42	42
Operating temperature		0 ~ 70°C (-V type is available for 0 ~ 120°C)			
Frequency of use		20 times / day (Please contact us for more frequently.)			

OUTLINE (This dimension is standard type. Consult us Option type.)



Example: GLA1600-40M0-200-5L
 • Clamping capacity 157kN
 • Slide distance 200mm
 • For DC24V
 • Cylinder mounting location as shown in outline drawing
 • Metallic conduit specification without cable
 • T002 $\Rightarrow$ A=41 B=65 C=30 D=42.5



Cautions

1. Dimensions of A,B,C and D are determined according to the T-slot dimensions.
2. Please specify T-slot dimensions a,b,c,d and clamp thickness for your order.
3. Tolerance of T-slot dimension should be less than ± 0.2 mm.

OUTLINE DIMENSIONS (Please refer to GWA for the dimensions without this dimension.)

Model	E	G	J	K	L	M	N	P	Q	R	S	T	U	X		Rc
														Mounting bolt	Tapping	
GLA1600	128	178	139	134	108	80.5	85	86	41	16	14	152.5	104	M12×85	M12 Depth24	Rc1/4
GLA2500	155	192	166.5	155.5	124	92.6	95	105	46	20	14	181	130	M16×100	M16 Depth32	Rc1/4
GLA4000	195	228.5	273	222.5	146.5	149	100	133	120	37.5	19	260	162	M20×160	M20 Depth40	Rc1/2
GLA5000	195	228.5	273	222.5	146.5	149	100	133	120	37.5	19	260	162	M20×160	M20 Depth40	Rc1/2

YMB080

OPERATION PANEL / CONTROL UNIT

The many models available ensure compability with a wide variety of applications.
The separate Operation Panel and Control Unit allow for more flexibility and variation in mounting and use.



MODEL CODE

YMB08 0 - V GB 10 -

1 2 3 4 5

1 Design No.

※ Indicates Unit Version

2 Mold Change System

V : Vertical Loading (Horizontal IMM)
H : Side Loading (Horizontal IMM)
R : Vertical IMM ※1

3 Applicable Clamp Model

※ Refer to the specification tables below.

4 Pressure Switch

10 : Standard Model with Pressure Switch in the Clamp Circuit.
00 : Special Model without Pressure Switch in the Clamp Circuit. ※
※Only for Hydraulic Systems using IMM Hydraulic Pressure.

5 Option Codes

Blank : Standard (Operation Panel in Japanese)
E : With Proximity Switches to Ensure Proper Clamp Placement
H : With 6~8 Proximity Switches per Platen
N : Operation Panel in English
C : Operation Panel in Chinese

SPECIFICATIONS

Model		YMB080-□□□10	YMB080-□□□00
Operation Unit Power		DC24V (Supply by Control Unit)	
Control Unit	Voltage	AC100 ~ 240V (50/60Hz)	
Power Supply	Capacity	30W	100W

Cautions

- ※1. Please contact us for details about vertical press (IMM) systems.
- For special applications not mentioned here, please contact us.
 - Signals should be sent and recieved via dry contacts.
 - The molding machine output should be DC24V 10mA.
 - The Operation Panel / Control Unit output contact is DC24V / 0.5A.
 - Molding machine terminology may differ depending on the manufacturer.

Hydraulic Clamps (G series)

Model	②System	③Clamp Model	④Hydraulic Source	⑤Options
YMB080-VGB10	V Vertical Loading	GB GB / GM	10 KOSMEK Hydraulic Unit	E / H / N / C
YMB080-VGE10		GE GE / GM-S		H / N / C
YMB080-VGW10		GW GWA		N / C
YMB080-VGW00		GW GWA	00 IMM	N / C
YMB080-VGL10		GL GLA	10 KOSMEK Hydraulic Unit	N / C
YMB080-VGL00		GL GLA	00 IMM	N / C
YMB080-HGW10	H Side loading	GW GWA	10 KOSMEK Hydraulic Unit	N / C
YMB080-HGW00		GW GWA	00 IMM	N / C

DIAGRAM : OPERATION PANEL

※ The bracket can be mounted in any direction.

The bracket is shipped mounted as in the diagrams below.

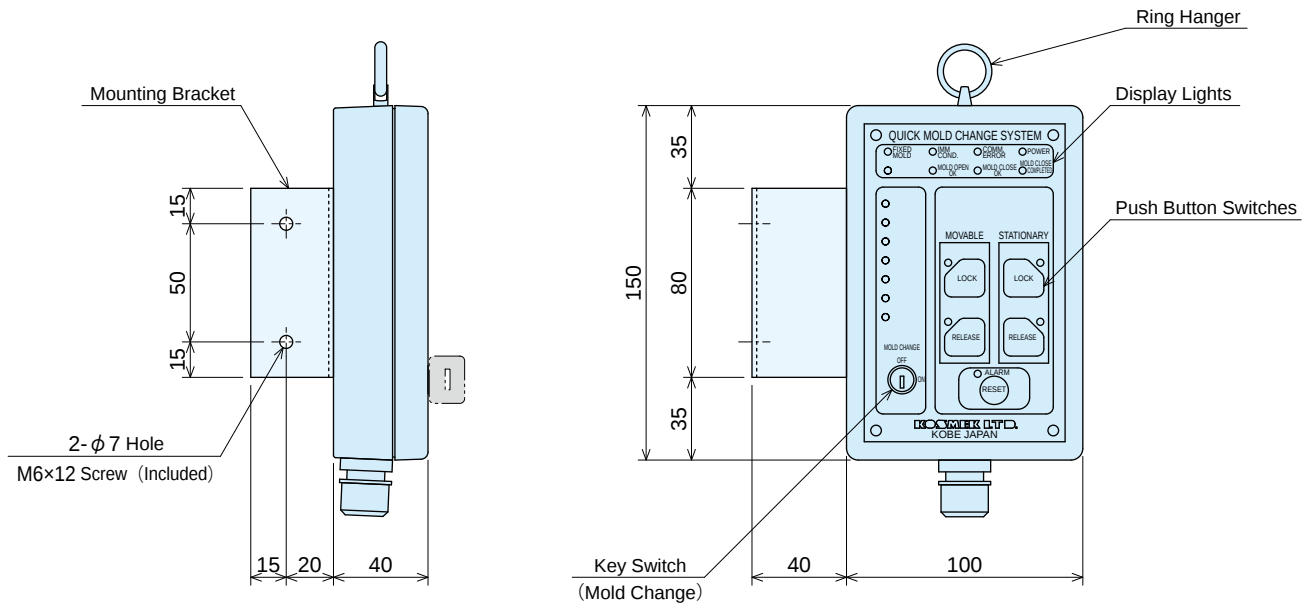
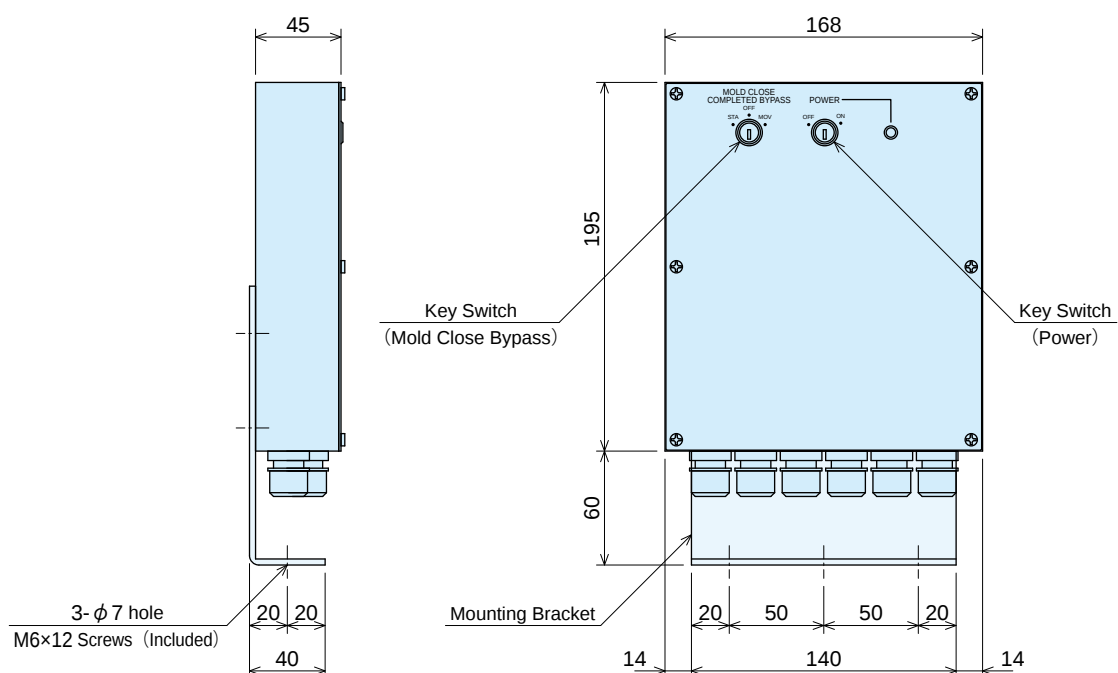


DIAGRAM : CONTROL UNIT

※ The bracket can be mounted in any direction.

The bracket is shipped mounted as in the diagrams below.



YMB080

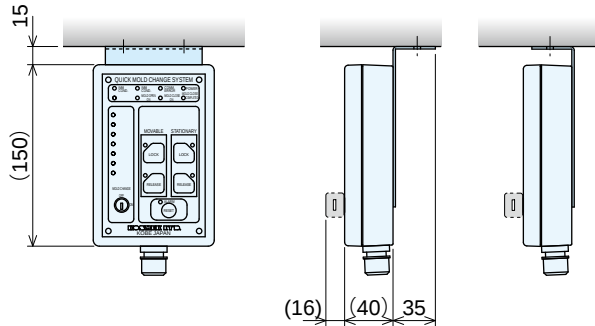
OPERATION PANEL / CONTROL UNIT

The many models available ensure compatibility with a wide variety of applications.
The separate Operation Panel and Control Unit allow for more flexibility and variation in mounting and use.

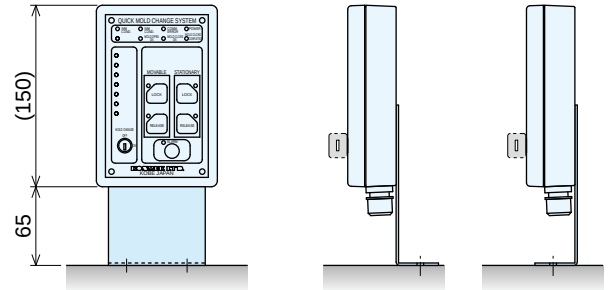
MOUNTING INSTRUCTIONS : OPERATION PANEL

※For detailed dimensions of the Operation Panel, please refer to page 2.

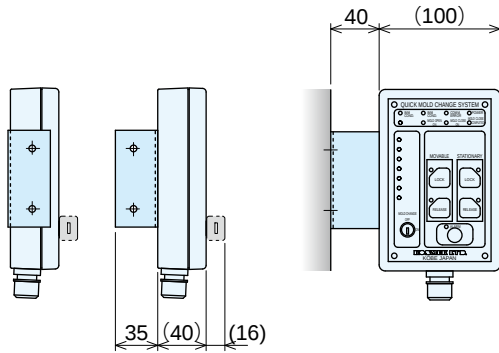
Top Mounted



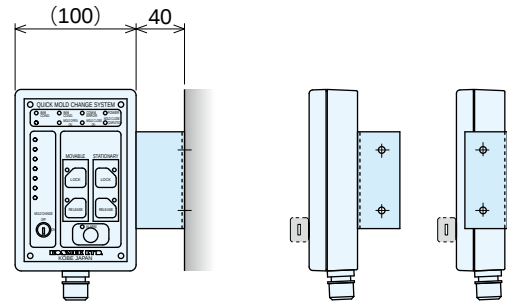
Bottom Mounted



Left Mounted



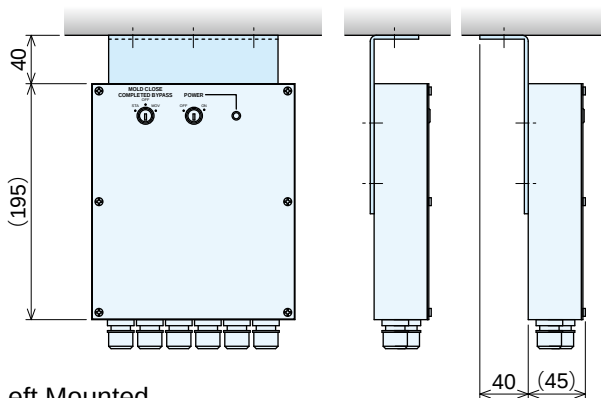
Right Mounted



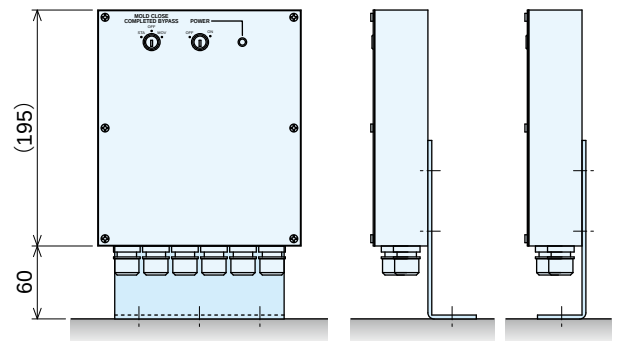
MOUNTING INSTRUCTIONS : CONTROL UNIT

※For detailed dimensions of the Control Unit, please refer to page 2.

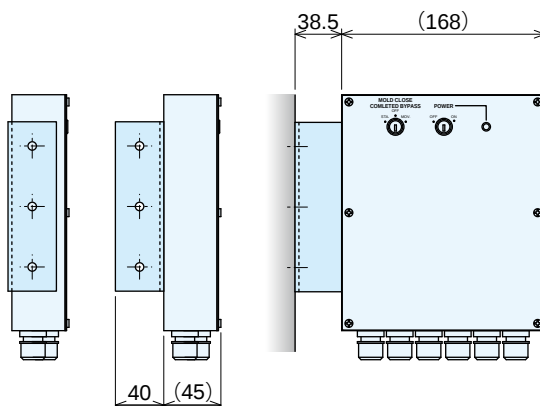
Top Mounted



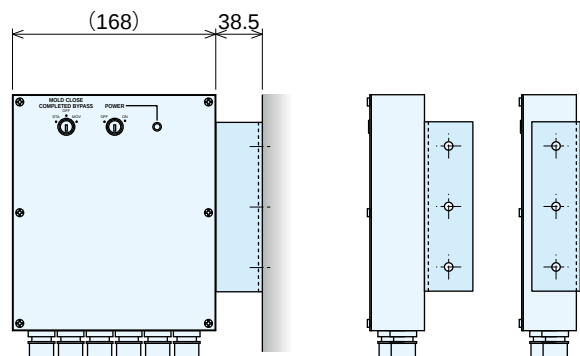
Bottom Mounted



Left Mounted



Right Mounted



EXAMPLE OF OPERATING PROCEDURES : YMB080-VHE10

※ Please contact us for operating procedures for other models.

Unloading a Mold

IMM	OPERATION	OPERATION PANEL
Finish Production	1. Support the mold using the crane.	"IMM COND." lamp illuminates.
Mold Change Mode	2. Set the IMM to "Mold Change Mode" .	
Nozzle Back	3. Ensure the IMM is in "Nozzle Back" mode.	
	4. Turn the "Mold Change Key Switch" on the operation panel to "ON" .	
Mold Close	5. Close the IMM platens.	Ensure the "MOLD CLOSE COMPLETED" lamp is illuminated.
	6. Confirm that the mold is supported by the crane.	
	7. Press the "STATIONARY (Platen) RELEASE" button. Press the "MOVABLE (Platen) RELEASE" button.	 "RELEASE" lamps illuminate. STA. BACK and MOV. BACK (Stationary / Movable Platen Fully Retracted) illuminate. Ensure "MOLD OPEN OK" lamp is illuminated.
Push the platen open button on the IMM	8. Open the platens	
	9. Remove the mold.	

Loading a Mold

IMM	OPERATION	OPERATION PANEL
Molding Idle	1. Check the mold thickness and insert the mold.	
	2. Position the mold.	
Mold Close	3. Close the Safety Door of the IMM and press the "Mold Close" button on the IMM.	Ensure the "MOLD CLOSE COMPLETED" lamp is illuminated.
	4. Press the "Stationary Platen Lock" button. Press the "Movable Platen Lock" button.	 "LOCK" lamps illuminate. STA. FWD. and MOV. FWD. (Stationary / Movable Platen Mold Detect) lamps illuminate.
	5. Turn the Mold Change Key Switch to "OFF" .	 "MOLD OPEN OK" and "MOLD CLOSE OK" lamps illuminate.
	6. Detach mold from crane to complete set-up.	

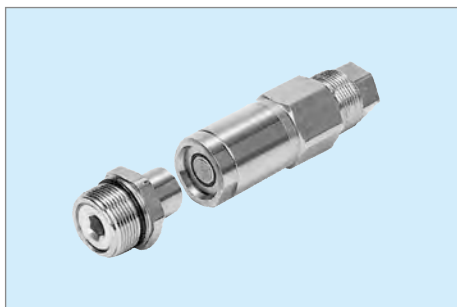
INTERLOCK INPUT AND OUTPUT

※ Please contact us for information about Input / Output signals not listed below. (Special Order Unit)

IMM OUTPUT	CONTENT
Mold Change Mode	A signal that ensures the IMM is in low-speed Mold Change Mode.
Mold Closed (Pressurized)	A signal that ensures the mold is completely closed. Required for clamp lock / release to prevent the mold from dropping.
Nozzle Back	A signal that ensures the nozzle / injection unit is fully back to prevent damage to the nozzle / injection unit when changing molds.
Ejectors Back	A signal that ensures the ejector plate is in the back position to prevent damage to the ejector rods during mold removal.

IMM INPUT	CONTENT
Mold Open OK	A signal that indicates the clamping system is ready for mold opening.
Mold Close OK	A signal that indicates the clamping system is ready for mold closing.
Mold Change "ON"	A signal that indicates the clamp system is in "Mold Change Mode" .
Clamp Error	When an error in the clamp circuit occurs, this signal is sent to make an emergency stop of the machine.
Pressure Request	This signal requests additional hydraulic pressure when necessary to lock or release the clamps in Mold Change Mode.

JL AUTO JOINT is for automatic fluid coupling, enabling the automation of mold change system.



MODEL CODE

JL P 0 3 0 - W - M 0 - N
 ① ② ③ ④ ⑤ ⑥
 Design No.

① Type
 P : Plug
 S : Socket

② Body size
 2 : 1/4"
 3 : 3/8"
 4 : 1/2"
 6 : 3/4"
 8 : 1"

③ Material
 W : Stainless steel, brass and nitrile rubber for water, air and general working fluid (max. 80°C)
 H : Stainless steel, brass and fluoro rubber for warm water, air and general working fluid (max. 120°C)
 O : Steel and nitrile rubber for general working fluid (max. 80°C)

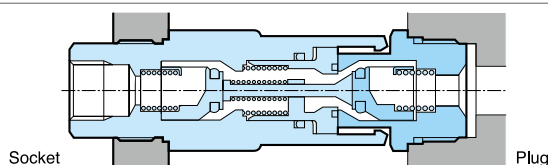
④ Piping system
 C : Connector type (Rc thread)
 M : Manifold type

⑤ Body shape ^{※1}
 0 : Basic type

⑥ Options
 Blank : Piping port with Rc
 N : Piping port with NPT

※1. When combining the products having different body sizes, contact us in advance. However application of the products having the same body size is recommended from the viewpoint of maintenance and spare parts control.

STRUCTURE



SPECIFICATIONS

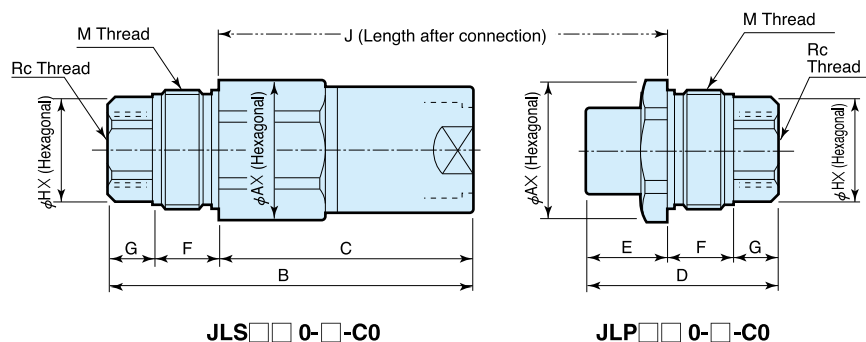
Model	Plug		JLP020	JLP030	JLP040	JLP060	JLP080
	Socket		JLS020	JLS030	JLS040	JLS060	JLS080
Size			02	03	04	06	08
Minimum flow area (mm ²)			29	50	102	183	297
Eccentricity(tolerance) (mm)			±0.5	±0.5	±0.8	±1.0	±1.0
Angle error(tolerance) (DEG.)			0.5	0.5	0.5	0.5	0.5
Maximum working pressure MPa	Fluid types	W.H	3.43	3.43	3.43	3.43	3.43
		0	24.5	24.5	24.5	13.7	13.7
Reaction force (kN)	Working pressure	0.98MPa	0.31	0.41	0.60	1.00	1.40
		3.43MPa	0.69	0.90	1.53	2.57	3.74
		13.7MPa	2.27	2.97	5.44	9.13	13.6
		24.5MPa	3.93	5.14	9.54	—	—
Frequency of use			20 times/day (Please contact us if it will be used more frequently.)				

Cautions 1. Fluid pressure should be 0 while connecting / disconnecting.

2. When using multiple number of ball joints, provide a stopper to adjust "Length after connection J" to be within +0.5mm of the value shown in the table.

OUTLINE

PIPE CONNECTION TYPE : C0(RcTHREAD)

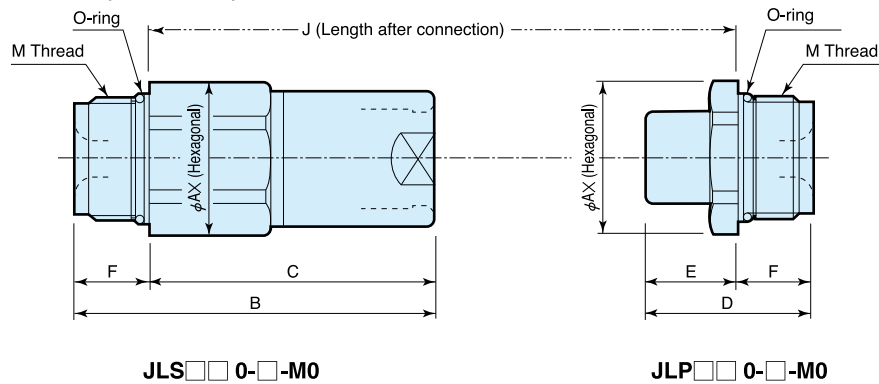


OUTLINE DIMENSIONS

Size	02	03	04	06	08
φAX (Hexagonal)	φ30×(27)	φ33×(30)	φ40×(36)	φ50×(46)	φ60×(55)
B	83	92.5	107	132	151
C	60	65.5	76	95	108
D	42.5	48.5	57.5	70	80
E	19.5	21.5	26.5	33	37
F	15	16	18	22	25
G	8	11	13	15	18
φHX (Hexagonal)	φ21.2×(19)	φ24.5×(22)	φ30×(27)	φ40×(36)	φ45×(41)
J	66.5	72	84.5	105.5	118.5
M	M24×1.5	M27×1.5	M33×1.5	M45×1.5	M50×1.5
Rc	1/4	3/8	1/2	3/4	1

OUTLINE

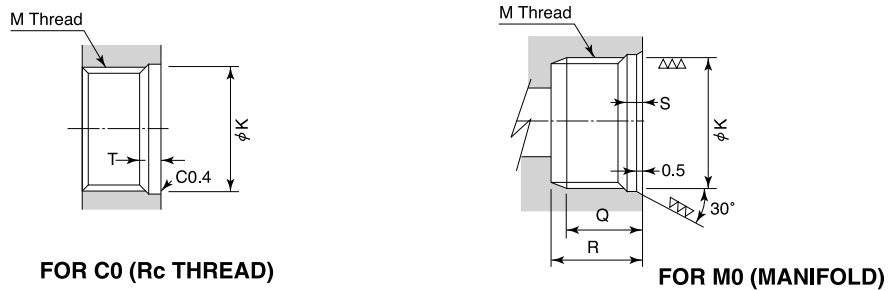
PIPE CONNECTION TYPE : M0(MANIFOLD)



OUTLINE DIMENSIONS

Size	02	03	04	06	08
φAX (Hexagonal)	φ30×(27)	φ33×(30)	φ40×(36)	φ50×(46)	φ60×(55)
B	75	81.5	94	117	133
C	60	65.5	76	95	108
D	34.5	37.5	44.5	55	62
E	19.5	21.5	26.5	33	37
F	15	16	18	22	25
J	66.5	72	84.5	105.5	118.5
M	M24×1.5	M27×1.5	M33×1.5	M45×1.5	M50×1.5
Rc	1/4	3/8	1/2	3/4	1

MOUNTING PART MACHINING

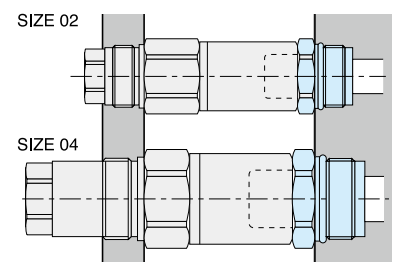
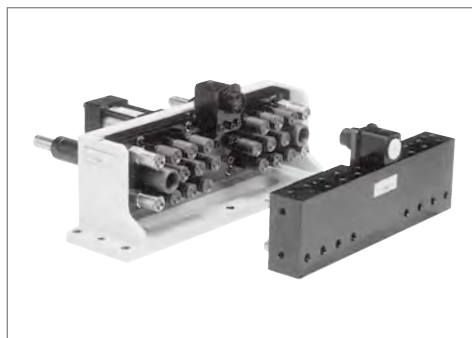


MACHINING DIMENSIONS

Size	02	03	04	06	08
φK	φ25H8 ^{+0.033} ₀	φ28H8 ^{+0.033} ₀	φ34H8 ^{+0.039} ₀	φ45.5H8 ^{+0.039} ₀	φ51H8 ^{+0.046} ₀
M	M24×1.5	M27×1.5	M33×1.5	M45×1.5	M50×1.5
Q	Over 12.5	Over 13.5	Over 15.5	Over 19.5	Over 22.5
R	Over 15.5	Over 16.5	Over 18.5	Over 22.5	Over 25.5
S	3.5	3.5	3.5	4	4
T	2	2	2	2.5	2.5

MULTI-AUTO JOINT

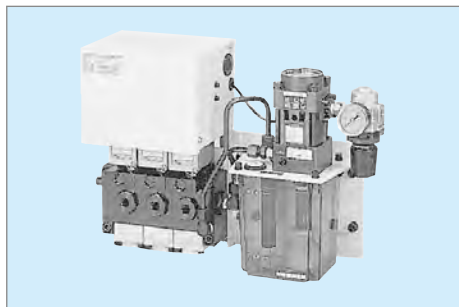
JL Autojoints of different sizes can be assembled into one unit. Please contact us for more detailed information.



HYDRAULIC UNIT

for GB, GE and GM CLAMP

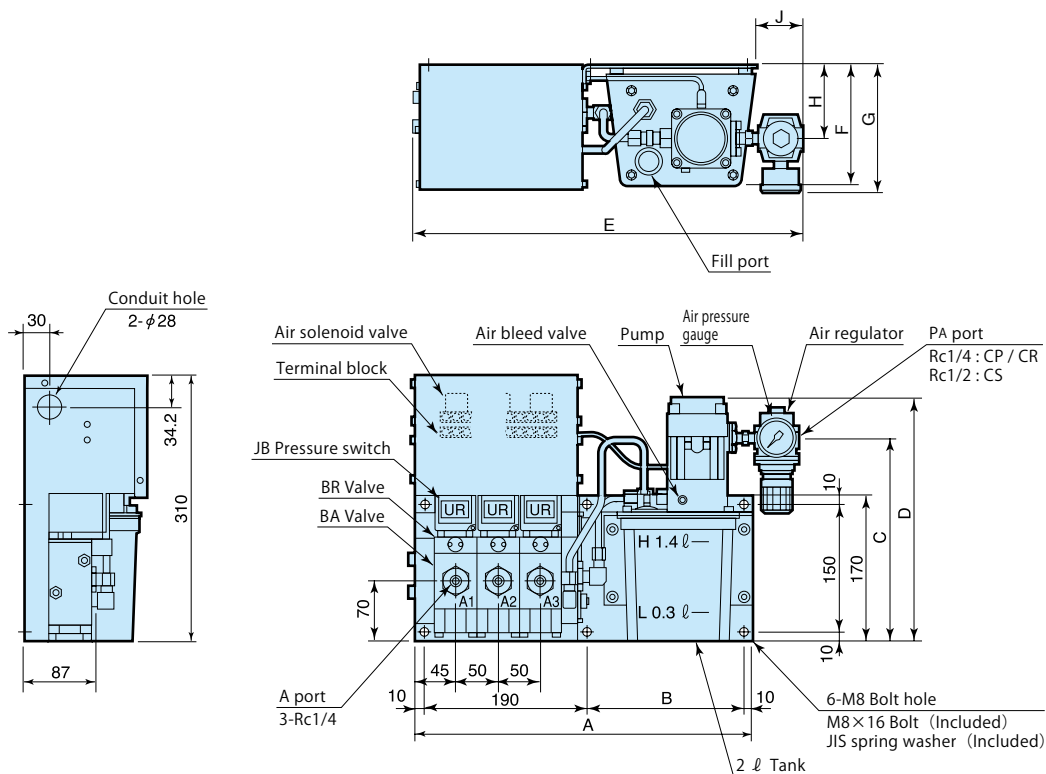
This is a compact hydraulic unit consisting of pump, valves, pressure relief valve and pressure switch with working pressure of 24.5MPa.



SPECIFICATIONS

Model		CP20N1-URURUR-50	CR5N31-URURUR-50	CS50N0-URURUR-50
Operating pressure		24.5MPa		
Design pressure		36.8MPa		
Tank capacity		2 ℓ (H.L.-L.L. 950 cm³)	5 ℓ (H.L.-L.L. 1920 cm³)	
Controlling voltage		DC24V		
Pump	Model	AB7000-0	AD7300-0	AC7000-0
	Discharge pressure	22.5MPa (Air pressure at 0.41MPa)		22.5MPa(Air pressure at 0.44MPa)
	Discharge volume under no load	1.33 ℓ /min		2.78 ℓ /min
	Air consumption	0.4 Nm³/min		1.0 Nm³/min
Valve	Model	BA5R11-0		
Pressure switch	Model	JB2800-M0		
	Set pressure	INC.17.6MPa		
Pressure relief valve	Model	BR5N11-0		
	Relief pressure	24.5 ^{+ 2.45} ₀ MPa		

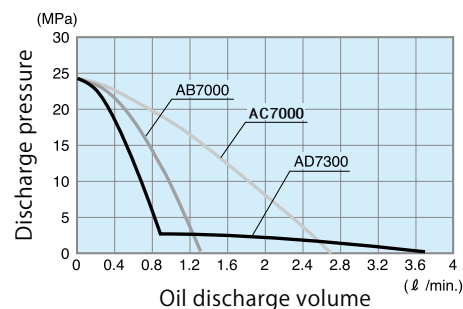
OUTLINE (This drawing shows the CP20N1-URURUR-50.)



OUTLINE DIMENSIONS

Model	CP20N1-URURUR-50	CR5N31-URURUR-50	CS50N0-URURUR-50
A	395		500
B	185		290
C	239.5	288	321
D	287	335.5	381
E	459	509	588
F	140	160	169
G		148	188
H		85	79
J	55	0	79

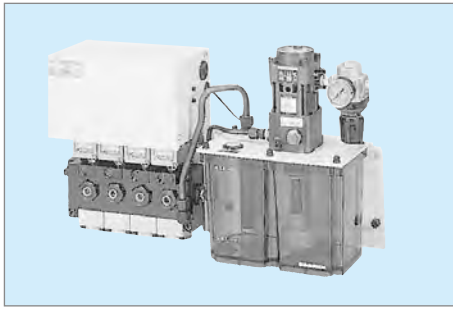
PERFORMANCE CURVE of PUMP



HYDRAULIC UNIT

for GWA / GLA CLAMP

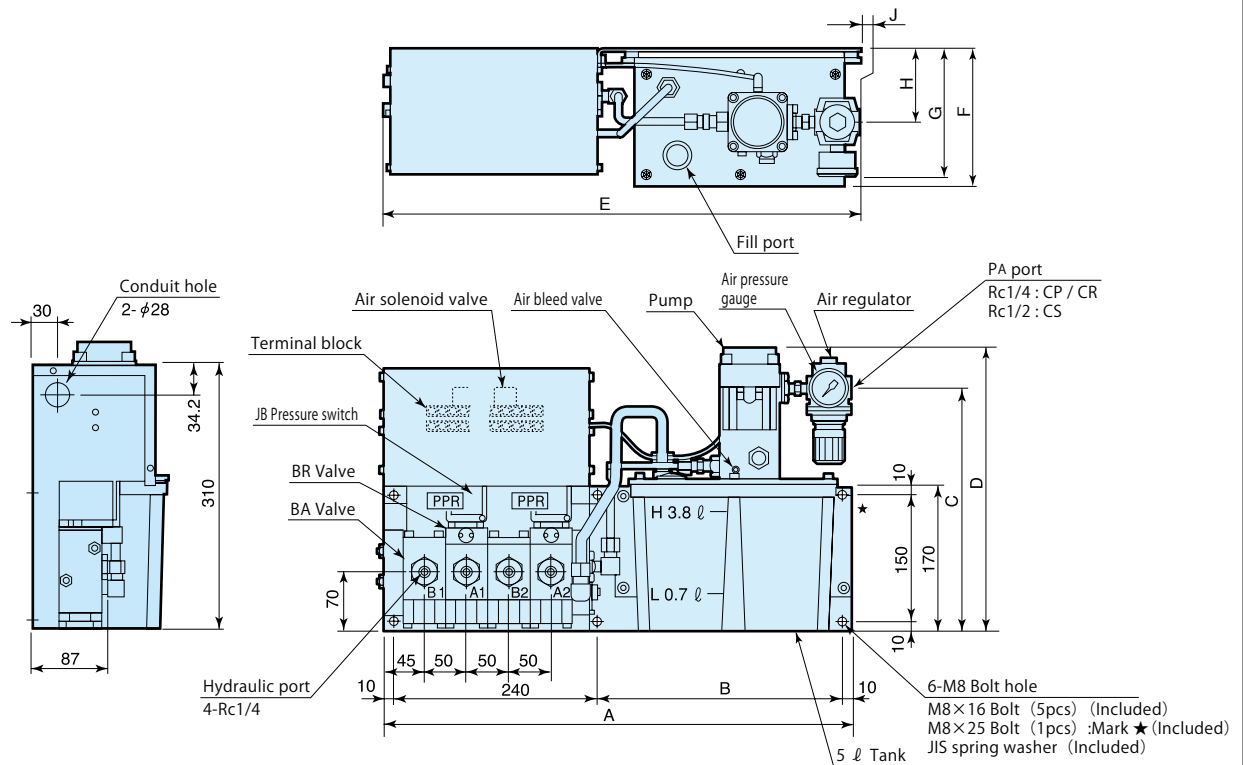
This is a compact hydraulic unit for GWA clamp, GLA clamp with working pressure of 13.7MPa.



SPECIFICATIONS

Model		CP20L1-PPRPPR-50	CR5L31-PPRPPR-50	CS50L0-PPRPPR-50
Operating pressure		13.7MPa		
Design pressure		36.8MPa		
Tank capacity		2 ℓ (H.L.-L.L.950cm³)	5 ℓ (H.L.-L.L.1920cm³)	
Controlling voltage		DC24V		
Pump	Model	AB6000-0	AD6300-0	AC6000-0
	Discharge pressure	12.7MPa (Air pressure at 0.37MPa)		12.7MPa (Air pressure at 0.40MPa)
	Discharge volume under no load	1.82 ℓ /min		4.47 ℓ /min
	Air consumption	0.4 Nm³/min		1.0 Nm³/min
Valve	Model	BA5011-0, BA5R11-0		
Pressure switch	Model	JB2800-M0		
	Set pressure	INC.9.8MPa		
Pressure relief valve	Model	BR5L11-0		
	Relief pressure	13.7 ^{+1.96} ₀ MPa		

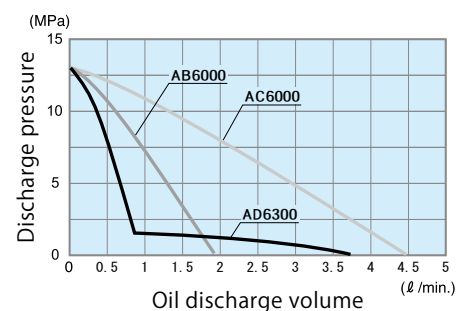
OUTLINE (This drawing shows the CR5L31-PPRPPR-50.)



OUTLINE DIMENSIONS

Model	CP20L1-PPRPPR-50	CR5L31-PPRPPR-50	CS50L0-PPRPPR-50
A	445	550	
B	185	290	
C	239.5	288	321
D	287	335.5	381
E	509	560	639
F	140	160	169
G		148	188
H		85	79
J	55	0	79

PERFORMANCE CURVE of PUMP



HYDRAULIC UNIT

for LARGE CLAMP

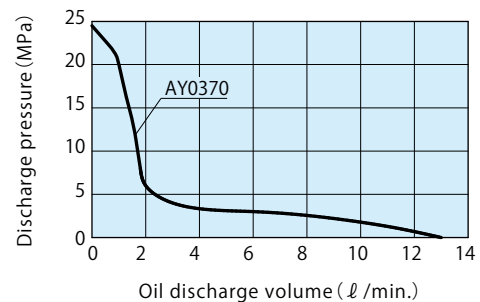
This is a hydraulic unit for large systems to reduce clamping time.

for large GB and GE clamp

SPECIFICATIONS

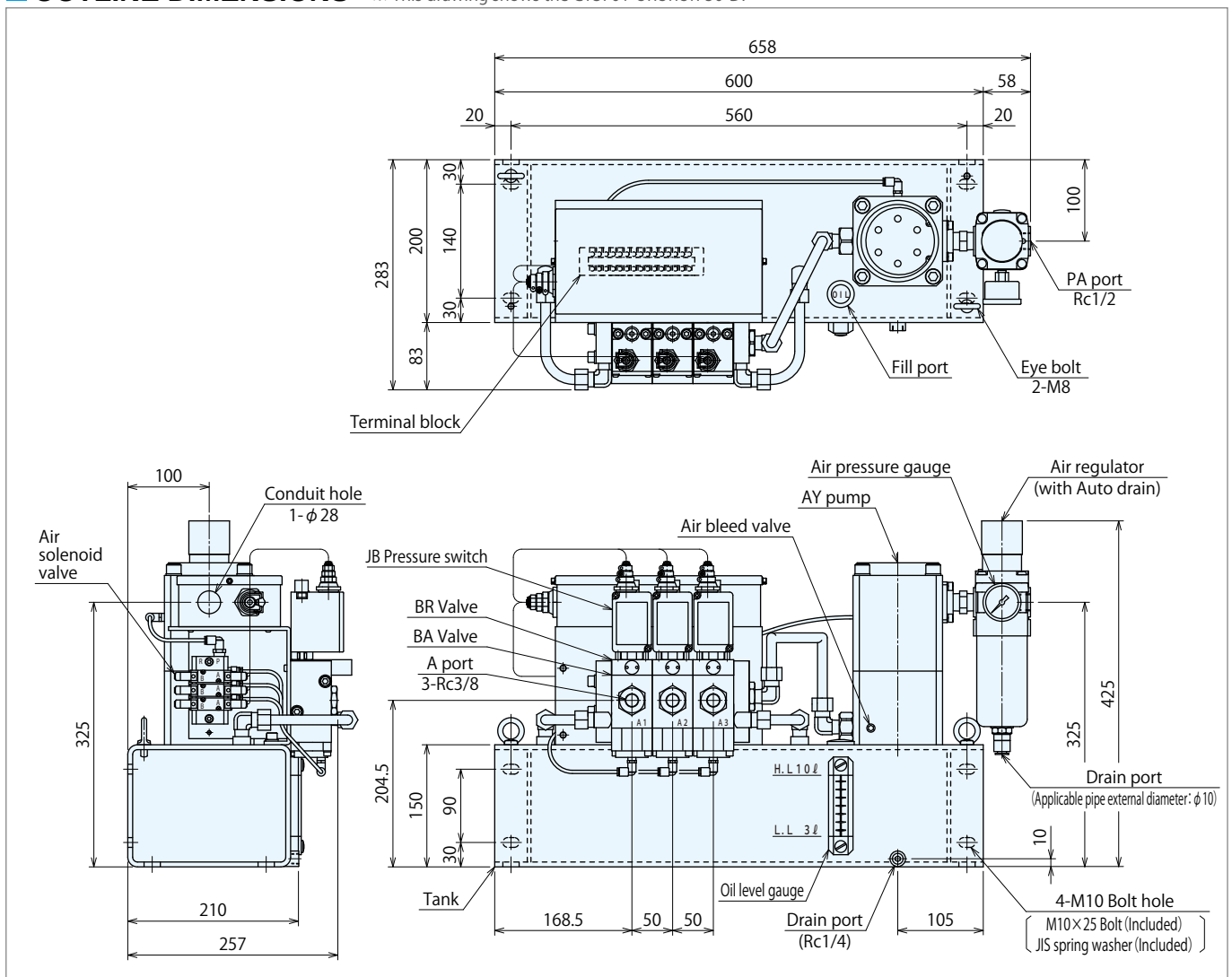
Model		CY3701-URURUR-50-D
Operating pressure		24.5MPa
Design pressure		36.8MPa
Tank capacity		13 ℓ (H.L.-L.L. 7 ℓ)
Controlling voltage		DC24V
Pump	Model	AY0370-0
	Set discharge pressure	22.5MPa (When air pressure is 0.43MPa)
	Discharge volume under no load	12.5 ℓ /min
Valve	Model	BA5R01-0-Z00108
Pressure switch	Model	JB2800-M0
	Set pressure	INC. 17.6MPa
Pressure relief valve	Model	BR5N11-0
	Relief pressure	24.5 ^{+2.45} ₀ MPa

PERFORMANCE CURVE of PUMP



OUTLINE DIMENSIONS

※ This drawing shows the CY3701-URURUR-50-D.

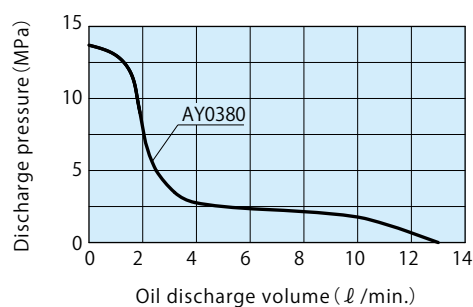


for large GWA and GLA clamp

SPECIFICATIONS

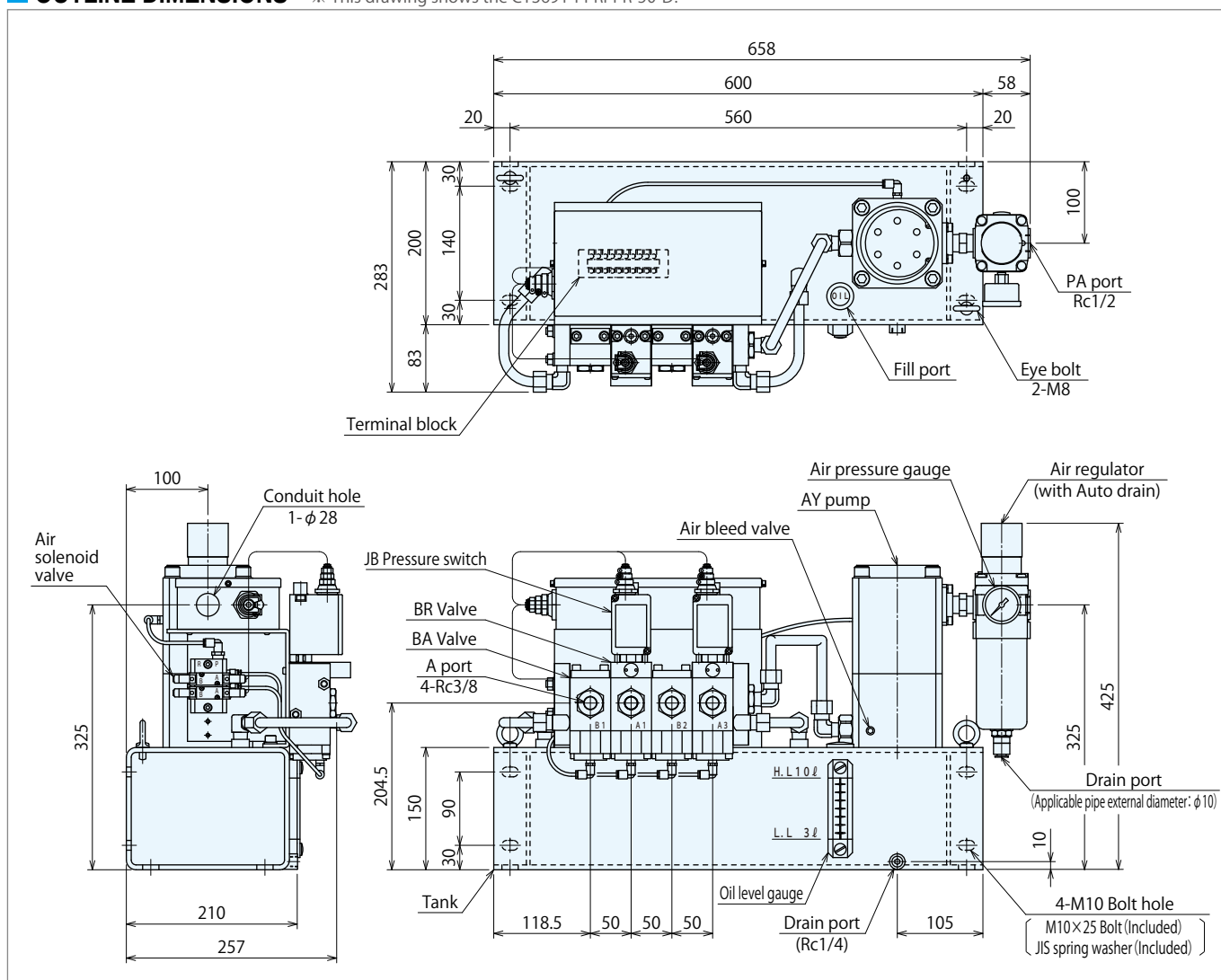
Model	CY3691-PPRPPR-50-D	
Operating pressure	13.7MPa	
Design pressure	36.8MPa	
Tank capacity	13 ℓ (H.L.-L.L. 7 ℓ)	
Controlling voltage	DC24V	
Pump	Model	AY0380-0
	Set discharge pressure	12.7MPa (When air pressure is 0.41MPa)
	Discharge volume under no load	12.5 ℓ /min
Valve	Model	BA5001-0-Z00107 • BA5R01-0-Z00108
Pressure switch	Model	JB2800-M0
	Set pressure	INC. 9.8MPa
Pressure relief valve	Model	BR5L11-0
	Relief pressure	13.7 ^{+1.96} ₀ MPa

PERFORMANCE CURVE of PUMP



OUTLINE DIMENSIONS

※ This drawing shows the CY3691-PPRPPR-50-D.



CONTROL VALVE FOR GWA/GLA CLAMP HYDRAULIC POWER FROM I.M.M.

This unit is used when the hydraulic source is the I.M.M.

The lock circuit of the GWA clamp, GLA clamp is equipped with a pressure relief valve.

MODEL CODE

MV 002 1 - 5 - W - N

① ② ③ ④

Design No.

① Size code

001: Hydraulic pressure at 13.7MPa
002: Hydraulic pressure at 13.7 ~ 20.6MPa
006: Hydraulic pressure at 13.7 ~ 20.6MPa

② Valve control voltage

1 : AC100V
2 : AC200V
3 : AC110V
4 : AC220V
5 : DC 24V

③ Options

Blank : Standard
W : With pressure compensating valve ^{※1}

④ Special symbols

Blank : Standard
N : NPT port ^{※2}

※1. Standard valve unit has a pressure compensating valve only at lock circuit side.

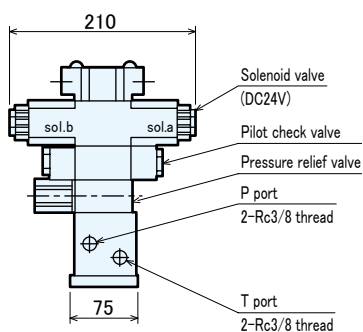
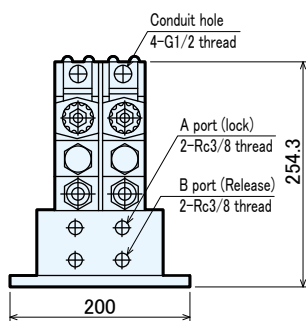
When this symbol is designated, another valve is added to release circuit side.

※2. When "N" is selected from the special symbols, an adapter for NPT connection is added.

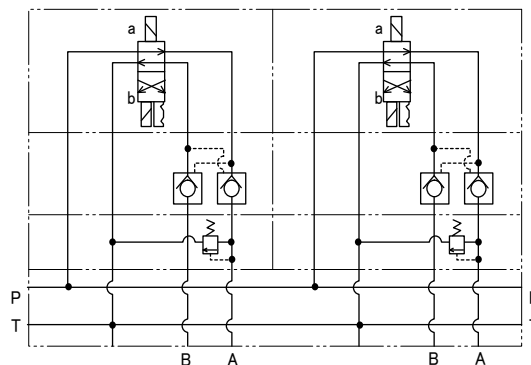
And dimensions in documents such as specifications are indicated in inch.

OUTLINE

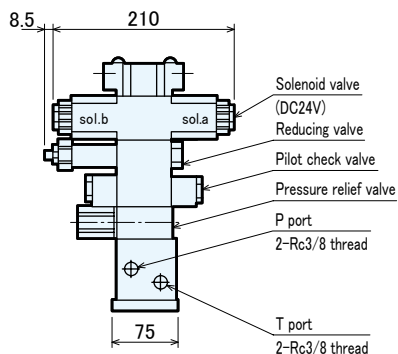
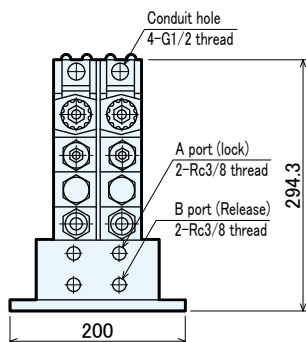
MV0011-5 (Hydraulic pressure at 13.7MPa)



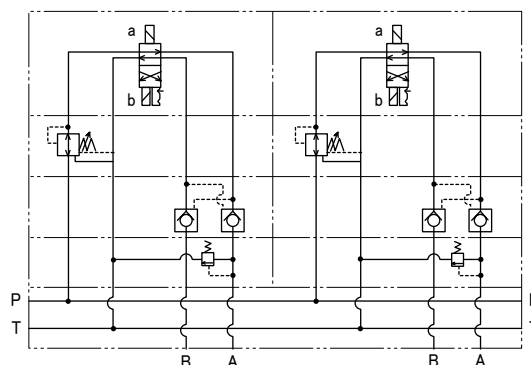
CIRCUIT DIAGRAM



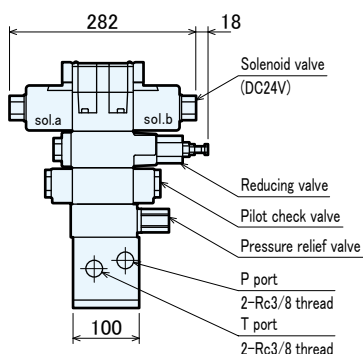
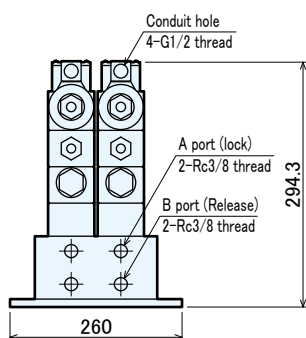
MV0021-5 (Hydraulic pressure at 13.7 ~ 20.6MPa)



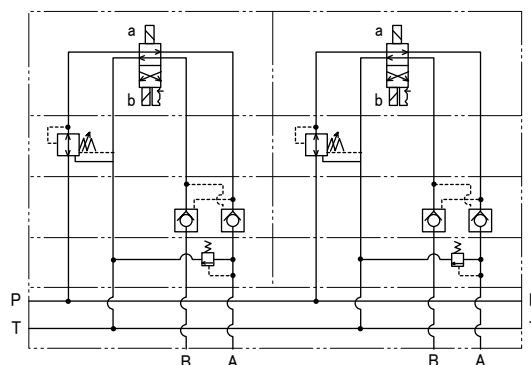
CIRCUIT DIAGRAM



MV0061-5 (Hydraulic pressure at 13.7 ~ 20.6MPa)



CIRCUIT DIAGRAM



AIR VALVE UNIT

FOR GE, GM-S and GLA CLAMP

This air valve controls the movement of clamps.

MODEL CODE

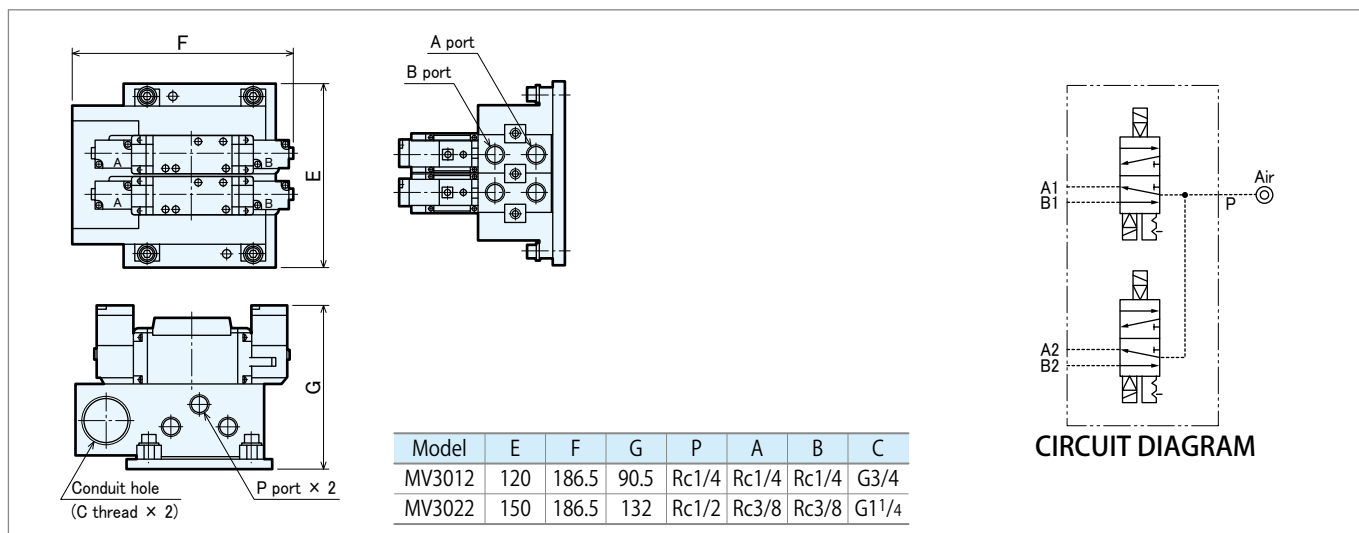
MV 302 2 - 3 5 - N

① ② ③ ④

Design No.

- ① Size code
301 : For small and medium clamps
302 : For large clamps
※ Consult us when a large number of clamps are used.
- ② Number of control circuits
1 : Valve circuit of upper or lower die only
2 : 2 circuits; for upper and lower dies or cross circuit
3 : 3 circuits; for upper die cross circuit and one lower
※ Please refer other than the above.
- ③ Valve control voltage
1 : AC100V
2 : AC200V
5 : DC 24V
- ④ Special symbols
Blank : AC100V
N : ※1
※1. When "N" is selected from the options,
dimensions are described in inch in documents
such as the specifications.

OUTLINE DIMENSIONS



MOLD CHANGER

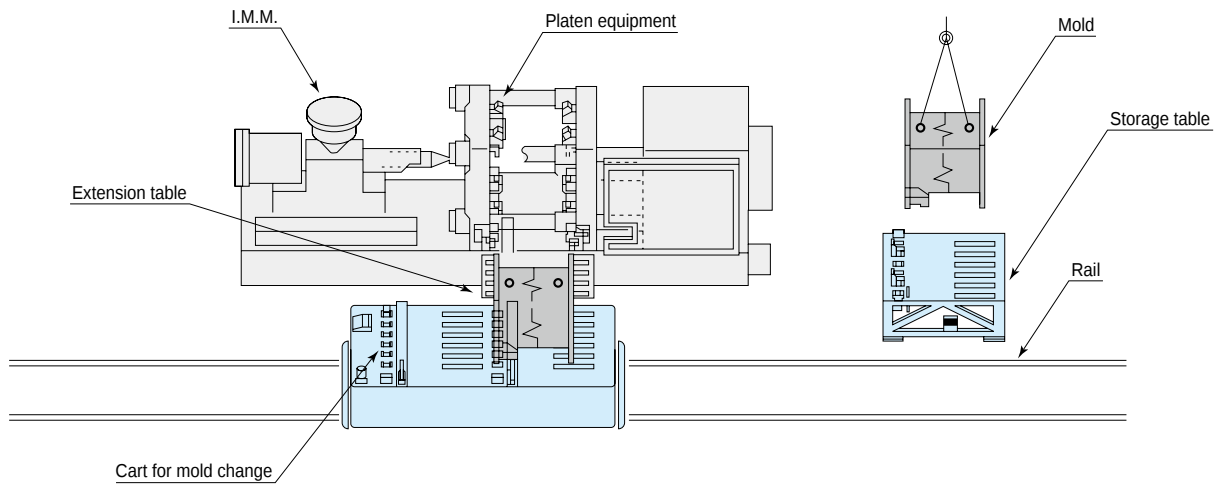
ADVANTAGES

INCREASED
PRODUCTIVITY

SAFE MOLD
HANDLING

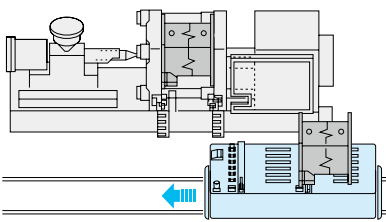
ENABLES DIVERSIFIED AND
SMALL-LOT PRODUCTION

BASIC STRUCTURE

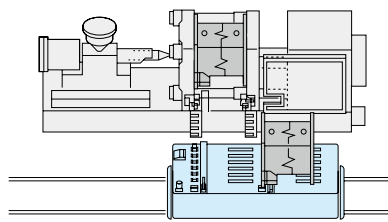


SEQUENCE

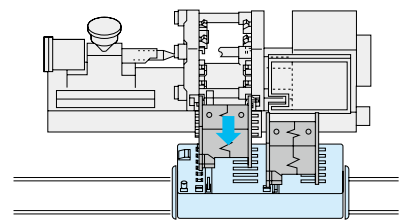
① CART TRAVELS



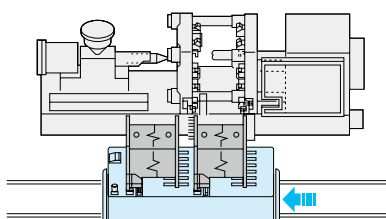
② CART IN POSITION



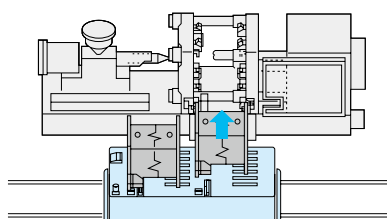
③ MOLD UNLOADING



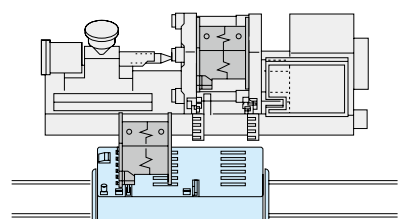
④ CART SHIFTS ONE PITCH



⑤ MOLD LOADING

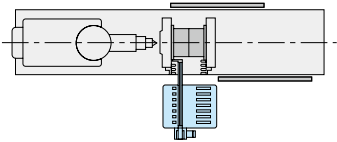


⑥ OPERATION FINISHED

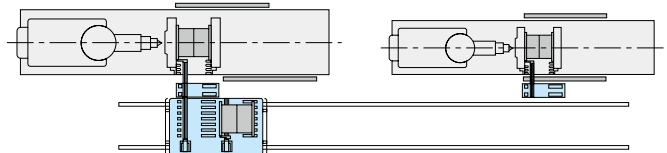


APPLICATIONS

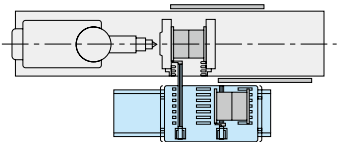
TABLE FOR MOLD CHANGE



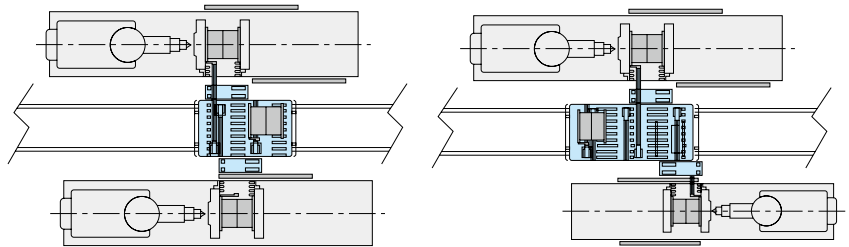
SINGLE SIDE CART FOR MOLD CHANGE



SINGLE SIDE CART FOR MOLD CHANGE (ONE PITCH)



DOUBLE SIDE CART FOR MOLD CHANGE



I.M.M.s Face same direction

I.M.M.s Face opposite directions

REQUISITE CONDITIONS OF MOLDS

① Mold dimensions must be standardized

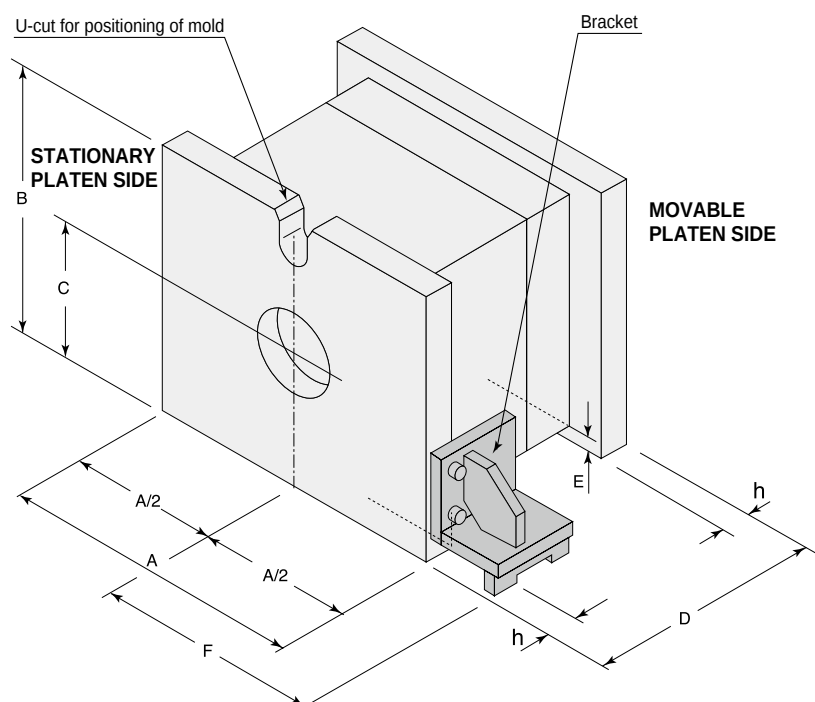
B: height of molds

h: Clamping height

F: Distance between the center and bracket ledge

② U-cut for positioning of mold stationary platen side

③ Bracket on mold



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