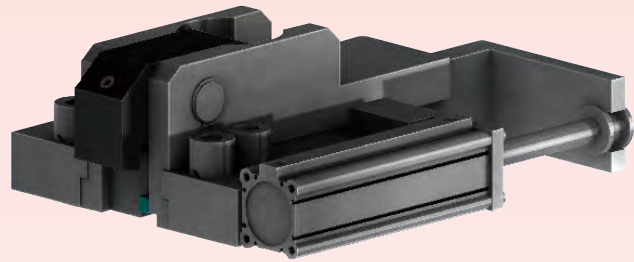


Hydraulic Clamp

Automatic Block-Slide

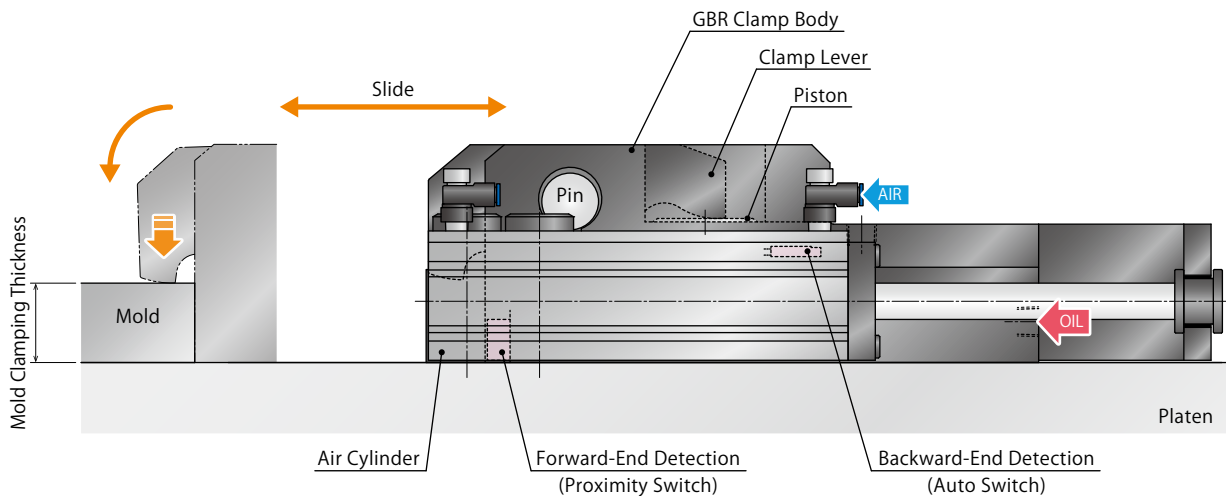
Model GBR



Hydraulic Clamp for an IMM without T-Slot

Most suitable for inaccessible area or non-operation side.
Clamp movement is completely automated.

Action Description



Locked State

GBR clamp moves forward with the air supply to the air cylinder.
Supply hydraulic pressure after mold detection of proximity switch.
The piston is lifted up, and the clamp lever pivots on the pin and locks the mold.

Forward End Detection ON
Backward End Detection OFF

Released State

When hydraulic pressure is released, the piston descends with built-in spring force and the clamp lever is at released state.
After that, supply the air to the air cylinder and GBR clamp moves backward automatically. (The backward-end detection switch detects that the GBR clamp moves backward.)

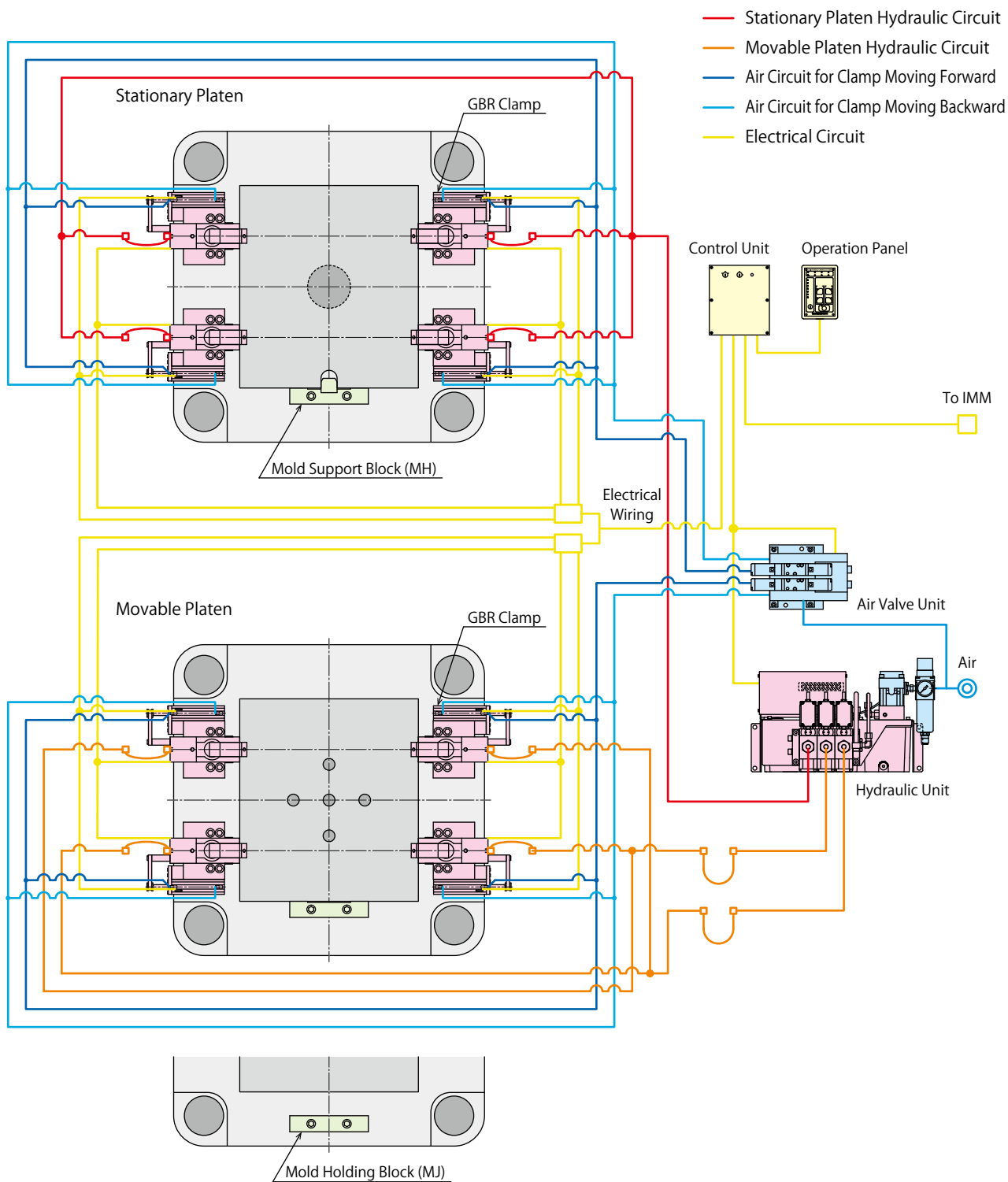
Forward End Detection OFF
Backward End Detection ON

System Structure Example

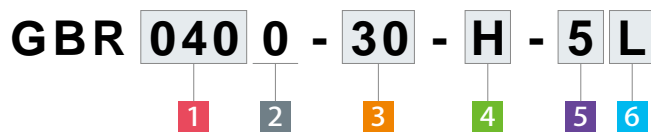
The basic structure with GBR clamp that is slid automatically in the fixed block by the air cylinder.

This system is able to control one stationary platen circuit and two movable platen circuits with a three-circuit hydraulic unit.

- Hydraulic Clamp : GBR Clamp
- Hydraulic Unit : CP□□ Unit
- Air Valve Unit : MV30□2 Valve Unit



Model No. Indication



1 Clamping Force

- 025 : Clamping Force= 25kN
- 040 : Clamping Force= 40kN
- 063 : Clamping Force= 63kN
- 100 : Clamping Force= 100kN
- 160 : Clamping Force= 160kN

2 Design No.

0 : Revision Number

3 Mold Clamping Thickness

- 30 : Mold Clamping Thickness h=30mm
- 50 : Mold Clamping Thickness h=50mm

4 Option ※ Please contact us for specifications/external dimensions.

- H : Extra Height Body (When h dimension is more than max. h dimension shown in the external dimension.)
- L□ : Wide Lever (For U-Cut of Mold) ※¹
- N : NPT Port ※²
- V : High Temperature (0~120°C)
- X : With Cover

Notes

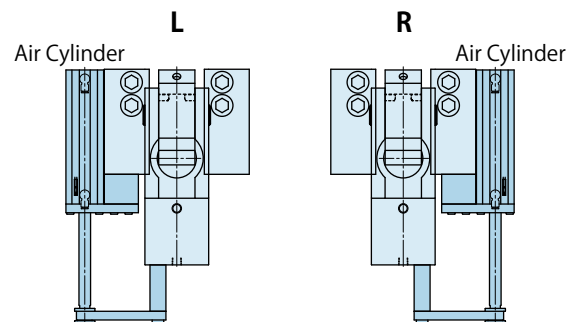
- ※1. Please indicate the U-cut dimension of the mold.
- ※2. Dimensions in the specification sheet and other documents are in inches.

5 Switch Load Voltage (Current)

5 : DC24V (5~40mA)

6 Air Cylinder Mounting Position

- L : Left (Left Side as Seen from Clamp Back Side)
- R : Right (Right Side as Seen from Clamp Back Side)



Notes

- 1. Please contact us for specifications and external dimensions for these options.
- 2. Allowable range of mold clamping thickness differs depending on the clamping force.

Specifications

Model No.		GBR0250	GBR0400	GBR0630	GBR1000	GBR1600
Clamping Force	kN	25	40	63	100	160
Working Pressure	MPa	25 (For Rated Clamp Force)				
Withstanding Pressure	MPa	37				
Actual Slide Stroke	mm	50	75	100	125	150
Full Stroke	mm	10	12	15	15.5	16
Clamp Stroke	mm	1.5	3.5	1.5	1.5	2
Extra Stroke	mm	8.5	8.5	13.5	14	14
Cylinder Capacity (At Full Stroke)	cm ³	10	19	38	63	105
Operating Air Pressure	MPa	0.4~0.5				
Operating Temperature ^{※3} °C		0~70 (High temperature option is available for 0~120°C)				
Use Frequency ^{※4}		Less than 20 Cycles / Day				
Pressurizing Agent ^{※5 ※6 ※7}		General Hydraulic Oil Equivalent to ISO-VG-32				

Notes

- ※3. Option V: High Temperature (0~120°C) is for operating in temperatures of 70°C or more.
- ※4. Please contact us for more frequent use.
- ※5. Please contact us for fluids other than those mentioned on the list.
- ※6. If hydraulic viscosity is higher than specified, action time will be longer.
- ※7. If using it at low temperature, action time will be longer because the viscosity of hydraulic oil becomes higher.

Allowable Range of Mold Clamping Thickness

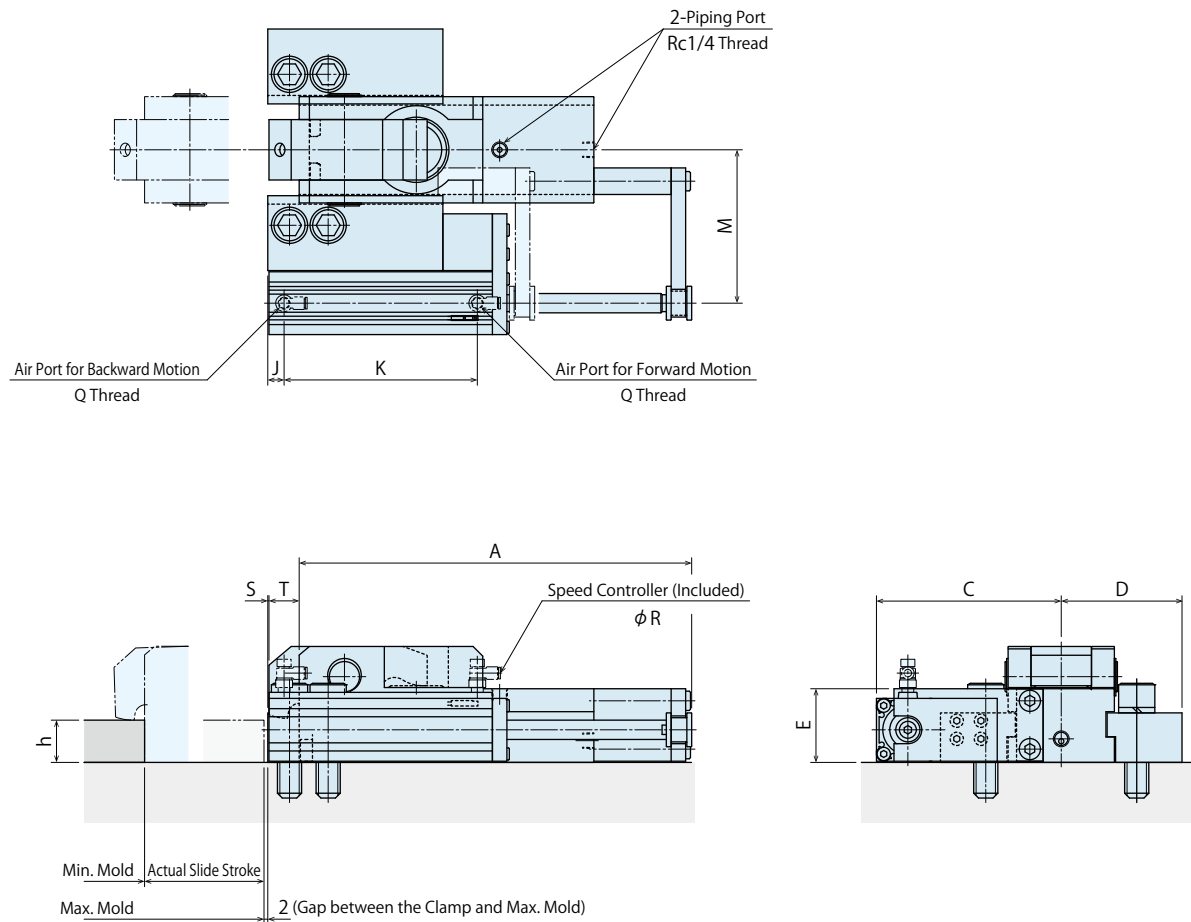
Mold Clamping Thickness	h Dimension	GBR0250	GBR0400	GBR0630	GBR1000	GBR1600
25		20~25	-	-	-	-
30		25~30	25~30	-	-	-
35		30~35	30~35	25~35	-	-
40		35~40	35~40	30~40	-	-
45		40~45	40~45	35~45	35~45	-
50		-	45~50	40~50	40~50	40~50
55		-	-	45~55	45~55	45~55
60		-	-	50~60	50~60	50~60
65		-	-	55~65	55~65	55~65
70		-	-	-	60~70	60~70
75		-	-	-	65~75	65~75
80		-	-	-	70~80	70~80

Note:

1. When selecting **3** Option N, the mold clamping thickness h dimension will be converted into millimeters .

External Dimensions

- ※ This drawing shows GBR0250 ~ GBR1600 standard model.
Contact us for external dimensions for options.
Please refer to GBM clamp pages (p. 31-36) for details of clamp body.



Notes

1. Do not exceed the clamping force on the specification.
2. Specifications/Contents in this catalog are subject to change without prior notice. Ask for the approval drawing before deciding to purchase.

External Dimensions

(mm)

Model No.	GBR0250	GBR0400	GBR0630	GBR1000	GBR1600
Actual Slide Stroke	50	75	100	125	150
Full Stroke	10	12	15	15.5	16
Clamp Stroke	1.5	3.5	1.5	1.5	2
Extra Stroke	8.5	8.5	13.5	14	14
A	186	235.5	325	386	438
C	109	121.5	153	191	222
D	62.5	75	100	125	142.5
E	47	47	61	76	81
J	8.5	8.5	13.5	15.5	18.5
K	90	115	160	187.5	209
M	86	98.5	127	158.5	182
Q	Rc1/8	Rc1/8	Rc1/8	Rc1/4	Rc1/4
R	φ6	φ6	φ6	φ10	φ10
S	1	0.5	1	1	1
T	21	22	25	30	30
min. h	20	25	25	35	40
max. h	45	50	65	80	80

Note:

1. If you would like to change the ratio of clamp stroke and extra stroke, please contact us.

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