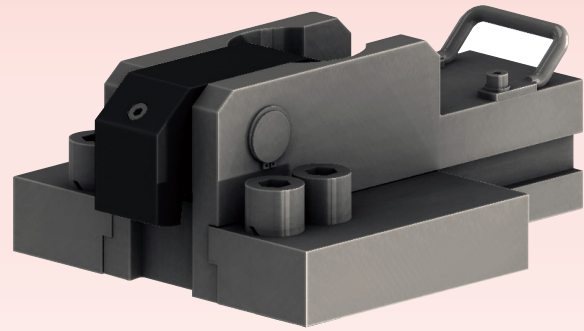


# Hydraulic Clamp

Manual Block-Slide

Model GBM

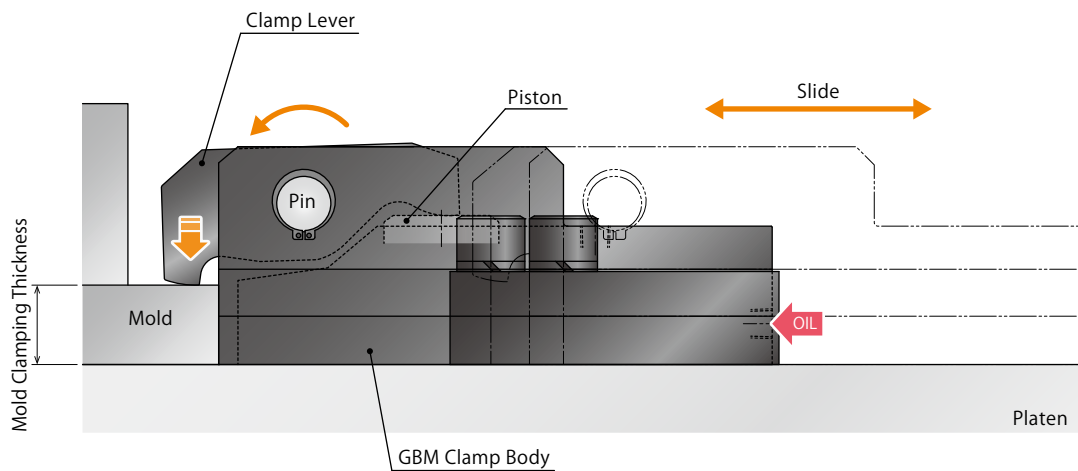


## Hydraulic Clamp for an IMM without T-Slot

Suitable for Non-Standardized Mold Widths

Longer stroke allows for variation in mold clamping thicknesses.

### Action Description



#### Locking Operation

Slide GBM clamp to the mold by hand.  
When hydraulic pressure is supplied,  
the piston lifts up, and the clamp lever  
pivots on the pin and locks the mold.

#### Releasing Operation

When hydraulic pressure is released,  
the piston descends with built-in spring  
force, and the clamp lever becomes  
released state with the lever return spring.  
Slide GBM clamp back by hand.

## System Structure Example

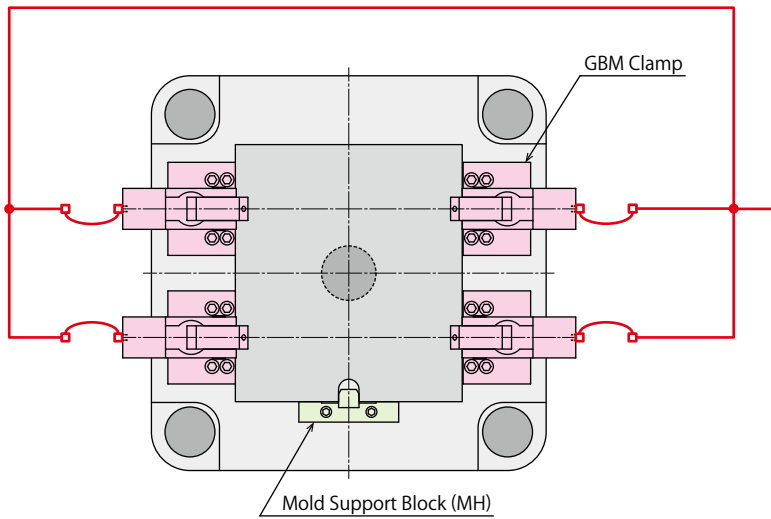
The basic structure with GBM clamp that is slid manually in the fixed block.

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

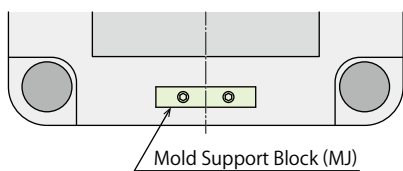
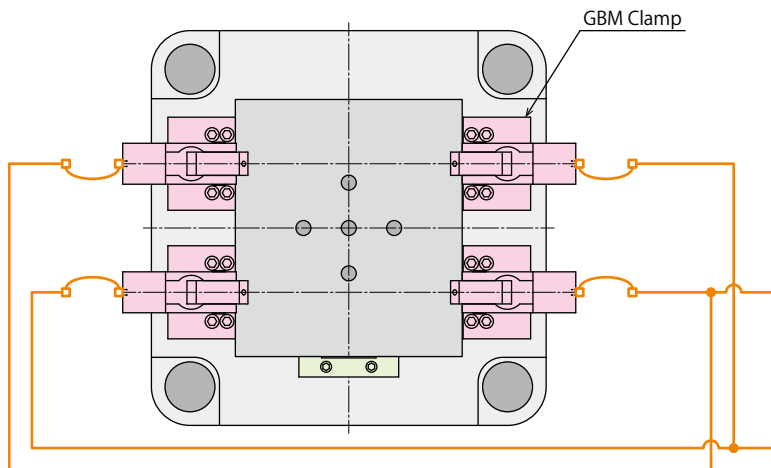
Hydraulic Clamp : GBM Clamp

Hydraulic Unit : CP□□ Unit

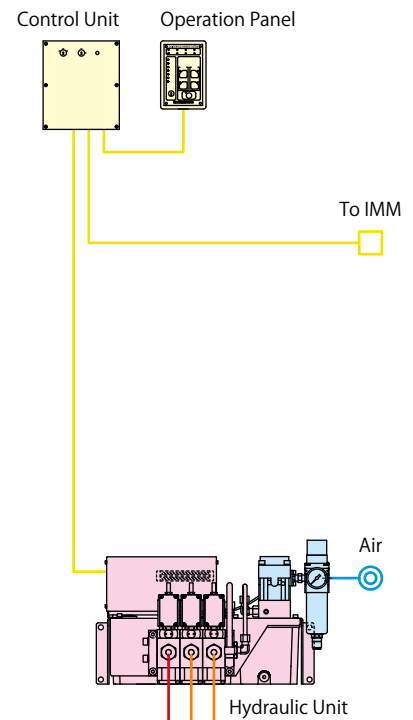
Stationary Platen



Movable Platen



- Stationary Platen Hydraulic Circuit
- Movable Platen Hydraulic Circuit
- Electrical Circuit



## Model No. Indication

**GBM** **040** **0** - **30** - **P** - **5**

1   2   3   4   5

### 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) ※<sup>1</sup>
- N** : NPT Port ※<sup>2</sup>
- P** : With Mold Confirmation Proximity Switch
- V** : High Temperature (0~120°C)
- X** : With Cover

Notes :

- ※1. Please specify the U-cut dimension of the mold.
- ※2. Dimensions in the specification sheet and other documents are in inches. Only mold clamping thickness is indicated by the symbol which is converted into millimeters.

### 5 Switch Load Voltage (Current) Enter this only when selecting Option 3 **P** : With Mold Confirmation Proximity Switch.

- 5** : DC24V (5~40mA)

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.  |                 | GBM0250  | GBM0400 | GBM0630 | GBM1000 | GBM1600 |
|--|-----------------|--|---------|---------|---------|---------|
| 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      |
| Allowable Thickness Variance of Mold Back-Plate        | mm              | 5  | 5       | 10      | 10      | 10      |
| Cylinder Capacity (At Full Stroke)                     | cm <sup>3</sup> | 10   | 19      | 38      | 63      | 105     |
| Operating Temperature <sup>※3</sup> °C                 |                 | 0~70 (V: High temperature option is available for 0~120°C) |         |         |         |         |
| Use Frequency <sup>※4</sup>                            |                 | Less than 20 Cycles / Day                                  |         |         |         |         |
| Usable Fluid <sup>※5</sup> <sup>※6</sup> <sup>※7</sup> |                 | 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

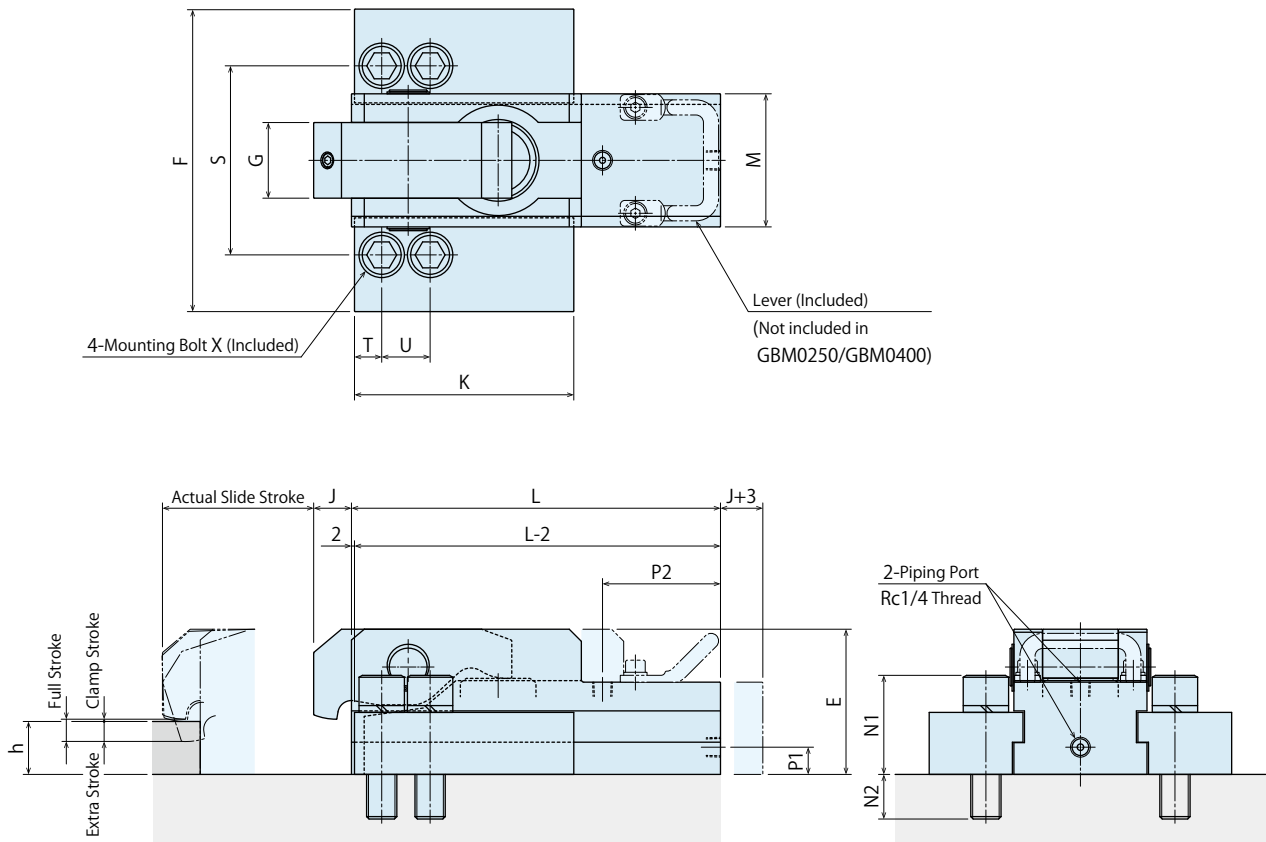
| Mold Clamping Thickness h Dimension | GBM0250 | GBM0400 | GBM0630 | GBM1000 | GBM1600 |
|-------------------------------------|---------|---------|---------|---------|---------|
| 25                                  | 20~25   | -       | -       | -       | -       |
| 30                                  | 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 **4** Option **N**, the mold clamping thickness h dimension will be converted into millimeters .

External Dimensions

※ This drawing shows GBM0250 ~ GBM1600 standard model.  
Contact us for external dimensions for these options.



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 Dimension List

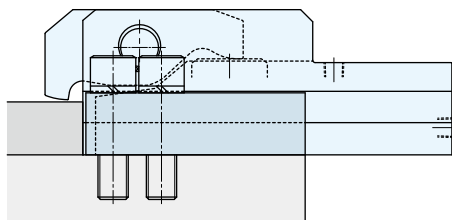
(mm)

| Model No.                                       | GBM0250         | GBM0400      | GBM0630        | GBM1000      | GBM1600         |
|---|-----------------|--------------|----------------|--------------|-----------------|
| 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              |
| Allowable Thickness Variance of Mold Back-Plate | 5               | 5            | 10             | 10           | 10              |
| E   | 73              | 83           | 96             | 130.5        | 143             |
| F   | 125             | 150          | 200            | 250          | 285             |
| G   | 32              | 38           | 50             | 53           | 60              |
| J   | 21              | 22           | 25             | 30           | 30              |
| K   | 95              | 115          | 145            | 190          | 225             |
| L   | 145             | 190          | 244            | 312          | 372             |
| M   | 58              | 68           | 88             | 97           | 117             |
| N1  | 45.2            | 57           | 65.5           | 76           | 91.3            |
| N2  | 16.8            | 24           | 29.5           | 38           | 48.7            |
| P1  | 18              | 20           | 18             | 28           | 24.5            |
| P2  | 37              | 55           | 78             | 108          | 128             |
| S   | 80              | 100          | 125            | 150          | 175             |
| T   | 12              | 15           | 18             | 23           | 30              |
| U   | 20              | 25           | 32             | 40           | 50              |
| X   | M12 x 1.75 x 50 | M16 x 2 x 65 | M20 x 2.5 x 75 | M24 x 3 x 90 | M30 x 3.5 x 110 |
| 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.

## GBM Clamp The Allowable Protrusion Amount



The guide block should be within the platen.

### Note :

1. The guide block of GBM clamp should be within the platen when mounting.

# Sales Offices

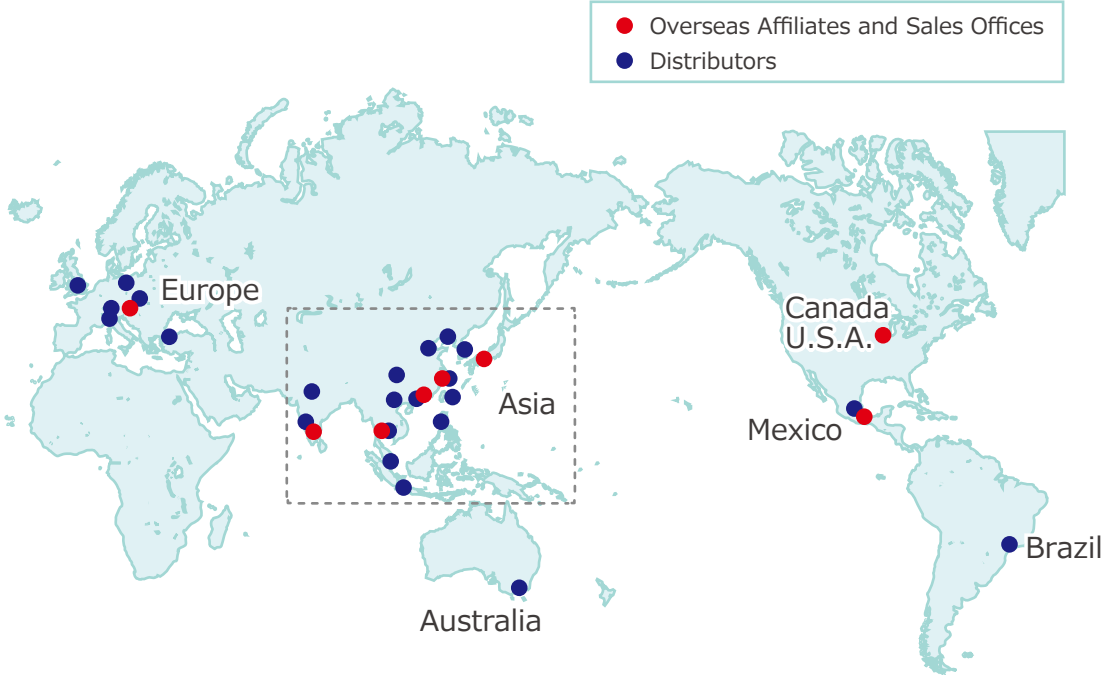
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