Hydraulic Clamp
Longer Stroke / T-Slot Manual-Slide

Model GBC

Longer stroke allows for variation in mold clamping thicknesses.
Single Hydraulic Circuit with Basic and Simple Circuit Structure
We offer a wide range of options to meet your needs.

 disadvantage

Standard Clamp
Requires a spacer at the mold clamping site in order to standardize the thickness.

<table>
<thead>
<tr>
<th>Clamping Thickness</th>
<th>50mm</th>
<th>45mm</th>
<th>40mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spacers</td>
<td>5 mm</td>
<td>10 mm</td>
<td></td>
</tr>
</tbody>
</table>

GBC Clamp
Is able to clamp molds with a thickness variance up to 10 mm. There is no need to install spacers and no accidents caused by incorrect spacer thickness.

<table>
<thead>
<tr>
<th>Clamping Thickness</th>
<th>50mm</th>
<th>45mm</th>
<th>40mm</th>
</tr>
</thead>
</table>

Notes:
1. We provide GBC clamp according to the mold clamping thickness and T-slot dimension. Please refer to the external dimensions for detail.
2. Mold clamping thickness varies depending on the clamp size.
System Structure Example

The basic structure with GBC clamp that is slid manually in the T-slot.
This system is able to control one stationary platen circuit and two movable platen circuits with a three-circuit hydraulic unit.

Hydraulic Clamp : GBC Clamp
Hydraulic Unit : CP□□ Unit

Stationary Platen

Mold Support Block (MH)

T-Slot Plate
GBC Clamp

Movable Platen

Mold Holding Block (MJ)

Control Unit
Operation Panel

To IMM

Air

Hydraulic Unit

- Stationary Platen Hydraulic Circuit
- Movable Platen Hydraulic Circuit
- Air Circuit
- Electrical Circuit
Model No. Indication

GBC 040 0 - DP - 5 L - S

1 Clamping Force

- 010 : Clamping Force = 10kN
- 016 : Clamping Force = 16kN
- 025 : Clamping Force = 25kN
- 040 : Clamping Force = 40kN
- 063 : Clamping Force = 63kN
- 100 : Clamping Force = 100kN
- 160 : Clamping Force = 160kN
- 250 : Clamping Force = 250kN
- 400 : Clamping Force = 400kN
- 500 : Clamping Force = 500kN

2 Design No.

- 0 : Revision Number

3 Option

- D : With Handle (GBC0630 or larger)
- E : Reinforced Body
- H : Extra Height Body (When h dimension is more than max. h dimension shown in the external dimension.)
- J : Low Lever (When h dimension is less than min. h dimension shown in the external dimension.)
- K : Rear Port
- L X : Wide Lever (For U-Cut of Mold) \(^{1}\)
- N : NPT Port \(^{2}\)
- P : With Mold Confirmation Proximity Switch
- R : Longer D Dimension of T-Leg
- T : T-Slot Locking
- U : With Grease Nipple (Standard Option for GBC4000/GBC5000)
- V : High Temperature (0~120°C)
- W : With Check Valve (GBC1000 or larger)
- 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.

4 Switch Load Voltage (Current)

- 1 : AC100V
- 2 : AC200V
- 5 : DC24V (5～40mA)

5 Switch Mounting Position

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

6 Production Number

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.
Specifications

<table>
<thead>
<tr>
<th>Model No.</th>
<th>GBC0100</th>
<th>GBC0160</th>
<th>GBC0250</th>
<th>GBC0400</th>
<th>GBC0630</th>
<th>GBC1000</th>
<th>GBC1600</th>
<th>GBC2500</th>
<th>GBC4000</th>
<th>GBC5000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clamping Force kN</td>
<td>10</td>
<td>16</td>
<td>25</td>
<td>40</td>
<td>63</td>
<td>100</td>
<td>160</td>
<td>250</td>
<td>400</td>
<td>500</td>
</tr>
<tr>
<td>Working Pressure MPa</td>
<td>25 (For Rated Clamp Force)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Withstanding Pressure MPa</td>
<td>37</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full Stroke mm</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>12</td>
<td>15</td>
<td>15.5</td>
<td>16</td>
<td>16</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>Clamp Stroke mm</td>
<td>0.5</td>
<td>1</td>
<td>1.5</td>
<td>3.5</td>
<td>1</td>
<td>1.5</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2.5</td>
</tr>
<tr>
<td>Extra Stroke mm</td>
<td>7.5</td>
<td>8</td>
<td>8.5</td>
<td>8.5</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>Allowable Throat/Width/Bolt Pitch mm</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Cylinder Capacity (in Full Stroke) cm³</td>
<td>4</td>
<td>6</td>
<td>10</td>
<td>19</td>
<td>38</td>
<td>63</td>
<td>105</td>
<td>160</td>
<td>253</td>
<td>331</td>
</tr>
<tr>
<td>Operating Temperature °C</td>
<td>0<del>70 (W: High temperature option is available for 0</del>120°C)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use Frequency [4]</td>
<td>Less than 20 Cycles / Day</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Usable Fluid General Hydraulic Oil Equivalent to ISO VG-32</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Min. T-Slot Width a (in) [5][6][7] mm</td>
<td>10</td>
<td>12</td>
<td>14</td>
<td>18</td>
<td>22</td>
<td>24</td>
<td>28</td>
<td>36</td>
<td>36</td>
<td>36</td>
</tr>
<tr>
<td>Max. T-Slot Width a (in) [5][6][7] mm</td>
<td>20</td>
<td>24</td>
<td>32</td>
<td>42</td>
<td>42</td>
<td>54</td>
<td>54</td>
<td>54</td>
<td>54</td>
<td>42</td>
</tr>
</tbody>
</table>

Notes:

[3]. Option W: 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.

It shows reference dimensions. The dimension may differ from specification depending on T-slot (T-leg) dimension, dimension of clamp cylinder that sticks out of T-slot during lock action, or body material.

Option

With Handle (GBC0630 or larger) Model GBC-D

Reinforced Body Model GBC-E

Extra Height Body Model GBC-H

Low Lever Model GBC-J

Rear Port Model GBC-K

Wide Lever (For U-Cut of Mold) Model GBC-L

NPT Port Model GBC-N

Piping Port NPT Thread

With Mold Confirmation Proximity Switch Model GBC-P

Longer D-Dimension of T-Leg Model GBC-R

T-Slot Locking Model GBC-T

High Temperature 0~120°C Model GBC-V

With Check Valve (GBC1000 or larger) Model GBC-W

With Cover Model GBC-X

With Grease Nipple Model GBC-U

Note:
1. Specifications/external dimensions for these options are different from standard model. Please contact us for further information.
External Dimensions

1. This drawing shows GBC0100 - GBC2500 standard model. Contact us for external dimensions for options.

2. This drawing shows GBC4000 / GBC5000 standard model. Contact us for external dimensions for options.

3. Only T-leg part of GBC5000 is different from GBC4000. GBC5000 has two T-legs. Contact us for external dimensions for 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

<table>
<thead>
<tr>
<th>Model No.</th>
<th>GBC0100</th>
<th>GBC0160</th>
<th>GBC0250</th>
<th>GBC0400</th>
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<th>GBC1000</th>
<th>GBC1600</th>
<th>GBC2500</th>
<th>GBC4000</th>
<th>GBC5000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Stroke</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>12</td>
<td>15</td>
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<td>16.5</td>
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<tr>
<td>Clamp Stroke</td>
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<td>min. E</td>
<td>45.5</td>
<td>52</td>
<td>62</td>
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<td>127.5</td>
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<td>42</td>
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<td>69.5</td>
<td>85</td>
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<tr>
<td>S</td>
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<td>50</td>
<td>59</td>
<td>76.5</td>
<td>102</td>
<td>118.5</td>
<td>137.5</td>
<td>166.5</td>
<td>184.5</td>
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<tr>
<td>Rc</td>
<td>Rc1/8</td>
<td>Rc1/8</td>
<td>Rc1/4</td>
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<td>Rc1/4</td>
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<td>Rc3/8</td>
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<tr>
<td>min. h</td>
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<td>max. h</td>
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<td>70</td>
<td>80</td>
<td>80</td>
<td>85</td>
<td>85</td>
</tr>
</tbody>
</table>

Notes:
1. M dimension (Lever Thickness) in the drawing varies depending on variation in h dimension (Clamping Mold Thickness).
2. Please contact us for further information.
3. When making an order, please specify a, b, c, d dimension of T-slot and h dimensions of clamping mold thickness (including variation).
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