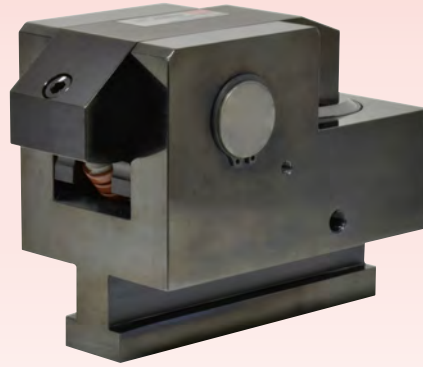


# Hydraulic Clamp

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.

● Advantage

## Standard Clamp

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

Clamping Thickness : 50mm



Clamping Thickness : 45mm



Clamping Thickness : 40mm



## 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.

Clamping Thickness : 50mm



Clamping Thickness : 45mm



Clamping Thickness : 40mm



- 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

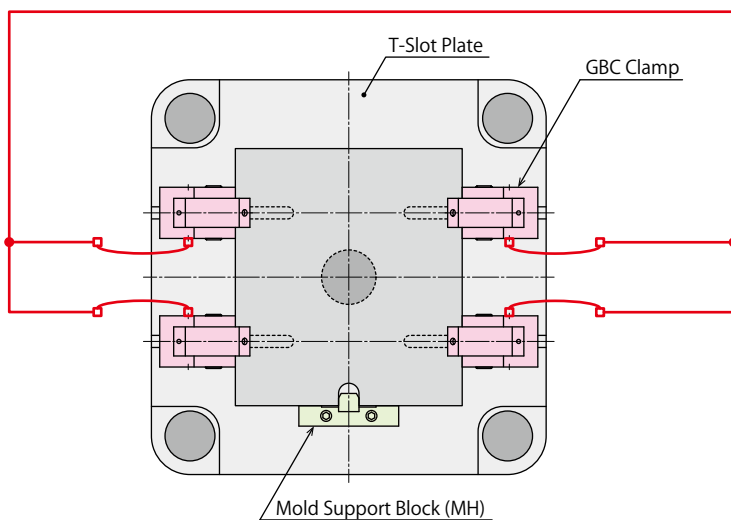
The basic structure with GBC clamp that is slid manually in the T-slot.

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

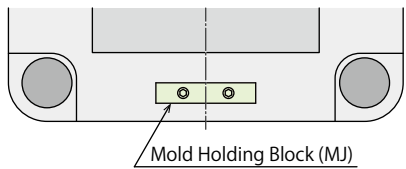
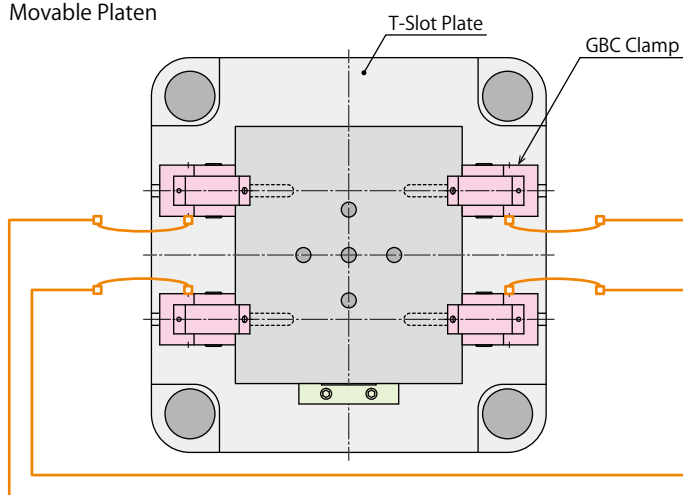
Hydraulic Clamp : GBC Clamp

Hydraulic Unit : CP□□ Unit

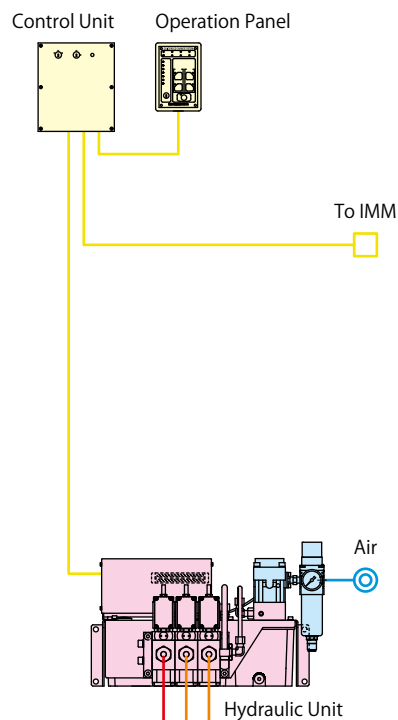
Stationary Platen



Movable Platen

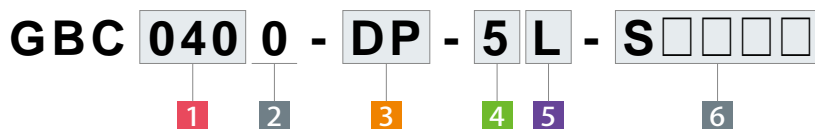


- Stationary Platen Hydraulic Circuit
- Movable Platen Hydraulic Circuit
- Air Circuit
- Electrical Circuit





Model No. Indication



**1 Clamping Force**

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

**2 Design No.**

**0** : Revision Number

**3 Option** ※ Please contact us for specifications/external dimensions.

- 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**□ : Wide Lever (For U-Cut of Mold) ※<sup>1</sup>
- N** : NPT Port ※<sup>2</sup>
- 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 indicate the U-cut dimension of the mold.
- ※2. Dimensions in the specification sheet and other documents are in inches.

**4 Switch Load Voltage (Current)**

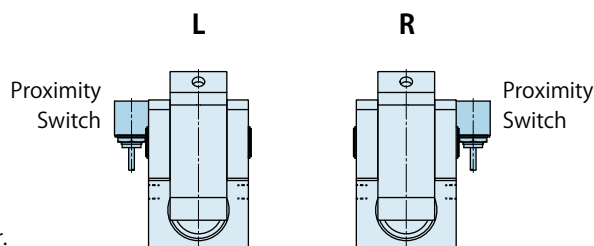
- 1** : AC100V
- 2** : AC200V
- 5** : DC24V (5~40mA)

**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.



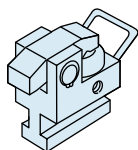
## Specifications

Model No.		GBC0100	GBC0160	GBC0250	GBC0400	GBC0630	GBC1000	GBC1600	GBC2500	GBC4000	GBC5000
Clamping Force	kN	10	16	25	40	63	100	160	250	400	500
Working Pressure	MPa	25 (For Rated Clamp Force)									
Withstanding Pressure	MPa	37									
Full Stroke	mm	8	9	10	12	15	15.5	16	16	16	16.5
Clamp Stroke	mm	0.5	1	1.5	3.5	1	1.5	2	2	2	2.5
Extra Stroke	mm	7.5	8	8.5	8.5	14	14	14	14	14	14
Cylinder Capacity (At Full Stroke)	cm <sup>3</sup>	4	6	10	19	38	63	105	160	253	331
Operating Temperature <sup>※3</sup> °C		0~70 (High temperature option is available for 0~120°C)									
Use Frequency <sup>※4</sup>		Less than 20 Cycles / Day <sup>※</sup>									
Pressurizing Agent <sup>※5 ※6 ※7</sup>		General Hydraulic Oil Equivalent to ISO-VG-32									
Min. T-Slot Width a (JIS) <sup>※8</sup> mm		10	12	14	18	22	24	28	36	36	36 (2 T-Legs)
Max. T-Slot Width a (JIS) <sup>※8</sup> mm		20	24	32	42	42	54	54	54	54	42 (2 T-Legs)

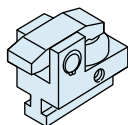
### Notes

- ※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.
- ※8. 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.

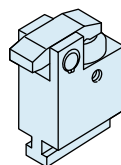
## Option



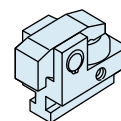
With Handle (GBC0630 or larger)  
Model **GBC-D**



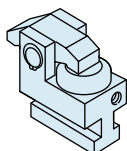
Reinforced Body  
Model **GBC-E**



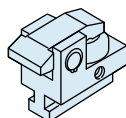
Extra Height Body  
Model **GBC-H**



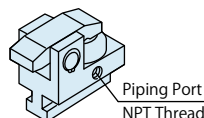
Low Lever  
Model **GBC-J**



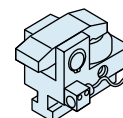
Rear Port  
Model **GBC-K**



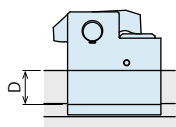
Wide Lever (For U-Cut of Mold)  
Model **GBC-L** □



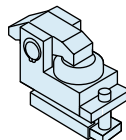
NPT Port  
Model **GBC-N**



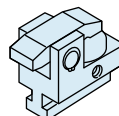
With Mold Confirmation Proximity Switch  
Model **GBC-P**



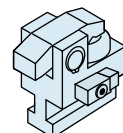
Longer D-Dimension of T-Leg  
Model **GBC-R**



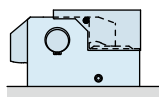
T-Slot Locking  
Model **GBC-T**



High Temperature 0 ~ 120 °C  
Model **GBC-V**



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



With Cover  
Model **GBC-X**

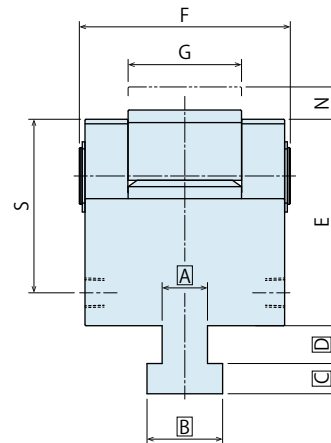
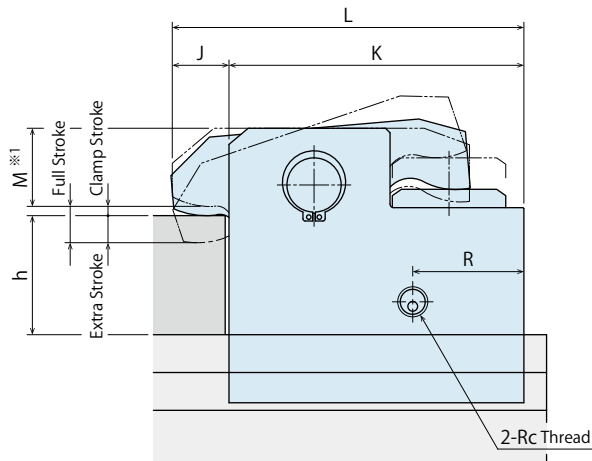
With Grease Nipple  
Model **GBC-U**

### Note:

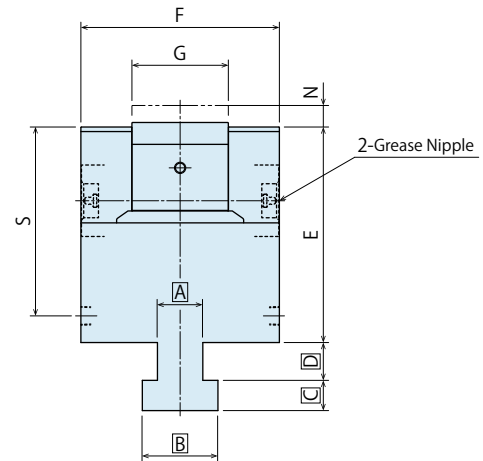
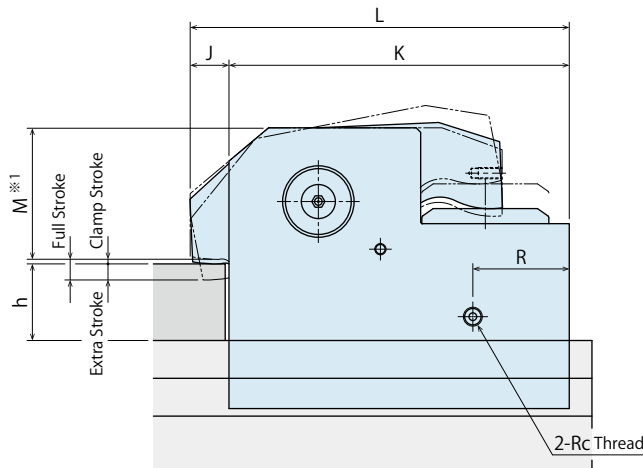
1. Specifications/external dimensions for these options are different from standard model. Please contact us for further information.

External Dimensions

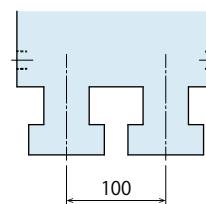
※ This drawing shows GBC0100 ~ GBC2500 standard model.  
Contact us for external dimensions for options.



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



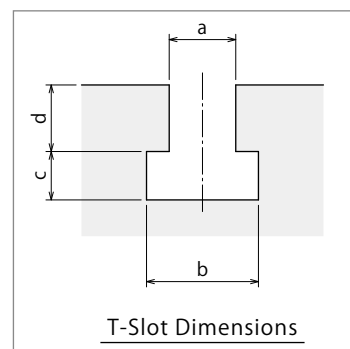
※ Only T-leg part of GBC5000 is different from GBC4000. GBC5000 has two T-legs.  
Contact us for external dimensions for options.



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.

T-Slot Dimensions



## External Dimensions

(mm)

Model No.	GBC0100	GBC0160	GBC0250	GBC0400	GBC0630	GBC1000	GBC1600	GBC2500	GBC4000	GBC5000
Full Stroke	8	9	10	12	15	15.5	16	16	16	16.5
Clamp Stroke	0.5	1	1.5	3.5	1	1.5	2	2	2	2.5
Extra Stroke	7.5	8	8.5	8.5	14	14	14	14	14	14
min. E	45.5	52	62	71	88.5	114	132.5	154.5	187.5	212.5
F	43	53	63	73	93	103	124	152	175	200
G	20	26	32	38	50	53	60	73	85	100
J	15	17	19	22	25	30	30	30	35	37
K	58	70	84	105.5	130	159	199	240	300	340
L	73	87	103	127.5	155	189	229	270	335	377
N	8	9	9.5	11	14.5	15	18	19	19	20
R	27	27	37	42	49	68	73	69.5	85	90
S	36.5	43	50	59	76.5	102	118.5	137.5	166.5	184.5
Rc	Rc1/8	Rc1/8	Rc1/4	Rc1/4	Rc1/4	Rc1/4	Rc1/4	Rc1/4	Rc3/8	Rc3/8
min. h	20	20	25	25	30	40	40	45	50	60
max. h	40	40	50	50	60	70	80	80	85	85

### Notes

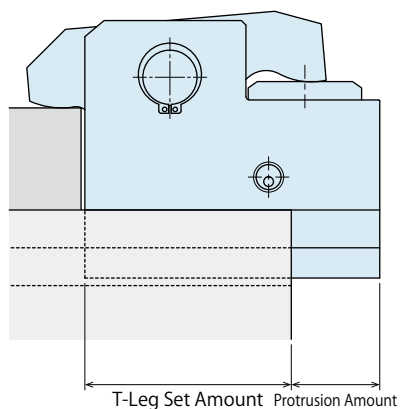
※1. M dimension (Lever Thickness) in the drawing varies depending on variation in h dimension (Clamping Mold Thickness).

Please contact us for further information.

1. If you would like to change the ratio of clamp stroke and extra stroke, please contact us.
2. A B C D dimensions are determined by Kosmek according to the T-slot dimensions.
3. When making an order, please indicate a, b, c, d dimension of T-slot and h dimensions of clamping mold thickness (including variation).

## GBC Clamp The Allowable Protrusion Amount of Cylinder

(mm)



Model No.	Min. T-Leg Set Amount	Allowable Protrusion Amount
GBC0100	40.5	17.5
GBC0160	49.0	21.0
GBC0250	59.0	25.0
GBC0400	73.5	32.0
GBC0630	91.0	39.0
GBC1000	114.0	45.0
GBC1600	142.0	57.0
GBC2500	170.5	69.5
GBC4000	-	-
GBC5000	-	-

# Sales Offices

## Sales Offices across the World

Japan	<b>TEL. +81-78-991-5162</b>	<b>FAX. +81-78-991-8787</b>
Overseas Sales	KOSMEK LTD. 1-5, 2-chome, Murotani, Nishi-ku, Kobe-city, Hyogo, Japan 651-2241 〒651-2241 兵庫県神戸市西区室谷2丁目1番5号	
USA	<b>TEL. +1-630-241-3465</b>	<b>FAX. +1-630-241-3834</b>
KOSMEK (USA) LTD.	1441 Branding Avenue, Suite 110, Downers Grove, IL 60515 USA	
China	<b>TEL.+86-21-54253000</b>	<b>FAX.+86-21-54253709</b>
KOSMEK (CHINA) LTD. 考世美(上海)貿易有限公司	21/F, Orient International Technology Building, No.58, Xiangchen Rd, Pudong Shanghai 200122., P.R.China 中国上海市浦东新区向城路58号东方国际科技大厦21F室 200122	
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Thailand Representative Office	67 Soi 58, RAMA 9 Rd., Suanluang, Suanluang, Bangkok 10250, Thailand	
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P.T PANDU HYDRO PNEUMATICS	Ruko Green Garden Blok Z- II No.51 Rt.005 Rw.008 Kedoya Utara-Kebon Jeruk Jakarta Barat 11520 Indonesia	

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WAHLTEC GmbH  
 Ravensburger Str. 14  
 88361 Altshausen  
 T: +49 (7584) 9238883  
 F: +49 (7584) 9238887

[www.wahltec.de](http://www.wahltec.de)