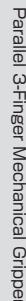
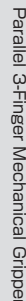


# HP15M Series

- # HP15M Series



- 
- Hallow Hole**
- Positioning Pin**
- High Accuracy Linear Guide**

# HP15M Series

## Model Code No.

**HP15M - 16 - L**

Series Name

Nominal diameter

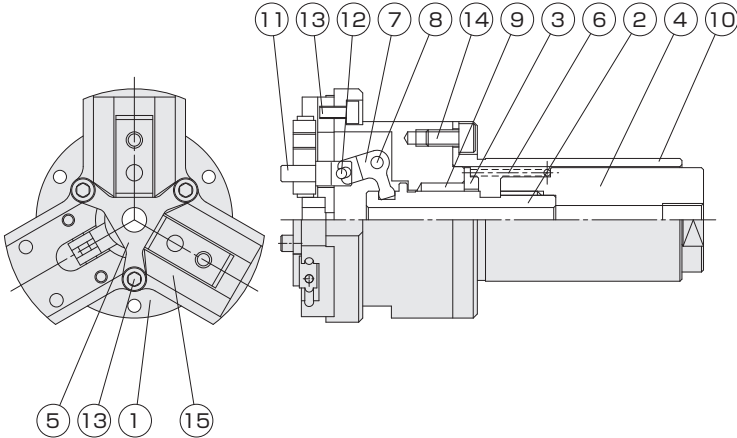
16  
20  
25

Gripping Force

L: Low  
M: Medium  
H: High

※Please feel free to consult us about the grip forces (spring forces) other than the ones specified on the left.

## Internal Structure Diagram



### Parts List

NO	Name	Material	NO	Name	Material
1	Main Body	Aluminum Alloy	9	Metal	Oil-impregnated Sintered Bearing
2	Piston Rod	Stainless Steel	10	Case	Stainless Steel
3	Pressure Cover	Aluminum Alloy	11	Knuckle	Stainless Steel
4	Pressure Cover	Stainless Steel	12	Roller	Carbon Steel
5	Pressure Cover	Stainless Steel	13	Hexagon Socket Head Bolt	Stainless Steel
6	Spring	Spring Steel	14	Hexagon Socket Head Bolt	Stainless Steel
7	Action Lever	Carbon Steel	15	Bearing	Stainless Steel
8	Fulcrum Pin	Carbon Tool Steel			

## Specifications

Elastic Body to be Used	Compression spring
Action Type	Single Acting Normally Close (External force drive at opening)
Operating Temperature [°C]	0~120
Lubrication	Required
Maximum Operating Cycle [Cycle/min]	180
Centering Accuracy [mm]	±0.07
Repeat Accuracy [mm]	±0.01
Applicable Switch	Not mountable

Action Type	Model	Nominal diameter [mm]	Opening/Closing Stroke [mm] <sup>Note)3</sup>	Gripping Force (At Closing) [N]	<sup>Note)1</sup> Extrusion Force [N]	Allowable Extrusion Force [N]	Product Mass [g]	<sup>Note)2</sup> Lever Ratio
Single Acting Normally Close	HP15M-16-L	16	3 (3~4.8)	3	14	50	300	1:1.1
	HP15M-16-M			5	24			
	HP15M-16-H			7	34			
	HP15M-20-L	20	5 (5~7)	7	38	130	560	1:1.1
	HP15M-20-M			12	64			
	HP15M-20-H			17	88			
	HP15M-25-L	25	7 (6.3~8.8)	12	66	210	870	1:1.1
	HP15M-25-M			18	95			
	HP15M-25-H			26	138			

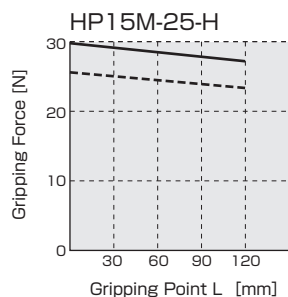
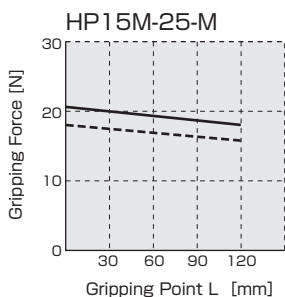
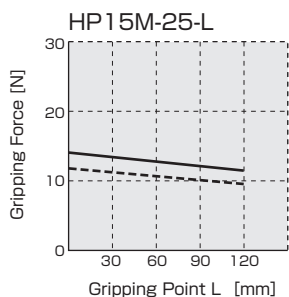
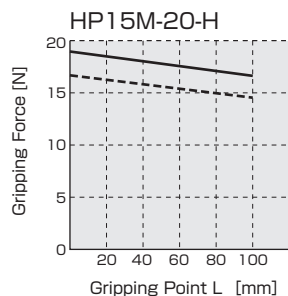
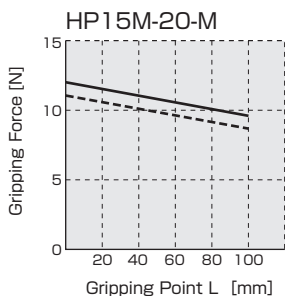
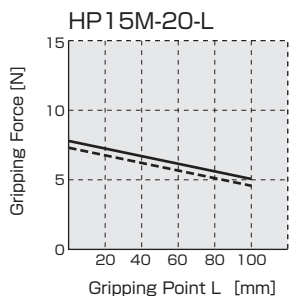
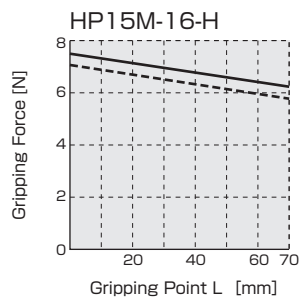
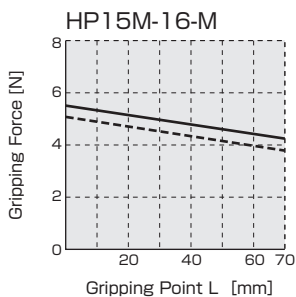
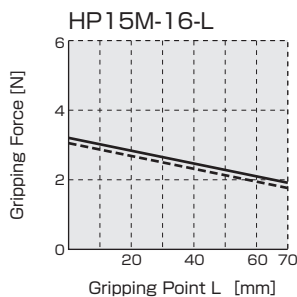
Note 1): Extrusion force is an external force required to open the levers completely by overwhelming the spring force in the closing direction.

Note 2): The lever ratio is the "Extruded Distance (how much the rear rod is extruded) and the "Lever Opening Distance (Lever Opening Distance at that time) (both sides) expressed in "Extruded Distance: Lever Opening Distance".

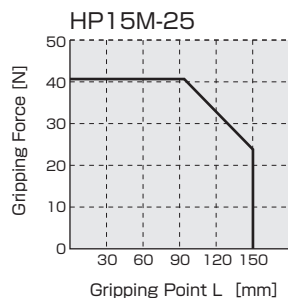
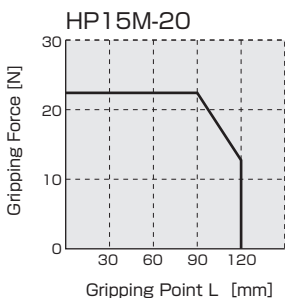
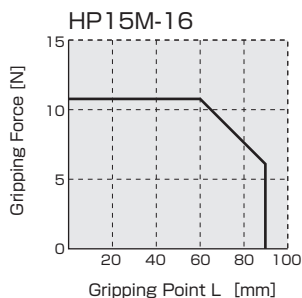
Note 3): The opening/closing stroke is a reference value. Values in the parentheses are measured values.

## Effective Gripping Force

— When the levers are full open  
 - - - When the levers are full closed



## Gripping Point Limit Range



## Gripper Attachment Method

### Pipe

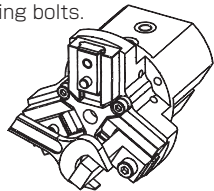
When you screw in a joint or the like into the pipe port, tighten it with the following torque.

Pipe Port	Maximum Tightening Torque [N·m]
M3×0.5	0.59
M5×0.8	1.57

### Attachment Mounting

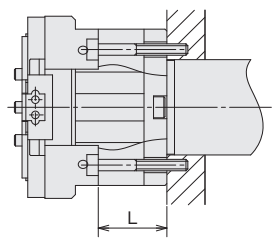
When you mount the attachment, support it with a spanner or the like so that the levers are not rattled. See the following table for the tightening torque of the mounting bolts.

Model	Bolt to be Used	Maximum Tightening Torque [N·m]
HP15M-16	M3×0.5	1.14
HP15M-20	M4×0.7	2.7
HP15M-25	M5×0.8	5.4



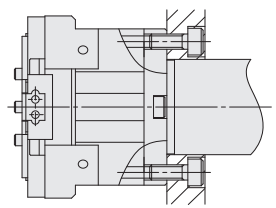
## Main Body Mounting Method

### 1 When the through-hole of the main body is used



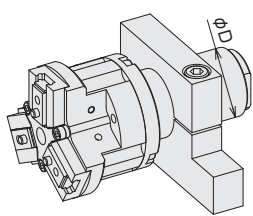
Model	Bolt to be Used	Maximum Tightening Torque [N·m]	L [mm]
φ16	M3×0.5	0.59	18
φ20	M3×0.5	0.59	21
φ25	M4×0.7	1.37	21

### 2 When the mounting screw on the back side of the through-hole is used



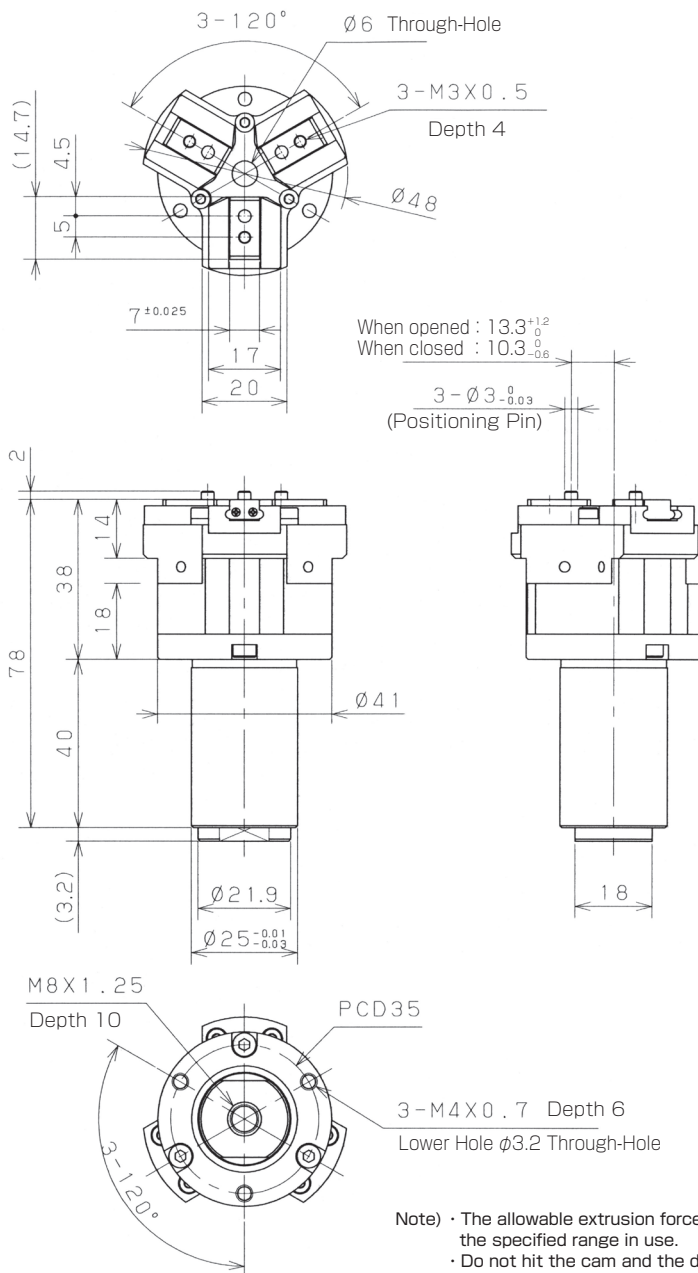
Model	Bolt to be Used	Maximum Tightening Torque [N·m]
φ16	M4×0.7	1.37
φ20	M4×0.7	1.37
φ25	M5×0.8	2.84

### 3 When shank is used



Model	Shank Diameter [φD]
φ16	φ25 <sup>+0.01</sup> <sub>-0.03</sub>
φ20	φ30 <sup>+0.01</sup> <sub>-0.03</sub>
φ25	φ30 <sup>+0.01</sup> <sub>-0.03</sub>

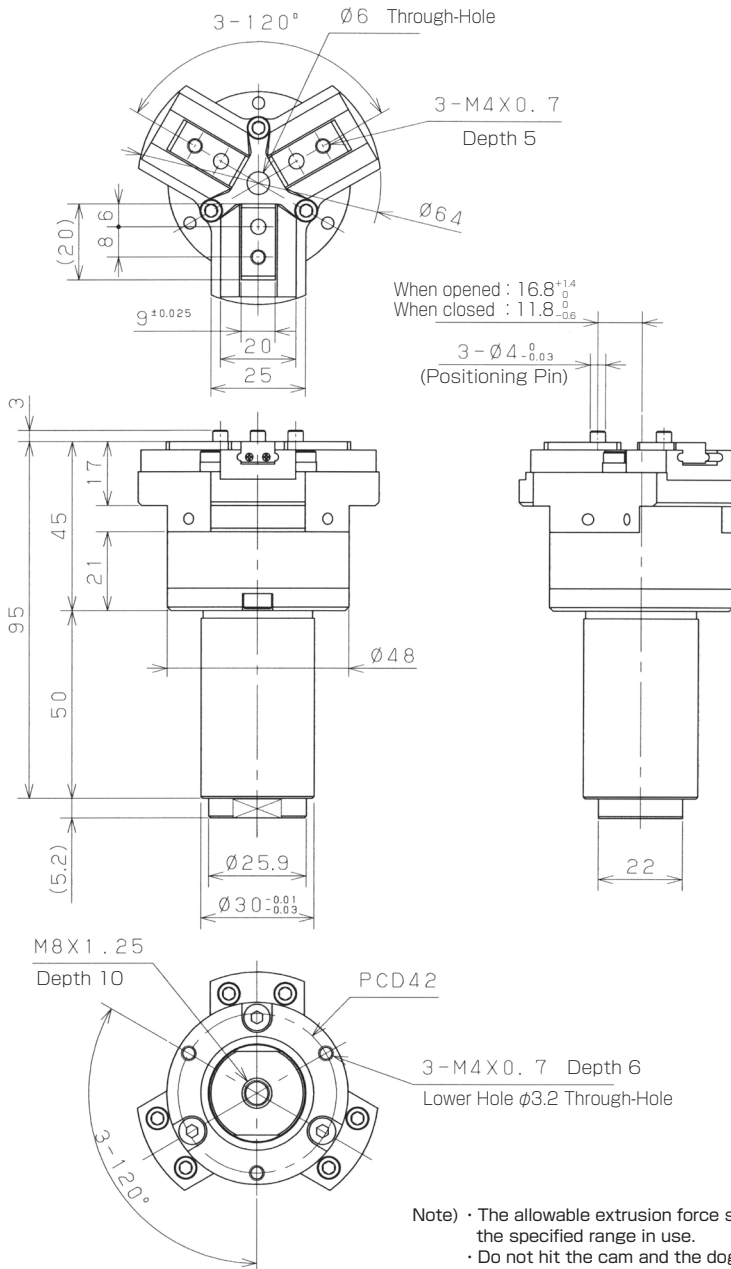
## Dimensions HP15M-16-□



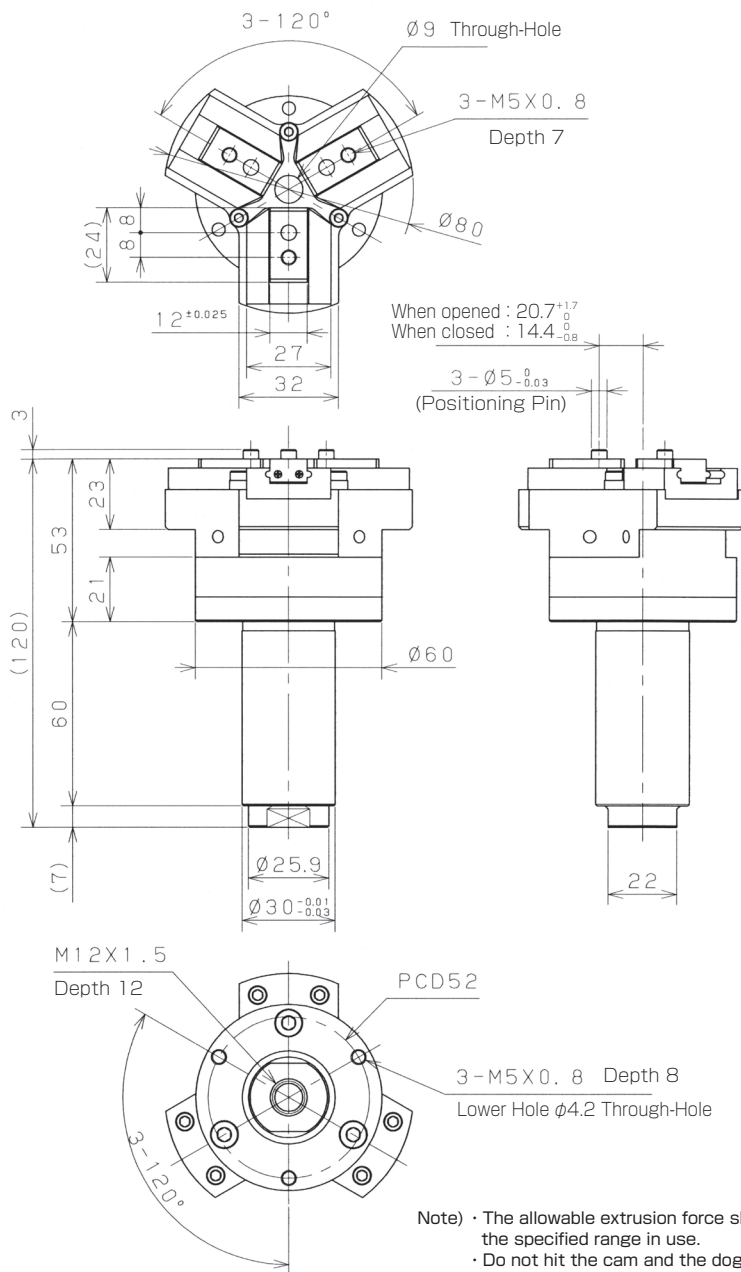
Note) · The allowable extrusion force shall be within the specified range in use.  
 · Do not hit the cam and the dog against the pressure cover in use.

**Dimensions**

**HP15M-20-□**



## Dimensions HP15M-25-□



Note) · The allowable extrusion force shall be within the specified range in use.  
 · Do not hit the cam and the dog against the pressure cover in use.