

# 030

## 030 HYDRAULIC SWING CLAMP



### FEATURES

It is not necessary to manufacture a hole for the installing and you just need to use bolt to fix the swing clamp on the fixture plate. It is helpful for you to clamp thick workpiece because the main structure of the cylinder body is on the fixture plate.

Feature of the doubling acting type: Oil circuits control clamping and unclamping, you can control the clamping and unclamping by changing the direction value.

Feature of the single acting type: The design of the interior system is simple. It is not necessary to design for unclamping. It can return back to the original position by spring and the system design is simple because of few accessories.

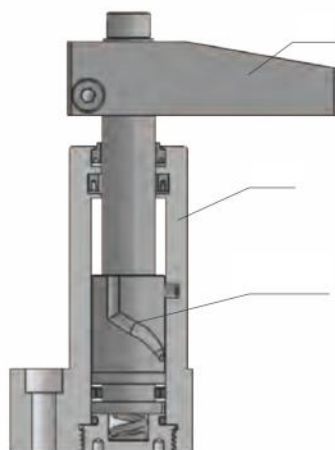
The material of the cylinder body is carbon steel and treated by nicarbing. The hardness of the outside and inside surface of the cylinder is high and the cylinder is anti abrasive.

Max. operating pressure: 250 kgf/cm<sup>2</sup>

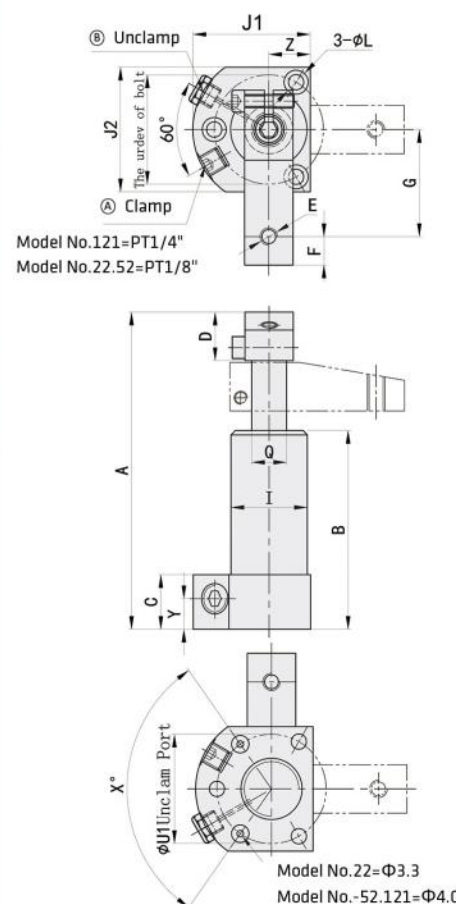
Min. operating pressure: 70 kgf/cm<sup>2</sup>

Single acting and double acting

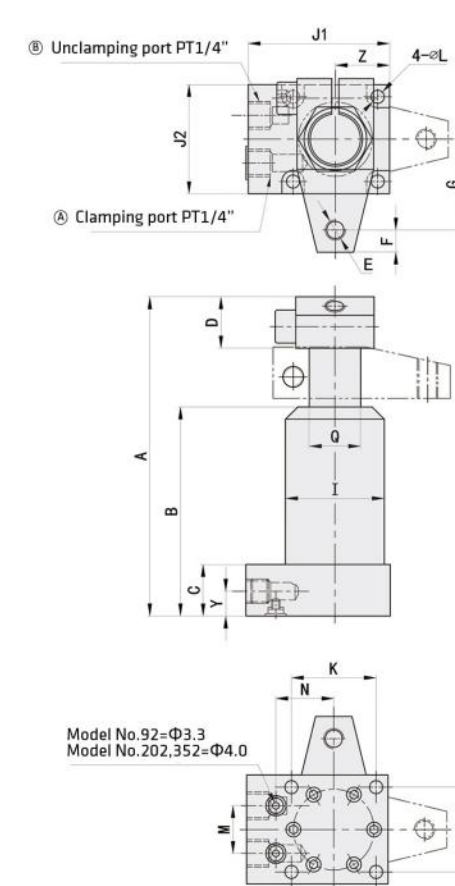
Sectional view



### 030-22/52/121



### 030-92/202



MODEL ITEM	030-22	030-52	030-92	030-121	030-202
ST:Swing /Clamp	165:85 /8	226:126 /10	221:101 /12	284:154 /13	279:139 /14
A Unclamping	118	145.2	155	171	175
B	78	91	101.5	110.9	110
C	25	25	25	25	25
D	16	22	25	30	32
E	M6	M8	M10	M10	M12
F	6	13	11	12	15
G	40	49	45	51	55
I	φ28	φ35	φ48	φ48	φ63
J1	47.2	54.1	70.1	66.8	85.1
J2	45	57	54	73	70
K	-	-	42	-	55
L	φ5.5-φ9 x6.5D	φ7-φ11 x7D	φ6.8-φ11 x7D	φ8.5-φ14 x9D	φ8.5-φ14 x9D
M	-	-	23.6	32	29
N	-	-	28.7	-	35.1
Z	15.5	19.1	26.9	25.4	35.1
U1	φ40	φ50	-	φ64	-
X	60°	110°	-	110°	-
Y	14	14	12	16	12
Q	φ10	φ16	φ25	φ22	φ32

### NOTE

The acting speed of clamping-unclamping should be slowed down.  
For customized clamp arm, please don't exceed 1.5 times of the original length and weight.  
The methods to mount & remove and the rotation diagram of the clamp arm, please refer to page 4.

### ORDERING INDICATION

#### 030-LD92-90

<b>030</b>	Series	030
<b>L</b>	Swing direction	Turn right R or turn left L
<b>D</b>	Acting type	S:Single acting D:Double acting
<b>92</b>	Type	22, 52, 92, 121, 202
<b>90</b>	Swing angle	Standard angle 90°(±2°) Order angle 30°(±2°), 45°(±2°), 60°(±2°)

### SPECIFICATION

MODEL	Single acting	Double acting	SWING STROKE (mm)	CLAMPING STROKE (mm)	TOTAL STROKE(mm)	CYLINDER CAPACITY CLAMP(cm <sup>3</sup> )	CYLINDER CAPACITY UNCLAMP(cm <sup>3</sup> )	EFF.PISTON AREA CLAMP(cm <sup>2</sup> )	EFF.PISTON AREA UNCLAMP(cm <sup>2</sup> )	RANGE OF TEMPERATURE(°C)
030-22	173	180	8.5	8	16.5	1.24	2.52	0.75	1.53	-10~+70°C
030-52	380	445	12.6	10	22.6	4.05	8.57	1.79	3.79	-10~+70°C
030-92	710	780	10.1	12	22.1	6.92	17.75	3.13	8.03	-10~+70°C
030-121	970	1060	15.4	13	28.4	12.04	22.81	4.24	8.03	-10~+70°C
030-202	1830	1960	13.9	14	27.9	21.93	44.33	7.86	15.89	-10~+70°C