

Series **NR**

Rotary Cylinder

Rack & Pinion Compact type-NRC



- RACK AND PINION TYPE
- BACKLASH IS MINIMIZED TO DETERMINE THE POSITION, IN HIGH PRECISION BY USING DOUBLE RACK
- POSSIBLE TO CONTROL ANGLE AS WELL AS CUSHION STROKE
- AUTO SWITCH IS ATTACHABLE FOR DETECTING OPENING AND CLOSING

Symbol



How to order

NRC
W
20
90

W8H

1 Rotary cyl.
 N : New
 R : Rotary cyl.
 C : Compact

2 Axis
 Standard
 S : single axis
 W : double axes

3 Size
 12, 15, 20, 30

4 Rotation Angle
 90 : 90°
 180 : 180°

5 Cushion
 Blank : without shock absorber
 S : Shock absorber attached

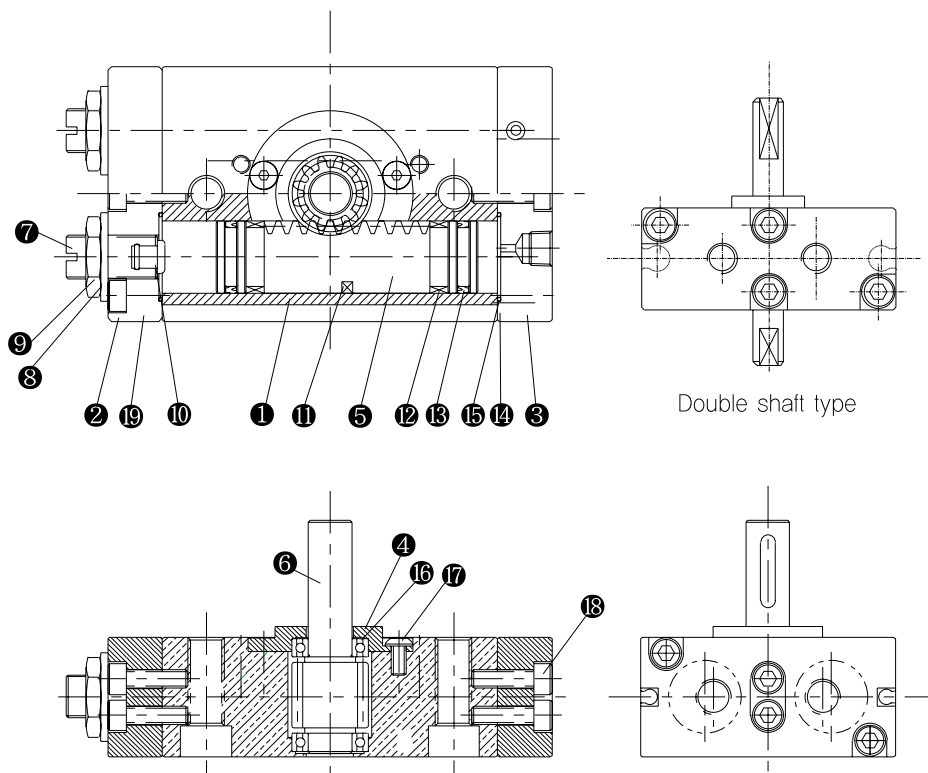
6 Applicable Auto Switch
 Blank : Without auto switch
 W8H : Reed switch
 W8V : Reed switch
 W9H : Solid state type
 W9V : Solid state type

7 Number of Auto Switch
 Blank : 2 pcs
 S : 1 pc
 N : n pcs

Specifications

Models		NRC 12	NRC 15	NRC 20	NRC 30
Bore Size(mm)		10	13	18	20
Rotation Angle and Regulating Range(°)		90±10° 180±10°			
Cushion	adjusting bolt attached	Urethane			
	shock absorber attached	Shock absorber			
Theoretic Torque (kgf · cm) (based on P=5 Kgf/cm ²)		3,1	8,0	19,1	28,3
Allowed Energy (kgf · cm)	without cushion	0,07	0,12	0,24	0,46
	shock absorber attached	0,7	1,2	2,5	3,8
Air Supply port size		M5	M5	PT 1/8	PT 1/8
Weight of main body(kgf)	90°	0,12	0,22	0,60	0,60
	180°	0,15	0,27	0,70	0,70
Maximum Radial Load (kgf)		1,5	2	5	8
Maximum thrust Load (kgf)		1,6	2	5	10
Rotation Time (sec) based on 90°	adjusting bolt attached	0,2 ~ 0,7	0,2 ~ 0,7	0,2 ~ 1	0,2 ~ 1
	shock absorber attached	0,2 ~ 0,5	0,2 ~ 0,5	0,2 ~ 0,7	0,2 ~ 0,7
Fluid		air			
Pressure		1,5 ~ 7,1kgf/cm ² (21~101psi)			
Lubrication		unnecessary			
Temperature · °C(°F)		0 ~ 60°C(0~140°F)			
Operating Mode		Double operating			
Auto switch type		W8H, W9H			
		W8V, W9V			

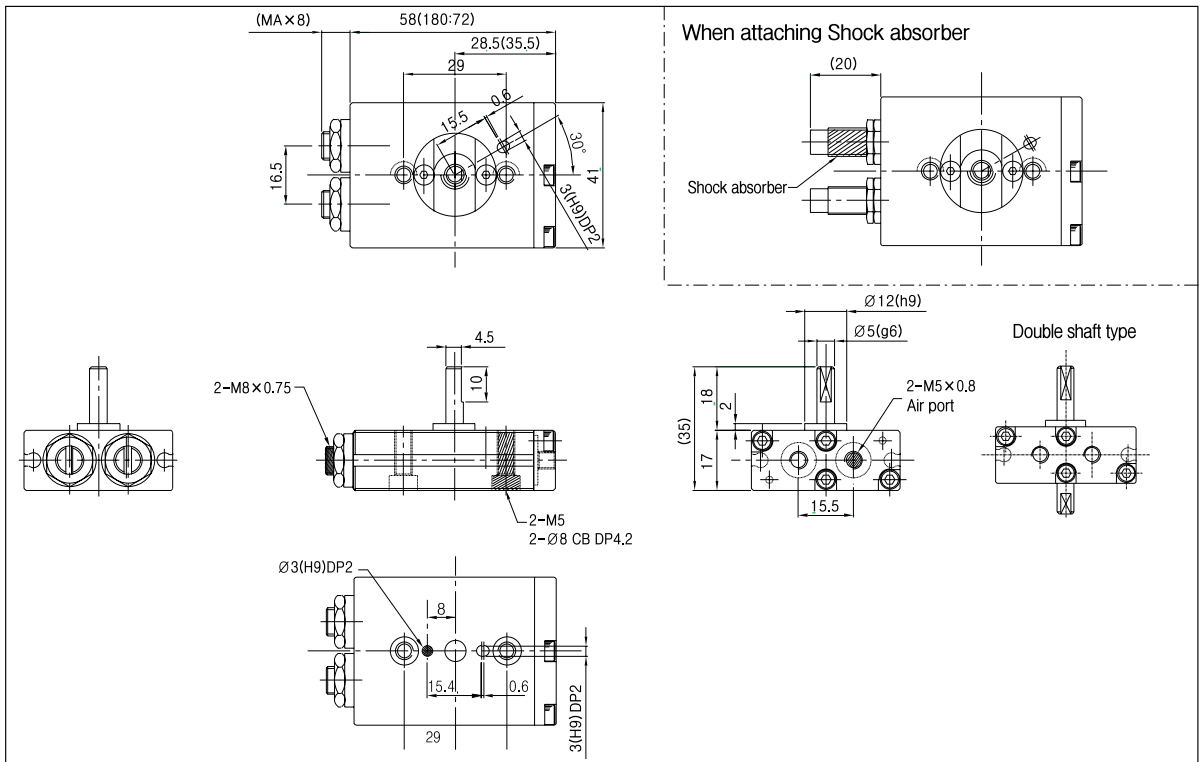
Structure Diagram



Parts List			
No.	Description	Material	Note
1	Body-rotary	Aluminum alloy	
2	Cover-end	Aluminum alloy	
3	Cover-port	Aluminum alloy	
4	Cover-shaft	Aluminum alloy	
5	Piston-rack	Stainless steel	
6	Shaft-rotary	Carbon steel	
7	Stopper-adjust	Stainless steel	
8	Seal washer	Rubber+carbon steel	
9	Nut-seal	Carbon steel	
10	Cushion	Urethane	
11	Magnet	Magnet type	
12	Wear ring	Resin	
13	Piston packing	Rubber	
14	O-ring	Rubber	
15	O-ring	Rubber	
16	Bearing-ball	Bearing steel	
17	Hex socket bolt	Carbon steel	
18	Bolt-hex socket	Carbon steel	
19	Shock absorber	-	Option

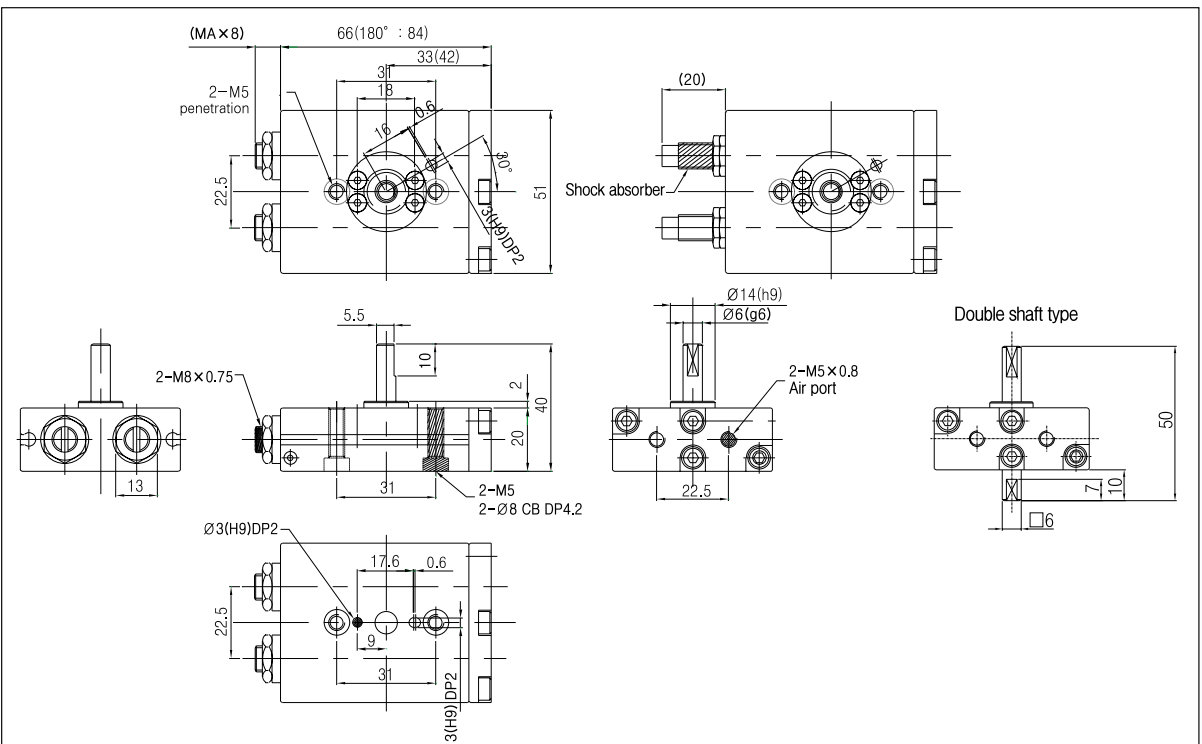
Ø 12

(mm)



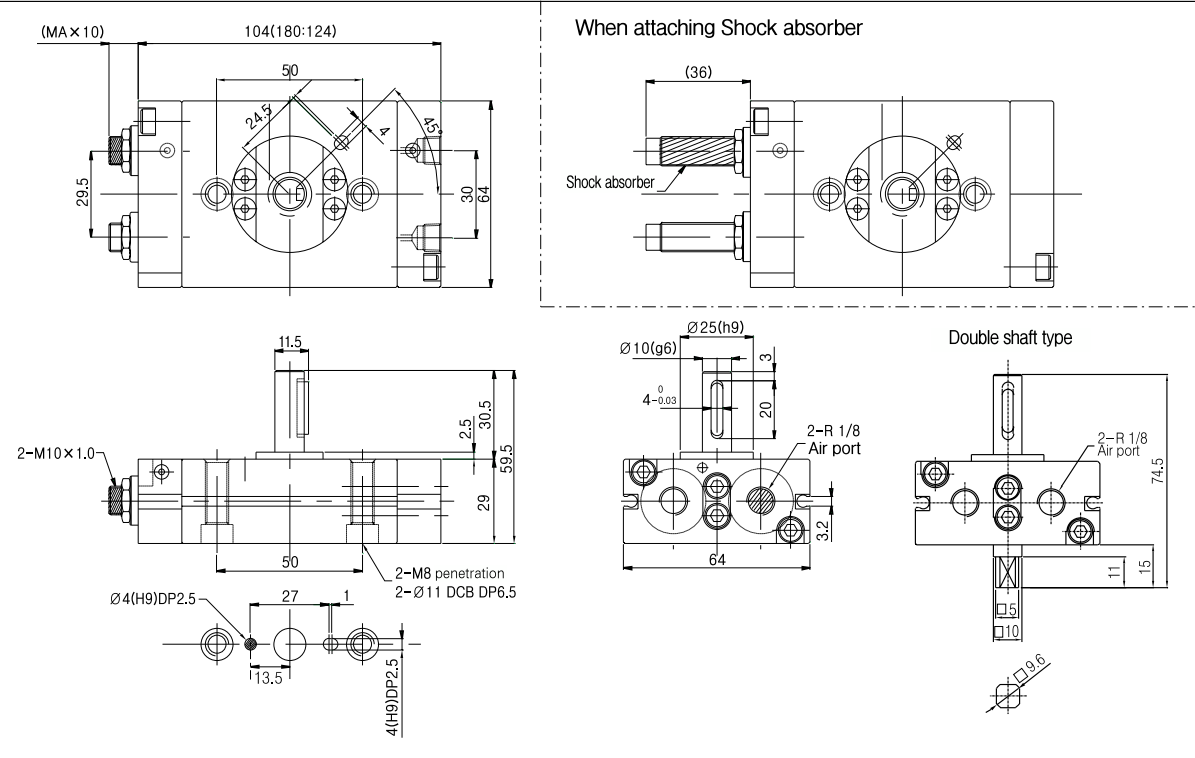
Ø 15

(mm)



Series NRC

Ø 20 (mm)



Ø 30 (mm)

