

# Series NR

## Rotary Cylinder(Rack & Pinion Table type)-NRT

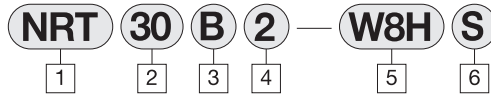


- EXTERNAL SHOCK ABSORBER ADD SPECIFICATION.
- NRT 10/20 SIZE ADD SPECIFICATION.
- ROTARY CYLINDER, DOUBLE PISTON TYPE (RACK AND PINION).
- A VARIETY OF MOUNTING OPTIONS.
- SHOCK ABSORBER CAN BE INSTALLED.
- HOLLOW SHAFT FOR EASY WIRING
- IT IS POSSIBLE TO REGULATE ANGLE AS WELL AS CUSHION STROKE.
- AN AUTO SWITCH CAN BE ATTACHED TO DETECT OPENING AND CLOSING.
- SMOOTH OPERATION AND HIGH POWER.
- HIGH PRECISION.
- STOPPER FUNCTION IN PORT DIRECTION

- 1 Rotary Cyl.  
N : NEW  
R : Rotary Cyl.

- 2 Size  
10  
20  
30  
50  
70  
100

### HOW TO ORDER



- 3 Shock Absorber

Blank : Adjusting bolt  
S : Internal Shock Absorber  
B : External Shock Absorber  
※ External shock absorber type can only fix in 10, 20, 30, 50

- 5 AUTO SWITCH

Auto Switch  
Blank : None  
W8H : Reed switch  
W8V : Reed switch  
W9H : Solid state switch  
W9V : Solid state switch  
W20H : Solid state switch (2 mark)

- 4 Connection port position and rotation angle

Blank : 0~190°  
2 : Standard Type 180°  
3 : Standard Type 90°  
4 : Symmetry Type 180°  
5 : Symmetry Type 90°  
※ Blank : Adjustment bolt/Internal shock absorber attached type only  
※ 2-5 : External shock absorber attached type only

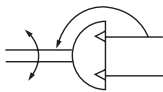
- 6 Number of Auto Switches

Blank : 2 pcs  
S : 1 pc  
N : N pcs

### SPECIFICATIONS

Models	NRT10	NRT20	NRT30	NRT50	NRT70	NRT100	
Bore Size (mm)	2 × Ø15	2 × Ø18	2 × Ø22	2 × Ø25	2 × Ø28	2 × Ø32	
Rotation Angle (°)	Adjustment bolt - Internal shock absorber	0 ~ 190°					
	External shock absorber	90° / 180° (±3°)					
Cushion	Adjustment bolt attached	URETHANE					
	Internal - External shock absorber attached	SHOCK ABSORBER					
Theoretic Torque (kgf·cm)	9.9	20.3	31.3	51.5	75.4	102.5	
Allowed Energy (J) <sup>1)</sup>	Adjustment bolt attached	0.007	0.025	0.048	0.076	0.238	0.304
	Internal shock absorber	0.083	0.118	0.164	0.205	0.959	1.380
	External shock absorber	0.196	0.529	0.759	1.499	-	-
Piping Connection	M5×0.8			Rc(PT)1/8			
Weight (g)	510	988	1310	2030	3110	4300	
Maximun Radial Load ( kgf )	8	15	20	32	34	40	
Maximun Thrust Load ( kgf )	8	14	37	46	49	72	
Rotation Time (sec) based on 90°C	Adjustment bolt attached	0.2 ~ 1.0			0.2 ~ 1.5	0.2 ~ 2.0	
	Internal shock absorber	0.2 ~ 0.7			0.2 ~ 1.0	0.2 ~ 1.0	
	External shock absorber	0.2 ~ 1.0			-	-	
Fluid	Air						
Pressure	1.5 ~ 7.1						
Lubrication	Unnecessary						
Temperature°C	0 ~ 60						
Action	Double action						
Auto switch type	W8H, W8V						
	W9H, W9V, W20H, W30H						

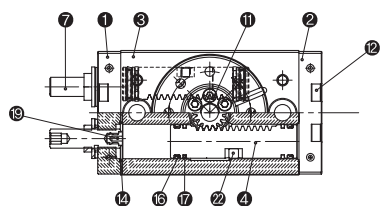
### Symbol



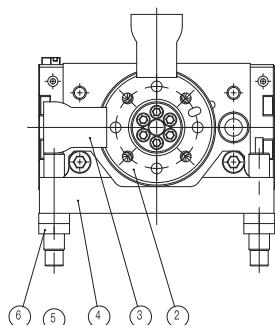
1) When operated with kinetic energy exceeding the allowable value, there is a risk that the product may be damaged and cannot be used, make sure that the kinetic energy does not exceed the permissible level.

# Series NR

## Structure / Parts List



Internal bolt /  
Internal shock absorber specification



External shock absorber specification

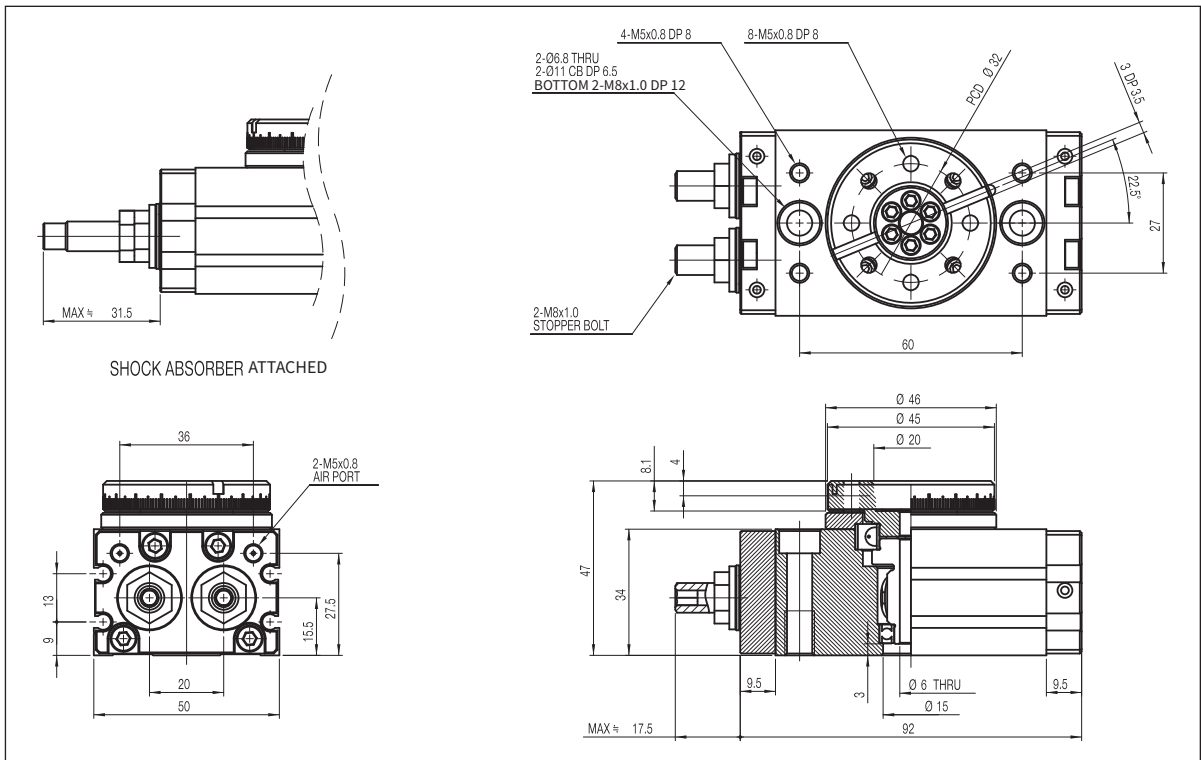
### PARTS LIST

No	Description	Material	Note	
①	PORT COVER	ALUMINUM ALLOY	ALUMITE	
②	END COVER	ALUMINUM ALLOY	ALUMITE	
③	BODY	ALUMINUM ALLOY	ALUMITE	
④	PISTON RACK	STAINLESS STEEL		
⑤	BEARING RETAINER	ALUMINUM ALLOY	ALUMITE	
⑥	TABLE	ALUMINUM ALLOY	ALUMITE	
⑦	STOPPER BOLT	CARBON STEEL		
⑧	PINION SHAFT	CARBON STEEL		
⑨	BEARING	BEARING STEEL		
⑩	BEARING	BEARING STEEL		
⑪	HEX SOCKET BOLT	CARBON STEEL	NICKEL PLATED	
⑫	HEX SOCKET BOLT	CARBON STEEL	NICKEL PLATED	
⑬	PANHEAD BOLT(WRENCH HEAD) SIZE : 20~100	STAINLESS STEEL	NICKEL PLATED	
	SPHEROIDHEAD BOLT(WRENCH HEAD) SIZE : 10	STAINLESS STEEL	NICKEL PLATED	
⑭	GASKET	NBR		
⑮	GASKET	NBR		
⑯	PISTON PACKING	NBR		
⑰	WEARING	RESIN		
⑱	STEEL BALL	STAINLESS STEEL		
⑲	PLATE BUMPER	URETHANE		
㉑	SEAL WASHER	NBR+STAINLESS STEEL		
㉑	SPRING PIN	CARBON STEEL		
㉒	MAGNET	NEODYMIUM MAGNET		
㉓	DOWEL PIN	STAINLESS STEEL		
㉔	NUT	SIZE : 10~20	CARBON STEEL	NICKEL PLATED
	FLANGE NUT	SIZE : 30~100	CARBON STEEL	NICKEL PLATED
㉕	PLAIN WASHER	SIZE : 10~20	CARBON STEEL	
㉖	SHOCK ABSORBER	—		

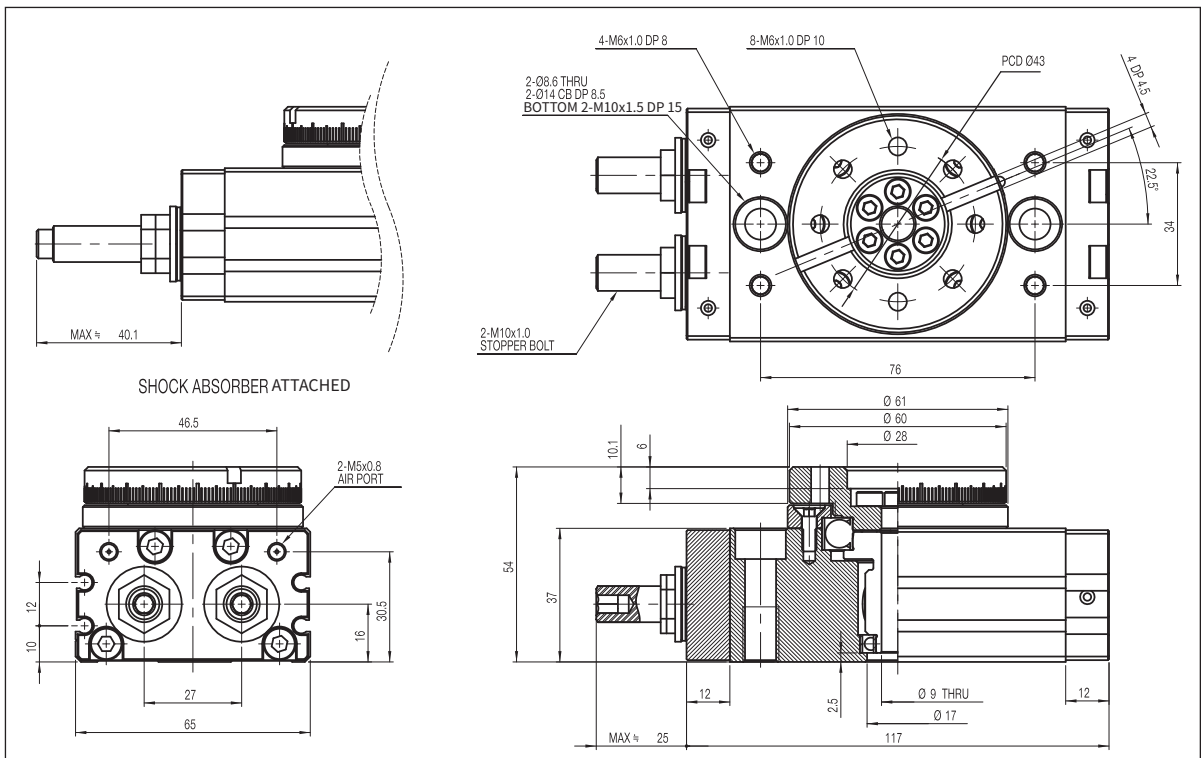
No	Description	Material	Note
1	PORT COVER	ALUMINUM ALLOY	
2	TABLE	ALUMINUM ALLOY	
3	BUMPER PLATE	CARBON STEEL	
4	SHOCK ABSORBER BRACKET	ALUMINUM ALLOY	
5	SHOCK ABSORBER	—	
6	NUT	—	
7	HEX SOCKET	CARBON STEEL	

# Rotary Cylinder(Rack & Pinion Table type)-NRT Series NR

## NRT 10



## NRT 20



NRT 30

SHOCK ABSORBER ATTACHED

Technical drawing showing the SHOCK ABSORBER ATTACHED. The drawing includes a side view and a top view with dimensions.

**Side View Dimensions:**

- MAX 58.7

**Top View Dimensions:**

- 8-M8x1.25 DP 11
- 4-M8x1.25 DP 8
- 2-Ø10.2 THRU
- 2-Ø18 CB DP 10.5
- BOTTOM 2-M12x1.75 DP 18
- PCD Ø55
- 5 DP 5
- 22.5
- 95
- 100
- 2-M14x1.5 STOPPER BOLT

**Bottom View Dimensions:**

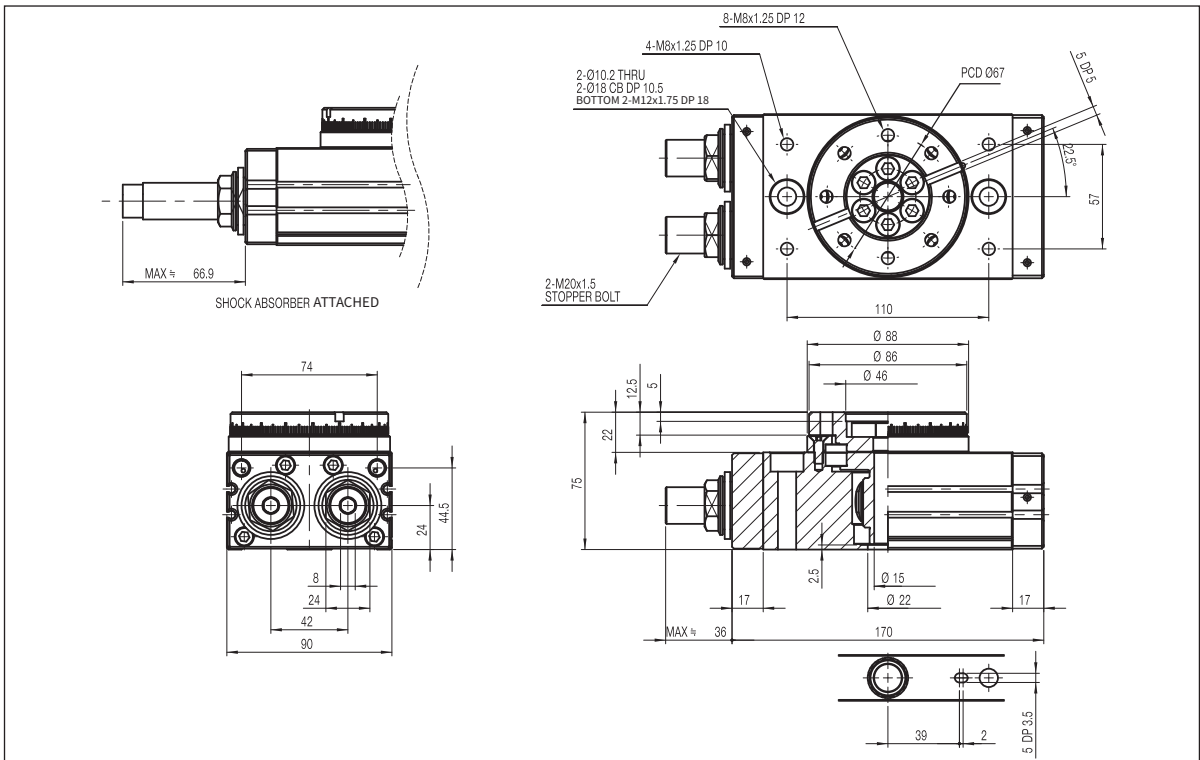
- 63
- 2-PT 1/8 AIR PORT
- 37.5
- 15
- 14.5
- 6
- 19
- 38
- 80

**Cross Section View Dimensions:**

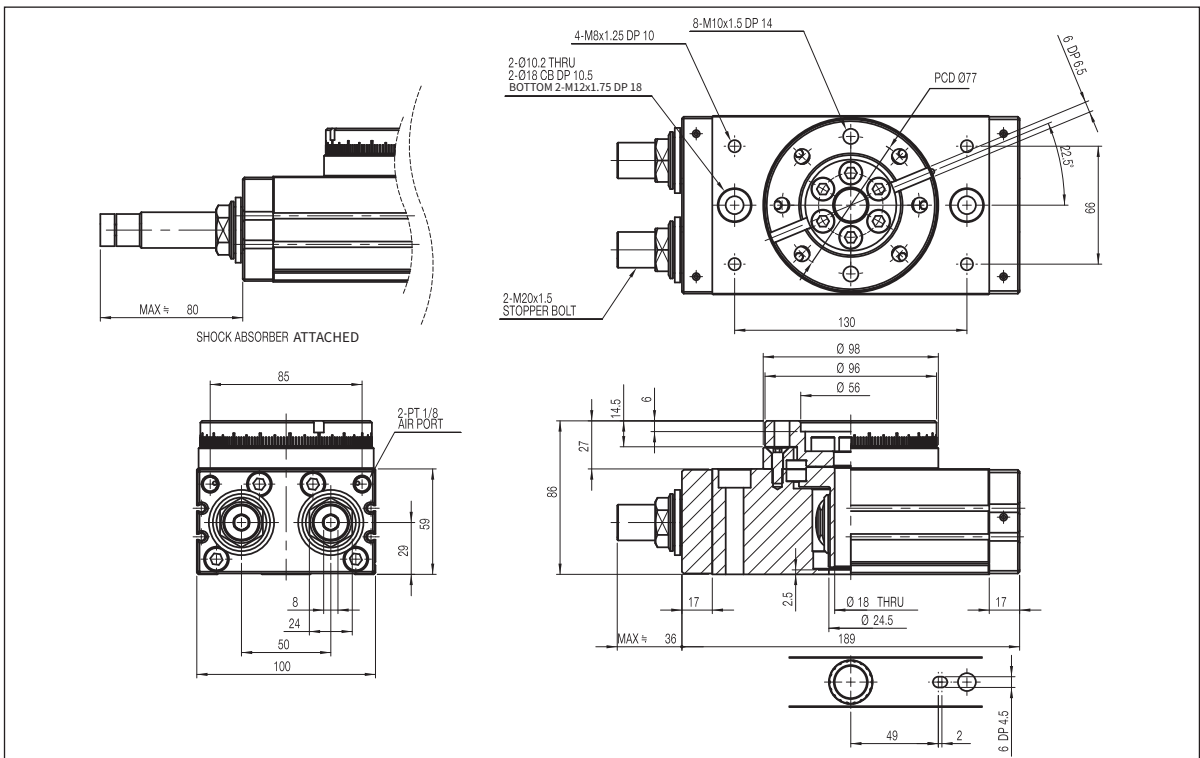
- Ø 77
- Ø 75
- Ø 35
- 5
- 20
- 12
- 66
- 3
- Ø 10 THRU
- Ø 26
- 15.5
- 152
- 32
- MAX 32

# Rotary Cylinder(Rack & Pinion Table type)-NRT Series NR

## NRT 70

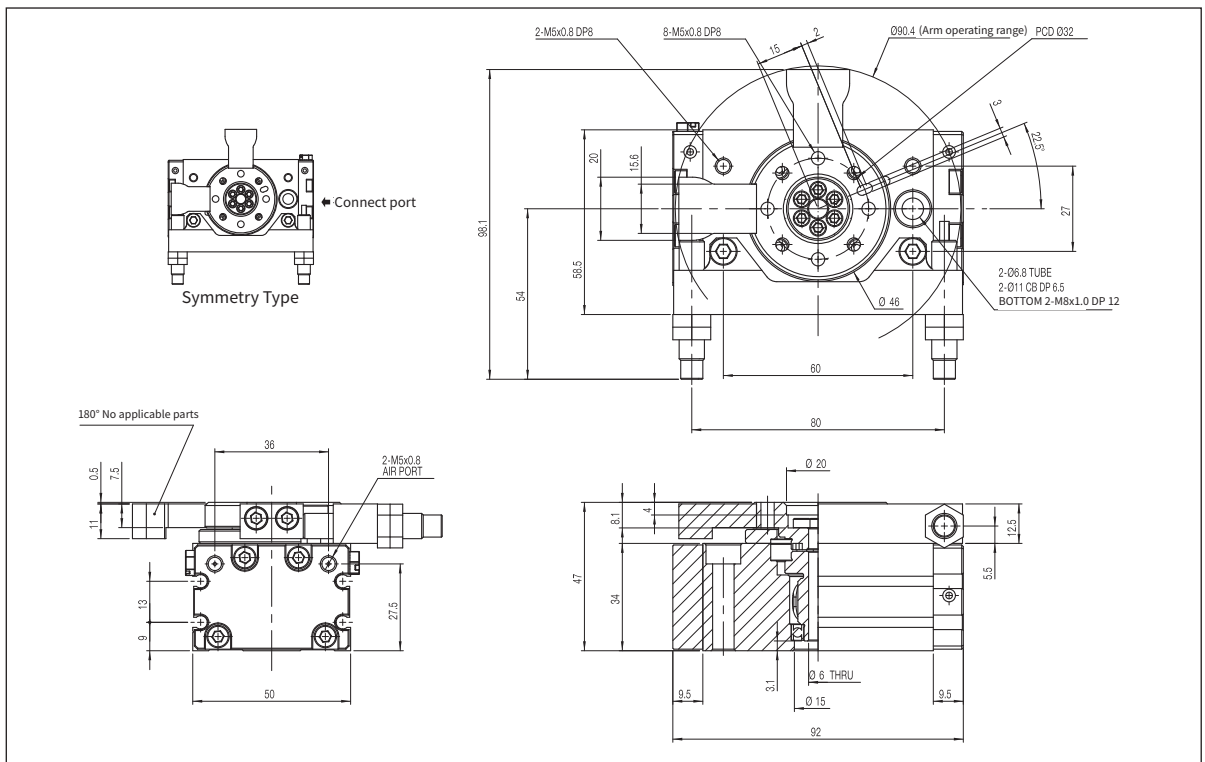


## NRT 100

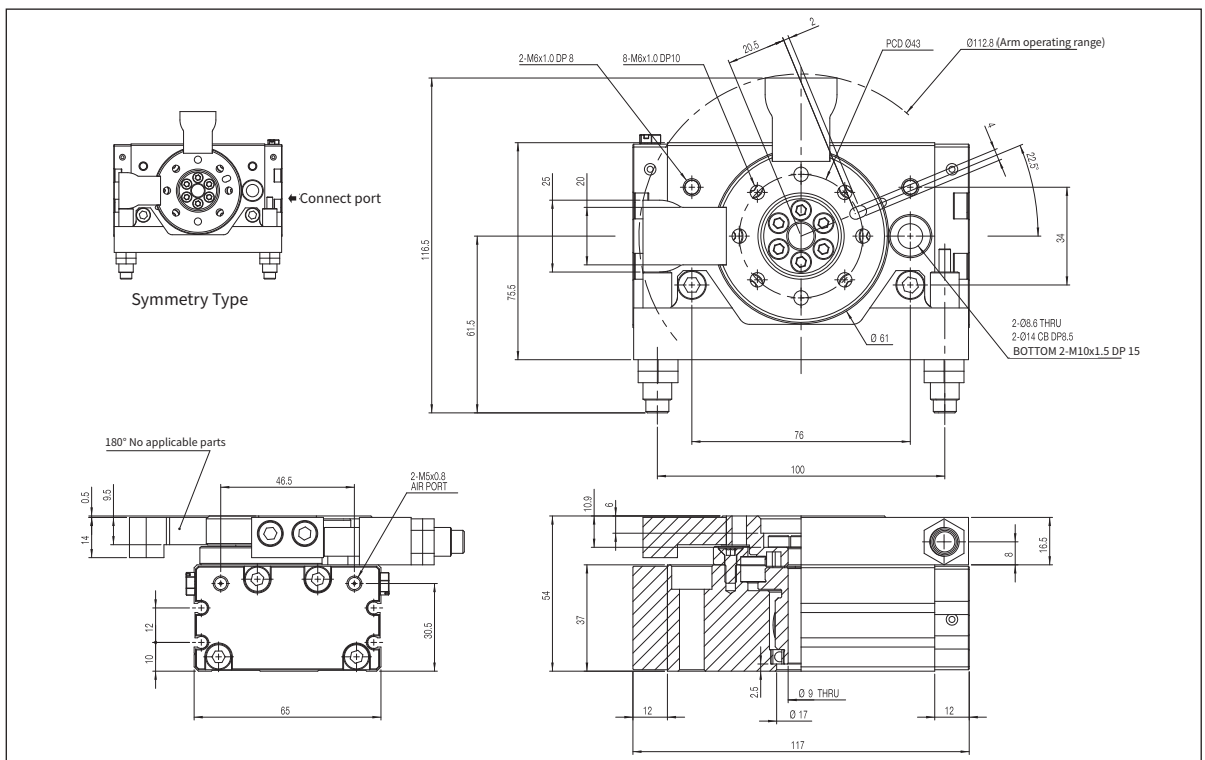


# Series NR

## NRT10B(external shock absorber attached)

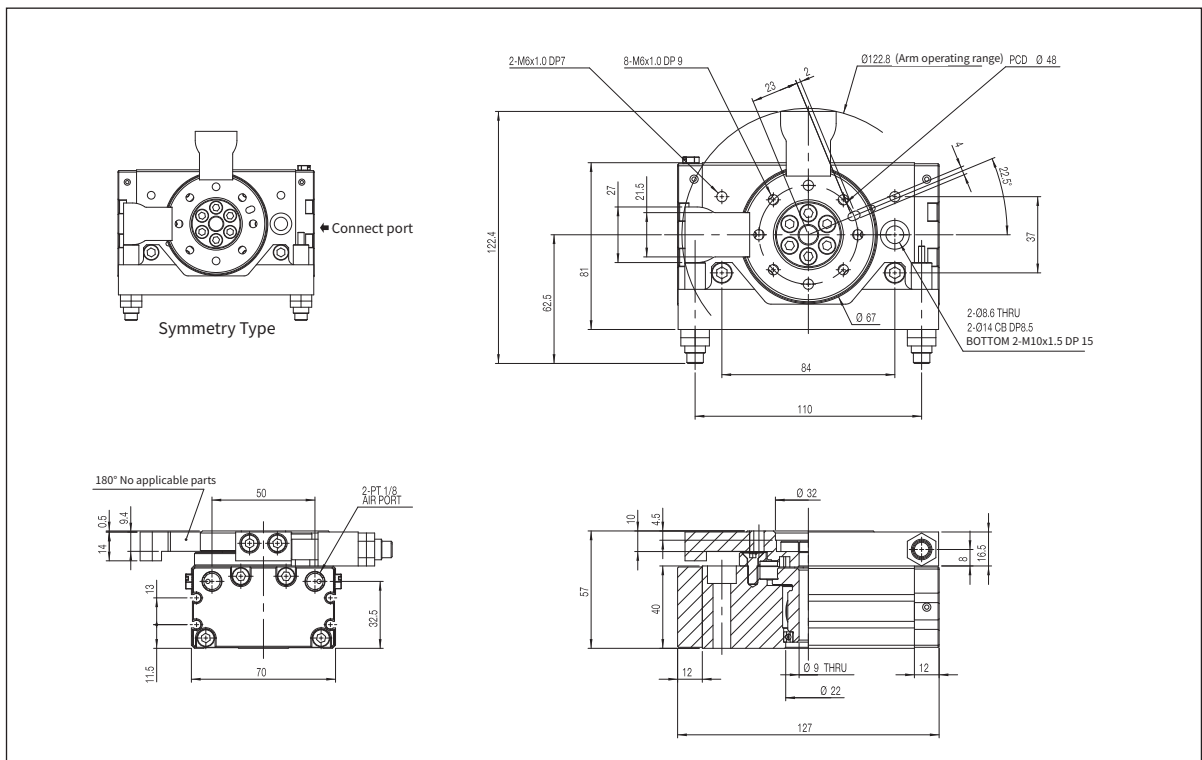


## NRT20B(external shock absorber attached)



# Rotary Cylinder(Rack & Pinion Table type)-NRT Series NR

## NRT30B(external shock absorber attached)



## NRT50B(external shock absorber attached)

