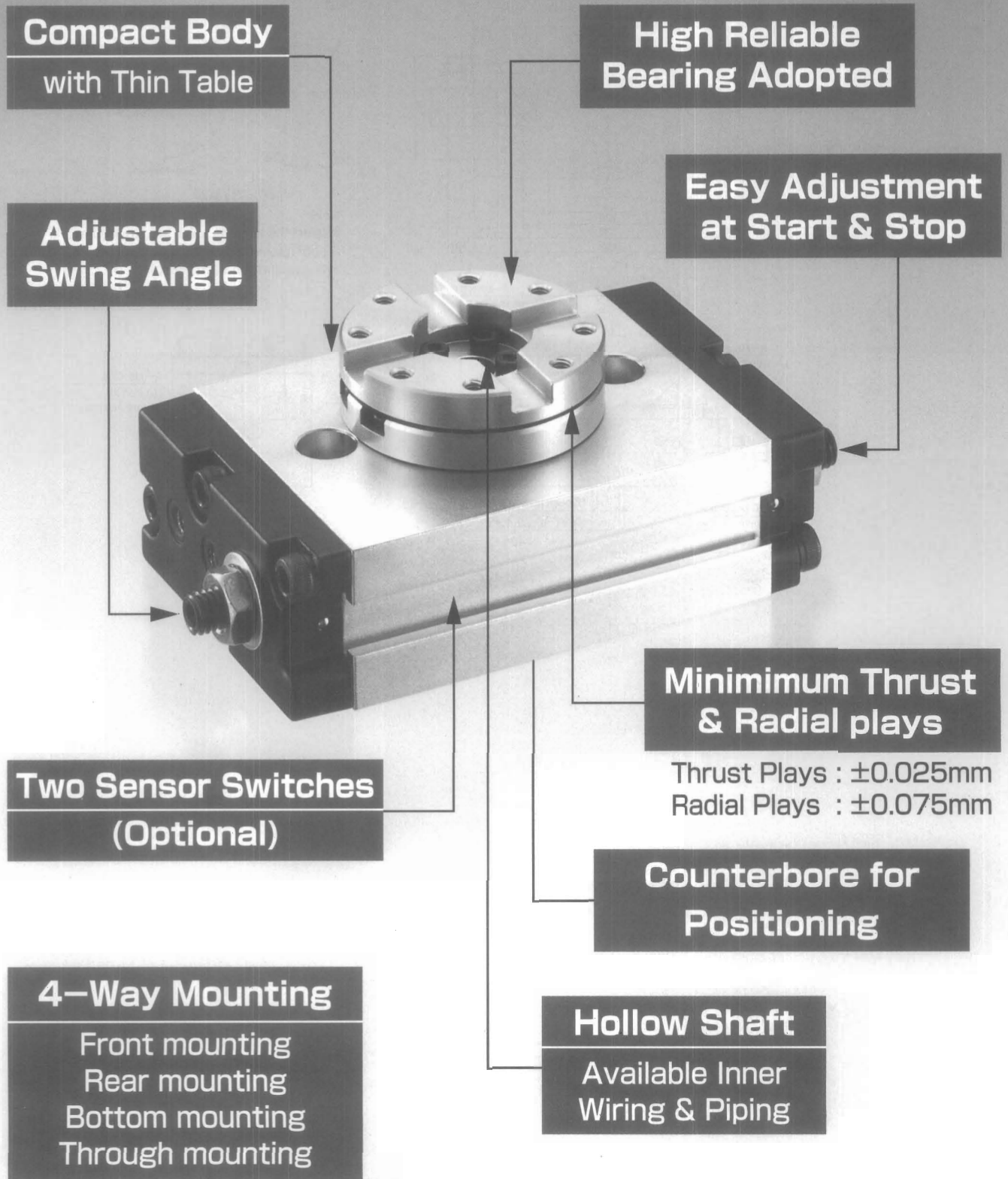


RT02 Series – 2 stop position type –

Rotary Actuator

Smooth Operation with Free Backlash



Compact Body

with Thin Table

**High Reliable
Bearing Adopted**

**Adjustable
Swing Angle**

**Easy Adjustment
at Start & Stop**

**Minimum Thrust
& Radial plays**

Thrust Plays : $\pm 0.025\text{mm}$
Radial Plays : $\pm 0.075\text{mm}$

**Two Sensor Switches
(Optional)**

**Counterbore for
Positioning**

4-Way Mounting

Front mounting
Rear mounting
Bottom mounting
Through mounting

Hollow Shaft

Available Inner
Wiring & Piping

RT02 Series (B)

Model Code No.

RT02 - 18 B - 180

Series Name

Standard Swing Angle

90 : 90° swing
180 : 180° swing

Cylinder Bore

16 : 16mm
18 : 18mm
22 : 22mm

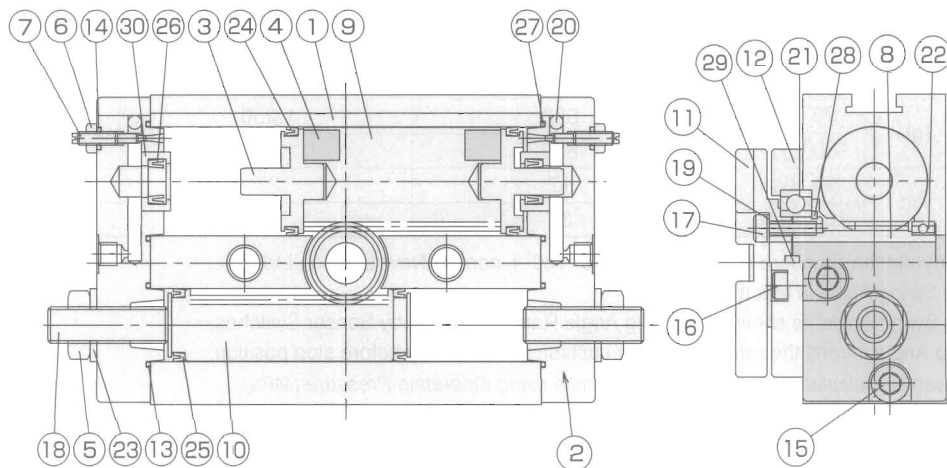
Stop Position Type

B : 2 stop position
(with Air Cushion)

Sensor switch : Refer to "Selection from New-Era Sensor Switch" (Page 265)

RT02(B)

Internal Structure



Parts List

No.	Name	Material	No.	Name	Material
1	Main Body	Aluminium Alloy	16	Slotted Head Bolt	Carbon Tool Steel
2	Head Cover	Aluminium Alloy	17	Slotted Head Bolt	Carbon Tool Steel
3	Piston	Brass	18	Slotted Head Screw	Carbon Tool Steel
4	Magnet	Resin	19	Spring Plate Washer	Carbon Steel
5	Hexagonal Nut	Mild Steel	20	Steel Ball	Bearing Steel
6	Hexagonal Nut	Brass	21	Bearing	Bearing Steel
7	Needle	Stainless Steel	22	Bearing	Bearing Steel
8	Pinion Rod	Carbon Steel	23	Fastener Seal	NBR
9	Rack	Stainless Steel	24	Packing	NBR
10	Rack Piston	Carbon Steel	25	Packing	NBR
11	Table (Swivel Joint Upper)	Aluminium Alloy	26	Packing	NBR
12	Case (Swivel Joint Lower)	Aluminium Alloy	27	Gasket	NBR
13	O Ring	NBR	28	Snap Ring	Carbon Steel
14	O Ring	NBR	29	Key	Carbon Steel
15	Slotted Head Bolt	Carbon Tool Steel	30	Packing Housing	Brass

Specifications

		RT02-16B-90 RT02-16B-180	RT02-18B-90 RT02-18B-180	RT02-22B-90 RT02-22B-180
Stop Positions		2		
Cylinder Bore	(mm)	16+24	18+26	22+30
Fluid		Air		
Operating Pressure	(MPa)	0.1~0.7		
Proof Pressure	(MPa)	1.05		
Ambient Temperature	(°C)	5~60		
Standard Swing Angle	(°)	90/180		
Adjustable Swing Angle	90° type	70~95		
	180° type	160~185		
Detecting Swing Angle	90° type	20~95		
	180° type	20~185		
Cushion		Air Cushion		
Cushioning Angle	(°)	40		
Permissible Kinetic Energy	(J)	0.14	0.28	0.42
Theoretical Torque *	(N·m)	5.2×Operating pressure	8.6×Operating pressure	14×Operating pressure
Permissible Moment	(N·m)	4.0	6.5	9.0
Permissible Radial Load	(N)	120	245	355
Permissible Thrust Load	(Pull) N	120	245	355
	(Push) N	160	340	500
Air Port Size		M5×0.8		
Main Body Weight	90° type	830	1,250	1,995
	180° type	830	1,250	1,995
Inner Volume (one cycle)	90° type	17	27	44
	180° type	33	55	89

For the swing angle beyond the Standard Swing Angle (90 or 180°), consult New-Era Co., Ltd.

The above Adjustable Swing Angle is recommendatory.

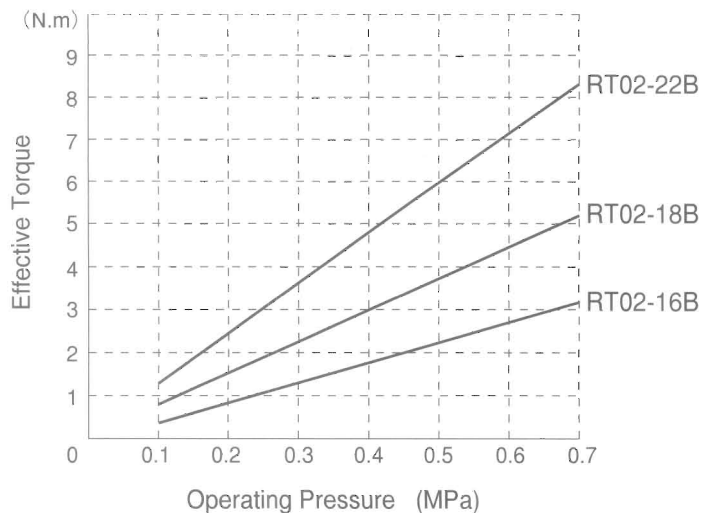
The above "Detecting Swing Angle" is shown the Swing Angle Range detected by Sensor Switches.

The above Cushioning Angle means the range where air cushion is functioning before stop position.

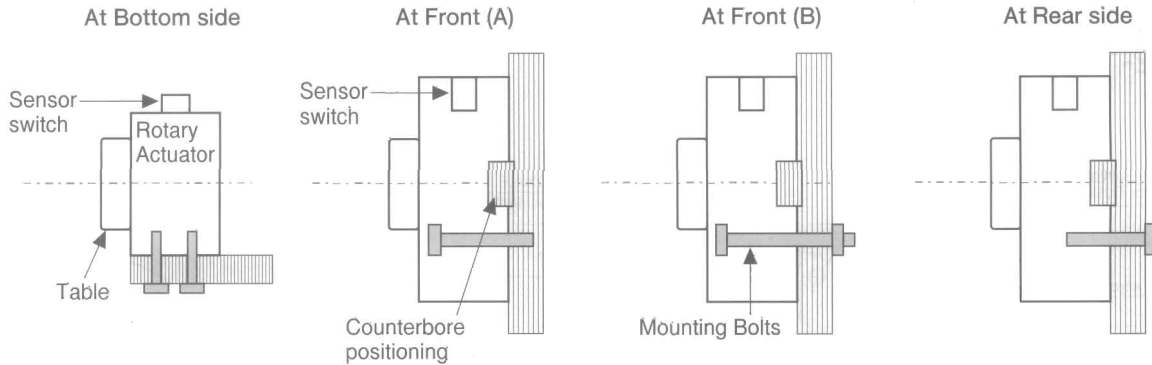
* Theoretical Torque can be calculated by the following formula using Operating Pressure (MPa).

(Example): Theoretical Torque (N·m) = (Coefficient in the above list) × (Operating Pressure, MPa)

Effective Torque



Installation Examples



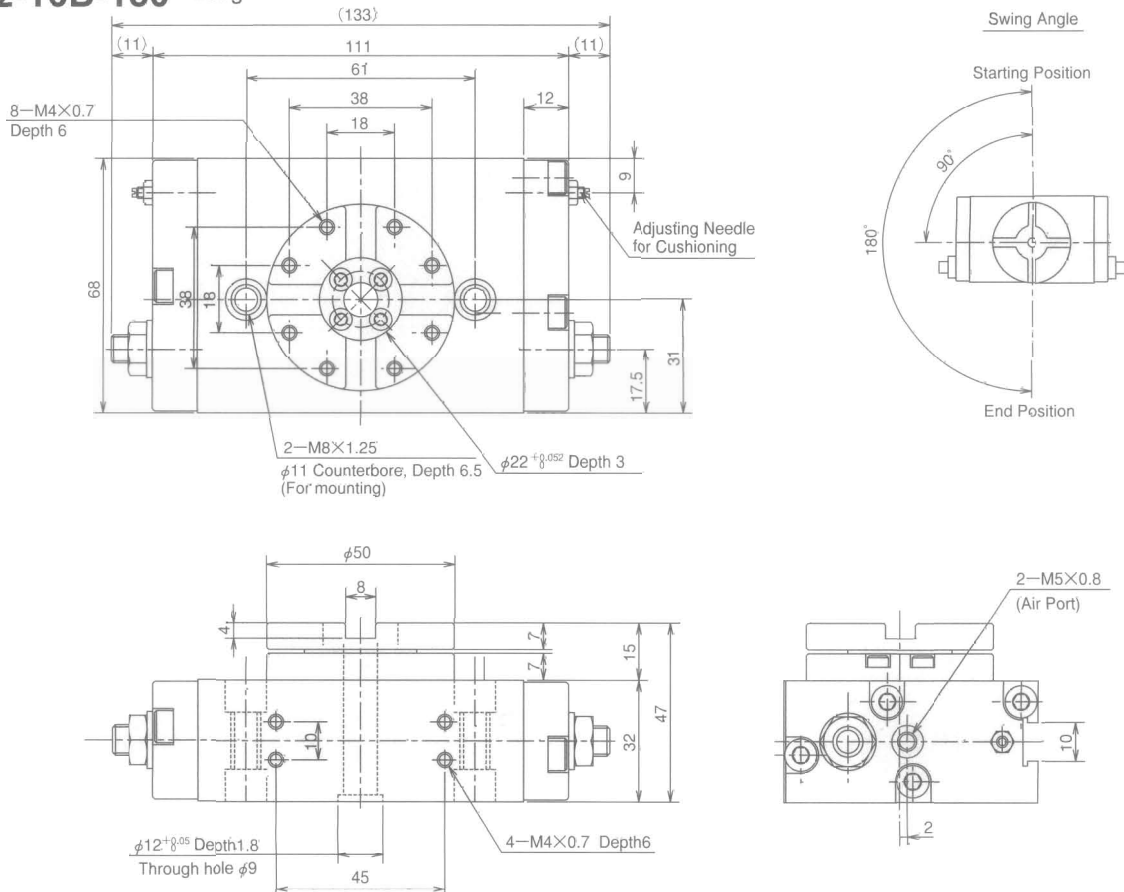
	Specifications of Mounting holes / thread			
	At Bottom side	At Front (A)	At Front (B)	At Rear side
RT02-16B	4×M4×0.7 Depth 6	2×M8×1.25 Through Counterbored $\phi 11$ Depth 6.5		2×M8×1.25 Through
RT02-18B	4×M5×0.8 Depth 7	2×M10×1.5 Through Counterbored $\phi 14$ Depth 8.5		2×M10×1.5 Through
RT02-22B	4×M6×1 Depth 8	2×M10×1.5 Through Counterbored $\phi 14$ Depth 8.5		2×M10×1.5 Through

RT02(B)

Dimensions

Unit : mm

Weight
RT02-16B-90 830g
RT02-16B-180 830g

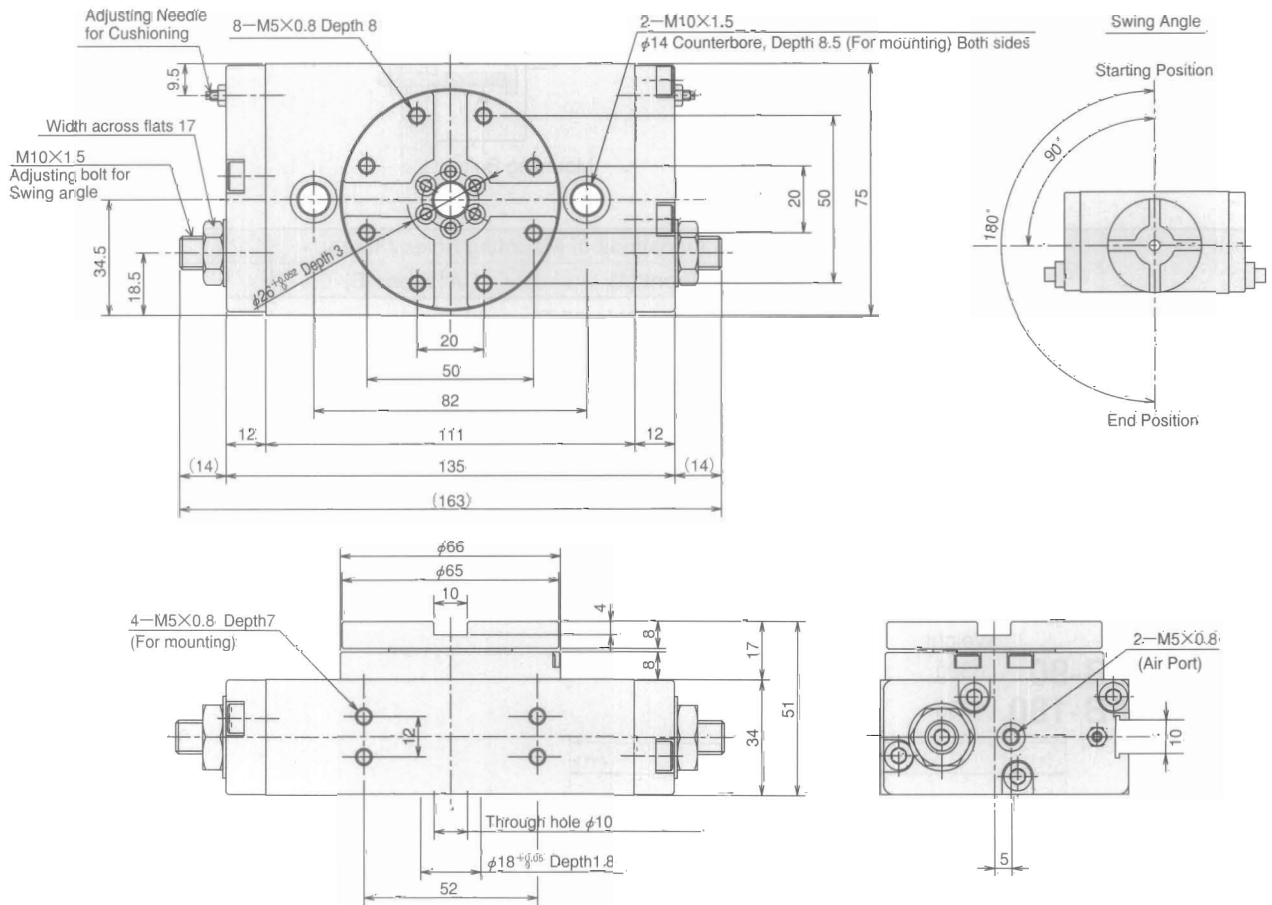


RT02 Series (B)

Unit : mm

Dimensions

	Weight
RT02-18B-90	1,250g
RT02-18B-180	1,250g

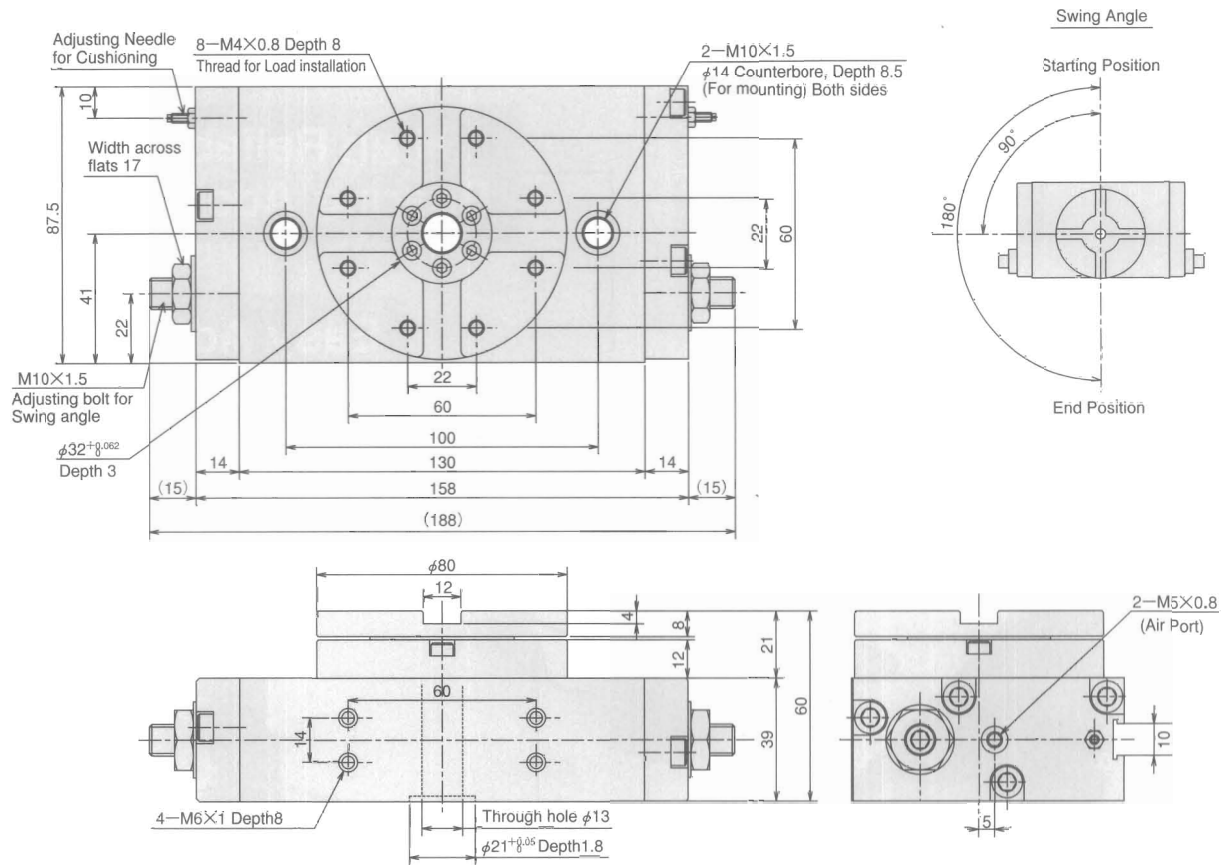


RT02(B)

Unit : mm

■ Dimensions

	Weight
RT02-22B-90	1,995g
RT02-22B-180	1,995g



RT02(B)