

## Features:

- Rugged and compact construction saves space.
- Adjustable stoppers provide a wide range of shaft stop positions.
- Magnetic piston (all) for reed switch, used to supply input signals.
- Double the output force by pressurizing at any one port.
- Units are available for hydraulic service upon request.



## Specifications:

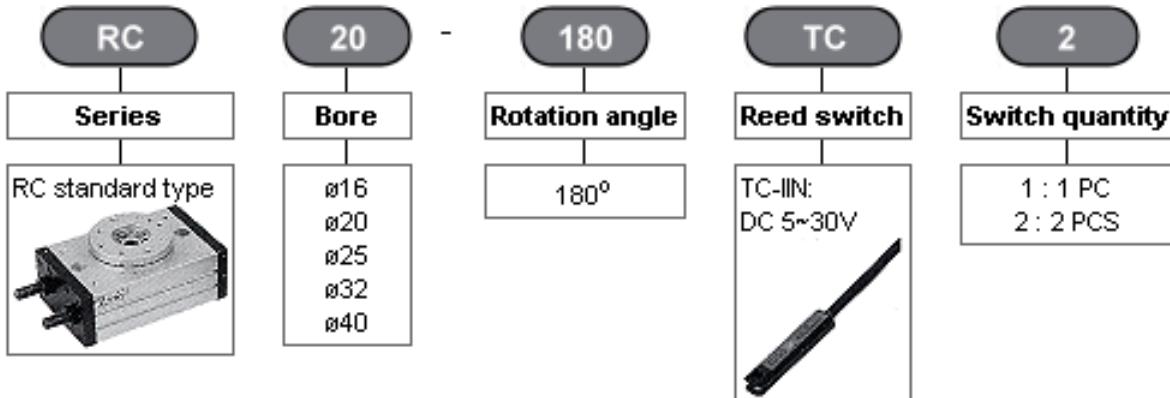
|                                |  |
|--------------------------------|--|
| <b>Acting</b>                  | Double acting built-in magnetic piston |
| <b>Series</b>                  | RC                                     |
| <b>Bore</b>                    | ø16, ø20, ø25, ø32, ø40                |
| <b>Operating fluid</b>         | Compressed air                         |
| <b>Max. operating pressure</b> | 1Mpa(10.2 kgf/cm <sup>2</sup> )        |
| <b>Proof pressure</b>          | 1.5Mpa(15 kgf/cm <sup>2</sup> )        |
| <b>Torque (kgf-cm)</b>         | 0.22, 0.41, 0.83, 1.15, 1.65           |
| <b>Temperature range</b>       | 0°~60°C                                |
| <b>Adjustable rotation</b>     | 0°~190°                                |
| <b>Max. rotation angle</b>     | 190°                                   |
| <b>Available rotation time</b> | 0.2~1 S/90°                            |

## Weight Table:

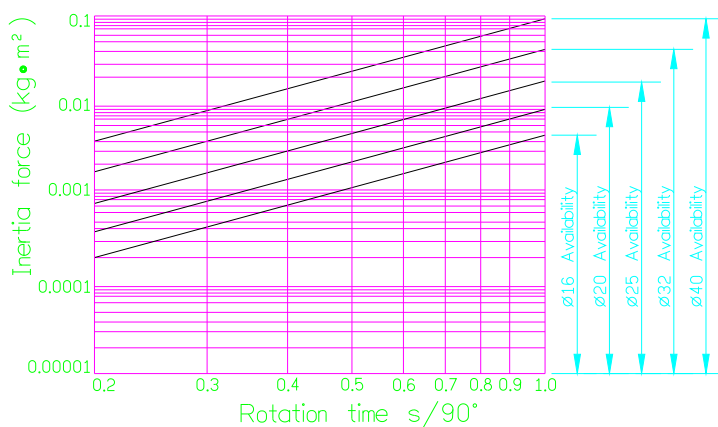
Unit: g

| Bore | Weight |
|------|--------|
| 16   | 1100   |
| 20   | 1400   |
| 25   | 2200   |
| 32   | 3800   |
| 40   | 6200   |

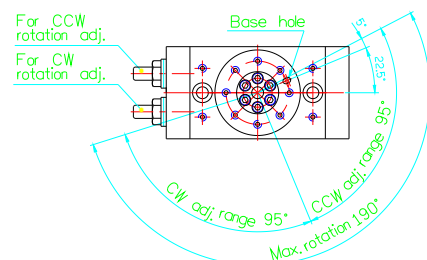
## How to Order:



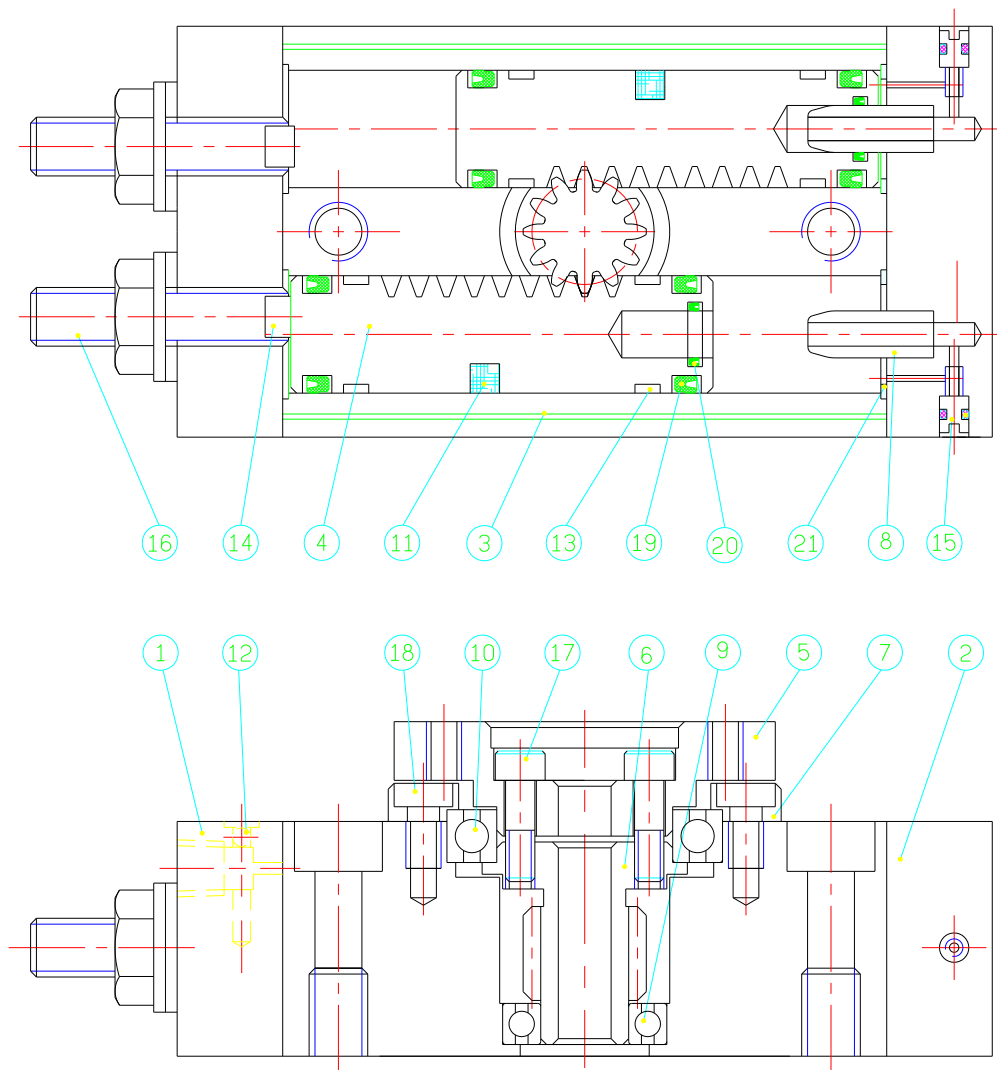
## Inertia Force and Rotation Time



## Rotation Direction & Adjusting Instruction



## Internal Constructions:



### Parts List:

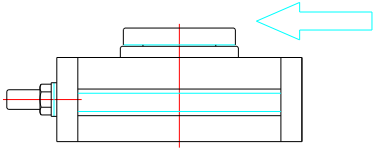
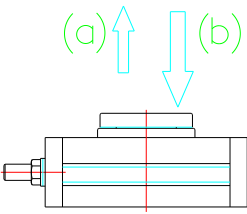
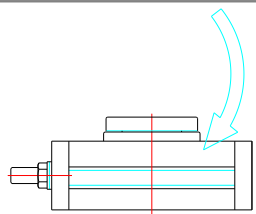
| NO. | Description         | Material                  | Qty |
|-----|---------------------|---------------------------|-----|
| ①   | Front end cover     | Aluminium black anodized  | 1   |
| ②   | Rear end cover      | Aluminium black anodized  | 1   |
| ③   | Housing             | Anodized aluminium alloy  | 1   |
| ④   | Rack                | Copper alloy              | 2   |
| ⑤   | Gear cover          | Aluminium alloy           | 1   |
| ⑥   | Pinion              | Hard chrome plated carbon | 1   |
| ⑦   | Bearing cover       | Aluminium alloy           | 1   |
| ⑧   | Rear cushion collar | Aluminium alloy           | 2   |
| ⑨   | Ball bearing        | Medium carbon steel       | 1   |
| ⑩   | Ball bearing        | Medium carbon steel       | 1   |
| ⑪   | Magnet              | Resinous magnet           | 4   |
| ⑫   | Steel ball          | Medium carbon steel       | 4   |
| ⑬   | Wear ring           | TEFLON                    | 4   |
| ⑭   | Bumper              | Plastic                   | 2   |

| NO. | Description          | Material            | Qty |
|-----|----------------------|---------------------|-----|
| ⑮   | Cushion needle screw | Stainless steel     | 2   |
| ⑯   | Angle adjustment     | Medium carbon steel | 2   |
| ⑰   | Hexagon bolt         | Medium carbon steel | 8   |
| ⑱   | Bolt                 | Medium carbon steel | 6   |

### Seals List:

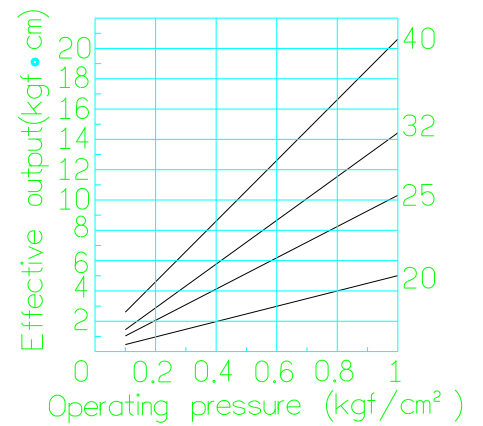
| Bore \ No. | ⑱ Piston | ⑳ Cushion seal | ㉑ End cover seal |
|------------|----------|----------------|------------------|
| ø16        | DYP16    | PDF6           | SM18             |
| ø20        | DYP20    | PDF8           | SM21             |
| ø25        | DYP25    | PDF9.5         | SM25             |
| ø32        | PGY32    | PDF14          | SM32             |
| ø40        | PGY40    | PDF14          | SM42             |

## Allowable Load:

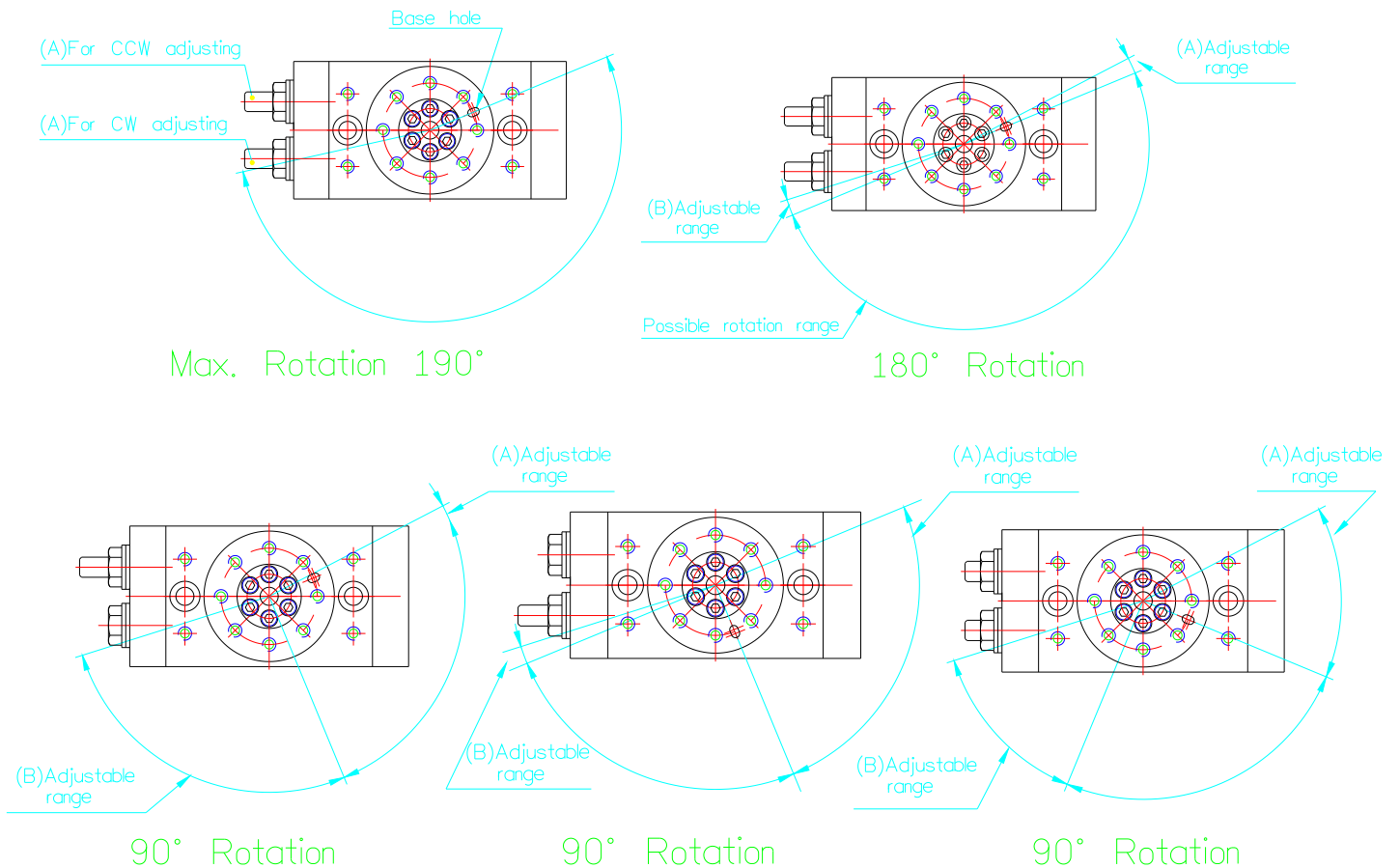
|         |  |  |      |  |
|---------|---|---|------|---|
| Bore mm | Allowable side load on shaft (N)  | Allowable axile load(N)   |      | Allowable Torque (N.m)  |
|         |   | (a)   | (b)  |   |
| 16      | 88  | 84  | 88   | 2.7   |
| 20      | 178   | 179   | 330  | 3.9   |
| 25      | 314   | 296   | 451  | 9.7   |
| 32      | 390   | 493   | 708  | 18.0  |
| 40      | 543   | 740   | 1009 | 25.0  |

## Theoretical Output:

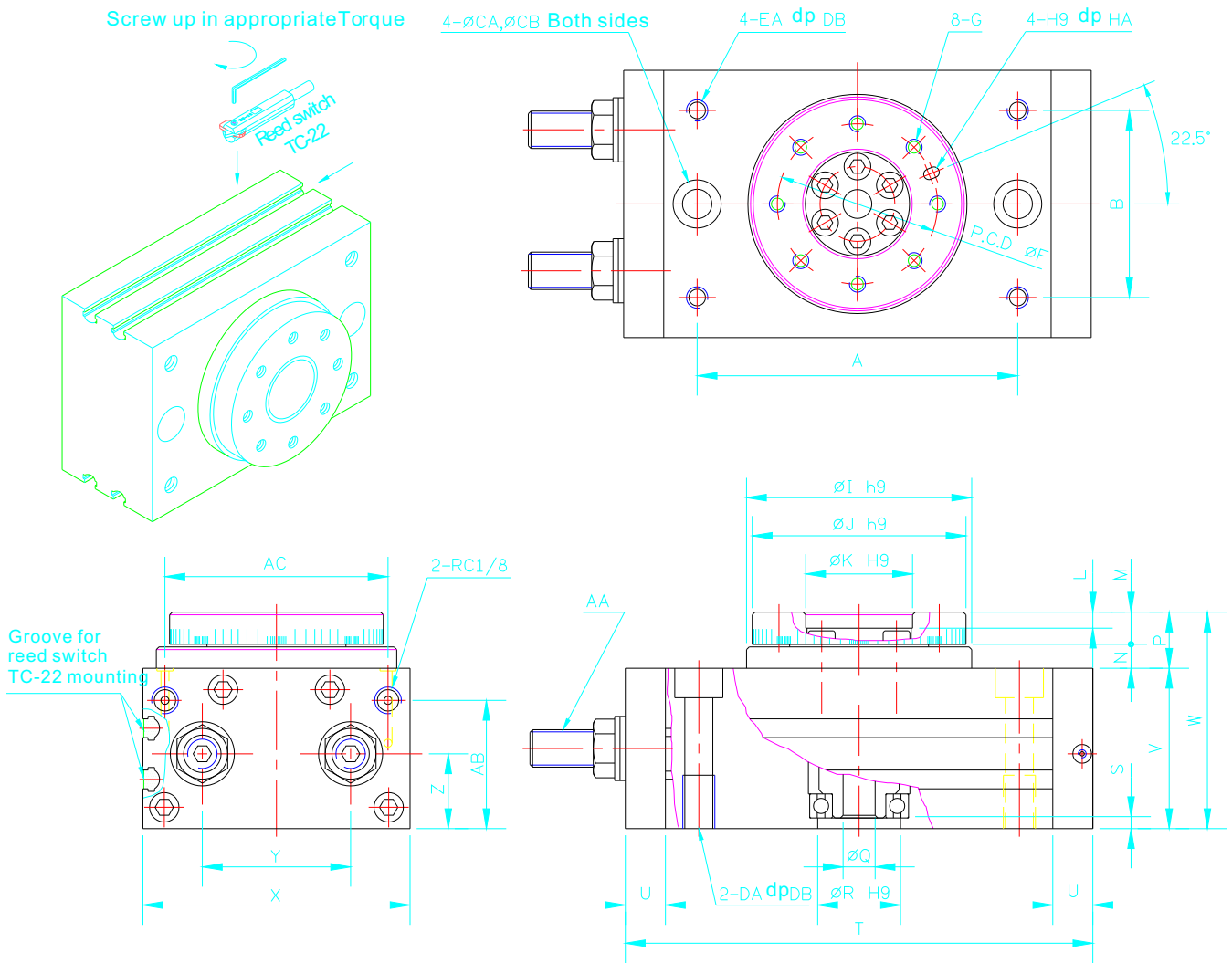
| Bore mm | Operation pressure (kgf/cm <sup>2</sup> ) |       |       |       |       |      |      |      |       |       |
|---------|---|-------|-------|-------|-------|------|------|------|-------|-------|
|         | 1   | 2     | 3     | 4     | 5     | 6    | 7    | 8    | 9     | 10    |
| 16      | 2   | 4     | 6     | 8     | 10    | 12   | 14   | 16   | 18    | 20    |
| 20      | 3.14                                      | 6.28  | 9.42  | 12.57 | 15.71 | 18.8 | 22.0 | 25.1 | 28.3  | 31.4  |
| 25      | 4.91                                      | 9.82  | 14.73 | 19.63 | 24.5  | 29.4 | 34.4 | 39.3 | 44.2  | 49.1  |
| 32      | 7.07                                      | 14.14 | 21.2  | 28.3  | 35.3  | 42.4 | 49.5 | 56.5 | 63.6  | 70.2  |
| 40      | 12.57                                     | 25.1  | 37.7  | 50.3  | 62.8  | 75.4 | 88.0 | 101  | 113.4 | 120.2 |



## Rotation adjusting range:



## External Dimensions:



## Dimension table:

| Type | A   | B  | CA   | CB | DA       | DB | EA      | EB | $\varnothing$ F | G       | HA  | $\varnothing$ I | $\varnothing$ J | $\varnothing$ K | L   |
|------|-----|----|------|----|----------|----|---------|----|-----------------|---------|-----|-----------------|-----------------|-----------------|-----|
| RC16 | 76  | 34 | 8.6  | 14 | M10x1.5  | 15 | M6x1.0  | 8  | 43              | M6x10   | 4.5 | 61              | 60              | 27              | 6   |
| RC20 | 84  | 37 | 8.6  | 14 | M10x1.5  | 15 | M6x1.0  | 8  | 48              | M6x10   | 4.5 | 67              | 65              | 32              | 4.5 |
| RC25 | 100 | 50 | 10.2 | 18 | M12x1.75 | 20 | M8x1.25 | 8  | 55              | M8x1.25 | 5.5 | 77              | 75              | 35              | 5.5 |
| RC32 | 120 | 70 | 10.2 | 18 | M12x1.75 | 20 | M8x1.25 | 10 | 70              | M8x1.25 | 6   | 92              | 90              | 40              | 6   |
| RC40 | 140 | 80 | 10.2 | 18 | M12x1.75 | 20 | M8x1.25 | 12 | 80              | M8x1.25 | 6   | 102             | 100             | 45              | 6   |

| Type | M  | N   | P  | $\varnothing$ Q | $\varnothing$ R | S   | T   | U  | V  | W  | X   | Y    | Z    | AA      | AB   | AC   |
|------|----|-----|----|-----------------|-----------------|-----|-----|----|----|----|-----|------|------|---------|------|------|
| RC16 | 10 | 7   | 17 | 9               | 17              | 2   | 119 | 13 | 37 | 54 | 65  | 27.5 | 16   | M10x1.0 | 28.5 | 48   |
| RC20 | 10 | 6.5 | 17 | 9               | 22              | 2   | 139 | 18 | 40 | 57 | 70  | 29   | 18.5 | M10x1.0 | 32   | 50   |
| RC25 | 12 | 7.5 | 20 | 10              | 26              | 3.5 | 157 | 18 | 46 | 66 | 80  | 42.7 | 22   | M14x1.5 | 37.5 | 63   |
| RC32 | 12 | 8   | 21 | 12              | 31              | 4   | 175 | 15 | 60 | 81 | 100 | 55.5 | 28   | M14x1.5 | 48   | 83.5 |
| RC40 | 12 | 8   | 21 | 18              | 36              | 4   | 195 | 15 | 70 | 91 | 122 | 69.5 | 33   | M14x1.5 | 58   | 100  |