

Standard cylinder—SE Series

In accordance with ISO15552 and VDMA24562 standard

Compendium of SE Series

ISO15552,VDMA24562 Standard cylinder
Bore size: 32、40、50、63、80、100、125

Adjustable air buffer
With adjustable air buffer on the front and back cover

Without tie rod
The square aluminum pipe without tie rod has good corrosion resistance

With sensor switch groove
With sensor switch groove on the three sides of body, the counterpart sensor switch type is: CMSE \ DMSE.

Four kinds of cylinder joints

I Knuckle Y Knuckle Floating Joint Universal Joint

Multi-mounting accessories

LB FA FB

CA CB CR

FTC TCM1 TCM2

TC

Multi-type cylinder

SE: Double acting type SED: Double rod type

SEJ: Adjustable stroke type

Criteria for selection: Cylinder thrust

Unit: Newton(N)

| Bore size | Rod size | Acting type | Pressure area(mm ²) | Operating pressure(MPa) | | | | | | | | | |
|-----------|----------|-------------------------|---------------------------------|-------------------------|--------|--------|--------|--------|--------|--------|--------|---------|--|
| | | | | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 0.9 | |
| 32 | 12 | Double acting Push side | 804 | 80.4 | 160.8 | 241.2 | 321.6 | 402.0 | 482.4 | 562.8 | 643.2 | 723.6 | |
| | | Pull side | 690 | 69.0 | 138.0 | 207.0 | 276.0 | 345.0 | 414.0 | 483.0 | 552.0 | 621.0 | |
| 40 | 16 | Double acting Push side | 1256 | 125.6 | 251.2 | 376.8 | 502.4 | 628.0 | 753.6 | 879.2 | 1002.4 | 1130.4 | |
| | | Pull side | 1055 | 105.5 | 211.0 | 316.5 | 422.0 | 527.5 | 633.0 | 738.5 | 844.0 | 949.5 | |
| 50 | 20 | Double acting Push side | 1963 | 196.3 | 392.6 | 588.9 | 785.2 | 981.5 | 1177.8 | 1374.1 | 1570.4 | 1766.7 | |
| | | Pull side | 1649 | 164.9 | 329.8 | 494.7 | 659.6 | 824.5 | 989.4 | 1154.3 | 1399.2 | 1484.1 | |
| 63 | 20 | Double acting Push side | 3117 | 311.7 | 623.4 | 935.1 | 1246.8 | 1558.5 | 1870.2 | 2181.9 | 2493.6 | 2805.3 | |
| | | Pull side | 2803 | 280.3 | 560.6 | 840.9 | 1121.2 | 1401.5 | 1681.8 | 1962.1 | 2242.4 | 2522.7 | |
| 80 | 25 | Double acting Push side | 5026 | 502.6 | 1005.2 | 1507.8 | 2010.4 | 2513.0 | 3015.6 | 3518.2 | 4020.8 | 4523.4 | |
| | | Pull side | 4536 | 453.6 | 907.2 | 1360.8 | 1814.4 | 2268.0 | 2721.6 | 3175.2 | 3628.8 | 4082.4 | |
| 100 | 25 | Double acting Push side | 7853 | 785.3 | 1570.6 | 2355.9 | 3141.2 | 3926.5 | 4711.8 | 4288.2 | 6282.4 | 7067.7 | |
| | | Pull side | 7362 | 736.2 | 1472.4 | 2208.6 | 2948.8 | 3681.0 | 4417.2 | 5153.4 | 5889.6 | 6625.8 | |
| 125 | 32 | Double acting Push side | 12272 | 1227.2 | 2454.4 | 3681.6 | 4908.8 | 6136.0 | 7363.2 | 8590.4 | 9817.6 | 11044.8 | |
| | | Pull side | 11468 | 1146.8 | 2293.6 | 3440.4 | 4587.2 | 5734.0 | 6880.8 | 8027.6 | 9174.4 | 10321.2 | |

Installation and application



- When load changes in the work, the cylinder with abundant output capacity shall be selected.
- Relative cylinder with high temperature resistance or corrosion resistance shall be chosen under the condition of high temperature or corrosion.
- Necessary protection measure shall be taken in the environment with higher humidity, much dust or water drops, oil dust and welding dregs.
- Dirty substances in the pipe must be eliminated before cylinder is connected with pipeline to prevent the entrance of particles into the cylinder.
- The medium used by cylinder shall be filtered to 40 μm or below.
- Anti-freezing measure shall be adopted under low temperature environment to prevent moisture freezing.
- The cylinder shall be carried out test run without load before application. Prior to run, buffer shall be turned to the minimum and gradually released to avoid the damage on cylinder caused by excessive impact.
- The cylinder shall avoid the influence of side load in operation to maintain the normal work of cylinder and extend the service life.
- If the cylinder is dismantled and stored for a long time, please conduct anti-rust treatment to the surface. Anti-dust caps shall be added in air inlet and outlet ports.

ISO15552 Standard cylinder

SE Series

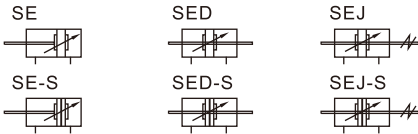


Specification

| Bore size(mm) | 32 | 40 | 50 | 63 | 80 | 100 | 125 |
|---------------------------|---|--|---------------------------------------|----|--|-----|--------|
| Acting type | Double acting | | | | | | |
| Fluid | Air(to be filtered by 40 μm filter element) | | | | | | |
| Mounting type | SE | Basic FA FB CA CB CR LB TC FTC TCM1 TCM2 | | | | | |
| | SED、SEJ | Basic FA LB TC FTC TCM1 TCM2 | | | | | |
| Operating pressure | 0.15~1.0MPa(22~145psi)(1.5~10.0bar) | | | | | | |
| Proof pressure | 1.5MPa(215psi)(15bar) | | | | | | |
| Temperature °C | -20~70 | | | | | | |
| Speed range mm/s | 30~800 | | | | | | 30~500 |
| Stroke tolerance | 0~250 ^{+1.0} ₀ | | 251~1000 ^{+1.5} ₀ | | 1001~1500 ^{+2.0} ₀ | | |
| Cushion type | Variable cushion | | | | | | |
| Adjustable cushion stroke | 27 | | 30 | | 36 | | 40 |
| Port size [Note1] | 1/8" | | 1/4" | | 3/8" | | 1/2" |

[Note1] PT thread, G thread are available.
Add) Refer to P353 for detail of sensor switch.

Symbol



Product feature

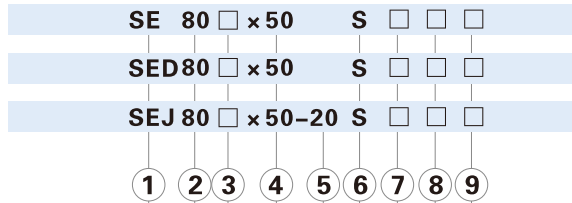
- ISO15552 and VDMA24562 standard cylinder;
- The piston seal is composed of two Y-shape one-way seal structure, which has compensation function, long service life and low start-up pressure;
- The square aluminum pipe without tie rod has good corrosion resistance;
- The buffer adjustment of cylinder is smooth and steady;
- Cylinders and accessories for installation with several specifications are optional.

Stroke

| Bore size (mm) | Standard stroke (mm) | | | | | | | | | | | | | | | | Max.std stroke | Max. stroke | | | | | |
|----------------|----------------------|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------------|-------------|-----|------|------|------|------|
| 32 | 25 | 50 | 75 | 80 | 100 | 125 | 150 | 160 | 175 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 1000 | 1800 | | | | | |
| 40 | 25 | 50 | 75 | 80 | 100 | 125 | 150 | 160 | 175 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 600 | 700 | 800 | 1200 | 1800 | | |
| 50 | 25 | 50 | 75 | 80 | 100 | 125 | 150 | 160 | 175 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 600 | 700 | 800 | 900 | 1000 | 1200 | 1800 |
| 63 | 25 | 50 | 75 | 80 | 100 | 125 | 150 | 160 | 175 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 600 | 700 | 800 | 900 | 1000 | 1500 | 1800 |
| 80 | 25 | 50 | 75 | 80 | 100 | 125 | 150 | 160 | 175 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 600 | 700 | 800 | 900 | 1000 | 1500 | 1800 |
| 100 | 25 | 50 | 75 | 80 | 100 | 125 | 150 | 160 | 175 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 600 | 700 | 800 | 900 | 1000 | 1500 | 1800 |
| 125 | 25 | 50 | 75 | 80 | 100 | 125 | 150 | 160 | 175 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 600 | 700 | 800 | 900 | 1000 | 1500 | 1800 |

[Note] Consult us for non-standard stroke.

Ordering code



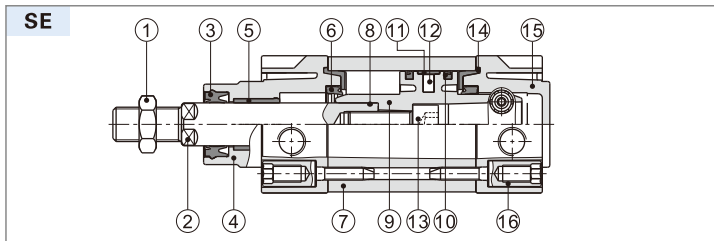
| ① Model | ② Bore size | ③ Rod Material | ④ Stroke | ⑤ Adjustable stroke | ⑥ Magnet | ⑦ Mounting type[Note1] | ⑧ Seals Material | ⑨ Thread type |
|-----------------------------|--|---|-----------------------------------|---|---|--|----------------------------------|-------------------|
| SE: Double acting type | 32 40 50 63 80 100 125 | Blank: Medium carbon steel A: SUS420J2 B: SUS304 C: SUS316 | Refer to stroke table for details | No this code | Blank: Without magnet S: With magnet | Blank LB FA FB CA CB CR FTC TC | Blank: TPU H: Viton N: NBR | Blank: PT G: G |
| SED: Double rod type | | | | | | Blank LB FA FTC TC | | |
| SEJ: Adjustable stroke type | | | | 10 20 30 40 50 75 100 | | Blank LB FA FTC TC | | |

[Note1] CR is used with CB; FTC、TC are used with TCM1、TCM2.

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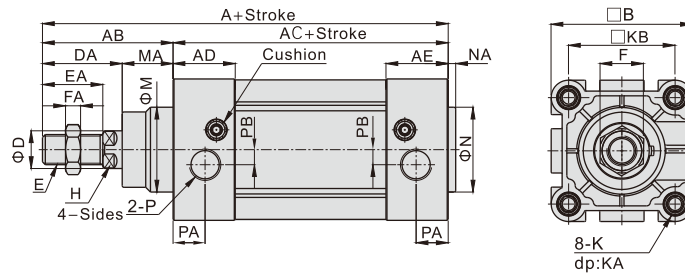
Inner structure and material of major parts



| NO. | Item | Material |
|-----|---------------------|---|
| 1 | Rod nut | Carbon steel\Stainless steel |
| 2 | Piston rod | Carbon steel with 20 μ m chrome plated or Stainless steel |
| 3 | Front cover packing | TPU |
| 4 | Front cover | Aluminum alloy |
| 5 | Bushing | Wear resistant material |
| 6 | Cushing O-ring | TPU |
| 7 | Barrel | Aluminum alloy |
| 8 | O-ring | NBR |
| 9 | Piston | Aluminum alloy |
| 10 | Piston Seal | TPU |
| 11 | Wear ring | Wear resistant material |
| 12 | Magnet | Plastic\Rubber(Φ 125) |
| 13 | Bolt | Carbon steel |
| 14 | Buffer gasket | TPU |
| 15 | Back cover | Aluminum alloy |
| 16 | Screw | Carbon steel\Stainless steel |

Dimensions

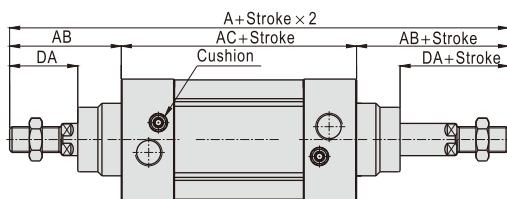
SE



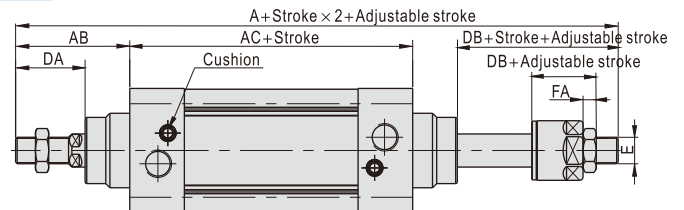
| Bore size\Item | A | AB | AC | AD | AE | B | D | DA | E | EA | F | FA | H | K | KA | KB | M | MA | NA | N | P | PA | PB |
|----------------|-----|-----|-----|------|------|------|----|----|----------|----|----|------|----|-----|----|------|----|----|-----|----|------|------|----|
| 32 | 142 | 48 | 94 | 27.5 | 27.5 | 46.5 | 12 | 29 | M10×1.25 | 22 | 17 | 6 | 10 | M6 | 16 | 32.5 | 30 | 19 | 3 | 30 | 1/8" | 13.5 | 6 |
| 40 | 159 | 54 | 105 | 32 | 32 | 54 | 16 | 33 | M12×1.25 | 24 | 17 | 7 | 13 | M6 | 16 | 38 | 35 | 21 | 3.5 | 35 | 1/4" | 17.5 | 6 |
| 50 | 175 | 69 | 106 | 31 | 31 | 64 | 20 | 42 | M16×1.5 | 32 | 23 | 8 | 17 | M8 | 16 | 46.5 | 40 | 27 | 3.5 | 40 | 1/4" | 14 | 8 |
| 63 | 190 | 69 | 121 | 33 | 33 | 75 | 20 | 42 | M16×1.5 | 32 | 23 | 8 | 17 | M8 | 16 | 56.5 | 45 | 27 | 4 | 45 | 3/8" | 17 | 8 |
| 80 | 214 | 86 | 128 | 33 | 33 | 93 | 25 | 53 | M20×1.5 | 40 | 26 | 10 | 22 | M10 | 17 | 72 | 45 | 33 | 4 | 45 | 3/8" | 16.5 | 8 |
| 100 | 229 | 91 | 138 | 37 | 37 | 110 | 25 | 55 | M20×1.5 | 40 | 26 | 10 | 22 | M10 | 17 | 89 | 55 | 36 | 4 | 55 | 1/2" | 19.5 | 10 |
| 125 | 279 | 119 | 160 | 46 | 46 | 134 | 32 | 74 | M27×2 | 54 | 41 | 13.5 | 27 | M12 | 20 | 110 | 60 | 45 | 4 | 60 | 1/2" | 23 | 11 |

Remark: The dimensions of magnet type cylinder are the same as non-magnet type cylinder.

SED



SEJ



| Bore size\Item | A | | AB | AC | DA | DB | E | FA |
|----------------|-----|-------|-----|-----|----|------|----------|------|
| | SED | SEJ | | | | | | |
| 32 | 190 | 188 | 48 | 94 | 29 | 27 | M10X1.25 | 6 |
| 40 | 213 | 208 | 54 | 105 | 33 | 28 | M12X1.25 | 7 |
| 50 | 244 | 231 | 69 | 106 | 42 | 29 | M16X1.5 | 8 |
| 63 | 259 | 246 | 69 | 121 | 42 | 29 | M16X1.5 | 8 |
| 80 | 300 | 282.5 | 86 | 128 | 53 | 35.5 | M20X1.5 | 10 |
| 100 | 320 | 300.5 | 91 | 138 | 55 | 35.5 | M20X1.5 | 10 |
| 125 | 398 | 366.5 | 119 | 160 | 74 | 42.5 | M27X2.0 | 13.5 |

Remark:

1. The dimensions of magnet type cylinder are the same as non-magnet type cylinder.
2. The unmarked dimension is the same as SE standard type.

List for ordering code of accessories

| Accessories Bore size | Mounting accessories | | | | | | | | |
|--------------------------|----------------------|-----------|-----------|-----------|-----------|-----------|------------|-------------|-------------|
| | LB | FA/FB | CA | CB | CR | TC | FTC | TCM1 | TCM2 |
| 32 | F-SI32LB | F-SI32FA | F-SE32CA | F-SE32CB | F-SI32CR | F-SE32TC | F-SI32FTC | F-SI32TCM1 | F-SI32TCM2 |
| 40 | F-SI40LB | F-SI40FA | F-SE40CA | F-SE40CB | F-SI40CR | F-SE40TC | F-SI40FTC | F-SI40TCM1 | F-SI40TCM2 |
| 50 | F-SI50LB | F-SI50FA | F-SE50CA | F-SE50CB | F-SI50CR | F-SE50TC | F-SI50FTC | F-SI40TCM1 | F-SI40TCM2 |
| 63 | F-SI63LB | F-SI63FA | F-SE63CA | F-SE63CB | F-SI63CR | F-SE63TC | F-SI63FTC | F-SI63TCM1 | F-SI63TCM2 |
| 80 | F-SI80LB | F-SI80FA | F-SE80CA | F-SE80CB | F-SI80CR | F-SE80TC | F-SI80FTC | F-SI63TCM1 | F-SI63TCM2 |
| 100 | F-SI100LB | F-SI100FA | F-SE100CA | F-SE100CB | F-SI100CR | F-SE100TC | F-SI100FTC | F-SI125TCM1 | F-SI125TCM2 |
| 125 | F-SI125LB | F-SI125FA | F-SE125CA | F-SE125CB | F-SI125CR | F-SE125TC | F-SI125FTC | F-SI125TCM1 | F-SI125TCM2 |

| Accessories Bore size | Knuckle | | | | Sensor switch | |
|--------------------------|--------------|--------------|--------------|--------------|---------------|------|
| | I: I Knuckle | Y: Y Knuckle | F: F Knuckle | U: U Knuckle | CMSE | DMSE |
| 32 | F-M10X125I | F-M10X125Y | F-M10X125F | F-M10X125U | CMSE | DMSE |
| 40 | F-M12X125I | F-M12X125Y | F-M12X125F | F-M12X125U | | |
| 50 | F-M16X150I | F-M16X150Y | F-M16X150F | F-M16X150U | | |
| 63 | F-M16X150I | F-M16X150Y | F-M16X150F | F-M16X150U | | |
| 80 | F-M20X150I | F-M20X150Y | F-M20X150F | F-M20X150U | | |
| 100 | F-M20X150I | F-M20X150Y | F-M20X150F | F-M20X150U | | |
| 125 | F-M27X200I | F-M27X200Y | F-M27X200F | F-M27X200U | | |

Accessory selection

| Accessories Cylinder model | Mounting accessories | | | | | | | | | | Knuckle [Note1] | | | | Sensor switch | |
|-------------------------------|----------------------|----|----|----|----|----|----|-----|------|------|-----------------|---|---|---|---------------|------|
| | LB | FA | FB | CA | CB | CR | TC | FTC | TCM1 | TCM2 | I | Y | U | F | CMSE | DMSE |
| SE | Standard | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | × | × |
| | With magnet | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| SED | Standard | ● | ● | × | × | × | × | ● | ● | ● | ● | ● | ● | ● | × | × |
| | With magnet | ● | ● | × | × | × | × | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| SEJ | Standard | ● | ● | × | × | × | × | ● | ● | ● | ● | ● | ● | ● | × | × |
| | With magnet | ● | ● | × | × | × | × | ● | ● | ● | ● | ● | ● | ● | ● | ● |

[Note1] Please refer to P349~352 for knuckle detail.

Material of accessories

| Accessories Bore size | Mounting accessories | | | | | | | | | Knuckle | | | |
|--------------------------|----------------------|----|----|----|----|----|-----|------|------|---------|---|---|---|
| | LB | FA | FB | CA | CB | CR | FTC | TCM1 | TCM2 | I | Y | F | U |
| 32~100 | ○ | ● | ● | ◇ | ◇ | ◇ | ■ | ■ | ● | □ | □ | □ | □ |
| 125 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | □ | □ | □ | □ |

●—Aluminum alloy, ▲—S45C, ■—Cast steel, ○—Low carbon steel, ◇—Nodular cast iron, △—SPCC; □—Carbon steel.

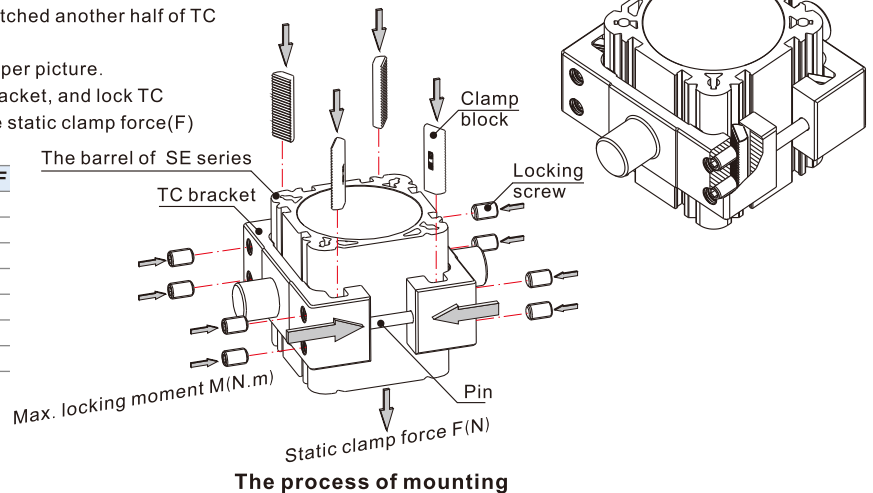
How to mount TC bracket

Please install TC bracket by below steps:

- Hitched half of TC bracket over the barrel, and adjust it to the adapted position.
- Insert the both sides pin of the TC bracket.
- Aimed another half of TC bracket's pin hole at pin and hitched another half of TC bracket over the barrel.
- Posting clamp block in the four nook of TC bracket by upper picture.
- Screw down eight locked screws from side face of TC bracket, and lock TC bracket with the max. locking moment of below table. the static clamp force(F) as below table:

| Bore size | Max. locking moment M | Static clamp force F |
|-----------|-----------------------|----------------------|
| 32 | 2~3 N.m | 800 N |
| 40 | 4~6 N.m | 1200 N |
| 50 | 4~6 N.m | 2000 N |
| 63 | 7~12 N.m | 3000 N |
| 80 | 12~20 N.m | 5000 N |
| 100 | 12~20 N.m | 8000 N |
| 125 | 18~30 N.m | 12000 N |

The accomplished of mounting

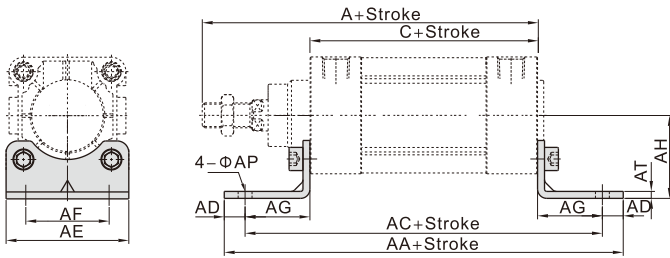


ISO15552 Standard cylinder

SE Series—Accessories

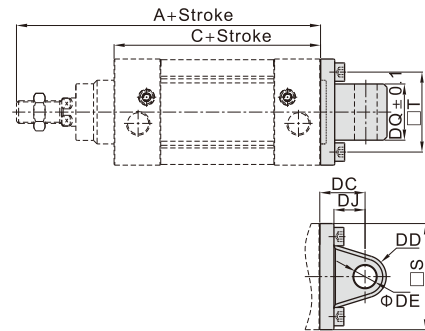
Dimensions

LB



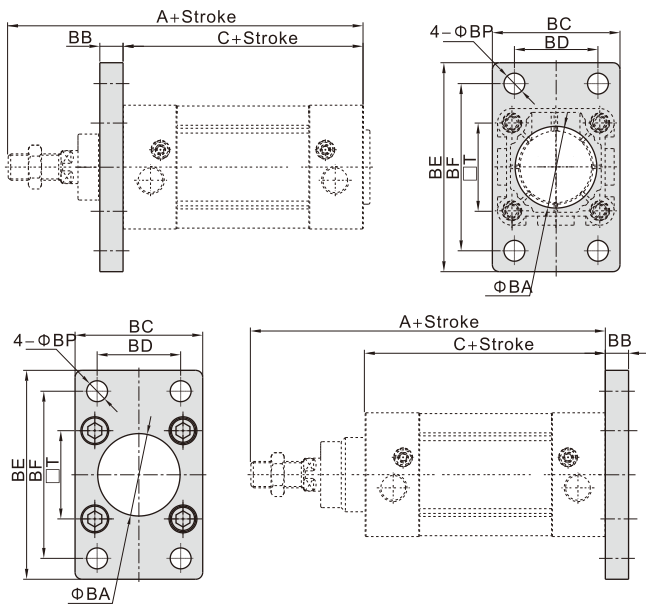
| Bore size\Item | A | C | AA | AC | AD | AE | AF | AG | AH | AP | AT |
|----------------|-----|-----|-----|-----|----|-----|----|----|----|------|----|
| 32 | 142 | 94 | 158 | 142 | 8 | 47 | 32 | 24 | 32 | 7 | 3 |
| 40 | 159 | 105 | 179 | 161 | 9 | 53 | 36 | 28 | 36 | 9 | 3 |
| 50 | 175 | 106 | 190 | 170 | 10 | 65 | 45 | 32 | 45 | 9 | 3 |
| 63 | 190 | 121 | 209 | 185 | 12 | 75 | 50 | 32 | 50 | 9 | 3 |
| 80 | 214 | 128 | 248 | 210 | 19 | 95 | 63 | 41 | 63 | 12.5 | 4 |
| 100 | 229 | 138 | 258 | 220 | 19 | 115 | 75 | 41 | 71 | 14.5 | 4 |
| 125 | 279 | 160 | 290 | 250 | 20 | 140 | 90 | 45 | 90 | 16.5 | 8 |

CA



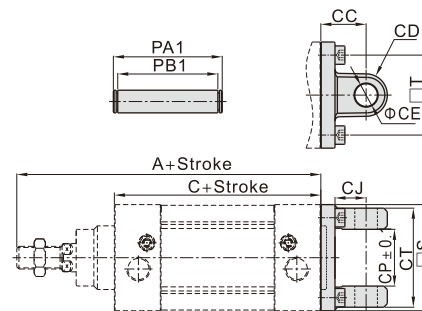
| Bore size\Item | A | C | S | T | DC | DD | DE | DJ | DQ |
|----------------|-----|-----|------|------|----|------|----|----|------|
| 32 | 142 | 94 | 46.5 | 32.5 | 22 | 10.5 | 10 | 13 | 25.8 |
| 40 | 159 | 105 | 54 | 38 | 25 | 12 | 12 | 16 | 27.8 |
| 50 | 175 | 106 | 64 | 46.5 | 27 | 12 | 12 | 17 | 31.7 |
| 63 | 190 | 121 | 75 | 56.5 | 32 | 15 | 16 | 22 | 39.7 |
| 80 | 214 | 128 | 93 | 72 | 36 | 15.5 | 16 | 22 | 49.7 |
| 100 | 229 | 138 | 110 | 89 | 41 | 20 | 20 | 27 | 59.7 |
| 125 | 279 | 160 | 134 | 110 | 50 | 24 | 25 | 33 | 69.7 |

FA/FB



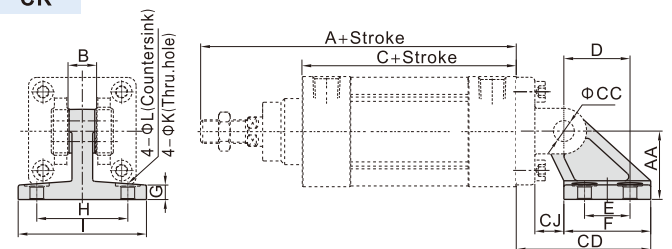
| Bore size\Item | A | C | BA | BB | BC | BD | BE | BF | BP | T |
|----------------|-----|-----|------|----|-----|----|-----|-----|------|------|
| 32 | 142 | 94 | 30.5 | 10 | 47 | 32 | 80 | 64 | 7 | 32.5 |
| 40 | 159 | 105 | 35.5 | 10 | 53 | 36 | 90 | 72 | 9 | 38 |
| 50 | 175 | 106 | 40.5 | 12 | 65 | 45 | 108 | 90 | 9 | 46.5 |
| 63 | 190 | 121 | 45.5 | 12 | 75 | 50 | 118 | 100 | 9 | 56.5 |
| 80 | 214 | 128 | 45.5 | 16 | 95 | 63 | 150 | 126 | 12.5 | 72 |
| 100 | 229 | 138 | 55.5 | 16 | 115 | 75 | 176 | 150 | 14.5 | 89 |
| 125 | 279 | 160 | 60.5 | 20 | 139 | 90 | 218 | 180 | 16.5 | 110 |

CB



| Bore size\Item | A | C | CC | CD | CE | CJ | CP | CT | PA1 | PB1 | S | T |
|----------------|-----|-----|----|------|----|----|----|-----|-----|-------|------|------|
| 32 | 142 | 94 | 22 | 10.5 | 10 | 13 | 26 | 45 | 51 | 45.5 | 46.5 | 32.5 |
| 40 | 159 | 105 | 25 | 12 | 12 | 16 | 28 | 52 | 59 | 52.5 | 54 | 38 |
| 50 | 175 | 106 | 27 | 12 | 12 | 17 | 32 | 60 | 67 | 60.5 | 64 | 46.5 |
| 63 | 190 | 121 | 32 | 15 | 16 | 22 | 40 | 70 | 77 | 70.5 | 75 | 56.5 |
| 80 | 214 | 128 | 36 | 15.5 | 16 | 22 | 50 | 90 | 97 | 90.5 | 93 | 72 |
| 100 | 229 | 138 | 41 | 20 | 20 | 27 | 60 | 110 | 119 | 110.5 | 110 | 89 |
| 125 | 279 | 160 | 50 | 24 | 25 | 33 | 70 | 130 | 139 | 130.5 | 134 | 110 |

CR



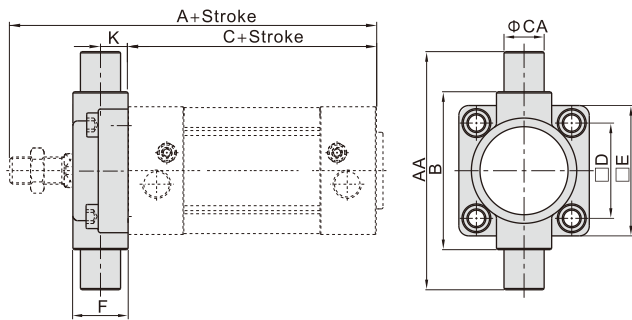
| Bore size\Item | A | AA | B | C | CC | CD | CJ | D | E | F | G | H | I | K | L |
|----------------|-----|----|----|-----|----|-----|----|----|----|----|----|----|-----|-----|----|
| 32 | 142 | 32 | 26 | 94 | 10 | 50 | 10 | 21 | 18 | 31 | 8 | 38 | 51 | 6.6 | - |
| 40 | 159 | 36 | 28 | 105 | 12 | 56 | 12 | 24 | 22 | 35 | 10 | 41 | 54 | 6.6 | - |
| 50 | 175 | 45 | 32 | 106 | 12 | 68 | 13 | 33 | 30 | 45 | 12 | 50 | 65 | 9 | - |
| 63 | 190 | 50 | 40 | 121 | 16 | 77 | 17 | 37 | 35 | 50 | 12 | 52 | 67 | 9 | - |
| 80 | 214 | 63 | 50 | 128 | 16 | 93 | 19 | 47 | 40 | 60 | 14 | 66 | 86 | 11 | 18 |
| 100 | 229 | 71 | 60 | 138 | 20 | 106 | 22 | 55 | 50 | 70 | 15 | 76 | 96 | 11 | 18 |
| 125 | 279 | 90 | 70 | 160 | 25 | 135 | 26 | 70 | 60 | 90 | 20 | 94 | 124 | 14 | 20 |

[Note] CR can't be used alone, it must be used with CB.

ISO15552 Standard cylinder

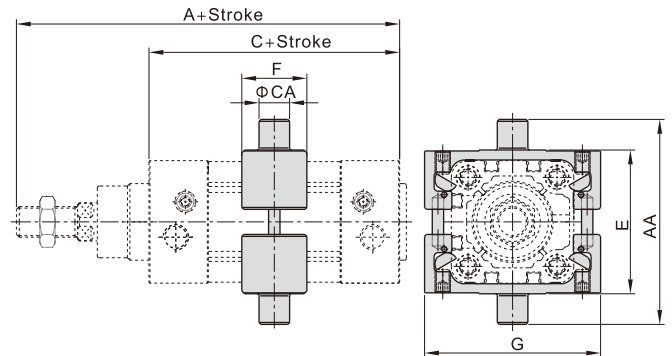
SE Series—Accessories

FTC



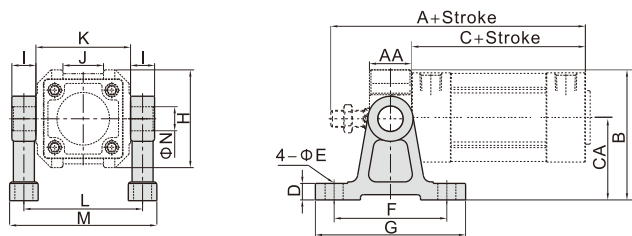
| Bore size/Item | A | AA | C | CA | E | F | G |
|----------------|-----|-----|-----|----|-----|----|-----|
| 32 | 142 | 74 | 94 | 12 | 52 | 31 | 68 |
| 40 | 159 | 95 | 105 | 16 | 63 | 33 | 78 |
| 50 | 175 | 107 | 106 | 16 | 75 | 35 | 95 |
| 63 | 190 | 130 | 121 | 20 | 90 | 37 | 108 |
| 80 | 214 | 150 | 128 | 20 | 110 | 41 | 130 |
| 100 | 229 | 182 | 138 | 25 | 132 | 47 | 148 |
| 125 | 279 | 210 | 160 | 25 | 160 | 51 | 173 |

TC



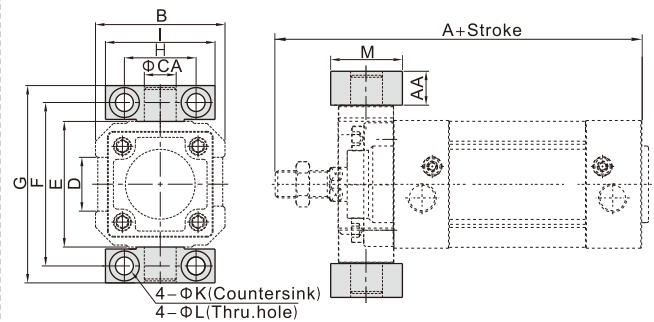
| Bore size/Item | A | C | AA | B | CA | D | E | F | K |
|----------------|-----|-----|-----|-----|----|------|-----|----|----|
| 32 | 142 | 94 | 74 | 50 | 12 | 32.5 | 46 | 19 | 10 |
| 40 | 159 | 105 | 95 | 63 | 16 | 38 | 52 | 21 | 10 |
| 50 | 175 | 106 | 107 | 75 | 16 | 46.5 | 64 | 26 | 12 |
| 63 | 190 | 121 | 130 | 90 | 20 | 56.5 | 74 | 28 | 12 |
| 80 | 214 | 128 | 150 | 110 | 20 | 72 | 94 | 31 | 16 |
| 100 | 229 | 138 | 182 | 132 | 25 | 89 | 114 | 35 | 16 |
| 125 | 279 | 160 | 210 | 160 | 25 | 110 | 139 | 43 | 20 |

TCM1



| Bore size/Item | A | C | AA | B | CA | D | E | F | G | H | I | J | K | L | M | N |
|----------------|-----|-----|----|-------|----|----|----|-----|-----|-----|----|----|-----|-----|-----|----|
| 32 | 142 | 94 | 19 | 66 | 40 | 11 | 9 | 60 | 80 | 52 | 12 | 20 | 50 | 62 | 77 | 12 |
| 40 | 159 | 105 | 21 | 86.5 | 54 | 11 | 12 | 75 | 100 | 65 | 16 | 27 | 63 | 79 | 98 | 16 |
| 50 | 175 | 106 | 26 | 91.5 | 54 | 11 | 12 | 75 | 100 | 75 | 16 | 31 | 75 | 91 | 110 | 16 |
| 63 | 190 | 121 | 28 | 115 | 70 | 11 | 12 | 85 | 110 | 90 | 20 | 42 | 90 | 110 | 133 | 20 |
| 80 | 214 | 128 | 31 | 126 | 70 | 11 | 12 | 85 | 110 | 112 | 20 | 54 | 110 | 130 | 153 | 20 |
| 100 | 229 | 138 | 35 | 157.5 | 90 | 19 | 18 | 115 | 155 | 135 | 25 | 68 | 135 | 157 | 185 | 25 |
| 125 | 279 | 160 | 43 | 169.3 | 90 | 19 | 18 | 115 | 155 | 170 | 25 | 80 | 160 | 185 | 213 | 25 |

TCM2



| Bore size/Item | A | AA | B | CA | D | E | F | G | H | I | K | L | M |
|----------------|-----|------|-----|----|----|-----|-------|-----|----|----|----|----|----|
| 32 | 142 | 14 | 52 | 12 | 20 | 50 | 66 | 80 | 32 | 46 | 11 | 7 | 30 |
| 40 | 159 | 17 | 65 | 16 | 27 | 63 | 82 | 99 | 36 | 55 | 15 | 9 | 36 |
| 50 | 175 | 17 | 75 | 16 | 31 | 75 | 94 | 111 | 36 | 55 | 15 | 9 | 36 |
| 63 | 190 | 20.5 | 90 | 20 | 42 | 90 | 113.5 | 134 | 42 | 65 | 18 | 11 | 40 |
| 80 | 214 | 20.5 | 112 | 20 | 54 | 110 | 133.5 | 154 | 42 | 65 | 18 | 11 | 40 |
| 100 | 229 | 24.5 | 135 | 25 | 68 | 132 | 159.5 | 184 | 50 | 75 | 20 | 14 | 50 |
| 125 | 279 | 24.5 | 170 | 25 | 80 | 160 | 187.5 | 212 | 50 | 75 | 20 | 14 | 50 |

[Note] The installation position of the accessories can not be adjusted arbitrarily.

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