

SC Series Standard Cylinder:



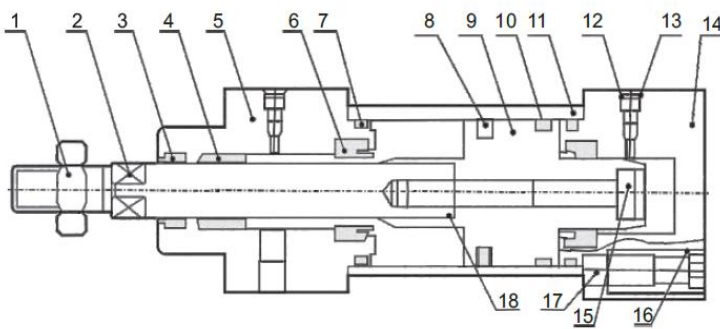
1. Ordering Code :

| | | | | | | | | | | |
|---|---|-----------|---|--------|---|---------------|---|---------------|---|-------------------------------|
| SC | - | 50 | X | 50 | - | 25 | - | S | - | LB |
| ↑ | | ↑ | | ↑ | | ↑ | | ↑ | | ↑ |
| Model | | Bore size | | Stroke | | Adjust stroke | | S:with magnet | | Fixed type |
| SC: Double action type | | | | | | 25:25mm | | Blank: | | Blank: Basic type |
| SCD: Two axis double action type | | | | | | 50:50mm | | without | | LB:Foot mounting type |
| SCJ: Two axis double action type with stroke adjustable | | | | | | 75:75mm | | magnet | | FA:Front flange mounting type |
| | | | | | | | | | | FB:Rear-Flange mounting type |
| | | | | | | | | | | CA:Male single Earring type |
| | | | | | | | | | | CB:Female double earring type |
| | | | | | | | | | | SDB: Back cover fixed type |
| | | | | | | | | | | TC:Trunnion type |

2.Characteristics:

- 1) This series of cylinder conforms to: Airtac standard
- 2) There is an adjustable buffers at the terminals of the cylinder except for mounted cushion.
- 3) We can offer different kinds of mounting style according to standard, like Foot mounting, Front flange mounting, Rear-flange mounting, and so on.
- 4) Different thread type can be offered according to customers' requirements, e.g.:BSP, NPT etc.
- 5) Needn't lubricate on piston rod by oil

3.Internal Structure:



| No.: | Designation | No.: | Designation |
|------|-----------------------|------|-------------------|
| 1. | Piston rod nut | 10. | Wear ring |
| 2. | Piston rod | 11. | Barrel |
| 3. | Front cover seal ring | 12. | buffering o-ring |
| 4. | Bearing | 13. | adjustable screw |
| 5. | Front cover | 14. | Back cover |
| 6. | Buffering sealing | 15. | Hex socket screw |
| 7. | Pipe wall O-ring | 16. | Tie rod nut |
| 8. | Piston sealing | 17. | Tie rod o-ring |
| 9. | Piston | 18. | Piston rod o-ring |

4.Specification:

| Bore (mm) | 32 | 40 | 50 | 63 | 80 | 100 | 125 | 160 | 200 |
|-------------------|-----------------------|------|----|------|-------|------|-----|------|-----|
| Action | Double Action | | | | | | | | |
| Applicable medium | Filered Air | | | | | | | | |
| Pressure range | 0.1~0.9 MPa | | | | | | | | |
| Proof pressure | 1.35 MPa | | | | | | | | |
| Temperature range | -5℃~70℃ | | | | | | | | |
| Speed range | 300~800 mm/s | | | | | | | | |
| Cushion style | Adjustable Air Buffer | | | | | | | | |
| Cushion stroke | 24 mm | | | | 32 mm | | | | |
| Port size | G1/8 | G1/4 | | G3/8 | | G1/2 | | G3/4 | |

5. Cylinder Theory output:

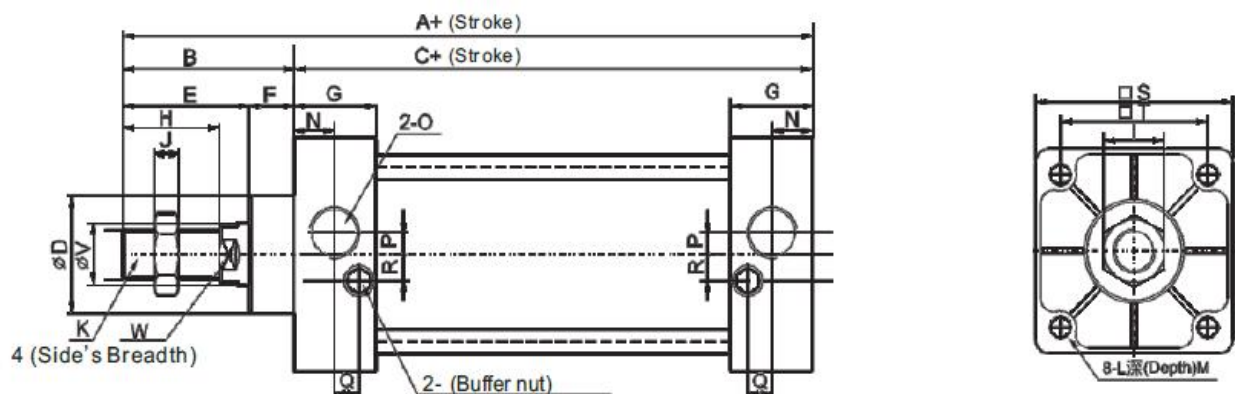
| Cylinder inside Diameter | Extern Diameter of Piston Rod | Potion Pattern | Compression Area(cm ²) | Air Pressure(kgf/cm ²) | | | | | | | | | |
|--------------------------|-------------------------------|----------------|------------------------------------|------------------------------------|--------|--------|--------|---------|---------|---------|---------|---------|---------|
| | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | |
| 32 | 12 | Double Action | Press Side | 8.04 | 8.04 | 16.08 | 24.12 | 32.16 | 40.20 | 48.24 | 56.28 | 64.32 | 72.36 |
| | | | Pull Side | 6.90 | 6.90 | 13.80 | 20.07 | 27.60 | 34.50 | 41.40 | 48.30 | 55.20 | 62.10 |
| 40 | 16 | Double Action | Press Side | 12.56 | 12.56 | 25.12 | 37.68 | 50.24 | 62.80 | 75.36 | 87.92 | 100.24 | 113.04 |
| | | | Pull Side | 10.55 | 10.55 | 21.10 | 31.65 | 42.20 | 52.75 | 63.30 | 73.85 | 84.40 | 94.95 |
| 50 | 20 | Double Action | Press Side | 19.63 | 19.63 | 39.26 | 58.89 | 78.52 | 98.15 | 117.78 | 137.41 | 157.04 | 176.67 |
| | | | Pull Side | 16.49 | 16.49 | 32.98 | 49.47 | 65.96 | 82.45 | 98.94 | 115.43 | 139.92 | 148.41 |
| 63 | 20 | Double Action | Press Side | 31.17 | 31.17 | 62.34 | 93.51 | 124.68 | 155.85 | 187.02 | 218.19 | 249.36 | 280.53 |
| | | | Pull Side | 28.03 | 28.03 | 56.06 | 84.09 | 112.12 | 140.15 | 168.18 | 196.21 | 224.24 | 252.27 |
| 80 | 25 | Double Action | Press Side | 50.26 | 50.26 | 100.52 | 150.78 | 201.04 | 251.30 | 301.56 | 351.82 | 402.08 | 452.34 |
| | | | Pull Side | 45.36 | 45.36 | 90.72 | 136.08 | 181.44 | 226.80 | 272.16 | 317.52 | 326.88 | 408.24 |
| 100 | 25 | Double Action | Press Side | 78.53 | 78.53 | 157.06 | 235.59 | 314.12 | 392.65 | 471.18 | 549.71 | 628.24 | 706.77 |
| | | | Pull Side | 71.47 | 71.47 | 142.94 | 214.41 | 285.88 | 357.35 | 428.82 | 500.29 | 571.76 | 643.23 |
| 125 | 32 | Double Action | Press Side | 122.72 | 122.72 | 245.44 | 368.16 | 490.88 | 613.60 | 736.32 | 859.04 | 981.76 | 1104.48 |
| | | | Pull Side | 114.68 | 114.68 | 229.36 | 344.04 | 458.72 | 573.40 | 688.08 | 802.76 | 917.44 | 1032.12 |
| 160 | 40 | Double Action | Press Side | 201.06 | 201.06 | 402.12 | 603.18 | 804.24 | 1005.30 | 1206.36 | 1407.42 | 1608.48 | 1809.54 |
| | | | Pull Side | 188.49 | 188.49 | 376.98 | 565.47 | 753.96 | 942.45 | 1130.94 | 1319.43 | 1507.92 | 1696.41 |
| 200 | 40 | Double Action | Press Side | 314.16 | 314.16 | 628.32 | 942.48 | 1256.64 | 1570.80 | 1884.96 | 2199.12 | 2513.28 | 2827.44 |
| | | | Pull Side | 301.57 | 301.57 | 603.14 | 904.71 | 1206.28 | 1507.80 | 1809.42 | 2100.99 | 2412.56 | 2714.13 |

6. Stroke:

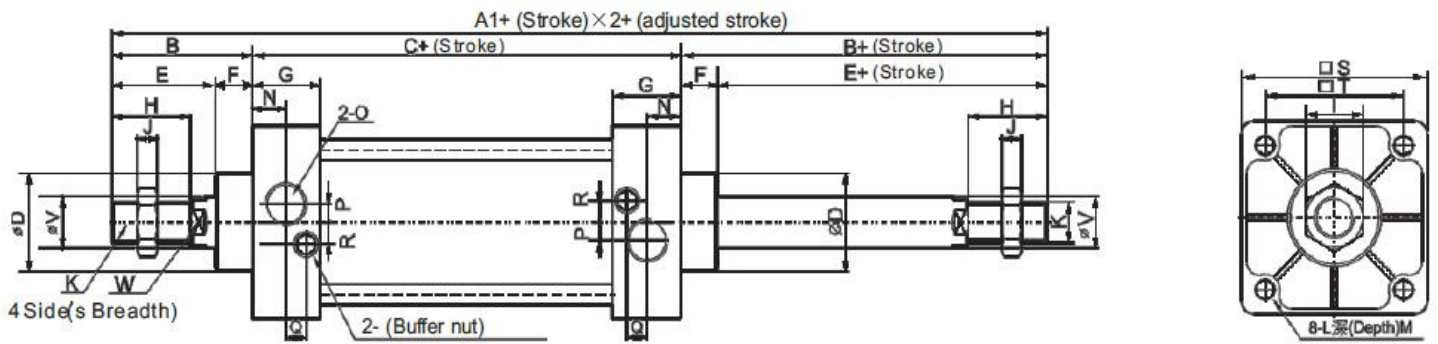
| Bore(mm) | Standard Stroke | Max. Stroke | Permissible Stroke |
|----------|--|-------------|--------------------|
| 32 | 25 50 75 80 100 125 160 175 200 250 300 350 400 450 500 | 1000 | 2000 |
| 40 | 25 50 75 80 100 125 160 175 200 250 300 350 400 450 500 600 700 800 | 1200 | 2000 |
| 50 | 25 50 75 80 100 125 160 175 200 250 300 350 400 450 500 600 700 800 900 1000 | 1200 | 2000 |
| 63 | 25 50 75 80 100 125 160 175 200 250 300 350 400 450 500 600 700 800 900 1000 | 1500 | 2000 |
| 80 | 25 50 75 80 100 125 160 175 200 250 300 350 400 450 500 600 700 800 900 1000 | 1500 | 2000 |
| 100 | 25 50 75 80 100 125 160 175 200 250 300 350 400 450 500 600 700 800 900 1000 | 1500 | 2000 |
| 125 | 25 50 75 80 100 125 160 175 200 250 300 350 400 450 500 600 700 800 900 1000 | 1500 | 2000 |
| 160 | 25 50 75 80 100 125 160 175 200 250 300 350 400 450 500 600 700 800 900 1000 | 1500 | 2000 |
| 200 | 25 50 75 80 100 125 160 175 200 250 300 350 400 450 500 600 700 800 900 1000 | 1500 | 2000 |

7. Overall and Dimension Sheet:

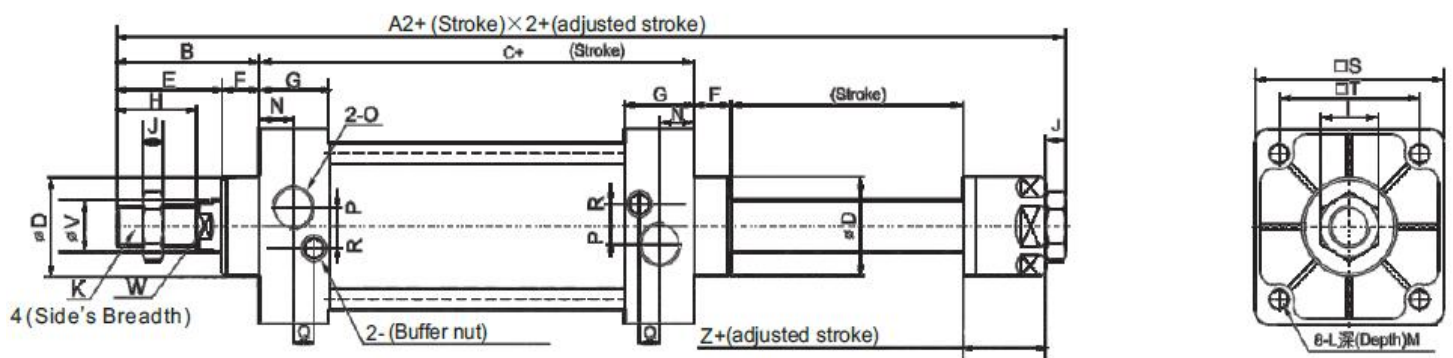
SC series (Φ32~Φ200):



SCD series (Φ32~Φ200):



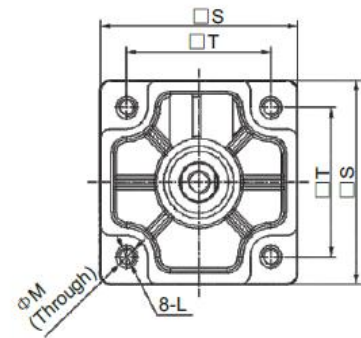
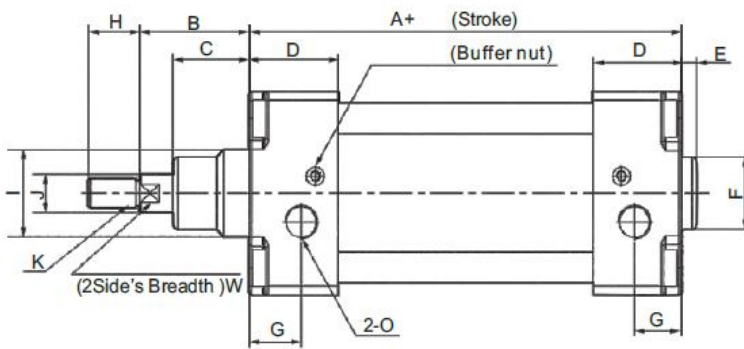
SCJ series (Φ32~Φ200):



| Bore/Symbol | L | M | N | O | P | Q | R | S | T | V | W | Z |
|-------------|----------|------|------|-------|-----|-----|-----|-----|-----|----|----|----|
| 32 | M6×1 | 9.5 | 13.7 | G1/8" | 3.5 | 7.5 | 7 | 45 | 33 | 12 | 10 | 21 |
| 40 | M6×1 | 9.5 | 13.5 | G1/4" | 6 | 8.2 | 9 | 50 | 37 | 16 | 14 | 21 |
| 50 | M6×1 | 9.5 | 13.5 | G1/4" | 8.5 | 8.2 | 9 | 62 | 47 | 20 | 17 | 23 |
| 63 | M8×1.25 | 9.5 | 13.5 | G3/8" | 7 | 8.2 | 8.5 | 75 | 56 | 20 | 17 | 23 |
| 80 | M10×1.5 | 11.5 | 16.5 | G3/8" | 10 | 9.5 | 14 | 94 | 70 | 25 | 22 | 29 |
| 100 | M10×1.5 | 11.5 | 16.5 | G1/2" | 11 | 9.5 | 14 | 112 | 84 | 25 | 22 | 29 |
| 125 | M12×1.75 | 21 | 16.5 | G1/2" | / | / | / | 140 | 110 | 32 | 28 | 33 |
| 160 | M16×2 | 25 | 26 | G3/4" | / | / | / | 180 | 140 | 40 | 36 | 38 |
| 200 | M16×2 | 25 | 22.5 | G3/4" | / | / | / | 220 | 175 | 40 | 36 | 42 |

| Bore/Symbol | A | A1 | A2 | B | C | D | E | F | G | H | I | J | K |
|-------------|-----|-----|-----|-----|-----|----|-----|----|------|----|----|----|----------|
| 32 | 140 | 187 | 182 | 47 | 93 | 26 | 32 | 15 | 27.5 | 22 | 17 | 6 | M10×1.25 |
| 40 | 142 | 191 | 185 | 49 | 93 | 30 | 34 | 15 | 27.5 | 24 | 19 | 7 | M12×1.25 |
| 50 | 150 | 207 | 196 | 57 | 93 | 36 | 42 | 15 | 27.5 | 32 | 24 | 8 | M16×1.5 |
| 63 | 153 | 210 | 199 | 57 | 96 | 36 | 42 | 15 | 27.5 | 32 | 24 | 8 | M16×1.5 |
| 80 | 182 | 257 | 242 | 75 | 108 | 47 | 54 | 21 | 33 | 40 | 30 | 9 | M20×1.5 |
| 100 | 188 | 263 | 248 | 75 | 108 | 47 | 54 | 21 | 33 | 40 | 30 | 9 | M20×1.5 |
| 125 | 239 | 330 | 363 | 104 | 136 | 56 | 71 | 32 | 40 | 54 | 40 | 12 | M27×2 |
| 160 | 291 | 412 | 450 | 121 | 166 | 62 | 92 | 60 | 50 | 72 | 50 | 14 | M36×2 |
| 200 | 272 | 409 | 451 | 132 | 130 | 75 | 117 | 30 | 41 | 72 | 50 | 16 | M36×2 |

SC Series ($\Phi 250 \sim \Phi 320$):



| Bore/Symbol | A | B | C | D | E | F | G | H | I | J | K | L | M | S | T | O |
|-------------|-----|-----|----|----|----|-----|----|----|-----|----|-------|-----|-----------|-----|-----|----|
| 250 | 200 | 105 | 67 | 52 | 10 | 90 | 31 | 84 | 90 | 50 | M42×2 | M20 | $\Phi 30$ | 270 | 220 | G1 |
| 320 | 218 | 120 | 82 | 52 | 10 | 110 | 31 | 96 | 110 | 63 | M48×2 | M24 | $\Phi 34$ | 340 | 270 | G1 |