

FESCOLO

PNEUMATIC CYLINDER AND KITS

--PART ONE



FESCOLO
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FESCOLO PNEUMATIC



Company Profile

Fescolo Pneumatic, established in 2001, is a professional developer and manufacturer of customized cylinders and solenoid valves. We have an excellent R&D technical team, more than 200 sets of equipment, an annual production value of more than 10 million US dollars, and have 100+ employees, including 4 technical engineers and 8 technicians so far.

Our main product range consists of various standard cylinders, non-standard customized cylinders, standard solenoid valves, non-standard customized solenoid valves, 2/2 ways electromagnetic valves, air source treatment units, angle seat valves, air hose and tube fittings. Widely applied in industrial automation, robotic arms, medical treatment, sanitary ware, food machinery, automobile manufacturing and other scientific and technological industries.

If you are looking for non-standard customized cylinders and valves, if you encounter problems in pneumatic system, congratulations, we are just the exact supplier you need. Product customization and ODM are our core competencies. We are in a leading position on projects of customized cylinders and solenoid valves. We can also customize product labels, special inner and outer packaging for you. All our products include a one-year or six-month warranty. Most standard products are available in stock and can be shipped within 3-15 days after you place an order. Fescolo Pneumatic, looks forward to your cooperation sincerely!

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DNC Series ISO6431 Standard



1. Ordering Code :

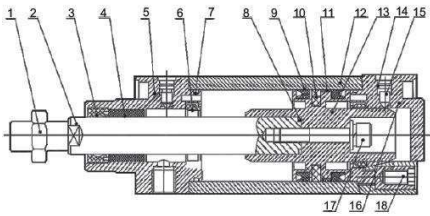
| | | | | | | | | | | |
|-------|---|-----------|---|--------|---|---------------|---|--|---|---|
| DNC | - | 63 | X | 50 | - | 25 | - | S | - | LB |
| ↑ | | ↑ | | ↑ | | ↑ | | ↑ | | ↑ |
| Model | | Bore size | | Stroke | | Adjust stroke | | S:with magnet Blank: without magnet | | Fixed type Blank: Basic type LB:Foot mounting type 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 |

DNC: Double action type
 DNCJ: Two axis double action type with stroke adjustable

2.Characteristics:

- 1) This series of cylinder conforms to: ISO6431 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 ISO 6431 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 | 2 | Piston Rod |
| 3 | Front Cover Seal Ring | 4 | Bearing |
| 5 | Front Cover | 6 | Buffering O-Ring |
| 7 | O-Ring | 8 | Piston rod O-Ring |
| 9 | Piston O-Ring | 10 | Magnet(Optional) |
| 11 | Wear Ring | 12 | Barrel |
| 13 | Piston | 14 | Cushion Seal |
| 15 | Cushion Needle | 16 | Back Over |
| 17 | Hex Socket Screw | 18 | Profile Bolt |

4.Specification:

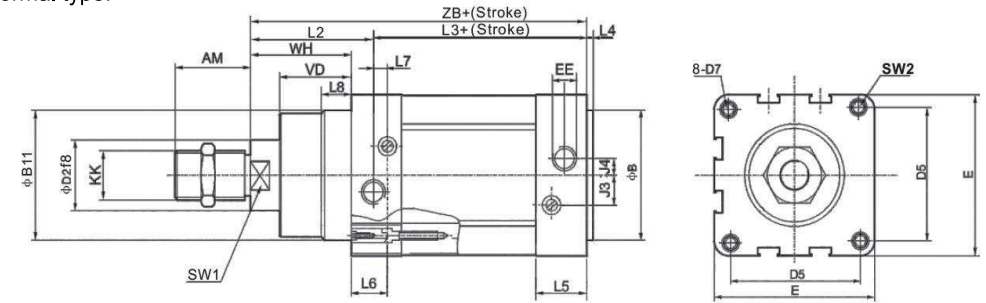
| Bore (mm) | 32 | 40 | 50 | 63 | 80 | 100 | 125 |
|-------------------|-----------------------|------|------|-------|----|-----|-----|
| Action | Double Action | | | | | | |
| Applicable medium | Filtered Air | | | | | | |
| Pressure range | 0.1~0.9 MPa | | | | | | |
| Proof pressure | 1.35 MPa | |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

5.Stroke:

| Bore | Standard Stroke | Buffer Stroke | Stroke Range |
|------|-----------------|---------------|--------------|
| 32 | | 20 | 10~2000 |
| 40 | | | |
| 50 | 25 40 50 80 | | |
| 63 | 100 125 160 | 22 | |
| 80 | 200 250 320 | 32 | |
| 100 | 400 500 | 35 | |

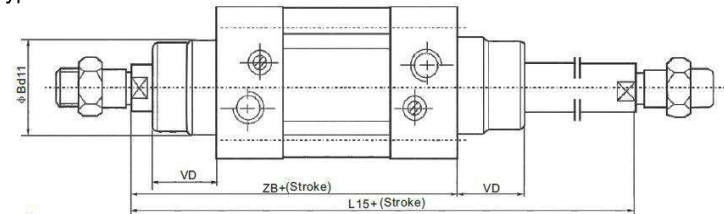
6. Overall and Dimension Sheet:

Normal type:



| Bore | AM | B | D2 | D5 | D7 | E | EE(G) | J3 | J4 | KK | L2 | L3 | L4 | L5 | L6 | L7 | L8 | SW1 | SW2 | VD | WH | ZB |
|------|----|----|----|------|-----|-----|-------|------|-----|----------|------|-------|----|------|----|------|------|-----|-----|------|----|-------|
| 32 | 22 | 30 | 12 | 32.5 | M6 | 45 | 1/8 | 6 | 5.2 | M10×1.25 | 41.6 | 62.8 | 4 | 26 | 16 | 3.3 | 8 | 10 | 6 | 16 | 26 | 120 |
| 40 | 24 | 35 | 16 | 38 | M6 | 54 | 1/4 | 8 | 6 | M12×1.25 | 44 | 77 | 4 | 29.5 | 16 | 3.6 | 10 | 13 | 6 | 20 | 30 | 135 |
| 50 | 32 | 40 | 20 | 46.5 | M8 | 64 | 1/4 | 10 | 8.5 | M16×1.5 | 51 | 78 | 4 | 30 | 17 | 5.1 | 10 | 17 | 8 | 27 | 37 | 144 |
| 63 | 32 | 45 | 20 | 56.5 | M8 | 75 | 3/8 | 12.4 | 10 | M16×1.5 | 54 | 87 | 4 | 35.5 | 17 | 6.6 | 10 | 17 | 8 | 27 | 37 | 157.5 |
| 80 | 40 | 45 | 25 | 72 | M10 | 93 | 3/8 | 12.5 | 8 | M20×1.5 | 62.4 | 95.2 | 4 | 36 | 17 | 10.5 | 10 | 22 | 10 | 34.5 | 46 | 173.5 |
| 100 | 40 | 55 | 25 | 89 | M10 | 110 | 1/2 | 11.8 | 10 | M20×1.5 | 69.8 | 100.4 | 4 | 39 | 17 | 8 | 12.5 | 22 | 10 | 38 | 51 | 189 |
| 125 | 54 | 60 | 32 | 110 | M12 | 134 | 1/2 | 13 | 8 | M27×2 | 83 | 124 | 6 | 44.7 | 22 | 14 | 10 | 28 | 12 | 46 | 65 | 225 |

Double Axis Type:



| Bore | 32 | 40 | 50 | 63 | 80 | 100 |
|------|-----|-----|-----|-----|------|-----|
| B | 30 | 35 | 40 | 45 | 45 | 55 |
| L15 | 46 | 165 | 180 | 195 | 220 | 240 |
| VD | 16 | 20 | 27 | 27 | 34.5 | 38 |
| ZB | 120 | 135 | 143 | 158 | 174 | 189 |

DNG Series ISO15552 Standard Cylinder



1. Ordering Code :

| | | | | | | | | | | |
|--|---|-----------|---|--------|---|-------------------------------|---|--|---|---|
| DNG | - | 160 | X | 100 | - | 25 | - | S | - | LB |
| ↑ | | ↑ | | ↑ | | ↑ | | ↑ | | ↑ |
| Model | | Bore size | | Stroke | | Adjust stroke | | S:with magnet Blank: without magnet | | Fixed type Blank: Basic type LB:Foot mounting type FA:Front flange mounting type FB:Rear-Flange mounting type CA:Male single Earring type CB:female double earring type |
| DNG: Double action type | | | | | | 25:25mm 50:50mm 75:75mm | | | | |
| DNGD: Two axis double action type | | | | | | | | | | |
| DNGJ: Two axis double action type with stroke adjustable | | | | | | | | | | |

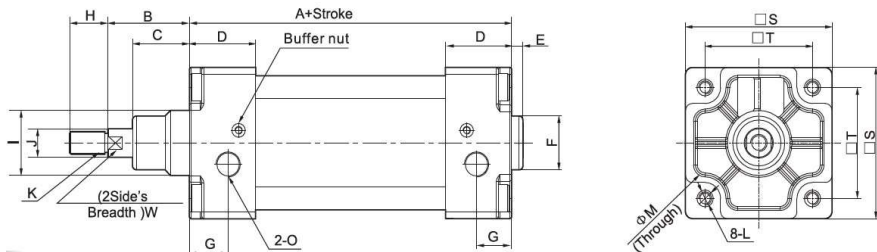
2.Characteristics:

- 1) This series of cylinder conforms to: ISO15552 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 ISO15552 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.Specification:

| Bore (mm) | 160 | 200 | 250 | 320 |
|--------------------------|---|-----|-----|-----|
| Action | Double Action | | | |
| Applicable medium | Filered Air | | | |
| Pressure range | 0.1~1.0 MPa | | | |
| Proof pressure | 1.5 MPa | | | |
| Temperature range | -5°C~70°C | | | |
| Speed range | 50~500 mm/s | | | |
| Cushion style | Adjustable Air Buffer | | | |
| Lubrication | Not required (Use Turbine oil SO Vg32 when necessary) | | | |
| Port size | G3/4 | | G1 | |

4. Overall and Dimension Sheet:



| Bore/Symbol | A | B | C | D | E | F | G | H | I | J | K | L | M | S | T | O |
|-------------|-----|-----|----|----|----|-----|----|----|-----|----|-------|-----|--------|-----|-----|-------|
| 160 | 180 | 80 | 60 | 50 | 6 | φ65 | 25 | 72 | φ65 | 40 | M36×2 | M16 | φ25φ30 | 180 | 140 | G3/4" |
| 200 | 180 | 95 | 70 | 50 | 6 | φ75 | 25 | 72 | φ75 | 40 | M36×2 | M16 | φ25φ30 | 220 | 175 | G3/4" |
| 250 | 200 | 105 | 67 | 52 | 10 | 90 | 31 | 84 | 90 | 50 | M42×2 | M20 | φ30 | 270 | 220 | G1" |
| 320 | 218 | 120 | 82 | 52 | 10 | 110 | 31 | 96 | 110 | 63 | M48×2 | M24 | φ34 | 340 | 270 | G1" |

SI Series ISO6431 Standard Cylinder



1. Ordering Code :

SI - 50 X 50 - 25 - S - LB

Model Bore size Stroke Adjust stroke S: with magnet Blank: without magnet Fixed type

SI: Double action type 25:25mm 50:50mm 75:75mm Blank: Basic type LB:Foot mounting type

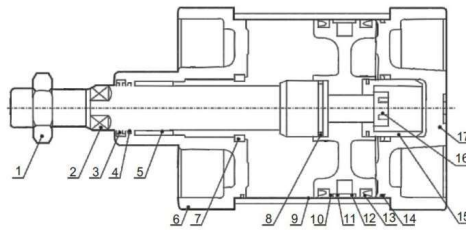
SID: Two axis double action type FA:Front flange mounting type FB:Rear-Flange mounting type CA:Male single Earring type CB:Female double earring type SDB: Back cover fixed type TC:Trunnion type

SIJ: Two axis double action type with stroke adjustable

2.Characteristics:

- 1) This series of cylinder conforms to: ISO6431 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 ISO 6431 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. | Piston |
| 2. | Piston rod | 11. | Wearing |
| 3. | Front cover seal ring | 12. | Magnet (Optional) |
| 4. | O-ring | 13. | Piston O-ring |
| 5. | Bearing | 14. | Pipe wall O-ring |
| 6. | Front cover | 15. | Damping |
| 7. | Buffering O-ring | 16. | Hex socket screw |
| 8. | Piston rod O-ring | 17. | Back cover |
| 9. | Barrel | | |

4.Specification:

| Bore (mm) | 32 | 40 | 50 | 63 | 80 | 100 | 125 | 160 | 200 |
|-------------------|-----------------------|------|------|------|-------|-----|-----|-----|-----|
| Action | Double Action | | | | | | | | |
| Applicable medium | Filtered Air | | | | | | | | |
| Pressure range | 0.1~0.9 MPa | | | | | | | | |
| Proof pressure | 1.35 MPa | | | | | | | | |
| Temperature range | -5°C~70°C | | | | | | | | |
| Speed range | 50~800 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(kg/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 | 131.92 | 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 | 362.88 | 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 | 2109.99 | 2412.56 | 2714.13 |

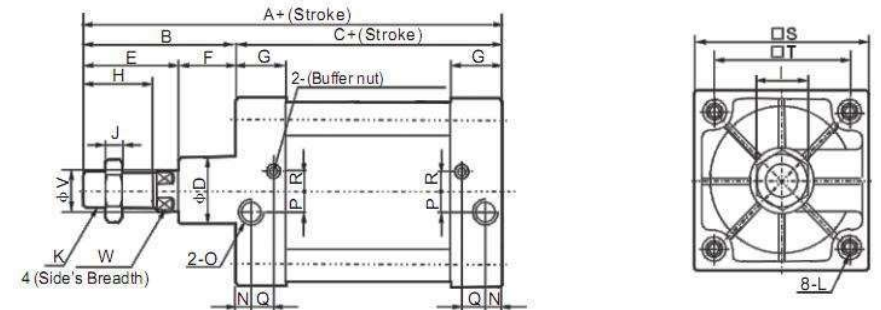
6.Stroke:

| Bore(mm) | Standard Stroke | | | | | | | | | | Max.Stroke | Permissible Stroke | | |
|----------|--|----|----|----|-----|-----|-----|-----|-----|-----|------------|--------------------|-----|-----|
| | 25 | 50 | 75 | 80 | 100 | 125 | 160 | 175 | 200 | 250 | | | 300 | 350 |
| 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 | | |

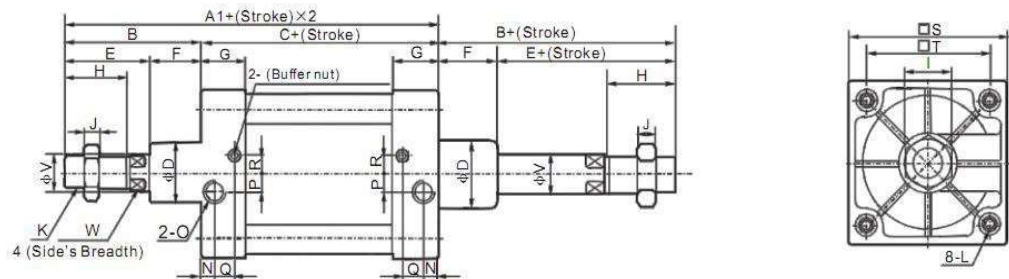
■ If you need special stroke,please Tell us, we can make according your require.

7. Overall and Dimension Sheet:

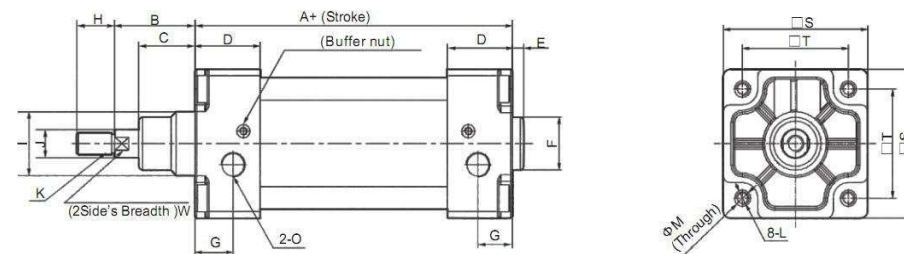
SI series:



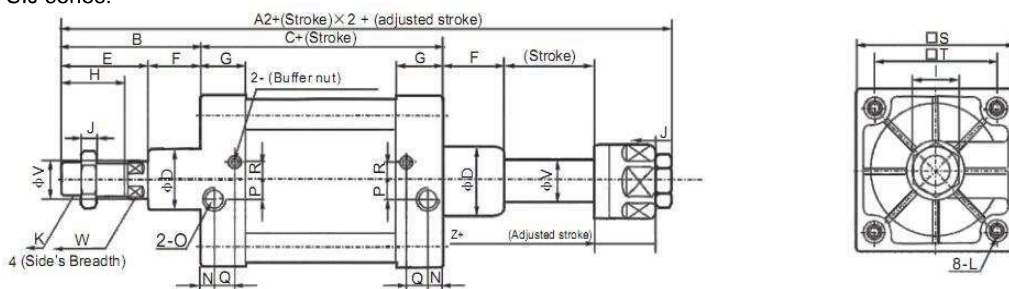
SID series:



ϕ250~ϕ320 SI Series:



SIJ series:



| 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 | ϕ30 | 270 | 220 | G1 |
| 320 | 218 | 120 | 82 | 52 | 10 | 110 | 31 | 96 | 110 | 63 | M48×2 | M24 | ϕ34 | 340 | 270 | G1 |

| Bore/Symbol | A | A1 | A2 | B | C | D | E | F | G | H | I | J | K | L |
|-------------|-----|-----|-------|-----|-----|----|-----|----|------|----|----|------|----------|-----|
| 32 | 142 | 190 | 187 | 48 | 94 | 30 | 28 | 16 | 27.5 | 22 | 17 | 6 | M10×1.25 | M6 |
| 40 | 159 | 213 | 207 | 54 | 105 | 35 | 32 | 18 | 29 | 24 | 19 | 7 | M12×1.25 | M6 |
| 50 | 175 | 244 | 233 | 69 | 105 | 40 | 42 | 25 | 30 | 32 | 24 | 8 | M16×1.5 | M8 |
| 63 | 190 | 259 | 250 | 69 | 120 | 40 | 40 | 24 | 31.5 | 32 | 24 | 8 | M16×1.5 | M8 |
| 80 | 214 | 300 | 286 | 86 | 128 | 40 | 53 | 30 | 35.5 | 40 | 30 | 10 | M20×1.5 | M10 |
| 100 | 229 | 320 | 308 | 91 | 138 | 45 | 55 | 32 | 36 | 40 | 30 | 10 | M20×1.5 | M10 |
| 125 | 279 | 398 | 372.5 | 119 | 160 | 60 | 74 | 45 | 46 | 54 | 41 | 13.5 | M27×2 | M12 |
| 160 | 332 | 484 | 448 | 152 | 180 | 65 | 94 | 58 | 50 | 72 | 55 | 18 | M36×2 | M16 |
| 200 | 337 | 514 | 472 | 157 | 180 | 75 | 100 | 57 | 50 | 72 | 55 | 18 | M36×2 | M16 |

| Bore/Symbol | N | O | P | Q | R | S | T | V | W | Z |
|-------------|------|-------|------|-----|------|-----|------|----|----|----|
| 32 | 13.5 | G1/8" | 4 | 7.5 | 7 | 47 | 32.5 | 12 | 10 | 21 |
| 40 | 16 | G1/4" | 6 | 8.5 | 9 | 53 | 38 | 16 | 13 | 21 |
| 50 | 15.5 | G1/4" | 8.5 | 7.5 | 7.5 | 65 | 46.5 | 20 | 17 | 23 |
| 63 | 16.5 | G3/8" | 7.5 | 8.5 | 9 | 75 | 56.5 | 20 | 17 | 23 |
| 80 | 16.5 | G3/8" | 11 | 8.5 | 13.5 | 95 | 72 | 25 | 22 | 29 |
| 100 | 18.5 | G1/2" | 13.5 | 9.5 | 14.5 | 115 | 89 | 25 | 22 | 29 |
| 125 | 23 | G1/2" | 14 | 12 | 14 | 140 | 110 | 32 | 27 | 35 |
| 160 | 25 | G3/4" | 15 | 12 | 20 | 180 | 140 | 40 | 36 | 40 |
| 200 | 25 | G3/4" | 15 | 12 | 20 | 220 | 175 | 40 | 36 | 40 |

ISO Series ISO6431 Standard Cylinder



1. Ordering Code :

ISO - 50 X 50 - 25 - S - LB

↑ ↑ ↑ ↑ ↑ ↑ ↑

Model Bore size Stroke Adjust stroke S:with magnet Blank: without magnet Fixed type

ISO: Double action type 25:25mm 50:50mm Blank: Basic type

ISOD: Two axis double action type 50:50mm magnet LB:Foot mounting type

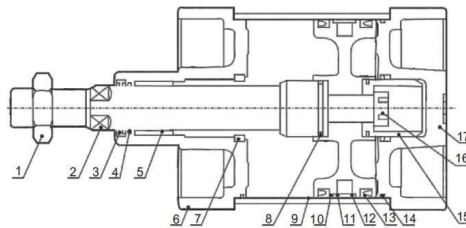
ISOJ: Two axis double action type with stroke adjustable 75:75mm FA:Front flange mounting type FB:Rear-Flange mounting type

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: ISO6431 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 ISO 6431 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. | Piston |
| 2. | Piston rod | 11. | Wearing |
| 3. | Front cover seal ring | 12. | Magnet (Optional) |
| 4. | O-ring | 13. | Piston O-ring |
| 5. | Bearing | 14. | Pipe wall O-ring |
| 6. | Front cover | 15. | Damping |
| 7. | Buffering O-ring | 16. | Hex socket screw |
| 8. | Piston rod O-ring | 17. | Back cover |
| 9. | Barrel | | |

4.Specification:

| Bore (mm) | 32 | 40 | 50 | 63 | 80 | 100 | 125 | 160 | 200 |
|-------------------|-----------------------|------|------|------|-------|-----|-----|-----|-----|
| Action | Double Action | | | | | | | | |
| Applicable medium | Filtered Air | | | | | | | | |
| Pressure range | 0.1~0.9 MPa | | | | | | | | |
| Proof pressure | 1.35 MPa | | | | | | | | |
| Temperature range | -5°C~70°C | | | | | | | | |
| Speed range | 50~800 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(kg/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 | 20.70 | 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 | 131.92 | 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 | 362.88 | 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 | 2109.99 | 2412.56 | 2714.13 |

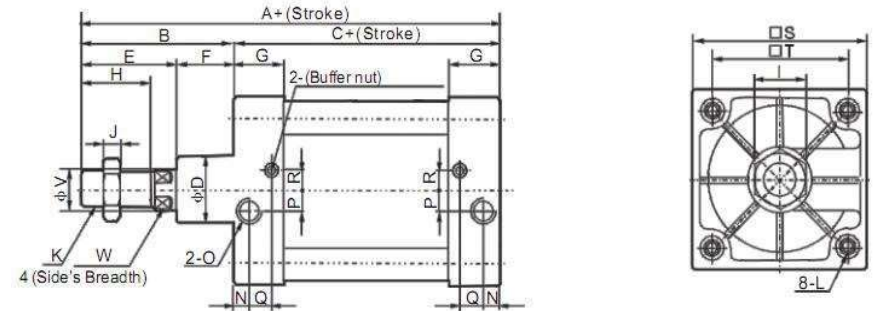
6.Stroke:

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

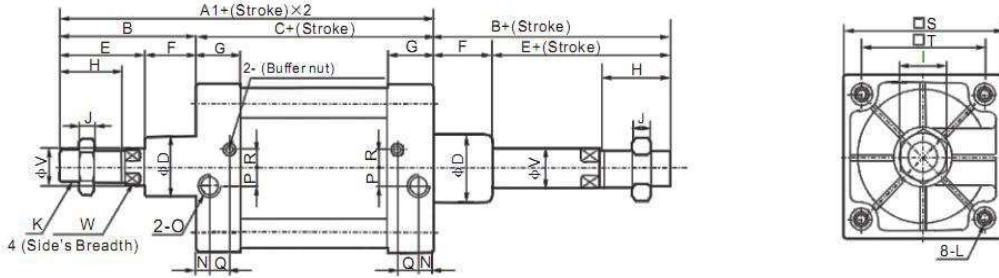
If you need special stroke, please Tell us, we can make according your require.

7. Overall and Dimension Sheet:

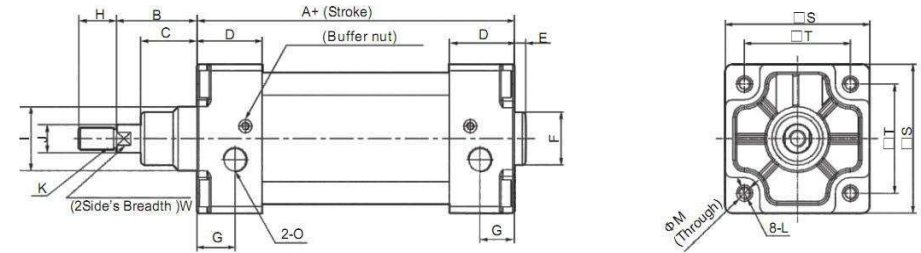
ISO series:



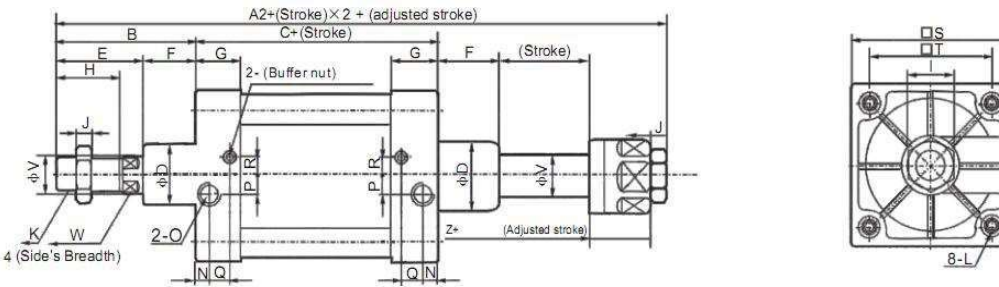
ISOD series:



φ250~φ320 ISO Series:



ISOJ series:



| 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 | φ30 | 270 | 220 | G1 |
| 320 | 218 | 120 | 82 | 52 | 10 | 110 | 31 | 96 | 110 | 63 | M48×2 | M24 | φ34 | 340 | 270 | G1 |

| Bore/Symbol | A | A1 | A2 | B | C | D | E | F | G | H | I | J | K | L |
|-------------|-----|-----|-------|-----|-----|----|-----|----|------|----|----|------|----------|-----|
| 32 | 142 | 190 | 187 | 48 | 94 | 30 | 28 | 16 | 27.5 | 22 | 17 | 6 | M10×1.25 | M6 |
| 40 | 159 | 213 | 207 | 54 | 105 | 35 | 32 | 18 | 29 | 24 | 19 | 7 | M12×1.25 | M6 |
| 50 | 175 | 244 | 233 | 69 | 105 | 40 | 42 | 25 | 30 | 32 | 24 | 8 | M16×1.5 | M8 |
| 63 | 190 | 259 | 250 | 69 | 120 | 40 | 40 | 24 | 31.5 | 32 | 24 | 8 | M16×1.5 | M8 |
| 80 | 214 | 300 | 286 | 86 | 128 | 40 | 53 | 30 | 35.5 | 40 | 30 | 10 | M20×1.5 | M10 |
| 100 | 229 | 320 | 308 | 91 | 138 | 45 | 55 | 32 | 36 | 40 | 30 | 10 | M20×1.5 | M10 |
| 125 | 279 | 398 | 372.5 | 119 | 160 | 60 | 74 | 45 | 46 | 54 | 41 | 13.5 | M27×2 | M12 |
| 160 | 332 | 484 | 448 | 152 | 180 | 65 | 94 | 58 | 50 | 72 | 55 | 18 | M36×2 | M16 |
| 200 | 337 | 514 | 472 | 157 | 180 | 75 | 100 | 57 | 50 | 72 | 55 | 18 | M36×2 | M16 |

| Bore/Symbol | N | O | P | Q | R | S | T | V | W | Z |
|-------------|------|-------|------|-----|------|-----|------|----|----|----|
| 32 | 13.5 | G1/8" | 4 | 7.5 | 7 | 47 | 32.5 | 12 | 10 | 21 |
| 40 | 16 | G1/4" | 6 | 8.5 | 9 | 53 | 38 | 16 | 13 | 21 |
| 50 | 15.5 | G1/4" | 8.5 | 7.5 | 7.5 | 65 | 46.5 | 20 | 17 | 23 |
| 63 | 16.5 | G3/8" | 7.5 | 8.5 | 9 | 75 | 56.5 | 20 | 17 | 23 |
| 80 | 16.5 | G3/8" | 11 | 8.5 | 13.5 | 95 | 72 | 25 | 22 | 29 |
| 100 | 18.5 | G1/2" | 13.5 | 9.5 | 14.5 | 115 | 89 | 25 | 22 | 29 |
| 125 | 23 | G1/2" | 14 | 12 | 14 | 140 | 110 | 32 | 27 | 35 |
| 160 | 25 | G3/4" | 15 | 12 | 20 | 180 | 140 | 40 | 36 | 40 |
| 200 | 25 | G3/4" | 15 | 12 | 20 | 220 | 175 | 40 | 36 | 40 |

DSN Series ISO6432 Stainless Steel Mini Cylinder



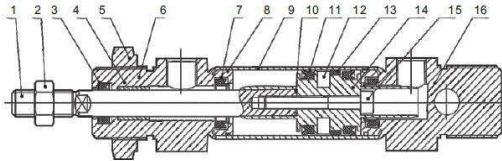
1.Ordering Code :

| | | | | | | | | | | | |
|--|---|---------------------|-----------|--------|---------------|---|----------------------|---|---|---|---|
| DSN | - | □ | 20 | X | 50 | - | 25 | - | S | - | LB |
| ↑ | | ↑ | ↑ | ↑ | ↑ | | ↑ | | ↑ | | ↑ |
| Model | | Blank:Fishtail type | Bore size | Stroke | Adjust stroke | | S:with magnet magnet | | | | Fixed type |
| DSN: Double action type | | CM: Rounded type | | | 0~100mm | | Blank:no magnet | | | | Blank: Basic type LB:Foot mounting type |
| ESN: Single acting spring return | | U:Horizontal type | | | | | | | | | FA:Front flange mounting type |
| DSND: Two axis double action type | | | | | | | | | | | SDB: Back cover fixed type |
| DSNJ: Two axis double action type with stroke adjustable | | | | | | | | | | | U:Back cover fixed type |

2.Characteristics:

- 1) This series of stainless steel mini cylinder conforms to: ISO6432 standard
- 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 | 9 | Barrel |
| 2 | Piston Rod Nut | 10 | Piston rod O-ring |
| 3 | Front Cover Seal | 11 | Piston O-ring |
| 4 | Bearing | 12 | Magnet(Optional) |
| 5 | Hexagon Screw | 13 | Wear Ring |
| 6 | Front Cover | 14 | Piston |
| 7 | Cushion Ring | 15 | Hex Socket Screw |
| 8 | O-ring | 16 | Back Cover |

4.Specification:

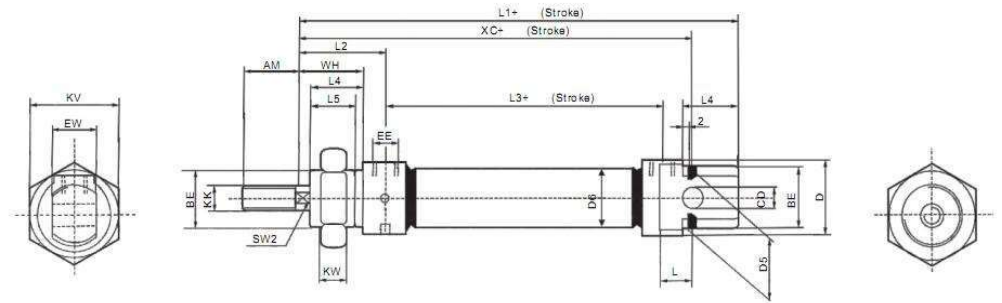
| Cylinder diameter(mm) | 8 | 10 | 12 | 16 | 20 | 25 |
|-----------------------------------|---|-----|-----|-------|-----|----|
| Working Medium | /Air | | | | | |
| Motion pattern | /Double Action or single Action | | | | | |
| Ensured Pressure Resistance | 15.3kgf/cm ² (1.5Mpa) | | | | | |
| Max.pressure | 10.2kgf/cm ² (1.0Mpa) | | | | | |
| Min.pressure | 0.5kgf/cm ² (0.05Mpa) 1kgf/cm ² (0.1Mpa) | | | | | |
| Environment and fluid temp | -20~+80℃(Internal Magnetic Install by Tach strap:Type Max:60℃) | | | | | |
| Piston velocity | Rubber Bufer(Standard), Air Buffer(Optional) | | | | | |
| Buffering | 50~750mm/s | | | | | |
| Kinetic energy To Lerance(kgf/cm) | 0.2 | 0.3 | 0.4 | 0.9 | 2.7 | 4 |
| Pipe Size | M5×0.8 | | | G1/8" | | |

5. Stroke:

| Bore(mm) | Standard stroke | Max.Stroke(mm) |
|----------|---|----------------|
| 8 | 10,25,40,50,80,100,125,160,200 | 400 |
| 10 | 10,25,40,50,80,100,125,160,200 | 400 |
| 12 | 10,25,40,50,80,100,125,160,200 | 400 |
| 16 | 10,25,40,50,80,100,125,160,200 | 400 |
| 20 | 25,40,50,80,100,125,150,160,175,200,250,300 | 1000 |
| 25 | 25,40,50,80,100,125,150,160,175,200,250,300 | 1000 |

Note:In non-standard stroke options.

6. Overall and Dimension Sheet:



| Bore/Symbol | AM | BE | ΦCD | ΦD | ΦD5 | ΦD6 | EE | EW | AM | KK | KV | KW | L | L1 | L2 | L3 | L4 | L5 | SW2 | WH | XC |
|-------------|----|----------|-----|----|-----|-----|-------|----|----|----------|----|----|----|-------|----|------|----|----|-----|----|-----|
| 8 | 12 | M12×1.25 | 4 | 15 | 15 | 12 | M5 | 8 | 12 | M4 | 19 | 7 | 6 | 78 | 22 | 34 | 12 | 10 | - | 16 | 64 |
| 10 | 12 | M12×1.25 | 4 | 15 | 15 | 12 | M5 | 8 | 12 | M4 | 19 | 7 | 6 | 78 | 22 | 34 | 12 | 10 | - | 16 | 64 |
| 12 | 16 | M16×1.5 | 6 | 20 | 20 | 16 | M5 | 12 | 16 | M6 | 24 | 6 | 9 | 89 | 28 | 38 | 17 | 15 | 5 | 22 | 75 |
| 16 | 16 | M16×1.5 | 6 | 20 | 20 | 16 | M5 | 12 | 16 | M6 | 24 | 6 | 9 | 95 | 28 | 44 | 17 | 15 | 5 | 22 | 82 |
| 20 | 20 | M22×1.5 | 8 | 27 | 27 | 22 | G1/8" | 16 | 20 | M8 | 30 | 8 | 12 | 112 | 32 | 51.6 | 20 | 18 | 7 | 24 | 95 |
| 25 | 22 | M22×1.5 | 8 | 27 | 27 | 22 | G1/8" | 16 | 22 | M10×1.25 | 30 | 8 | 12 | 119.5 | 36 | 53.1 | 22 | 20 | 8 | 26 | 104 |

ADVU Series ISO6431 Compact Cylinder



1. Ordering Code :

ADVU - 50 X 80 - A - P - A
 ↑ ↑ ↑ ↑ ↑
 Model Bore size Stroke buffer type A:with magnet

ADVU: Double action type 16~100mm Normal type: A: male thread
 AEVUZ: Single-driven type Φ16~25: 1~200mm Blank: female thread
 AEVUD: Two axis double action type Φ32~63: 1~300mm
 Φ80~100: 1~400mm
 Single action:
 Φ12: 1~10mm
 Φ16: 1~25mm

| Bore size(mm) | GB | D1 φH9 | E | EE | H | L2 | L3 | L4 | φ MM | PL | RT | T2 | TG | ZJ | ☉C1 |
|---------------|------|--------|-----|------|-----|------|----|----|------|------|-----|----|-----|------|-----|
| 16 | 18.5 | 6 | 29 | M5 | 1 | 38 | 3 | 16 | 8 | 8 | M4 | 4 | 18 | 42.5 | 7 |
| 20 | 18.5 | 6 | 36 | M5 | 1.5 | 38 | 4 | 18 | 10 | 8 | M5 | 4 | 22 | 42.5 | 9 |
| 25 | 18.5 | 6 | 40 | M5 | 1.5 | 39.5 | 4 | 18 | 10 | 8 | M5 | 4 | 26 | 45 | 9 |
| 32 | 21.5 | 6 | 50 | G1/8 | 2 | 44.5 | 5 | 20 | 12 | 8 | M6 | 4 | 32 | 50.5 | 10 |
| 40 | 21.5 | 6 | 60 | G1/8 | 2.5 | 45.5 | 5 | 20 | 12 | 8 | M6 | 4 | 42 | 52 | 10 |
| 50 | 22 | 6 | 68 | G1/8 | 3 | 45.5 | 6 | 20 | 16 | 8 | M8 | 4 | 50 | 53 | 13 |
| 63 | 24.5 | 8 | 87 | G1/8 | 4 | 50 | 8 | 25 | 16 | 8 | M10 | 4 | 62 | 57.5 | 13 |
| 80 | 27.5 | 8 | 107 | G1/8 | 4 | 56 | 8 | 25 | 20 | 8.5 | M10 | 4 | 82 | 64 | 17 |
| 100 | 32.5 | 8 | 128 | G1/4 | 5 | 66.5 | 8 | 25 | 35 | 10.5 | M10 | 4 | 103 | 76.5 | 22 |

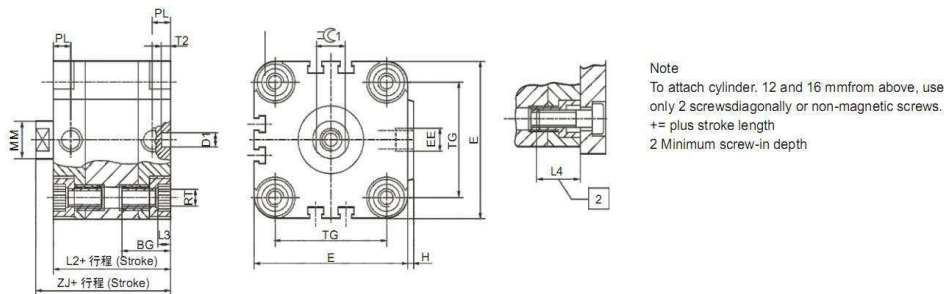
2.Characteristics:

- 1) This series of cylinder conforms to: ISO6431 standard
- 2) Different thread type can be offered according to customers' requirements, e.g.:BSP, NPT etc.
- 3) Needn't lubricate on piston rod by oil

3.Specification:

| Bore(mm) | 16 | 20 | 25 | 32 | 40 | 50 | 63 | 80 | 100 |
|-------------------------------|--------------------------------------|-------------|----------|-------------|----|----------|-------------|---------|-------------|
| Action | Double acting, single rod/double rod | | | | | | | | |
| Fluid | Filtered compressed air | | | | | | | | |
| Ensured Pressure Resistance | 1.5MPa | | | | | | | | |
| Operating pressure range | ADVU - -P-A | 0.12~1.0MPa | | 0.1~1.0MPa | | | 0.08~1.0MPa | | 0.06~1.0MPa |
| | ADVU - -P-A-S2 | 0.13~1.0MPa | | 0.12~1.0MPa | | | 0.1~1.0MPa | | 0.8~1.0MPa |
| Ambient and fluid temperature | -20~80 (No freezing) | | | | | | | | |
| Port size | M5 | | | G1/8" | | | | G1/4" | |
| Piston rod thread | Female thread | M4 | M5 | M6 | | M8 | | M10 | M12 |
| | Male thread | M8 | M10×1.25 | | | M12×1.25 | | M16×1.5 | M20×1.5 |
| Cushion | Rubber bumper | | | | | | | | |

4.Overall and Dimension Sheet:



SDA Series Compact Cylinder



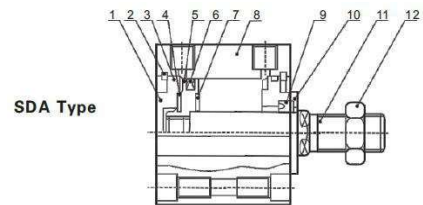
1. Ordering Code :

SDA - **20** X **30** - **5** **S** - **B**
 ↑ ↑ ↑ ↑ ↑
 Model Bore size Stroke Adjust stroke S:with magnet Cog type
 SDA: Double action type 12mm~100mm 5: 5mm Blank: Blank: Inner thread
 SSA: Single action type 15:15mm without B:outer thread
 STA: Single action drawing-in type 25:25mm magnet N: no thread
 SDAD: Two axis double action type
 SDAJ: Two axis double action type with stroke adjustable

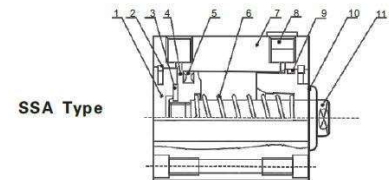
2.Characteristics:

- 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) Different thread type can be offered according to customers' requirements, e.g.:BSP, NPT etc.
- 4) Needn't lubricate on piston rod by oil

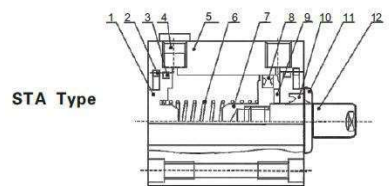
3.Internal Structure:



| NO. | Designation | NO. | Designation |
|-----|-----------------------|-----|--------------------|
| 1 | Back cover | 2 | Type C buckle ring |
| 3 | O-ring | 4 | Anti-crash cushion |
| 5 | Piston | 6 | Piston O-ring |
| 7 | Anti-crash cushion | 8 | Barrel |
| 9 | Front cover seal ring | 10 | Front cover |
| 11 | Piston rod | 12 | Piston Rod Nut |



| NO. | Designation | NO. | Designation |
|-----|--------------------|-----|--------------------|
| 1 | Back cover | 2 | Type C buckle ring |
| 3 | Anti-crash cushion | 4 | Piston |
| 5 | Piston O-ring | 6 | Compressed spring |
| 7 | Barrel | 8 | Silencer |
| 9 | Cover O-ring | 10 | Front cover |
| 11 | Piston rod | | |



| NO. | Designation | NO. | Designation |
|-----|--------------------|-----|-----------------------|
| 1 | Back cover | 2 | Type C buckle ring |
| 3 | Cover O-ring | 4 | Silencer |
| 5 | Barrel | 6 | Compressed spring |
| 7 | Piston | 8 | Piston O-ring |
| 9 | Anti-crash cushion | 10 | Front cover seal ring |
| 11 | Front cover | 12 | Piston rod |

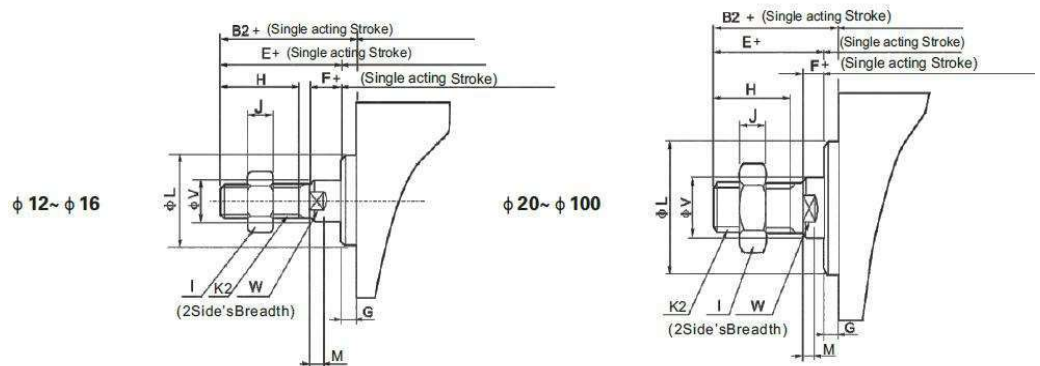
4.Specification:

| Bore(mm) | | 12 | 16 | 20 | 25 | 32 | 40 | 50 | 63 | 80 | 100 | |
|-----------------------------|---|-------------------|----|----|----|-------|----|------------|-------|----|------------|--|
| Motion Pattern | Double Acting | | | | | | | | | | | |
| | Single Action Extrusion type Single Action Drawing-in Type | | | | | | | | | | | |
| Working Medium | | Air | | | | | | | | | | |
| Operating Pressure Range | Double Action | 0.1~0.9MPa | | | | | | | | | | |
| | Single Action | 0.2~0.9MPa | | | | | | | | | | |
| Ensured Pressure Resistance | | 1.35MPa | | | | | | | | | | |
| Operating Temperature Range | | -5~70℃ | | | | | | | | | | |
| Operating Speed Range | Double Action | 30~500mm/s | | | | | | 30~350mm/s | | | 30~250mm/s | |
| | Single Action | 100~500mm/s | | | | | | | | | | |
| Buffer Type | | Fixed Type Buffer | | | | | | | | | | |
| Port Size | | M5×0.8 | | | | G1/8" | | | G1/4" | | G3/8" | |

5.Stroke:

| Bore(mm) | | 12 | 16 | 20 | 25 | 32 | 40 | 50 | 63 | 80 | 100 | | | |
|---------------|-------------------|---------|-----------------------------------|---------|-----------------------------------|---------|-----------------------------------|-----------------------------------|-----------------------------------|---------|-----------------------------------|------------|-----------------------------------|--|
| Double Action | Not attach magnet | 5~60 mm | Every 5mm is grouped as one grade | 5~85 mm | Every 5mm is grouped as one grade | 5~90 mm | Every 5mm is grouped as one grade | 100~110 mm | Every 5mm is grouped as one grade | 5~90 mm | Every 5mm is grouped as one grade | 100~130 mm | Every 5mm is grouped as one grade | |
| | Attach magnet | 5~50 mm | Every 5mm is grouped as one grade | 5~75 mm | Every 5mm is grouped as one grade | 5~90 mm | Every 5mm is grouped as one grade | 100mm | | 5~90 mm | Every 5mm is grouped as one grade | 100~120 mm | Every 5mm is grouped as one grade | |
| Single Action | Not attach magnet | 5~30 mm | | | | | | Every 5mm is grouped as one grade | | | 5~30 mm | | Every 5mm is grouped as one grade | |
| | Attach magnet | 5~30 mm | | | | | | Every 5mm is grouped as one grade | | | 5~30 mm | | Every 5mm is grouped as one grade | |
| Max.Stroke | | 60mm | | 100mm | | 120mm | | | | 130mm | | | | |

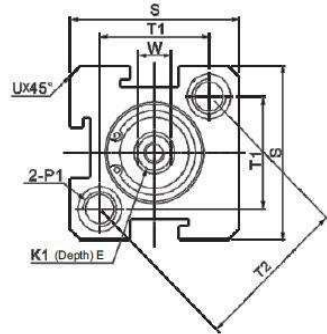
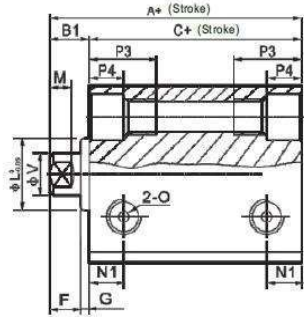
6.Outer thread dimension:



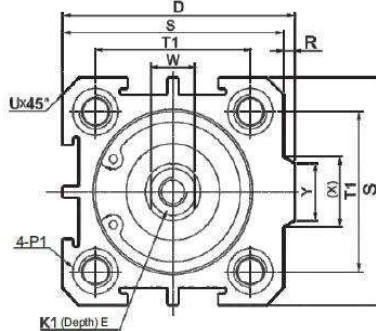
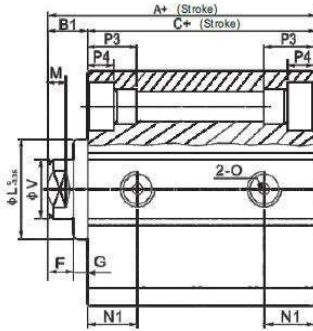
| Bore/Symbol | B2 | E | F | G | H | I | J | K2 | L | M | V | W |
|-------------|------|----|---|-----|----|----|----|----------|------|-----|----|----|
| 12 | 17 | 16 | 4 | 1 | 10 | 8 | 4 | M5×0.8 | 10.2 | 2.8 | 6 | 5 |
| 16 | 17.5 | 16 | 4 | 1.5 | 10 | 8 | 4 | M5×0.8 | 11 | 2.8 | 6 | 5 |
| 20 | 20.5 | 19 | 4 | 1.5 | 13 | 10 | 5 | M6×1.0 | 16 | 2.8 | 8 | 6 |
| 25 | 23 | 21 | 4 | 2 | 15 | 12 | 6 | M8×1.25 | 17 | 2.8 | 10 | 8 |
| 32 | 25 | 22 | 4 | 3 | 15 | 17 | 6 | M10×1.25 | 22 | 2.8 | 12 | 10 |
| 40 | 35 | 32 | 4 | 3 | 25 | 19 | 8 | M14×1.5 | 28 | 2.8 | 16 | 14 |
| 50 | 37 | 33 | 5 | 4 | 25 | 27 | 11 | M18×1.5 | 38 | 2.8 | 20 | 17 |
| 63 | 37 | 33 | 5 | 4 | 25 | 27 | 11 | M18×1.5 | 40 | 2.8 | 20 | 17 |
| 80 | 44 | 39 | 6 | 5 | 30 | 32 | 13 | M22×1.5 | 45 | 4 | 25 | 22 |
| 100 | 50 | 45 | 7 | 5 | 35 | 36 | 13 | M26×1.5 | 55 | 4 | 32 | 27 |

7. Overall and Dimension Sheet:

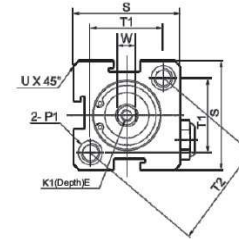
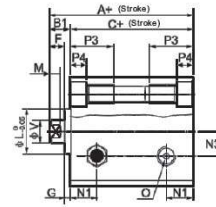
SDA Type
φ 12- φ 16



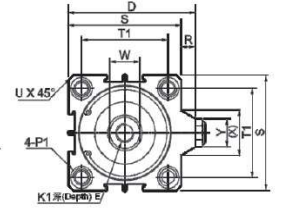
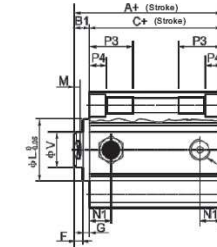
SDA Type
φ 20- φ 100



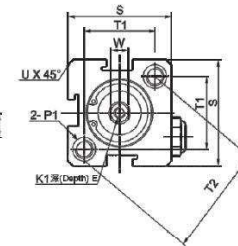
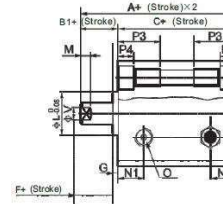
SSA Type φ 12- φ 16



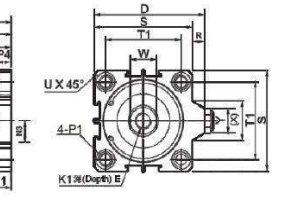
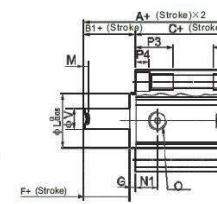
SSA Type φ 20- φ 40



STA Type φ 12- φ 16



STA Type φ 20- φ 40



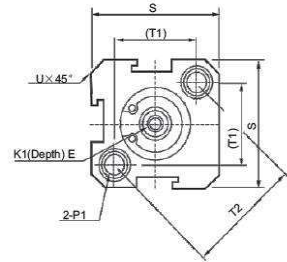
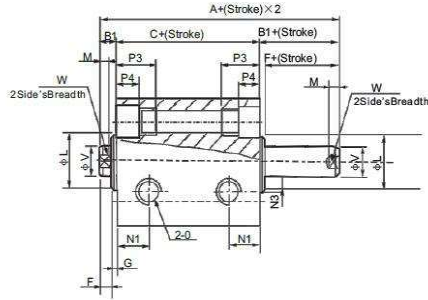
| Type | Standard type | | | Attach Magnet | | | D | E | | F | G | K1 | L | M | N1 |
|------|---------------|-----|------|---------------|-----|------|------|-------------|-------------|-----|---------|------|-----|------|----|
| | A | B1 | C | A | B1 | C | | Stroke ≤ 10 | Stroke > 10 | | | | | | |
| 12 | 22 | 5 | 17 | 32 | 5 | 27 | - | 6 | 4 | 1 | M3×0.5 | 10.2 | 2.8 | 6.3 | |
| 16 | 24 | 5.5 | 18.5 | 34 | 5.5 | 28.5 | - | 6 | 4 | 1.5 | M3×0.5 | 11 | 2.8 | 7.3 | |
| 20 | 25 | 5.5 | 19.5 | 35 | 5.5 | 29.5 | 36 | 8 | 4 | 1.5 | M4×0.7 | 15 | 2.8 | 7.5 | |
| 25 | 27 | 6 | 21 | 37 | 6 | 31 | 42 | 10 | 4 | 2 | M5×0.8 | 17 | 2.8 | 8 | |
| 32 | 31.5 | 7 | 24.5 | 41.5 | 7 | 34.5 | 50 | 12 | 4 | 3 | M6×1 | 22 | 2.8 | 9 | |
| 40 | 33 | 7 | 28 | 43 | 7 | 36 | 58.5 | 12 | 4 | 3 | M8×1.25 | 28 | 2.8 | 10 | |
| 50 | 37 | 9 | 28 | 47 | 9 | 38 | 71.5 | 15 | 5 | 4 | M10×1.5 | 38 | 2.8 | 10.5 | |
| 63 | 41 | 9 | 32 | 51 | 9 | 42 | 84.5 | 15 | 5 | 4 | M10×1.5 | 40 | 2.8 | 11.8 | |
| 80 | 52 | 11 | 41 | 62 | 11 | 51 | 104 | 15 | 20 | 6 | M14×1.5 | 45 | 4 | 14.5 | |
| 100 | 63 | 12 | 51 | 73 | 12 | 61 | 124 | 18 | 20 | 7 | M18×1.5 | 55 | 4 | 20.5 | |

| Bore Size/Symbol | N3 | O | P1 | | | | | | | | | | | |
|------------------|-----|--------|---|----|------|-----|-----|------|----|------|----|----|------|----|
| | | | P3 | P4 | R | S | T1 | T2 | U | V | W | X | Y | |
| 12 | 6 | M5×0.8 | (Double Sides):φ6.5/ (Thread):M5×0.8/ (Through ports):φ4.2 | 12 | 4.5 | - | 25 | 16.2 | 23 | 1.6 | 6 | 5 | - | - |
| 16 | 6.5 | M5×0.8 | (Double Sides):φ6.5/ (Thread):M5×0.8/ (Through ports):φ4.2 | 12 | 4.5 | - | 29 | 19.8 | 28 | 1.6 | 6 | 5 | - | - |
| 20 | - | M5×0.8 | (Double Sides):φ6.5/ (Thread):M5×0.8/ (Through ports):φ4.2 | 14 | 4.5 | 2 | 34 | 24 | - | 2.1 | 8 | 6 | 11.3 | 10 |
| 25 | - | M5×0.8 | (Double Sides):φ8.2/ (Thread):M6×1.0/ (Through ports):φ4.6 | 15 | 5.5 | 2 | 40 | 28 | - | 3.1 | 10 | 8 | 12 | 10 |
| 32 | - | G1/8" | (Double Sides):φ8.2/ (Thread):M6×1.0/ (Through ports):φ4.6 | 16 | 5.5 | 6 | 44 | 34 | - | 2.15 | 12 | 10 | 18.3 | 15 |
| 40 | - | G1/8" | (Double Sides):φ10/ (Thread):M8×1.25/ (Through ports):φ6.5 | 20 | 7.5 | 6.5 | 52 | 40 | - | 2.25 | 16 | 14 | 21.3 | 16 |
| 50 | - | G1/4" | (Double Sides):φ11/ (Thread):M8×1.25/ (Through ports):φ6.5 | 25 | 8.5 | 9.5 | 62 | 48 | - | 4.15 | 20 | 17 | 30 | 20 |
| 63 | - | G1/4" | (Double Sides):φ11/ (Thread):M8×1.25/ (Through ports):φ6.5 | 25 | 8.5 | 9.5 | 75 | 60 | - | 3.15 | 20 | 17 | 28.7 | 20 |
| 80 | - | G3/8" | (Double Sides):φ14/ (Thread):M12×1.75/ (Through ports):φ9.2 | 25 | 10.5 | 10 | 94 | 74 | - | 3.65 | 25 | 22 | 36 | 26 |
| 100 | - | G3/8" | (Double Sides):φ17.5/ (Thread):M14×2/ (Through ports):φ11.3 | 30 | 13 | 10 | 114 | 90 | - | 3.65 | 32 | 27 | 35 | 26 |

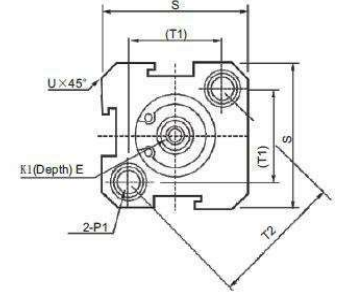
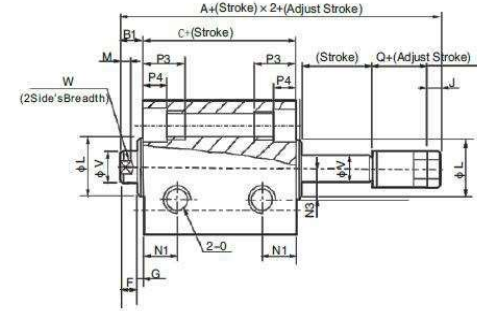
| Type | Standard Type | | | | Attach magnet | | | | D | E | F | G | K1 | L | M | N1 | | |
|------|---------------|------|-----|--------|---------------|------|------|--------|------|------|------|----|----|-----|---------|------|-----|-----|
| | A | B1 | C | Stroke | A | B1 | C | Stroke | | | | | | | | | | |
| 12 | 32 | 42 | 5 | 27 | 37 | 42 | 52 | 5 | 37 | 47 | - | 6 | 4 | 1 | M3×0.5 | 10.2 | 2.8 | 6.3 |
| 16 | 34 | 44 | 5.5 | 28.5 | 38.5 | 44 | 54 | 5.5 | 38.5 | 48.5 | - | 6 | 4 | 1.5 | M3×0.5 | 11 | 2.8 | 7.3 |
| 20 | 35 | 45 | 5.5 | 29.5 | 39.5 | 45 | 55 | 5.5 | 39.5 | 49.5 | 36 | 8 | 4 | 1.5 | M4×0.7 | 16 | 2.8 | 7.5 |
| 25 | 37 | 47 | 6 | 34 | 41 | 47 | 57 | 6 | 41 | 51 | 42 | 10 | 4 | 2 | M5×0.8 | 17 | 2.8 | 8 |
| 32 | 41.5 | 51.5 | 7 | 34.5 | 44.5 | 51.5 | 61.5 | 7 | 44.5 | 54.5 | 50 | 12 | 4 | 3 | M6×1 | 22 | 2.8 | 9 |
| 40 | 43 | 53 | 7 | 36 | 46 | 53 | 63 | 7 | 46 | 56 | 58.5 | 12 | 4 | 3 | M8×1.25 | 28 | 2.8 | 10 |

| Bore Size/Symbol | N3 | O | P1 | | | | | | | | | | | | | |
|------------------|-----|--------|---|----|------|-----|-----|------|----|------|----|----|------|----|--|--|
| | | | P3 | P4 | R | S | T1 | T2 | U | V | W | X | Y | | | |
| 12 | 6 | M5×0.8 | (Double Sides):φ6.5/ (Thread):M5×0.8/ (Through ports):φ4.2 | 12 | 4.5 | - | 25 | 16.2 | 23 | 1.6 | 6 | 5 | - | - | | |
| 16 | 6.5 | M5×0.8 | (Double Sides):φ6.5/ (Thread):M5×0.8/ (Through ports):φ4.2 | 12 | 4.5 | - | 29 | 19.8 | 28 | 1.6 | 6 | 5 | - | - | | |
| 20 | - | M5×0.8 | (Double Sides):φ6.5/ (Thread):M5×0.8/ (Through ports):φ4.2 | 14 | 4.5 | 2 | 34 | 24 | - | 2.1 | 8 | 6 | 11.3 | 10 | | |
| 25 | - | M5×0.8 | (Double Sides):φ8.2/ (Thread):M6×1.0/ (Through ports):φ4.6 | 15 | 5.5 | 2 | 40 | 28 | - | 3.1 | 10 | 8 | 12 | 10 | | |
| 32 | - | G1/8" | (Double Sides):φ8.2/ (Thread):M6×1.0/ (Through ports):φ4.6 | 16 | 5.5 | 6 | 44 | 34 | - | 2.15 | 12 | 10 | 18.3 | 15 | | |
| 40 | - | G1/8" | (Double Sides):φ10/ (Thread):M8×1.25/ (Through ports):φ6.5 | 20 | 7.5 | 6.5 | 52 | 40 | - | 2.25 | 16 | 14 | 21.3 | 16 | | |
| 50 | - | G1/4" | (Double Sides):φ11/ (Thread):M8×1.25/ (Through ports):φ6.5 | 25 | 8.5 | 9.5 | 62 | 48 | - | 4.15 | 20 | 17 | 30 | 20 | | |
| 63 | - | G1/4" | (Double Sides):φ11/ (Thread):M8×1.25/ (Through ports):φ6.5 | 25 | 8.5 | 9.5 | 75 | 60 | - | 3.15 | 20 | 17 | 28.7 | 20 | | |
| 80 | - | G3/8" | (Double Sides):φ14/ (Thread):M12×1.75/ (Through ports):φ9.2 | 25 | 10.5 | 10 | 94 | 74 | - | 3.65 | 25 | 22 | 36 | 26 | | |
| 100 | - | G3/8" | (Double Sides):φ17.5/ (Thread):M14×2/ (Through ports):φ11.3 | 30 | 13 | 10 | 114 | 90 | - | 3.65 | 32 | 27 | 35 | 26 | | |

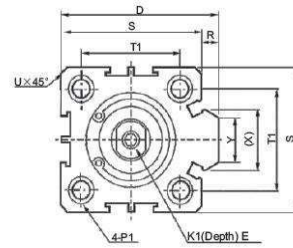
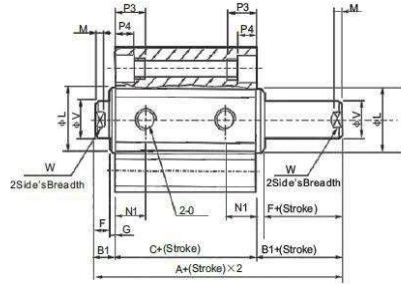
SDAD Type
φ 12~ φ 16



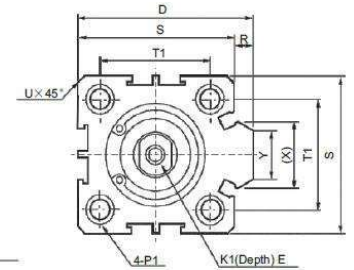
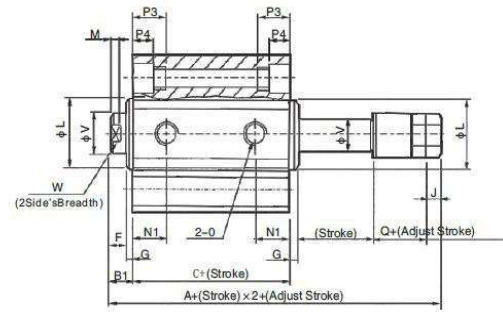
SDAJ Type
φ 12~ φ 16



SDAD Type
φ 20~ φ 100



SDAJ Type
φ S20~ φ 100



| Type | Standard type | | | Attach Magnet | | | D | E | | F | G | K1 | L | M | N1 |
|------|------------------|-----|------|---------------|-----|------|------|-----------------------|-----------|---|-----|---------|------|-----|------|
| | Bore Size/Symbol | A | B1 | C | A | B1 | | C | Stroke≤10 | | | | | | |
| 12 | 27 | 5 | 17 | 37 | 5 | 27 | - | 6 | | 4 | 1 | M3×0.5 | 10.2 | 2.8 | 6.3 |
| 16 | 29.5 | 5.5 | 18.5 | 39.5 | 5.5 | 28.5 | - | 6 | | 4 | 1.5 | M3×0.5 | 11 | 2.8 | 7.3 |
| 20 | 30.5 | 5.5 | 19.5 | 40.5 | 5.5 | 29.5 | 36 | 8 (Stroke)=5 (tis)6.5 | | 4 | 1.5 | M4×0.7 | 15 | 2.8 | 7.5 |
| 25 | 33 | 6 | 21 | 43 | 6 | 31 | 42 | 10 (Stroke)=5 (tis)7 | | 4 | 2 | M5×0.8 | 17 | 2.8 | 8 |
| 32 | 38.5 | 7 | 24.5 | 48.5 | 7 | 34.5 | 50 | 8 | 12 | 4 | 3 | M6×1 | 22 | 2.8 | 9 |
| 40 | 40 | 7 | 28 | 50 | 7 | 36 | 58.5 | 9 | 12 | 4 | 3 | M8×1.25 | 28 | 2.8 | 10 |
| 50 | 46 | 9 | 28 | 56 | 9 | 38 | 71.5 | 11 | 15 | 5 | 4 | M10×1.5 | 38 | 2.8 | 10.5 |
| 63 | 50 | 9 | 32 | 60 | 9 | 42 | 84.5 | 11 | 15 | 5 | 4 | M10×1.5 | 40 | 2.8 | 11.8 |
| 80 | 63 | 11 | 41 | 73 | 11 | 51 | 104 | 14 | 20 | 6 | 5 | M14×1.5 | 45 | 4 | 14.5 |
| 100 | 75 | 12 | 51 | 85 | 12 | 61 | 124 | 18 | 20 | 7 | 5 | M18×1.5 | 55 | 4 | 20.5 |

| Type | Standard type | | | Attach Magnet | | | D | E | | F | G | K1 | L | M | N1 |
|------|------------------|-----|------|---------------|-----|------|------|----|-----------|---|-----|---------|------|-----|------|
| | Bore Size/Symbol | A | B1 | C | A | B1 | | C | Stroke≤10 | | | | | | |
| 12 | 22 | 5 | 17 | 32 | 5 | 27 | - | 6 | | 4 | 1 | M3×0.5 | 10.2 | 2.8 | 6.3 |
| 16 | 24 | 5.5 | 18.5 | 34 | 5.5 | 28.5 | - | 6 | | 4 | 1.5 | M3×0.5 | 11 | 2.8 | 7.3 |
| 20 | 25 | 5.5 | 19.5 | 35 | 5.5 | 29.5 | 36 | 8 | | 4 | 1.5 | M4×0.7 | 15 | 2.8 | 7.5 |
| 25 | 27 | 6 | 21 | 37 | 6 | 31 | 42 | 10 | | 4 | 2 | M5×0.8 | 17 | 2.8 | 8 |
| 32 | 31.5 | 7 | 24.5 | 41.5 | 7 | 34.5 | 50 | 12 | | 4 | 3 | M6×1 | 22 | 2.8 | 9 |
| 40 | 33 | 7 | 26 | 43 | 7 | 36 | 58.5 | 12 | | 4 | 3 | M8×1.25 | 28 | 2.8 | 10 |
| 50 | 37 | 9 | 28 | 47 | 9 | 38 | 71.5 | 15 | | 5 | 4 | M10×1.5 | 38 | 2.8 | 10.5 |
| 63 | 41 | 9 | 32 | 51 | 9 | 42 | 84.5 | 15 | | 5 | 4 | M10×1.5 | 40 | 2.8 | 11.8 |
| 80 | 52 | 11 | 41 | 62 | 11 | 51 | 104 | 15 | 20 | 6 | 5 | M14×1.5 | 45 | 4 | 14.5 |
| 100 | 63 | 12 | 51 | 73 | 12 | 61 | 124 | 18 | 20 | 7 | 5 | M18×1.5 | 55 | 4 | 20.5 |

| Bore Size/Symbol | N3 | O | P1 | | | | | P3 | P4 | R | S | T1 | T2 | U | V | W | X | Y |
|------------------|-----|--------|---|----|------|-----|-----|------|----|------|----|----|------|----|---|---|---|---|
| 12 | 6 | M5×0.8 | (Double Sides):φ6.5/(Thread):M5×0.8/(Through ports):φ4.2 | 12 | 4.5 | - | 25 | 16.2 | 23 | 1.6 | 6 | 5 | - | - | - | - | - | |
| 16 | 6.5 | M5×0.8 | (Double Sides):φ6.5/(Thread):M5×0.8/(Through ports):φ4.2 | 12 | 4.5 | - | 29 | 19.8 | 28 | 1.6 | 6 | 5 | - | - | - | - | - | |
| 20 | - | M5×0.8 | (Double Sides):φ6.5/(Thread):M5×0.8/(Through ports):φ4.2 | 14 | 4.5 | 2 | 34 | 24 | - | 2.1 | 8 | 6 | 11.3 | 10 | | | | |
| 25 | - | M5×0.8 | (Double Sides):φ8.2/(Thread):M6×1.0/(Through ports):φ4.6 | 15 | 5.5 | 2 | 40 | 28 | - | 3.1 | 10 | 8 | 12 | 10 | | | | |
| 32 | - | G1/8" | (Double Sides):φ8.2/(Thread):M6×1.0/(Through ports):φ4.6 | 16 | 5.5 | 6 | 44 | 34 | - | 2.15 | 12 | 10 | 18.3 | 15 | | | | |
| 40 | - | G1/8" | (Double Sides):φ10/(Thread):M8×1.25/(Through ports):φ6.5 | 20 | 7.5 | 6.5 | 52 | 40 | - | 2.25 | 16 | 14 | 21.3 | 16 | | | | |
| 50 | - | G1/4" | (Double Sides):φ11/(Thread):M8×1.25/(Through ports):φ6.5 | 25 | 8.5 | 9.5 | 62 | 48 | - | 4.15 | 20 | 17 | 30 | 20 | | | | |
| 63 | - | G1/4" | (Double Sides):φ11/(Thread):M8×1.25/(Through ports):φ6.5 | 25 | 8.5 | 9.5 | 75 | 60 | - | 3.15 | 20 | 17 | 28.7 | 20 | | | | |
| 80 | - | G3/8" | (Double Sides):φ14/(Thread):M12×1.75/(Through ports):φ9.2 | 25 | 10.5 | 10 | 94 | 74 | - | 3.65 | 25 | 22 | 36 | 26 | | | | |
| 100 | - | G3/8" | (Double Sides):φ17.5/(Thread):M14×2/(Through ports):φ11.3 | 30 | 13 | 10 | 114 | 90 | - | 3.65 | 32 | 27 | 35 | 26 | | | | |

| Bore Size/Symbol | N3 | O | P1 | | | | | P3 | P4 | R | S | T1 | T2 | U | V | W | X | Y |
|------------------|-----|--------|---|----|------|-----|-----|------|----|------|----|----|------|----|---|---|---|---|
| 12 | 6 | M5×0.8 | (Double Sides):φ6.5/(Thread):M5×0.8/(Through ports):φ4.2 | 12 | 4.5 | - | 25 | 16.2 | 23 | 1.6 | 6 | 5 | - | - | - | - | - | |
| 16 | 6.5 | M5×0.8 | (Double Sides):φ6.5/(Thread):M5×0.8/(Through ports):φ4.2 | 12 | 4.5 | - | 29 | 19.8 | 28 | 1.6 | 6 | 5 | - | - | - | - | - | |
| 20 | - | M5×0.8 | (Double Sides):φ6.5/(Thread):M5×0.8/(Through ports):φ4.2 | 14 | 4.5 | 2 | 34 | 24 | - | 2.1 | 8 | 6 | 11.3 | 10 | | | | |
| 25 | - | M5×0.8 | (Double Sides):φ8.2/(Thread):M6×1.0/(Through ports):φ4.6 | 15 | 5.5 | 2 | 40 | 28 | - | 3.1 | 10 | 8 | 12 | 10 | | | | |
| 32 | - | G1/8" | (Double Sides):φ8.2/(Thread):M6×1.0/(Through ports):φ4.6 | 16 | 5.5 | 6 | 44 | 34 | - | 2.15 | 12 | 10 | 18.3 | 15 | | | | |
| 40 | - | G1/8" | (Double Sides):φ10/(Thread):M8×1.25/(Through ports):φ6.5 | 20 | 7.5 | 6.5 | 52 | 40 | - | 2.25 | 16 | 14 | 21.3 | 16 | | | | |
| 50 | - | G1/4" | (Double Sides):φ11/(Thread):M8×1.25/(Through ports):φ6.5 | 25 | 8.5 | 9.5 | 62 | 48 | - | 4.15 | 20 | 17 | 30 | 20 | | | | |
| 63 | - | G1/4" | (Double Sides):φ11/(Thread):M8×1.25/(Through ports):φ6.5 | 25 | 8.5 | 9.5 | 75 | 60 | - | 3.15 | 20 | 17 | 28.7 | 20 | | | | |
| 80 | - | G3/8" | (Double Sides):φ14/(Thread):M12×1.75/(Through ports):φ9.2 | 25 | 10.5 | 10 | 94 | 74 | - | 3.65 | 25 | 22 | 36 | 26 | | | | |
| 100 | - | G3/8" | (Double Sides):φ17.5/(Thread):M14×2/(Through ports):φ11.3 | 30 | 13 | 10 | 114 | 90 | - | 3.65 | 32 | 27 | 35 | 26 | | | | |

SC Series Standard Cylinder



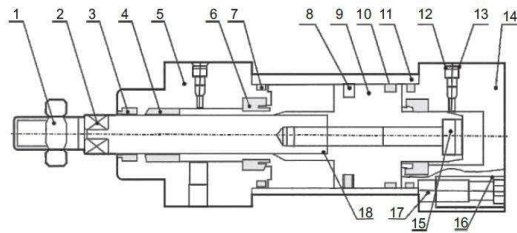
1. Ordering Code :

| | | | | | | | | | | |
|-------|---|-----------|---|--------|---|---------------|---|--|---|---|
| SC | - | 50 | X | 50 | - | 25 | - | S | - | LB |
| ↑ | | ↑ | | ↑ | | ↑ | | ↑ | | ↑ |
| Model | | Bore size | | Stroke | | Adjust stroke | | S:with magnet Blank: without magnet | | Fixed type Blank: Basic type LB:Foot mounting type 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°C~70°C | | | | | | | | |
| 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:

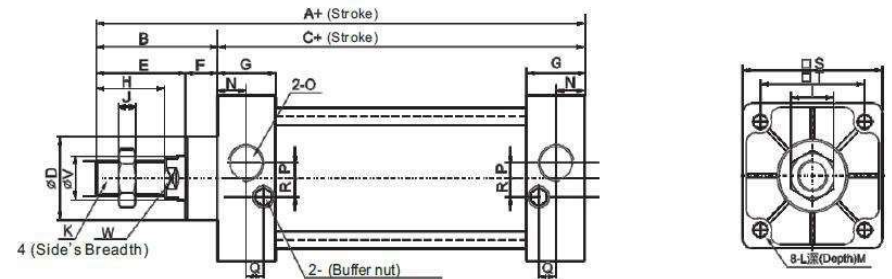
| Cylinder inside Diameter | Extern Diameter of Piston Rod | Potion Pattern | Compression Area(cm ²) | Air Pressure(kgf/cm ²) | | | | | | | | | |
|--------------------------|-------------------------------|----------------|------------------------------------|------------------------------------|--------|--------|---------|---------|---------|---------|---------|---------|---------|
| | | | | 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 | 27.80 | 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 | 131.92 | 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 | 362.88 | 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 | 2109.99 | 2412.56 | 2714.13 | |

6.Stroke:

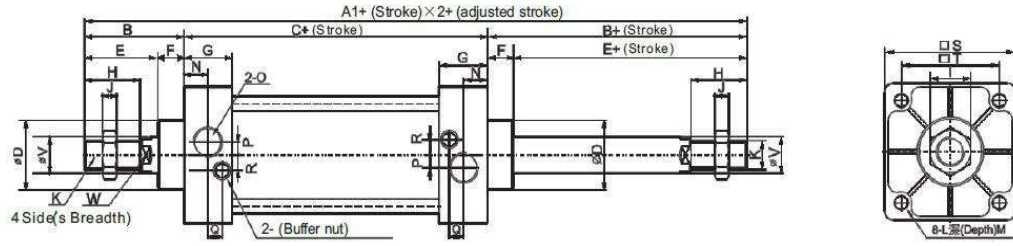
| Bore(mm) | Standard Stroke | | | | | | | | | | Max.Stroke | Permissible Stroke | | | | | | | | |
|----------|-----------------|----|----|----|-----|-----|-----|-----|-----|-----|------------|--------------------|-----|-----|-----|------|------|-----|-----|------|
| 32 | 25 | 50 | 75 | 80 | 100 | 125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

7. Overall and Dimension Sheet:

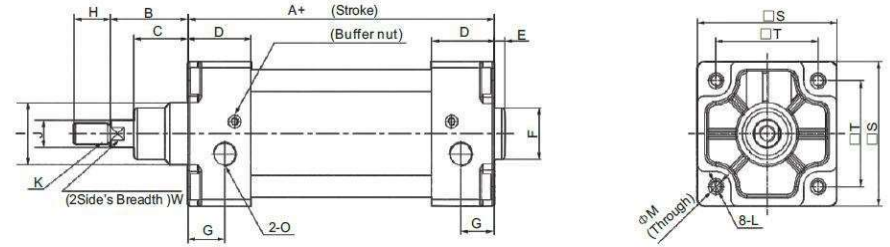
SC series (Φ32~Φ200):



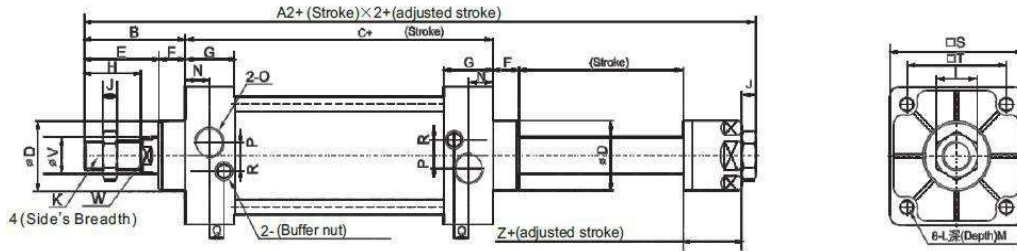
SCD series (Φ32~Φ200):



SC Series (Φ250~Φ320):



SCJ series (Φ32~Φ200):

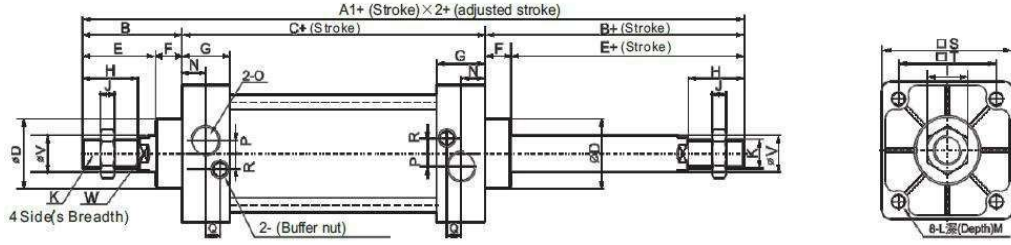


| Bore/Symbol | A | B | C | D | E | F | G | H | I | J | K | L | M | S | T | O |
|-------------|-----|-----|----|----|----|-----|----|----|-----|----|---------|-----|------|-----|-----|----|
| 250 | 200 | 105 | 67 | 52 | 10 | 90 | 31 | 84 | 90 | 50 | M42 × 2 | M20 | Φ 30 | 270 | 220 | G1 |
| 320 | 218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

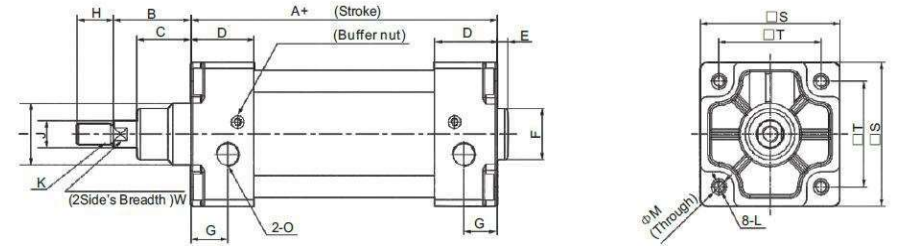
| Bore/Symbol | L | M | N | O | P | Q | R | S | T | V | W | z |
|-------------|------------|------|------|-------|-----|-----|-----|-----|-----|----|----|----|
| 32 | M6 × 1 | 9.5 | 13.7 | G1/8" | 3.5 | 7.5 | 7 | 45 | 33 | 12 | 10 | 21 |
| 40 | M6 × 1 | 9.5 | 13.5 | G1/4" | 6 | 8.2 | 9 | 50 | 37 | 16 | 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 × 1.25 | 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 |

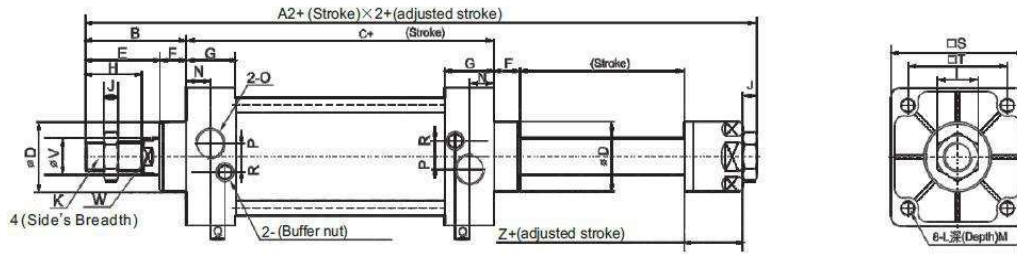
SUD series (Φ32~Φ200):



SU Series (Φ250~Φ320):



SUJ series (Φ32~Φ200):



| 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 | Φ30 | 270 | 220 | G1 |
| 320 | 218 | 120 | 82 | 52 | 10 | 110 | 31 | 96 | 110 | 63 | M48×2 | M24 | Φ34 | 340 | 270 | G1 |

| 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 |

| 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 |

MA Series Stainless Steel Mini Cylinder



1. Ordering Code :

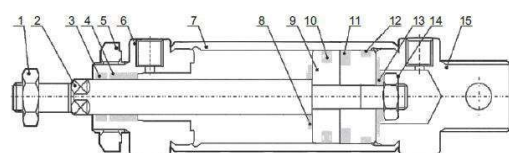
MA - □ - **20 X** **50** - **25** - **S** - **LB**

Model Blank:Fishtail type Bore size Stroke Adjust stroke S:with magnet Fixed type
 MA: Double action type CM: Rounded type 0~100mm Blank:no Blank: Basic type
 MSA: Single spring return type U:Horizontal type magnet LB:Foot mounting type
 MAD: Two axis double action type FA:Front flange mounting type
 MACD: Two axis double action type with stroke adjustable SDB: Back cover fixed type
 MAJ: Two axis double action type with stroke adjustable U:Back cover fixed type
 MAC: Two axis double action type

2.Characteristics:

- 1) This series of stainless steel mini cylinder conforms to: Airtac standard
- 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 | 2 | Piston Rod |
| 3 | Front Cover Seal Ring | 4 | Oiled Bearing |
| 5 | Front Cover Nut | 6 | Front Cover |
| 7 | Stainless steel tube | 8 | Anti-crash cushion |
| 9 | Piston | 10 | Piston O-Ring |
| 11 | Magnet(Optional) | 12 | Wear Ring |
| 13 | Seal cushion | 14 | Hex socket screw |
| 15 | Back Cover | | |

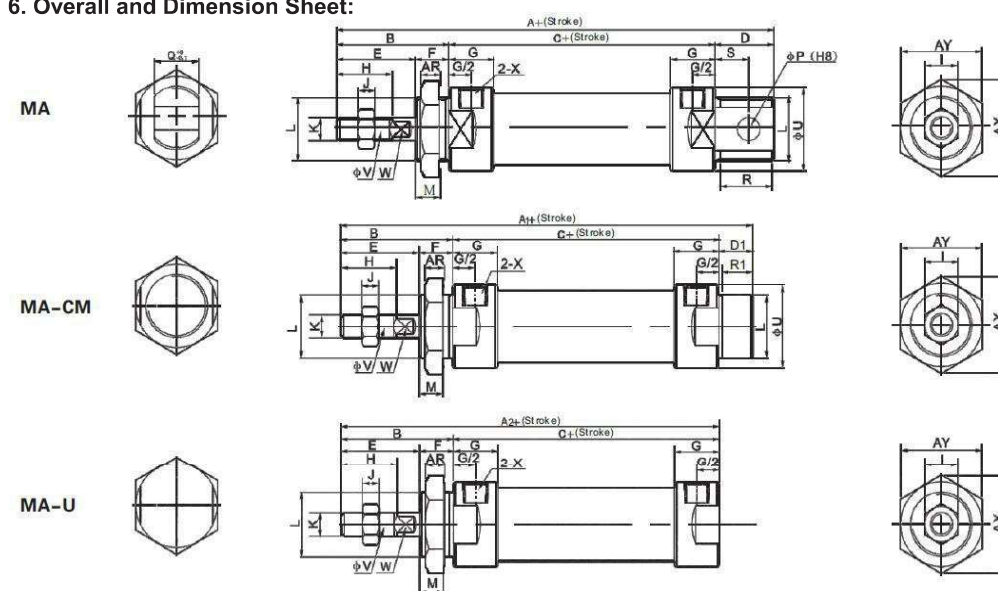
4.Specification:

| Bore(mm) | | 16 | 20 | 25 | 32 | 40 |
|-----------------------------|--------------------------------|--------------------|---------|----------|--------|----|
| Motion pattern | Double Action or Single Action | | | | | |
| Working Medium | Air | | | | | |
| Fixed Type | Normal Type | LB Type | FA Type | SDB Type | U Type | |
| Operating Voltage Range | 0.1~0.9MPa | | | | | |
| Ensured Pressure Resistance | 1.35MPa | | | | | |
| Operating Temperature Range | -5~70℃ | | | | | |
| Operating Speed Range | 50-800mm/s | | | | | |
| Buffer Type | Standard Type | Anti-crash cushion | | | | |
| | Damping Type | Adjustable cushion | | | | |
| Pipe Size | M5×0.8 | G1/8" | | | | |

5. Stroke:

| Bore(mm) | Standard Stroke | | | | | | | | | | | | Max.Stroke | Permissible Stroke | | | |
|----------|-----------------|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|------------|--------------------|-----|-----|-----|
| 16 | 25 | 50 | 75 | 80 | 100 | 125 | 160 | 175 | 200 | | | | | 300 | 500 | | |
| 20 | 25 | 50 | 75 | 80 | 100 | 125 | 160 | 175 | 200 | 250 | 300 | | | | | 500 | 650 |
| 25 | 25 | 50 | 75 | 80 | 100 | 125 | 160 | 175 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 500 | 650 |
| 32 | 25 | 50 | 75 | 80 | 100 | 125 | 160 | 175 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 500 | 650 |
| 40 | 25 | 50 | 75 | 80 | 100 | 125 | 160 | 175 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 500 | 650 |

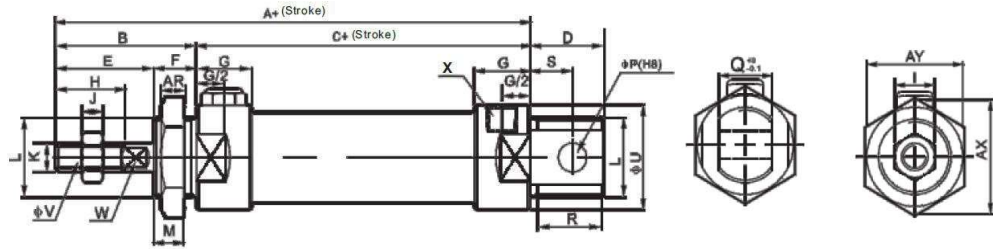
6. Overall and Dimension Sheet:



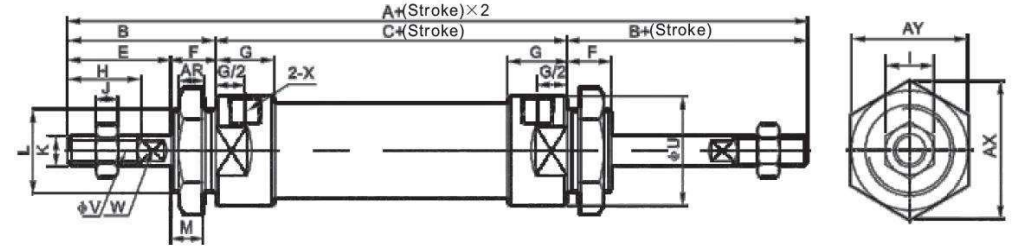
| Bore/Symbol | A | A1 | A2 | B | C | D | D1 | E | F | G | H | I | J | K |
|-------------|-----|-----|-----|----|----|----|----|----|----|------|----|----|---|----------|
| 16 | 114 | 114 | 98 | 38 | 60 | 16 | 16 | 22 | 16 | 10 | 16 | 10 | 5 | M6×1 |
| 20 | 137 | 128 | 116 | 40 | 76 | 21 | 12 | 28 | 12 | 16 | 20 | 12 | 6 | M8×1.25 |
| 25 | 141 | 134 | 120 | 44 | 76 | 21 | 14 | 30 | 14 | 16 | 22 | 17 | 6 | M10×1.25 |
| 32 | 147 | 134 | 120 | 44 | 76 | 27 | 14 | 30 | 14 | 16 | 22 | 17 | 6 | M10×1.25 |
| 40 | 149 | 136 | 122 | 46 | 76 | 27 | 14 | 32 | 14 | 16.7 | 24 | 17 | 7 | M12×1.25 |

| Bore/Symbol | L | M | P | Q | R | R1 | S | U | V | W | X | AR | AX | AY |
|-------------|---------|----|----|----|----|----|----|------|----|----|-------|----|----|------|
| 16 | M16×1.5 | 14 | 6 | 12 | 14 | 14 | 9 | 21 | 6 | 5 | M5 | 6 | 24 | 27.5 |
| 20 | M22×1.5 | 10 | 8 | 16 | 19 | 10 | 12 | 27 | 8 | 6 | G1/8" | 7 | 33 | 29 |
| 25 | M22×1.5 | 12 | 8 | 16 | 19 | 12 | 12 | 30 | 10 | 8 | G1/8" | 7 | 33 | 29 |
| 32 | M24×2.0 | 12 | 10 | 16 | 25 | 12 | 15 | 35 | 12 | 10 | G1/8" | 8 | 37 | 32 |
| 40 | M30×2.0 | 12 | 12 | 20 | 25 | 12 | 15 | 41.6 | 16 | 14 | G1/8" | 9 | 47 | 41 |

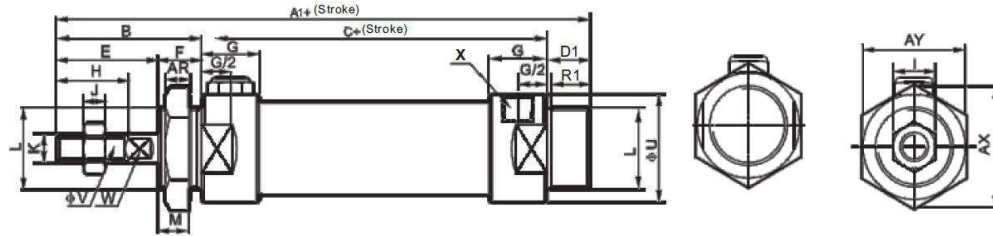
MSA:



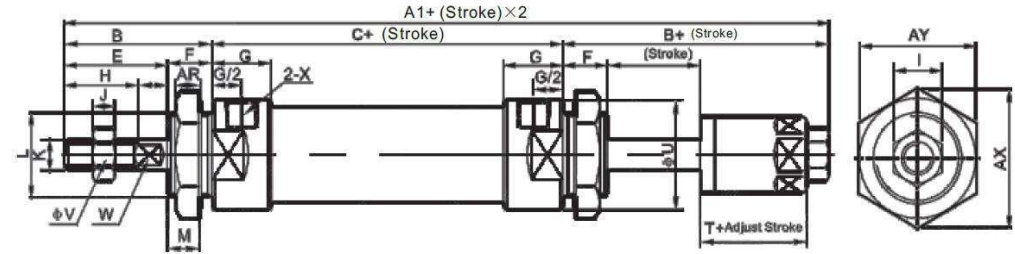
MAD:



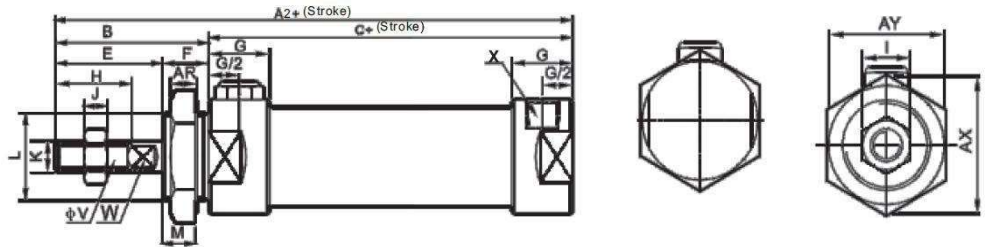
MSA-CM:



MAJ:



MSA-U:



| Inside Diameter/Symbol | A | A1 | B | C | E | F | G | H | I | J | K |
|------------------------|-----|-----|----|----|----|----|----|----|----|---|----------|
| 16 | 136 | 135 | 38 | 60 | 22 | 16 | 10 | 16 | 10 | 5 | M6×1 |
| 20 | 156 | 153 | 40 | 70 | 28 | 12 | 16 | 20 | 12 | 6 | M8×1.25 |
| 25 | 164 | 161 | 44 | 70 | 30 | 14 | 16 | 22 | 17 | 6 | M10×1.25 |
| 32 | 164 | 161 | 44 | 70 | 30 | 14 | 16 | 22 | 17 | 6 | M10×1.25 |
| 40 | 168 | 164 | 46 | 92 | 32 | 14 | 22 | 14 | 17 | 7 | M12×1.25 |

| Symbol | A | | A1 | | A2 | | B | C | | D | D1 | E | F | G | H | I | J |
|--------|------|--------|------|--------|------|--------|----|------|--------|----|----|----|----|----|----|----|---|
| | 0-50 | 51-100 | 0-50 | 51-100 | 0-50 | 51-100 | | 0-50 | 51-100 | | | | | | | | |
| 16 | 114 | 139 | 128 | 153 | 98 | 123 | 38 | 60 | 85 | 16 | 16 | 22 | 16 | 10 | 16 | 10 | 5 |
| 20 | 137 | 162 | 134 | 159 | 116 | 141 | 40 | 76 | 101 | 21 | 12 | 28 | 12 | 16 | 20 | 12 | 6 |
| 25 | 141 | 166 | 134 | 159 | 120 | 145 | 44 | 76 | 101 | 21 | 14 | 30 | 14 | 16 | 22 | 17 | 6 |
| 32 | 147 | 172 | 136 | 161 | 120 | 145 | 44 | 76 | 101 | 27 | 14 | 30 | 14 | 16 | 22 | 17 | 6 |
| 40 | 149 | 174 | 122 | 144 | 122 | 147 | 46 | 76 | 101 | 27 | 14 | 32 | 14 | 22 | 24 | 17 | 7 |

| Inside Diameter/Symbol | L | M | U | V | W | X | AR | AX | AY | T |
|------------------------|---------|----|------|----|----|-------|----|----|----|----|
| 16 | M16×1.5 | 14 | 21 | 6 | 5 | M5 | 6 | 25 | 22 | 16 |
| 20 | M22×1.5 | 10 | 29 | 9 | 6 | G1/8" | 7 | 33 | 29 | 19 |
| 25 | M22×1.5 | 12 | 34 | 10 | 8 | G1/8" | 7 | 33 | 29 | 21 |
| 32 | M24×2.0 | 12 | 39.5 | 12 | 10 | G1/8" | 8 | 37 | 32 | 21 |
| 40 | M30×2.0 | 12 | 49.5 | 16 | 12 | G1/8" | 9 | 47 | 41 | 21 |

| Inside Diameter/Symbol | K | L | M | P | Q | R | R1 | S | U | V | W | X | AR | AX | AY |
|------------------------|----------|---------|----|----|----|----|----|----|------|----|----|-------|----|----|----|
| 16 | M6×1 | M16×1.5 | 14 | 6 | 12 | 14 | 14 | 9 | 21 | 6 | 5 | M5 | 6 | 25 | 22 |
| 20 | M8×1.25 | M22×1.5 | 10 | 8 | 16 | 19 | 10 | 12 | 27 | 8 | 6 | G1/8" | 7 | 33 | 29 |
| 25 | M10×1.25 | M22×1.5 | 12 | 8 | 16 | 19 | 12 | 12 | 30 | 10 | 8 | G1/8" | 7 | 33 | 29 |
| 32 | M10×1.25 | M24×2.0 | 12 | 10 | 16 | 25 | 12 | 15 | 35 | 12 | 10 | G1/8" | 8 | 37 | 32 |
| 40 | M12×1.25 | M30×2.0 | 12 | 12 | 20 | 25 | 12 | 15 | 41.6 | 16 | 14 | G1/8" | 9 | 47 | 41 |

MAL Series Aluminum Alloy Mini Cylinder



1. Ordering Code :

MAL - □ - 20 X 50 - 25 - S - LB

Model Blank: Fishtail type Bore size Stroke Adjust stroke S: with magnet Fixed type

MAL: Double action type CM: Rounded type 0~100mm Blank: no magnet Blank: Basic type

MSAL: Single spring return type U: Horizontal type FA: Front flange mounting type

MALC: With cushion type SDB: Back cover fixed type

MALD: Two axis double action type

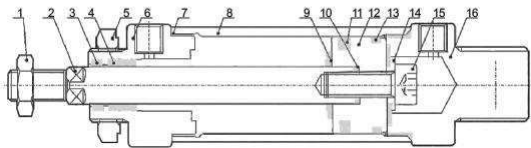
MALCD: Two axis double action with damping type

MALJ: Two axis double action type with stroke adjustable

2. Characteristics:

- 1) This series of stainless steel mini cylinder conforms to: Airtac standard
- 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:



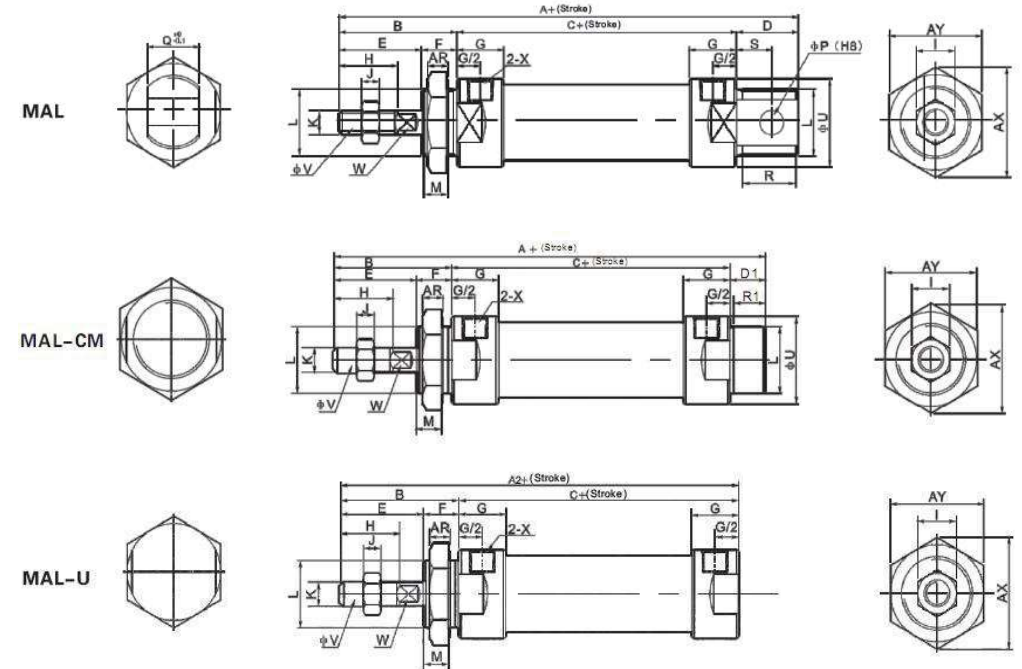
| NO. | Designation | NO. | Designation |
|-----|-----------------------|-----|--------------------|
| 1 | Piston Rod Nut | 2 | /Piston Rod |
| 3 | Front Cover Seal Ring | 4 | /Oiled Bearing |
| 5 | Front Cover Nut | 6 | /Front Cover |
| 7 | Pipe wall O-ring | 8 | /Aluminum tube |
| 9 | Anti-crash cushion | 10 | /Piston rod O-Ring |
| 11 | Piston O-Ring | 12 | /Piston |
| 13 | Wear Ring | 14 | /Seal cushion |
| 15 | Hex socket screw | 16 | /Back Over |

| Bore(mm) | | 16 | 20 | 25 | 32 | 40 |
|-----------------------------|---------------|-------------------------------------|----|-------|----|-------|
| Motion pattern | | Double Action or Single Action | | | | |
| Working Medium | | Air | | | | |
| Fixed Type | | Normal Type LB Type FAType SDB Type | | | | |
| Operating Voltage Range | | 0.1~0.9MPa | | | | |
| Ensured Pressure Resistance | | 1.35MPa | | | | |
| Operating Temperature Range | | -5~70℃ | | | | |
| Operating Speed Range | | 30~800mm/s | | | | |
| Buffer Type | Standard Type | Anti-crash cushion | | | | |
| | Damping Type | Adjustable cushion | | | | |
| Port Size | | M5×0.8 | | G1/8" | | G1/4" |

5. Stroke:

| Bore(mm) | Standard Stroke | Max.Stroke | Permissible Stroke |
|----------|---|------------|--------------------|
| 16 | 25,50,75, 80,100, 125,160,175,200 | 300 | 500 |
| 20 | 25,50,75,80,100,125,160,175,200, 250,300 | 500 | 650 |
| 25 | 25,50,75,80,100,125,160,175,200,250,300,350,400,450,500 | 500 | 650 |
| 32 | 25,50,75,80,100,125,160,175,200,250,300,350,400,450,500 | 500 | 650 |
| 40 | 25,50,75,80,100,125,160,175,200,250,300,350,400,450,500 | 500 | 650 |

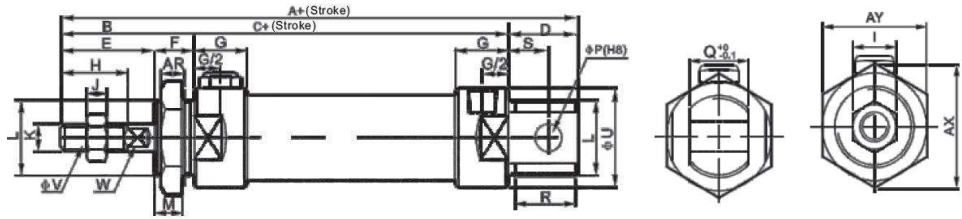
6. Overall and Dimension Sheet:



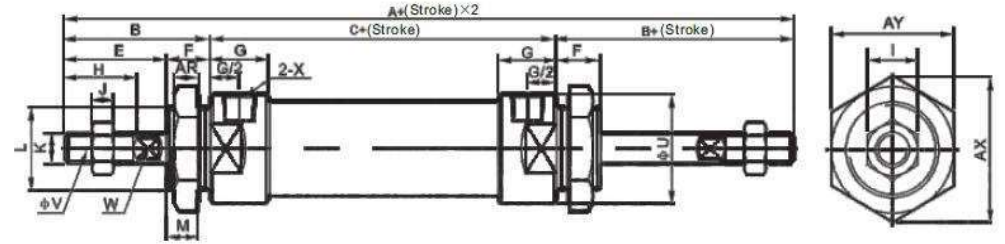
| Bore/Symbol | A | A1 | A2 | B | C | D | D1 | E | F | G | H | I | J | K |
|-------------|-----|-----|-----|----|----|----|----|----|----|----|----|----|---|----------|
| 16 | 114 | 114 | 98 | 38 | 60 | 16 | 16 | 22 | 16 | 10 | 16 | 10 | 5 | M6×1 |
| 20 | 131 | 122 | 110 | 40 | 70 | 21 | 12 | 28 | 12 | 16 | 20 | 12 | 6 | M8×1.25 |
| 25 | 135 | 128 | 114 | 44 | 70 | 21 | 14 | 30 | 14 | 16 | 22 | 17 | 6 | M10×1.25 |
| 32 | 141 | 128 | 114 | 44 | 70 | 27 | 14 | 30 | 14 | 16 | 22 | 17 | 6 | M10×1.25 |
| 40 | 165 | 152 | 138 | 45 | 92 | 27 | 14 | 32 | 14 | 22 | 24 | 17 | 7 | M12×1.25 |

| Bore/Symbol | L | M | P | Q | R | R1 | S | U | V | W | X | AR | AX | AY |
|-------------|---------|----|----|----|----|----|----|------|----|----|-------|----|----|----|
| 16 | M16×1.5 | 14 | 6 | 12 | 14 | 14 | 9 | 21 | 6 | 5 | M5 | 6 | 25 | 22 |
| 20 | M22×1.5 | 10 | 8 | 16 | 19 | 10 | 12 | 29 | 8 | 6 | G1/8" | 7 | 33 | 29 |
| 25 | M22×1.5 | 12 | 8 | 16 | 19 | 12 | 12 | 34 | 10 | 8 | G1/8" | 7 | 33 | 29 |
| 32 | M24×2.0 | 12 | 10 | 16 | 25 | 12 | 15 | 39.5 | 12 | 10 | G1/8" | 8 | 37 | 32 |
| 40 | M30×2.0 | 12 | 12 | 20 | 25 | 12 | 15 | 49.5 | 16 | 14 | G1/4" | 9 | 37 | 41 |

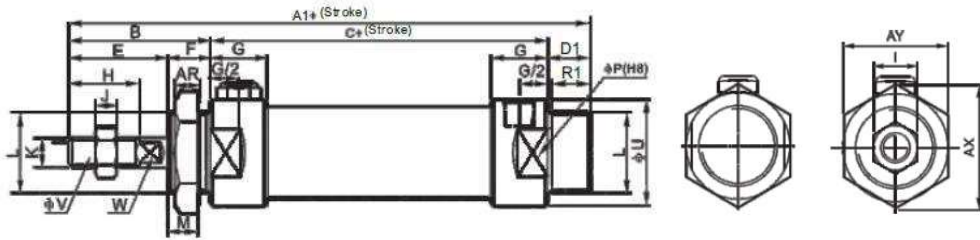
MSAL:



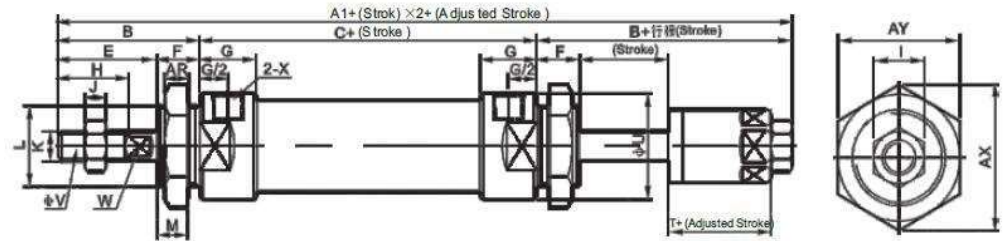
MALD:



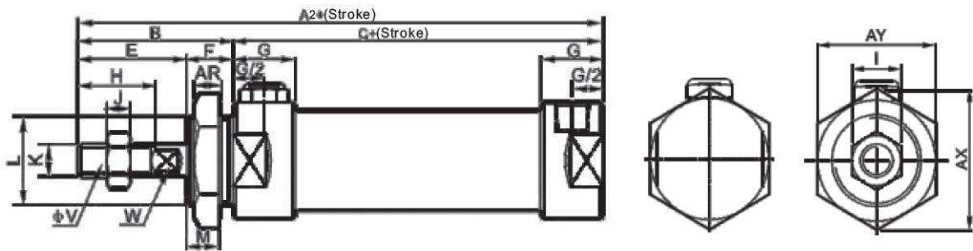
MSAL-CM:



MALJ:



MSAL-U:



| Symbol | A | | A1 | | A2 | | B | C | | D | D1 | E | F | G | H | I | J |
|--------|------|--------|------|--------|------|--------|----|------|--------|----|----|----|----|----|----|----|---|
| | 0-50 | 51-100 | 0-50 | 51-100 | 0-50 | 51-100 | | 0-50 | 51-100 | | | | | | | | |
| 20 | 131 | 156 | 122 | 147 | 110 | 135 | 40 | 70 | 95 | 21 | 12 | 28 | 12 | 16 | 20 | 12 | 6 |
| 25 | 135 | 160 | 160 | 153 | 114 | 139 | 44 | 70 | 95 | 21 | 14 | 30 | 14 | 16 | 22 | 17 | 6 |
| 32 | 141 | 166 | 166 | 153 | 114 | 139 | 44 | 70 | 95 | 27 | 14 | 30 | 14 | 16 | 22 | 17 | 6 |
| 40 | 165 | 190 | 190 | 177 | 138 | 163 | 46 | 92 | 117 | 27 | 14 | 32 | 14 | 22 | 24 | 17 | 7 |

| Inside Diameter/Symbol | A | A1 | B | C | E | F | G | H | I | J | K |
|------------------------|-----|-----|----|----|----|----|----|----|----|---|----------|
| 20 | 150 | 147 | 40 | 70 | 28 | 12 | 16 | 20 | 12 | 6 | M8×1.25 |
| 25 | 158 | 155 | 44 | 70 | 30 | 14 | 16 | 22 | 17 | 6 | M10×1.25 |
| 32 | 158 | 155 | 44 | 70 | 30 | 14 | 16 | 22 | 17 | 6 | M10×1.25 |
| 40 | 184 | 180 | 46 | 92 | 32 | 14 | 22 | 24 | 17 | 7 | M12×1.25 |

| Inside Diameter/Symbol | K | L | M | P | Q | R | R1 | S | U | V | W | X | AR | AX | AY |
|------------------------|----------|---------|----|----|----|----|----|----|------|----|----|-------|----|----|----|
| | | | | | | | | | | | | | | | |
| 25 | M10×1.25 | M22×1.5 | 12 | 8 | 16 | 19 | 12 | 12 | 34 | 10 | 8 | G1/8" | 7 | 33 | 29 |
| 32 | M10×1.25 | M24×2.0 | 12 | 10 | 16 | 25 | 12 | 15 | 39.5 | 12 | 10 | G1/8" | 8 | 37 | 32 |
| 40 | M12×1.25 | M30×2.0 | 12 | 12 | 20 | 25 | 12 | 15 | 49.5 | 16 | 14 | G1/4" | 9 | 47 | 41 |

| Inside Diameter/Symbol | L | M | U | V | W | X | AR | AX | AY | T |
|------------------------|---------|----|------|----|----|-------|----|----|----|----|
| 20 | M22×1.5 | 10 | 29 | 8 | 6 | G1/8" | 7 | 33 | 29 | 19 |
| 25 | M22×1.5 | 12 | 34 | 10 | 8 | G1/8" | 7 | 33 | 29 | 21 |
| 32 | M24×1.5 | 12 | 39.5 | 12 | 10 | G1/8" | 8 | 37 | 32 | 21 |
| 40 | M30×2.0 | 12 | 49.5 | 16 | 14 | G1/4" | 9 | 47 | 41 | 21 |

CQ2 Series Compact Cylinder



1.Ordering Code :

| | | | | | | | | |
|--------------------------|-----------------------|---|-------------|---|---------------|--------------------|---|------------------------|
| CQ2 | B | - | 12 | x | 10 | D | - | □ |
| ↑ | ↑ | | ↑ | ↑ | ↑ | ↑ | | ↑ |
| Model | Mounting style | | Bore | | Stroke | Action type | | Rod thread type |
| CQ2: Normal type | A: Female thread | | 12~100mm | | 0~100mm | D:Double action | | Blank: Female thread |
| CDQ2: With magnet inside | on both ends | | | | | S:Single action | | M: Male thread |
| | B: With through hole | | | | | with spring return | | C: With cushion |
| | | | | | | T:Single action | | |
| | | | | | | with spring extent | | |

2.Characteristics:

- 1) This series of cylinder conforms to: SMC standard
- 2) Improved water and magnetic resistance performance
- 3) Different thread type can be offered according to customers' requirements, e.g.:BSP, NPT etc.
- 4) Needn't lubricate on piston rod by oil

3.Specification:

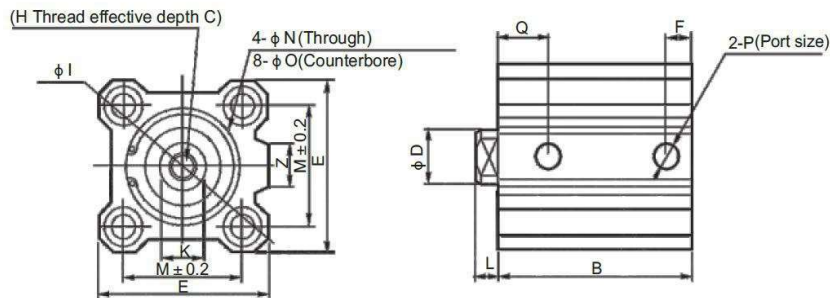
| Bore(mm) | 12 | 16 | 20 | 25 | 32 | 40 | 50 | 63 | 80 | 100 |
|-----------------------------|--|----|-------|----|-------|----|-------|----|----|-----|
| Working Medium | Air | | | | | | | | | |
| Motion Pattern | Double action/Single Action Extrusion type/Single Action Drawing-in Type | | | | | | | | | |
| Ensured Pressure Resistance | 15.3kgf/cm ² (1.5Mpa) | | | | | | | | | |
| Max.pressure | 10.2kgf/cm ² (1.0Mpa) | | | | | | | | | |
| Environment and fluid temp | 5~+60°C | | | | | | | | | |
| Thread Type | Inner Thread(Standard)/Outer Thread(Optional) | | | | | | | | | |
| Buffering | NO | | | | | | | | | |
| Margin of Stroke Error(mm) | +1,0 0 | | | | | | | | | |
| Installation | Through Hole (Standard). Inner size on the two sides(Optional) | | | | | | | | | |
| Port size | M5×0.8 | | G1/8" | | G1/4" | | G3/8" | | | |

■ Note:Pls Confirm Single Type Can't With Cushion.

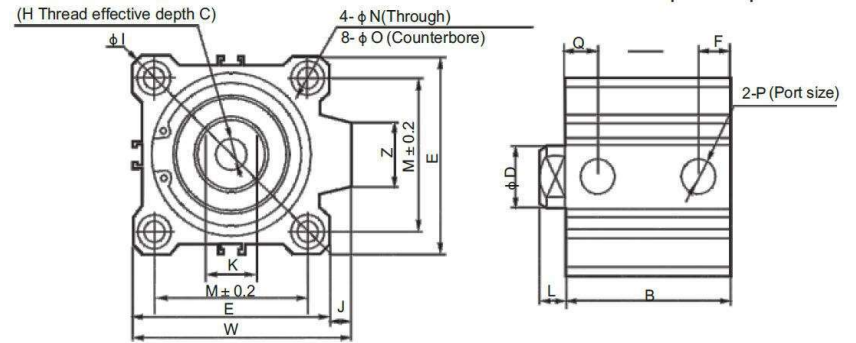
4. Overall and Dimension Sheet:

1) Through hole type CQ2 series:

Φ12~Φ25:



Φ32~Φ100:



Dimension for double action type:

| Model | Stroke range (mm) | B | ΦD | E | F | H | C | ΦI | J | K | L | M | ΦN | ΦO | P | Q | W | Z |
|------------|-------------------|---------|----|-----|------|---------|----|-----|-----|----|-----|------|-----|-----------------|--------|------|-------|----|
| CQ2B12-□D | 5~30 | 17+st | 6 | 25 | 5 | M3×0.5 | 6 | 32 | - | 5 | 3.5 | 15.5 | 3.5 | 6.5 depth 3.5 | M5×0.8 | 7.5 | - | - |
| CQ2B16-□D | 5~30 | 18.5+st | 8 | 29 | 5.5 | M4×0.7 | 8 | 38 | - | 6 | 3.5 | 20 | 3.5 | 6.5 depth 3.5 | M5×0.8 | 8 | - | 10 |
| CQ2B20-□D | 5~50 | 19.5+st | 10 | 36 | 5.5 | M5×0.8 | 7 | 47 | - | 8 | 4.5 | 25.5 | 5.5 | 9 depth 7 | M5×0.8 | 9 | - | 10 |
| CQ2B25-□D | 5~50 | 22.5+st | 12 | 40 | 5.5 | M6×1.0 | 12 | 52 | - | 10 | 5 | 28 | 5.5 | 9 depth 7 | M5×0.8 | 11 | - | 10 |
| CQ2B32-□D | 5 | 23+st | 16 | 45 | 5.5 | M8×1.25 | 13 | 60 | 4.5 | 14 | 7 | 34 | 5.5 | 9 depth 7 | M5×0.8 | 11.5 | 49.5 | 18 |
| | 10~50 | | | | 7.5 | | | | | | | | | | 1/8 | 10.5 | | |
| CQ2B40-□D | 5~50 | 29.5+st | 16 | 52 | 8 | M8×1.25 | 13 | 69 | 5 | 14 | 7 | 40 | 5.5 | 9 depth 7 | 1/8 | 11 | 57 | 18 |
| CQ2B50-□D | 10~50 | 30.5+st | 20 | 64 | 10.5 | M10×1.5 | 15 | 86 | 7 | 17 | 8 | 50 | 6.6 | 11 depth 8 | 1/4 | 10.5 | 71 | 22 |
| CQ2B63-□D | 10~50 | 36+st | 20 | 77 | 10.5 | M10×1.5 | 15 | 103 | 7 | 17 | 8 | 60 | 9 | 14 depth 10.5 | 1/4 | 15 | 84 | 22 |
| CQ2B80-□D | 10~50 | 43.5+st | 25 | 98 | 12.5 | M16×2.0 | 21 | 132 | 6 | 22 | 10 | 77 | 11 | 17.5 depth 13.5 | 3/8 | 16 | 104 | 26 |
| CQ2B100-□D | 10~50 | 53+st | 30 | 117 | 13 | M20×2.5 | 27 | 156 | 6.5 | 27 | 12 | 94 | 11 | 17.5 depth 13.5 | 3/8 | 23 | 123.5 | 26 |

Note 1)The standard stroke is at a distance of each 5 mm.

Note 2)The stroke between 55mm-100mm(55,60,65,70,80,85,90,95,)need to be added thickness of 5,10,15 or 20mm pad.

Note 3)External dimensions with rumper are same as standard type as shown above.

Long Stroke:

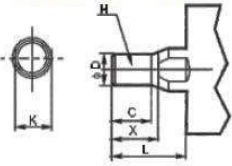
| Model | (mm) | B | F | P | Q |
|-------|--------|------|------|-----|------|
| 32 | 75,100 | 33 | 7.5 | 1/8 | 10.5 |
| 40 | 75,100 | 39.5 | 8 | 1/8 | 11 |
| 50 | 75,100 | 40.5 | 10.5 | 1/4 | 10.5 |
| 63 | 75,100 | 46 | 10.5 | 1/4 | 15 |
| 80 | 75,100 | 53.5 | 12.5 | 3/8 | 16 |
| 100 | 75,100 | 63 | 13 | 3/8 | 23 |

St=(Stroke)

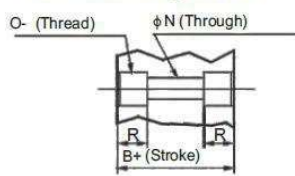
Dimension for single action type:

| Model | B | | | ΦD | E | F | | H | C | ΦI | J | K | L | M | ΦN | ΦO | P | | | Q | | W | Z | |
|-----------|------|------|------|----|----|------|------|---------|----|----|-----|----|-----|------|-----|---------------|------------|------|------|------|------|----|---|---|
| | 5st | 10st | 20st | | | 5st | 10st | | | | | | | | | | 5st | 10st | 5st | 10st | | | | |
| CQ2B12-□S | 22 | 27 | - | 6 | 25 | 5 | 5 | M3×0.5 | 6 | 32 | - | 5 | 3.5 | 15.5 | 3.5 | 6.5/depth 3.5 | M5×0.8 | - | 7.5 | 7.5 | - | - | - | - |
| CQ2B16-□S | 23.5 | 28.5 | - | 8 | 29 | 5.5 | 5.5 | M4×0.7 | 8 | 38 | - | 6 | 3.5 | 20 | 3.5 | 6.5/depth 3.5 | M5×0.8 | - | 8 | 8 | - | 10 | - | - |
| CQ2B20-□S | 24.5 | 29.5 | - | 10 | 36 | 5.5 | 5.5 | M5×0.8 | 7 | 47 | - | 8 | 4.5 | 25.5 | 5.5 | 9/depth 7 | M5×0.8 | - | 9 | 9 | - | 10 | - | - |
| CQ2B25-□S | 27.5 | 32.5 | - | 12 | 40 | 5.5 | 5.5 | M6×1.0 | 12 | 52 | - | 10 | 5 | 28 | 5.5 | 9/depth 7 | M5×0.8 | - | 11 | 11 | - | 10 | - | - |
| CQ2B32-□S | 28 | 33 | - | 16 | 45 | 5.5 | 7.5 | M8×1.25 | 13 | 60 | 4.5 | 14 | 7 | 34 | 5.5 | 9/depth 7 | M5×0.8 1/8 | - | 11.5 | 11.5 | 49.5 | 18 | - | - |
| CQ2B40-□S | 34.5 | 39.5 | - | 16 | 52 | 8 | 8 | M8×1.25 | 13 | 69 | 5 | 14 | 7 | 40 | 5.5 | 9/depth 7 | 1/8 | - | 11 | 11 | 57 | 18 | - | - |
| CQ2B50-□S | - | 40.5 | 50.5 | 20 | 64 | 10.5 | 10.5 | M10×1.5 | 15 | 86 | 7 | 17 | 8 | 50 | 6.6 | 11/depth 8 | - | 1/4 | 10.5 | 10.5 | 71 | 22 | - | - |

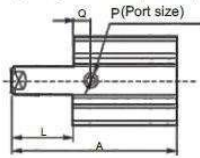
Thread outer Type



Inner Thread Type/CQ2A



Single Action (with Spring extent) φ12~φ50



Thread outer Type

| Bore (mm) | C | X | ΦD | H | L | K |
|-----------|------|------|----|----------|------|----|
| 12 | 9 | 10.5 | 6 | M5×0.8 | 14 | 5 |
| 16 | 10 | 12 | 8 | M6×1.0 | 15.5 | 6 |
| 20 | 12 | 14 | 10 | M8×1.25 | 18.5 | 8 |
| 25 | 15 | 17.5 | 12 | M10×1.25 | 22.5 | 10 |
| 32 | 20.5 | 23.5 | 16 | M14×1.5 | 28.5 | 14 |
| 40 | 20.5 | 23.5 | 16 | M14×1.5 | 28.5 | 14 |
| 50 | 26 | 28.5 | 20 | M18×1.5 | 33.5 | 17 |
| 63 | 26 | 28.5 | 20 | M18×1.5 | 33.5 | 17 |
| 80 | 32.5 | 35.5 | 25 | M22×1.5 | 43.5 | 22 |
| 100 | 32.5 | 35.5 | 30 | M26×1.5 | 43.5 | 27 |

Note3) Inner Thread Type

| Bore (mm) | O | R |
|-----------|----------|----|
| 12 | M4×0.7 | 7 |
| 16 | M4×0.7 | 7 |
| 20 | M6×1.0 | 10 |
| 25 | M6×1.0 | 10 |
| 32 | M6×1.0 | 10 |
| 40 | M6×1.0 | 10 |
| 50 | M8×1.25 | 14 |
| 63 | M10×1.5 | 18 |
| 80 | M12×1.75 | 22 |
| 100 | M12×1.75 | 22 |

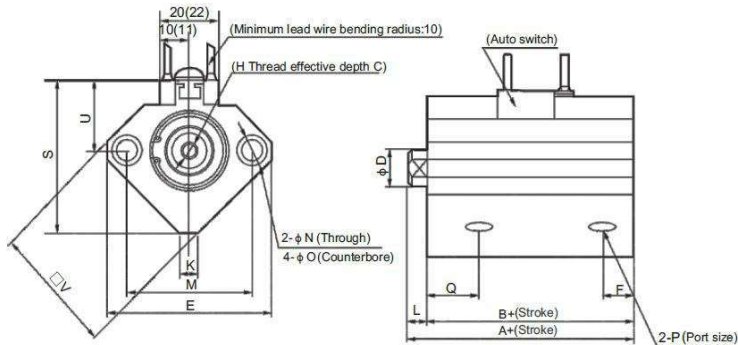
Single Action (with Spring extent)

| Bore (mm) | A | | | L | |
|-----------|------|------|------|-----|------|
| | 5st | 10st | 20st | 5st | 10st |
| 12 | 30.5 | 40.5 | - | 8.5 | 13.5 |
| 16 | 32 | 42 | - | 8.5 | 13.5 |
| 20 | 34 | 44 | - | 9.5 | 14.5 |
| 25 | 37.5 | 47.5 | - | 10 | 15 |
| 32 | 40 | 50 | - | 12 | 17 |
| 40 | 46.5 | 56.5 | - | 12 | 17 |
| 50 | - | 58.5 | 78.5 | - | 18 |
| 63 | - | 58.5 | 78.5 | - | 18 |
| 80 | - | 58.5 | 78.5 | - | 18 |
| 100 | - | 58.5 | 78.5 | - | 18 |

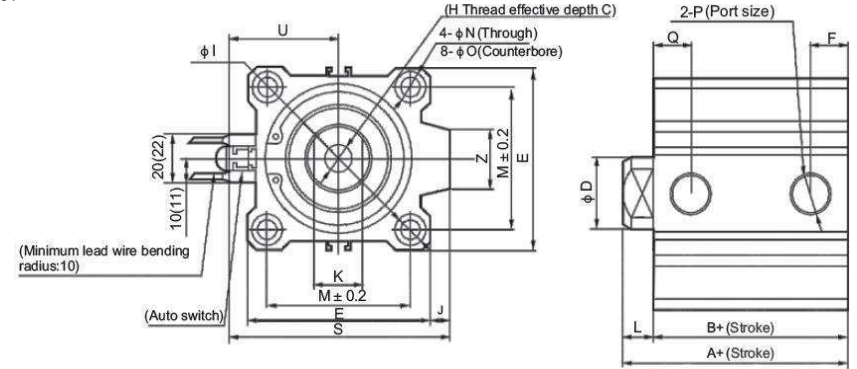
*External dimensions with rumper are same as standard type as shown above.

2) CDQ2 series:

Φ12~Φ25:



Φ32~Φ100:



Dimension for double action type:

| Model | Stroke range (mm) | A | B | ΦD | E | F | H | C | ΦI | J | K | L | M | ΦN | ΦO | P | Q | S | U | V | Z |
|----------|-------------------|------|------|----|------|------|---------|----|-----|-----|----|-----|----|-----|-----------------|--------|------|-------|------|----|----|
| CDQ2B12 | 5~30 | 31.5 | 28 | 6 | 32 | 6.5 | M3×0.5 | 6 | - | - | 5 | 3.5 | 22 | 3.5 | 6.5 depth 3.5 | M5×0.8 | 11 | 35.5 | 19.5 | 25 | - |
| CDQ2B16 | 5~30 | 34 | 30.5 | 8 | 38 | 5.5 | M4×0.7 | 8 | - | - | 6 | 3.5 | 28 | 3.5 | 6.5 depth 3.5 | M5×0.8 | 10 | 41.5 | 22.5 | 29 | - |
| CDQ2B20 | 5~50 | 36 | 31.5 | 10 | 46.8 | 5.5 | M5×0.8 | 7 | - | - | 8 | 4.5 | 36 | 5.5 | 9 depth 7 | M5×0.8 | 10.5 | 48 | 24.5 | 36 | - |
| CDQ2B25 | 5~50 | 37.5 | 32.5 | 12 | 52 | 5.5 | M6×1.0 | 12 | - | - | 10 | 5 | 40 | 5.5 | 9 depth 7 | M5×0.8 | 11 | 53.5 | 27.5 | 40 | - |
| CDQ2B32 | 5~50 | 40 | 33 | 16 | 45 | 7.5 | M8×1.25 | 13 | 60 | 4.5 | 14 | 7 | 34 | 5.5 | 9 depth 7 | 1/8 | 10.5 | 58.5 | 31.5 | - | 18 |
| CDQ2B40 | 5~50 | 46.5 | 39.5 | 16 | 52 | 8 | M8×1.25 | 13 | 69 | 5 | 14 | 7 | 40 | 5.5 | 9 depth 7 | 1/8 | 11 | 66 | 35 | - | 18 |
| CDQ2B50 | 10~50 | 48.5 | 40.5 | 20 | 64 | 10.5 | M10×1.5 | 15 | 86 | 7 | 17 | 8 | 50 | 6.6 | 11 depth 8 | 1/4 | 10.5 | 80 | 41 | - | 22 |
| CDQ2B63 | 10~50 | 54 | 46 | 20 | 77 | 10.5 | M10×1.5 | 15 | 103 | 7 | 17 | 8 | 60 | 9 | 14 depth 10.5 | 1/4 | 15 | 93 | 47.5 | - | 22 |
| CDQ2B80 | 10~50 | 63.5 | 53.5 | 25 | 98 | 12.5 | M16×2.0 | 21 | 132 | 6 | 22 | 10 | 77 | 11 | 17.5 depth 13.5 | 3/8 | 16 | 112.5 | 57.5 | - | 26 |
| CDQ2B100 | 10~50 | 75 | 63 | 30 | 117 | 13 | M20×2.5 | 27 | 156 | 6.5 | 27 | 12 | 94 | 11 | 17.5 depth 13.5 | 3/8 | 23 | 132.5 | 67.5 | - | 26 |

Long Stroke:

| Model | Stroke | A | B | F | P | Q |
|-------|--------|------|------|------|-----|------|
| 32 | 75,100 | 40 | 33 | 7.5 | 1/8 | 10.5 |
| 40 | 75,100 | 46.5 | 39.5 | 8 | 1/8 | 11 |
| 50 | 75,100 | 48.5 | 40.5 | 10.5 | 1/4 | 10.5 |
| 63 | 75,100 | 54 | 46 | 10.5 | 1/4 | 15 |
| 80 | 75,100 | 63.5 | 53.5 | 12.5 | 3/8 | 16 |
| 100 | 75,100 | 75 | 63 | 13 | 3/8 | 23 |

Note 1)The standard stroke is at a distance of each 5 mm.

Note 2)The stroke between 55mm-100mm(55,60,65,70,80,85,90,95,)need to be added thickness of 5,10,15 or 20mm pad.

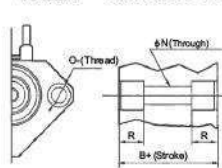
Note 3)External dimensions with rumper are same as standard type as shown above.

Note 4)The stroke of cylinder in 5 mm can be fixed only one magnetism with

Inner Thread Type

| Bore (mm) | O | R |
|-----------|----------|----|
| 12 | M4×0.7 | 7 |
| 16 | M4×0.7 | 7 |
| 20 | M6×1.0 | 10 |
| 25 | M6×1.0 | 10 |
| 32 | M6×1.0 | 10 |
| 40 | M6×1.0 | 10 |
| 50 | M8×1.25 | 14 |
| 63 | M10×1.5 | 18 |
| 80 | M12×1.75 | 22 |
| 100 | M12×1.75 | 22 |

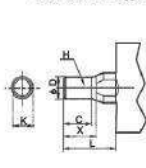
CDQ2A Inner Thread Type



Outer thread type

| Bore (mm) | C | X | ΦD | H | L | K |
|-----------|------|------|----|----------|------|----|
| 12 | 9 | 10.5 | 6 | M5×0.8 | 14 | 5 |
| 16 | 10 | 12 | 8 | M6×1.0 | 15.5 | 6 |
| 20 | 12 | 14 | 10 | M8×1.25 | 18.5 | 8 |
| 25 | 15 | 17.5 | 12 | M10×1.25 | 22.5 | 10 |
| 32 | 20.5 | 23.5 | 16 | M14×1.5 | 28.5 | 14 |
| 40 | 20.5 | 23.5 | 16 | M14×1.5 | 28.5 | 14 |
| 50 | 26 | 28.5 | 20 | M18×1.5 | 33.5 | 17 |
| 63 | 26 | 28.5 | 20 | M18×1.5 | 33.5 | 17 |
| 80 | 32.5 | 35.5 | 25 | M22×1.5 | 43.5 | 22 |
| 100 | 32.5 | 35.5 | 30 | M26×1.5 | 43.5 | 27 |

Outer thread type



CU, CDU Series Free Mounting Cylinder



1. Ordering Code :

| | | | | | | | | |
|-------------------------|---------------------------------|---|-------------|---|---------------|------------------------------------|---|---------------------------|
| CU | □ | - | 10 | - | 30 | D | - | A93 |
| ↑ | ↑ | | ↑ | | ↑ | ↑ | | ↑ |
| Model | Rod Type | | Bore | | Stroke | Action type | | Magnet switch type |
| CU: Normal type | Black: Basic type | | 6mm | | 0~50mm | D:Double action | | Blank: No switch |
| CDU: With magnet inside | K: Non-rotating piston rod type | | 10mm | | | S:Single action with spring return | | |
| | | | 16mm | | | T:Single action with spring extent | | |
| | | | 20mm | | | | | |
| | | | 25mm | | | | | |
| | | | 32mm | | | | | |

2.Characteristics:

- 1) This series free installation cylinders can be mounted freely and easily.
- 2) Small size and light weight.
- 3) Different thread type can be offered according to customers' requirements, e.g.:BSP, NPT etc.
- 4) Needn't lubricate on piston rod by oil

3.Specification:

| Bore(mm) | 6mm | 10mm | 16mm | 20mm | 25mm | 32mm |
|---|--|---------|---------|------|-------|---------|
| Working Medium | Air | | | | | |
| Motion Pattern | Double action/Single Action Extrusion type/Single Action Drawing-in Type | | | | | |
| Ensured Pressure Resistance | 1.05Mpa(10.5kgf/cm ²) | | | | | |
| Max. Working-pressure | 0.7Mpa(7.1kgf/cm ²) | | | | | |
| Min. operating pressure | Single | 0.2MPa | 0.15MPa | | | 0.13MPa |
| | Double | 0.12MPa | 0.06MPa | | | 0.05MPa |
| Ambient and Medium Temperature | Without auto switch:-10~70℃(No freezing) | | | | | |
| | With auto switch:-10~60℃(No freezing) | | | | | |
| Lubrication | Non-lube | | | | | |
| Piston speed | 50-500 mm/s | | | | | |
| Cushion | Rubber bumper (non) | | | | | |
| Rod end thread | Male thread | | | | | |
| Thread tolerance | Class 2 | | | | | |
| Cushion | Both ends buffer | | | | | |
| Margin of Stroke Error(mm) | ±0.8 ⁺ mm | | | | | |
| Precision of Piston rod with Non-rotating | ±0.5 ⁺ mm | | | | | |
| Port Size | M5×0.8 | | | | G1/8" | |

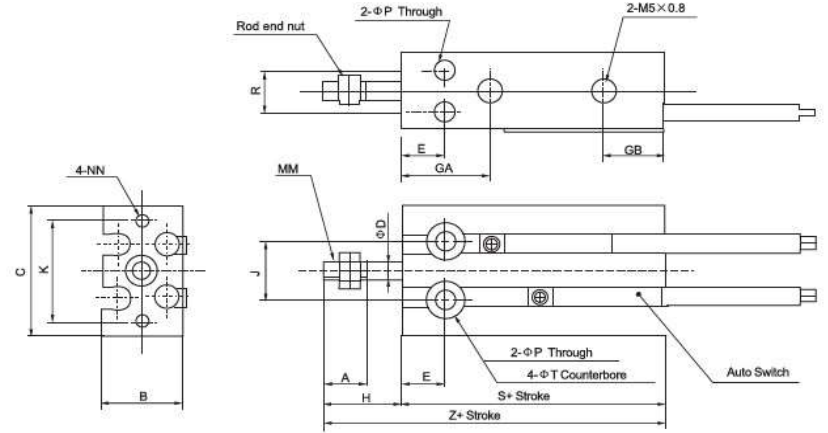
4. Stroke:

| | Bore size (mm) | Standard stroke(mm) |
|---------------|------------------|------------------------|
| Double Acting | 6,10,16 | 5,10,15,20,25,30 |
| | 20,25,32 | 5,10,15,20,25,30,40,50 |
| Single Acting | 6,10,16,20,25,32 | 5,10,15 |

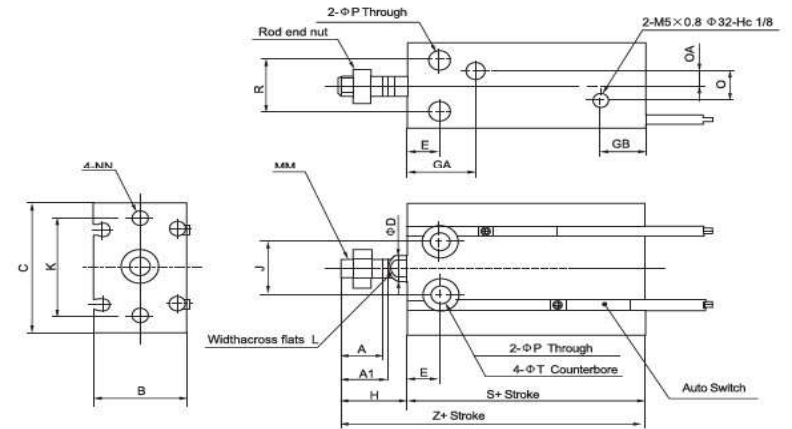
5. Overall and Dimension Sheet:

1) Double Acting, Single Rod:

Φ6~Φ10:



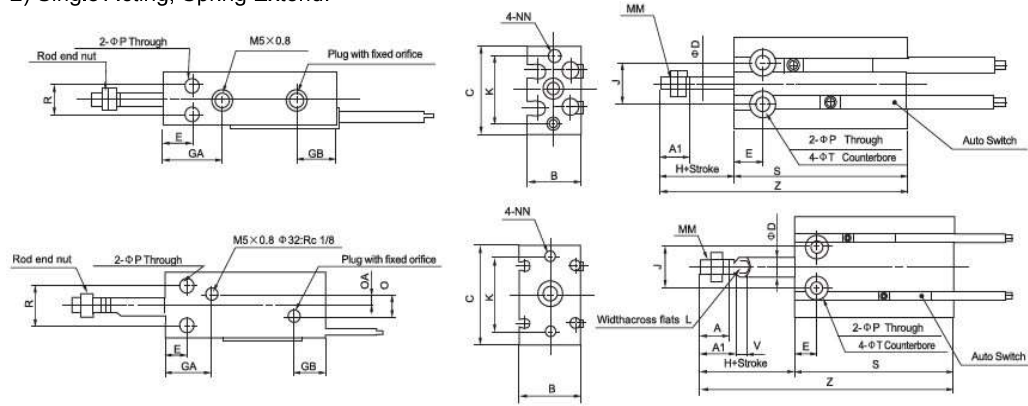
Φ16~Φ32:



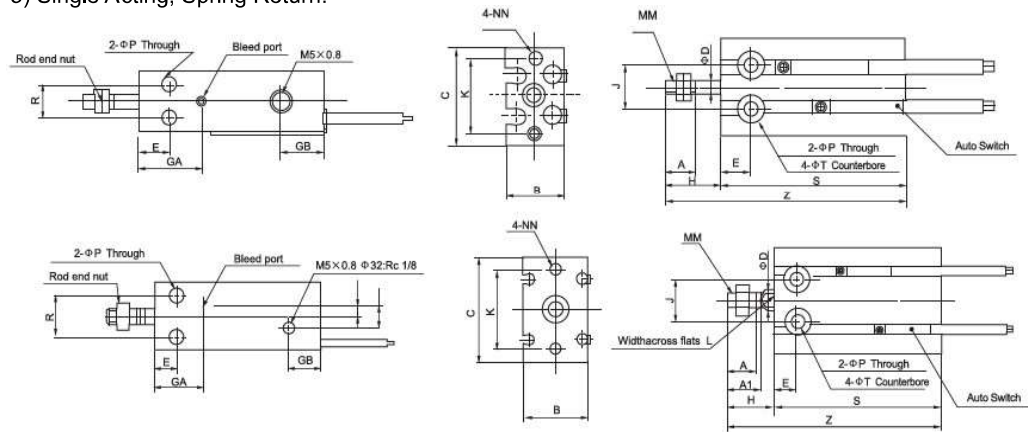
| Bore size(mm) | A | A1 | B | C | D | E | GA | GB | H | K | J | L | MM |
|---------------|------|------|----|----|----|----|-----------------------|------|----|----|----|----|----------|
| 6 | 7 | - | 13 | 22 | 3 | 7 | 15 | 10 | 13 | 17 | 10 | - | M3×0.5 |
| 10 | 10 | - | 15 | 24 | 4 | 7 | 16.5 | 10 | 16 | 18 | 11 | - | M4×0.7 |
| 16 | 11 | 12.5 | 20 | 32 | 6 | 7 | 16.5 ^(non) | 11.5 | 16 | 25 | 14 | 5 | M5×0.8 |
| 20 | 12 | 14 | 26 | 40 | 8 | 9 | 19 | 12.5 | 19 | 30 | 16 | 6 | M6×1.0 |
| 25 | 15.5 | 18 | 32 | 50 | 10 | 10 | 21.5 | 13 | 23 | 38 | 20 | 8 | M8×1.25 |
| 32 | 19.5 | 22 | 40 | 62 | 12 | 11 | 23 | 12.5 | 27 | 48 | 24 | 10 | M10×1.25 |

| Bore size (mm) | NN | P | Q | QA | R | T | Without Auto Switch | | With Auto Switch | |
|----------------|----------------|-----|------|-----|----|---------------|---------------------|----|------------------|----|
| | | | | | | | S | Z | S | Z |
| 6 | M3×0.5 depth 5 | 3.2 | - | - | 7 | 6 depth 4.8 | 33 | 46 | 33 | 46 |
| 10 | M3×0.5 depth 5 | 3.2 | - | - | 9 | 6 depth 5 | 36 | 52 | 36 | 52 |
| 16 | M4×0.7 depth 6 | 4.5 | 4 | 2 | 12 | 7.6 depth 6.5 | 30 | 46 | 40 | 56 |
| 20 | M5×0.8 depth 8 | 5.5 | 9 | 4.5 | 16 | 9.3 depth 8 | 36 | 55 | 46 | 65 |
| 25 | M5×0.8 depth 8 | 5.5 | 9 | 4.5 | 20 | 9.3 depth 9 | 40 | 63 | 50 | 73 |
| 32 | M6×1.0 depth 9 | 6.6 | 13.5 | 4.5 | 24 | 11 depth 11.5 | 42 | 69 | 52 | 79 |

2) Single Acting, Spring Extend:



3) Single Acting, Spring Return:



| Bore size(mm) | A | A1 | B | C | D | E | GA | GB | H | K | J | L | MM | NN | P |
|---------------|------|------|----|----|----|----|------|------|----|----|----|----|----------|------------------|-----|
| 6 | 7 | - | 13 | 22 | 3 | 7 | 15 | 10 | 13 | 17 | 10 | - | M3×0.5 | M3×0.5 (depth) 5 | 3.2 |
| 10 | 10 | - | 15 | 24 | 4 | 7 | 16.5 | 10 | 16 | 18 | 11 | - | M4×0.7 | M3×0.5 (depth) 5 | 3.2 |
| 16 | 11 | 12.5 | 20 | 32 | 6 | 7 | 16.5 | 11.5 | 16 | 25 | 14 | 5 | M5×0.8 | M4×0.7 (depth) 6 | 4.5 |
| 20 | 12 | 14 | 26 | 40 | 8 | 9 | 19 | 12.5 | 19 | 30 | 16 | 6 | M6×1.0 | M5×0.8 (depth) 8 | 5.5 |
| 25 | 15.5 | 18 | 32 | 50 | 10 | 10 | 21.5 | 13 | 23 | 38 | 20 | 8 | M8×1.25 | M5×0.8 (depth) 8 | 5.5 |
| 32 | 19.5 | 22 | 40 | 62 | 12 | 11 | 23 | 12.5 | 27 | 48 | 24 | 10 | M10×1.25 | M6×1.0 (depth) 9 | 6.6 |

| Bore size (mm) | Q | QA | R | T | V (Note) | Without Auto Switch | | | | | | With Auto Switch | | | | | |
|----------------|------|-----|----|-----------------|----------|---------------------|------|------|-----|------|------|------------------|------|------|-----|------|------|
| | | | | | | S | | | Z | | | S | | | Z | | |
| | | | | | | 5st | 10st | 15st | 5st | 10st | 15st | 5st | 10st | 15st | 5st | 10st | 15st |
| 6 | - | - | 7 | 6 (depth) 4.8 | - | 38 | 43 | 48 | 56 | 66 | 76 | 38 | 43 | 48 | 56 | 66 | 76 |
| 10 | - | - | 9 | 6 (depth) 5 | - | 41 | 46 | 56 | 62 | 72 | 87 | 41 | 46 | 56 | 62 | 72 | 87 |
| 16 | 4 | 2 | 12 | 7.6 (depth) 6.5 | 3.5 | 45 | 50 | 60 | 66 | 76 | 91 | 45 | 50 | 60 | 66 | 76 | 91 |
| 20 | 9 | 4.5 | 16 | 9.3 (depth) 8 | 5 | 41 | 46 | 56 | 65 | 75 | 90 | 51 | 56 | 66 | 75 | 85 | 100 |
| 25 | 9 | 4.5 | 20 | 9.3 (depth) 9 | 5 | 45 | 50 | 60 | 73 | 83 | 98 | 55 | 60 | 70 | 83 | 93 | 108 |
| 32 | 13.5 | 4.5 | 24 | 11 (depth) 11.5 | 5 | 47 | 52 | 62 | 79 | 89 | 104 | 57 | 62 | 72 | 89 | 99 | 114 |

Note) "V" Only for Single Acting, Spring Extend

CXS Series Dual Rod Cylinder



1. Ordering Code :

| | | | | | |
|-------------------------|--|----------|---|----------|---------------|
| CXS | M | - | 20 | x | 50 |
| ↑ | ↑ | | ↑ | | ↑ |
| Model | Bearing Type | | Bore | | Stroke |
| CXS: With magnet inside | M: Slide Bearing Type L: Ball Guide Bearing | | 6mm 10mm 16mm 20mm 25mm 32mm | | 0~100mm |

2.Characteristics:

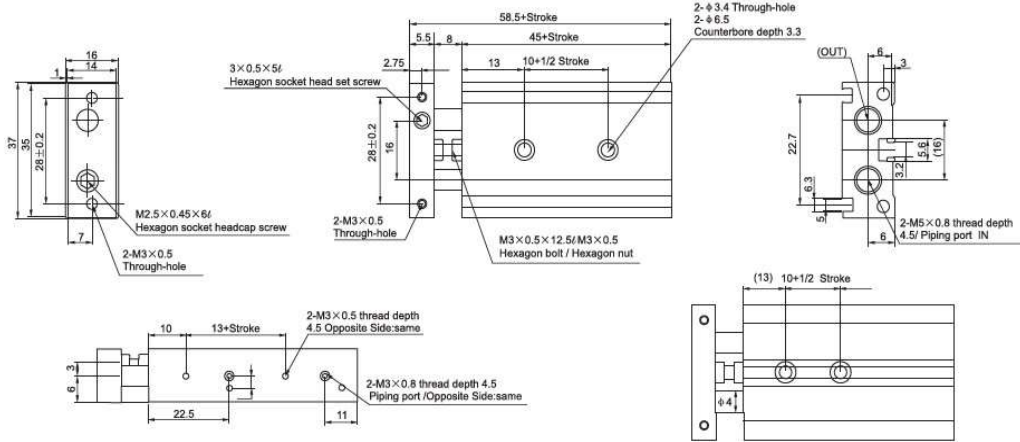
- 1) Double cylinder structure with high precision and dual output force.
- 2) No rotation.
- 3) Better performance against side loads.
- 4) Different thread type can be offered according to customers' requirements, e.g.:BSP, NPT etc.
- 5) Needn't lubricate on piston rod by oil

3.Specification:

| Bore(mm) | 6 | 10 | 15 | 20 | 25 | 32 | | |
|--------------------------------------|-----------------------------------|---------------------------------|------|-------|-----------------------------------|-------|-------|-------|
| Working Medium | Air | | | | | | | |
| Motion Pattern | Double action | | | | | | | |
| Ensured Pressure Resistance | 1.05Mpa(10.7kgf/cm ²) | | | | | | | |
| Max.pressure | 0.7Mpa(7.1kgf/cm ²) | | | | | | | |
| Min.pressure | 0.15Mpa(1.5kgf/cm ²) | 0.1Mpa(1.0kgf/cm ²) | | | 0.05Mpa(0.51kgf/cm ²) | | | |
| Operating Temperature Range | 5~+60°C | | | | | | | |
| Buffering | Both ends buffer | | | | | | | |
| Structure | Double Power | | | | | | | |
| Stroke Adjustable Range | Return Stroke: 0~5mm | | | | | | | |
| Bearing | Slide Bearing/Ball Guide Bearing | | | | | | | |
| Precision of Piston rod Non-rotating | Slide Bearing | | ±0.1 | ±0.15 | ±0.13 | ±0.11 | ±0.1 | ±0.08 |
| | Ball Guide Bearing | | ±0.1 | ±0.1 | ±0.07 | ±0.06 | ±0.05 | ±0.04 |
| Port size | M5×0.8 | | | | | | | |

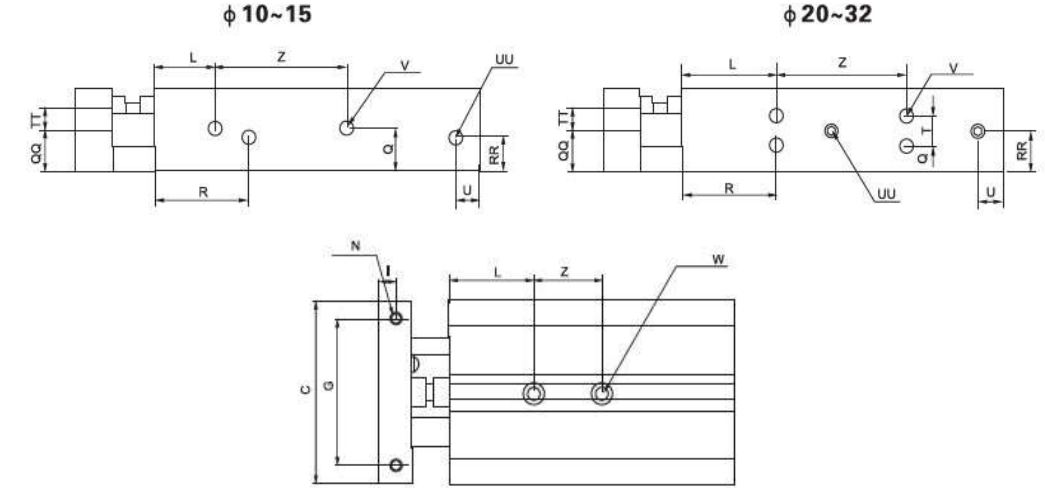
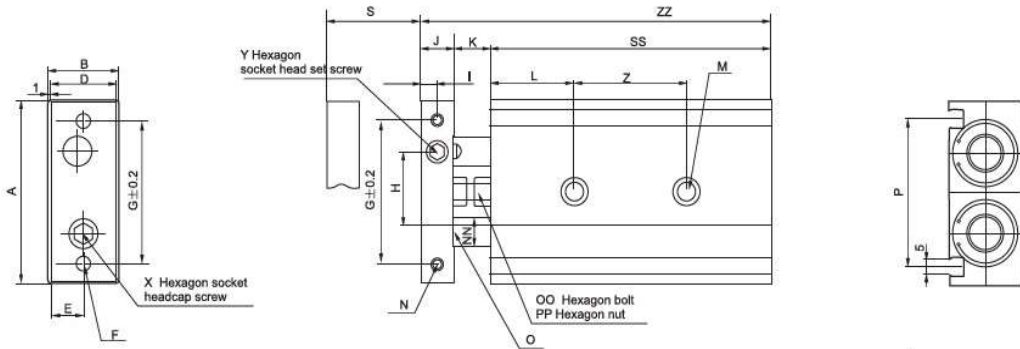
4. Overall and Dimension Sheet:

(Φ6)



| Model | Stroke | 10+1/2 Stroke | 13+Stroke | 45+Stroke | 58.5+Stroke |
|----------|--------|---------------|-----------|-----------|-------------|
| CXS□6-10 | 10 | 15 | 23 | 55 | 68.5 |
| CXS□6-20 | 20 | 20 | 33 | 65 | 78.5 |
| CXS□6-30 | 30 | 25 | 43 | 75 | 88.5 |
| CXS□6-40 | 40 | 30 | 53 | 85 | 95.5 |
| CXS□6-50 | 50 | 35 | 63 | 95 | 108.5 |

(Φ10~Φ30)



| Model | A | B | C | D | E | F | G | H | I | J | K | L | M | N | NN | O | OO | P |
|----------------------------------|----|----|----|----|------|----------|----|----|---|----|----|----|--|------------------------------|-----|----|--------------|------|
| CXS□10-10 /20/30/40/50 | 46 | 17 | 44 | 15 | 7.5 | 2-M4×0.7 | 35 | 20 | 4 | 8 | 9 | 20 | 2-Φ3.4/through 2-Φ6.5 Counterbore depth3.3 | 2-M3×0.5 thread depth 5 | Φ6 | 5 | M4×0.7×14.5L | 33.6 |
| CXS□15-10 /20/30/40/50 | 58 | 20 | 56 | 18 | 9 | 2-M5×0.8 | 45 | 25 | 5 | 10 | 9 | 30 | 2-Φ4.3/through 2-Φ8 Counterbore depth4.4 | 2-M4×0.7 thread depth 6 | Φ8 | 6 | M4×0.7×14.5L | 48 |
| CXS□20-10/20/ 30/40/50/75/100 | 64 | 25 | 62 | 23 | 11.5 | 2-M5×0.8 | 50 | 28 | 6 | 12 | 12 | 30 | 2-Φ5.5/through 2-Φ9.5 Counterbore depth5.3 | 2-M4×0.7 thread depth 6 | Φ10 | 8 | M6×1.0×18.5L | 53 |
| CXS□25-10/20/ 30/40/50/75/100 | 80 | 30 | 78 | 28 | 14 | 2-M6×1.0 | 60 | 35 | 6 | 12 | 12 | 30 | 2-Φ6.9/through 2-Φ11 Counterbore depth6.3 | 2-M5×0.8 thread depth 7.5 | Φ12 | 10 | M6×1.0×18.5L | 64 |
| CXS□32-10/20/ 30/40/50/75/100 | 98 | 38 | 96 | 36 | 18 | 2-M6×1.0 | 75 | 44 | 8 | 16 | 14 | 30 | 2-Φ6.9/through 2-Φ11 Counterbore depth6.3 | 2-M5×0.8 thread depth 8 | Φ16 | 13 | M8×12.5×23L | 76 |

| Model | PP | Q | QQ | R | RR | T | TT | U | UU | V | W | X | Y |
|----------------------------------|---------|------|------|------|------|-----|------|----|------------------------------|------------------------------|------------------------------|-------------|------------|
| CXS□10-10 /20/30/40/50 | M4×0.7 | 8.5 | 7 | 30 | 7 | - | 5 | 8 | 4-M5×0.8 thread depth 4.5 | 4-M3×0.5 thread depth 4.5 | 2-M4×0.7 thread depth 7 | M3×0.5×10L | M3×0.5×5L |
| CXS□15-10 /20/30/40/50 | M4×0.7 | 10 | 10 | 38.5 | 10 | - | 5 | 8 | 4-M5×0.8 thread depth 4.5 | 4-M4×0.7 thread depth 5 | 2-M5×0.8 thread depth 8 | M5×0.8×10L | M4×0.7×4L |
| CXS□20-10/20/ 30/40/50/75/100 | M6×1.0 | 7.75 | 12.5 | 45 | 7.75 | 9.5 | 6.5 | 8 | 4-M5×0.8 thread depth 4.5 | 8-M4×0.7 thread depth 6 | 2-M6×1.0 thread depth 10 | M6×1.0×12L | M5×0.8×5L |
| CXS□25-10/20/ 30/40/50/75/100 | M6×1.0 | 8.5 | 15 | 46 | 15 | 13 | 9 | 9 | 4-1/8 thread depth 6.5 | 8-M5×0.8 thread depth 7.5 | 2-M8×1.25 thread depth 12 | M6×1.0×14L | M6×1.0×5L |
| CXS□32-10/20/ 30/40/50/75/100 | M8×1.25 | 9 | 19 | 56 | 19 | 20 | 11.5 | 10 | 4-1/8 thread depth 6.5 | 8-M5×0.8 thread depth 7.5 | 2-M8×1.25 thread depth 12 | M8×1.25×16L | M8×1.25×8L |

| Model | S | SS | Z | ZZ | Model | S | SS | Z | ZZ | Model | S | SS | Z | ZZ | Model | S | SS | Z | ZZ |
|-----------|----|-----|----|-----|-----------|----|-----|----|-----|------------|-----|-----|----|-----|------------|-----|-----|----|-----|
| CXS□10-10 | 10 | 65 | 30 | 82 | CXS□15-10 | 10 | 70 | 25 | 89 | CXS□20-10 | 10 | 80 | 30 | 104 | CXS□25-10 | 10 | 82 | 30 | 106 |
| CXS□10-20 | 20 | 75 | 30 | 92 | CXS□15-20 | 20 | 80 | 25 | 99 | CXS□20-20 | 20 | 90 | 30 | 114 | CXS□25-20 | 20 | 95 | 30 | 116 |
| CXS□10-30 | 30 | 85 | 40 | 102 | CXS□15-30 | 30 | 90 | 30 | 109 | CXS□20-30 | 30 | 100 | 30 | 124 | CXS□25-30 | 30 | 102 | 30 | 126 |
| CXS□10-40 | 40 | 95 | 40 | 112 | CXS□15-40 | 40 | 100 | 35 | 119 | CXS□20-40 | 40 | 110 | 40 | 134 | CXS□25-40 | 40 | 112 | 40 | 136 |
| CXS□10-50 | 50 | 105 | 40 | 122 | CXS□15-50 | 50 | 110 | 40 | 129 | CXS□20-50 | 50 | 120 | 40 | 144 | CXS□25-50 | 50 | 122 | 40 | 146 |
| | | | | | | | | | | CXS□20-75 | 75 | 145 | 60 | 169 | CXS□25-75 | 75 | 147 | 60 | 171 |
| | | | | | | | | | | CXS□20-100 | 100 | 170 | 60 | 194 | CXS□25-100 | 100 | 172 | 60 | 196 |
| | | | | | | | | | | | | | | | CXS□32-100 | 100 | 182 | 70 | 212 |

MGP Series Three Rod Cylinder



1. Ordering Code :

MGP M - 25 x 50
 ↑ ↑ ↑ ↑
Model **Bearing Type** **Bore** **Stroke**
 MGP: With magnet inside M: Slide Bearing Type 12~100mm L: Ball Guide Bearing

2.Characteristics:

- 1) Double cylinder structure with high precision and dual output force.
- 2) Three shaft can bear higher side loads and no rotation.
- 3) Better performance against side loads.
- 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

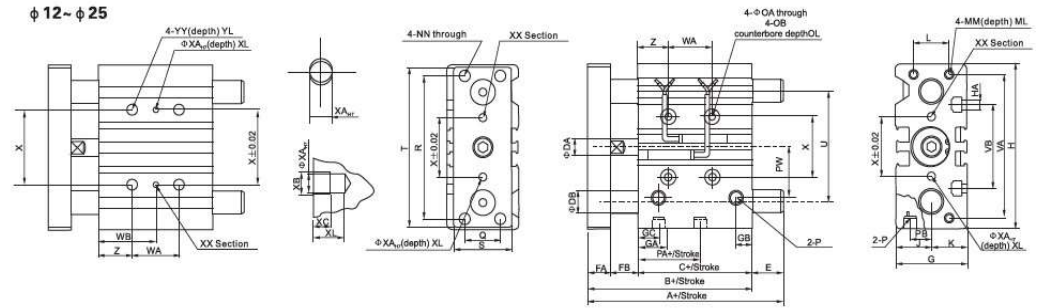
3.Specification:

| | | | | | | | | | | |
|--------------------------------------|----------------------------------|---------|---------|---------|---------|------------|----|-------|----|-----|
| Bore(mm) | 12 | 16 | 20 | 25 | 32 | 40 | 50 | 63 | 80 | 100 |
| Working Medium | Air | | | | | | | | | |
| Motion Pattern | Double-action | | | | | | | | | |
| Ensured Pressure Resistance | 1.5Mpa(15.3kgf/cm ²) | | | | | | | | | |
| Max.Operating pressure | 1.0Mpa(10.2kgf/cm ²) | | | | | | | | | |
| Min. Operating pressure | 0.12Mpa(1.2kgf/cm ²) | | | | | | | | | |
| Ambient and Medium Temperature | -10~+60°C | | | | | | | | | |
| Piston Speed | 50~500mm/s | | | | | 50~400mm/s | | | | |
| Buffer | Rubber Cushion | | | | | | | | | |
| Tolerance of Stroke | +1.5 0 mm | | | | | | | | | |
| Bearing | Slide bearing/ball guide bearing | | | | | | | | | |
| Precision of Piston rod Non-rotating | Slide Bearing | ± 0.08° | ± 0.07° | ± 0.06° | ± 0.05° | ± 0.04° | | | | |
| | Ball Guide Bearing | ± 0.10° | ± 0.09° | ± 0.08° | ± 0.06° | ± 0.05° | | | | |
| Port size | M5×0.8 | | G1/8" | | | G1/4" | | G3/8" | | |

4. Stroke:

| Bore size (mm) | Standard stroke (mm) |
|----------------|--|
| 12,16 | 10,20,30,40,50,75,100,125,150,175,200,250 |
| 20,25 | 20,30,40,50,75,100,125,150,175,200,250,300,350,400 |
| 32 to 100 | 25,50,75,100,125,150,175,200,250,300,350,400 |

5. Overall and Dimension Sheet:



| Bore size | Standard stroke (mm) | B | C | DA | FA | FB | G | GA | GB | H | HA | J | K | L | MM | ML | NN | OA |
|-----------|-------------------------------------|------|------|----|----|----|----|------|-----|----|----|----|----|----|--------|----|--------|-----|
| 12 | 10,20,30,40, 50,75,100 | 42 | 29 | 6 | 8 | 5 | 26 | 11 | 7.5 | 58 | M4 | 13 | 13 | 18 | M4×0.7 | 10 | M4×0.7 | 4.3 |
| 16 | | 46 | 33 | 8 | 8 | 5 | 30 | 11 | 8 | 64 | M4 | 15 | 15 | 22 | M5×0.8 | 12 | M5×0.8 | 4.3 |
| 20 | 20,30,40,50,75, 100,125,150,175,200 | 53 | 37 | 10 | 10 | 6 | 36 | 10.5 | 8.5 | 83 | M5 | 18 | 18 | 24 | M5×0.8 | 13 | M5×0.8 | 5.6 |
| 25 | | 53.5 | 37.5 | 12 | 10 | 6 | 42 | 11.5 | 9 | 93 | M5 | 21 | 21 | 30 | M6×1.0 | 15 | M6×1.0 | 5.6 |

| Bore size | Standard stroke (mm) | OB | OL | P | PA | PB | PW | Q | R | S | T | U | VA | VB | X | XA | XB | XC | YL | Z |
|-----------|-------------------------------------|-----|-----|--------|------|------|------|----|----|----|----|----|----|----|----|----|-----|----|----|----|
| 12 | 10,20,30,40, 50,75,100 | 8 | 4.5 | M5×0.8 | 13 | 8 | 18 | 14 | 48 | 22 | 56 | 41 | 50 | 37 | 23 | 3 | 3.5 | 3 | 10 | 5 |
| 16 | | 8 | 4.5 | M5×0.8 | 15 | 10 | 19 | 16 | 54 | 25 | 62 | 46 | 56 | 38 | 24 | 3 | 3.5 | 3 | 10 | 5 |
| 20 | 20,30,40,50,75, 100,125,150,175,200 | 9.5 | 5.5 | RC1/8 | 12.5 | 10.5 | 25 | 18 | 70 | 30 | 81 | 54 | 72 | 44 | 28 | 3 | 3.5 | 3 | 12 | 17 |
| 25 | | 9.5 | 5.5 | RC1/8 | 12.5 | 13.5 | 28.5 | 26 | 78 | 38 | 91 | 64 | 82 | 50 | 34 | 4 | 4.5 | 3 | 12 | 17 |

| Bore size | Standard stroke (mm) | WA | | | WB | | | XL | YY |
|-----------|-------------------------------------|---------------|---------------------|----------------|---------------|---------------------|----------------|----|--------|
| | | 30 st or less | Over40 st to 100 st | 125 st or less | 30 st or less | Over40 st to 100 st | 125 st or less | | |
| 12 | 10,20,30,40, 50,75,100 | 20 | 40 | - | 15 | 25 | - | 6 | M5×0.8 |
| 16 | | 24 | 44 | - | 17 | 27 | - | 6 | M5×0.8 |
| 20 | 20,30,40,50,75, 100,125,150,175,200 | 24 | 44 | 120 | 29 | 39 | 77 | 6 | M6×1.0 |
| 25 | | 24 | 44 | 120 | 29 | 39 | 77 | 6 | M6×1.0 |

MGPM Slide bearing

| Bore size | A | | | DB | E | | |
|-----------|-------|--------------|--------|----|-------|--------------|--------|
| | 50st≥ | 50st< 100st≥ | 100st< | | 50st≥ | 50st< 100st≥ | 100st< |
| 12 | 42 | 60.5 | 85 | 8 | 0 | 18.5 | 43 |
| 16 | 46 | 64.5 | 95 | 10 | 0 | 18.5 | 49 |

MGPL Ball bushing bearing

| Bore size | A | | | DB | E | | |
|-----------|-------|--------------|--------|----|-------|--------------|--------|
| | 30st≥ | 30st< 100st≥ | 100st< | | 30st≥ | 30st< 100st≥ | 100st< |
| 12 | 43 | 55 | 85 | 6 | 1 | 13 | 43 |
| 16 | 49 | 65 | 95 | 8 | 3 | 19 | 49 |

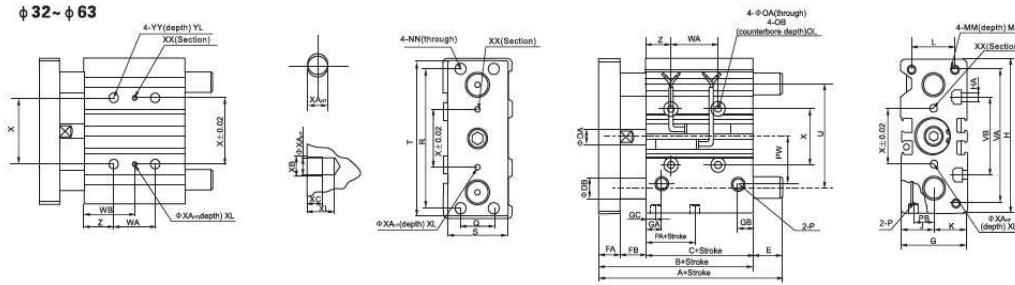
MGPM Slide bearing

| Bore size | A | | | DB | E | | |
|-----------|-------|--------------|--------|----|-------|--------------|--------|
| | 50st≥ | 50st< 200st≥ | 200st< | | 50st≥ | 50st< 200st≥ | 200st< |
| 20 | 53 | 84.5 | 122 | 16 | 0 | 31.5 | 69 |
| 25 | 53.5 | 85 | 122 | 20 | 0 | 31.5 | 68.5 |

MGPL Ball bushing bearing

| Bore size | A | | | | DB | E | | | |
|-----------|-------|--------------|---------------|--------|----|-------|--------------|---------------|--------|
| | 30st≥ | 30st< 100st≥ | 100st≥ 200st≥ | 200st< | | 30st≥ | 30st< 100st≥ | 100st≥ 200st≥ | 200st< |
| 20 | 63 | 80 | 104 | 122 | 10 | 10 | 27 | 51 | 69 |
| 25 | 69.5 | 80.5 | 104.5 | 122 | 13 | 16 | 32 | 51 | 68.5 |

φ 32~ φ 63



| Bore size | Standard stroke(mm) | B | C | DA | FA | FB | G | GA | GB | GC | H | HA | J | K | L | MM | ML | NN | OA |
|-----------|------------------------------|------|------|----|----|----|----|------|------|------|-----|-----|----|----|----|---------|----|---------|-----|
| 32 | 25,50,70,100,125,150,175,200 | 59.5 | 37.5 | 16 | 12 | 10 | 48 | 12.5 | 9 | 12.5 | 112 | M6 | 24 | 24 | 34 | M8×1.25 | 20 | M8×1.25 | 6.6 |
| 40 | | 66 | 44 | 16 | 12 | 10 | 54 | 14 | 10 | 14 | 120 | M6 | 27 | 27 | 40 | M8×1.25 | 20 | M8×1.25 | 6.6 |
| 50 | | 72 | 44 | 20 | 16 | 12 | 64 | 14 | 11 | 12 | 148 | M8 | 32 | 32 | 46 | M10×1.5 | 22 | M10×1.5 | 8.6 |
| 63 | | 77 | 49 | 20 | 16 | 12 | 78 | 16.5 | 13.5 | 16.5 | 162 | M10 | 39 | 39 | 58 | M10×1.5 | 22 | M10×1.5 | 8.6 |

| Bore size | Standard stroke(mm) | OB | OL | P | PA | PB | PW | Q | R | S | T | U | VA | VB | X | XA | XB | XC | XL | Z |
|-----------|------------------------------|----|-----|-------|----|------|----|----|-----|----|-----|-----|-----|-----|----|----|-----|----|----|----|
| 32 | 25,50,70,100,125,150,175,200 | 11 | 7.5 | RC1/8 | 7 | 15 | 34 | 30 | 96 | 44 | 110 | 78 | 98 | 63 | 42 | 4 | 4.5 | 3 | 6 | 21 |
| 40 | | 11 | 7.5 | RC1/8 | 13 | 18 | 38 | 30 | 104 | 44 | 118 | 86 | 106 | 72 | 50 | 4 | 4.5 | 3 | 6 | 22 |
| 50 | | 14 | 9 | RC1/4 | 9 | 21.5 | 47 | 40 | 130 | 60 | 146 | 110 | 130 | 92 | 66 | 5 | 6 | 4 | 8 | 24 |
| 63 | | 14 | 9 | RC1/4 | 14 | 28 | 55 | 50 | 130 | 70 | 158 | 124 | 142 | 110 | 80 | 5 | 6 | 4 | 8 | 24 |

| Bore size | Standard stroke(mm) | WA | | | WB | | | YY | YL |
|-----------|------------------------------|-------|--------------|-----------------|-------|--------------|-----------------|---------|----|
| | | 25 st | 50,75,100 st | 100 st or above | 25 st | 50,75,100 st | 100 st or above | | |
| 32 | 25,50,70,100,125,150,175,200 | 24 | 48 | 124 | 33 | 45 | 83 | M8×1.25 | 16 |
| 40 | | 24 | 48 | 124 | 34 | 46 | 84 | M8×1.25 | 16 |
| 50 | | 24 | 48 | 124 | 36 | 48 | 86 | M10×1.5 | 20 |
| 63 | | 28 | 52 | 128 | 38 | 50 | 88 | M10×1.5 | 20 |

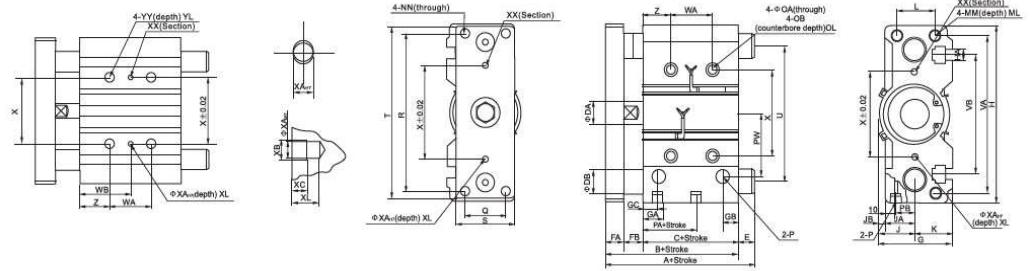
MGPM Slide bearing

| Bore size | A | | | DB | E | | |
|-----------|-------|-------------|--------|----|-------|-------------|--------|
| | 50st≥ | 50st<200st≥ | 200st< | | 50st≥ | 50st<200st≥ | 200st< |
| 32 | 97 | 102 | 140 | 20 | 37.5 | 42.5 | 80.5 |
| 40 | 97 | 102 | 140 | 20 | 31 | 36 | 74 |
| 50 | 106.5 | 118 | 161 | 25 | 34.5 | 46 | 89 |
| 63 | 106.5 | 118 | 161 | 25 | 29.5 | 41 | 84 |

MGPL Ball bushing bearing

| Bore size | A | | | | DB | E | | | |
|-----------|-------|-------------|--------------|--------|----|-------|-------------|--------------|--------|
| | 50st≥ | 50st<100st≥ | 100st<200st≥ | 200st< | | 50st≥ | 50st<100st≥ | 100st<200st≥ | 200st< |
| 32 | 81 | 98 | 118 | 140 | 16 | 21.5 | 38.5 | 58.5 | 80 |
| 40 | 81 | 98 | 118 | 140 | 16 | 15 | 32 | 52 | 74 |
| 50 | 93 | 114 | 134 | 161 | 20 | 21 | 42 | 62 | 89 |
| 63 | 93 | 114 | 134 | 161 | 20 | 16 | 37 | 57 | 84 |

φ 80~ φ 100



| Bore size | Standard stroke (mm) | B | C | DA | FA | FB | G | GA | GB | GC | H | HA | J | LA | JB | K | L | MM | ML | NN | OA |
|-----------|------------------------------|------|------|----|----|----|-------|----|------|------|-----|-----|------|----|------|----|----|----------|----|----------|------|
| 80 | 20,50,75,100,125,150,175,200 | 95.5 | 56.5 | 25 | 22 | 18 | 91.5 | 19 | 15.5 | 14.5 | 202 | M12 | 45.5 | 38 | 7.5 | 46 | 54 | M12×1.75 | 30 | M12×1.75 | 10.6 |
| 100 | 150,175,200 | 116 | 66 | 30 | 25 | 25 | 111.5 | 23 | 19 | 18 | 240 | M14 | 55.5 | 45 | 10.5 | 56 | 62 | M14×2.0 | 32 | M14×2.0 | 12.5 |

| Bore size | Standard stroke (mm) | OB | OL | P | PA | PB | PW | Q | R | S | T | U | VA | VB | X | XA | XB | XC | XL | Z |
|-----------|------------------------------|------|----|-------|------|------|----|----|-----|----|-----|-----|-----|-----|-----|----|----|----|----|----|
| 80 | 20,50,75,100,125,150,175,200 | 17.5 | 8 | RC3/8 | 14.5 | 25.5 | 74 | 52 | 174 | 75 | 198 | 156 | 180 | 140 | 100 | 6 | 7 | 5 | 10 | 28 |
| 100 | 150,175,200 | 20 | 8 | RC3/8 | 17.5 | 32.5 | 89 | 64 | 210 | 90 | 236 | 188 | 210 | 166 | 124 | 6 | 7 | 5 | 10 | 11 |

| Bore size | Standard stroke (mm) | WA | | | WB | | | YY | YL |
|-----------|------------------------------|-------|--------------|-----------------|-------|--------------|-----------------|----------|----|
| | | 25 st | 50,75,100 st | 100 st or above | 25 st | 50,75,100 st | 100 st or above | | |
| 80 | 20,50,75,100,125,150,175,200 | 28 | 52 | 128 | 42 | 54 | 92 | M12×1.75 | 24 |
| 100 | 150,175,200 | 48 | 72 | 148 | 35 | 47 | 85 | M14×2.0 | 28 |

MGPM Slide bearing

| Bore size | A | | | DB | E | | |
|-----------|-------|-------------|--------|----|-------|-------------|--------|
| | 50st≥ | 50st<200st≥ | 200st< | | 50st≥ | 50st<200st≥ | 200st< |
| 80 | 115 | 142 | 193 | 30 | 18.5 | 45.5 | 96.5 |
| 100 | 137 | 162 | 203 | 36 | 21 | 46 | 87 |

MGPL Ball bushing bearing

| Bore size | A | | | | DB | E | | | |
|-----------|-------|------------|-------------|--------|----|-------|------------|-------------|--------|
| | 50st≥ | 25st<50st≥ | 50st<200st≥ | 200st< | | 50st≥ | 25st<50st≥ | 50st<200st≥ | 200st< |
| 80 | 109.5 | 130 | 160 | 193 | 25 | 13 | 33.5 | 63.5 | 96.5 |
| 100 | 121 | 147 | 180 | 203 | 30 | 5 | 31 | 64 | 87 |