

## Double-Rod Cylinder

( $\phi 6 - \phi 32$ )



Double-shaft construction  
and standardization of high  
lateral load resistance and  
high accuracy

### Chosen Type

Magnetic Type: CXS M 20 R

Bearing type  
M—Slide bearing  
L—Ball guide bearing

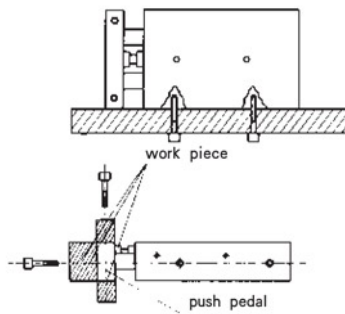
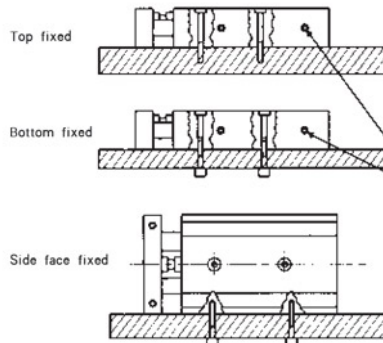
Bore  
6— $\phi 6$ mm  
10— $\phi 10$ mm  
15— $\phi 15$ mm  
20— $\phi 20$ mm  
25— $\phi 25$ mm  
32— $\phi 32$ mm

Stroke

### Order Example

- 1) Bore: 15, Stroke: 30, Ball guide bearing, Code: CXSL15-30
- 2) Bore: 32, Stroke: 100, Slide bearing, Code: CXSM32-100

The cylinder body can be fixed by bolt in 4 directions, and the air supply position is optional.



The work piece can be mounted from three sides

### Specification

| Bore(mm)                          | 6                                  | 10       | 15     | 20         | 25     | 32     |
|-----------------------------------|------------------------------------|----------|--------|------------|--------|--------|
| Applicable medium                 | Air                                |          |        |            |        |        |
| Action                            | Double acting                      |          |        |            |        |        |
| Proof pressure MPa[kgf/cm2]       | 1.05[10.7]                         |          |        |            |        |        |
| Max pressure MPa[kgf/cm2]         | 0.7[7.1]                           |          |        |            |        |        |
| Min pressure MPa[kgf/cm2]         | 0.15[1.5]                          | 0.1[1.0] |        | 0.05[0.51] |        |        |
| Environment and fluid temperature | 5 ~ 60°C(No Freeze)                |          |        |            |        |        |
| Cushion                           | Rubber cushion on both end         |          |        |            |        |        |
| Construction                      | Double cylinder (2 times of force) |          |        |            |        |        |
| *Lubrication                      | Not required                       |          |        |            |        |        |
| Stroke adjustable range           | Retraction distance 0 ~ 5mm        |          |        |            |        |        |
| Bearing                           | Slide bearing/ Ball guide bearing  |          |        |            |        |        |
| Non-rotating Accuracy             | ± 0.1                              | ± 0.15   | ± 0.13 | ± 0.11     | ± 0.1  | ± 0.08 |
|                                   | ± 0.1                              | ± 0.1    | ± 0.07 | ± 0.06     | ± 0.05 | ± 0.04 |
| Pipe Size RC(PT)                  | M4×0.8                             |          |        |            |        |        |

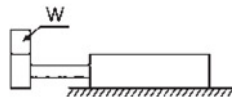
\*ISOVG32, if required lubrication

### Stroke/Magnetic Switch

| Bore<br>(mm) | Standard Stroke                                                | orbit Mounting |
|--------------|----------------------------------------------------------------|----------------|
|              |                                                                | Sensor switch  |
| 6            | 10, 20, 30, 40, 50                                             | CS1-M          |
| 10           | 10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 75                 |                |
| 15           | 10, 15, 20, 25, 30, 35, 40, 45,<br>50, 60, 70, 75, 80, 90, 100 |                |
| 20           |                                                                |                |
| 25           |                                                                |                |
| 32           |                                                                |                |

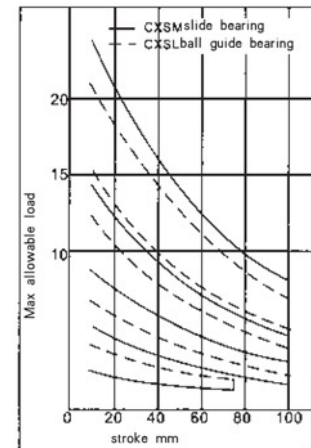
### Max allowable load

The cylinder that is fixed according to the following installation type, its allowable load should lower than the follows



### Stroke/Magnetic Switch

| Type  | Stand Stroke(mm) |      |      |      |      |
|-------|------------------|------|------|------|------|
|       | 10               | 20   | 30   | 40   | 50   |
| CXSM6 | 0.80             | 0.66 | 0.54 | 0.46 | 0.40 |
| CSXL6 | 1.08             | 0.88 | 0.69 | 0.59 | 0.49 |



### Theoretical output force

| Type   | Rod dia (mm) | Direction | Effective area (mm <sup>2</sup> ) | Service Pressure Air(MPa) |      |      |      |      |      |      |
|--------|--------------|-----------|-----------------------------------|---------------------------|------|------|------|------|------|------|
|        |              |           |                                   | 0.1                       | 0.2  | 0.3  | 0.4  | 0.5  | 0.6  | 0.7  |
| CXS□6  | 4            | Push      | 56                                | ≈0.8                      | 11.2 | 16.8 | 22.1 | 28.0 | 33.6 | 39.2 |
|        |              | Pull      | 31                                | ≈4.6                      | 6.2  | 9.3  | 12.4 | 15.5 | 18.6 | 21.7 |
| CXS□10 | 6            | Push      | 157                               | 15.7                      | 31.4 | 47.1 | 62.8 | 75.5 | 94.2 | 110  |
|        |              | Pull      | 100                               | 10.0                      | 20.0 | 30.0 | 40.0 | 50.0 | 60.0 | 70.0 |
| CXS□15 | 8            | Push      | 353                               | 35.3                      | 70.6 | 106  | 141  | 177  | 212  | 247  |
|        |              | Pull      | 252                               | 25.2                      | 50.4 | 75.6 | 101  | 126  | 151  | 176  |
| CXS□20 | 10           | Push      | 628                               | 62.8                      | 126  | 188  | 251  | 314  | 377  | 440  |
|        |              | Pull      | 471                               | 47.1                      | 94.2 | 141  | 188  | 236  | 283  | 330  |
| CXS□25 | 12           | Push      | 982                               | 98.2                      | 196  | 295  | 393  | 491  | 589  | 687  |
|        |              | Pull      | 756                               | 75.6                      | 151  | 227  | 302  | 378  | 454  | 529  |
| CXS□32 | 16           | Push      | 1608                              | 161                       | 322  | 482  | 643  | 804  | 965  | 1126 |
|        |              | Pull      | 1206                              | 121                       | 241  | 362  | 482  | 603  | 724  | 844  |

\*Under the pressure of 0.15 MPa

## Double-Rod Cylinder

( $\phi 6 - \phi 32$ )

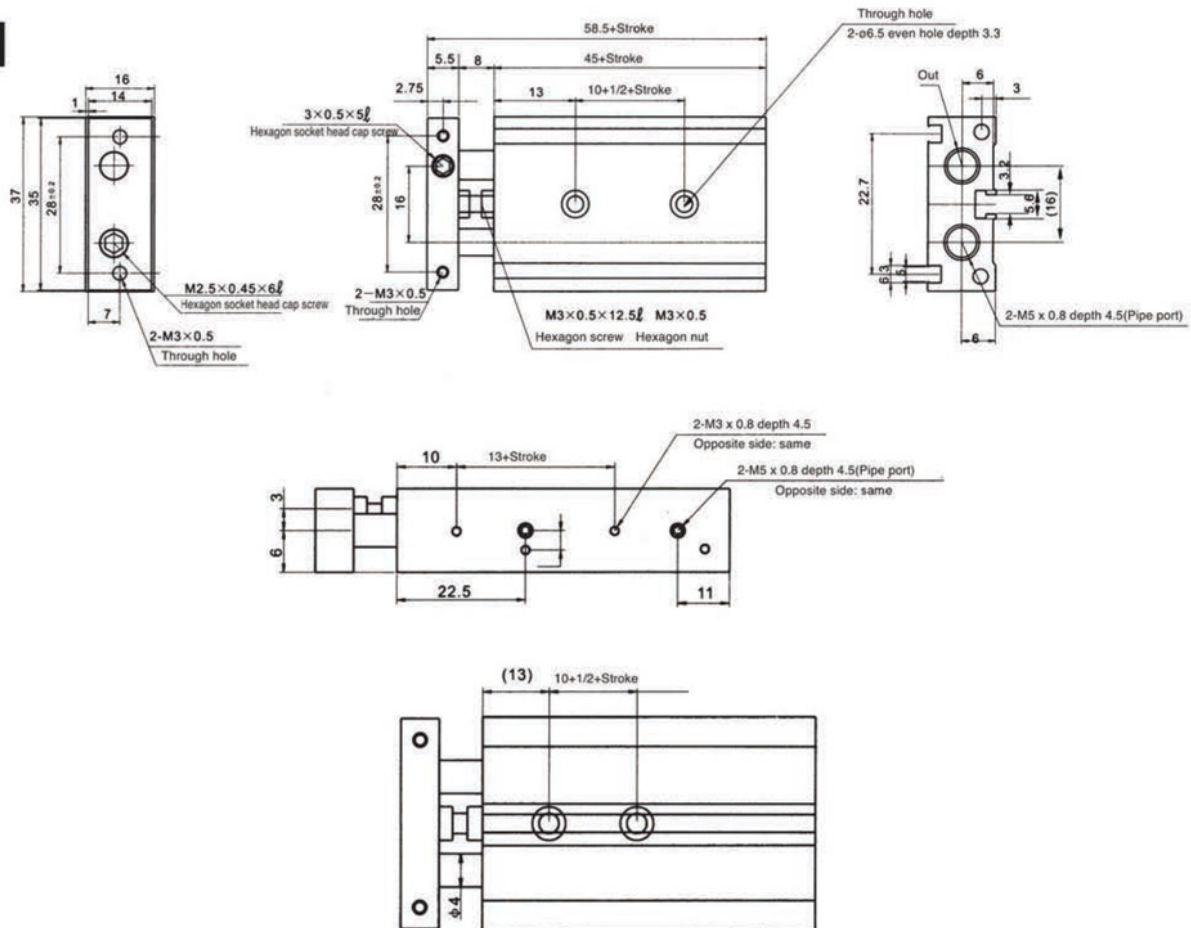
Figure Dimension

(kg)

| Type   | Stroke (mm) |       |       |       |       |       |       |       |       |       |       |       |       |       |      |  |
|--------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|--|
|        | 10          | 15    | 20    | 25    | 30    | 35    | 40    | 45    | 50    | 60    | 70    | 75    | 80    | 90    | 100  |  |
| CXS□6  | 0.081       | —     | 0.095 | —     | 0.108 | —     | 0.122 | —     | 0.135 | —     | —     | —     | —     | —     | —    |  |
| CXSM10 | 0.15        | 0.16  | 0.17  | 0.18  | 0.19  | 0.20  | 0.21  | 0.22  | 0.23  | 0.25  | 0.27  | 0.28  | —     | —     | —    |  |
| CXSL10 | 0.16        | 0.165 | 0.17  | 0.18  | 0.19  | 0.20  | 0.21  | 0.22  | 0.23  | 0.25  | 0.27  | 0.28  | —     | —     | —    |  |
| CXSM15 | 0.25        | 0.265 | 0.28  | 0.29  | 0.30  | 0.315 | 0.33  | 0.345 | 0.36  | 0.39  | 0.42  | 0.435 | 0.45  | 0.48  | 0.51 |  |
| CXSL15 | 0.27        | 0.285 | 0.30  | 0.31  | 0.32  | 0.335 | 0.35  | 0.365 | 0.38  | 0.41  | 0.44  | 0.455 | 0.47  | 0.50  | 0.53 |  |
| CXSM20 | 0.40        | 0.42  | 0.44  | 0.46  | 0.48  | 0.495 | 0.51  | 0.53  | 0.53  | 0.585 | 0.62  | 0.64  | 0.66  | 0.70  | 0.74 |  |
| CXSL20 | 0.43        | 0.445 | 0.46  | 0.48  | 0.50  | 0.515 | 0.53  | 0.55  | 0.55  | 0.605 | 0.64  | 0.66  | 0.68  | 0.715 | 0.75 |  |
| CXSM25 | 0.61        | 0.635 | 0.66  | 0.69  | 0.72  | 0.745 | 0.77  | 0.80  | 0.80  | 0.89  | 0.95  | 0.97  | 0.995 | 1.06  | 1.10 |  |
| CXSL25 | 0.62        | 0.645 | 0.67  | 0.70  | 0.73  | 0.755 | 0.78  | 0.81  | 0.81  | 0.895 | 0.955 | 0.98  | 1.005 | 1.065 | 1.11 |  |
| CXSM32 | 1.15        | 1.19  | 1.23  | 1.275 | 1.32  | 1.36  | 1.40  | 1.45  | 1.45  | 1.58  | 1.665 | 1.71  | 1.755 | 1.84  | 1.93 |  |
| CXSL32 | 1.16        | 1.205 | 1.25  | 1.295 | 1.34  | 1.38  | 1.42  | 1.465 | 1.465 | 1.595 | 1.68  | 1.72  | 1.765 | 1.855 | 1.94 |  |

Figure Dimension(mm)

CXS□6



(kg)

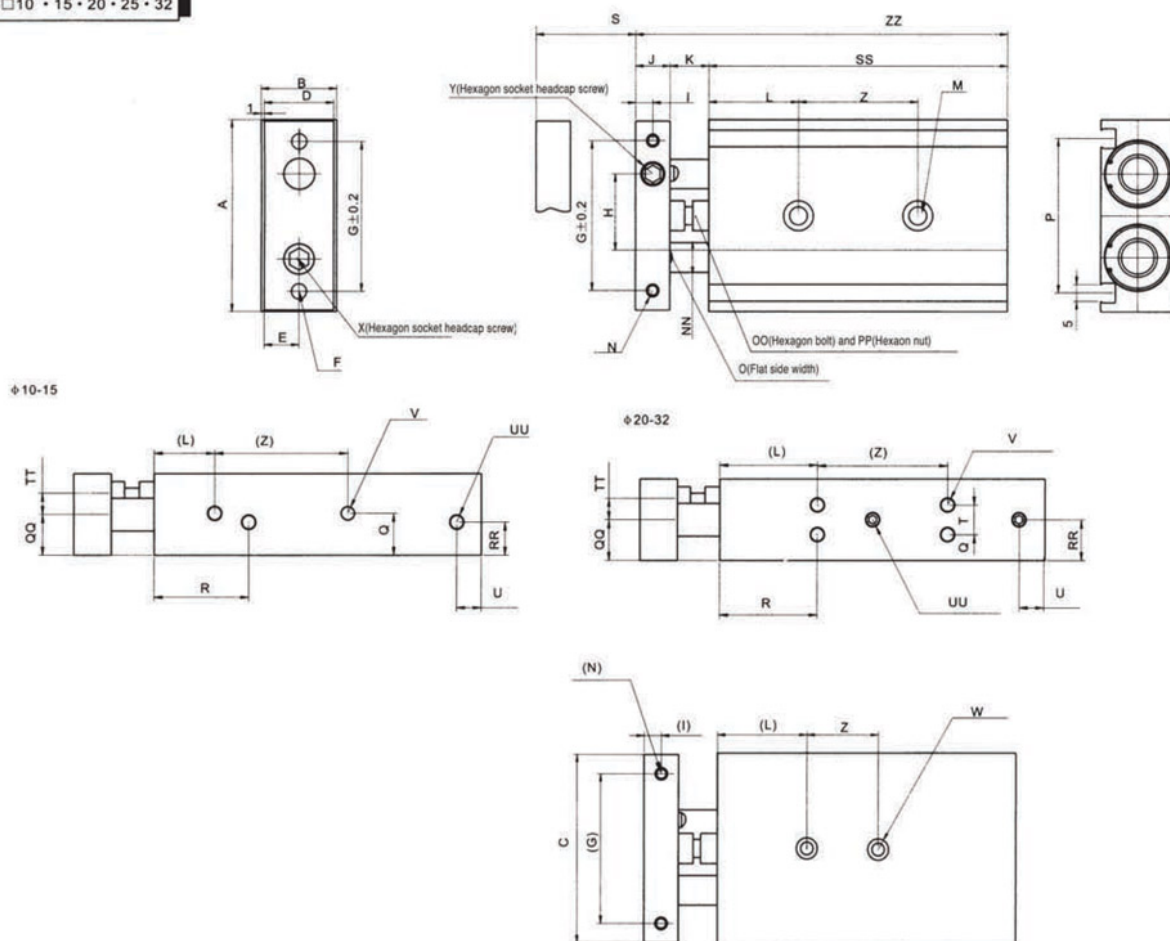
| Type     | Stroke | 10+1/2 Stroke | 13+ Stroke | 45+ Stroke | 10+1/2Stroke |
|----------|--------|---------------|------------|------------|--------------|
| CXS□6-10 | 10     | 15            | 23         | 55         | 68.5         |
| CXS□6-20 | 20     | 20            | 33         | 65         | 78.5         |
| CXS□6-30 | 30     | 25            | 43         | 75         | 88.5         |
| CXS□6-40 | 40     | 30            | 53         | 85         | 98.5         |
| CXS□6-50 | 50     | 35            | 63         | 95         | 108.5        |

### Double-Rod Cylinder

Figure Dimension(mm)

( $\phi 6 - \phi 32$ )

CXS□10 • 15 • 20 • 25 • 32

[illegible]