

**Heavy Duty Cylinders  
Double Acting  
Ø 2" to 12" (50 to 305 mm)**

- **Extremely rugged heavy duty construction - ideal for use in the most arduous conditions.**
- **Long, adjustable cushioning.**
- **Large range of bore sizes - ideal for a wide variety of industrial applications.**


**Technical Data**

Medium:

Compressed air, filtered and lubricated

Operation:

Double acting with adjustable cushioning

Operating Pressure:

2 to 17 bar up to 8 inch  
2 to 13,5 bar 10 and 12 inch

Important: Regardless of any other qualifications these Operating Pressures should not be exceeded. Further pressure limitations are imposed upon certain mountings and our Technical Service should be consulted for any use above 10 bar.

Operating Temperature:

-20°C\* to +80°C max.

\*Consult our Technical Service for use below +2°C

Cylinder Diameters:

2, 2 1/2, 3, 4, 5, 6, 8, 10, 12 inch

Non-standard Strokes:

Available on request

Materials:

Stainless steel (Martensitic) piston rod, steel barrel, tie rods and piston (up to 3 inch), cast iron piston (over 3 inch) and end covers, aluminium barrel gaskets (copper alternative available), nitrile rubber seals.

**Alternative Cylinders:**

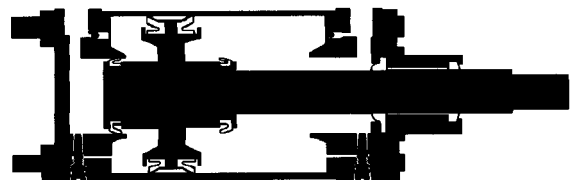
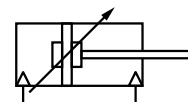
See page N 1.5.171.02

**Ordering Information**

To order a basic 6 inch bore cylinder with a 350 mm stroke quote: M/1060/350

To order a basic 8 inch bore cylinder with a 500 mm stroke quote: M/1080/500

To order mounting brackets refer to appropriate cylinder mounting table.





## Alternative Cylinders

| Symbol | Model    | Description  |
|--------|----------|--|
|        | SM/1000  | Stainless steel piston rod (Austenitic)  |
|        | TM/1000  | Heat resistant seals (150°C max.)  |
|        | M/1000/B | Supercushioned, both ends – consult our Technical Service  |
|        | M/1000/P | Supercushioned, front end only – consult our Technical Service   |
|        | M/1000/Q | Supercushioned, rear end only – consult our Technical Service  |
|        | M/1000/X | Female piston rod thread   |
|        | M/1000/Y | Full piston rod thread   |
|        | HM/1000  | Hydraulic version – consult our Technical Service<br>Operating pressure: 2 to 34,5 bar up to 8 inch<br>2 to 27,5 bar up 10 and 12 inch |
|        | M/1000/K | Piston rod bellows – consult our Technical Service   |

For combinations of alternative cylinders consult our Technical Service.

## Cushioning • Theoretical Forces • Air Consumption

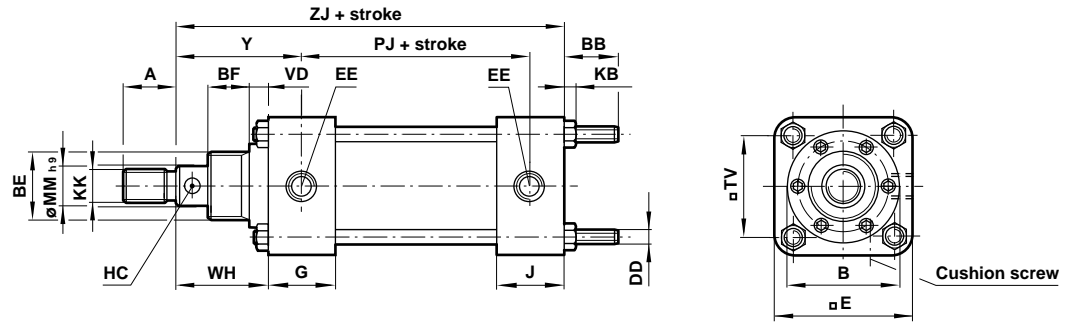
| Model | Cushion length (mm) | Initial cushion volume (cm <sup>3</sup> ) | Theoretical forces (N) at 6 bar |          | Air consumption (l/cm) per stroke at 6 bar |          |
|-------|---------------------|---|---------------------------------|----------|--|----------|
|       |                     |   | outstroke                       | instroke | outstroke                                  | instroke |
| 1020  | 25,5                | 34,3                                      | 1225                            | 1055     | 0,143                                      | 0,107    |
| 1025  | 25,5                | 85,2                                      | 1930                            | 1626     | 0,225                                      | 0,189    |
| 1030  | 25,5                | 126,2                                     | 2721                            | 2417     | 0,317                                      | 0,282    |
| 1040  | 38                  | 339                                       | 4902                            | 4420     | 0,572                                      | 0,515    |
| 1050  | 38                  | 528                                       | 7600                            | 7118     | 0,886                                      | 0,830    |
| 1060  | 38                  | 737                                       | 10887                           | 9954     | 1,270                                      | 1,161    |
| 1080  | 51                  | 895                                       | 19419                           | 18486    | 2,265                                      | 2,157    |
| 1101  | 63,5                | 1554                                      | 30402                           | 27680    | 3,547                                      | 3,229    |
| 1121  | 63,5                | 2368                                      | 43837                           | 41115    | 5,114                                      | 4,797    |

## Weights of Cylinders and Mountings (kg)

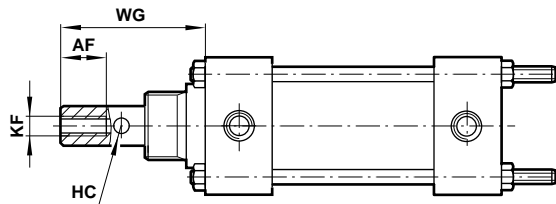
| Model | Weight at 0 mm | Weight per 25 mm | Model     | Weight at 0 mm | Weight per 25 mm | Style 'B' | Style 'C' | Style 'D' |
|-------|----------------|------------------|-----------|----------------|------------------|-----------|-----------|-----------|
| 1020  | 3,27           | 0,27             | -         | -              | -                | 0,20      | 0,20      | 0,25      |
| 1025  | 4,49           | 0,35             | 1026      | 4,57           | 0,41             | 0,25      | 0,25      | 0,50      |
| 1030  | 5,63           | 0,45             | 1031      | 5,73           | 0,50             | 0,45      | 0,40      | 1,00      |
| 1040  | 10,92          | 0,62             | 1041      | 11,33          | 0,69             | 1,00      | 0,05      | 1,25      |
| 1050  | 15,26          | 0,79             | 1051      | 15,82          | 0,94             | 1,50      | 1,00      | 2,50      |
| 1060  | 27,23          | 1,17             | 1061      | 28,00          | 1,37             | 2,40      | 2,50      | 3,50      |
| 1080  | 61,18          | 1,57             | 1081      | 62,00          | 1,77             | 5,50      | 3,80      | 7,00      |
| 1101  | 122,00         | 2,75             | -         | -              | -                | 12,00     | 9,50      | -         |
| 1121  | 160,00         | 3,74             | -         | -              | -                | 14,00     | 11,50     | -         |
| Model | Style 'F'      | Style 'G'        | Style 'H' | Style 'K'      | Style 'L'        | Style 'M' | Style 'N' | Style 'R' |
| 1020  | 0,40           | 0,20             | 0,60      | 0,25           | 1,20             | 1,00      | 0,06      | 0,55      |
| 1025  | 0,40           | 0,25             | 0,90      | 0,50           | 1,25             | 1,00      | 0,06      | 0,80      |
| 1030  | 0,40           | 0,45             | 1,25      | 1,00           | 1,50             | 1,00      | 0,06      | 0,90      |
| 1040  | 0,90           | 1,00             | 2,50      | 1,25           | 3,50             | 2,00      | 0,18      | 2,60      |
| 1050  | 0,90           | 1,50             | 3,50      | 2,50           | 5,00             | 2,00      | -         | 3,60      |
| 1060  | 1,70           | 2,40             | 5,00      | 3,50           | 11,00            | 6,00      | -         | 6,20      |
| 1080  | 1,70           | 6,00             | 10,00     | 7,00           | 17,50            | 6,00      | -         | 11,50     |
| 1101  | 7,00           | 12,00            | 25,00     | -              | 25,00            | 11,50     | -         | 12,60     |
| 1121  | 7,00           | 14,00            | 35,00     | -              | 30,00            | 11,50     | -         | 17,30     |



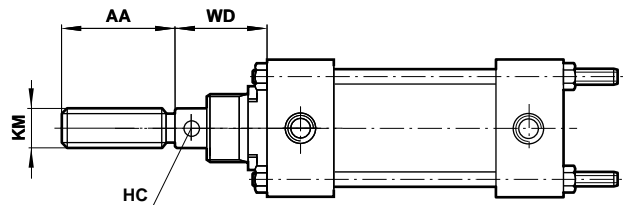
### Basic Dimensions



### Piston Rod End Style 'X'



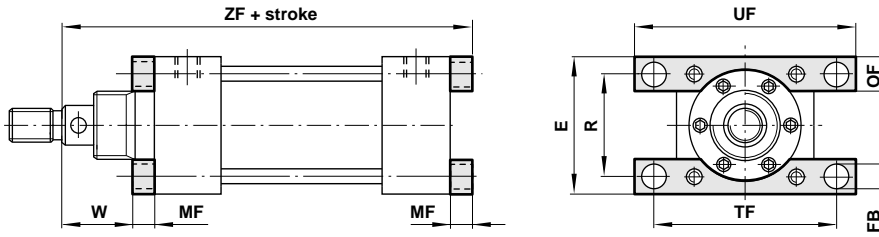
### Piston Rod End Style 'Y'



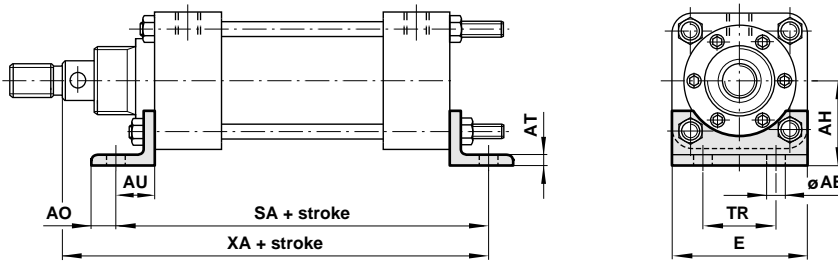
| Model   | 1020     | 1025     | 1026  | 1030     | 1031  | 1040     | 1041  | 1050  | 1051  | 1060  | 1061     | 1080  | 1081     | 1101     | 1121     |
|---------|----------|----------|-------|----------|-------|----------|-------|-------|-------|-------|----------|-------|----------|----------|----------|
| ∅ inch  | 2        | 2 1/2    |       | 3        |       | 4        |       | 5     |       | 6     |          | 8     |          | 10       | 12       |
| A       | 33,5     | 33,5     | 38    | 33,5     | 38    | 38       | 47,5  | 38    | 57    | 57    | 76       | 57    | 76       | 95,5     | 95,5     |
| AA      | 58       | 58       | 73    | 58       | 73    | 73       | 88    | 73    | 103   | 103   | 134      | 103   | 134      | 180      | 180      |
| AF      | 29       | 29       | 38    | 29       | 38    | 38       | 48    | 38    | 57    | 57    | 76       | 57    | 76       | 95       | 95       |
| B       | 51       | 58       |       | 64       |       | 89       |       | 108   |       | 127   |          | 168   |          | 210      | 210      |
| BB      | 28       | 31       |       | 37       |       | 29       |       | 39    |       | 48    |          | 57    |          | 68       | 68       |
| BE      | M 45 x 2 | M 52 x 2 |       | M 52 x 2 |       | M 64 x 2 |       | -     |       | -     |          | -     |          | -        | -        |
| BF      | 30       | 35       |       | 38       |       | 46       |       | 41    |       | 52,5  |          | 65    |          | 76,5     | 76,5     |
| DD      | M 8      | M 8      |       | M 10     |       | M 10     |       | M 12  |       | M 16  |          | M 18  |          | M 24     | M 24     |
| □ E     | 63,5     | 76       |       | 90       |       | 114      |       | 140   |       | 167   |          | 219   |          | 270      | 321      |
| EE      | G 1/4    | G 3/8    |       | G 1/2    |       | G 1/2    |       | G 1/2 |       | G 3/4 |          | G 1   |          | G 1      | G 1      |
| G       | 37       | 37       |       | 38       |       | 46       |       | 48    |       | 43    |          | 60    |          | 70       | 70       |
| ∅ HC    | 8        | 8        |       | 8        |       | 8        | 10    | 8     | 10    | 10    |          | 10    |          | 16       | 16       |
| J       | 37       | 37       |       | 38       |       | 46       |       | 48    |       | 43    |          | 60    |          | 70       | 70       |
| KB      | 7,5      | 7,5      |       | 9        |       | 9        |       | 11    |       | 14    |          | 16,5  |          | 20,5     | 20,5     |
| KF      | M 18     | M 18     | M 24  | M 18     | M 24  | M 24     | M 30  | M 24  | M 30  | M 30  | M 42     | M 30  | M 42     | M 64 x 4 | M 64 x 4 |
| KK      | M 22     | M 22     | M 24  | M 22     | M 24  | M 24     | M 30  | M 24  | M 36  | M 36  | M 48     | M 36  | M 48     | M 64 x 4 | M 64 x 4 |
| KM      | M 24     | M 24     | M 30  | M 24     | M 30  | M 30     | M 36  | M 30  | M 42  | M 42  | M 56 x 4 | M 42  | M 56 x 4 | M 76 x 4 | M 76 x 4 |
| ∅ MM h9 | 1        | 1        | 1 1/4 | 1        | 1 1/4 | 1 1/4    | 1 1/2 | 1 1/4 | 1 3/4 | 1 3/4 | 2 1/4    | 1 3/4 | 2 1/4    | 3        | 3        |
| PJ      | 90,5     | 92,5     |       | 98,5     |       | 98,5     |       | 114,5 |       | 114,5 |          | 140   |          | 197      | 197      |
| □ TV    | 47,5     | 55,5     |       | 66,5     |       | 89       |       | 108   |       | 128,5 |          | 168,5 |          | 209,5    | 246      |
| VD      | 9,5      | 12,5     |       | 14,5     |       | 11       |       | 13    |       | 16    |          | 19    |          | 22       | 22       |
| WD      | 58       | 65,5     | 66,5  | 70,5     | 71    | 79       | 80    | 76    | 77,5  | 101,5 | 102      | 117   | 118      | 134      | 134      |
| WG      | 84       | 91,5     | 104,5 | 99,5     | 109,5 | 117      | 127   | 114   | 133   | 157   | 176      | 173   | 195      | 228,5    | 228,5    |
| WH      | 55,5     | 63       |       | 68       |       | 76       |       | 73    | 76    | 100   |          | 115,5 |          | 130      | 130      |
| Y       | 71       | 80,5     |       | 85,5     |       | 103      |       | 100   | 103   | 123,5 |          | 150,5 |          | 174,5    | 174,5    |
| ZJ      | 178      | 190,5    |       | 201,5    |       | 228,5    |       | 241,5 | 244,5 | 262   |          | 325,5 |          | 416      | 416      |



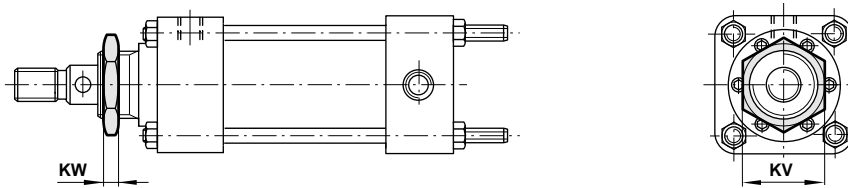
**Rear Flange Mounting Style 'B', Front Flange Mounting Style 'G'  
Front and Rear Flange Mounting Style 'BG'**



**Foot Mounting Style 'C'**



**Nose Mounting Style 'N'**

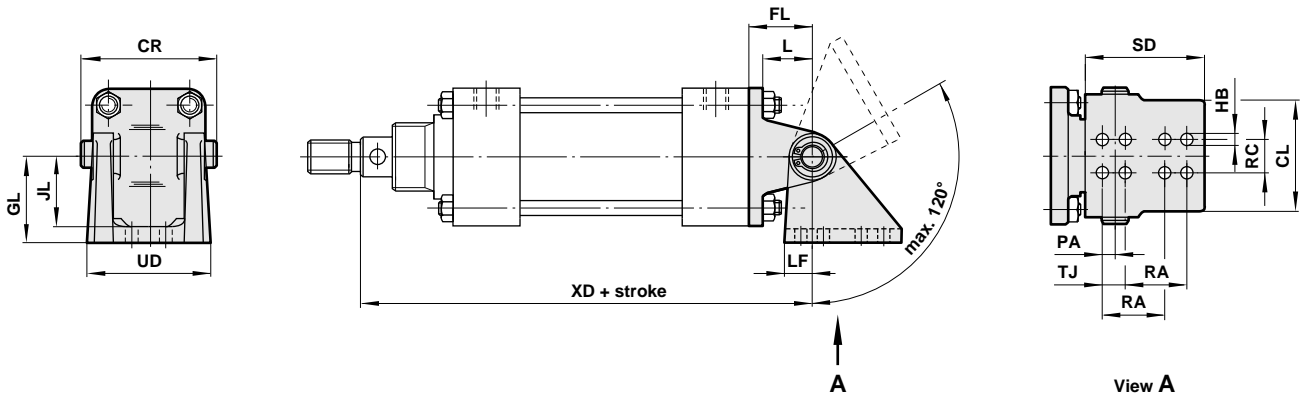


|                 | QM/871    | QM/877    | QM/984    | QM/987    | QM/988  | QM/884/1 | QM/889/1 | QM/882/2 | QM/889/1 |
|-----------------|-----------|-----------|-----------|-----------|---------|----------|----------|----------|----------|
| Model 'B'       | QM/871    | QM/877    | QM/984    | QM/987    | QM/988  | QM/884/1 | QM/889/1 | QM/882/2 | QM/889/1 |
| Model 'B' + 'G' | QM/1182   | QM/1184   | QM/1185   | QM/1187   | QM/1188 | QM/1189  | -        | -        | -        |
| Model 'C'       | QM/751    | QM/748    | QM/747    | QM/746    | QM/981  | QM/826   | QM/745   | QM/744   | QM/743   |
| Model 'G'       | QM/875    | QM/876    | QM/878    | QM/887    | QM/886  | QM/884/2 | QM/883/2 | QM/882/2 | QM/889/2 |
| Model 'N'       | M/P9693/1 | M/P9693/2 | M/P9693/2 | M/P9693/4 |         |          |          |          |          |
| ∅ inch          | 2         | 2 1/2     | 3         | 4         | 5       | 6        | 8        | 10       | 12       |
| ∅ AB            | 13        | 13        | 12        | 13,5      | 16,5    | 16,5     | 16,5     | 26       | 26       |
| AH              | 43        | 47        | 52,5      | 70        | 82,5    | 99,5     | 122      | 159      | 177      |
| AO              | 11        | 11        | 11        | 24,5      | 21,5    | 25       | 22       | 46       | 46       |
| AT              | 5         | 5         | 5         | 8         | 8       | 10       | 10       | 15       | 15       |
| AU              | 19        | 19        | 19        | 25,5      | 28,5    | 35       | 38       | 54       | 54       |
| E               | 63,5      | 75,5      | 88,5      | 121       | 148     | 168,5    | 218,5    | 274,5    | 311      |
| ∅ FB            | 8,7       | 8,7       | 10,3      | 13,5      | 13,5    | 16,7     | 20       | 26,2     | 26,2     |
| KV (A/F)        | 56        | 65,5      | 65,5      | 80        | -       | -        | -        | -        | -        |
| KW              | 8         | 9,5       | 9,5       | 16        | -       | -        | -        | -        | -        |
| MF              | 10        | 10        | 16        | 16        | 20      | 20       | 25       | 30       | 30       |
| OF              | 16        | 20        | 22        | 32        | 40      | 40       | 50       | 65       | 65       |
| R               | 47,5      | 55,5      | 66,5      | 89        | 108     | 128,5    | 168,5    | 209,5    | 246      |
| SA              | 160       | 165       | 171       | 203       | 225     | 232      | 285      | 394      | 394      |
| TF              | 85,5      | 93,5      | 111       | 146       | 171,5   | 205      | 263,5    | 333,5    | 384      |
| TR              | -         | -         | 28,5      | 51        | 57      | 70       | 82,5     | 114,5    | 139      |
| UF              | 105       | 113       | 133,5     | 178       | 203     | 243      | 314,5    | 397      | 448      |
| W               | 45,5      | 53        | 52        | 60        | 53*     | 80       | 90,5     | 100      | 100      |
| XA              | 196,5     | 209,5     | 220,5     | 253,5     | 269,5*  | 297,5    | 363      | 470,5    | 470,5    |
| ZF              | 187,5     | 200,5     | 217,5     | 244       | 261*    | 282,5    | 350      | 446,5    | 446,5    |

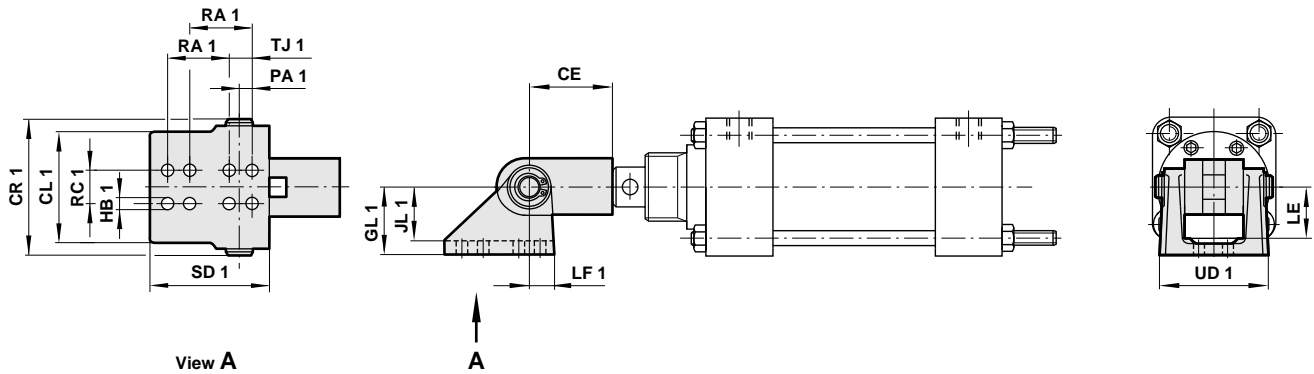
\* Values for M/1051: W = 56,5, XA = 273, ZF = 264,5



### Rear Hinge Mounting Style 'L'



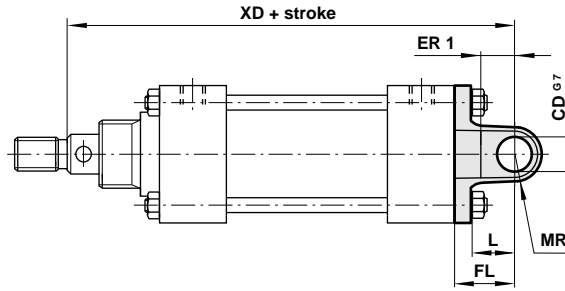
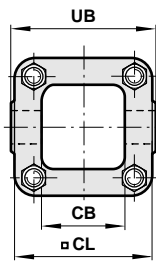
### Front Hinge Mounting Style 'M'



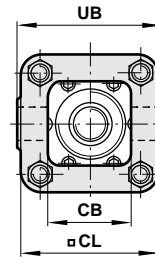
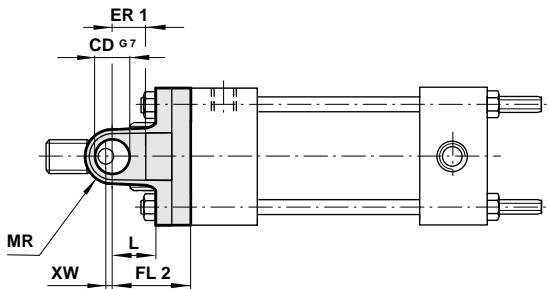
| Model 'L'    | QM/909 | QM/910 | QM/910 | QM/911 | QM/911 | QM/912 | QM/912 | QM/913 | QM/913 | QM/914 | QM/914 | QM/915 | QM/915 | QM/917 | QM/918 |
|--------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Model 'M'    | QM/901 | QM/901 | QM/902 | QM/901 | QM/902 | QM/902 | QM/903 | QM/902 | QM/904 | QM/904 | QM/906 | QM/904 | QM/906 | QM/921 | QM/921 |
| For Cylinder | 1020   | 1025   | 1026   | 1030   | 1031   | 1040   | 1041   | 1050   | 1051   | 1060   | 1061   | 1080   | 1081   | 1101   | 1121   |
| ∅ inch       | 2      | 2 1/2  | 2 1/2  | 3      | 3      | 4      | 4      | 5      | 5      | 6      | 6      | 8      | 8      | 10     | 12     |
| CE           | 58,5   | 58,5   | 66,5   | 58,5   | 66,5   | 66,5   | 79,5   | 66,5   | 95,5   | 95,5   | 120,5  | 95,5   | 120,5  | 146    | 146    |
| CL           | 60     | 60     | 60     | 60     | 60     | 70     | 70     | 70     | 70     | 98,5   | 98,5   | 100    | 100    | 151    | 151    |
| CL 1         | 60     | 60     | 70     | 60     | 70     | 70     | 79,5   | 70     | 98,5   | 98,5   | 114,5  | 98,5   | 114,5  | 146    | 146    |
| CR           | 73     | 73     | 73     | 73     | 73     | 82,5   | 82,5   | 82,5   | 82,5   | 114,5  | 114,5  | 114,5  | 114,5  | 178    | 178    |
| CR 1         | 73     | 73     | 82,5   | 73     | 82,5   | 82,5   | 92     | 82,5   | 114,5  | 114,5  | 132    | 114,5  | 132    | 165    | 165    |
| FL           | 35     | 35     | 35     | 35     | 35     | 51     | 51     | 57     | 57     | 70     | 70     | 79,5   | 79,5   | 95,5   | 95,5   |
| GL           | 47,5   | 47,5   | 47,5   | 47,5   | 47,5   | 74,5   | 74,5   | 74,5   | 74,5   | 89     | 89     | 116    | 116    | 171,5  | 171,5  |
| GL 1         | 47,5   | 47,5   | 74,5   | 47,5   | 74,5   | 74,5   | 89     | 74,5   | 89     | 89     | 116    | 89     | 116    | 116    | 116    |
| ∅ HB         | 8,3    | 8,3    | 8,3    | 8,3    | 8,3    | 12     | 12     | 12     | 12     | 13,5   | 13,5   | 16,5   | 16,5   | 27     | 27     |
| ∅ HB 1       | 8,5    | 8,5    | 12     | 8,5    | 12     | 12     | 10,3   | 12     | 13,5   | 13,5   | 13,5   | 13,5   | 13,5   | 23     | 23     |
| JL           | 39,5   | 39,5   | 39,5   | 39,5   | 39,5   | 39,5   | 39,5   | 65     | 65     | 76     | 76     | 100    | 100    | 151    | 151    |
| JL 1         | 39,5   | 39,5   | 65     | 39,5   | 65     | 65     | 79,5   | 65     | 76     | 76     | 103    | 76     | 103    | 100    | 100    |
| L            | 25,5   | 25,5   | 25,5   | 25,5   | 25,5   | 30     | 30     | 33,5   | 33,5   | 43     | 43     | 47,5   | 47,5   | 57     | 57     |
| LE           | 35     | 35     | 57     | 35     | 57     | 57     | 79,5   | 57     | 55,5   | 55,5   | 103    | 55,5   | 103    | 100    | 100    |
| LF           | 15,5   | 15,5   | 15,5   | 15,5   | 15,5   | 23,5   | 23,5   | 23,5   | 23,5   | 28     | 28     | 31,5   | 31,5   | 44,5   | 44,5   |
| LF 1         | 16     | 16     | 24     | 16     | 24     | 24     | 28,5   | 24     | 28,5   | 28,5   | 35     | 28,5   | 35     | 45     | 45     |
| PA           | 6,5    | 6,5    | 6,5    | 6,5    | 6,5    | 11     | 11     | 11     | 11     | 12,5   | 12,5   | 16     | 16     | 16     | 16     |
| PA 1         | 6,5    | 6,5    | 11     | 6,5    | 11     | 11     | 16     | 11     | 12,5   | 12,5   | 16     | 12,5   | 16     | 19     | 19     |
| RA           | 47,5   | 47,5   | 47,5   | 47,5   | 47,5   | 76     | 76     | 76     | 76     | 101,5  | 101,5  | 114,5  | 114,5  | 133,5  | 133,5  |
| RA 1         | 47,5   | 47,5   | 76     | 47,5   | 76     | 76     | 89     | 76     | 102    | 102    | 121    | 102    | 121    | 114,5  | 114,5  |
| RC           | 19     | 19     | 19     | 19     | 19     | 22     | 22     | 22     | 22     | 32     | 32     | 32     | 32     | 51     | 51     |
| RC 1         | 19     | 19     | 22     | 19     | 22     | 22     | 22     | 22     | 32     | 32     | 38     | 32     | 38     | 41     | 41     |
| SD           | 66,5   | 66,5   | 66,5   | 66,5   | 66,5   | 101,5  | 101,5  | 101,5  | 101,5  | 165    | 165    | 184    | 184    | 247,5  | 247,5  |
| SD 1         | 67     | 67     | 102    | 67     | 102    | 102    | 114,5  | 102    | 165    | 165    | 159    | 165    | 159    | 210    | 210    |
| TJ           | -      | -      | -      | -      | -      | -      | -      | -      | -      | 32     | 32     | 38     | 38     | 57     | 57     |
| TJ 1         | -      | -      | -      | -      | -      | -      | -      | -      | -      | 32     | 32     | -      | -      | 44,5   | 44,5   |
| UD           | 68,5   | 68,5   | 68,5   | 68,5   | 68,5   | 82,5   | 82,5   | 82,5   | 82,5   | 108    | 108    | 117,5  | 117,5  | 159    | 159    |
| UD 1         | 68,5   | 68,5   | 82,5   | 68,5   | 82,5   | 82,5   | 79,5   | 82,5   | 108    | 108    | 114,5  | 108    | 114,5  | 146    | 146    |
| XD           | 212,5  | 225,5  | 225,5  | 236,5  | 236,5  | 279    | 279    | 298    | 301,5  | 332    | 332    | 404,5  | 404,5  | 511,5  | 511,5  |



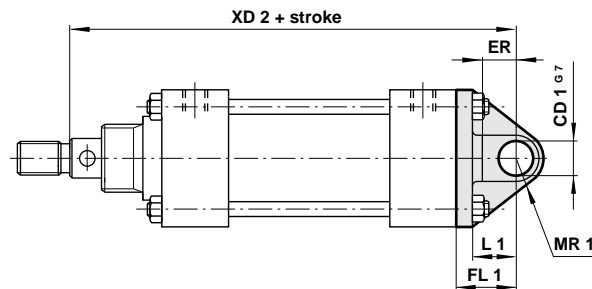
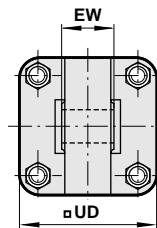
### Rear Clevis Mounting Style 'D'



### Front Clevis Mounting Style 'K'



### Rear Eye Mounting Style 'R'

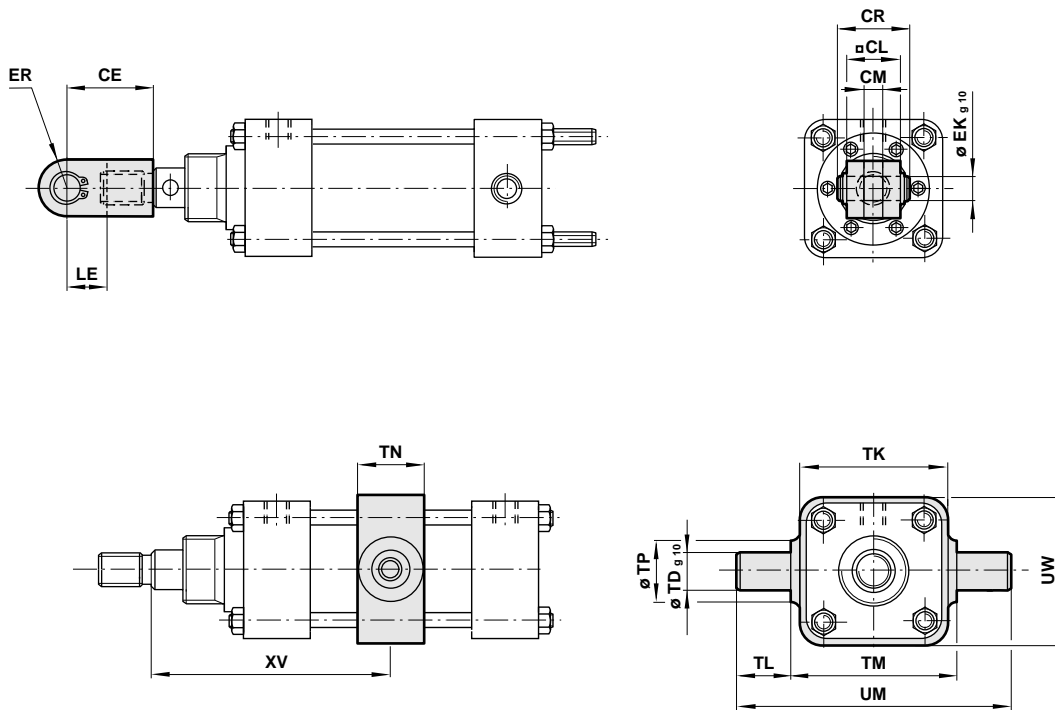


| Model 'D' | M/P9822  | M/P9825  | M/P9828  | QM/758/2 | QM/759/2 | QM/761/2 | QM/762/2 | -      | -      |
|-----------|----------|----------|----------|----------|----------|----------|----------|--------|--------|
| Model 'K' | QM/963   | QM/965   | QM/967   | QM/758/1 | QM/759/1 | QM/761/1 | QM/762/1 | -      | -      |
| Model 'R' | M/P10349 | M/P10351 | M/P10353 | QM/763   | QM/764   | QM/765   | QM/766   | QM/767 | QM/768 |
| ∅ inch    | 2        | 2 1/2    | 3        | 4        | 5        | 6        | 8        | 10     | 12     |
| CB        | 47,5     | 54       | 57       | 70       | 92       | 106,5    | 122      | -      | -      |
| ∅ CD G7   | 16       | 16       | 20       | 22       | 25       | 32       | 38       | -      | -      |
| ∅ CD1 G7  | 16       | 16       | 16       | 18       | 18       | 25       | 25       | 38     | 38     |
| □ CL      | 63,5     | 76       | 89       | 114,5    | 139,5    | 166,5    | 217,5    | -      | -      |
| EN        | 12       | 14       | 14       | 19       | 19       | 19       | 31       | 37     | 37     |
| ER        | 19       | 19       | 19       | 25,5     | 28,5     | 28,5     | 32       | 44,5   | 44,5   |
| ER 1      | 19       | 19       | 22       | 36       | 31       | 34       | 38       | -      | -      |
| EW        | 38,1     | 38,1     | 38,1     | 44,5     | 44,5     | 63,5     | 63,5     | 101,6  | 101,6  |
| FL        | 28,5     | 28,5     | 32       | 57       | 70       | 76       | 85,5     | -      | -      |
| FL 1      | 35       | 35       | 35       | 51       | 57       | 70       | 79,5     | 95,5   | 95,5   |
| FL 2      | 38,5     | 44,5     | 47       | 57       | 70       | 76       | 85,5     | -      | -      |
| L         | 20,5     | 20,5     | 24       | 38       | 44,5     | 49       | 57       | -      | -      |
| L 1       | 25,5     | 25,5     | 25,5     | 30       | 33,5     | 43       | 47,5     | 57,5   | 57,5   |
| MR        | 14       | 13       | 14       | 19       | 24       | 29       | 38       | -      | -      |
| MR 1      | 14       | 14       | 16       | 21       | 21       | 25,5     | 25,5     | 41     | 41     |
| UB        | 69,9     | 82,6     | 95,3     | 122,5    | 152,5    | 181      | 237      | -      | -      |
| □ UD      | 62       | 74       | 87,5     | 112      | 138      | 165      | 217,5    | 268,5  | 319    |
| XD        | 206      | 219      | 233,5    | 285,5    | 311*     | 338,5    | 411      | -      | -      |
| XD 1      | 212,5    | 225,5    | 236,5    | 279      | 298*     | 332      | 404,5    | 511,5  | 511,5  |
| XW        | 17       | 19       | 21,5     | 19       | 3        | 24       | 30,5     | -      | -      |

\* Values for M/1051: XD = 314, XD1 = 301,5

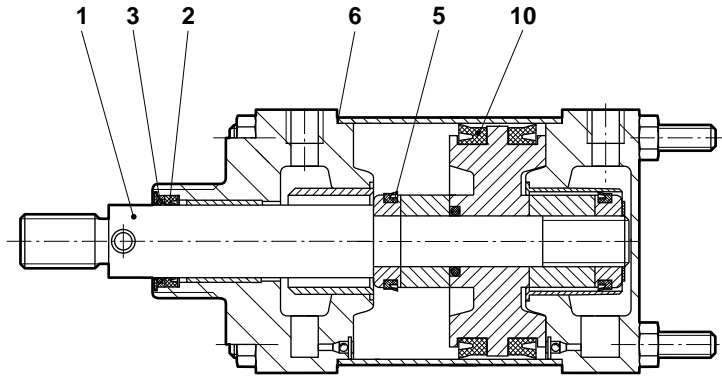


Piston Rod Clevis Mounting Style 'F'





### Spares



| Model  | Spares kit | Comprising: |                 |          | Piston rod<br>Item 1 |
|--------|------------|-------------|-----------------|----------|----------------------|
|        |            | Item        | Description     | Quantity |                      |
| M/1020 | QM/1020/00 | 2           | Piston rod seal | 1        | P 9780/*             |
| M/1025 | QM/1025/00 | 3           | Wiper seal      | 1        | P 9782/*             |
| M/1026 | QM/1026/00 | 5           | Cushion seal    | 2        | P 9784/*             |
| M/1030 | QM/1030/00 | 6           | Seal            | 2        | P 9786/*             |
| M/1031 | QM/1031/00 | 10          | Piston seal     | 2        | P 9788/*             |
| M/1040 | QM/1040/00 |             |                 |          | P 9790/*             |
| M/1041 | QM/1041/00 |             |                 |          | P 9792/*             |
| M/1050 | QM/1050/00 |             |                 |          | P 9794/*             |
| M/1051 | QM/1051/00 |             |                 |          | P 9819/*             |
| M/1060 | QM/1060/00 |             |                 |          | P 9796/*             |
| M/1061 | QM/1061/00 |             |                 |          | P 9798/*             |
| M/1080 | QM/1080/00 |             |                 |          | P 9800/*             |
| M/1081 | QM/1081/00 |             |                 |          | P 9802/*             |
| M/1101 | QM/1101/00 |             |                 |          | P 10412/*            |
| M/1121 | QM/1121/00 |             |                 |          | P 10412/*            |

\* Insert stroke length

Note: Please quote the cylinder type number when ordering spare parts

### Warning

These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures can exceed those listed under 'Technical Data'.

Before using these products with fluids other than those specified, for non-industrial applications, life-support systems, or other applications not within published specifications, consult NORGREN.

Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes.

The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.

**System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.**

System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.