STROKE LENGTHS

Standard stroke lengths for each bore



size and cylinder style are listed in this

catalog. Non-standard stroke lengths (not listed in the catalog) up to 24" for single acting cylinders and 36" for double acting cylinders are available. Stroke length should be specified in inches and fractions of an inch. Consult the factory for other requirements.

In applications, attention should be given to minimizing the side load on the rod to insure a smooth stroke without binding. Also, in applications where the cylinder rod is subjected to an unsupported column load, the load on the rod should be less than the force shown in the table below to prevent buckling of the rod.

| Maximum Load (lbs) to Prevent Buckling of the Rod | | | | | | | | | | | | |
|---------------------------------------------------|------|------|------|------|-----|-----|-----|-----|-----|--|--|--|
| Rod | | | | | | | | | | | | |
| dia. | 1″ | 5" | 10" | 15" | 20" | 25" | 30" | 35" | 40" | | | |
| 1/8" | 110 | 12 | 3 | 1.3 | | | | | | | | |
| 3/16" | 262 | 59 | 15 | 6.6 | 3.7 | | | | | | | |
| 1/4" | 478 | 190 | 47 | 21 | 12 | 7.5 | | | | | | |
| 5/16" | 756 | 451 | 116 | 52 | 29 | 19 | 13 | | | | | |
| 3/8" | 1091 | 786 | 240 | 106 | 60 | 38 | 27 | 20 | | | | |
| 7/16" | 1490 | 1184 | 444 | 197 | 111 | 71 | 49 | 36 | 28 | | | |
| 1/2" | 1950 | 1645 | 757 | 336 | 189 | 120 | 84 | 62 | 47 | | | |
| 5/8″ | 3055 | 2750 | 1795 | 821 | 462 | 295 | 205 | 150 | 115 | | | |
| 3/4" | 4405 | 4100 | 3140 | 1700 | 950 | 613 | 425 | 312 | 240 | | | |

| Rod Thread | Bore Size | Series | Rod Size | Rod Flats |
|----------------|--------------|--------|-------------|--------------|
| #5-40 UNC-2A | 5/16" | 05 | 1/8" | none |
| #10-32 UNF-2A | 1/2" | 08 | 3/16" | none |
| #10-32UNF-2A | 9/16" | 09 | 3/16" | none |
| #10-32 UNF-2A | 5/8″ | 10 | 3/16" | none |
| 1/4-28 UNF-2A | 3/4" | 12 | 1/4″ | 0.218 |
| 1/4-28 UNF-2A | 7/8" | 14 | 1/4″ | 0.218 |
| 5/16-24 UNF-2A | 1 1/16" | 17 | 5/16" | 0.250 |
| 3/8-24 UNF-2A | 1 1/4" | 20 | 3/8" | 0.312 |
| 7/16-20 UNF-2A | 1 1/2" | 24 | 7/16" | 0.375 |
| 1/2-20 UNF-2A | 1 3/4" | 28 | 1/2" | 0.437 |
| 1/2-20 UNF-2A | 2" | 32 | 5/8″ | 0.500 |
| 1/2-20 UNF-2A | 2 1/2" | 40 | 5/8″ | 0.500 |
| 5/8-18 UNF-2A | 3" | 48 | 3/4" | 0.625 |

CUSTOM CYLINDERS

If your application requires a custom feature that you do not see in our catalog please contact our distributor in your area for

assistance. We manufacture a wide variety of special cylinders. Examples of our custom cylinder capabilities would include: stroke and rod modifications, special mounting configurations and ports, seal and lubrication options, integrated valving and adjustable stroke cylinders. We also provide application based special cylinder design for those customers having unique parameters.

FREE CYLINDER SAMPLE PROGRAM

We invite competitive comparisons. If you are an OEM that uses air cylinders, Clippard will provide a free sample for your evaluation. Contact us or your local distributor and ask for the "Free Sample CILinder" request form.



