



# PRESSURE CONNECTIONS CORP.

## Hose Pressure Drop\*

The chart below shows pressure in PSI for 10 feet of hose (smooth bore) without fittings.

Fluid specification: Specific gravity = .85; Viscosity =  $\nu$  = 20 centistokes (C.S.), (20 C.S.=97 S.S.U.); ref MIL-H5606, +70°F (+21°C).

Flow: US gallons per minute (gpm).

Hose pressure drop in PSI per 10 feet of hose length.

| Hose Size                    | -03  | -04 | -05  | -06 | -08 | -10 | -12 | -16 | -20   | -24   | -32 | -40   | -48 |
|------------------------------|------|-----|------|-----|-----|-----|-----|-----|-------|-------|-----|-------|-----|
| Hose I.D. (in)               | 3/16 | 1/4 | 5/16 | 3/8 | 1/2 | 5/8 | 3/4 | 1   | 1-1/4 | 1-1/2 | 2   | 2-1/2 | 3   |
| DN                           | 5    | 6   | 8    | 10  | 12  | 16  | 20  | 25  | 32    | 40    | 50  | 63    | 80  |
| <b>US gallons per minute</b> | .25  | 10  | 3.1  |     |     |     |     |     |       |       |     |       |     |
|                              | .50  | 19  | 6    | 2.7 |     |     |     |     |       |       |     |       |     |
|                              | 1    | 40  | 12   | 5.5 | 2.4 |     |     |     |       |       |     |       |     |
|                              | 2    | 95  | 24   | 10  | 4.8 |     |     |     |       |       |     |       |     |
|                              | 3    | 185 | 46   | 17  | 7   | 2.2 |     |     |       |       |     |       |     |
|                              | 4    |     | 78   | 29  | 12  | 3   | 1.2 |     |       |       |     |       |     |
|                              | 5    |     | 120  | 44  | 18  | 4.5 | 1.6 | 0.7 |       |       |     |       |     |
|                              | 8    |     |      | 95  | 39  | 10  | 3.6 | 1.4 |       |       |     |       |     |
|                              | 10   |     |      |     | 59  | 15  | 5.7 | 2   | 0.6   |       |     |       |     |
|                              | 12   |     |      |     | 80  | 20  | 7.2 | 2.6 | 0.8   |       |     |       |     |
|                              | 15   |     |      |     |     | 30  | 10  | 4.2 | 1.2   | 0.4   |     |       |     |
|                              | 18   |     |      |     |     | 40  | 15  | 6.3 | 1.5   | 0.6   |     |       |     |
|                              | 20   |     |      |     |     | 49  | 19  | 8   | 2     | 0.7   | 0.3 |       |     |
|                              | 25   |     |      |     |     | 72  | 26  | 11  | 3     | 1     | 0.4 |       |     |
|                              | 30   |     |      |     |     |     | 34  | 14  | 3.6   | 1.3   | 0.5 | 0.1   |     |
|                              | 35   |     |      |     |     |     | 47  | 19  | 5     | 1.7   | 0.7 | 0.2   |     |
|                              | 40   |     |      |     |     |     |     | 25  | 6.5   | 2.2   | 0.9 | 0.2   |     |
|                              | 50   |     |      |     |     |     |     | 36  | 9     | 3.3   | 1.3 | 0.4   | 0.2 |
|                              | 60   |     |      |     |     |     |     | 50  | 12    | 4.4   | 1.8 | 0.5   | 0.2 |
|                              | 70   |     |      |     |     |     |     |     | 17    | 6     | 2.4 | 0.7   | 0.3 |
| 80                           |      |     |      |     |     |     |     | 21  | 7.1   | 3     | 0.8 | 0.3   | 0.1 |
| 90                           |      |     |      |     |     |     |     | 27  | 9     | 3.8   | 1   | 0.5   | 0.1 |
| 100                          |      |     |      |     |     |     |     | 33  | 12    | 4.7   | 1.3 | 0.6   | 0.2 |
| 150                          |      |     |      |     |     |     |     | 60  | 22    | 8.5   | 2.2 | 1     | 0.3 |
| 200                          |      |     |      |     |     |     |     |     | 36    | 15    | 3.9 | 1.7   | 0.6 |
| 250                          |      |     |      |     |     |     |     |     | 54    | 22    | 5.3 | 2.5   | 0.8 |
| 300                          |      |     |      |     |     |     |     |     |       | 29    | 7.5 | 4     | 1.1 |
| 400                          |      |     |      |     |     |     |     |     |       | 51    | 14  | 6.5   | 2.2 |
| 500                          |      |     |      |     |     |     |     |     |       |       | 20  | 10    | 3   |
| 800                          |      |     |      |     |     |     |     |     |       |       |     | 18    | 5   |
| 1000                         |      |     |      |     |     |     |     |     |       |       |     |       | 10  |

\* Pressure drop values listed are typical of many petroleum based hydraulic oils at approximately +100° F (+38° C). Differences in fluids, fluid temperature and viscosity can increase or decrease actual pressure drop compared to the values listed.



# PRESSURE CONNECTIONS CORP.

## Hose Pressure Drop\*

Pressure drop in KPa (Kilo Pascal) for a 10 meter length of hose (smooth bore) without fittings.  
 Fluid specification: specific gravity = 0.85; Viscosity = 20 centistokes (C.S.);  
 ref MIL – H 5606 at +21° C (+70° F).

Flow: Litres per minute (L/min).

Hose pressure drop in KPa per 10 meters of hose length.

| Hose size                | -03 | -04  | -05  | -06  | -08  | -10  | -12  | -16  | -20  | -24  | -32  | -40  | -48  |
|--------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|
| DN real                  | 4.8 | 6.4  | 8.0  | 9.5  | 12.7 | 15.9 | 19.0 | 25.4 | 31.8 | 38.1 | 50.8 | 63.5 | 76.2 |
| DN                       | 5   | 6    | 8    | 10   | 12   | 16   | 20   | 25   | 32   | 40   | 50   | 63   | 80   |
| <b>Liters per minute</b> | 1   | 242  | 75   |      |      |      |      |      |      |      |      |      |      |
|                          | 2   | 466  | 146  | 66   |      |      |      |      |      |      |      |      |      |
|                          | 4   | 996  | 293  | 133  | 59   |      |      |      |      |      |      |      |      |
|                          | 8   | 2433 | 613  | 250  | 117  |      |      |      |      |      |      |      |      |
|                          | 10  | 3540 | 880  | 335  | 144  | 45   |      |      |      |      |      |      |      |
|                          | 15  |      | 1776 | 660  | 273  | 69   | 27   |      |      |      |      |      |      |
|                          | 20  |      | 3080 | 1129 | 462  | 116  | 41   | 18   |      |      |      |      |      |
|                          | 30  |      |      | 2159 | 887  | 228  | 82   | 32   |      |      |      |      |      |
|                          | 40  |      |      |      | 1496 | 379  | 141  | 50   | 14   |      |      |      |      |
|                          | 50  |      |      |      |      | 555  | 192  | 75   | 22   |      |      |      |      |
|                          | 60  |      |      |      |      | 756  | 263  | 111  | 30   | 10   |      |      |      |
|                          | 70  |      |      |      |      | 970  | 373  | 154  | 37   | 13   |      |      |      |
|                          | 80  |      |      |      |      | 1250 | 475  | 200  | 49   | 17   | 7    |      |      |
|                          | 90  |      |      |      |      | 1531 | 560  | 237  | 66   | 21   | 9    |      |      |
|                          | 100 |      |      |      |      |      | 653  | 274  | 73   | 24   | 10   | 3    |      |
|                          | 125 |      |      |      |      |      | 964  | 393  | 103  | 36   | 15   | 4    |      |
|                          | 150 |      |      |      |      |      |      | 567  | 147  | 50   | 19   | 5    |      |
|                          | 175 |      |      |      |      |      |      | 735  | 186  | 60   | 27   | 7    | 3    |
|                          | 200 |      |      |      |      |      |      | 920  | 228  | 83   | 33   | 9    | 4    |
|                          | 250 |      |      |      |      |      |      |      | 347  | 124  | 50   | 13   | 6    |
| 300                      |     |      |      |      |      |      |      | 475  | 162  | 68   | 17   | 8    | 3    |
| 400                      |     |      |      |      |      |      |      | 832  | 303  | 118  | 32   | 14   | 5    |
| 500                      |     |      |      |      |      |      |      | 1159 | 425  | 164  | 43   | 19   | 6    |
| 600                      |     |      |      |      |      |      |      |      | 562  | 222  | 57   | 26   | 8    |
| 700                      |     |      |      |      |      |      |      |      | 733  | 301  | 78   | 35   | 11   |
| 800                      |     |      |      |      |      |      |      |      | 924  | 383  | 98   | 43   | 14   |
| 900                      |     |      |      |      |      |      |      |      | 1144 | 468  | 118  | 53   | 16   |
| 1000                     |     |      |      |      |      |      |      |      |      | 553  | 140  | 68   | 20   |

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