

Hose Reference Guide

| Industry | Hose Options | Series | Key Feature(s) | Patented | Pressure Range PSI (BAR) | Size | Inner-core | Cover |
|--------------------|---|--------|---|----------|--------------------------|-----------------|--------------------------------------|---------------------------------|
| General Industrial | Increased flexibility exceeds other smoothbore PTFE stainless steel braided designs. | X | Flexibility | Yes | 1000 - 3500 (68.9 - 241) | 1/4 - 1 inch | Smoothbore PTFE | Stainless Steel |
| | Flexible solutions in high-temperature vacuum or general purpose applications where permeation is undesirable. | FJ/FM | Permeation Resistance / Temp | No | 450 - 3100 (31 - 213) | 1/4 - 2 inch | Convuluted Metal | Stainless Steel |
| | FX is a new hose series suitable for high pressure corrosive environments. Like the FJ and FM series the FX is also a flexible solution in high-temperature vacuum or where permeation is undesirable. | FX | Permeation Resistance / Pressure | No | 4500 - 6000 (310 - 413) | 1/4 or 1/2 inch | Convuluted Metal | Double Braided Stainless Steel |
| Chemical | Convuluted inner core offers extreme flexibility with the benefits of PTFE compatibility. Larger sized hoses are available up to 2 inches. | C | Flexibility | No | 525 - 1500 (36.1 - 103) | 1/2 - 2 inch | Convuluted PTFE | Stainless Steel |
| Pharm/Biotech | Smoothbore PTFE /PFA is required due to purity requirements. Both the U and S series hoses offers superb flexibility and come with smooth silicone covers for external cleanability. S series is recommended in 1/8 - 3/4 inch sizes while U series is recommended in 1 - 2 inch sizes. Ideal for load cell / weight scale applications and steam lines where exterior insulating protection may be required. | S | Flexibility / Smooth Silicone Cover / Cleanable | Yes | 1000 - 3000 (68.9 - 206) | 1/8 - 1 inch | Smoothbore PTFE or PFA | Silicone |
| | | U | | Yes | 150 - 300 (10.3 - 20.6) | 1/2 - 2 inch | | |
| Laboratory | The availability of these products in PTFE and 1/8 inch size makes them ideal for laboratory lines. | B | Available in 1/8 inch size | No | 3000 (206) | 1/8 inch | Smoothbore PTFE | Stainless Steel |
| | | S | | Yes | 1000 - 3000 (68.9 - 206) | 1/8 - 1 inch | Smoothbore PTFE | Silicone |
| Semiconductor | The W series hose is designed with a PTFE core for chemical compatibility with heat exchanger fluids and provides flexibility in combination with insulating properties. | W | Insulating design | Yes | 500 - 750 (34.4 - 51.6) | 3/8 - 3/4 inch | Smoothbore PTFE - Static Dissipative | Silicone (Blue/White/Red/Black) |
| Food & Beverage | PFA is the ideal material choice as it does not impart taste or odor as rubber does. The U series offers the required flexibility and is available in larger sizes needed in these applications. | U | Flexibility / imparts no taste / no odour / cleanable | Yes | 150 - 300 (10.3 - 20.6) | 1/2 - 2 inch | Smoothbore PFA | Silicone |

Swagelok Hose and Flexible Tubing Selection Guide*

See individual hose series sections for additional technical information.

| Series | Nominal Hose Size, in. | | | | | | | | | | Temperature Range °F (°C) ^④ |
|-----------------------|--|-------------|----------------------------|----------------|----------------|----------------|----------------|---------------|---------------|---------------|---|
| | Working Pressure at 70°F (20°C), psig (bar) ^④ | | | | | | | | | | |
| | 1/8 | 3/16 | 1/4 | 3/8 | 1/2 | 3/4 | 1 | 1 1/4 | 1 1/2 | 2 | |
| Metal Hose | | | | | | | | | | | |
| FX | — | — | 6000 (413) | 5000 (344) | 4500 (310) | 3600 (248) | 3000 (206) | 2600 (179) | 2200 (151) | 1675 (115) | –325 to 1000 (–200 to 537) |
| FM | — | — | 3100 (213) | 2000 (137) | 1800 (124) | 1500 (103) | 1200 (82.6) | 950 (65.4) | 900 (62.0) | 500 (34.4) | –325 to 850 (–200 to 454) |
| FJ | — | — | 1600 (110) | 1470 (101) | 1110 (76.4) | 860 (59.2) | 680 (46.8) | 680 (46.8) | 520 (35.8) | 450 (31.0) | –325 to 800 (–200 to 426) |
| FL | — | — | 1500 (103) | 1470 (101) | 1200 (82.6) | 860 (59.2) | 680 (46.8) | 645 (44.4) | 520 (35.8) | 380 (26.1) | –325 to 850 (–200 to 454) |
| AH | — | — | — | — | 1110 (76.4) | 860 (59.2) | 680 (46.8) | — | 520 (35.8) | 450 (31.0) | –325 to 800 (–200 to 426) |
| Metal Flexible Tubing | | | | | | | | | | | |
| Convolved Tube | — | — | 100 (6.8) | 25 (1.7) | 25 (1.7) | 25 (1.7) | 25 (1.7) | — | 25 (1.7) | — | 70 to 1000 (20 to 537) |
| Fluoropolymer Hose | | | | | | | | | | | |
| T | — | — | 3000 ^① (206) | 2500 (172) | 2000 (137) | 1500 (103) | 1000 (68.9) | — | — | — | –65 to 450 (–53 to 230) |
| B | 3000 (206) | — | — | — | — | — | — | — | — | — | |
| X | — | — | 3500 (241) | 3000 (206) | 1800 (124) | 1250 (86.1) | 1000 (68.9) | — | — | — | |
| S | 3000 (206) | — | 3500 (241) | 3000 (206) | 1800 (124) | 1250 (86.1) | 1000 (68.9) | — | — | — | –65 to 400 (–53 to 204) |
| C | — | — | — | — | 1500 (103) | 1100 (75.7) | 750 (51.6) | — | 700 (48.2) | 525 (36.1) | –65 to 450 ^② (–53 to 230) |
| N | — | — | — | 1250 (86.1) | 750 (51.6) | 375 (25.8) | — | — | — | — | |
| W | — | — | — | 750 (51.6) | 750 (51.6) | 500 (34.4) | — | — | — | — | –65 to 400 (–53 to 204) |
| F | — | — | 800 (55.1) | 650 (44.7) | 450 (31.0) | 325 (22.3) | — | — | — | — | –65 to 450 (–53 to 230) |
| U | — | — | — | — | 300 (20.6) | 300 (20.6) | 250 (17.2) | — | 200 (13.7) | 150 (10.3) | –65 to 400 (–53 to 204) |
| PFA Tubing | | | | | | | | | | | |
| PFA | 275 (18.9) | — | 275 (18.9) | 180 (12.4) | 125 (8.6) | 83 (5.7) | 61 (4.2) | — | — | — | 70 to 400 (20 to 204) |
| Vinyl Tubing | | | | | | | | | | | |
| LT | 40 (2.7) | 30 (2.0) | 25 (1.7) | 15 (1.0) | 10 (0.68) | — | — | — | — | — | –40 to 165 (–40 to 73) |
| Nylon Hose | | | | | | | | | | | |
| NG | — | — | 5000 (344) | 5000 (344) | 5000 (344) | — | — | — | — | — | –40 to 150 (–40 to 65) |
| 7R | — | — | 2750 (189) | 2250 (155) | 2000 (137) | — | — | — | — | — | –40 to 200 (–40 to 93) |
| 8R | — | — | 5000 (344) | 4000 (275) | 3500 (241) | 2250 (155) | 2000 (137) | — | — | — | –40 to 200 (–40 to 93) |
| 7N | — | — | 2750 (189) | 2250 (155) | 2000 (137) | — | — | — | — | — | –40 to 200 (–40 to 93) |
| 8N | — | — | — | — | — | 2250 (155) | — | — | — | — | –40 to 200 (–40 to 93) |
| Polyethylene Hose | | | | | | | | | | | |
| 7P | — | — | 2750 (189) | 2250 (155) | 2000 (137) | 1500 (103) | 1500 (103) | — | — | — | –10 to 150 (–23 to 65) |
| Rubber Hose | | | | | | | | | | | |
| PB | — | — | 350 (24.1) | 300 (20.6) | 300 (20.6) | 300 (20.6) | 300 (20.6) | — | — | — | –40 to 200 ^③ (–40 to 93) |

① T series hose with alloy 400 braid is rated to 1500 psig (103 bar).

② C series hose is rated from –20 to 340°F (–28 to 171°C) in the 1 1/2 and 2 in. nominal hose sizes.

C series hose is rated from –65 to 400°F (–53 to 204°C) for hose with a silicone cover.

③ PB series hose is rated from –20 to 200°F (–28 to 93°C) in the 1 in. nominal hose size.

④ Pressure-temperature ratings may be limited by the end connections.

— Indicates that the series of hose is not currently available in that size



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