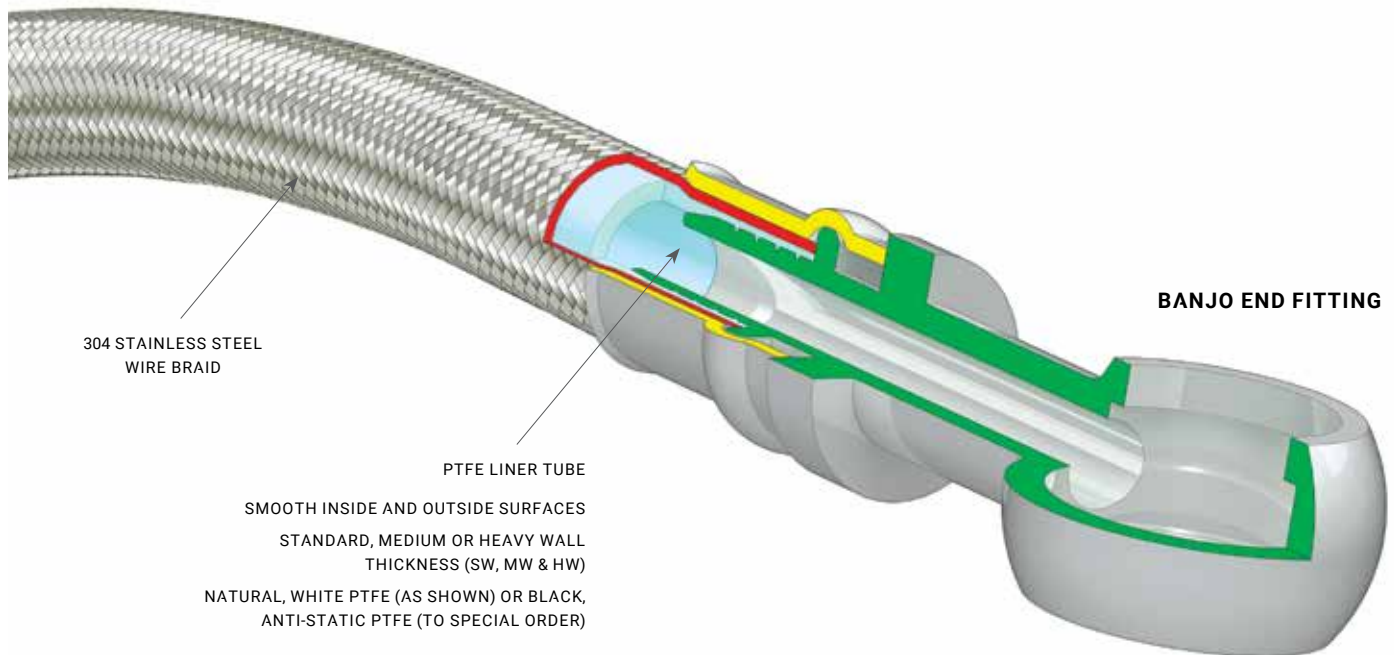


# SMOOTHBORE

PTFE Hose for automotive and general purpose applications

A high temperature and pressure resistant, smooth bore hose compatible with all automotive fluids

## A -3 SMOOTHBORE HOSE ASSEMBLY



304 STAINLESS STEEL  
WIRE BRAID

PTFE LINER TUBE

SMOOTH INSIDE AND OUTSIDE SURFACES  
STANDARD, MEDIUM OR HEAVY WALL  
THICKNESS (SW, MW & HW)

NATURAL, WHITE PTFE (AS SHOWN) OR BLACK,  
ANTI-STATIC PTFE (TO SPECIAL ORDER)

BANJO END FITTING

## SMOOTHBORE HOSE SPECIFICATIONS

### HOSE BORE SIZE RANGE -

Standard Wall and Heavy Wall  $\frac{1}{8}$ " (3MM) UP TO 1" (25MM)

Medium Wall ('Dash Sizes')

-2 (2MM BORE) TO 1" BIG BORE (BB) (26.4MM BORE)

### HOSE LENGTHS -

-2 SIZE 107 METRES (350 FEET) TO 1" BB 40 METRES (130 FEET)

CUT LENGTHS AND PREFORMED LENGTHS AVAILABLE

### TEMPERATURE LIMITS -

FROM -73°C (-100°F) UP TO +260°C (+500°F), DEPENDING ON  
PRESSURE

### WORKING PRESSURE RATINGS -

-2 = 450 BAR (6500 PSI) TO 1" BB = 80 BAR (1160 PSI), FOR  
TEMPERATURES UP TO 130°C (266°F)

### VACUUM LIMITATIONS -

USABLE AT VACUUM TO -0.9BAR FOR HEAVY WALL (HW) HOSE  
IN SIZES UP TO  $\frac{3}{8}$ " (10MM)

### END FITTING OPTIONS -

BSPT AND NPT MALE AND FEMALE, BSP AND NPSM 60° CONE  
SEAT AND FLAT SEAT FEMALE UNIONS, JIC THREADED MALE  
AND FEMALE FITTINGS, STANDPIPE FITTINGS AND MANY MORE

### ALTERNATIVE DESIGN OPTIONS (to special order) -

- DOUBLE BRAID OR 'HIGH PACK' BRAID FOR INCREASED  
PRESSURE RESISTANCE, HIGH PRESSURE (HPG) GAS GRADE
- PVC, NYLON II, SARLINK AND HYTREL PLASTIC COVERS OVER  
BRAID WITH PRINTING. DIFFERENT COLOURS AND OTHER  
PLASTIC COVERS ARE ALSO AVAILABLE.
- FOR LARGER BORE SIZE WHERE IMPROVED FLEXIBILITY IS  
NEEDED, HYPERLINE FX HOSE IS RECOMMENDED.

## STANDARD WALL, SINGLE BRAID (SW, SB)

| Bore Size (Nominal) | Bore Size (Actual) |       | PTFE Tube Wall Thickness |       | Braid Outside Diameter |       | Minimum Bend Radius |        | Maximum Working Pressure |      | Weight per Unit Length |        | *Part Number    |
|---------------------|--------------------|-------|--------------------------|-------|------------------------|-------|---------------------|--------|--------------------------|------|------------------------|--------|-----------------|
|                     | mm                 | in    | mm                       | in    | mm                     | in    | mm                  | in     | Bar                      | Psi  | Kg/mt                  | Lbs/Ft |                 |
| 3/16                | 4.76               | 0.188 | 0.76                     | 0.025 | 7.40                   | 0.291 | 40                  | 1 5/8  | 265                      | 3856 | .080                   | .054   | 70-100-03-01-02 |
| 1/4                 | 6.35               | 0.250 | 0.63                     | 0.025 | 8.50                   | 0.335 | 60                  | 2 3/8  | 240                      | 3492 | .093                   | .062   | 70-100-04-01-02 |
| 5/16                | 7.94               | 0.313 | 0.63                     | 0.025 | 10.15                  | 0.400 | 70                  | 2 7/8  | 200                      | 2910 | .110                   | .074   | 70-100-05-01-02 |
| 3/8                 | 9.53               | 0.375 | 0.63                     | 0.025 | 11.75                  | 0.463 | 80                  | 3 2/8  | 190                      | 2765 | .124                   | .083   | 70-100-06-01-02 |
| 1/2                 | 12.70              | 0.500 | 0.76                     | 0.030 | 14.95                  | 0.589 | 110                 | 4 3/8  | 140                      | 2030 | .207                   | .139   | 70-100-08-01-02 |
| 5/8                 | 15.88              | 0.625 | 0.76                     | 0.030 | 18.35                  | 0.722 | 150                 | 6      | 110                      | 1601 | .255                   | .171   | 70-100-10-01-02 |
| 3/4                 | 19.05              | 0.750 | 0.76                     | 0.030 | 21.65                  | 0.852 | 200                 | 7 7/8  | 80                       | 1164 | .315                   | .211   | 70-100-12-01-02 |
| 1                   | 25.40              | 1.000 | 1.00                     | 0.039 | 28.15                  | 1.108 | 300                 | 11 7/8 | 55                       | 800  | .430                   | .288   | 70-100-16-01-02 |

## HEAVY WALL, SINGLE BRAID (HW, SB)

| Bore Size (Nominal) | Bore Size (Actual) |       | PTFE Tube Wall Thickness |       | Braid Outside Diameter |       | Minimum Bend Radius |        | Maximum Working Pressure |      | Weight per Unit Length |        | *Part Number    |
|---------------------|--------------------|-------|--------------------------|-------|------------------------|-------|---------------------|--------|--------------------------|------|------------------------|--------|-----------------|
|                     | mm                 | in    | mm                       | in    | mm                     | in    | mm                  | in     | Bar                      | Psi  | Kg/mt                  | Lbs/Ft |                 |
| 1/8                 | 3.17               | 0.125 | 1.00                     | 0.039 | 6.10                   | 0.240 | 20                  | 7/8    | 290                      | 4220 | .068                   | .046   | 70-200-02-01-02 |
| 3/16                | 4.76               | 0.188 | 1.00                     | 0.039 | 7.65                   | 0.301 | 29                  | 1 1/8  | 270                      | 3929 | .087                   | .058   | 70-200-03-01-02 |
| 1/4                 | 6.35               | 0.250 | 1.00                     | 0.039 | 9.25                   | 0.364 | 30                  | 1 3/8  | 260                      | 3783 | .113                   | .076   | 70-200-04-01-02 |
| 5/16                | 7.94               | 0.313 | 1.00                     | 0.039 | 10.90                  | 0.429 | 40                  | 1 5/8  | 230                      | 3347 | .135                   | .091   | 70-200-05-01-02 |
| 3/8                 | 9.53               | 0.375 | 1.00                     | 0.039 | 12.50                  | 0.492 | 55                  | 2 2/8  | 200                      | 2910 | .153                   | .103   | 70-200-06-01-02 |
| 1/2                 | 12.70              | 0.500 | 1.00                     | 0.039 | 15.60                  | 0.614 | 85                  | 3 3/8  | 160                      | 2328 | .240                   | .161   | 70-200-08-01-02 |
| 5/8                 | 15.88              | 0.625 | 1.30                     | 0.051 | 19.10                  | 0.752 | 110                 | 4 3/8  | 130                      | 1892 | .292                   | .196   | 70-200-10-01-02 |
| 3/4                 | 19.05              | 0.750 | 1.30                     | 0.051 | 22.05                  | 0.868 | 145                 | 5 5/8  | 92                       | 1339 | .344                   | .231   | 70-200-12-01-02 |
| 1                   | 25.40              | 1.000 | 1.50                     | 0.059 | 28.80                  | 1.134 | 260                 | 10 2/8 | 69                       | 1004 | .470                   | .315   | 70-200-16-01-02 |

## MEDIUM WALL SINGLE BRAID (MW, SB)

The Hyperline MW, SB Range meets or exceeds SAE 100R14 standard.

| Bore Size (Nominal)<br>BB=Big Bore | Bore Size (Actual) |       | Dash Size Reference (If any) | PTFE Tube Wall Thickness |       | Braid Outside Diameter |       | Minimum Bend Radius |       | Max Working Pressure |      | Weight per Unit Length |        | *Part Number    |
|------------------------------------|--------------------|-------|------------------------------|--------------------------|-------|------------------------|-------|---------------------|-------|----------------------|------|------------------------|--------|-----------------|
|                                    | mm                 | in    |                              | mm                       | in    | mm                     | in    | mm                  | in    | Bar                  | Psi  | Kg/mt                  | Lbs/Ft |                 |
| 1/16 BB                            | 2.0                | 0.079 | -2                           | 1.00                     | 0.040 | 5.00                   | 0.197 | 13                  | 1/2   | 450                  | 6500 | .045                   | .030   | 70-300-02-01-02 |
| 1/8 BB                             | 3.5                | 0.138 | -3                           | 1.00                     | 0.040 | 6.45                   | 0.254 | 20                  | 3/4   | 350                  | 5076 | .070                   | .047   | 70-300-03-01-02 |
| 3/16 BB                            | 5.0                | 0.200 | -4                           | 0.76                     | 0.030 | 7.65                   | 0.301 | 45                  | 1 3/4 | 290                  | 4206 | .078                   | .052   | 70-400-03-01-02 |
| 1/4 BB                             | 6.7                | 0.264 | -5                           | 0.76                     | 0.030 | 9.30                   | 0.366 | 60                  | 2 3/8 | 240                  | 3480 | .110                   | .074   | 70-400-04-01-02 |
| 5/16 BB                            | 8.4                | 0.335 | -6                           | 0.76                     | 0.030 | 10.72                  | 0.422 | 70                  | 2 3/4 | 220                  | 3190 | .136                   | .091   | 70-400-05-01-02 |
| 3/8 BB                             | 10.0               | 0.394 | -7                           | 0.76                     | 0.030 | 12.75                  | 0.500 | 80                  | 3     | 190                  | 2755 | .166                   | .111   | 70-400-06-01-02 |
| 1/2 BB                             | 13.3               | 0.536 | -10                          | 0.76                     | 0.030 | 16.35                  | 0.644 | 130                 | 5     | 150                  | 2175 | .210                   | .141   | 70-400-08-01-02 |
| 5/8 BB                             | 16.5               | 0.654 | -12                          | 0.84                     | 0.033 | 19.50                  | 0.768 | 163                 | 6 1/2 | 130                  | 1885 | .280                   | .188   | 70-400-10-01-02 |
| 3/4 BB                             | 19.8               | 0.780 |                              | 1.00                     | 0.040 | 22.50                  | 0.860 | 180                 | 7     | 110                  | 1595 | .327                   | .219   | 70-400-12-01-02 |
| 1 BB                               | 26.4               | 1.040 |                              | 1.00                     | 0.040 | 30.10                  | 1.190 | 230                 | 9     | 80                   | 1160 | .524                   | .351   | 70-400-16-01-02 |

\* For Anti-Static Grade, add 10 to the 3-digit part number e.g. 70-100- becomes 70-110

## TEMPERATURE & PRESSURE

- Temperature affects the Maximum Working Pressure (MWP) as listed above, so for temperatures above 130°C (266°F) reduce the MWP by 0.75% for each 1°C (1.8°F) above 130°C (266°F).
- Pressure Ratings above 100 Bar (1500 psi) only apply for the transfer of non-penetrating fluids. If gases or penetrating fluids are used in the application, or used during pressure testing at pressures above 100 Bar (1500 psi), high pressure gas (HPG) grade hose is required.
- Maximum Working Pressures (MWP) listed are calculated on the basis of a 3:1 safety factor relative to the burst pressure, so burst pressure = 3 x MWP. If MWP is required based on a 4:1 safety factor (e.g EN 16643:2016 requirement), multiply the listed value by 0.75.

## SB - UK/15.05.20 Rev 6



A member of Watson-Marlow Fluid Technology Group.  
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