

THT Ostrava CZ, a.s.
TEFLON HOSES TECHNOLOGIES



*THT Ostrava CZ
... your flexible solution*



Pushpak

Your Perfect Partner

TEFLON[®] HOSE ASSEMBLIES CATALOGUE



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A Few Words About the Company

THT Ostrava CZ, has been manufacturing the Teflon® hose assemblies for more than 15 years. The company is an authorized manufacturer and distributor, approved by TITEFLEX EUROPE SAS company, located in Ozoir-la-Ferriere, France. The hose assemblies are designated primarily for aviation and rocket industry and aimed mainly at Central and Eastern European market and for countries of the former Soviet Union.

The company is equipped with TITEFLEX original technology and the whole production is done in accordance with TITEFLEX technical standards.

The main production program is intended to customers in the aviation and rocketry manufacturing and maintenance. Fuel, hydraulic, oil, pneumatic and oxygen systems of various aircraft, helicopters or rockets are fitted with our hose assemblies.

A list of the largest costumers includes Czech, Slovak, Polish aircraft manufacturers & maintenance centres and also operators and maintenance centres of Mil helicopters, Kamov helicopters, Beriev aircraft etc.

Our certificates & authorizations

THT Ostrava CZ, is a certified manufacturer of aircraft parts in accordance with international regulations EASA Part-21, Subpart G.

The quality system according to EN ISO 9001:2009 and Czech Defence Standards–AQAP 2120 is established inside the company.

We are approved by Military Aviation Authority of the General Staff of the Armed Forces to supply the Ministry of Defence of the Czech Republic.

THT Ostrava company is a holder of Permit for Trade in Military Equipment.

Where you can meet TITEFLEX Teflon® hoses:

Airbus A320, A330, A340, A380, A350, CRJ Serie, ATR 42 & 72, Dassault Falcon, T50, Eurocopter AS350, AS332, AS365, EC175, Agusta-Westland AW139, A109, Sikorsky S-92, MI-17, NH90 and others.

Where you can meet THT Ostrava CZ, a.s. Teflon® hose assemblies:

L410 (UVP, UVP-E9, UVP-E20, NG), Zlin Z242, Z143, Evektor EV-55, PZL M28 Skytruck, PZL M18 Dromader, PZL-104 Wilga, PZL-130 Orlik, W3-A Sokol, Mil helicopters Mi-8, Mi-17, 171, Mi-24, Kamov helicopters Ka-32, Ka-226, Beriev Be-200, Tupolev Tu-214, Tu-334, L-39, L-59, L-159.

Market division

TITEFLEX EUROPE SAS hose assemblies are designed especially to “Western” aircraft manufacturers, accustomed to use imperial fittings.

THT Ostrava CZ, hose assemblies are designed to „Eastern” part of the market, where metric system is historically preferred.

Need spare parts for your aircraft?

THT Ostrava CZ, will supply you with pleasure with spare parts for aircraft and helicopters, produced (especially) in Russian Federation. In particular, mainly for helicopters of Mil series (Mi-2, Mi-8, Mi-14, Mi-17, Mi-171/172, Mi-24, Mi-35) and Kamov series (Ka-226, Ka-32 etc.) Tupolev, Antonov and Beriev Aircraft. All the spare parts are supplied directly and exclusively from Russian producers with relevant certificates confirming their quality. We can offer spare parts both new and repaired, according to client’s demand.

About PTFE Teflon® Hoses

The Teflon® hose assemblies were originally developed for NASA aerospace applications. They are made of PTFE (polytetrafluorethylene) and they are characterized by their outstanding characteristics :

- High resistance to UV radiation
- Excellent chemical resistance
- Excellent resistance to high temperatures
- Resistance to aging of the material
- Low absorption and high resistance to solvents
- High abrasion resistance
- Corrosion resistance
- Flex/fatigue resistance
- Heat and cold resistance
- Zero volumetric expansion

Teflon® and rubber hose comparison

PTFE-Teflon®

Unlimited life time

Unlimited shelf time

Teflon® is immune against ozone effects

Teflon® is concentrated acid-proof

Noticeable higher cleanliness of carried fluids

TITEFLEX hoses meet all requirements of

Currently valid international aviation standards especially fire-proof requirements

Rubber

Hose life time limited by date of manufacture and operation time

Limited shelf time

Faster aging in extreme environmental conditions (equatorial areas)

Rubber components gradually dissolve to carried fluids

Does not meet requirements of the newest international aviation standards.

Positive impact on the increase of safety and reliability and the reduction of operating cost proves the fact that more than 40 helicopters Mi-17, Mi-24 and Mi-8 have been fitted with Teflon® hoses covering all systems. These helicopters have flown more than 70.000 flight hours in over 10 years without any problem with our hose assemblies.

Industrial Teflon® hoses

It is necessary to mention also industrial usage of Teflon® hose assemblies.

They are utilized by clients in the fields of chemical and petrochemical industry, refrigeration and food industry, processing, filling and distribution of gas

- power engineering
- automotive
- production and maintenance of agricultural, forestry and construction industry

THT Ostrava - Your Flexible Solution

A majority of necessary input material is at THT Ostrava CZ stock. It means, we always try to minimize our lead times so as your operation can continue as soon as possible in case of AOG.

Standardly, when you order a hose assembly, the lead time varies in 2 to 6 weeks interval.

THT Ostrava CZ – product support

We can offer (for valuable price or free of charge, depending on the type of contract) advisory and consultancy services during the period of introduction and implementation of our new Teflon® hose assemblies to your aircraft.

Based on our existing experience with aerospace Teflon® hose assemblies manufactured by THT Ostrava CZ, we can proudly offer a lifetime warranty to our production.

THT Ostrava CZ – hose assemblies design & development

As a Production organization, according to EASA Part 21G, all our hoses are subject to approval of Design organisation, mostly an aircraft manufacturer.

Nevertheless, we often meet requirements of either manufacturers or maintenance centres for a new hose assembly or replacement of the original rubber hose by a new, Teflon® one.

In these cases, we require either detailed technical specification or sending of the original hose assembly, and our technicians are able to make a customized technical design of Teflon® hose assembly.

Subsequently, the hose can be manufactured and shipped either with EASA Form 1 or Certificate of Conformity.

THT Ostrava CZ – your partner for business in Russia

We have been working with our partners in the Russian Federation since 2003. Our Russian branch headquarters is in Czech House in Moscow. We are engaged in import and export of goods. The objective of export of THT Ostrava CZ, a.s., is mainly Teflon® hoses. The objectives of import are mostly spare parts and equipment for aircraft from the Russian Federation and other CIS countries.

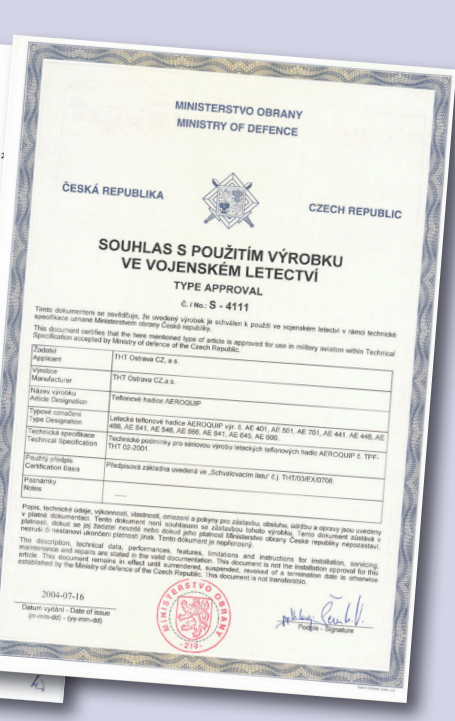
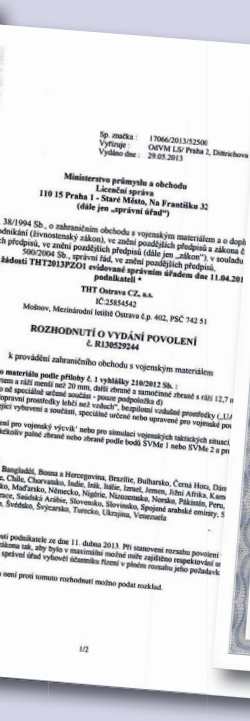
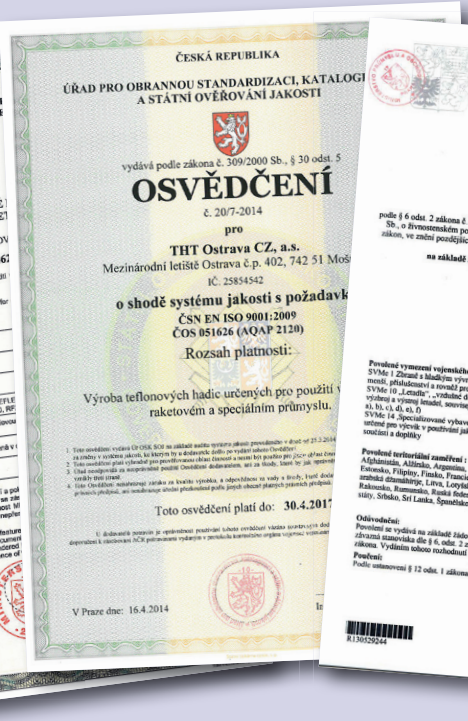
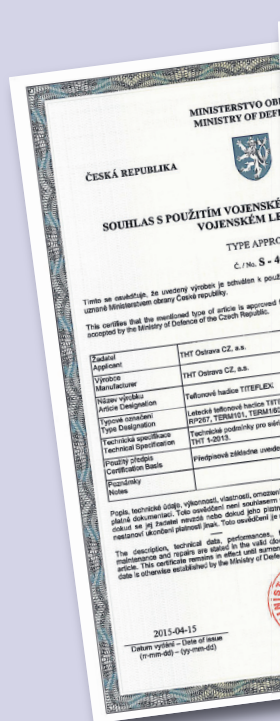
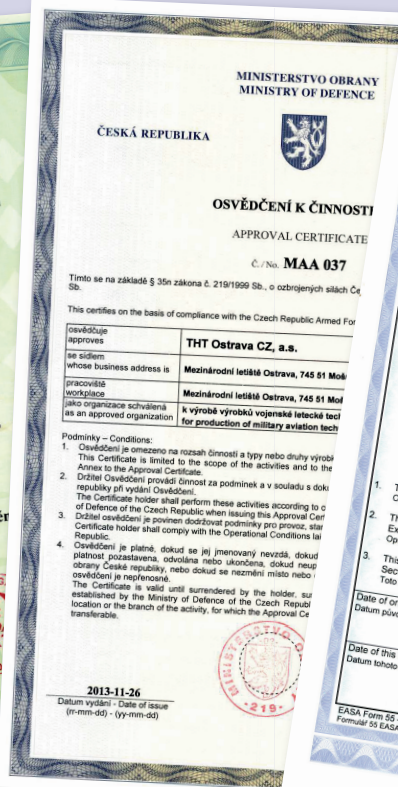
Our staff is pleased to provide helicopters (Mil, Kamov) and their components maintenance, repairs or modernization in authorized maintenance centres in Russia and Europe.

We can provide you with interesting price quotation in case that you intend to buy a new or reconditioned helicopter (of Russian origin).

THT Ostrava CZ – aircraft spares supplier

Our company is a holder of the licence to conduct foreign trade in military equipment range. Thanks to good business ties, solid relationship with producers and knowledge of environment, we are able to provide spare parts for helicopters Mi ((Mi-2, Mi-8, Mi-14, Mi-17, Mi-171/172, Mi-24, Mi-35) and Kamov series (Ka-226, Ka-32 etc.) and other military equipment in accordance with applicable legislation.

Certificates



R160

High Pressure Hose 210 bar / 3000 PSI

Specification approvals:

AS1339

AS604

MIL-H-26633

MIL-H-38360

TSO C75 type III B – S/P

Titeflex R160 is a lightweight high pressure 3000 PSI (207 Bar) aerospace hose. The hose consists of an extruded smoothbore PTFE innercore, reinforced with CRES 304 wire braid in a single layer on sizes -04 through -10, or a double layer on size -12. The PTFE innercore is conductive and provides excellent chemical resistance through a temperature range of -54°C to +204°C with unlimited shelf life. The pre-tensioned braid gives R160 hose the tightest bend radius of any metal braided high pressure PTFE hose. The standard fitting material is CRES. Fire protection per AS1055 Class A & B is assured in form of TERM160 hose. Chafe resistant hose are available as RP160 hose – see next page.

Hose construction

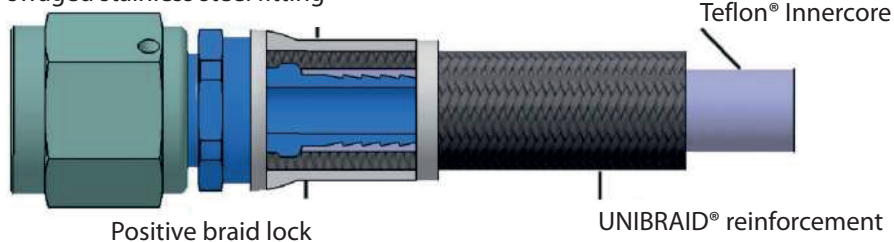
Innercore: It consists of extruded Teflon® powder charged with carbon. The addition of a carbon charge before extrusion offers good electrical conductivity. The Teflon® is a PTFE (polytetrafluoroethylene), whose main characteristics are excellent resistance to chemicals, the ability to be used over a temperature range between -54°C and +204°C (-65°F and +400°F), and an unlimited shelf-life.

Wirebraid: The innercore is reinforced by a braid consisting of type 304 stainless steel wire. For the ND 6 (-4) to ND 16 (-10) the armour consists of a single braid, while for the ND 20 (-12) it consists of a double braid.

The fittings: are swaged to the hose using the progressive swaging method. The fittings are made of stainless steel (insert, nut and collar). The catalogue provides the connection definitions linked to the most widely used standards, although THT Ostrava CZ is specialized in the design of special fittings or fittings meeting other standards.



Progressive-swaged stainless steel fitting



| HOSE SIZE | OPERATING PRESSURE bar | HOSE ID (MIN) mm | HOSE OD (min) mm | HOSE OD (max) mm | HOSE OD (max) mm | BEND RADIUS (min)/2/ | PROOF PRESSURE bar | ROOM BURST PRESSURE (min) bar | HIGH TEMP BURST (MIN) bar |
|-----------|------------------------|------------------|------------------|------------------|------------------|----------------------|--------------------|-------------------------------|---------------------------|
| 4 | 207 | 5.4 | 9.1 | 9.9 | 161 | 38.1 | 414 | 1,103 | 827 |
| 6 | 207 | 7.6 | 11.7 | 12.45 | 268 | 63.5 | 414 | 965 | 724 |
| 8 | 207 | 9.9 | 14.9 | 15.62 | 357 | 73 | 414 | 965 | 724 |
| 10 | 207 | 12.6 | 17.8 | 18.5 | 482 | 82.5 | 414 | 827 | 621 |
| 12 | 207 | 15.6 | 24.1 | 25.15 | 1 036 | 98.5 | 414 | 827 | 621 |

NOTE:

/1/ Over minimum 300 mm length

/2/ Inside of bend

Hose of size -16 to -24 on request

R160

High Pressure Hose 210 bar / 3000 PSI

RP160 – Chafe resistant high pressure hose

RP integral sleeve consists of polyester yarns directly braided on the hose, which provides excellent cohesion with the outer braid.

Main characteristics:

- Provides one of the best antiwear protections.
- Resists to solvents, fuels, hydraulic fluids, aeronautic anti corrosion paints and cleaning detergents.
- Provides even diameter when fastening.
- Operating temperature: - 54°C +150°C.
- Resists to aging.
- Fire retardant, does not drip.
- Does not affect hose flexibility.



TERM160 - Fire proof high pressure hose

The TERM160 fire proof over-molded hose consists from the extrusion of a silicone composite on the R160 hose. Sleeve corresponds to an FAA and AS 1055 standard. These hoses are qualified according to the most stringent criteria of TSO-C53, TSO-C75 and AS1055 which require 15 minutes resistance to fire with a flow rate of $1 \times I.D.^2$ (GPM) *).

Innovative assembly technology: The silicone layer of type TERM hose is separated from the hose and peeled back. Then, when crimping and final check are completed, it is stuck back on the hose with the swaging collar previously coated with silicone.

Main characteristics:

- Provides constant and stable diameter for coupling fastening.
- Light weight.
- Acts as vibration dampener.
- Adherence to the hose provides even bending and sustained flexibility.
- Operating temperature : - 54°C to +204°C.
- Good resistance to fluids.
- Non age sensitive.



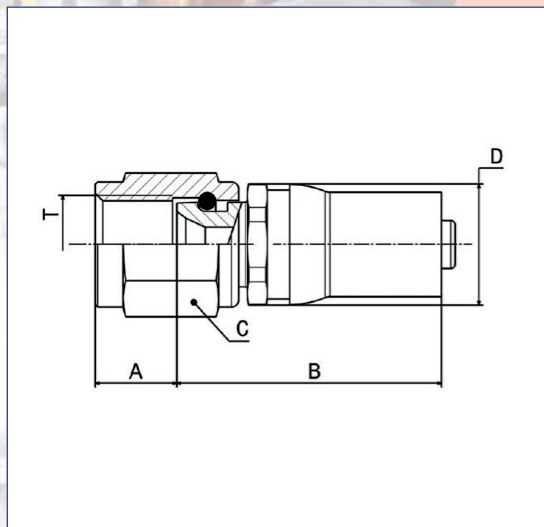
THT Ostrava CZ provides R160 hose assemblies with various fittings. Some samples are on following pages. Fittings of other dimensions and/or standards (GOST, OST, DIN, MON) are available on request.

*) G.P.M. : Gallon per minute.

R160

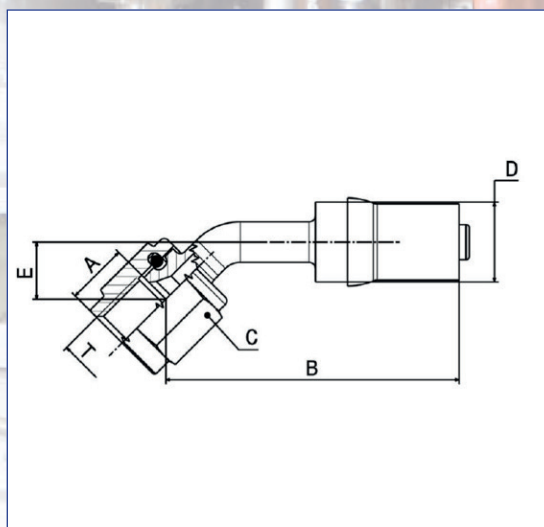
37° - JIC Metric Hose Fittings

STRAIGHT



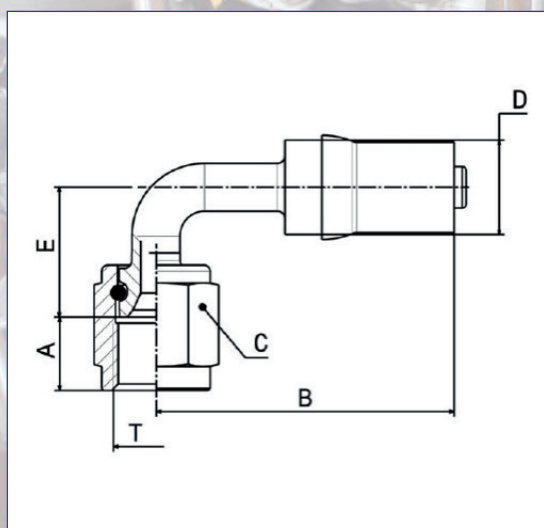
| Hose | Fitting Part Number | Thread (mm) | A mm | B mm | C mm | D mm | E mm |
|------|---------------------|-------------|------|------|------|------|------|
| 4 | R17404 | M12x1 | 8,5 | 35 | 17 | 15,5 | N/A |
| 6 | R17818 | M14x1 | 8,5 | 35 | 19 | 17,4 | N/A |
| | R18320 | M14x1,5 | 8,5 | 35 | 19 | 17,4 | N/A |
| | R17530 | M16x1 | 9,5 | 35,5 | 19 | 17,4 | N/A |
| 8 | R18135 | M18x1,5 | 11 | 37 | 22 | 20,5 | N/A |
| | R17531 | M18x1,5 | 11 | 40 | 22 | 24,2 | N/A |
| 10 | R18109 | M20x1,5 | 11 | 40 | 24 | 24,2 | N/A |
| | R18858 | M20x1,5 | 12,8 | 44 | 24 | 24,2 | N/A |
| | R18111 | M22x1,5 | 13,1 | 44 | 27 | 25,3 | N/A |
| 12 | R17819 | M24x1,5 | 12,8 | 41 | 30 | 30 | N/A |
| | R18334 | M24x1,5 | 12,8 | 48 | 30 | 33 | N/A |
| | R17817 | M27x1,5 | 14,3 | 45 | 32 | 33 | N/A |

45° ELBOW



| Hose | Fitting Part Number | Thread (mm) | A mm | B mm | C mm | D mm | E mm |
|------|---------------------|-------------|------|------|------|------|------|
| 4 | R17478 | M12x1 | 9,4 | 43,7 | 17 | 12,7 | 9,5 |
| 6 | R17803 | M14x1 | 8,5 | | 19 | 15,9 | 15 |
| | R17481 | M16x1 | 9,5 | | 19 | 15,9 | 15,8 |
| | R18146 | M18x1,5 | 11 | | 22 | 15,9 | 15,6 |
| 8 | R17484 | M18x1,5 | 11 | 56,9 | 22 | 20 | 14,5 |
| | R18263 | M20x1,5 | 11 | | 24 | 20 | 16 |
| 10 | R18861 | M20x1,5 | 12,8 | | 24 | 25 | 18 |
| | R17487 | M22x1,5 | 12,4 | 70 | 27 | 25 | 16,3 |
| | R18264 | M24x1,5 | 12,8 | | 30 | 25 | 18,4 |

90° ELBOW



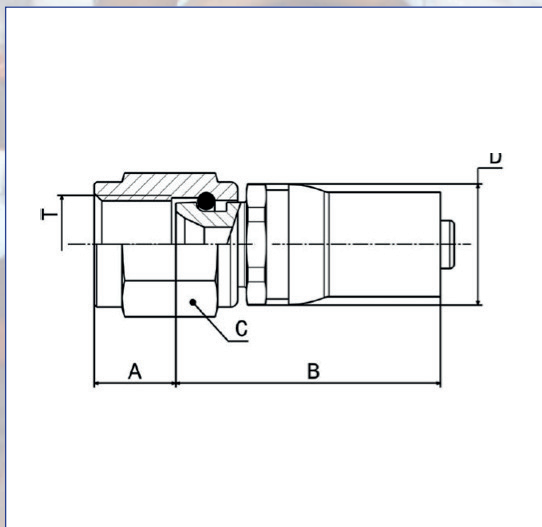
| Hose | Fitting Part Number | Thread (mm) | A mm | B mm | C mm | D mm | E mm |
|------|---------------------|-------------|------|------|------|------|------|
| 4 | R17808 | M12x1 | 9,5 | | 17 | 12,7 | 22,5 |
| 6 | R17807 | M14x1 | 8,5 | | 19 | 15,9 | 27 |
| | R17424 | M16x1 | 9,5 | | 19 | 15,9 | 26,1 |
| | R18149 | M18x1,5 | 11 | | 22 | 15,9 | 27,6 |
| | R18152 | M22x1,5 | 13,1 | | 27 | 15,9 | 34,3 |
| 8 | R17427 | M18x1,5 | 11 | 50 | 22 | 20 | 28,7 |
| | R18110 | M20x1,5 | 11,1 | | 24 | 20 | 28,1 |
| 10 | R18864 | M20x1,5 | 12,8 | | 24 | 25 | 35 |
| | R17430 | M22x1,5 | 12,4 | 60 | 27 | 25 | 32,5 |
| | R18265 | M24x1,5 | 12,8 | | 30 | 25 | 36,8 |
| 12 | R17806 | M27x1,5 | 14,3 | | 32 | | 40 |

R160

38° - AS1708 Imperial Hose Fittings

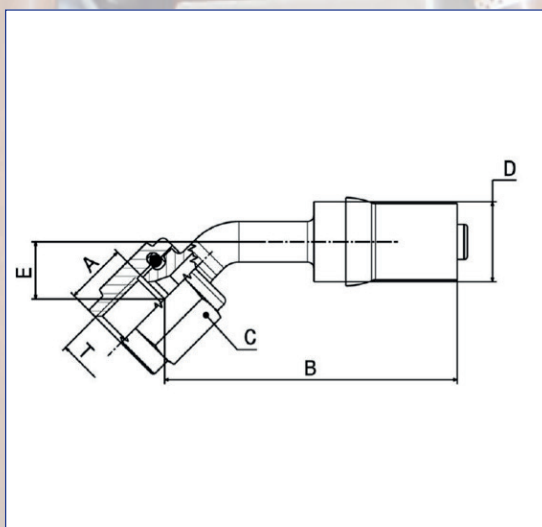
Mates with AS33514/AS33515 AND AS4375/AS4377

STRAIGHT



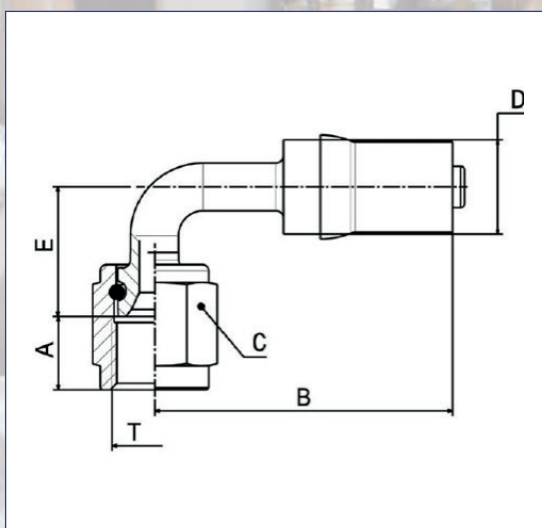
| Hose | Fitting Part Number | Thread (in) | A mm | B mm | C mm | D mm | E mm |
|------|---------------------|-------------|------|------|------|------|------|
| 4 | Y40004-72 | 7/16-20 | 9,4 | 33 | 14,3 | 13,9 | N/A |
| 6 | Y40006-72 | 9/16-18 | 9,5 | 37,2 | 17,5 | 17,4 | N/A |
| 8 | Y40008-72 | 3/4-16 | 11,1 | 40,8 | 22,2 | 20,5 | N/A |
| 10 | Y40010-72 | 7/8-14 | 13,1 | 42,4 | 25,4 | 23,6 | N/A |
| 12 | Y40012-72 | 1.1/16-12 | 14,3 | 48,4 | 31,7 | 30,3 | N/A |

45° ELBOW



| Hose | Fitting Part Number | Thread (in) | A mm | B mm | C mm | D mm | E mm |
|------|---------------------|-------------|------|------|------|------|------|
| 4 | Y40104-72 | 7/16-20 | 9,4 | 47,3 | 14,3 | 12,7 | 8.8 |
| 6 | Y40106-72 | 9/16-18 | 9,5 | 50,8 | 17,5 | 15,9 | 12.0 |
| 8 | Y40108-72 | 3/4-16 | 11,1 | 57,2 | 22,2 | 19 | 14.5 |
| 10 | Y40110-72 | 7/8-14 | 13,1 | 63,2 | 25,4 | 22,2 | 16.3 |
| 12 | Y40112-72 | 1.1/16-12 | 14,3 | 73,4 | 31,7 | 28,6 | 17.3 |

90° ELBOW

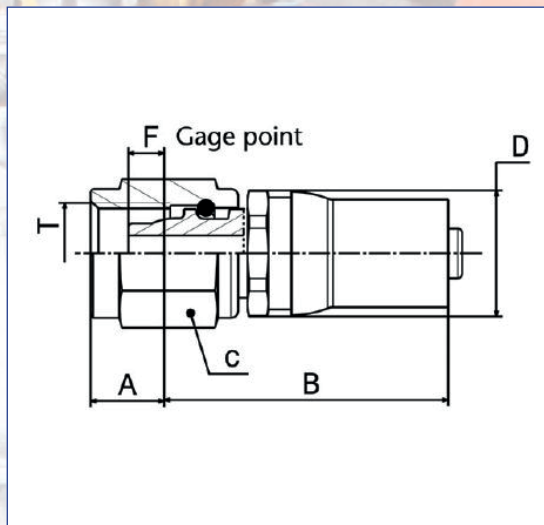


| Hose | Fitting Part Number | Thread (in) | A mm | B mm | C mm | D mm | E mm |
|------|---------------------|-------------|------|------|------|------|------|
| 4 | Y40204-72 | 7/16-20 | 9,4 | 37,1 | 14,3 | 12,7 | 16.3 |
| 6 | Y40206-72 | 9/16-18 | 9,5 | 45 | 17,5 | 15,9 | 22.6 |
| 8 | Y40208-72 | 3/4-16 | 11,1 | 49 | 22,2 | 19 | 28.1 |
| 10 | Y40210-72 | 7/8-14 | 13,1 | 59,4 | 25,4 | 22,2 | 32.5 |
| 12 | Y40212-72 | 1.1/16-12 | 14,3 | 68,3 | 31,7 | 28,6 | 35.7 |

R160

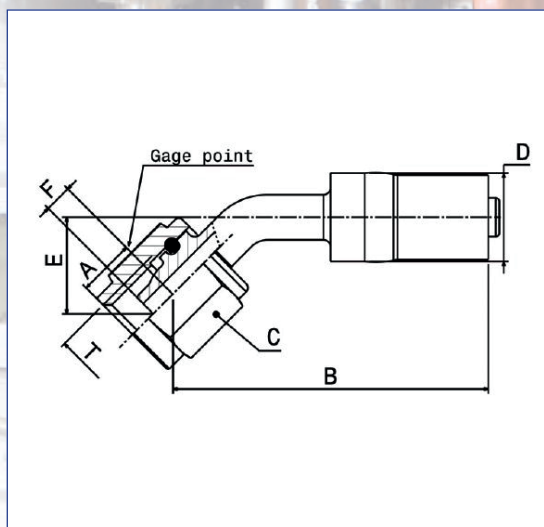
Flareless Imperial Hose Fittings NAS1760

STRAIGHT



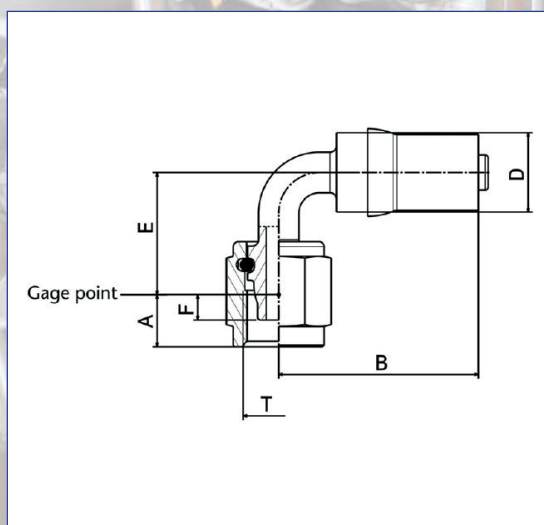
| Hose | Fitting Part Number | Thread (in) | A mm | B mm | C mm | D mm | E mm |
|------|---------------------|-------------|------|------|------|------|------|
| 4 | Y40404-72 | 7/16-20 | 9,4 | 33 | 14,3 | 13,9 | 3,94 |
| 6 | Y40406-72 | 9/16-18 | 9,5 | 37,2 | 17,5 | 17,4 | 4,17 |
| 8 | Y40408-72 | 3/4-16 | 11,1 | 40,8 | 22,2 | 20,5 | 4,80 |
| 10 | Y40410-72 | 7/8-14 | 13,1 | 42,4 | 25,4 | 23,6 | 5,11 |
| 12 | Y40412-72 | 1.1/16-12 | 14,3 | 48,4 | 31,7 | 30,3 | 5,79 |

45° ELBOW



| Hose | Fitting Part Number | Thread (in) | A mm | B mm | C mm | D mm | E mm |
|------|---------------------|-------------|------|------|------|------|------|
| 4 | Y40504-72 | 7/16-20 | 6,7 | 42,3 | 16 | 12,7 | 2,79 |
| 6 | Y40506-72 | 9/16-18 | 8,5 | 49,3 | 21 | 15,9 | 2,95 |
| 8 | Y40508-72 | 3/4-16 | 9,2 | 51 | 22 | 19 | 3,38 |
| 10 | Y40510-72 | 7/8-14 | 8,9 | 53,7 | 27 | 22,2 | 3,63 |
| 12 | Y40512-72 | 1.1/16-12 | 9,1 | 63,2 | 32 | 28,6 | 4,11 |

90° ELBOW



| Hose | Fitting Part Number | Thread (in) | A mm | B mm | C mm | D mm | E mm |
|------|---------------------|-------------|------|-------|------|------|------|
| 4 | Y40604-72 | 7/16-20 | 8,1 | 31,11 | 14,3 | 12,7 | 3,94 |
| 6 | Y40606-72 | 9/16-18 | 8,3 | 40,07 | 17,5 | 15,9 | 4,17 |
| 8 | Y40608-72 | 3/4-16 | 9,3 | 47,27 | 22,2 | 19 | 4,80 |
| 10 | Y40610-72 | 7/8-14 | 10 | 58,07 | 25,4 | 22,2 | 5,11 |
| 12 | Y40612-72 | 1.1/16-12 | 10,7 | 65,92 | 31,7 | 28,6 | 5,79 |

Fittings of other dimensions and/or standards (GOST, OST, DIN, MON) on request.



R267

Medium Pressure Hose 70 bars / 1000 PSI Convuluted

Specification approvals:

SAE AS620

ISO 7313

TSO C53a Type A for lubrication and fuel application

TSO C75 Type IIA-S/P for Hydraulic application

TSO C53a Type C, TSO C75 Type IIA-S/P-F & AS1055 Type Ila & Type I Ib, Class A & B Class A & B for overmolded hose assemblies RM267, RF267

Titeflex R267 is low-pressure PTFE hose for specialized aerospace applications.

The hose consists of convoluted (tape wrap) PTFE innercore, reinforced with a single layer of CRES 304 wire braid. The convoluted innercore enables R267 hose assemblies to bend to a tighter bend radius, with less force, than smoothbore PTFE hose of similar diameter. Standard fittings are CRES.

Operating pressures range from 1000 PSI (69 Bar) for the smaller diameters to 250 PSI (17 Bar) in the larger diameters.

Fire protection per AS1055 Class A & is assured in form of RF267 hose.

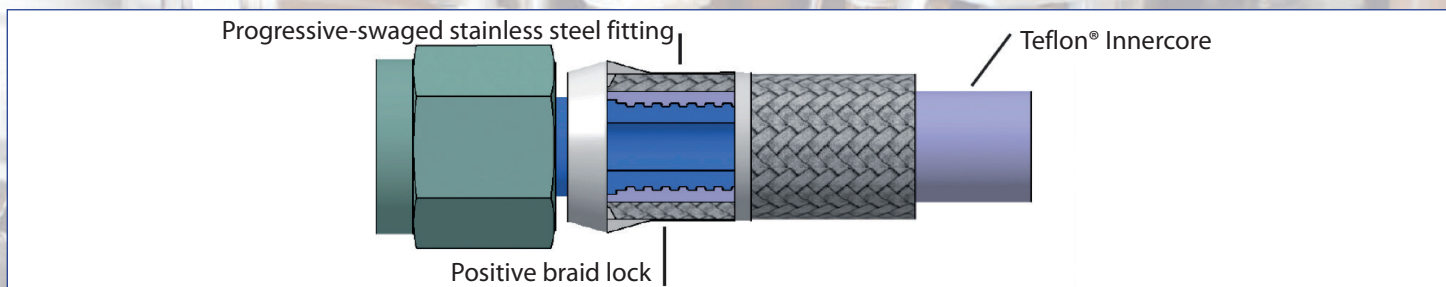
Chafe resistant hoses are available as RP267 – see next page.

Hose construction

Innercore : It consists of tapes wound around a helical matrix. The first layer is a tape of carbon-charged Teflon®. The addition of a carbon charge offers good electrical conductivity. The second tape is thicker and consists solely of Teflon®. Finally, the last tape consists of a silk fabric mixed with Teflon®. The Teflon® is a PTFE (polytetrafluoroethylene), whose main characteristics are excellent resistance to chemicals, the ability to be used over a temperature range between -54°C and +204°C and an unlimited shelf-life.

Armour : the innercore is reinforced by a braid consisting of type 304 stainless steel wire. The armour consists of a single braid which, when combined with a convoluted innercore, offers a good compromise between pressure strength, light weight and flexibility.

The fittings are progressively swaged to the hose. The fittings (insert, nut and collar) are made of stainless steel. The catalogue provides the connection definitions linked to the most widely used standards, although THT Ostrava CZ is specialized in the design of special fittings or fittings meeting other standards.



| HOSE SIZE | OPERATING PRESSURE bar | HOSE ID (MIN) mm | HOSE OD (MIN) mm | HOSE OD (MAX) mm | HOSE WEIGHT/1/ g/m | BEND RADIUS (MIN)/2/ mm | PROOF PRESSURE bar | NEGATIVE PRESSURE mm/Hg | ROOM BURST PRESSURE (MIN) bar |
|-----------|------------------------|------------------|------------------|------------------|--------------------|-------------------------|--------------------|-------------------------|-------------------------------|
| 10 | 69 | 15.7 | 21.2 | 22 | 327 | 76.2 | 138 | 711 | 241 |
| 12 | 69 | 19.9 | 26.5 | 27.3 | 402 | 95.3 | 138 | 711 | 241 |
| 16 | 69 | 25.4 | 32 | 33 | 536 | 127 | 138 | 558 | 241 |
| 20 | 69 | 31.5 | 38.4 | 39.2 | 716 | 158.8 | 138 | 406 | 241 |
| 24 | 52 | 38.1 | 44.8 | 45.7 | 908 | 190.5 | 103 | 305 | 207 |
| 32 | 17 | 50.4 | 58 | 59.1 | 1 444 | 254 | 34 | 217 | 69 |

NOTE:
/1/ Over minimum 300 mm length
/2/ Inside of bend

Hose of size -16 to -24 on request

R267

Medium Pressure Hose 70 bars / 1000 PSI Convuluted

RP267 – Chafe resistant medium pressure hose

RP integral sleeve consists of polyester yarns directly braided on the hose, which provides excellent cohesion with the outer braid.

Main characteristics:

- Provides one of the best antiwear protections.
- Resists to solvents, fuels, hydraulic fluids, aeronautic anti corrosion paints and cleaning detergents.
- Provides even diameter when fastening.
- Operating temperature: - 54°C +150°C.
- Resists to aging.
- Fire retardant, does not drip.
- Does not affect hose flexibility.

RF267 (RM267) - Fire resistant medium pressure hose

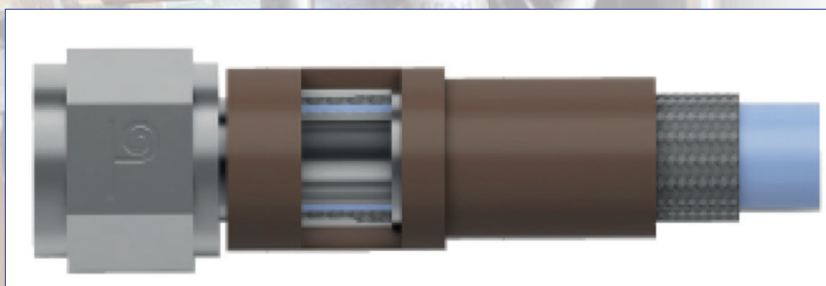
The RF267, RM267 fire proof over-molded hoses consists from the extrusion of a silicone composite on the R267 hose. Sleeve corresponds to an FAA and AS 1055 standard. These hoses are qualified according to the most stringent criteria of TSO-C53, TSO-C75 and AS1055 which require 15 minutes resistance to fire with a flow rate of 1 x I.D.² (GPM) *).

Innovative assembly technology: The silicone layer of type RF hose is separated from the hose and peeled back. Then, when crimping and final check are completed, it is stuck back on the hose with the swaging collar previously coated with silicone.

The silicone sleeve, type RM can be removed from the hose in the crimping area, then when crimping and final check are completed, the stripped area is covered with an over-molded silicone sleeve.

Main characteristics:

- Provides constant and stable diameter for coupling fastening.
- Light weight.
- Acts as vibration dampener.
- Adherence to the hose provides even bending and sustained flexibility.
- Operating temperature : - 54°C to +204°C.
- Good resistance to fluids.
- Non age sensitive.



Hose specifications R267/RP267/RF267

| HOSE SIZE | HOSE PART NUMBER | OD Max mm | WT g/m | OD Cuff mm | Length Cuff mm |
|-----------|------------------|-----------|--------|------------|----------------|
| 10 | R267 | 21,97 | 327 | | |
| | RP267 | 24,00 | 387 | | |
| | RF267 | 30,58 | 744 | 32,8 | 31,8 |
| 12 | R267 | 27,31 | 402 | | |
| | RP267 | 29,46 | 469 | | |
| | RF267 | 35,33 | 893 | 40,6 | 35,6 |
| 16 | R267 | 33,02 | 536 | | |
| | RP267 | 35,13 | 624 | | |
| | RF267 | 38,96 | 1027 | 43,4 | 38,1 |

| HOSE SIZE | HOSE PART NUMBER | OD Max mm | WT g/m | OD Cuff mm | Length Cuff mm |
|-----------|------------------|-----------|--------|------------|----------------|
| 20 | R267 | 39,17 | 716 | | |
| | RP267 | 41,33 | 813 | | |
| | RF267 | 44,86 | 1250 | 49,8 | 44,5 |
| 24 | R267 | 45,72 | 908 | | |
| | RP267 | 48,90 | 1031 | | |
| | RF267 | 51,21 | 1458 | 57,4 | 50,8 |
| 32 | R267 | 59,06 | 1444 | | |
| | RP267 | 61,09 | 1589 | | |
| | RM267 | 65,13 | 2232 | 66,3 | 73,0 |

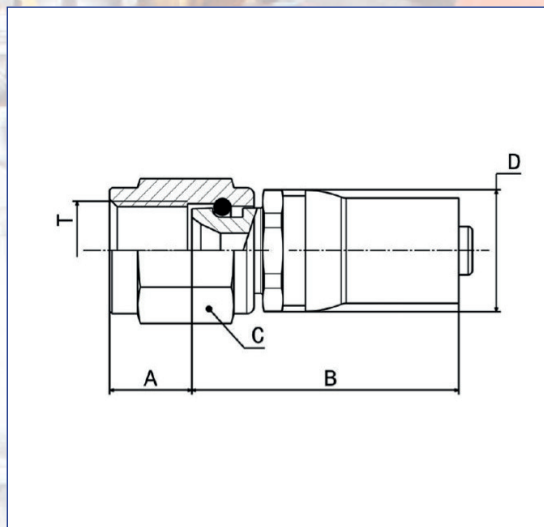
THT Ostrava CZ produces R267 hose assemblies with various fittings. Some examples are on the following pages. Fittings of other dimensions and/or standards (GOST, OST, DIN, MON) are available on request.

*) G.P.M. : Gallon per minute.

R267

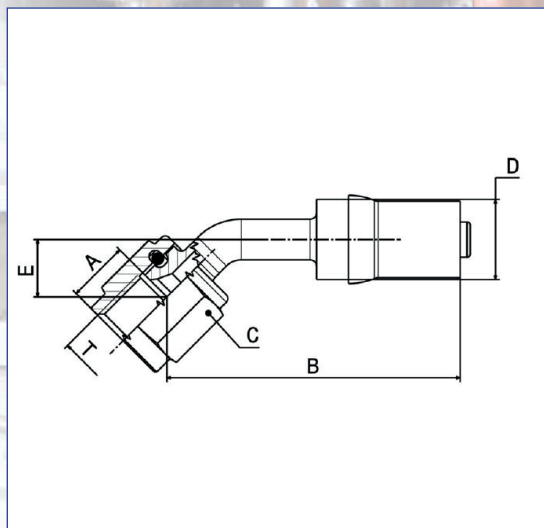
37° - JIC Metric Hose Fittings

STRAIGHT



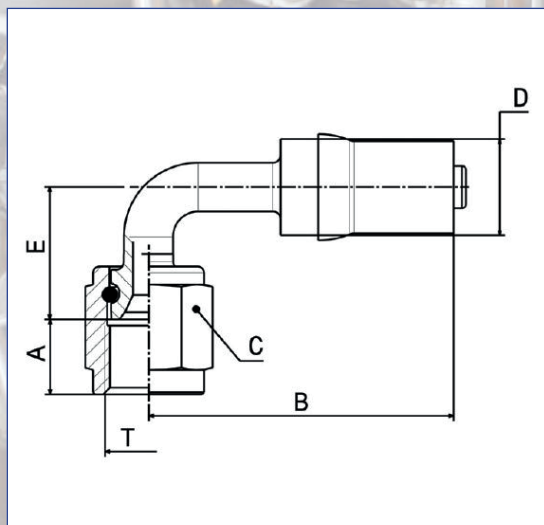
| Hose | Fitting Part Number | Thread (mm) | A mm | B mm | C mm | D mm | E mm |
|------|---------------------|-------------|------|------|------|------|------|
| 10 | R17851 | M24x1,5 | 12,7 | 40 | 30 | 29,7 | N/A |
| | R17856 | M27x1,5 | 14,3 | 42 | 32 | 32 | N/A |
| 12 | R17853 | M27x1,5 | 14,3 | 44 | 32 | 35 | N/A |
| | R17854 | M28x1,5 | 14,3 | 44 | 32 | 35 | N/A |
| | R17852 | M33x2 | 15,2 | 45 | 38 | 39,6 | N/A |
| 16 | R18262 | M28x1,5 | 14,3 | 45 | 32 | 38 | N/A |
| | R17855 | M30x1,5 | 15 | 45 | 36 | 38 | N/A |
| | R17857 | M33x2 | 15,2 | 45 | 38 | 41,8 | N/A |
| | R17861 | M39x2 | 15,7 | 46 | 46 | 45 | N/A |
| 20 | R17859 | M39x2 | 15,7 | 58,3 | 46 | 45 | N/A |
| 24 | R17860 | M48x2 | 19,4 | 58,3 | 54 | 58 | N/A |

45° ELBOW



| Hose | Fitting Part Number | Thread (mm) | A mm | B mm | C mm | D mm | E mm |
|------|---------------------|-------------|------|------|------|------|------|
| 10 | R17836 | M24x1,5 | 12,7 | 61,5 | 30 | 24,1 | 16,3 |
| | R17841 | M27x1,5 | 14,3 | 61,5 | 32 | 24,1 | 17,2 |
| 12 | R17837 | M33x2 | 15,2 | 70,4 | 38 | 32,5 | 18,6 |
| 16 | R17842 | M33x2 | 15,2 | 77,5 | 38 | 37,3 | 22 |
| 20 | R19395-20 | M39x2 | 15,7 | | 46 | 43,2 | 25 |
| 24 | R19395-24 | M48x2 | 19,4 | | 54 | 50,8 | 27 |

90° ELBOW



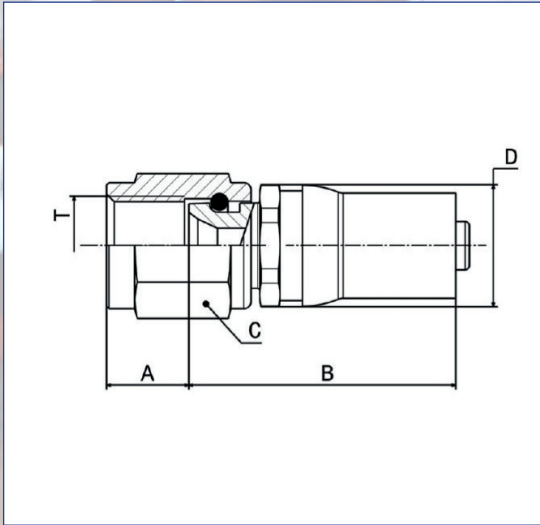
| Hose | Fitting Part Number | Thread (mm) | A mm | B mm | C mm | D mm | E mm |
|------|---------------------|-------------|------|------|------|------|------|
| 10 | R17835 | M24x1,5 | 12,7 | 50,8 | 30 | 24,1 | 32,5 |
| | R18319 | M27x1,5 | 14,3 | 50,8 | 32 | 24,1 | 35,7 |
| 12 | R17834 | M27x1,5 | 14,3 | 64,3 | 32 | 32,5 | 35,7 |
| | R17838 | M33x2 | 15,2 | 64,3 | 38 | 32,5 | 37,5 |
| 16 | R17845 | M33x2 | 15,2 | 72,9 | 38 | 37,3 | 48 |
| 20 | R19397-20 | M39x2 | 15,7 | | 46 | 43,2 | 53,8 |
| 24 | R19397-24 | M48x2 | 19,4 | | 54 | 50,8 | 60,5 |

Fittings of other dimensions and/or standards (GOST, OST, DIN, MON) on request.

R267

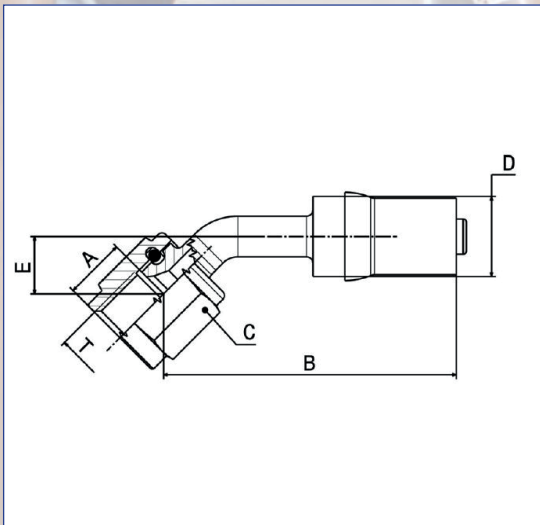
38° - AS1708 Imperial Hose Fittings

STRAIGHT



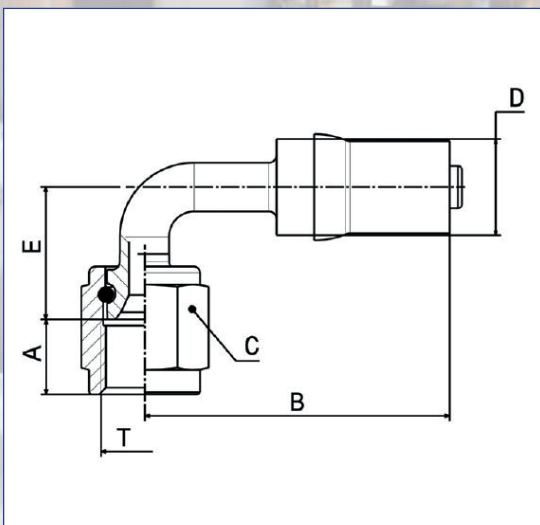
| Hose | Fitting Part Number | Thread (in) | A mm | B mm | C mm | D mm | E mm |
|------|---------------------|-------------|------|------|------|------|------|
| 10 | Y40010-39 | .8750-14 | 13.1 | 40.1 | 25.4 | 24.1 | N/A |
| 12 | Y40012-39 | 1.0625-12 | 14.3 | 44.2 | 31.8 | 32.5 | N/A |
| 16 | Y40016-39 | 1.3125-12 | 15.7 | 45.5 | 38.1 | 37.3 | N/A |
| 20 | Y40020-25 | 1.6250-12 | 15.7 | 58.3 | 46.0 | 43.2 | N/A |
| 24 | Y40024-25 | 1.8750-12 | 19.4 | 58.3 | 54.0 | 50.8 | N/A |
| 32 | Y40032-25 | 2.5000-12 | 23.8 | 75.4 | 69.9 | 64.0 | N/A |

45° ELBOW



| Hose | Fitting Part Number | Thread (in) | A mm | B mm | C mm | D mm | E mm |
|------|---------------------|-------------|------|-------|------|------|------|
| 10 | Y40110-39 | .8750-14 | 13.1 | 61.5 | 25.4 | 24.1 | 16.3 |
| 12 | Y40112-39 | 1.0625-12 | 14.3 | 70.4 | 31.8 | 32.5 | 17.3 |
| 16 | Y40116-39 | 1.3125-12 | 15.7 | 77.5 | 38.1 | 37.3 | 20.1 |
| 20 | Y40120-25 | 1.6250-12 | 15.7 | 91.6 | 46.0 | 43.2 | 23.6 |
| 24 | Y40124-25 | 1.8750-12 | 19.4 | 100.2 | 54.0 | 50.8 | 26.7 |
| 32 | Y40132-25 | 2.5000-12 | 23.8 | 123.1 | 69.9 | 65.0 | 33.4 |

90° ELBOW



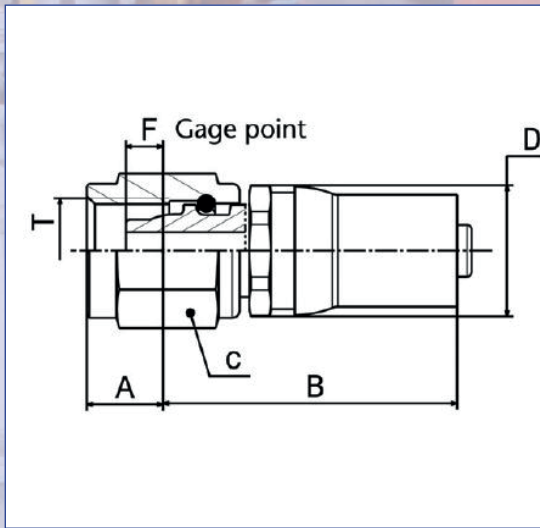
| Hose | Fitting Part Number | Thread (in) | A mm | B mm | C mm | D mm | E mm |
|------|---------------------|-------------|------|-------|------|------|------|
| 10 | Y40210-39 | .8750-14 | 13.1 | 50.8 | 25.4 | 24.1 | 32.5 |
| 12 | Y40212-39 | 1.0625-12 | 14.3 | 64.3 | 31.8 | 32.5 | 35.7 |
| 16 | Y40216-39 | 1.3125-12 | 15.7 | 72.9 | 38.1 | 37.3 | 43.4 |
| 20 | Y40220-39 | 1.6250-12 | 15.7 | 86.2 | 46.0 | 43.2 | 51.9 |
| 24 | Y40224-39 | 1.8750-12 | 19.4 | 92.8 | 54.0 | 50.8 | 60.0 |
| 32 | Y40232-39 | 2.5000-12 | 23.8 | 119.1 | 69.9 | 64.9 | 77.0 |

R267

Flareless Imperial Hose Fittings NAS1760

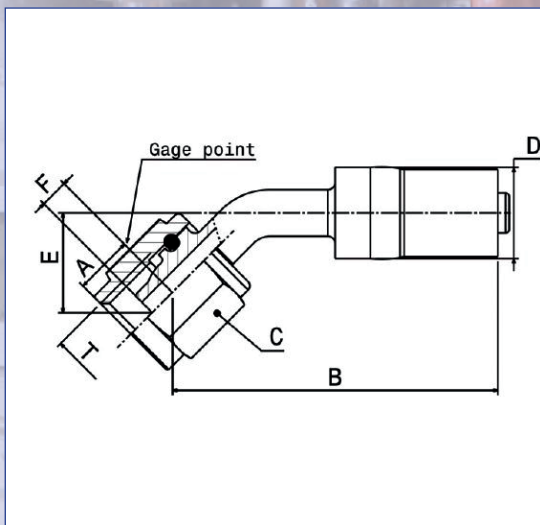
STRAIGHT

Mates with AS33514/AS33515 AND AS4375/AS4377



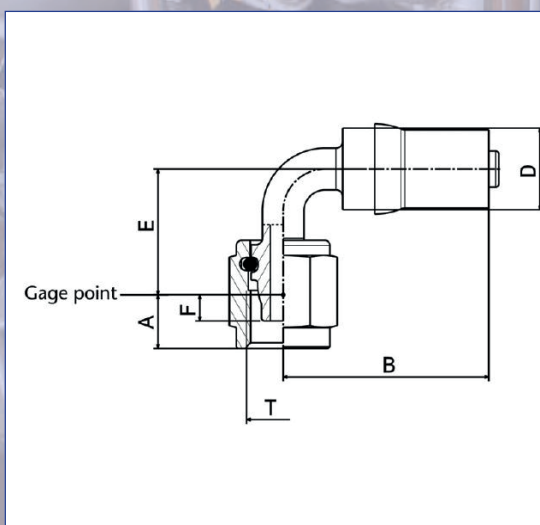
| Hose | Fitting Part Number | Thread (in) | A mm | B mm | C mm | D mm | E mm |
|------|---------------------|-------------|------|------|------|------|------|
| 10 | Y40410-30 | .8750-14 | 10.1 | 43.4 | 25.4 | 24.1 | NA |
| 12 | Y40412-30 | 1.0625-12 | 10.7 | 48.0 | 31.8 | 32.5 | NA |
| 16 | Y40416-30 | 1.3125-12 | 10.8 | 50.8 | 38.1 | 37.3 | NA |
| 20 | Y40420-30 | 1.6250-12 | 11.5 | 62.9 | 46.0 | 43.2 | NA |
| 24 | Y40424-30 | 1.8750-12 | 11.4 | 66.7 | 54.0 | 50.8 | NA |
| 32 | Y40432-30 | 2.5000-12 | 7.9 | 82.8 | 69.9 | * | NA |

45° ELBOW



| Hose | Fitting Part Number | Thread (in) | A mm | B mm | C mm | D mm | E mm |
|------|---------------------|-------------|------|-------|------|------|------|
| 10 | Y40510-30 | .8750-14 | 10.1 | 64.5 | 25.4 | 24.1 | 18.7 |
| 12 | Y40512-30 | 1.0625-12 | 10.7 | 72.9 | 31.8 | 32.5 | 18.7 |
| 16 | Y40516-30 | 1.3125-12 | 10.8 | 81.0 | 38.1 | 37.3 | 23.8 |
| 20 | Y40520-30 | 1.6250-12 | 11.5 | 94.0 | 46.0 | 43.2 | 26.7 |
| 24 | Y40524-30 | 1.8750-12 | 11.4 | 102.4 | 54.0 | 50.8 | 32.4 |

90° ELBOW



| Hose | Fitting Part Number | Thread (in) | A mm | B mm | C mm | D mm | E mm |
|------|---------------------|-------------|------|------|------|------|------|
| 10 | Y40610-30 | .8750-14 | 10.1 | 55.6 | 25.4 | 24.1 | 35.8 |
| 12 | Y40612-30 | 1.0625-12 | 10.7 | 66.3 | 31.8 | 32.5 | 37.7 |
| 16 | Y40616-30 | 1.3125-12 | 10.8 | 77.0 | 38.1 | 37.3 | 48.6 |
| 20 | Y40620-30 | 1.6250-12 | 11.5 | 86.4 | 46.0 | 43.2 | 56.4 |
| 24 | Y40624-30 | 1.8750-12 | 11.4 | 93.0 | 54.0 | 50.8 | 68.3 |

Fittings of other dimensions and/or standards (GOST, OST, DIN, MON) on request.



R101

Medium Pressure Hose 105 bar / 1500 PSI

Specification approvals:

MIL-DTL-25579

SAE AS1946

MIL-DTL-27267

MS8005 & MS8006

TSO C53a for lubrication and fuel application

TSO C75 for hydraulic application

AS1055 Type IIa & Type IIb, Class A & B for

hose assemblies TERM101 & RF101.

A medium pressure aerospace hose assembly qualified to AS1946 and MIL-DTL- 25579. The hose consists of an extruded smoothbore PTFE innercore, reinforced with CRES 304 wire braid in a single layer on sizes 04 - 12, and a double layer (Z) on sizes 16 - 24. Operating pressures range from 1500 PSI (104 Bar) in the small diameters to 1000 PSI (69 Bar) in the largest diameters. Titeflex also offers a special small diameter not listed in AS1946: size -03. PTFE provides excellent chemical resistance over a temperature range of -54°C to +232°C with an unlimited shelf life.

Standard fittings are CRES.

Fire protection per AS1055 Class A & B is assured in form of TERM101 hose.

Chafe resistant hose are available as RP101 hose – see next page.

Hose construction

Innercore: It consists of extruded Teflon® powder charged with carbon. The addition of a carbon charge before extrusion offers good electrical conductivity. The Teflon® is a PTFE (polytetrafluoroethylene), whose main characteristics are excellent resistance to chemicals, the ability to be used over a temperature range between -54°C and +232°C and an unlimited shelf-life.

Armour : The innercore is reinforced by a braid consisting of type 304 stainless steel wire. For the ND 4 (-2 1/2) to ND 20 (-12) the armour consists of a single braid, while for the ND 25 (-16) to ND 40 (-24) it consists of a double braid (reference followed by the letter Z).

The fittings are swaged to the hose by a progressive swaging method. The fittings (insert, nut and collar) are made of stainless steel. The catalogue provides the connection definitions linked to the most widely used standards, although THT Ostrava CZ is specialized in the design of special fittings or fittings meeting other standards.



| HOSE SIZE | OPERATING PRESSURE bar | HOSE ID (min) mm | HOSE OD (min) mm | HOSE OD (max) mm | HOSE WEIGHT/1/ g/m | BEND RADIUS (min)/2/ mm | PROOF PRESSURE bar | NEGATIVE PRESSURE mm/Hg | ROOM BURST PRESSURE (min) bar | HIGH TEMP BURST (min) bar |
|-----------|------------------------|------------------|------------------|------------------|--------------------|-------------------------|--------------------|-------------------------|-------------------------------|---------------------------|
| 3 | 103 | 2.79 | 5.9 | 7.2 | 89 | 51 | 207 | 711 | 827 | 483 |
| 4 | 103 | 4.8 | 7.7 | 8.7 | 125 | 51 | 207 | 711 | 827 | 483 |
| 5 | 103 | 5.97 | 9.3 | 10.3 | 143 | 51 | 207 | 711 | 689 | 448 |
| 6 | 103 | 7.87 | 11.2 | 11.91 | 179 | 102 | 207 | 711 | 621 | 448 |
| 8 | 103 | 9.93 | 13.9 | 14.86 | 232 | 117 | 207 | 711 | 552 | 414 |
| 10 | 103 | 12.32 | 16.3 | 17.45 | 304 | 140 | 207 | 711 | 483 | 379 |
| 12 | 69 | 15.62 | 19.5 | 20.62 | 353 | 165 | 138 | 508 | 345 | 241 |

NOTE:

/1/ Over minimum 300 mm length

/2/ Inside of bend

Hose size -16 to -24 on request

R101

Medium Pressure Hose 105 bar / 1500 PSI

RP101 – Chafe resistant medium pressure hose

RP integral sleeve consists of polyester yarns directly braided on the hose, which provides excellent cohesion with the outer braid.

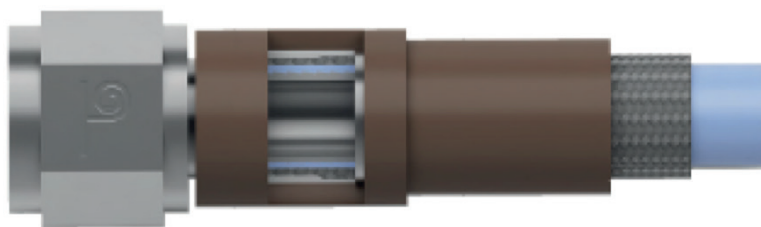
Main characteristics:

- Provides one of the best antiwear protections.
- Resists to solvents, fuels, hydraulic fluids, aeronautic anti corrosion paints and cleaning detergents.
- Provides even diameter when fastening.
- Operating temperature: - 54°C +150°C.
- Resists to aging.
- Fire retardant, does not drip.
- Does not affect hose flexibility.

TERM101 - Fire resistant medium pressure hose

The TERM101 fire proof over-molded hoses consists from the extrusion of a silicone composite on the R101 hose. Sleeve corresponds to an FAA and AS 1055 standard. These hoses are qualified according to the most stringent criteria of TSO-C53, TSO-C75 and AS1055 which require 15 minutes resistance to fire with a flow rate of 1 x I.D.² (GPM) *).

Innovative assembly technology: The silicone layer of type TERM hose is separated from the hose and peeled back. Then, when crimping and final check are completed, it is stuck back on the hose with the swaging collar previously coated with silicone.



Main characteristics:

- Provides constant and stable diameter for coupling fastening.
- Light weight.
- Acts as vibration dampener.
- Adherence to the hose provides even bending and sustained flexibility.
- Operating temperature : - 54°C to +232°C.
- Good resistance to fluids.
- Non age sensitive.

Hose specifications R101/RP101/TERM101

| HOSE SIZE | HOSE PART NUMBER | OD Max mm | WT g/m | OD Cuff mm | Length Cuff mm |
|-----------|------------------|-----------|--------|------------|----------------|
| 4 | R101 | 8,7 | 125 | | |
| | RP101 | 10,9 | 144 | | |
| | TERM101 | 16,3 | 274 | 18,5 | 20,1 |
| 5 | R101 | 10,3 | 143 | | |
| | RP101 | 12,7 | 153 | | |
| | TERM101 | 17,9 | 318 | 20,6 | 22,3 |
| 6 | R101 | 11,91 | 179 | | |
| | RP101 | 14,2 | 189 | | |
| | TERM101 | 19,5 | 372 | 22,9 | 23,9 |

| HOSE SIZE | HOSE PART NUMBER | OD Max mm | WT g/m | OD Cuff mm | Length Cuff mm |
|-----------|------------------|-----------|--------|------------|----------------|
| 8 | R101 | 14,86 | 232 | | |
| | RP101 | 16,9 | 253 | | |
| | TERM101 | 22,6 | 475 | 25,9 | 26,4 |
| 10 | R101 | 17,45 | 304 | | |
| | RP101 | 19,6 | 320 | | |
| | TERM101 | 25,8 | 606 | 29,5 | 27,9 |
| 12 | R101 | 20,62 | 353 | | |
| | RP101 | 22,5 | 406 | | |
| | TERM101 | 29,0 | 729 | 33,3 | 32,3 |

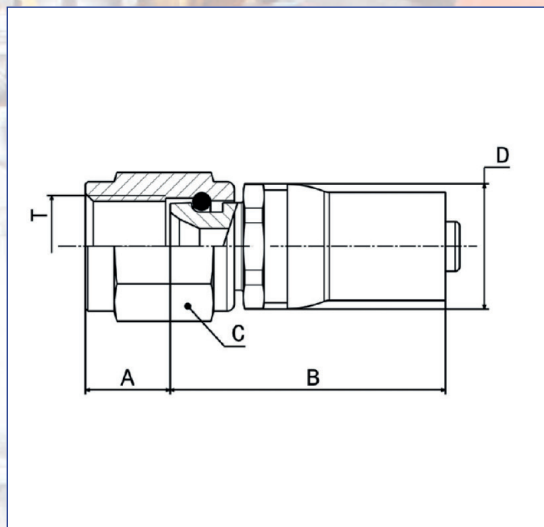
THT Ostrava CZ produces R101 hose assemblies with various fittings. Some examples are on the following pages. Fittings of other dimensions and/or standards (GOST, OST, DIN, MON) are available on request.

*) G.P.M. : Gallon per minute.

R101

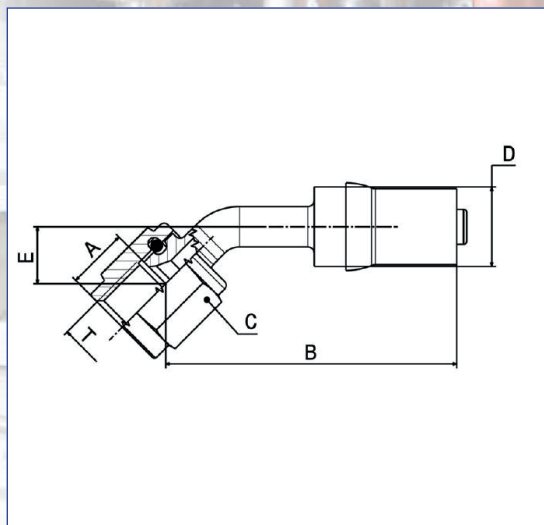
38° - AS1708 Imperial Hose Fittings

STRAIGHT



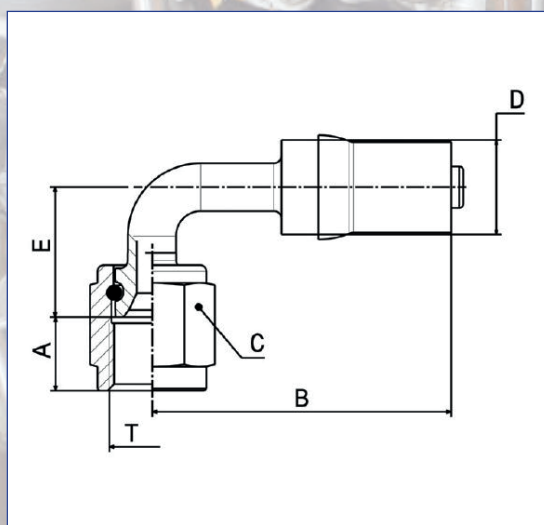
| Hose | Fitting Part Number | Thread (in) | A mm | B mm | C mm | D mm | E mm |
|------|---------------------|-------------|------|------|------|------|------|
| 04 | Y40004-50 | .4375-20 | 9.4 | 28.3 | 14.3 | 14.0 | N/A |
| 05 | Y40005-50 | .5000-20 | 9.5 | 29.8 | 15.9 | 16.0 | N/A |
| 06 | Y40006-9 | .5625-18 | 9.5 | 33.3 | 17.5 | 17.8 | N/A |
| 08 | Y40008-9 | .7500-16 | 11.1 | 37.3 | 22.2 | 21.1 | N/A |
| 10 | Y40010-9 | .8750-14 | 13.1 | 39.9 | 25.4 | 24.6 | N/A |
| 12 | Y40012-9 | 1.0625-12 | 14.3 | 43.9 | 31.8 | 29.7 | N/A |

45° ELBOW



| Hose | Fitting Part Number | Thread (in) | A mm | B mm | C mm | D mm | E mm |
|------|---------------------|-------------|------|------|------|------|------|
| 04 | Y40104-50 | .4375-20 | 9.4 | 35.7 | 14.3 | 14.0 | 8.8 |
| 05 | Y40105-50 | .5000-20 | 9.5 | 40.0 | 15.9 | 16.0 | 10.5 |
| 06 | Y40106-12 | .5625-18 | 9.5 | 48.0 | 17.5 | 17.8 | 12.0 |
| 08 | Y40108-12 | .7500-16 | 11.1 | 55.6 | 22.2 | 21.1 | 14.5 |
| 10 | Y40110-12 | .8750-14 | 13.1 | 61.2 | 25.4 | 24.6 | 16.3 |
| 12 | Y40112-12 | 1.0625-12 | 14.3 | 69.9 | 31.8 | 29.7 | 17.3 |

90° ELBOW



| Hose | Fitting Part Number | Thread (in) | A mm | B mm | C mm | D mm | E mm |
|------|---------------------|-------------|------|------|------|------|------|
| 04 | Y40204-50 | .4375-20 | 9.4 | 32.1 | 14.3 | 14.0 | 16.3 |
| 05 | Y40205-50 | .5000-20 | 9.5 | 33.5 | 15.9 | 16.0 | 19.6 |
| 06 | Y40206-12 | .5625-18 | 9.5 | 41.4 | 17.5 | 17.8 | 21.9 |
| 08 | Y40208-12 | .7500-16 | 11.1 | 48.0 | 22.2 | 21.1 | 26.3 |
| 10 | Y40210-12 | .8750-14 | 13.1 | 52.3 | 25.4 | 24.6 | 32.5 |
| 12 | Y40212-12 | 1.0625-12 | 14.3 | 64.0 | 31.8 | 29.7 | 35.7 |

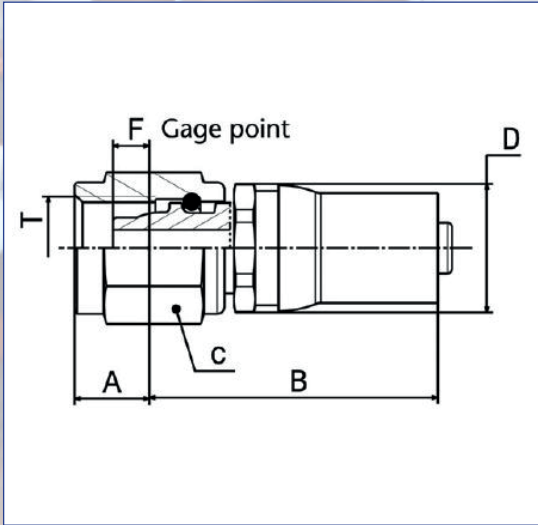
Fittings of other dimensions and/or standards (GOST, OST, DIN, MON) on request.

R101

Flareless Imperial Hose Fittings NAS1760

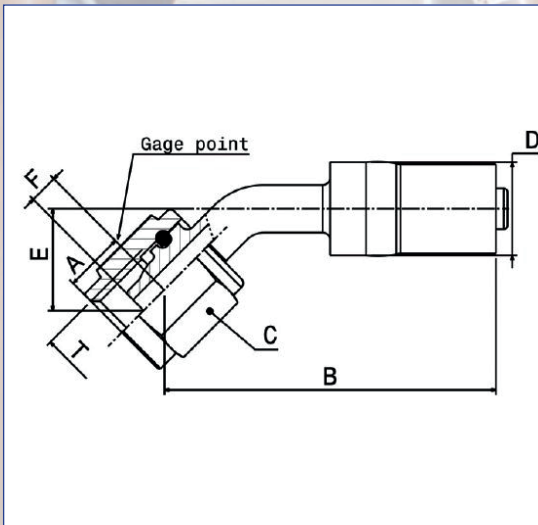
Mates with AS33514/AS33515 AND AS4375/AS4377

STRAIGHT



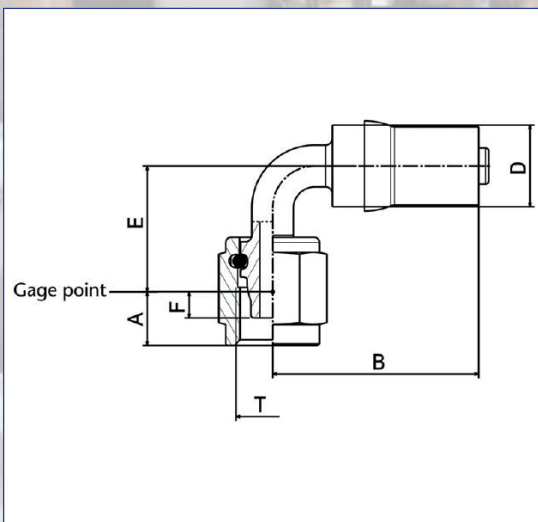
| Hose | Fitting Part Number | Thread (in) | A mm | B mm | C mm | D mm | E mm |
|------|---------------------|-------------|------|------|------|------|------|
| 04 | Y40404-50 | .4375-20 | 8.1 | 29.6 | 14.3 | 14.0 | N/A |
| 05 | Y40405-50 | .5000-20 | 7.9 | 31.2 | 15.9 | 16.0 | N/A |
| 06 | Y40406-15 | .5625-18 | 8.3 | 34.5 | 17.5 | 17.8 | N/A |
| 08 | Y40408-15 | .7500-16 | 9.3 | 39.4 | 22.2 | 21.1 | N/A |
| 10 | Y40410-15 | .8750-14 | 10.1 | 43.2 | 25.4 | 24.6 | N/A |
| 12 | Y40412-15 | 1.0625-12 | 10.7 | 47.8 | 31.8 | 29.7 | N/A |

45° ELBOW



| Hose | Fitting Part Number | Thread (in) | A mm | B mm | C mm | D mm | E mm |
|------|---------------------|-------------|------|------|------|------|------|
| 04 | Y40504-50 | .4375-20 | 8.1 | 40.3 | 14.3 | 14.0 | 10.6 |
| 05 | Y40505-50 | .5000-20 | 7.9 | 41.1 | 15.9 | 16.0 | 11.7 |
| 06 | Y40506-15 | .5625-18 | 8.3 | 51.6 | 17.5 | 17.8 | 13.8 |
| 08 | Y40508-15 | .7500-16 | 9.3 | 57.4 | 22.2 | 21.1 | 15.3 |
| 10 | Y40510-15 | .8750-14 | 10.1 | 66.0 | 25.4 | 24.6 | 18.7 |
| 12 | Y40512-15 | 1.0625-12 | 10.7 | 74.7 | 31.8 | 29.7 | 18.7 |

90° ELBOW



| Hose | Fitting Part Number | Thread (in) | A mm | B mm | C mm | D mm | E mm |
|------|---------------------|-------------|------|------|------|------|------|
| 04 | Y40604-50 | .4375-20 | 8.1 | 30.6 | 14.3 | 14.0 | 18.9 |
| 05 | Y40605-50 | .5000-20 | 7.9 | 33.5 | 15.9 | 16.0 | 21.3 |
| 06 | Y40606-15 | .5625-18 | 8.3 | 43.2 | 17.5 | 17.8 | 25.3 |
| 08 | Y40608-15 | .7500-16 | 9.3 | 49.5 | 22.2 | 21.1 | 29.2 |
| 10 | Y40610-15 | .8750-14 | 10.1 | 57.4 | 25.4 | 24.6 | 35.8 |
| 12 | Y40612-15 | 1.0625-12 | 10.7 | 67.3 | 31.8 | 29.7 | 37.7 |

R270

Low Pressure 21 bar Hose / 300 PSI Convuluted

Specification approvals:

AS1227 class 2

Compatible with FDA requirements for use with drinkable water systems

Complies with FAA requirements for cab equipment

Titeflex R270 low-pressure PTFE hose with non-metallic braid for specialized aerospace applications. The hose consists of convoluted (tape wrap) PTFE innercore, similar to the R270 hose, except the R270 is reinforced with a braid of Nomex® instead of CRES. This construction provides an exceptionally tight bend radius, and light weight. Standard fittings are aluminum. Operating pressures range from 300 PSI (21 Bar) in the smaller diameters to 200 PSI (14 Bar) in the larger diameters. Fire protection is available with AS1055 Class A slip-on AS1072 firesleeve. Popular applications for the R270 hoses include breathing oxygen, and electronic cooling fluids.

Hose construction

Innercore: It consists of tapes wound around a helical matrix. The first layer is a tape of carbon-charged Teflon®. The addition of a carbon charge offers good electrical conductivity. The second tape is thicker and consists solely of Teflon®. Finally, the last tape consists of a silk fabric mixed with Teflon®. The Teflon® is a PTFE (polytetrafluoroethylene), whose main characteristics are excellent resistance to chemicals, the ability to be used over a temperature range between -54°C and +135°, and an unlimited shelf-life.

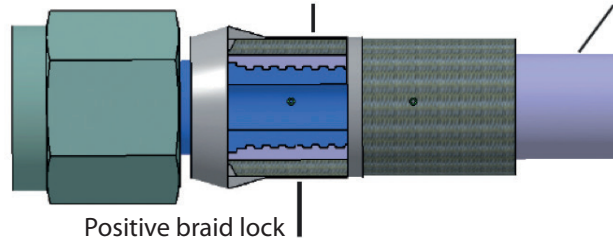
Armour : The innercore is reinforced by a braid consisting of green Nomex® nylon fibres. The armour consists of a single braid which, when it is combined with a convoluted innercore, offers a good compromise between a very light weight and a good flexibility.

The fittings are progressively swaged to the hose. The fittings (insert, nut and collar) are made either in stainless steel or aluminium alloy. The catalogue provides the connection definitions linked to the most widely used standards, although THT Ostrava CZ is specialized in the design of special fittings or fittings meeting other standards.



Progressive-swaged stainless steel fitting

Teflon® Innercore



Positive braid lock

| HOSE SIZE | OPERATING PRESSURE bar | HOSE ID (min) mm | HOSE OD (min) mm | HOSE OD (max) mm | HOSE WEIGHT/1/ g/m | BEND RADIUS (min)/2/ mm | PROOF PRESSURE bar | NEGATIVE PRESSURE mm/Hg | ROOM BURST PRESSURE (min) bar | HIGH TEMP BURST (min) bar |
|-----------|------------------------|------------------|------------------|------------------|--------------------|-------------------------|--------------------|-------------------------|-------------------------------|---------------------------|
| 4 | 21 | 7.1 | 11.2 | 11.8 | 67 | 12.7 | 41 | 711 | 83 | 63 |
| 6 | 21 | 9.2 | 13.7 | 14.5 | 91 | 19.1 | 41 | 711 | 83 | 63 |
| 8 | 17 | 13.2 | 18.8 | 19.6 | 185 | 25.4 | 34 | 711 | 69 | 52 |
| 10 | 17 | 15.4 | 21 | 21.8 | 202 | 38.1 | 34 | 711 | 69 | 52 |
| 12 | 14 | 19.6 | 26.8 | 27.7 | 274 | 50.8 | 28 | 711 | 55 | 41 |
| 16 | 14 | 25 | 32.3 | 33.3 | 357 | 76.2 | 28 | 217 | 55 | 41 |

NOTE:

/1/ Over minimum 300 mm length

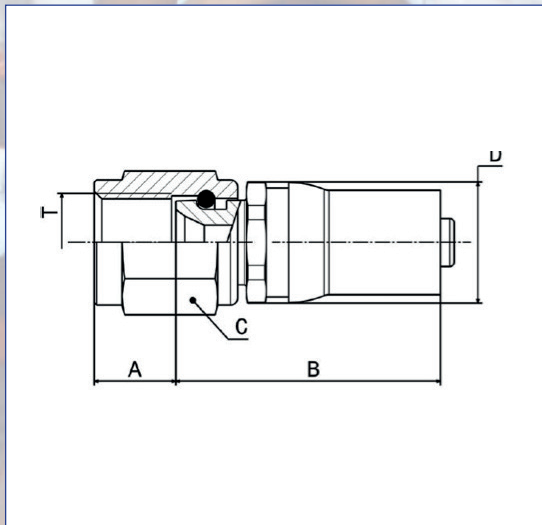
/2/ Inside of bend

Hose size -16 to -24 on request

R270

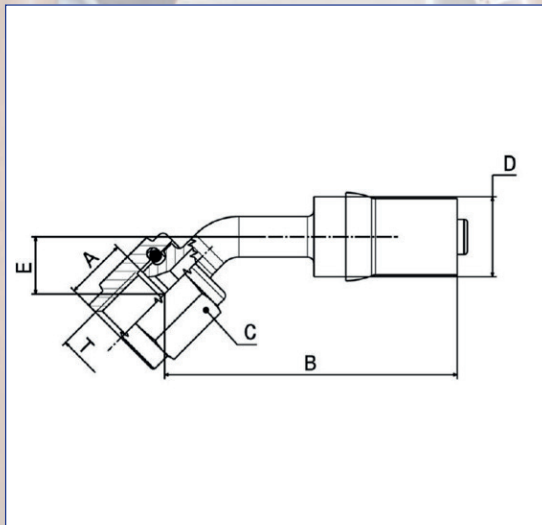
Low Pressure 21 bar Hose / 300 PSI Convuluted

STRAIGHT FLARED FITTINGS - MATES WITH AS33656 / AS4395 AND AS33657 / AS4396



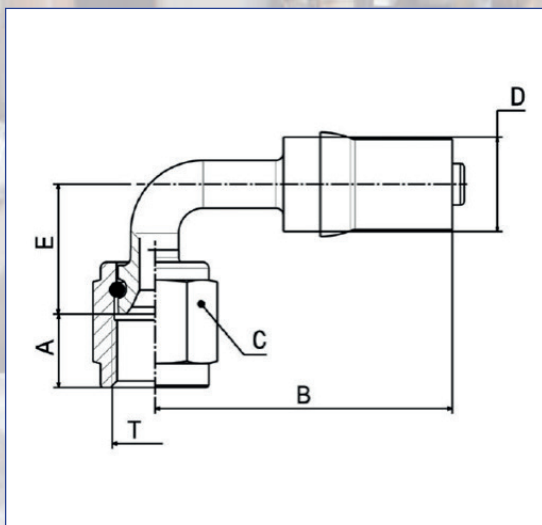
| Hose | Fitting Part Number | Thread (in) | A mm | B mm | C mm | D mm | E mm |
|------|---------------------|-------------|------|------|------|------|------|
| 04 | Y40004-39 | .4375-20 | 9.4 | 26.7 | 14.3 | 14.0 | N/A |
| 06 | Y40006-39 | .5625-18 | 9.5 | 32.5 | 17.5 | 16.5 | N/A |
| 08 | Y40008-39 | .7500-16 | 11.1 | 36.6 | 22.2 | 21.8 | N/A |
| 10 | Y40010-39 | .8750-14 | 13.1 | 40.1 | 25.4 | 24.1 | N/A |
| 12 | Y40012-39 | 1.0625-12 | 14.3 | 44.2 | 31.8 | 32.5 | N/A |
| 16 | Y40016-39 | 1.3125-12 | 15.7 | 45.5 | 38.1 | 37.3 | N/A |

45° ELBOW FLARED FITTINGS - MATES WITH AS33656 / AS4395 AND AS33657 / AS4396



| Hose | Fitting Part Number | Thread (in) | A mm | B mm | C mm | D mm | E mm |
|------|---------------------|-------------|------|------|------|------|------|
| 04 | Y40104-39 | .4375-20 | 9.4 | 36.6 | 14.3 | 14.0 | 8.8 |
| 06 | Y40106-39 | .5625-18 | 9.5 | 47.2 | 17.5 | 16.5 | 12.0 |
| 08 | Y40108-39 | .7500-16 | 11.1 | 55.4 | 22.2 | 21.8 | 14.5 |
| 10 | Y40110-39 | .8750-14 | 13.1 | 61.5 | 25.4 | 24.1 | 16.3 |
| 12 | Y40112-39 | 1.0625-12 | 14.3 | 70.4 | 31.8 | 32.5 | 17.3 |
| 16 | Y40116-39 | 1.3125-12 | 15.7 | 77.5 | 38.1 | 37.3 | 20.1 |

90° ELBOW FLARED FITTINGS - MATES WITH AS33656 / AS4395 AND AS33657 / AS4396



| Hose | Fitting Part Number | Thread (in) | A mm | B mm | C mm | D mm | E mm |
|------|---------------------|-------------|-------|------|------|------|------|
| 04 | Y40204-39 | .4375-20 | 9.4 | 31.5 | 14.3 | 14.0 | 16.3 |
| 06 | Y40206-39 | .5625-18 | 9.5 | 39.6 | 17.5 | 16.5 | 22.6 |
| 08 | Y40208-39 | .7500-16 | 11.1 | 47.0 | 22.2 | 21.8 | 28.1 |
| 10 | Y40210-39 | .8750-14 | 13.1 | 50.8 | 25.4 | 24.1 | 32.5 |
| 12 | Y40212-39 | 1.0625-12 | 14.3 | 64.3 | 31.8 | 32.5 | 35.7 |
| 16 | Y40216-39 | 1.3125-12 | 115.7 | 72.9 | 38.1 | 37.3 | 43.4 |

NOTE: Fittings of other dimensions and/or standards (GOST, OST, DIN, MON) on request.

R154

Ultra High Pressure Hose 280 bar / 4000 PSI

Specification approvals:

SAE AS614

AS4098

ISO 9938

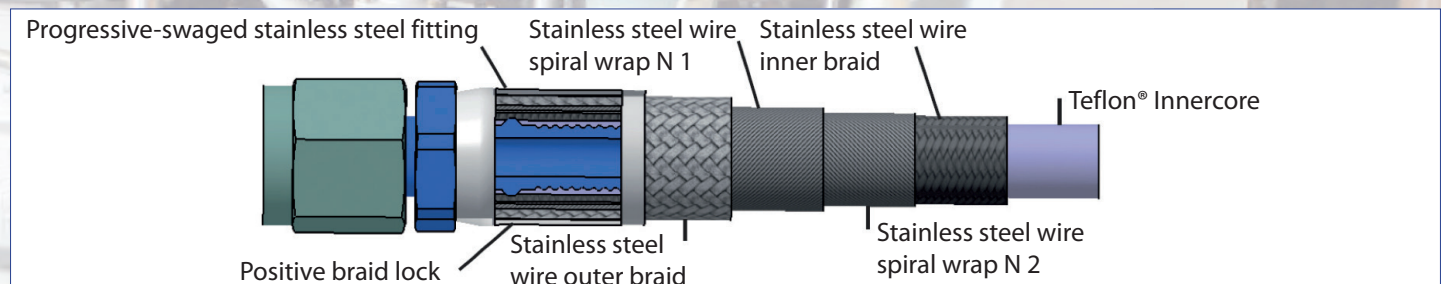
Titeflex R154 is a heavy duty 4000psi (276 bar) aerospace hose assembly qualified to AS614. The hose consists of an extruded smoothbore PTFE innercore, reinforced with multiple layers of CRES 304 wire braid. The PTFE innercore is conductive and provides excellent chemical resistance through a temperature range of -54°C to +204°C with unlimited shelf life. The rugged R154 hose is especially suited to applications with significant impulsing, and outputs from hydraulic or pneumatic pumps. Standard fittings are CRES. Fire protection per AS1055 Class A & B can be either integral, or slip-on AS1072 firesleeve. Chafe sleeves are available in a variety of integral or slip-on materials.

Hose construction

Innercore : It consists of extruded Teflon® powder charged with carbon. The addition of a carbon charge before extrusion offers good electrical conductivity. The Teflon® is a PTFE (polytetrafluoroethylene), whose main characteristics are excellent resistance to chemicals, the ability to be used over a temperature range between -54°C and +204°C, and an unlimited shelf-life.

Armour : the innercore is reinforced by several braids consisting of type 304 stainless steel controlled tension wires. For the ND 6 (-4) and ND 10 (-06) the armour consists of a first braid then of two superimposed coiled braids and of a last braid. For the ND 12 (-08) to ND 25 (-16) the armour consists of a first braid then four superimposed coiled braids and a last braid.

The fittings are swaged to the hose using a progressive swaging method. The fittings are made of stainless steel (insert, nut and collar); regarding titanium fittings (insert and titanium nut, stainless steel collar) please call our technical department. The catalogue provides the connection definitions linked to the most widely used standards, although THT Ostrava CZ is specialised in the design of special fittings or fittings meeting other standards.



| HOSE SIZE | OPERATING PRESSURE bar | HOSE ID (min) mm | HOSE OD (min) mm | HOSE OD (max) mm | HOSE WEIGHT/1/ g/m | BEND RADIUS (min)/1/ mm | PROOF PRESSURE bar | NEGATIVE PRESSURE mm/Hg | ROOM BURST PRESSURE (min) bar | HIGH TEMP BURST (min) bar |
|-----------|------------------------|------------------|------------------|------------------|--------------------|-------------------------|--------------------|-------------------------|-------------------------------|---------------------------|
| 4 | 276 | 5.4 | 11.4 | 12.6 | 393 | 76.2 | 552 | 1 103 | 827 | 276 |
| 6 | 276 | 7.6 | 14.1 | 15.7 | 661 | 127 | 552 | 1 120 | 827 | 276 |
| 8 | 276 | 9.9 | 18.3 | 20.8 | 804 | 146.1 | 552 | 1 103 | 827 | 276 |
| 10 | 276 | 12.3 | 21.6 | 24.1 | 1 250 | 165.1 | 552 | 1 103 | 827 | 276 |
| 12 | 276 | 15.3 | 26.2 | 27.9 | 1 875 | 196.9 | 552 | 1 103 | 827 | 276 |
| 16 | 276 | 21.6 | 30.7 | 36.1 | 3 036 | 244.5 | 552 | 1 103 | 827 | 276 |
| 20 | 276 | 28 | 41.7 | 42.7 | 3 530 | 305 | 552 | 1 103 | 827 | 276 |

NOTE:

/1/ Over minimum 300 mm length

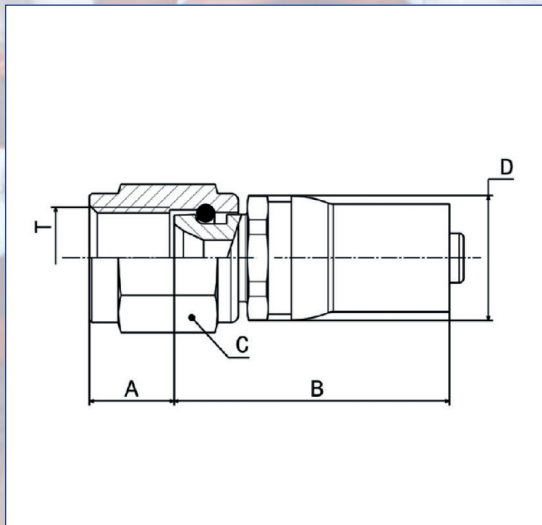
/2/ Inside of bend

NOTE: Hoses R154 are manufactured in cooperation with Titeflex Europe

R154

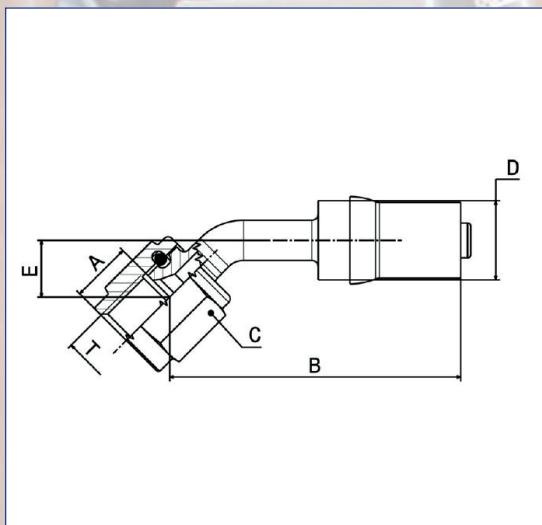
Ultra High Pressure Hose 280 bar / 4000 PSI

STRAIGHT FLARED FITTINGS - MATES WITH AS33656 / AS4395 AND AS33657 / AS4396



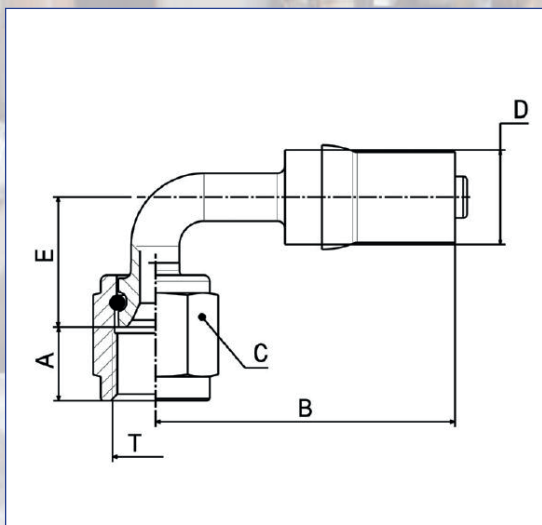
| Hose | Fitting Part Number | Thread (in) | A mm | B mm | C mm | D mm | E mm |
|------|---------------------|-------------|------|------|------|------|------|
| 04 | Y40004-42 | .4375-20 | 9.4 | 35.2 | 14.3 | 22.2 | N/A |
| 06 | Y40006-42 | .5625-18 | 9.5 | 37.1 | 17.5 | 25.4 | N/A |
| 08 | Y40008-42 | .7500-16 | 11.1 | 46.0 | 22.2 | 30.5 | N/A |
| 10 | Y40010-42 | .8750-14 | 13.1 | 57.7 | 25.4 | 35.7 | N/A |
| 12 | Y40012-42 | 1.0625-12 | 14.3 | 58.9 | 31.8 | 42.8 | N/A |
| 16 | Y40016-42 | 1.3125-12 | 15.7 | 66.3 | 38.1 | 50.8 | N/A |
| 20 | Y40020-42 | 1.6250-12 | 15.7 | 80.0 | 46.0 | 54.0 | N/A |

45° ELBOW FLARED FITTINGS - MATES WITH AS33656 / AS4395 AND AS33657 / AS4396



| Hose | Fitting Part Number | Thread (in) | A mm | B mm | C mm | D mm | E mm |
|------|---------------------|-------------|------|-------|------|------|------|
| 04 | Y40104-42 | .4375-20 | 9.4 | 47.6 | 14.3 | 22.2 | 8.8 |
| 06 | Y40106-42 | .5625-18 | 9.5 | 52.2 | 17.5 | 25.4 | 12.0 |
| 08 | Y40108-42 | .7500-16 | 11.1 | 64.1 | 22.2 | 30.5 | 14.5 |
| 10 | Y40110-42 | .8750-14 | 13.1 | 81.3 | 25.4 | 35.7 | 16.3 |
| 12 | Y40112-42 | 1.0625-12 | 14.3 | 87.6 | 31.8 | 42.8 | 17.3 |
| 16 | Y40116-42 | 1.3125-12 | 15.7 | 98.3 | 38.1 | 50.8 | 20.1 |
| 20 | Y40120-42 | 1.6250-12 | 15.7 | 113.3 | 46.0 | 54.0 | 23.5 |

90° ELBOW FLARED FITTINGS - MATES WITH AS33656 / AS4395 AND AS33657 / AS4396



| Hose | Fitting Part Number | Thread (in) | A mm | B mm | C mm | D mm | E mm |
|------|---------------------|-------------|------|-------|------|------|------|
| 04 | Y40204-42 | .4375-20 | 9.4 | 41.7 | 14.3 | 22.2 | 16.3 |
| 06 | Y40206-42 | .5625-18 | 9.5 | 45.5 | 17.5 | 25.4 | 22.6 |
| 08 | Y40208-42 | .7500-16 | 11.1 | 56.4 | 22.2 | 30.5 | 28.1 |
| 10 | Y40210-42 | .8750-14 | 13.1 | 73.7 | 25.4 | 35.7 | 32.5 |
| 12 | Y40212-42 | 1.0625-12 | 14.3 | 79.6 | 31.8 | 42.8 | 35.7 |
| 16 | Y40216-42 | 1.3125-12 | 15.7 | 91.3 | 38.1 | 50.8 | 46.6 |
| 20 | Y40220-42 | 1.6250-12 | 15.7 | 109.5 | 46.0 | 54.0 | 55.8 |

NOTE: 1) Fittings of other dimensions and/or standards (GOST, OST, DIN, MON) on request.

2) Hoses R154 are manufactured in cooperation with Titeflex Europe

SA500

Ultra high Pressure Hose 350 bar / 5000 PSI

Specification approvals:

AS5951

AS1975

AS1339

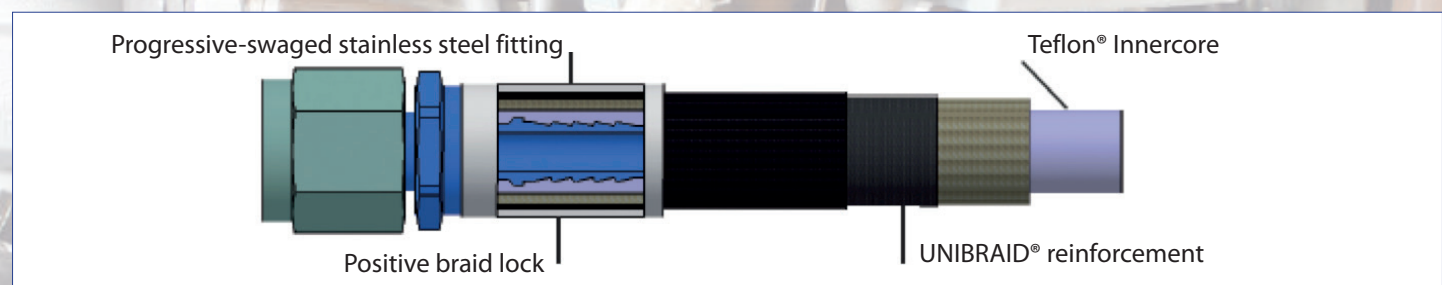
SA500 hose: lightweight 350 Bar non-metallic aerospace hose qualified to AS5951. The hose consists of an extruded smoothbore conductive PTFE innercore, reinforced with Kevlar® para-aramid braid and covered by an integral Cordura® chafe sleeve. Standard fittings are titanium, however CRES fittings are also available. PTFE provides excellent chemical resistance and unlimited shelf life. The SA500 is ideal for weight-critical 207 Bar applications within the temperature range of -54°C to +135°C. Fire protection is available per AS1055 Class A with slip-on AS1072 firesleeve. Hybrid assemblies combining flex hose with multi-bend tube are a Titeflex specialty and provide improved vibration dampening, ease of installation, and maintenance over strictly rigid tube.

Hose construction

Innercore : It consists of extruded Teflon® powder charged with carbon. The addition of a carbon charge before extrusion offers good electrical conductivity. The Teflon® is a PTFE (polytetrafluoroethylene), whose main characteristics are excellent resistance to chemicals, the ability to be used over a temperature range between -54°C and +135°C, and an unlimited shelf-life.

Armour : The innercore is reinforced by several layers of braid comprising controlled tension Kevlar® fibres. In order to protect the Kevlar® from chemical and ultraviolet attack, a Teflon® tape is wrapped around it. A final braid consisting of controlled tension Cordura® Fibres offers the hose excellent abrasion resistance.

The fittings are swaged to the hose using a progressive radial swaging method (also called crimping). There are two fitting families. The hose equipped with titanium alloy fittings (titanium insert, nut, hexagonal ring, stainless steel crimping collar) was developed and tested to comply with the requirements of standards AS1975 and AS5951. The hose equipped with stainless steel fittings (stainless steel insert, nut, hexagonal ring and crimping collar) was developed and tested to comply with the requirements of standards AS1339, AS1975 and AS 5951 (except for impulse testing with torsion). The catalogue provides the connection definitions linked to the most widely used standards, although Titeflex is specialized in the design of special fittings or fittings meeting other standards.



| HOSE SIZE | OPERATING PRESSURE bar | HOSE ID (min) mm | HOSE OD (min) mm | HOSE OD (max) mm | HOSE WEIGHT/1/ g/m | BEND RADIUS (min)/2/ mm | PROOF PRESSURE bar | NEGATIVE PRESSURE mm/Hg | ROOM BURST PRESSURE (min) bar | HIGH TEMP BURST (min) bar |
|-----------|------------------------|------------------|------------------|------------------|--------------------|-------------------------|--------------------|-------------------------|-------------------------------|---------------------------|
| 4 | 350 | 5.38 | 11.18 | 12.19 | 113 | 38.1 | 701 | 1 401 | 1 051 | 350 |
| 6 | 350 | 7.57 | 13.34 | 14.35 | 161 | 63.5 | 701 | 1 401 | 1 051 | 350 |
| 8 | 350 | 9.93 | 19.05 | 23.5 | 357 | 73.2 | 701 | 1 401 | 1 051 | 350 |
| 10 | 350 | 12.45 | 21.72 | 22.73 | 363 | 82.6 | 701 | 1 401 | 1 051 | 350 |
| 12 | 350 | 15.29 | 24.89 | 29.97 | 572 | 101.6 | 701 | 1 401 | 1 051 | 350 |

NOTE:

/1/ Over minimum 300 mm length

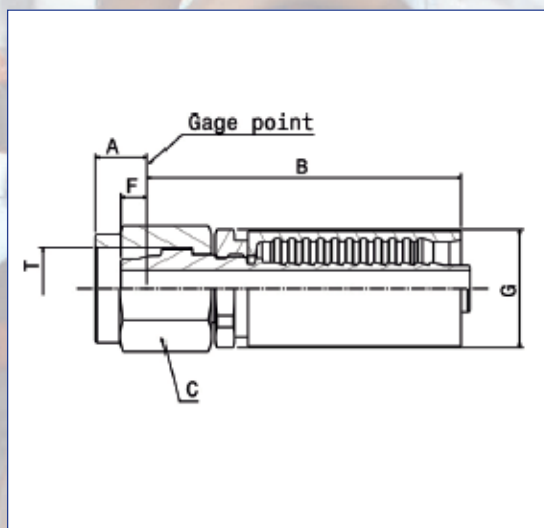
/2/ Inside of bend

NOTE: Hoses SA500 are manufactured in cooperation with Titeflex Europe

SA500

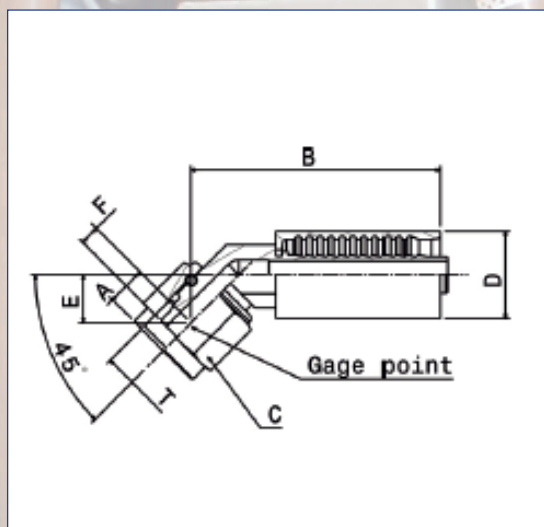
Ultra high Pressure Hose 350 bar / 5000 PSI

STRAIGHT FLARELESS FITTINGS - MATES WITH AS5827



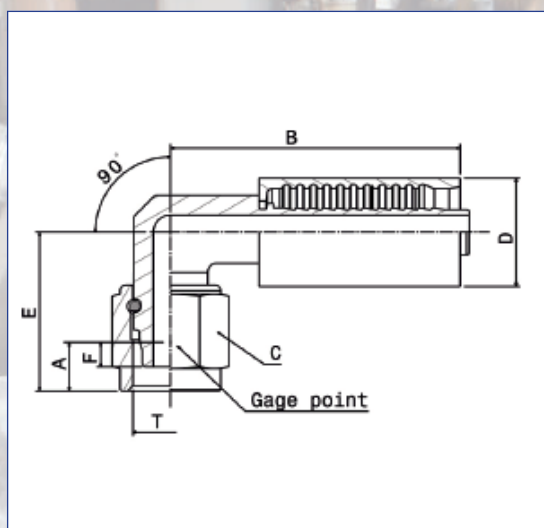
| Hose | Fitting Part Number | Thread (in) | A mm | B mm | C mm | D mm | E mm |
|------|---------------------|-------------|------|-------|------|------|------|
| 04 | Y40404-35 | .4375-20 | 8.1 | 48.8 | 14.2 | 0.0 | N/A |
| 06 | Y40406-35 | .5625-18 | 8.3 | 54.9 | 17.5 | 0.0 | N/A |
| 08 | Y40408-35 | .7500-16 | 9.3 | 63.8 | 22.4 | 0.0 | N/A |
| 10 | Y40410-35 | .8750-14 | 10.1 | 78.5 | 25.4 | 0.0 | N/A |
| 12 | Y40412-35 | 1.0625-12 | 10.7 | 102.6 | 31.8 | 0.0 | N/A |

45° ELBOW FLARELESS FITTINGS - MATES WITH AS5827



| Hose | Fitting Part Number | Thread (in) | A mm | B mm | C mm | D mm | E mm |
|------|---------------------|-------------|------|-------|------|------|------|
| 04 | Y40404-35 | .4375-20 | 8.1 | 60.2 | 14.2 | * | 10.0 |
| 06 | Y40406-35 | .5625-18 | 8.3 | 64.8 | 17.5 | * | 11.0 |
| 08 | Y40408-35 | .7500-16 | 9.3 | 74.2 | 22.4 | * | 14.0 |
| 10 | Y40410-35 | .8750-14 | 10.1 | 89.7 | 25.4 | * | 14.4 |
| 12 | Y40412-35 | 1.0625-12 | 10.7 | 116.8 | 31.8 | * | 17.4 |

90° ELBOW FLARELESS FITTINGS - MATES WITH AS5827



| Hose | Fitting Part Number | Thread (in) | A mm | B mm | C mm | D mm | E mm |
|------|---------------------|-------------|------|------|------|------|------|
| 04 | Y40504-35 | .4375-20 | 8.1 | 38.9 | 14.2 | * | 20.4 |
| 06 | Y40506-35 | .5625-18 | 8.3 | 43.7 | 17.5 | * | 22.2 |
| 08 | Y40508-35 | .7500-16 | 9.3 | 49.3 | 22.4 | * | 26.8 |
| 10 | Y40510-35 | .8750-14 | 10.1 | 62.7 | 25.4 | * | 31.5 |
| 12 | Y40512-35 | 1.0625-12 | 10.7 | 82.8 | 31.8 | * | 34.5 |

NOTE: 1) Fittings of other dimensions and/or standards (GOST, OST, DIN, MON) on request.

2) Hoses R154 are manufactured in cooperation with Titeflex Europe

Industrial PTFE Hoses

ADVANTAGES OF PTFE

- Chemical Resistant – PTFE creates a virtually universal hose which handles the broadest range of media.
- Temperature Resistant – From cryogenics to steam all in one hose.
- Low Friction – Low pressure drop because deposits do not accumulate on the innercore. Easy to clean permitting use of one hose for several services.
- Flexible – Withstands continuous flexing and vibration without failure from flex fatigue.
- Moisture Resistant – Ideal for pneumatic systems requiring low dew point functionality.
- Chemically Inert – Will not break down or deteriorate in service.
- Non-Aging – Unlimited shelf life because properties do not change with age or exposure to weather.

Hoses feature PTFE which provides the following physical characteristics:

- Tensile strength 3,500 psi
- Elongation 250% min
- Dielectric strength 1,000 volts per mil
- Softening point 260°C

PTFE FLUOROCARBON AS A HOSE MATERIAL

Polytetrafluoroethylene (PTFE) is an engineered fluoropolymer. Outstanding resistance to chemicals is one of its primary attributes. A broad temperature range -73°C to 260°C make this hose material suitable for the majority of fluid and ambient temperature conditions found in industry. An extremely low coefficient of friction, (0.05 to 0.20), provides a non-stick surface. Water absorption of PTFE is negligible, less than 0.01% by ASTM test. And, it is FDA-approved for food and pharmaceutical use.

TYPICAL TITFLEX HOSE APPLICATIONS

PTFE hoses are used throughout industry for process, transfer and hydraulic and pneumatic uses. Applications centering on the most demanding fluid transfer requirements, whether the media be corrosive, caustic or food grade, under extreme pressure, temperature and flexing conditions, are routinely handled and serviced by PTFE hoses;

They include:

| | | | |
|------------|----------------------|-------------------------|------------------|
| Chemicals | Automotive | Molten Plastics | Power Generation |
| Chlorine | Steel/Aluminum | Engines | Pumps |
| Hot Melt | Pulp & Paper | Tire Presses | Paints |
| Turbines | R.I.M. | Dehydrators | Food Processing |
| Buses | Trucks | Reverse Osmosis | Medical |
| Machinery | Hot Presses | Autoclaves | Pharmaceuticals |
| Waterblast | Compressed Gas | Packaging | Textiles Steam |
| Automotive | Ground Support /Test | High Performance Racing | |

EXAMPLES:

1. Steam hose. Convoluted hose assemblies (R276-20) handling steam and water alternately with a 12-15 minute thermal cycle on a hot press for lamination of thermoplastics materials.
2. Chlorine transfer hose. (S81816) Loading service conditions at about -70°F (-57°C) at psi's ranging from 70 to 135. These hoses replaced Monel metal hoses.
3. Air, fuel & oil hoses in buses. Of the many applications on a bus the majority are PTFE hose assemblies (R115 hose assemblies). Temperatures to 250°F and pressures to 450 psi.
4. Turbo machinery. Lube, oil, fuel, air and coolant, transfer lines.
5. Chlorine "repackaging". Titeflex S81808 (1/2") chlorine hose has been recommended by the Chlorine Institute as a replacement for copper tubing in filling chlorine cylinders because of its safety and versatility.
6. Gasses. Medium, high and extra high pressure assemblies for transfer of compressed gasses.

R115/R105 R122/R144 Conductive Smooth Bore Medium Pressure Industrial Hose

Applications:

- Compressed gas
- Fuel and lubricant handling
- Steam transfer
- Hydraulic systems

Temperature range:

- 54°C to 204°C for continuous service
- 73°C to 260°C for intermittent service

Consult THT Ostrava CZ for temperature adjusted pressure rating

Hose construction:

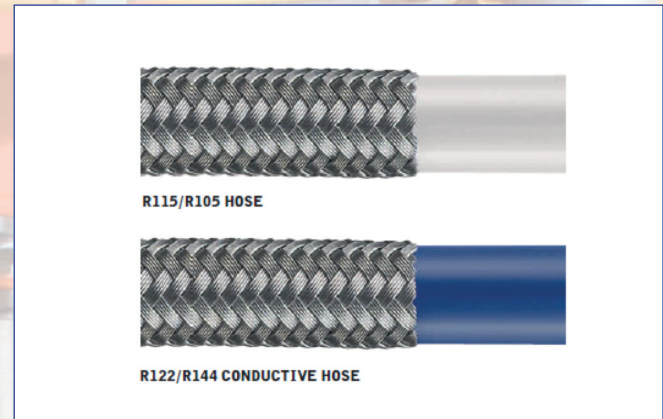
- Innercore vertically extruded to maintain highest quality of concentricity
- Manufactured from fine powder PTFE
- 304 stainless steel wire braid reinforcement
- A precisely controlled amount of carbon black added to the PTFE innercore provides a continuous conductive path to the metal end filling, to dissipate static electricity in fuel, steam, or high flow-rate applications (R122/R144 hose only) MEDIUM PRESSURE

Vacuum service:

- Sizes -4 through -10 are rated for full vacuum
- Larger sizes -12 and above can be reinforced with an internal support spring for full vacuum service

Applications centering on the transfer of fluids or gases under demanding conditions in harsh environments are opportunities for the user to realize the value of PTFE Hoses.

Innovative PTFE technology by Titeflex satisfies the demanding aerospace, automotive, and industrial applications. The driving force is Titeflex and THT Ostrava CZ commitment to safety, quality, value, and reliability. Modern quality production and customer satisfaction make Titeflex the leading PTFE hose producer.



R115 .030 WALL HOSE | R122 CONDUCTIVE HOSE

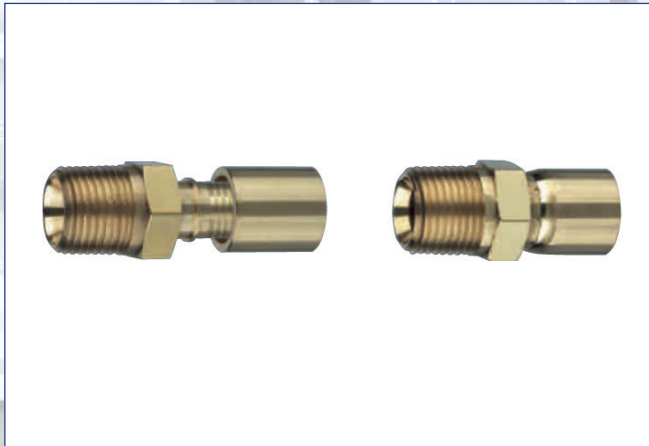
| HOSE PART NUMBER | NOMI NAL SIZE, I N. | AVERAG E I.O. | | AVERAGE O.D., I N. | OPERATI NG PRESSURE PSIA T ROOM TEMP. | BURST PRES-SURE PSIA T ROOM TEMP | MAXI MUM CONTINUO-US | MINI MUM LENGTH, FT. BEND | HOSE WEI-GHT LB. I FT. |
|-------------------|---------------------|---------------|------|--------------------|---------------------------------------|----------------------------------|----------------------|---------------------------|------------------------|
| | | in. | mm | | | | | | |
| R115 / R122-3 | 3/16 | .125 | 3.2 | .234 | 3,000 | 12,000 | 200 | 2.00 | .048 |
| R 115 / R122-4 | 1/4 | .187 | 4.8 | .312 | 3,000 | 12,000 | 200 | 2.00 | .058 |
| R115 / R122-5 | 5/16 | .250 | 6.4 | .375 | 3,000 | 12,000 | 250 | 3.00 | .078 |
| R115 / R122-6 | 3/8 | .312 | 7.9 | .445 | 2,500 | 10,000 | 150 | 4.00 | .098 |
| R115 / R122-6T* | 3/8 | .375 | 9.5 | .503 | 2,250 | 9,000 | 150 | 4.50 | .105 |
| R115 / R122-8 | 1/2 | .406 | 10.3 | .549 | 2,000 | 8,000 | 100 | 5.20 | .126 |
| R115 / R122-10 | 5/8 | .500 | 12.7 | .648 | 1,500 | 6,000 | 100 | 6.50 | .154 |
| R115 / R122-12 | 3/4 | .625 | 15.9 | .778 | 1,200 | 4,800 | 75 | 7.70 | .190 |
| R115 / R122-12T* | 3/4 | .755 | 19.1 | .886 | 1,100 | 4,400 | 75 | 8.20 | .211 |
| R115 / R122-16 | 1 | .875 | 22.2 | 1.030 | 1,000 | 4,000 | 60 | 9.00 | .280 |
| R115 / R 122-16T* | 1 | 1.000 | 25.4 | 1.135 | 900 | 3,600 | 60 | 10.00 | .322 |
| R115 / R122-16Z+ | 1 | .875 | 22.2 | 1.065 | 1,250 | 5,000 | 60 | 9.00 | .459 |
| R115 / R122-20 | 1-1/4 | 1.125 | 28.6 | 1.315 | 800 | 3,200 | 40 | 16.00 | .369 |

Consult factory for temperature-adjusted ratings. * True bore. + Double braid.

R115/R105 and R122/R144 Conductive Hose Fittings

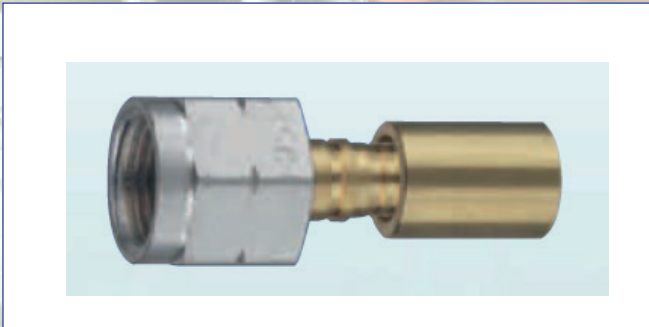
R105 .040 WALL HOSE | R144 CONDUCTIVE HOSE

| HOSE PART NUMBER | NOMINAL SIZE, IN. | AVERAGE I.O. | | AVERAGE O.D., IN. | OPERATING PRESSURE PSI AT ROOM TEMP. | BURST PRESSURE PSI AT ROOM TEMP. | MAXIMUM CONTINUOUS LENGTH, FT. | MINIMUM BEND | HOSE WEIGHT LB./FT. |
|------------------|-------------------|--------------|------|-------------------|--------------------------------------|----------------------------------|--------------------------------|--------------|---------------------|
| | | IN. | MM | | | | | | |
| R105 / R144-4 | 1/4 | .187 | 4.8 | .323 | 3,000 | 12,000 | 200 | 2.00 | .08 |
| R105 / R144-5 | 5/16 | .250 | 6.4 | .386 | 3,000 | 12,000 | 150 | 2.50 | .09 |
| R105 / R144-6 | 3/8 | .312 | 7.9 | .451 | 2,500 | 10,000 | 150 | 4.00 | .11 |
| R105 / R144-8 | 1/2 | .406 | 10.3 | .566 | 2,000 | 8,000 | 100 | 4.60 | .14 |
| R105 / R144-10 | 5/8 | .500 | 12.7 | .665 | 1,500 | 6,000 | 100 | 5.50 | .19 |
| R105 / R144-12 | 3/4 | .625 | 15.9 | .795 | 1,200 | 4,800 | 75 | 6.50 | .23 |
| R105 / R144-16 | 1 | .875 | 22.2 | 1.060 | 800 | 3,200 | 60 | 9.00 | .30 |



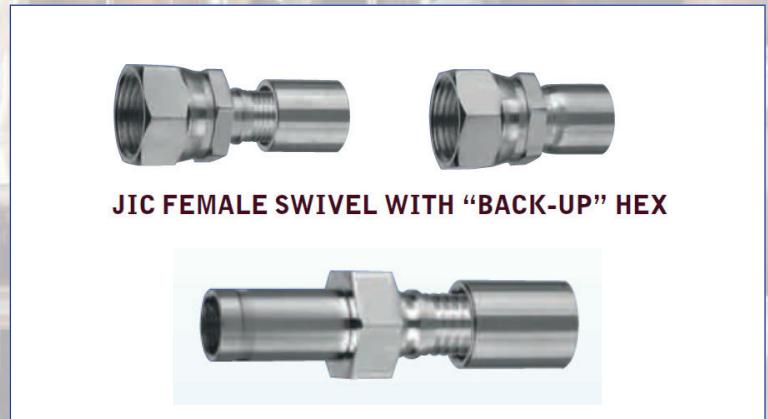
MALE PIPE

| PART NUMBER 1 PIECE FITTING | PART NUMBER 1 PIECE FITTING | SIZE IN. | THREAD | NOMINAL I.D. |
|-----------------------------|-----------------------------|----------|------------|--------------|
| Y54104T-xxx | Y54304T-xxx | 1/4 | 1/8 - 27 | .156 |
| Y54104-xxx | Y54304-xxx | 1/4 | 1/4 - 18 | .156 |
| Y54105-xxx | Y54305-xxx | 5/16 | 1/4 - 18 | .207 |
| Y54106T-xxx | Y54306T-xxx | 3/8 | 1/4 - 18 | .277 |
| Y54106-xxx | Y54306-xxx | 3/8 | 3/8 - 18 | .277 |
| Y54108T-xxx | Y54308T-xxx | 1/2 | 3/8 - 18 | .358 |
| Y54108-xxx | Y54308-xxx | 1/2 | 1/2 - 14 | .358 |
| Y54110-xxx | Y54310-xxx | 5/8 | 1/2 - 14 | .469 |
| Y54112-xxx | Y54312-xxx | 3/4 | 3/4 - 14 | .594 |
| Y54116-xxx | Y54316-xxx | 1 | 1 - 11-1/2 | .812 |



JIC FEMALE SWIVEL WITH 'BACK-UP' HEX

| PART NUMBER 1 PIECE FITTING | PART NUMBER 1 PIECE FITTING | SIZE IN. | THREAD | NOMINAL I.D. |
|-----------------------------|-----------------------------|----------|-------------|--------------|
| Y54004-xxx | Y54204-xxx | 1/4 | 7/16 - 20 | .156 |
| Y54005-xxx | Y54205-xxx | 5/16 | 1/2 - 20 | .207 |
| Y54006-xxx | Y54206-xxx | 3/8 | 9/16 - 18 | .277 |
| Y54008-xxx | Y54208-xxx | 1/2 | 3/4 - 16 | .358 |
| Y54010-xxx | Y54210-xxx | 5/8 | 7/8 - 14 | .469 |
| Y54012-xxx | Y54212-xxx | 3/4 | 1-1/16 - 12 | .594 |
| Y54016-xxx | Y54216-xxx | 1 | 1-5/16 - 12 | .812 |



NOTE: 1) Fittings of other dimensions and/or standards (GOST, OST, DIN, MON) available on request.

R165

Smooth Bore High Pressure Industrial Hose

Specification approvals:

UNI-BRAID® R165 high-pressure hose is the most economical high pressure PTFE hose product ever offered to the market. It combines long life expectancy, high durability, and proven performance for superior service and cost effectiveness over the long term.

Applications:

The ultimate transfer hose for a variety of high pressure applications.

- R.I.M. Reaction injection molding machines
- Industrial gasses
- Hydraulic service with phosphate ester fluids
- Compressed natural gas
- Transfer of automotive sealants

Application advantages:

- Design optimized for your specific application
- Manufactured in long lengths to reduce hose costs associated with coupling hose sections
- Economical and cost effective
- Greater Flexibility: In industrial hose applications where high performance under harsh conditions is required,

Titeflex UNI-BRAID® PTFE hose offers effective solutions and high value. The patented UNI-BRAID® construction features a single outer layer braid that reduces bulk while maximizing pressure capability and provides an exceptionally tight bend radius.

Hose construction:

R165 hose is made of conductive PTFE using Titeflex "ZS" (Zero Static) construction, to bleed off static build-up in high flow applications and eliminate the risk of "static" burning of the core. The innercore is postcured to enhance hose performance in extreme applications. Reinforcement of combined single plaits of small diameter, tiered, tension controlled type 304 stainless steel wire make up the braid jacket. This specially designed outer layer of braid eliminates conventional spiral wraps, reducing bulk without sacrifice of pressure capability. In larger sizes (-12 thru -24) there is an additional braid layer between the PTFE innercore and the pressure carrying outer braid.

Innovative PTFE technology by Titeflex satisfies the demanding aerospace, automotive, and industrial applications. The driving force is Titeflex and THT Ostrava CZ commitment to safety, quality, value, and reliability. Modern quality production and customer satisfaction make Titeflex the leading PTFE hose producer.



UNI-BRAID® R165 HOSE DIMENSION AND PRESSURE RATINGS

| HOSE PART NUMBER | NOMINAL SIZE in. mm | NOMINAL O.D. IN. PSI AT ROM TEMP | MAXIMUM OPERATING PRESSURE PSI | BURST PRESSURE PSI AT ROOM TEMP | ROOM TEMP. BURST | HIGH TEMP BURST | MAXIMUM CONTINUOUS | MINIMUM BEND RADIUS IN. | HOSE WEIGHT LB. I FT. |
|------------------|------------------------|-------------------------------------|-----------------------------------|---------------------------------|------------------|-----------------|--------------------|-------------------------|-----------------------|
| R165-4 | 1/4 6 | .222 | .390 | 5,000 | 15,000 | 12,000 | 50 | 1.50 | 0.100 |
| R165-6 | 3/8 10 | .308 | .490 | 5,000 | 15,000 | 12,000 | 50 | 2.50 | .163 |
| R165-8 | 1/2 13 | .401 | .615 | 5,000 | 15,000 | 12,000 | 50 | 2.87 | .232 |
| R165-10 | 5/8 16 | .495 | .730 | 5,000 | 15,000 | 12,000 | 50 | 3.25 | .325 |
| R165-12 | 3/4 19 | .617 | .990 | 5,000 | 15,000 | 12,000 | 50 | 3.87 | .660 |
| R165-16 | 1 25 | .867 | 1.270 | 5,000 | 15,000 | 9,000 | 35 | 5.00 | 1.020 |
| R165-20 | 1-1/4 32 | 1.118 | 1.660 | 5,000 | 15,000 | 9,000 | 35 | 12.00 | 1.850 |
| R165-24 | 1-1/2 38 | 1.375 | 1.900 | 4,000 | 12,000 | 9,000 | 35 | 14.00 | 1.910 |

R272/R276 - R285/287

Convuluted Medium Pressure Industrial Hose - Convuluted Full Vacuum Rated Hose

Specification approvals:

R272/R276 hose is extremely flexible and lightweight offering an improved alternative to maximize operator handling and safety in comparison to other types of industrial hose. Combined with PTFE's unmatched chemical compatibility, corrosion resistance, temperature range and "non-stick" attributes, it offers a superior value. In addition, R276 offers a black conductive innercore for high flow rate transfer applications where elimination of static charges is required to ensure performance.

Temperature range:

• -54°C to 204°C Consult THT Ostrava CZ for temperature-adjusted pressure ratings

Applications:

- Chemical processing
- Pulp and paper
- Foam packaging
- Turbine engine componentry
- Air compressor discharge
- Tire press

R272 Hose construction:

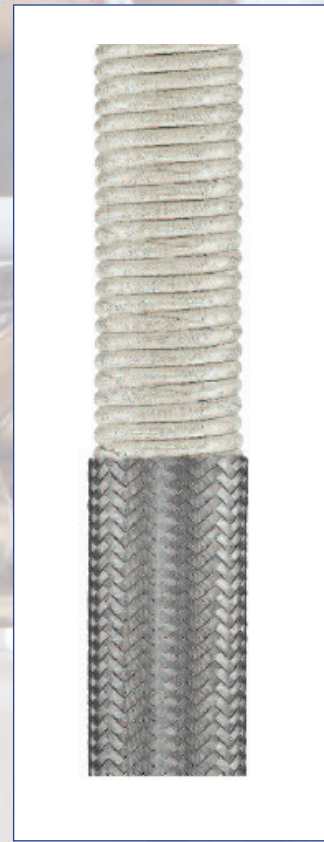
A white non-conductive PTFE liner, externally reinforced with PTFE impregnated fiberglass and a single steel wire braid. Titeflex UNI-BRAID® PTFE hose offers effective solutions and high value. The patented UNI-BRAID® construction features a single outer layer braid that reduces bulk while maximizing pressure capability and provides an exceptionally tight bend radius.

R276 Hose construction:

The PTFE innercore has a precisely controlled amount of carbon black added to the PTFE innercore. This conductive PTFE core material provides a continuous conductive path to the metal end fittings to bleed off static electricity. Innovative PTFE technology by Titeflex satisfies the demanding aerospace, automotive, and industrial applications. The driving force is Titeflex and THT Ostrava CZ commitment to safety, quality, value, and reliability. Modern quality production and customer satisfaction make Titeflex the leading PTFE hose producer.

R285/287 hose

The R285/287 hose incorporates a heavy wall PTFE (nonconductive/conductive) innercore reinforced with an external stainless steel wire wrapped in the root of the convolution under the stainless steel braid. This additional wire reinforcement provides unmatched flexibility with the hoop strength necessary for use in full vacuum applications up to 28" Hg.



R272 / R276, R285 / R287 HOSE SPECIFICATIONS

| HOSE PART NUMBER | NOMINAL SIZE | | NOMINAL ID, IN. | NOMINAL OD, IN. | OPERATING PRESSURE PSI | BURST PRESSURE ROOM TEMP. | MAXIMUM CONTINUOUS LENGH. FT. | MAXIMUM BEND RADIUS IN. AT ROOMTEMP | HOSE WEIGHT LB./FT. |
|------------------|--------------|----|-----------------|-----------------|------------------------|---------------------------|-------------------------------|-------------------------------------|---------------------|
| | in. | mm | | | | | | | |
| R272 / R276-8 | 1/2 | 13 | .512 | .785 | 1,000 | 4,000 | 75 | 1.00 | .22 |
| R272 / R276-12 | 3/4 | 19 | .750 | 1.090 | 1,000 | 4,000 | 50 | 2.00 | .29 |
| R272 / R276-16 | 1 | 25 | 1.300 | .615 | 1,000 | 4,000 | 50 | 3.00 | .41 |
| R272 / R276-20 | 1-1/4 | 32 | 1.239 | 1.560 | 1,000 | 3,600 | 50 | 6.25 | .50 |
| R272 / R276-24 | 1-1/2 | 38 | 1.500 | 1.792 | 750 | 3,000 | 50 | 7.50 | .62 |
| R272 / R276-32 | 2 | 51 | 1.982 | 2.333 | 500 | 2,000 | 50 | 10.00 | .97 |
| R285 / 287-24 | 1-1/2 | 38 | 1.52 | 1.90 | 3,000 | 12,000 | 40 | 7.50 | .882 |
| R285 / 287-32 | 2 | 51 | 2.02 | 2.42 | 1,900 | 12,000 | 40 | 10.00 | 1.194 |

S818XX

PTFE Chlorine / Bromine Hose

Specification approvals:

Titeflex chlorine hose are shallow and helical, rather than annular as in metal hose, to facilitate draining and cleaning and reduce transfer time cycles.

Damage resistance is another advantage; Titeflex chlorine hose recovers its form and capacity after crushing, while metal hose may remain permanently flattened.

Titeflex chlorine transfer hose is currently available in 1/2" and 1" I.D.'s. It offers full flow characteristics for faster loading and unloading and are supplied in lengths from one to 50 feet. For quality assurance and traceability, each factory-made and tested assembly is serialized and recorded, along with the installation location and date. The assembly is also clearly tagged with its pressure and temperature ratings.

Applications:

- Size 1" chlorine hose for rail car loading and unloading
- Titeflex 1/2" chlorine hose for replacing copper whips at chlorine repackaging plants filling 1 ton containers and 100/150 lb. cylinders

Temperature range:

- -40°F to 120°F (-40°C to 49°C)

Hose Construction:

- Convuluted PTFE core with a double layer of braid
- 1" hoses are covered with a CPE jacket for abrasion protection
- New optional heavy duty high density polyethylene spiral wrap available
- Schedule 80 monel male pipe fittings
- Monel schedule MSS type A stub ends available for 1" size
- 1/2" size males have a press-fit liner/insert to prevent erosion

Proven Performance:

- Engineered specifically to meet the critical application conditions of chlorine transfer
- Used worldwide by major chemical producers
- Meets or exceeds the Chlorine Institute guidelines, Pamphlet 6 Appendix A, Drawing No. 135

Chlorine transfer is recognized as one of the most challenging and potentially hazardous hose applications. Aware of the clear need for safety, reliability and performance, Titeflex has engineered a unique product to meet the demands of this critical application. Titeflex S818XX chlorine hoses are internationally accepted and recognized for providing many years of unparalleled safety and performance.



MONEL MALE NPT EACH END SPECIFICATIONS

| HOSE PART NUMBER | NOMINAL SIZE | | NOMINAL O.D. IN. | NOMINAL O.D. IN. | MAXIMUM OPERATIG PRESSURE PSI | BURST PRESSURE PSI | TYP. MAX. CONTINUOS LENGH, IN. | MINIMUM BEND RADIUS IN. | HOSE WEIGHT LB./ FT. | FITTING THREAD NPT |
|------------------|--------------|----|------------------|------------------|-------------------------------|--------------------|--------------------------------|-------------------------|----------------------|--------------------|
| | in. | mm | | | | | | | | |
| S81808-L | 1/2 | 13 | 0.500 | .915 | 500 | 2,000 | 50 | 1.50 | 0.16 | 1/2 - 14 |
| S81816-L | 1 | 25 | 1.000 | 1.875 | 375 | 1,875 | 50 | 6.00 | 1.00 | 1 - 11 - 1/2 |

PTFE Hoses Chemical Resistance Data

MATERIAL COMPATIBILITY KEY:

1. Excellent 2. Acceptable with Limited Service Life 3. Not Recommended 0. No Information, Test Before Using.
Consult THT Ostrava CZ for other than room temperature applications.

EFFUSION COMPATIBILITY KEY:

A. Will effuse and can displace breathable air in a confined space. B. Potential to effuse and, with atmosphere, form chemicals that can corrode braid and fitting material. Especially significant when "vapor phase" exists, I.E., when they reach their boiling point of approximately 125° F at atmospheric pressure. Hose assemblies should be used in well-vented areas only. C. Potential for effusion and can cause corrosion of the hose braid reinforcement and fitting material. These chemicals are all gases at atmospheric pressure and at temperatures of 56° F or lower. N/C. No change.

ELECTROSTATIC DISCHARGE:

In many industrial plants, there is an awareness that electrostatic discharge can be a hazard. This discharge is the result of two unlike materials coming into contact. This contact allows electrons from one material to move across its boundary and associate with the other. For example, electrons from steam can align with the wall of a PTFE hose. If both materials are good conductors of electricity, the positive and negative electrons flow back and forth between the chemical and hose wall, keeping them in balance. However, if one or both of them are insulators, the balance will be disrupted. As a result, chemicals such as gasoline or steam flowing through a white PTFE hose will deposit electrons on the wall of the innercore, building up static charge. When the charge exceeds the dielectric strength of the hose wall, dielectric breakdown occurs.

| CHEMICAL | PTFE | FITTING MATERIAL | | | | EFFUSION |
|----------------------------|------|------------------|-------|-------|-------|----------|
| | | CS | 304SS | 316SS | BRASS | |
| Acetaldehyde | | | | | 1 | B |
| Acetic Acid Glacial | | 0 | 2 | | 3 | |
| Acetic Acid 30% | | 0 | 2 | | 3 | |
| Acetic Anhydride | | 3 | 2 | 2 | 3 | |
| Acetone | | | | | 1 | |
| Acetylene | 1 | 0 | 2 | 2 | 2 | C |
| Acrylonitrile | 1 | 0 | 2 | 2 | 2 | |
| Alum Ammonium or Potassium | 1 | 3 | 3 | 2 | 2 | |
| Aluminum Acetate | 1 | 0 | 1 | 1 | 3 | |
| Aluminum Bromide | 1 | 3 | 2 | 2 | 3 | |
| Aluminum Chloride | | 3 | 2 | 2 | 3 | |
| Aluminum Flouride | | 3 | 2 | 2 | 3 | |
| Aluminum Hydroxide | | 0 | | | 1 | |
| Aluminum Nitrate | | 3 | | | 0 | |
| Aluminum Salts | | 0 | 2 | 2 | 0 | |
| Aluminum Sulfate | 1 | 3 | 3 | 2 | 3 | |
| Ammonia, Anhydrous | 1 | 1 | 1 | 1 | 0 | |
| Ammonia, Aqueous | 1 | 0 | 1 | 1 | 3 | |
| Ammonium Carbonate | | 1 | 1 | 1 | 0 | |
| Ammonium Chloride | 1 | 0 | 2 | 2 | 3 | |
| Ammonium Hydroxide | | 2 | | | 3 | |
| Ammonium Metaphosphate | | | | | 0 | |
| Ammonium Nitrate | | | | | 3 | |
| Ammonium Nitrite | 0 | 0 | | | 3 | |
| Ammonium Persulfate | 3 | 0 | | | 0 | |
| Ammonium Phosphate | | 3 | 2 | | 0 | |

| CHEMICAL | PTFE | FITTING MATERIAL | | | | EFFUSION |
|------------------------|------|------------------|-------|-------|-------|----------|
| | | CS | 304SS | 316SS | BRASS | |
| Ammonium Sulphate | | 3 | | | 3 | |
| Ammonium Thiocyanate | | 3 | 3 | | 0 | |
| Amyl Acetate | | 3 | | | 2 | |
| Amyl Alcohol | | 2 | | | 1 | |
| Amyl Chloride | 1 | 1 | 1 | | 1 | |
| Amyl Chloronaphthalene | 1 | 0 | 1 | | 0 | |
| Amyl Naphthalene | 1 | 0 | 1 | | 0 | |
| Aniline | 1 | 2 | 1 | | 3 | |
| Aniline Dyes | 1 | 3 | 1 | | 3 | |
| Aniline Hydrachloride | | 3 | 3 | | 3 | |
| Animal Fats | | | | | 0 | |
| Aqua Regia | | 3 | 2 | | 3 | |
| Arsenic Acid | | 3 | 3 | | 2 | |
| Askarel | | | | | 1 | |
| Asphalt | 1 | 1 | 1 | | 1 | |
| Barium Carbonate | 1 | 2 | 1 | | 1 | |
| Barium Chloride | 1 | 2 | 1 | | 2 | |
| Barium Hydroxide | 1 | 3 | 1 | | 3 | |
| Barium Sulfate | 1 | 1 | 1 | | 2 | |
| Barium Sulfide | | 3 | | | 3 | |
| Beer | | 2 | | | 1 | |
| Beet Sugar Liquors | | | | | 0 | |
| Benzene | | | | | 1 | |
| Benzenesulfonic Acid | 0 | 3 | 2 | 2 | 2 | |
| Benzaldehyde | | 2 | | | 1 | |

PTFE Hoses Chemical Resistance Data

| CHEMICAL | PTFE | FITTING MATERIAL | | | | EFFUSION |
|-----------------------|------|------------------|-------|-------|-------|----------|
| | | CS | 304SS | 316SS | BRASS | |
| Benzene | | | | | 1 | B |
| Benzyl Alcohol | | 2 | | | 1 | |
| Benzyl Benzoate | | | | | 0 | |
| Benzyl Chloride | | | | | 0 | |
| Bismuth Carbonate | | | | | 0 | |
| Black Sulphate Liquor | | 2 | | | 3 | |
| Blast Furnace Gas | | | | | 1 | C |
| Borax | | 2 | | | 1 | |
| Bordeaux Mixture | | 0 | | | 0 | |
| Baric Acid | | 3 | | | 2 | |
| Bunker Oil | | | | | 1 | |
| Butadine | | | | | 1 | |
| Butane | | | | | 1 | C |
| Butter Oil | | | | | 1 | |
| Butyric Acid | | 3 | | | 2 | |
| Butyl Acetate | | 2 | | | 2 | |
| Butyl Alcohol | | | | | 1 | |
| Butyl Amine | | | | | 1 | |
| Butyl Carbitol | | | | | 1 | |
| Butyl Stearate | | | | | 1 | |
| Butyl Mercaptan | | 0 | | | 0 | |
| Butraldehyde | | 0 | | | 1 | |
| Calcium Acetate | | | | | 1 | |
| Calcium Bisulfate | | 0 | | | 3 | |
| Calcium Bisulfite | 1 | 3 | 1 | 1 | 3 | |
| Calcium Carbonate | 1 | 2 | 1 | 1 | 3 | |
| Calcium Chlorate | 1 | 2 | 2 | 1 | 2 | |
| Calcium Chloride | 1 | 3 | 2 | 1 | 2 | |
| Calcium Hydroxide | 1 | 3 | 1 | 1 | 3 | |
| Calcium Hypochlorite | | 3 | 2 | | 3 | |
| Calcium Nitrate | | 2 | | | 1 | |
| Calcium Silicate | | | | | 1 | B |
| Calcium Sulfate | | | | | 1 | |
| Calcium Sulfide | | | | | 0 | |
| Cane Sugar Liquors | 1 | 1 | 1 | 1 | 2 | |
| Carbolic Acid | 1 | 3 | 1 | 1 | 3 | |
| Carbon Dioxide | 1 | 1 | 1 | 1 | 1 | A |
| Carbon Disulfide | | 2 | 1 | 1 | 2 | |
| Carbonic Acid | 1 | 3 | 1 | 1 | 3 | |
| Carbon Monoxide | | | | | 1 | C |
| Carbon Tetrachloride | | 2 | | | 2 | |
| Castor Oil | | | | | 1 | |
| Caustic Soda | | 2 | | | 3 | |
| Cellosolve, Acetate | | 0 | 2 | 2 | 1 | |
| Cellosolve, Butyl | | | | | 1 | |
| Cellulube | | | | | 1 | |

| CHEMICAL | PTFE | FITTING MATERIAL | | | | EFFUSION |
|-------------------------------|------|------------------|-------|-------|-------|----------|
| | | CS | 304SS | 316SS | BRASS | |
| Chlorine, Gaseous, Dry* | * | 2 | 3 | 3 | 2 | C |
| Chlorine, Gaseous, Wet* | * | 3 | 3 | 3 | 3 | B |
| Chlorine Trifluoride | 0 | 3 | 0 | 0 | 0 | C |
| Chloroacetic Acid | 1 | 3 | 3 | 3 | 3 | |
| Chlorobenzene | 1 | 1 | 1 | 1 | 1 | |
| Chlorobromomethane | 1 | 1 | 1 | 1 | 1 | |
| Chloroform | 1 | 1 | 1 | 1 | 1 | |
| O-Chloronaphthalene | 1 | 1 | 1 | 1 | 1 | |
| Chlorotoluene | | | | | 1 | |
| Chromic Acid | | 3 | 3 | | 3 | |
| Citric Acid | | 3 | 3 | | 3 | |
| Cod Liver Oil | | | | | 1 | |
| Coke Oven Gas | | | | | 0 | |
| Compressed Natural Gas (CNG)1 | | 1 | 1 | 1 | 2 | A1 |
| Copper Chloride | 1 | 3 | | 1 | 3 | |
| Copper Cyanide | 1 | 0 | 1 | 1 | 3 | |
| Copper Sulfate | 1 | 3 | 1 | 1 | 3 | |
| Corn Oil | 1 | 1 | 1 | 1 | 1 | |
| Corn Syrup | | | | | | |
| Cottonseed Oil | | | | | 1 | |
| Creosote | | 2 | | | | |
| Cresol | | 2 | | | | |
| Crude Wax | | | | | 1 | |
| Cutting Oil | 1 | 1 | 1 | 1 | 1 | |
| Cyclohexane | 1 | 1 | 1 | 1 | 1 | |
| Cyclohexanome | 1 | 0 | 1 | 1 | | |
| Cymene | 1 | 0 | 0 | 0 | 1 | |
| Decaline | 1 | 0 | 0 | 0 | 1 | |
| Denatured Alcohol | | | | | 1 | |
| Diacetone | | | | | 1 | |
| Diacetone Alcohol | | | | | 1 | |
| Dibenzyl Ether | | | | | 1 | |
| Dibutyl Ether | | | | | 1 | |
| Dibutyl Phthalate | 1 | 1 | 1 | 1 | 1 | |
| Dibutyl Sebacate | 1 | 1 | 1 | 1 | 1 | |
| Dichlorobenzene | 1 | 0 | 1 | 1 | 1 | |
| Diesel Oil | 1 | 1 | 1 | 1 | 1 | |
| Diethylamine | 1 | 3 | | | | |
| Diethyl Ether | | | | | 1 | B |
| Diethylene Glycol | | | | | 1 | |
| Diethyl Phthalate | | 0 | | | 1 | |
| Diethyl Sebacate | | 0 | | | 1 | |
| Di-Isobutylene | 0 | 0 | | | 1 | |
| Di-Isopropyl Keytone | | 0 | | | 1 | |
| Dimethyl Aniline | | 0 | | | 1 | |
| Dimethyl Formamide | | | | | | |

PTFE Hoses Chemical Resistance Data

| CHEMICAL | PTFE | FITTING MATERIAL | | | | EFFUSION |
|--------------------------|------|------------------|-------|-------|-------|----------|
| | | CS | 304SS | 316SS | BRASS | |
| Dimethyl Phthalate | | 0 | | | 1 | |
| Diocetyl Phthlate | | | | | 1 | |
| Dioxane | | | | | 1 | |
| Dipentene | | | | | 1 | |
| Ethanolamine | | | | | 1 | |
| Ethyl Acetate | | | | | 1 | |
| Ethyl Acetoacetate | | | | | 1 | |
| Ethyl Atrylate | | | | | | |
| Ethyl Alcohol | | | | | 1 | |
| Ethyl Benzene | | | | | 1 | |
| Ethyl Cellulose | | | | | 1 | |
| Ethyl Chloride | | 2 | | | 2 | |
| Ethyl Ether | | 2 | | | 2 | |
| Ethyl Mertaptan | | 2 | | | 2 | B |
| Ethyl Pentochlorobenzene | | 2 | | | 1 | |
| Ethyl Silicate | | | | | 1 | |
| Ethylene Chloride | | 2 | | | 2 | |
| Ethylene Chlorohydrin | | 0 | | 0 | 0 | |
| Ethylene Diamine | | 0 | | 0 | 1 | |
| Ethylene Glycol | | 2 | | | 1 | |
| Fatty Acids | | 0 | | | 0 | |
| Ferric Chloride | | 3 | | | 3 | |
| Ferric Nitrate | 1 | 3 | 1 | 1 | 0 | |
| Ferric Sulfate | 1 | 3 | 1 | 1 | 3 | |
| Ferrous Chloride | | 3 | | | 2 | |
| Ferrous Nitrate | 1 | 3 | 1 | 1 | 3 | |
| Ferrous Sulfate | 1 | 3 | 1 | 1 | 2 | |
| Fluoroboric Acid | | 0 | | | 0 | |
| Formaldehyde | | 2 | | | 2 | |
| Formic Acid | | 3 | | | 2 | |
| Freon 12 | 2 | 3 | | | 0 | A |
| Freon 21 | 2 | 3 | | | 0 | A |
| Freon 22 | 2 | 3 | 1 | 1 | 0 | A |
| Freon 113 | 2 | 3 | 1 | 1 | 0 | A |
| Freon 114 | 2 | 3 | 1 | 1 | 0 | A |
| Fuel Oil | 1 | 1 | 1 | 1 | 1 | |
| Fumaric Acid | 0 | 0 | 1 | 1 | 0 | |
| Furon Furfuran | | | | | 1 | |
| Furfural | | 2 | | | 1 | |
| Gallic Acid | | 3 | | | 0 | |
| Gasoline | | | | | 1 | |
| Glauber's Salt | 0 | | | | 0 | |
| Glucose | | | | | 1 | |
| Glue | | 2 | | | 1 | |
| Glycerin | | 2 | | | 1 | |

| CHEMICAL | PTFE | FITTING MATERIAL | | | | EFFUSION |
|---------------------------------|------|------------------|-------|-------|-------|----------|
| | | CS | 304SS | 316SS | BRASS | |
| Glycols | 1 | 1 | 1 | 1 | 1 | |
| Green Sulfate Liquor | 1 | 1 | 1 | 1 | 0 | |
| n--Hexaldehyde | 1 | 1 | 1 | 1 | 1 | |
| Hexane | 1 | 1 | 1 | 1 | 1 | |
| Hexene | 1 | 1 | 1 | 1 | 1 | |
| Hexyl Alcohol | | | | | 2 | |
| Hydraulic Oil, Petroleum | | | | | 1 | |
| Hydrochloric Acid, 15% | | 3 | 3 | 3 | 3 | B |
| Hydrochloric Acid, 37% | | 3 | 3 | 3 | 3 | B |
| Hydrochromic Acid | | 3 | 3 | 3 | 3 | |
| Hydroflouric Acid, Concentrated | 1 | 3 | 3 | 3 | 3 | |
| Hydrofluosilicic Acid | 1 | 0 | 2 | 2 | 3 | |
| Hydrogen, Gaseous | ** | 1 | 1 | 1 | 1 | C |
| Hydrogen Peroxide, 70% | 1 | 2 | 3 | 1 | 3 | |
| Hydrogen Sulfide, Gaseous | 1 | 3 | 2 | 1 | 3 | C |
| Hydroquinone | | | | | 0 | |
| Isobutyl Alcohol | | | | | 1 | |
| Iso Octane | | | | | 1 | |
| Isopropyl Acetate | | | | | 1 | |
| Isopropyl Alcohol | | | | | 1 | |
| Isopropyl Ether | 1 | 1 | 1 | 1 | 1 | |
| JP3 Fuel | 1 | 1 | 1 | 1 | 1 | |
| JP4 Fuel | 1 | 1 | 1 | 1 | 1 | |
| JP5 Fuel | 1 | 1 | 1 | 1 | 1 | |
| JP6 Fuel | 1 | 1 | 1 | 1 | 1 | |
| JP8 Fuel | | | | | 1 | |
| Kerosene | | | | | 1 | |
| Ketones | | | | | 1 | |
| Lacquers | | 3 | 3 | | 1 | |
| Lacquer Solvents | | 3 | 3 | | 1 | B |
| Lactic Acid | 1 | 3 | 2 | 1 | 2 | |
| Lard | 1 | 1 | 1 | 1 | 3 | |
| Lead Acetate | 1 | 3 | 0 | 1 | 1 | |
| Lead Nitrate | 0 | 1 | 1 | 1 | 0 | |
| Lime Bleath | 0 | 3 | 2 | 1 | 0 | |
| Linoleic Acid | | 3 | 2 | | 3 | |
| Linseed Oil | | | | | 1 | |
| Lubricating Oils, Petroleum | | | | | 1 | |
| Magnesium Chloride | | 3 | 3 | | 2 | |
| Magnesium Hydroxide | | | | | 0 | |
| Magnesium Sulfate | 1 | 1 | 1 | 1 | 1 | |
| Molic Acid | | 2 | 2 | | 0 | |
| Mercuric Chloride | | 3 | | | 3 | |
| Mercury | | | | | 3 | |
| Mesityl Oxide | | | | | 1 | |

PTFE Hoses Chemical Resistance Data

| CHEMICAL | PTFE | FITTING MATERIAL | | | | EFFUSION |
|---------------------------|------|------------------|-------|-------|-------|----------|
| | | CS | 304SS | 316SS | BRASS | |
| Methyl Acetate | | | | | 1 | |
| Methyl Atrylote | | | | | 1 | |
| Methyl Alcohol | | | | | 2 | |
| Methyl Bromide | | | | | 0 | B |
| Methyl Butyl Ketone | | | | | 1 | |
| Methyl Chloride | | | | | 1 | B |
| Methylene Chloride | | | | | 3 | |
| Methyl Ethyl Ketone (MEK) | | | | | 1 | |
| Methyl Formate | | | | | 3 | B |
| Methyl Isobutyl Ketone | | | | | 1 | |
| Methyl Methacrylate | | | | | 0 | |
| Methyl Salicylate | | | | | 1 | |
| Milk | | | | | 3 | |
| Mineral Oil | | | | | 1 | |
| Monochlorobenzene | | | | | 1 | |
| Monoethanolamine | | | | | 1 | |
| Naptha | | 2 | | | 1 | |
| Haphtalene | | 2 | 2 | | 0 | |
| Naphthenic Acid | | 0 | 2 | | 0 | |
| Natural Gasf | | | | | 2 | A+ |
| Nickel Acetate | | | | | 1 | |
| Nickel Chloride | 1 | 3 | 2 | | 3 | |
| Nickel Sulfate | 1 | 0 | 2 | 1 | 3 | |
| Niter Coke | | 3 | 2 | 1 | 0 | |
| Nitric Acid, | | | | | | |
| All Concentrations | 1 | 3 | 2 | 2 | 3 | |
| Nitric Acid, Red Fuming | 1 | 3 | 3 | 2 | 3 | |
| Nitrobenzene | | | | | 1 | |
| Nitroethane | | 0 | | | 1 | |
| Nitrogen, Gaseous | | | | | 1 | A |
| Nitrogen Telroxide | 0 | 0 | | | 0 | |
| n-Octane | 0 | | | | 1 | |
| Octyl Alcohol | 1 | 3 | 1 | 1 | 2 | |
| Oil, SAE | 1 | 1 | 1 | 1 | 1 | |
| Oleic Acid | 1 | 3 | | 1 | 2 | |
| Olive Oil | 1 | 1 | 1 | 1 | 1 | |
| Oxalic Acid | 1 | 3 | 1 | 1 | 3 | |
| Oxygen, Gaseous**** | | | | | 1 | A |
| Ozone | | | | | 1 | |
| Paint | | | | | 1 | |
| Palmitic Acid | | 2 | | | 1 | |
| Peanut Oil | | | | | 1 | |
| Perchloric Acid | | 0 | 2 | 2 | 0 | |
| Perchloroethylene | | 2 | | | 1 | |
| Petroluem | | | | | 1 | |

| CHEMICAL | PTFE | FITTING MATERIAL | | | | EFFUSION |
|-----------------------------|------|------------------|-------|-------|-------|----------|
| | | CS | 304SS | 316SS | BRASS | |
| Phenol | | 3 | | | 3 | |
| Phorone | | | | | 1 | |
| Piric Acid | 1 | 3 | 1 | 1 | 3 | |
| Pinene | 1 | 1 | 1 | 1 | 1 | |
| Pine Oil | 1 | 2 | 1 | 1 | 0 | |
| Plating Solution, Chrome | 1 | 0 | 3 | 3 | 0 | |
| Potassium Acetate | 1 | 3 | 2 | 2 | 0 | |
| Potassium Chloride | | | 2 | 2 | 2 | |
| Potassium Cyanide | | 2 | | | 3 | |
| Potassium Dichromate | | 3 | | | 0 | |
| Potassium Hydroxide, 30% | | 3 | | | 3 | |
| Potassium Nitrate | | 3 | | | 2 | |
| Potassium Sulfate | 1 | 1 | 1 | 1 | 2 | |
| Propane | 1 | 1 | 1 | 1 | 1 | A |
| Propyl Acetate | | 1 | 1 | 1 | 1 | |
| Propyl Alcohol | 1 | 1 | 1 | 1 | 1 | |
| Pyridine, 50% | 1 | 1 | 1 | 1 | 1 | |
| Red Oil | | 2 | | | 2 | |
| Salicylic Acid | | 3 | | | 0 | |
| Salt Water | | 3 | | | 3 | |
| Sewage | | 3 | | | 1 | |
| Silicon Tetrafluoride (STF) | 0 | 3 | 2*** | 2*** | 3 | C |
| Silicone Greases | 0 | 1 | 1 | 1 | 1 | |
| Silicone Oils | 0 | 1 | 1 | 1 | 1 | |
| Silver Nitrate | 1 | 3 | 1 | 1 | 3 | |
| Skydrol 500 & 7000 | 1 | 1 | 1 | 1 | 0 | |
| Soap Solutions | 1 | 1 | 1 | 1 | 1 | |
| Soda Ash | | | | | 2 | |
| Sodium Acetate | | 3 | | | 0 | |
| Sodium Bicarbonate | | 3 | | | 2 | |
| Sodium Bisulfite | | 3 | | | 3 | |
| Sodium Borate | | | | | 0 | |
| Sodium Chloride | 1 | 2 | | | 1 | |
| Sodium Cyanide | 1 | 2 | 1 | 1 | 3 | |
| Sodium Hydroxide, 40% | 1 | 2 | 1 | 1 | 3 | |
| Sodium Hypochlorite | 1 | 3 | | | 3 | |
| Sodium Metaphosphate | 1 | 3 | 1 | 1 | 3 | |
| Sodium Nitrate | | | | | 2 | |
| Sodium Perborate | | 3 | | | 3 | |
| Sodium Peroxide | | 3 | | | 3 | |
| Sodium Phosphate | | 2 | | | 3 | |
| Sodium Thiosulfate | | 3 | | | 3 | |
| Soybean Oil | | | | | 0 | |
| Stannic Chloride | | 3 | 3 | 3 | 3 | |
| Steam | | 3 | | | 1 | A |

PTFE Hoses Chemical Resistance Data

| CHEMICAL | PTFE | FITTING MATERIAL | | | | EFFUSION |
|------------------------|------|------------------|-------|-------|-------|----------|
| | | CS | 304SS | 316SS | BRASS | |
| Stearic Acid | | 3 | 2 | | 3 | |
| Stoddard Solvent | | | | | 1 | |
| Styrene | | 2 | | | 2 | |
| Sucrose Solution | | | | | 1 | |
| Sulfur, 200° F | | 3 | | | 3 | |
| Sulfur Chloride | | 3 | | | 3 | |
| Sulfur Dioxide | 1 | 2 | 1 | 1 | 1 | C |
| Sulfur Trioxide | | 3 | 2 | 2 | 3 | B |
| Sulfuric Acid, 10% | | 3 | 2 | 3 | 3 | |
| Sulfuric Acid, 98% | | 2 | 3 | 2 | 3 | |
| Sulfuric Acid, Fuming | | 3 | 3 | 2 | 3 | |
| Sulfurous Acid, 10% | | 3 | 2 | | 3 | |
| Sulfurous Acid, 75% | | 3 | | | 3 | |
| Tanic Acid, 10% | | 2 | | | 3 | |
| Tar, Bituminous | | | 1 | 1 | 2 | |
| Tartaric Acid | | 3 | 1 | 1 | 3 | |
| Terpineol | 1 | 0 | 0 | 0 | 0 | |
| Titanium Tertachloride | | 3 | 2 | 2 | 3 | |
| Toluene | | | | | 1 | |
| Toluene Diisocyanate | | 0 | 0 | 0 | 0 | |

| CHEMICAL | PTFE | FITTING MATERIAL | | | | EFFUSION |
|----------------------------|------|------------------|-------|-------|-------|----------|
| | | CS | 304SS | 316SS | BRASS | |
| Transformer Oil | | | | | 1 | |
| Transmission Fluid, Type A | | | | | 1 | |
| Tributoxyethyl Phosphate | | 0 | | | 0 | |
| Tributyl Phosphate | | | | | 0 | |
| Trichloroethylene | | 2 | | | 1 | |
| Tricresyl Phosphate | | | | | 0 | |
| Tung Oil | 1 | 1 | 1 | 1 | 1 | |
| Turpentine | 1 | 1 | 1 | 1 | 2 | |
| Urea Solution, 50% | 1 | 1 | 1 | 1 | 0 | |
| Varnish | | 3 | 1 | 1 | 2 | |
| Vegetable Oils | 1 | 1 | 1 | 1 | 1 | |
| Versilube | | | | | 1 | |
| Vinegar | | 3 | | | 3 | |
| Vinyl Chloride | | 2 | | | 3 | C |
| Water | | 2 | | | 1 | |
| Whiskey, Wines | | 3 | 2 | | 3 | |
| Xylene | 1 | 2 | 2 | | 3 | |
| Zinc Acetate | 1 | 1 | 1 | 1 | 1 | |
| Zinc Chloride | 1 | 3 | 2 | 1 | 3 | |
| Zinc Sulfate | 1 | 3 | 2 | 1 | 3 | |

Fitting material ratings are based on a fluid temperature of 20° C. Higher temperatures may accelerate adverse effects.

* Consult THT Ostrava CZ engineering

** Caution: explosive, consult THT Ostrava CZ engineering

*** Highly corrosive, consult THT Ostrava CZ

**** Special cleaning required. Consult THT Ostrava CZ engineering

PTFE Hoses Chemical Resistance Data

TEMPERATURE/OPERATING PRESSURE: R115, R122, R105, R144 (PSI)

| HOSE SIZE | 18°C | 37.8°C | 65.6°C | 95°C | 120°C | 150 C° | 175°C | 204°C | 232°C |
|------------|------|--------|--------|------|-------|--------|-------|-------|-------|
| -3, -4, -5 | 3000 | 2922 | 2810 | 2698 | 2586 | 2474 | 2362 | 2250 | 2138 |
| -6 | 2500 | 2435 | 2341 | 2248 | 2155 | 2062 | 1968 | 1875 | 1782 |
| -8 | 2000 | 1948 | 1873 | 1799 | 1724 | 1649 | 1575 | 1500 | 1425 |
| -10 | 1500 | 1461 | 1405 | 349 | 1293 | 1237 | 1181 | 1125 | 1069 |
| -12 | 1200 | 1169 | 1124 | 1079 | 1034 | 990 | 945 | 900 | 855 |
| -16, -20Z | 1000 | 974 | 937 | 899 | 862 | 825 | 787 | 750 | 713 |

TEMPERATURE/OPERATING PRESSURE: R160, R165 (PSI)

| HOSE SIZE | 18°C | 37.8°C | 65.6°C | 95°C | 120°C | 150 C° | 175°C | 204°C | 232°C |
|---------------------------|------|--------|--------|------|-------|--------|-------|-------|-------|
| -4, -6, -8, -10, -12, -16 | 5000 | 4869 | 4683 | 4496 | 4310 | 4123 | 3937 | 3750 | 3563 |

TEMPERATURE/OPERATING PRESSURE: R272, R276 (PSI)

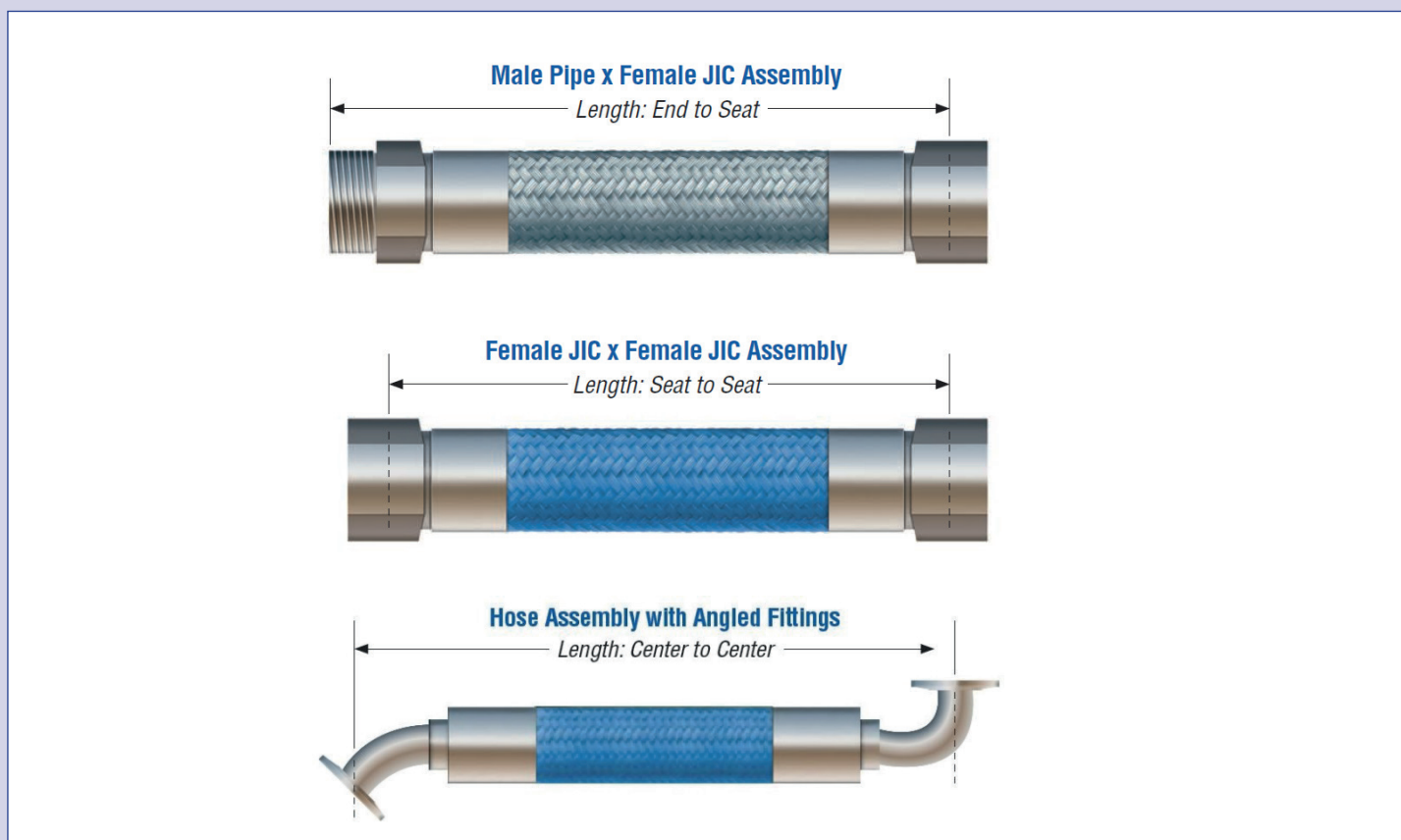
| HOSE SIZE | 18°C | 37.8°C | 65.6°C | 95°C | 120°C | 150 C° | 175°C | 204°C | 232°C |
|------------|------|--------|--------|------|-------|--------|-------|-------|-------|
| -3, -4, -5 | 1000 | 974 | 937 | 899 | 862 | 825 | 787 | 750 | 713 |
| -6 | 750 | 730 | 702 | 674 | 646 | 618 | 590 | 563 | 535 |
| -8 | 500 | 487 | 468 | 450 | 431 | 412 | 394 | 375 | 356 |



These products can be used to convey hazardous fluids, steam, and other dangerous materials which can cause personal injury or property damage if released through misuse, misapplication, or damaged. The user is responsible to analyze each application prior to specifying any product from this catalog. Due to the wide variety of operating conditions and applications, the user, through personal analysis and testing, is solely responsible for final product selection and meeting all performance, safety, and warning requirements. Careful selection, proper assembly and use of hose fittings and accessories is essential for the safe and warranted operation of the hose assembly.

How To Order Hose Assembly

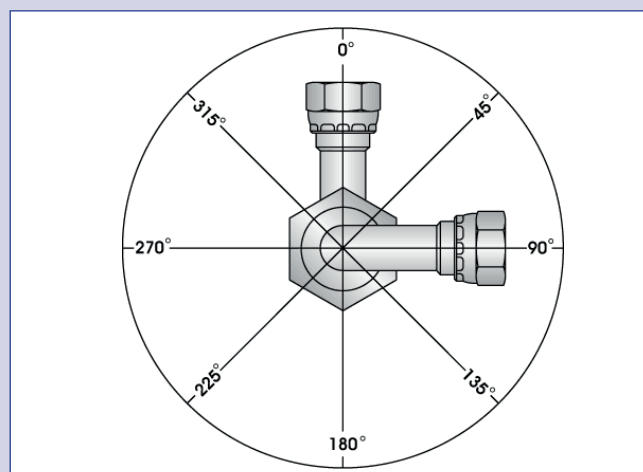
1. Determine basic requirements of hose assembly - operating pressure, temperature, medium type, etc.
2. Select the hose inner diameter – “dash size”
3. Choose the hose outer surface - fire resistant, anti-abrasion or blank (wirebraid only)
4. Choose the hose end fittings configuration on both ends (straight-straight, straight – elbow 45°, etc.)
5. Define fittings type/standard (JIC, GOST, OST) and threads size/type - imperial/metric (where applicable)
6. In case of dual elbow fittings configuration, define correct angular offset – see below
7. Determine the final hose length – see adjacent pictures
8. Additional requirements (marking, packing, etc)



ORIENTATION OF FITTINGS

Proper positioning of elbow end fittings on a hose is governed by the offset angle, or the amount of angular offset between connecting parts in the installation. If this angle of orientation is not correct in the construction of a hose assembly the performance and life of the assembly will be greatly reduced.

Orientation is determined by the number of degrees between the fitting furthest from the viewer and the fitting nearest to the viewer, measured in a clockwise direction.





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