

**THT**Ostrava CZ, a.s.  
TEFLON HOSES TECHNOLOGIES



***THT Ostrava CZ***  
***... your flexible solution***

**TEFLON<sup>®</sup> HOSE**  
**ASSEMBLIES CATALOGUE**





# TABLE OF CONTENTS

About THT Ostrava CZ .....	1
About Teflon® Hoses .....	2
THT Ostrava CZ – Your Flexible Solution.....	3
Certificates.....	4
<b>AEROSPACE PTFE HOSES .....</b>	<b>5</b>
<b>Smooth Bore High Pressure Hoses</b>	
R160/RP160/TERM 160 High Pressure Hose .....	5
R160 37° JIC Metric Hose Fittings .....	7
R160 38° AS1708 Imperial Hose Fittings.....	8
R160 Flareless Imperial Hose Fittings NAS1760 .....	10
<b>Convolute Hoses</b>	
R267/RP276 and RF267 Conductive Hose .....	11
R267 37° JIC Metric Hose Fittings .....	13
R267 38° AS1708 Imperial Hose Fittings.....	14
R267 Flareless Imperial Hose Fittings NAS1760 .....	15
<b>Smooth Bore Medium Pressure Hoses</b>	
R101/RP101/TERM101 Conductive Hose.....	17
R101 38° AS1708 Imperial Hose Fittings.....	19
R101 Flareless Imperial Hose Fittings NAS1760 .....	20
<b>NOMEX Low Pressure Hoses</b>	
R270 Hose .....	21
R270 Flared Fittings .....	22
<b>Smooth Bore Ultra High Pressure Hoses</b>	
R154 Conductive Hose .....	23
R154 Hose Fittings .....	24
SA500 KEVLAR Hose.....	25
SA500 Hose Fittings.....	26
<b>INDUSTRIAL PTFE HOSES .....</b>	<b>27</b>
<b>Smooth Bore Medium Pressure Hoses</b>	
R115/R105 Hose and R122/R144 Conductive Hose.....	29
R115/105, R122/144 Hoses Fittings .....	30
<b>Smooth Bore High Pressure Hoses</b>	
Uni-Braid R165 Hose.....	31
<b>Convolute Hoses</b>	
R272/R276 Hose .....	33
R285/R287 Full Vacuum Rated Hose .....	33
<b>Specialty Hoses</b>	
S818XX PTFE Chlorine/Bromine Hose.....	34
PTFE Hoses Chemical Resistance Data .....	35
How to Order Teflon® Hose Assembly.....	41

# 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



CERTIFIKAČNÍ ORGÁN CSQ-CERT  
PŘI ČESKÉ SPOLEČNOSTI PRO JAKOST

akreditovaný podle ČSN EN ISO/IEC 17021:2011 Českým institutem pro akreditaci, o.p.s. a vedený pod registračním číslem 3081

vydává

## CERTIFIKÁT

shody systému managementu kvality s požadavky  
ČSN EN ISO 9001:2009  
s výjimkou článku 7.3  
společnosti

### THT Ostrava CZ, a.s.

Mezinárodní letiště Ostrava č.p. 402, 742 51 Mošov  
IČ: 25854542

Předmět certifikace:  
Výroba telefonových hadic pro použití v leteckém  
raketovém a speciálním průmyslu

Registrační číslo certifikátu: 022/QMS/2013  
Datum prvotní certifikace: 26.11.2004  
Platnost do: 11.11.2013  
Datum do: 10.11.2016  
Vedoucí střediska certifikace systému managementu a produktů:  
Ing. Eliška Michalčíková



*Eliška Michalčíková*



S 3081

ČESKÁ REPUBLIKA

MINISTERSTVO OBRANY  
MINISTRY OF DEFENCE

## OSVĚDČENÍ K ČINNOSTI

### APPROVAL CERTIFICATE

Č. No. **MAA 037**

Timto se na základě § 35n zákona č. 219/1999 Sb., o ozbrojených silách ČR, Sb.

This certifies on the basis of compliance with the Czech Republic Armed Forces

osvědčuje / approves	THT Ostrava CZ, a.s.
se sídlem / business address is	Mezinárodní letiště Ostrava, 742 51 Mošov
pracoviště / workplace	Mezinárodní letiště Ostrava, 742 51 Mošov
jako organizace schválená / as an approved organization	k výrobě výrobní vojenská letecká tať / for production of military aviation tech

Podmínky - Conditions:

- Osvědčení je omezeno na rozsah činnosti a typy nebo druhy výrobů. This Certificate is limited to the scope of the activities and to the Annex to the Approval Certificate.
- Držitel Osvědčení provádí činnost za podmínek a v souladu s doklady republiky při vydání Osvědčení. The Certificate holder shall perform these activities according to the conditions specified in the Annex to the Approval Certificate.
- Držitel osvědčení je povinen dodržovat podmínky pro provoz, místo nebo pracoviště. The Certificate holder is valid until surrendered by the holder, as established by the Ministry of Defence of the Czech Republic.
- Osvědčení je platné, dokud se jej jmenovaný nezdá, dokud obrany České republiky, nebo dokud se nezadá, dokud neproběhne rekapitulace. The Certificate is valid until surrendered by the holder, as established by the Ministry of Defence of the Czech Republic.

2013-11-26  
Datum vydání / Date of issue (m-mi-ss) - (yy-mm-dd)

## PRODUCTION ORGANISATION APPROVAL CERTIFICATE

### OPRÁVNĚNÍ ORGANIZACE K VÝROBĚ

Civil Aviation Authority of the Czech Republic  
Úřad pro civilní letectví České republiky

### APPROVAL CERTIFICATE

#### OPRÁVNĚNÍ

REFERENCE:  
ČÍSLO OPRÁVNĚNÍ: CZ.21G.0002

Pursuant to the European Regulations in force and subject to the conditions specified below, the Civil Aviation Authority of the Czech Republic hereby certifies that the holder of this Approval Certificate is approved to produce the following:

**THT Ostrava CZ, a.s.**  
Mezinárodní letiště Ostrava, 742 51 Mošov

as a  
jako

PRODUCTION ORGANISATION  
VÝROBNÍ ORGANIZACE

approved according to Part 21, Section A, Subpart G  
schváleno v souladu s Částí 21, oddíl A, hlavička G

CONDITIONS  
PODMÍNKY

- The approval is limited to that specified in the enclosed Terms of Approval; and Oprávnění je omezeno rozsahem stanoveným v přílohy Podmínek oprávnění; a
- This approval requires compliance with the procedures specified in the Production Organisation Section A, Subpart G. Toto oprávnění zůstává platné, dokud organizace oprávněná k výrobě vyhovuje Části 21, oddíl A, hlavička G.
- This approval is valid whilst the approved production organisation remains in compliance with Part 21, Section A, Subpart G. Toto oprávnění zůstává platné, dokud organizace oprávněná k výrobě vyhovuje Části 21, oddíl A, hlavička G.

Date of original issue (dd/mm/yyyy):  
Datum původního vydání (dd/mm/yyyy): 20-6-2001

Date of this issue (dd/mm/yyyy):  
Datum tohoto vydání (dd/mm/yyyy): 24-6-2004

Signed:  
Podpis: *Pavel Matoušek*

Ing. Pavel MATOUŠEK  
Director of Airworthiness Division, CAA CZ  
Ředitel Sekce technické UCL

EASA Form 65 - PDA Certificate of Approval - Sheet A  
Formulář 65 EASA - Osvědčení PCA - List A

ČESKÁ REPUBLIKA

MINISTERSTVO OBRANY  
MINISTRY OF DEFENCE

## SOUHLAS S POUŽITÍM VOJENSKÉ VOJENSKÉM LEI

### TYPE APPROVAL

Č. (No.) S - 467

Tento osvědčení je součástí výroby je schválen a používá se v rámci Ministerstva obrany České republiky.  
This certificate that the mentioned type of article is approved for use in military aviation within Technical Specification accepted by Ministry of Defence of the Czech Republic.

Jméno žadatele / Applicant	THT Ostrava CZ, a.s.
Výrobce / Manufacturer	THT Ostrava CZ, a.s.
Název výrobku / Article Designation	Telefonní hadice TITFLEX
Typ výrobku / Type Description	Letecká telefonní hadice TITFLEX
Technická specifikace / Technical Specification	ČSN EN ISO 9001:2009
Pracovní podmínky / Working Conditions	Mezinárodní letiště Ostrava
Podpis / Signature	

Podpis technické úlohy / vypracování, vlastnosti, označení a podání dokumentace. Tento osvědčení není součástí výroby a musí být předloženo s výrobní dokumentací. Tento osvědčení není součástí výroby a musí být předloženo s výrobní dokumentací.  
The description, technical data, performance, features and dimensions are stated in the said document article. This certificate is not the installation approval for this article. This document is a draft and approved, reviewed or a reviewable draft is otherwise established by the Ministry of Defence of the Czech Republic. This document is not transferable.

2015-04-15  
Datum vydání / Date of issue (m-mi-ss) - (yy-mm-dd)

ČESKÁ REPUBLIKA

ÚŘAD PRO OBRANOU STANDARDIZACI, KATALOGIZACI  
A STÁTNÍ OVĚROVÁNÍ JAKOSTI

vydává podle zákona č. 309/2000 Sb., § 30 odst. 5

## OSVĚDČENÍ

č. 207-2014

pro

### THT Ostrava CZ, a.s.

Mezinárodní letiště Ostrava č.p. 402, 742 51 Mošov  
IČ: 25854542

### o shodě systému jakosti s požadavky ČSN EN ISO 9001:2009 ČOS 051626 (AOQP 2130)

Rozsah platnosti:

Výroba telefonových hadic určených pro použití  
raketovém a speciálním průmyslu.

Toto osvědčení platí do: 30.4.2017

V Praze dne: 16.4.2014

Sp. značka: 17066/2013/3208  
Výroba: OVM LSV Praha 2, Dětřichova 2  
Vydání: 23.03.2013

Ministerstvo průmyslu a obchodu  
Industrial Trade  
110 15 Praha 1 - Staré Město, Na Františku 33  
(dále jen „správní úřad“)

podle § 6 odst. 2 zákona č. 381/1994 Sb., o zajištění výroby a vojenským materiálům a o doplňkových, ve znění pozdějších předpisů a zákona č. 300/2008 Sb., v souladu s vyhláškou č. 138/2013 Sb. evidovanou v seznamu předpisů.

THT Ostrava CZ, a.s.  
IČ: 25854542  
Mošov, Mezinárodní letiště Ostrava č.p. 402, PSC 742 51

### ROZHODNUTÍ O VYDÁNÍ POVOLENÍ

č. R1902924

k provádění zahraničního obchodu s vojenským materiálem

Povoleno vyvozovat vojenský materiál podle přílohy č. 1 vyhlášky 110/2013 Sb., ve znění pozdějších předpisů, a dovozet vojenský materiál do ČR, a to v rámci vojenského materiálu, ve znění pozdějších předpisů a zákona č. 300/2008 Sb., v souladu s vyhláškou č. 138/2013 Sb. evidovanou v seznamu předpisů.

Povoleno vyvozovat vojenský materiál podle přílohy č. 1 vyhlášky 110/2013 Sb., ve znění pozdějších předpisů, a dovozet vojenský materiál do ČR, a to v rámci vojenského materiálu, ve znění pozdějších předpisů a zákona č. 300/2008 Sb., v souladu s vyhláškou č. 138/2013 Sb. evidovanou v seznamu předpisů.

Ověřeno: Povoleno k vyvozování vojenského materiálu do zahraničí, a to v rámci vojenského materiálu, ve znění pozdějších předpisů a zákona č. 300/2008 Sb., v souladu s vyhláškou č. 138/2013 Sb. evidovanou v seznamu předpisů.

Povoleno k vyvozování vojenského materiálu do zahraničí, a to v rámci vojenského materiálu, ve znění pozdějších předpisů a zákona č. 300/2008 Sb., v souladu s vyhláškou č. 138/2013 Sb. evidovanou v seznamu předpisů.

ČESKÁ REPUBLIKA

MINISTERSTVO OBRANY  
MINISTRY OF DEFENCE

## SOUHLAS S POUŽITÍM VÝROBKU VE VOJENSKÉM LETECTVÍ

### TYPE APPROVAL

Č. (No.) S - 4111

Tento osvědčení je součástí výroby je schválen a používá se v rámci Ministerstva obrany České republiky.  
This document certifies that the above mentioned type of article is approved for use in military aviation within Technical Specification accepted by Ministry of Defence of the Czech Republic.

Jméno žadatele / Applicant	THT Ostrava CZ, a.s.
Výrobce / Manufacturer	THT Ostrava CZ, a.s.
Název výrobku / Article Designation	Telefonní hadice AEROGUP
Typ výrobku / Type Description	Letecká telefonní hadice AEROGUP vpr. č. AE 401, AE 501, AE 701, AE 441, AE 446, AE 449, AE 541, AE 641, AE 500, AE 541, AE 641, AE 646, AE 666
Technická specifikace / Technical Specification	Technické podmínky pro výrobu telefonních hadic AEROGUP č. 79F TIT 03-2001
Pracovní podmínky / Working Conditions	Mezinárodní letiště Ostrava
Podpis / Signature	

Podpis technické úlohy / vypracování, vlastnosti, označení a podání dokumentace. Tento osvědčení není součástí výroby a musí být předloženo s výrobní dokumentací. Tento osvědčení není součástí výroby a musí být předloženo s výrobní dokumentací.  
The description, technical data, performance, features and dimensions are stated in the said document article. This certificate is not the installation approval for this article. This document is a draft and approved, reviewed or a reviewable draft is otherwise established by the Ministry of Defence of the Czech Republic. This document is not transferable.

2004-07-16  
Datum vydání / Date of issue (m-mi-ss) - (yy-mm-dd)



# 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

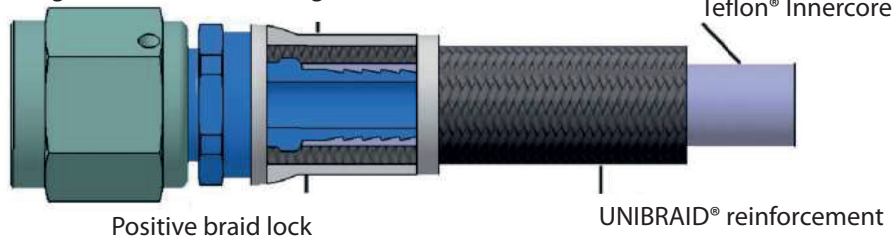
**Innercore:** It consists of extruded Teflon® powder charged with carbon. The addition of a carbon charge before extrusion offers good electrical conductivity. The Teflon® is a PTFE (polytetrafluoroethylene), whose main characteristics are excellent resistance to chemicals, the ability to be used over 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.



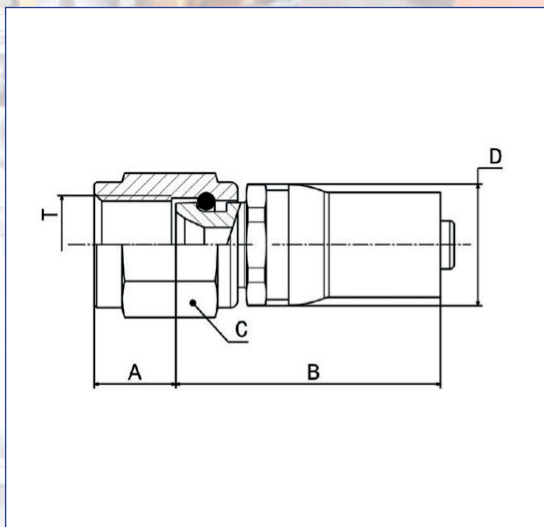
THT Ostrava CZ provides R160 hose assemblies with various fittings. Some samples are on following pages. Fittings of other dimensions and/or standards (GOST, OST, DIN, MON) are available on request.

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

# R160

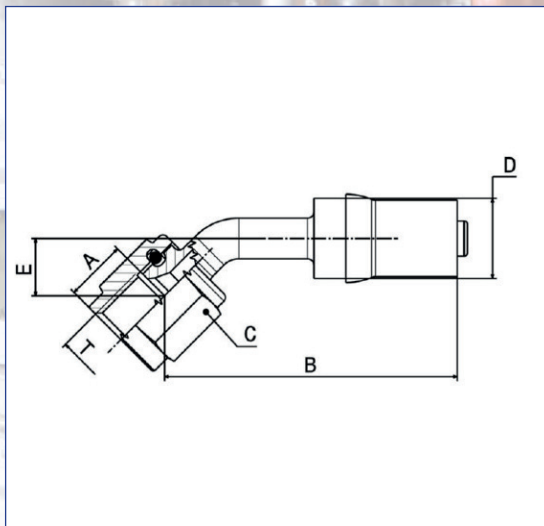
## 37° - JIC Metric Hose Fittings

### STRAIGHT



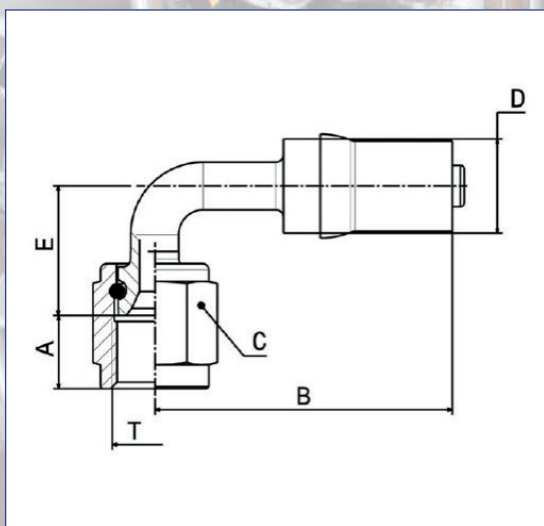
Hose	Fitting Part Number	Thread (mm)	A mm	B mm	C mm	D mm	E mm
4	R17404	M12x1	8,5	35	17	15,5	N/A
6	R17818	M14x1	8,5	35	19	17,4	N/A
	R18320	M14x1,5	8,5	35	19	17,4	N/A
	R17530	M16x1	9,5	35,5	19	17,4	N/A
	R18135	M18x1,5	11	37	22	20,5	N/A
8	R17531	M18x1,5	11	40	22	24,2	N/A
	R18109	M20x1,5	11	40	24	24,2	N/A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

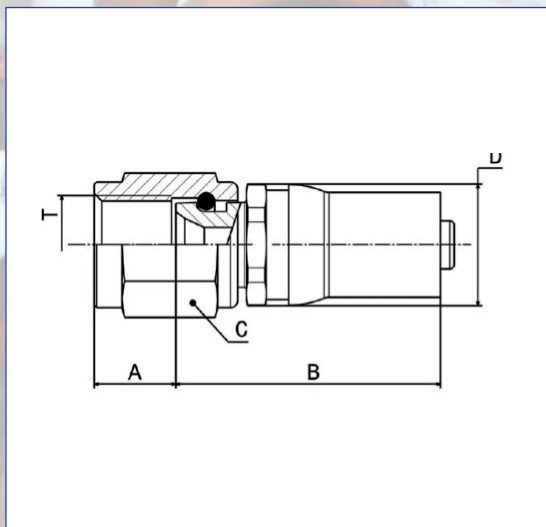


# R160

## 38° - AS1708 Imperial Hose Fittings

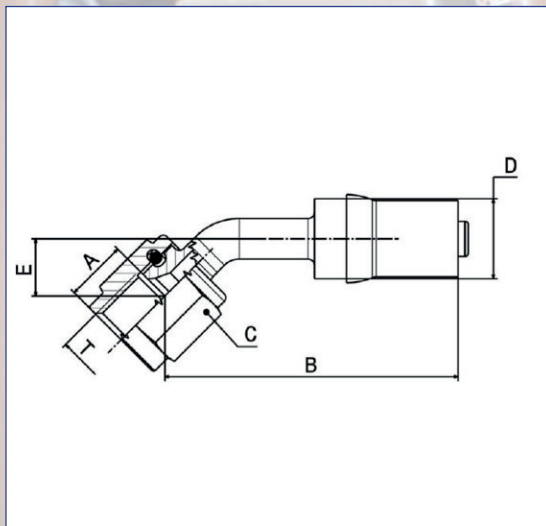
Mates with AS33514/AS33515 AND AS4375/AS4377

### STRAIGHT



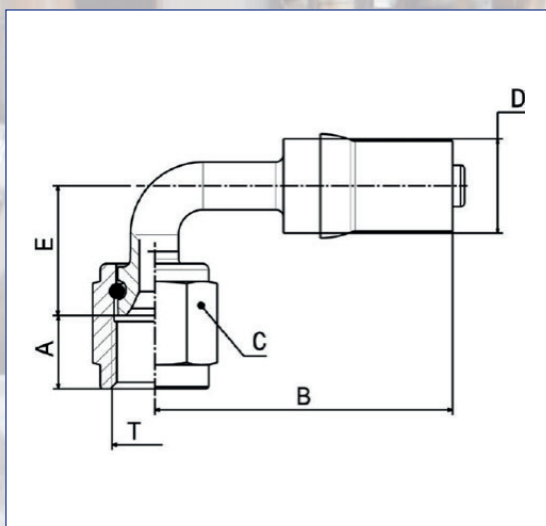
Hose	Fitting Part Number	Thread (in)	A mm	B mm	C mm	D mm	E mm
4	Y40004-72	7/16-20	9,4	33	14,3	13,9	N/A
6	Y40006-72	9/16-18	9,5	37,2	17,5	17,4	N/A
8	Y40008-72	3/4-16	11,1	40,8	22,2	20,5	N/A
10	Y40010-72	7/8-14	13,1	42,4	25,4	23,6	N/A
12	Y40012-72	1.1/16-12	14,3	48,4	31,7	30,3	N/A

### 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

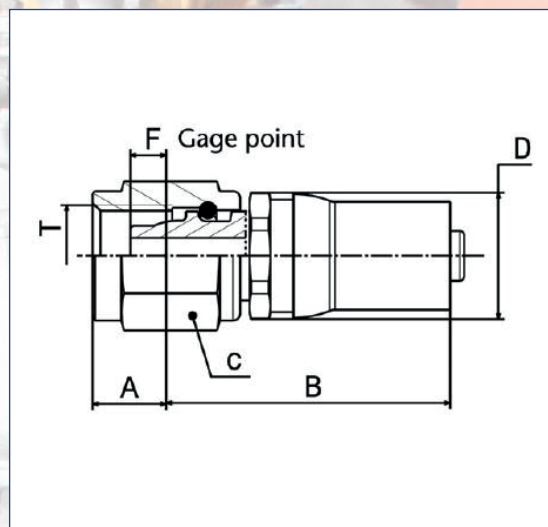


Hose	Fitting Part Number	Thread (in)	A mm	B mm	C mm	D mm	E mm
4	Y40204-72	7/16-20	9,4	37,1	14,3	12,7	16.3
6	Y40206-72	9/16-18	9,5	45	17,5	15,9	22.6
8	Y40208-72	3/4-16	11,1	49	22,2	19	28.1
10	Y40210-72	7/8-14	13,1	59,4	25,4	22,2	32.5
12	Y40212-72	1.1/16-12	14,3	68,3	31,7	28,6	35.7

# R160

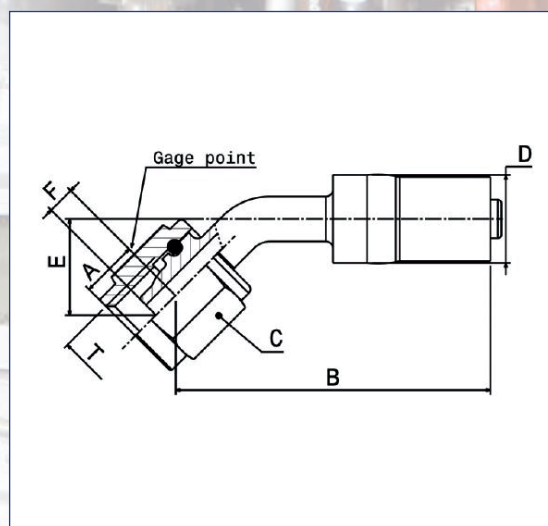
## Flareless Imperial Hose Fittings NAS1760

### STRAIGHT



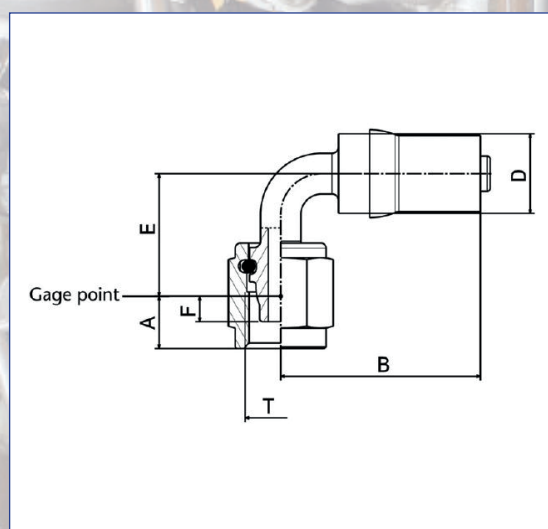
Hose	Fitting Part Number	Thread (in)	A mm	B mm	C mm	D mm	E mm
4	Y40404-72	7/16-20	9,4	33	14,3	13,9	3.94
6	Y40406-72	9/16-18	9,5	37,2	17,5	17,4	4.17
8	Y40408-72	3/4-16	11,1	40,8	22,2	20,5	4.80
10	Y40410-72	7/8-14	13,1	42,4	25,4	23,6	5.11
12	Y40412-72	1.1/16-12	14,3	48,4	31,7	30,3	5.79

### 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 Iib, 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 convuluted (tape wrap) PTFE innercore, reinforced with a single layer of CRES 304 wire braid. The convuluted 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.

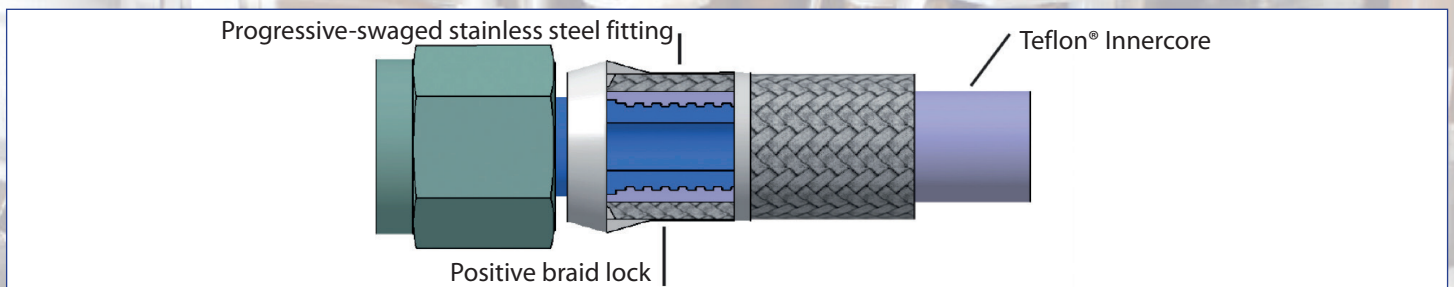
Chafe resistant hoses are available as RP267 – see next page.

### 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 convuluted 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 Convoluted

### 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.<sup>2</sup> (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

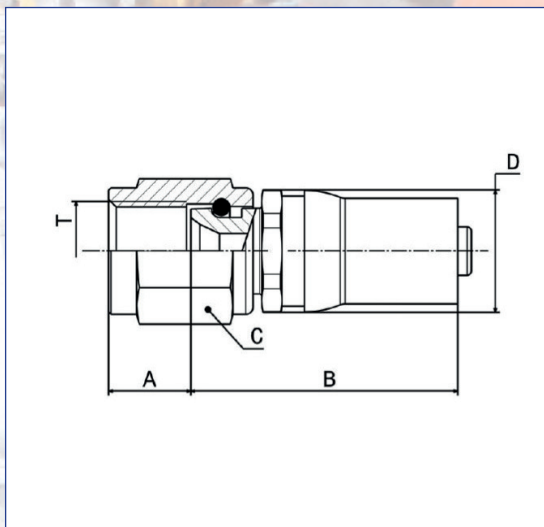
THT Ostrava CZ produces R267 hose assemblies with various fittings. Some examples are on the following pages. Fittings of other dimensions and/or standards (GOST, OST, DIN, MON) are available on request.

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

# R267

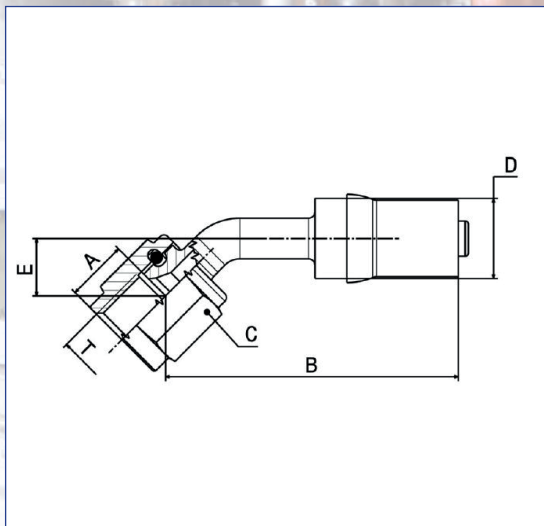
## 37° - JIC Metric Hose Fittings

### STRAIGHT



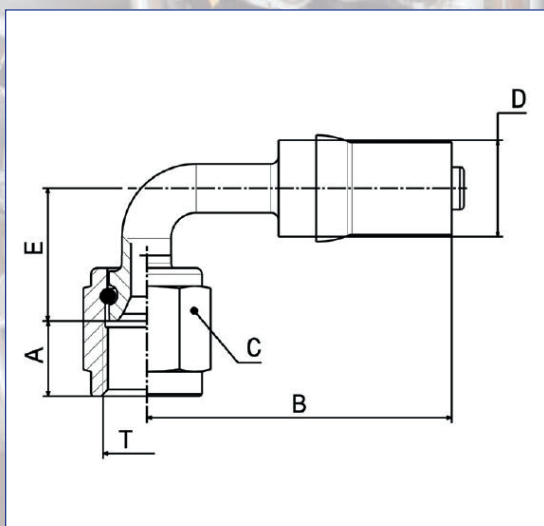
Hose	Fitting Part Number	Thread (mm)	A mm	B mm	C mm	D mm	E mm
10	R17851	M24x1,5	12,7	40	30	29,7	N/A
	R17856	M27x1,5	14,3	42	32	32	N/A
12	R17853	M27x1,5	14,3	44	32	35	N/A
	R17854	M28x1,5	14,3	44	32	35	N/A
	R17852	M33x2	15,2	45	38	39,6	N/A
16	R18262	M28x1,5	14,3	45	32	38	N/A
	R17855	M30x1,5	15	45	36	38	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

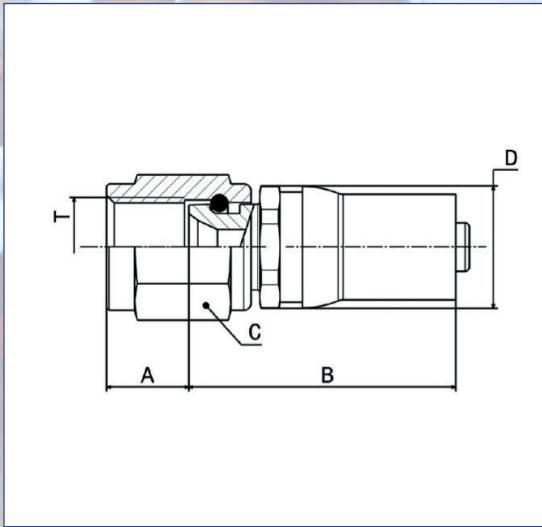
Fittings of other dimensions and/or standards (GOST, OST, DIN, MON) on request.



# R267

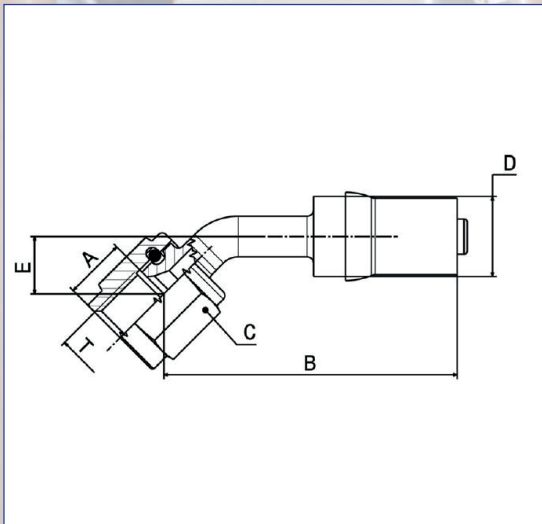
## 38° - AS1708 Imperial Hose Fittings

### STRAIGHT



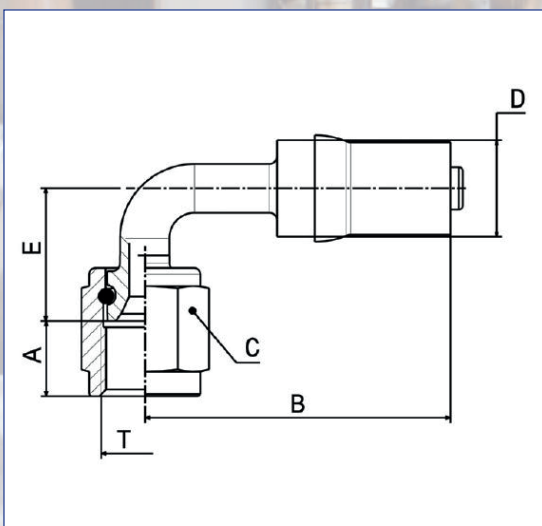
Hose	Fitting Part Number	Thread (in)	A mm	B mm	C mm	D mm	E mm
10	Y40010-39	.8750-14	13.1	40.1	25.4	24.1	N/A
12	Y40012-39	1.0625-12	14.3	44.2	31.8	32.5	N/A
16	Y40016-39	1.3125-12	15.7	45.5	38.1	37.3	N/A
20	Y40020-25	1.6250-12	15.7	58.3	46.0	43.2	N/A
24	Y40024-25	1.8750-12	19.4	58.3	54.0	50.8	N/A
32	Y40032-25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



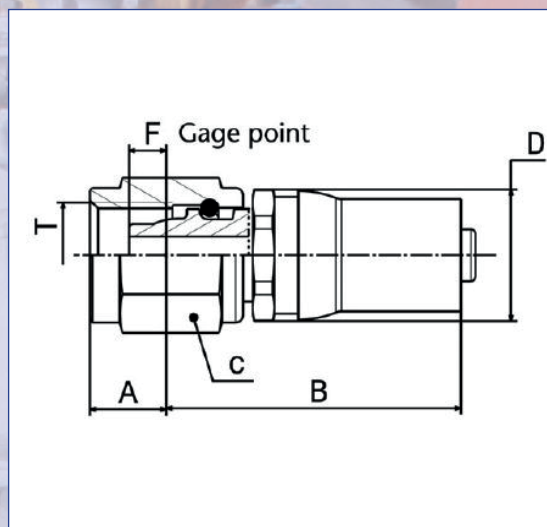
Hose	Fitting Part Number	Thread (in)	A mm	B mm	C mm	D mm	E mm
10	Y40210-39	.8750-14	13.1	50.8	25.4	24.1	32.5
12	Y40212-39	1.0625-12	14.3	64.3	31.8	32.5	35.7
16	Y40216-39	1.3125-12	15.7	72.9	38.1	37.3	43.4
20	Y40220-39	1.6250-12	15.7	86.2	46.0	43.2	51.9
24	Y40224-39	1.8750-12	19.4	92.8	54.0	50.8	60.0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

# R267

## Flareless Imperial Hose Fittings NAS1760

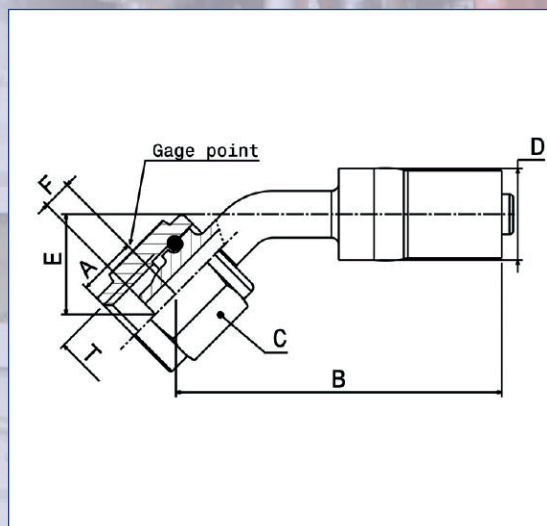
Mates with AS33514/AS33515 AND AS4375/AS4377

### STRAIGHT



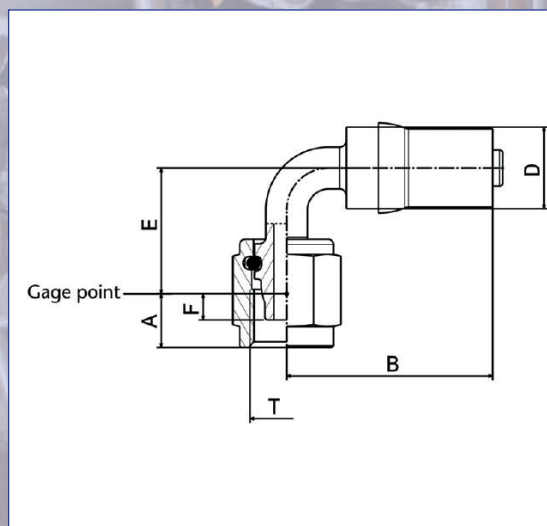
Hose	Fitting Part Number	Thread (in)	A mm	B mm	C mm	D mm	E mm
10	Y40410-30	.8750-14	10.1	43.4	25.4	24.1	NA
12	Y40412-30	1.0625-12	10.7	48.0	31.8	32.5	NA
16	Y40416-30	1.3125-12	10.8	50.8	38.1	37.3	NA
20	Y40420-30	1.6250-12	11.5	62.9	46.0	43.2	NA
24	Y40424-30	1.8750-12	11.4	66.7	54.0	50.8	NA
32	Y40432-30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

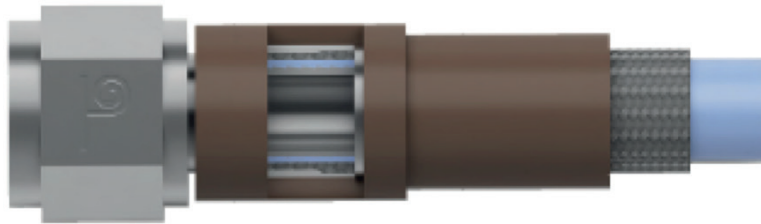
#### Main characteristics:

- 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.<sup>2</sup> (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

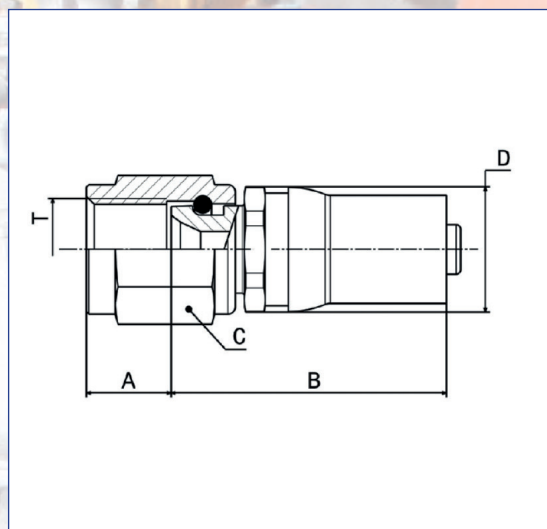
THT Ostrava CZ produces R101 hose assemblies with various fittings. Some examples are on the following pages. Fittings of other dimensions and/or standards (GOST, OST, DIN, MON) are available on request.

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

# R101

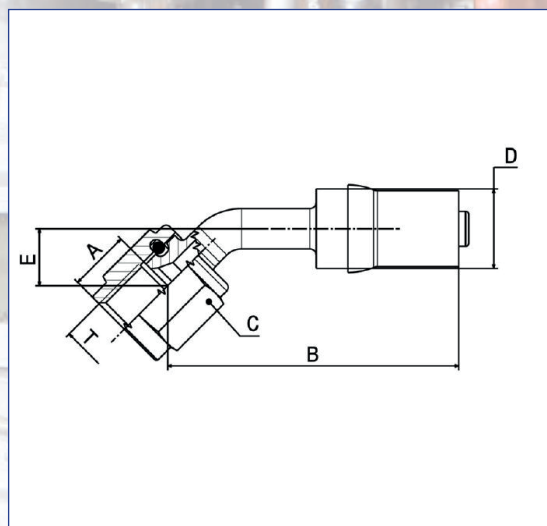
## 38° - AS1708 Imperial Hose Fittings

### STRAIGHT



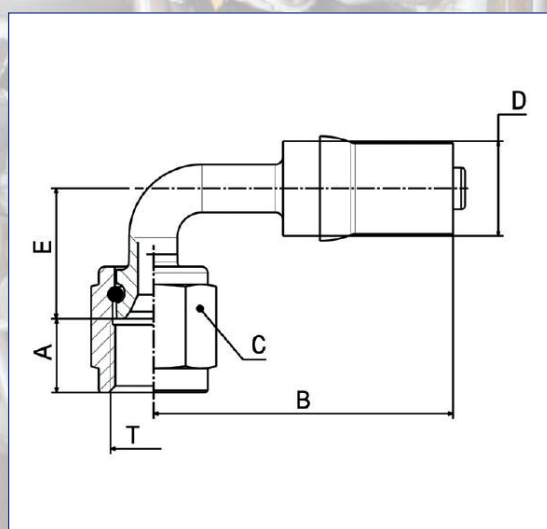
Hose	Fitting Part Number	Thread (in)	A mm	B mm	C mm	D mm	E mm
04	Y40004-50	.4375-20	9.4	28.3	14.3	14.0	N/A
05	Y40005-50	.5000-20	9.5	29.8	15.9	16.0	N/A
06	Y40006-9	.5625-18	9.5	33.3	17.5	17.8	N/A
08	Y40008-9	.7500-16	11.1	37.3	22.2	21.1	N/A
10	Y40010-9	.8750-14	13.1	39.9	25.4	24.6	N/A
12	Y40012-9	1.0625-12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

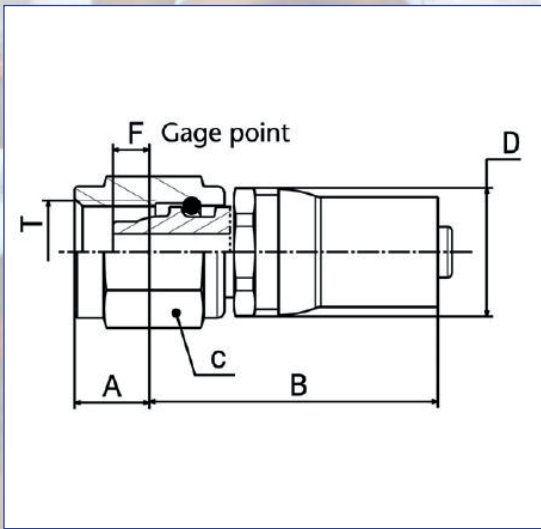


# R101

## Flareless Imperial Hose Fittings NAS1760

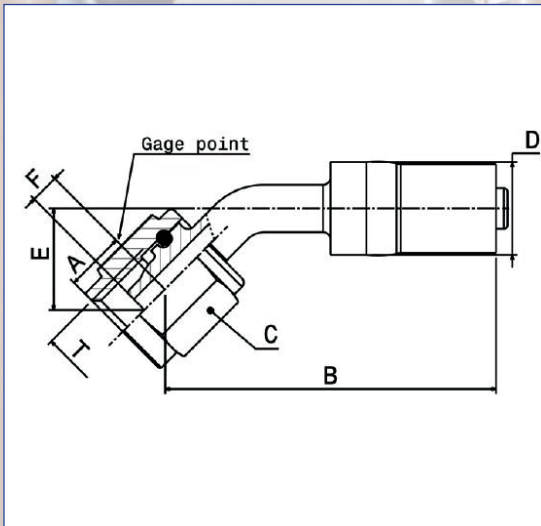
Mates with AS33514/AS33515 AND AS4375/AS4377

### STRAIGHT



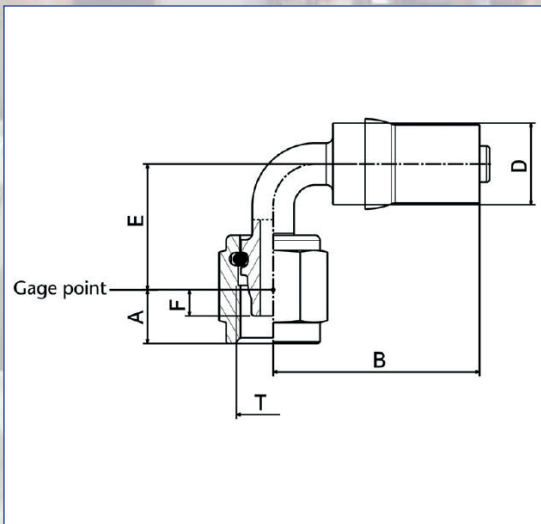
Hose	Fitting Part Number	Thread (in)	A mm	B mm	C mm	D mm	E mm
04	Y40404-50	.4375-20	8.1	29.6	14.3	14.0	N/A
05	Y40405-50	.5000-20	7.9	31.2	15.9	16.0	N/A
06	Y40406-15	.5625-18	8.3	34.5	17.5	17.8	N/A
08	Y40408-15	.7500-16	9.3	39.4	22.2	21.1	N/A
10	Y40410-15	.8750-14	10.1	43.2	25.4	24.6	N/A
12	Y40412-15	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 convuluted (tape wrap) PTFE innercore, similar to the R270 hose, except the R270 is reinforced with a braid of Nomex<sup>®</sup> 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<sup>®</sup>. The addition of a carbon charge offers good electrical conductivity. The second tape is thicker and consists solely of Teflon<sup>®</sup>. Finally, the last tape consists of a silk fabric mixed with Teflon<sup>®</sup>. The Teflon<sup>®</sup> 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.

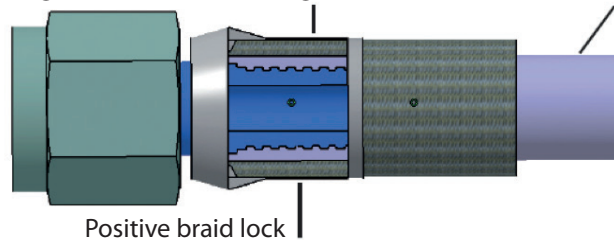
**Armour:** The innercore is reinforced by a braid consisting of green Nomex<sup>®</sup> nylon fibres. The armour consists of a single braid which, when it is combined with a convuluted innercore, offers a good compromise between a very light weight and a good flexibility.

**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<sup>®</sup> 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

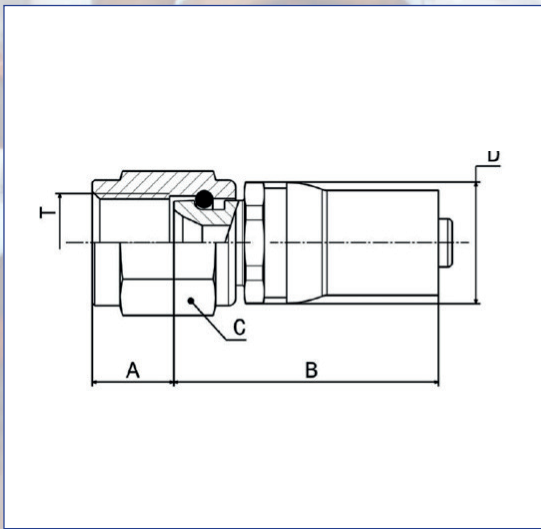
Hose size -16 to -24 on request



# R270

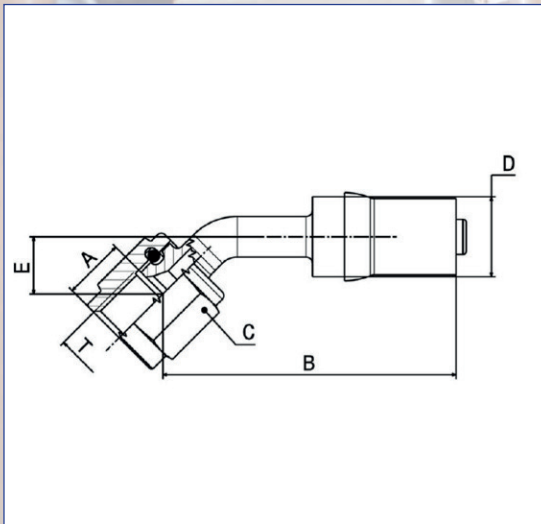
## Low Pressure 21 bar Hose / 300 PSI Convuluted

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



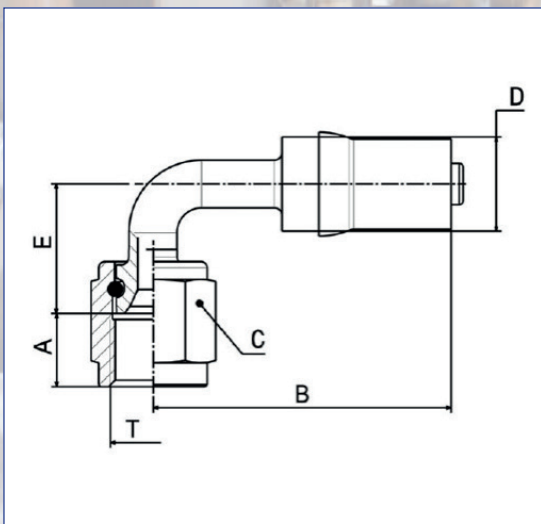
Hose	Fitting Part Number	Thread (in)	A mm	B mm	C mm	D mm	E mm
04	Y40004-39	.4375-20	9.4	26.7	14.3	14.0	N/A
06	Y40006-39	.5625-18	9.5	32.5	17.5	16.5	N/A
08	Y40008-39	.7500-16	11.1	36.6	22.2	21.8	N/A
10	Y40010-39	.8750-14	13.1	40.1	25.4	24.1	N/A
12	Y40012-39	1.0625-12	14.3	44.2	31.8	32.5	N/A
16	Y40016-39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

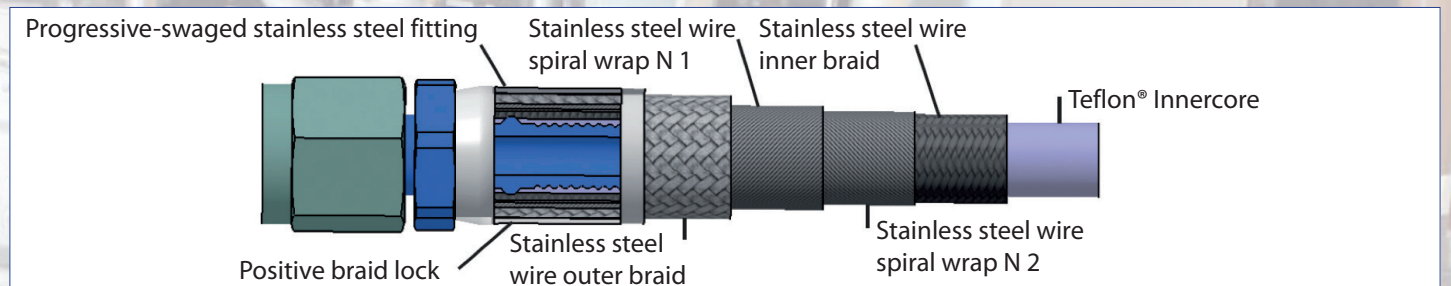
Titeflex R154 is a heavy duty 4000psi (276 bar) aerospace hose assembly qualified to AS614. The hose consists of an extruded smoothbore PTFE innercore, reinforced with multiple layers of CRES 304 wire braid. The PTFE innercore is conductive and provides excellent chemical resistance through a temperature 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

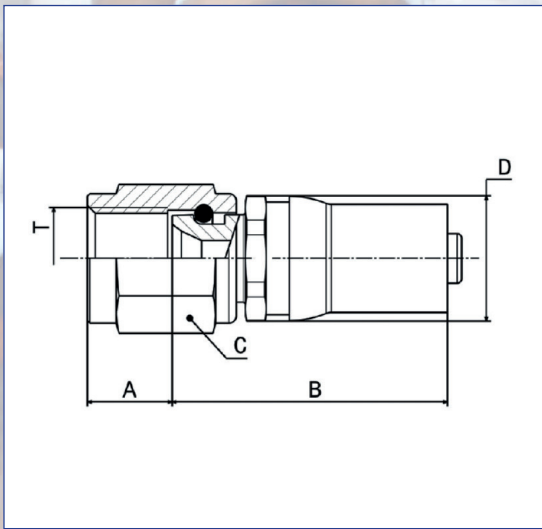
NOTE: Hoses R154 are manufactured in cooperation with Titeflex Europe



# R154

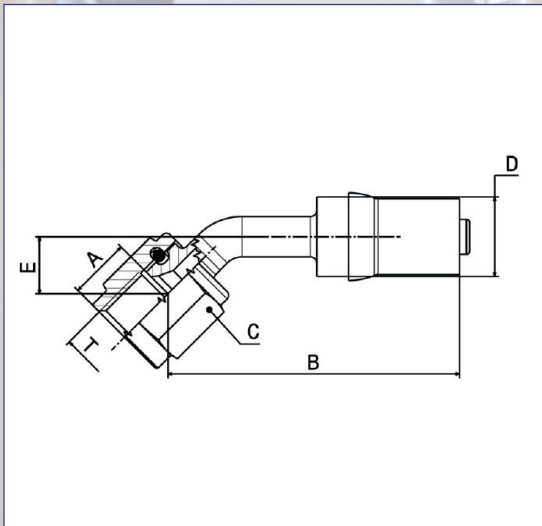
Ultra High Pressure Hose 280 bar / 4000 PSI

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



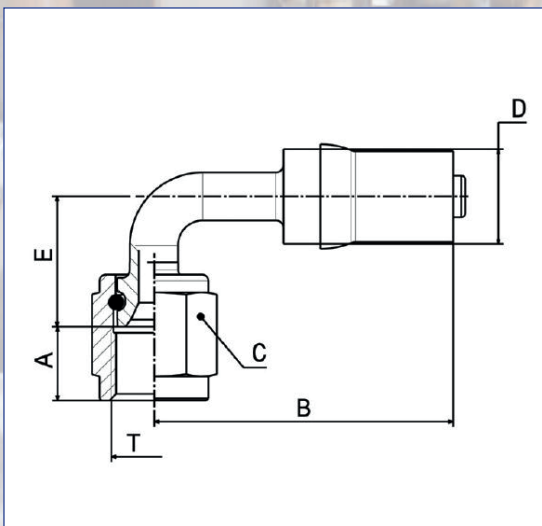
Hose	Fitting Part Number	Thread (in)	A mm	B mm	C mm	D mm	E mm
04	Y40004-42	.4375-20	9.4	35.2	14.3	22.2	N/A
06	Y40006-42	.5625-18	9.5	37.1	17.5	25.4	N/A
08	Y40008-42	.7500-16	11.1	46.0	22.2	30.5	N/A
10	Y40010-42	.8750-14	13.1	57.7	25.4	35.7	N/A
12	Y40012-42	1.0625-12	14.3	58.9	31.8	42.8	N/A
16	Y40016-42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

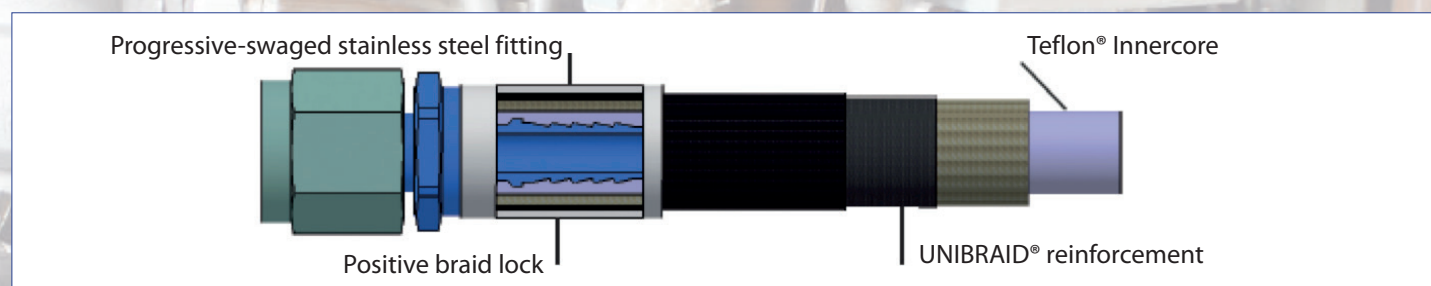
SA500 hose: lightweight 350 Bar non-metallic aerospace hose qualified to AS5951. The hose consists of an extruded smoothbore conductive PTFE innercore, reinforced with Kevlar® para-aramid braid and covered by an integral Cordura® chafe sleeve. Standard fittings are titanium, however CRES fittings are 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

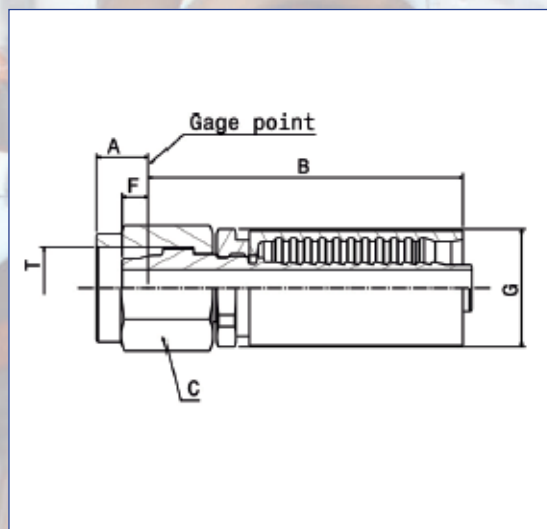
NOTE: Hoses SA500 are manufactured in cooperation with Titeflex Europe



# SA500

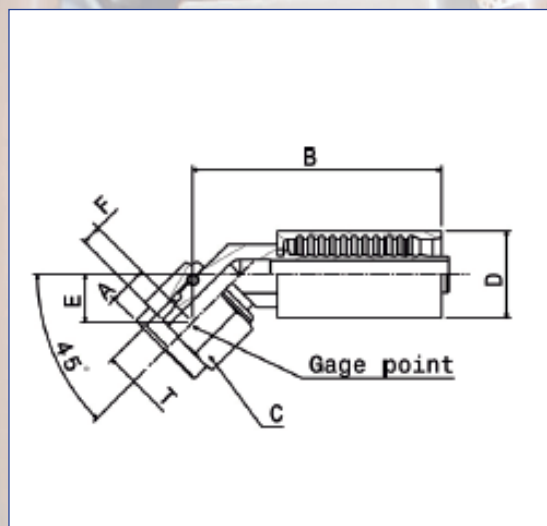
Ultra high Pressure Hose 350 bar / 5000 PSI

## STRAIGHT FLARELESS FITTINGS - MATES WITH AS5827



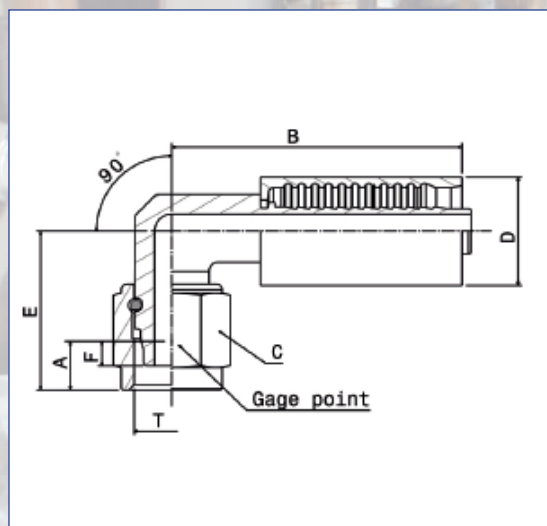
Hose	Fitting Part Number	Thread (in)	A mm	B mm	C mm	D mm	E mm
04	Y40404-35	.4375-20	8.1	48.8	14.2	0.0	N/A
06	Y40406-35	.5625-18	8.3	54.9	17.5	0.0	N/A
08	Y40408-35	.7500-16	9.3	63.8	22.4	0.0	N/A
10	Y40410-35	.8750-14	10.1	78.5	25.4	0.0	N/A
12	Y40412-35	1.0625-12	10.7	102.6	31.8	0.0	N/A

## 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:

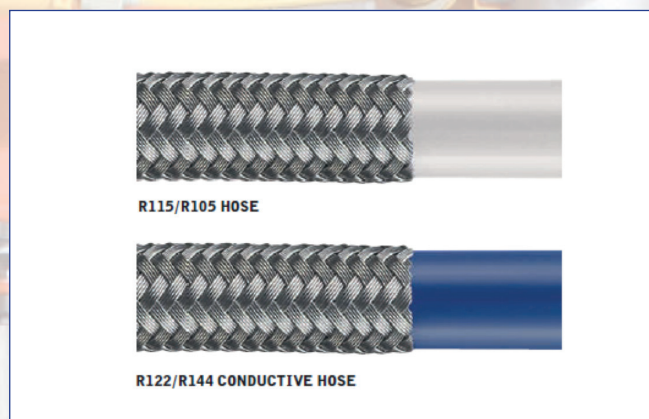
- Innercore vertically extruded to maintain highest quality of concentricity
- Manufactured from fine powder PTFE
- 304 stainless steel wire braid reinforcement
- A precisely controlled amount of carbon black added to the PTFE innercore provides a continuous conductive path to the metal end filling, 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 <sup>T</sup> ROOM TEMP.	BURST PRES-SURE PSIA <sup>T</sup> ROOM TEMP	MAXI MUM CONTINUO-US	MINIMUM 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
R115 / 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 / R122-16T*	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

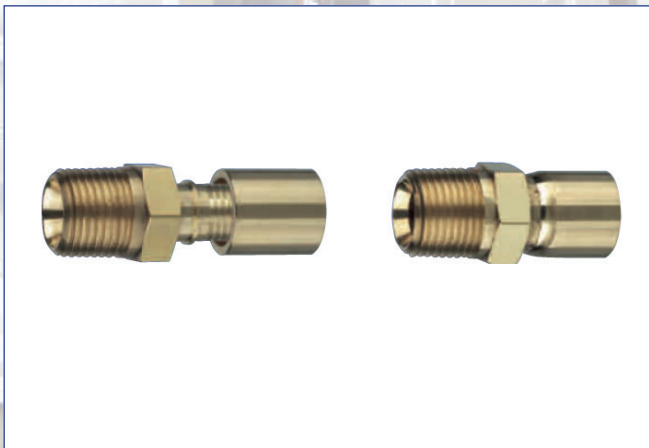
Consult factory for temperature-adjusted ratings. \* True bore. + Double braid.

# R115/R105 and R122/R144 Conductive Hose Fittings

## R105 .040 WALL HOSE | R144 CONDUCTIVE HOSE

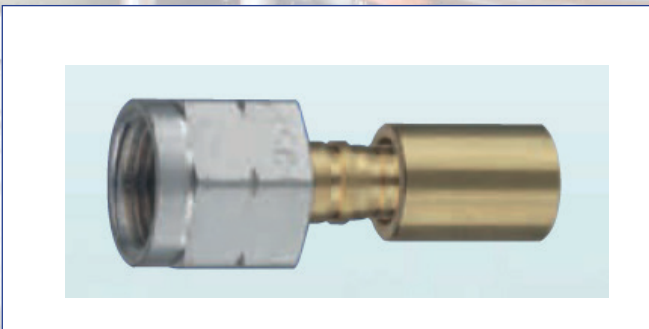
HOSE PART NUMBER	NOMINAL SIZE, I N.	AVERAGE I.O.		AVERAGE O.D., IN.	OPERATING PRESSURE PSI AT ROOM TEMP.	BURST PRESSURE PSI AT ROOM TEMP.	MAXIMUM CONTINUOUS LENGTH, FT.	MINIMUM BEND	HOSE WEIGHT LB./FT.
		IN.	MM						
R105 / R144-4	1/4	.187	4.8	.323	3,000	12,000	200	2.00	.08
R105 / R144-5	5/16	.250	6.4	.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

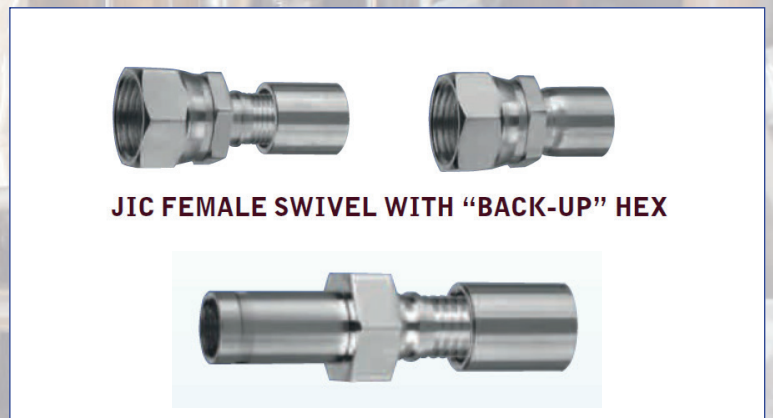


PART NUMBER 1 PIECE FITTING	PART NUMBER 1 PIECE FITTING	SIZE IN.	THREAD	NOMINAL I.D.
Y54104T-xxx	Y54304T-xxx	1/4	1/8 - 27	.156
Y54104-xxx	Y54304-xxx	1/4	1/4 - 18	.156
Y54105-xxx	Y54305-xxx	5/16	1/4 - 18	.207
Y54106T-xxx	Y54306T-xxx	3/8	1/4 - 18	.277
Y54106-xxx	Y54306-xxx	3/8	3/8 - 18	.277
Y54108T-xxx	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



JIC FEMALE SWIVEL WITH "BACK-UP" HEX

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		NOMINAL O.D. IN. PSI AT ROOM 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. FT.
	in.	mm								
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

## Convoluted Medium Pressure Industrial Hose - Convoluted 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 OPERATING PRESSURE PSI	BURST PRESSURE PSI	TYP. MAX. CONTINUOUS LENGTH, 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	
Dioctyl 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	
Hydrofluoric 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	
Naphtha		2			1	
Haphthalene		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 Teloxide	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)

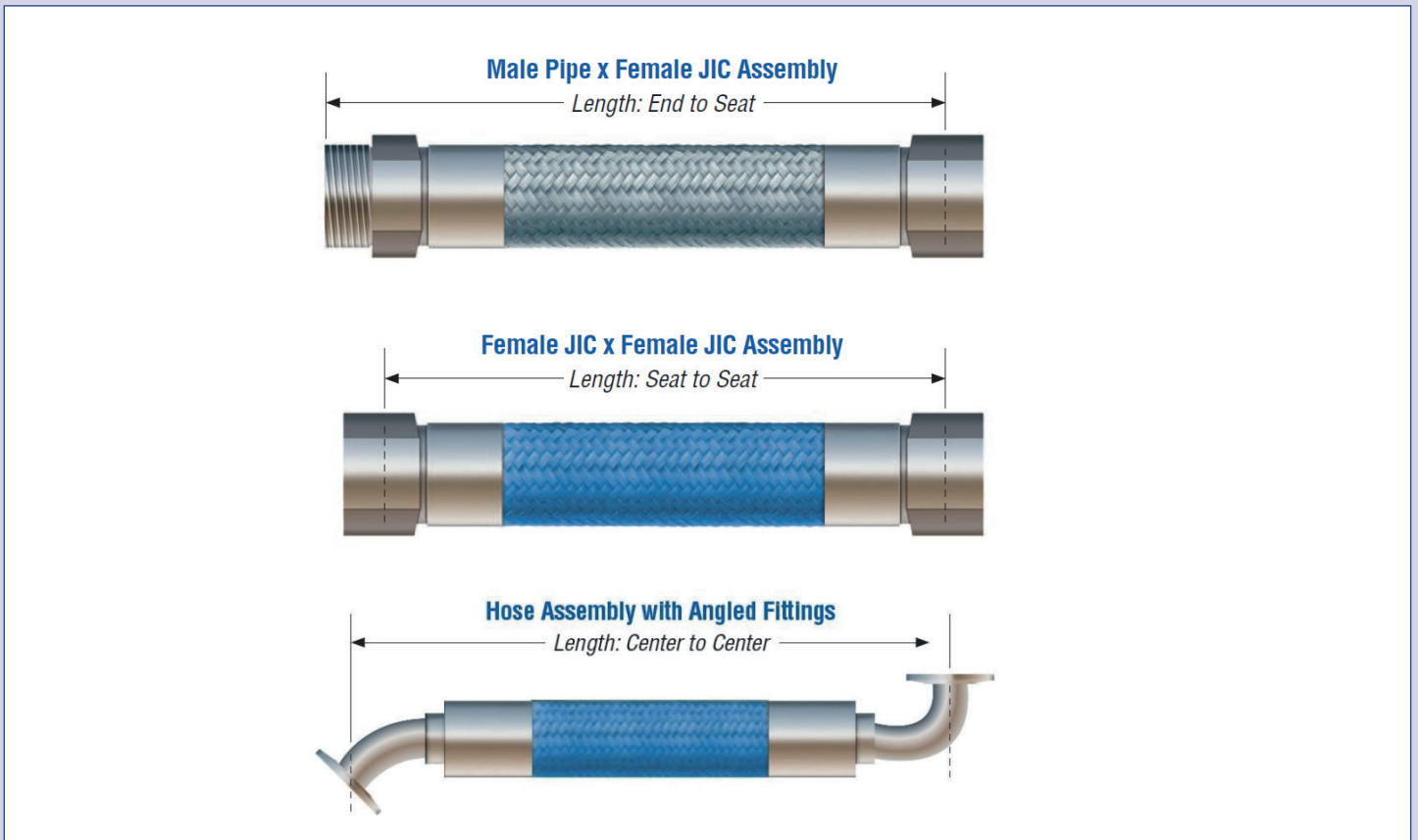
HOSE SIZE	18°C	37.8°C	65.6°C	95°C	120°C	150 C°	175°C	204°C	232°C
-3, -4, -5	1000	974	937	899	862	825	787	750	713
-6	750	730	702	674	646	618	590	563	535
-8	500	487	468	450	431	412	394	375	356



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

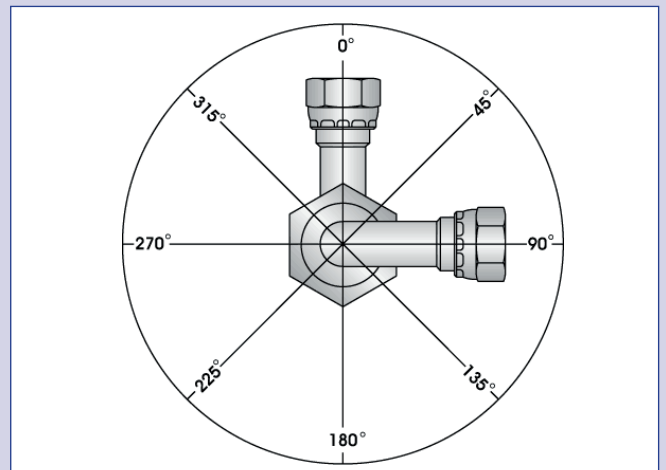
1. Determine basic requirements of hose assembly - operating pressure, temperature, medium type, etc.
2. Select the hose inner diameter – “dash size”
3. Choose the hose outer surface - fire resistant, anti-abrasion or blank (wirebraid only)
4. Choose the hose end fittings configuration on both ends (straight-straight, 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.







## How to contact the right person

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