



**RINA**  
www.rina.org

**CERTIFICATO N. 90/94/S**  
**CERTIFICATE No. 90/94/S**

SI CERTIFICA CHE IL SISTEMA DI GESTIONE PER LA QUALITÀ DI IT IS HEREBY CERTIFIED THAT THE QUALITY MANAGEMENT SYSTEM OF

**CAST S.P.A.**

STRADA BRANZIZZO 40400 BIS 10088 VOLPIANO (TO) ITALIA  
NELLE SEGUENTI UNITÀ OPERATIVE / IN THE FOLLOWING OPERATIONAL UNITS

STRADA BRANZIZZO 40400 BIS 10088 VOLPIANO (TO) ITALIA  
VIA REG. GAMBIA, 365 10030 CASALGRASSO (CN) ITALIA

E CONFORME ALLA NORMA / IS IN COMPLIANCE WITH THE STANDARD  
**ISO 9001:2008**

PER I SEGUENTI CAMPI DI ATTIVITÀ / FOR THE FOLLOWING FIELDS OF ACTIVITIES

PROGETTAZIONE E PRODUZIONE DI RACCORDI PER ALTA PRESSIONE IN ACCIAIO AL CARBONIO ED INOSSIDABILE AD USO INDUSTRIALE PER TUBAZIONI DA 4 A 642 mm DI DIAMETRO. ASSISTENZA TECNICA

DESIGN AND PRODUCTION OF HIGH PRESSURE FITTINGS IN CARBON AND STAINLESS STEEL FOR INDUSTRIAL APPLICATIONS FOR PIPING WITH 4 DIAMETERS BETWEEN 4 AND 42 INCH. TECHNICAL ASSISTANCE

Ultima emissione: 28.02.1994  
Prima emissione: 26.03.2012  
Data scadenza: 21.03.2015

**ACCREDIA**

**CISA**

**MOLOGAZIONE DI TIPO**  
**13813CS/001**

Per le pressioni delle norme qui specificate.

**IN**  
DIN 2353

**NO**  
DIZZO 404  
NO (TO)

**DIZZO 404**  
NO (TO)  
Sez. 10 delle Norme del RINA

Certificata e valida fino al 1° Agosto 2018

**RINA**  
Francesco Scelco

01/16/0CS emesso in data 22 Settembre 2009

**CISA**

**Net**  
CERTIFICATION NETWORK

**FIFICATE**

and its partner  
**SORINA**  
that the organisation

**CAST S.P.A.**

008 BIS 10088 VOLPIANO (TO) ITALIA  
operative units

008 BIS 10088 VOLPIANO (TO) ITALIA  
2000 CASALGRASSO (CN) ITALIA

operative units

oper field of activities

CARBON AND STAINLESS STEEL FOR INDUSTRIAL APPLICATIONS FOR  
EN 4 AND 42 mm. TECHNICAL ASSISTANCE

and maintaining a  
**Management System**  
in accordance with the following standard:  
**ISO 9001:2008**

**Registration Number: IT-2631**  
Current Issue: 2012-03-26

**CISA**  
President of CISA

**Germanischer Lloyd**

have been tested in accordance with  
that System.

steel shell CP95M/P336, 1150M/P37  
cutting ring type B3

L-Series	6 - 18 [mm]	22 - 42 [mm]	
H-Series	6 - 14 [mm]	160 [bar]	
	6 - 14 [mm]	18 - 30 [mm]	38 [mm]
	6 - 14 [mm]	400 [bar]	315 [bar]
	6 - 14 [mm]	400 [bar]	315 [bar]

Temperature range: -20 [°C] up to 120 [°C]  
6 - 14 [mm] for L-Series  
6 - 14 [mm] for H-Series

all pipe unions of this type with cutting ring B3 are type  
union couplings for the use in piping systems according to the  
specifications in Section 11, Table 11.13.14.14, compression  
resistant. For service temperatures above 40°C the  
material specified by the manufacturer is to be observed.

Requirements for Components and Systems of Mechanical Engineering  
Edition 2008

according to GL Approver Ref. No. 19-10895, 11-53329  
and

in accordance with the instructions of the manufacturer.

Type Approval Symbol **GL**

Inspector Raschke Sven Dujdz

Inspector of Type Test, Part C Product

Internet Publication GL-Approval

**DNV**

**DET NORSKE VERITAS**  
TYPE APPROVAL CERTIFICATE

CERTIFICATE NO. P-14374

This is to certify that the  
Pipe Couplings, Bite and Compression Type

with type designation(s)  
L-Series, S-Series

Manufactured by  
**CAST S.P.A.**  
Volpiano TO, Italy

is found to comply with  
Det Norske Veritas' Rules for Classification of Ships  
Det Norske Veritas' Standards for Certification 2.9 No. 5-792.20

Application:  
The couplings may be used in the following: Hydraulic, Fuel, Lubrication Oil, Compressed Air, Steam and Condensate,  
Freshwater, Seawater and Marsh Gas systems.

Type:	Temperature range:	Max. working press.:	Size:
L-Series	see cert.	315 bar - 160 bar (see cert.)	6 to 42 mm
S-Series	see cert.	630 - 315 bar (see cert.)	6 to 38 mm

This Certificate is valid until (2017-12-31)  
issued in Havik, on (2013-02-21)

DNV local station: Milan  
Approval Engineer: Mohsen Mohabbati

for Det Norske Veritas AS  
**Giorgio Sala**  
Acting Head of Section

Form No.: TA 1411a, Issue: December 2012

**DNV**

**DET NORSKE VERITAS**  
APPROVAL CERTIFICATE

CERTIFICATE NO. P-14394

This is to certify that the  
Couplings, Flared or Welded Nipple Type

with type designation(s)  
SAE J 514 3/4" flared pipe fittings

Manufactured by  
**CAST S.P.A.**  
Volpiano TO, Italy

is found to comply with  
"D05-D101, Marine and Machinery Systems and Equipment  
Det Norske Veritas' Rules for Classification of Ships,  
Det Norske Veritas' Standards for Certification 2.9 No. 5-792.20

Application:  
The couplings may be used in the following: Hydraulic, Fuel, Lubrication Oil, Compressed Air, Steam and  
Fresh and Sea water and Marsh gas systems.

Temp range: -40 °C to 200 °C (see cert.)  
Press. depending on size, see cert.  
6 to 38 mm.

for Det Norske Veritas AS  
Acting Head of Section  
**Marianne Sparren Marvang**  
Head of Section

Form No.: TA 1411a, Issue: December 2012

**DNV**

**DET NORSKE VERITAS**  
APPROVAL CERTIFICATE

CERTIFICATE NO. P-14493

This is to certify that the  
Couplings, Flared or Welded Nipple Type

with type designation(s)  
DNFS SAE J 1453 90° flared fittings

Manufactured by  
**CAST S.P.A.**  
Volpiano TO, Italy

is found to comply with  
"Det Norske Veritas' Rules for Classification of Ships  
Det Norske Veritas' Standards for Certification 2.9 No. 5-792.20

Application:  
The couplings may be used in the following: Hydraulic, Fuel, Lubrication Oil, Compressed Air, Steam and  
Fresh and Sea water and Marsh gas systems.

Temp range: -40 °C to +200 °C, see certificate  
Press.: 630 bar, see certificate  
6 to 38 mm

for Det Norske Veritas AS  
Acting Head of Section  
**Marianne Sparren Marvang**  
Head of Section

Form No.: TA 1411a, Issue: December 2012

**DNV**

**DET NORSKE VERITAS**  
TYPE APPROVAL CERTIFICATE

CERTIFICATE NO. P-14412

This is to certify that the  
Couplings of Non-Metallic Material with Permanently Fitted Couplings

with type designation(s)  
EN633 15N, EN637 15C, EN633 25N and EN637 25C

Manufactured by  
**CAST S.P.A.**  
Volpiano TO, Italy

is found to comply with  
"Det Norske Veritas' Rules for Classification of Ships  
Det Norske Veritas' Offshore Standards  
Det Norske Veritas' Standards for Certification 2.9 No. 5-791.70

Application:  
The couplings may be used in the following: Hydraulic, Fuel, Lubrication Oil, Compressed Air, Steam and  
Fresh and Sea water and Marsh gas systems.

Temp range: -40 °C to +100 °C  
Max. working press.: 40 to 415 bar  
Size: DMS to DN63 (3/4" to 2")

for Det Norske Veritas AS  
**Marianne Sparren Marvang**  
Head of Section

Form No.: TA 1411a, Issue: December 2012

**FOR A CONSTANT IMPROVEMENT**

The staff concerned full time in the Quality and Research is highly competent and constantly brought up to date and represents the 10% of the employees working with our company. Since 1993 our manual and quality procedures constantly follow the reference rules development. The numerous inspections carried out by the certification agencies have always confirmed the continuous adjustment to the ISO 9001 norm requirements and the steadfast improvement of our quality system.





# SAE-J1453










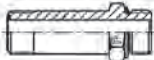





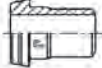

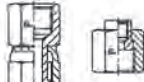


















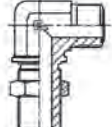
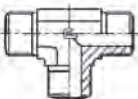
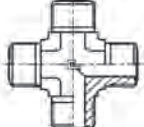
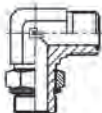
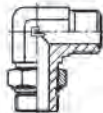



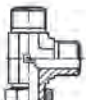
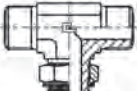
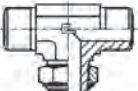
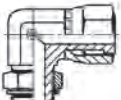
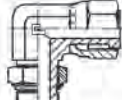
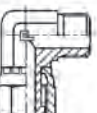
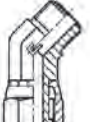
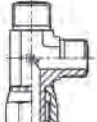
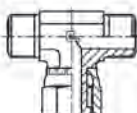





# ORFS

**AVAILABLE IN CARBON AND STAINLESS STEEL**

40

## FIGURATIVE INDEX – FITTINGS SAE J1453 - ISO 8434-3

General instructions	Quality assurance	Allowed temperatures	Finish treatments	Tubes to be used	Threaded ends	Prescriptions to comply with
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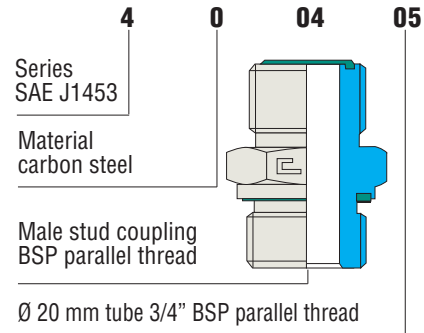
## ORDERING EXAMPLES (Carbon steel)

## ORDERING EXAMPLES (Stainless steel)

### ORFS

- If you require a male stud coupling for a  $\varnothing$  20 mm tube with 3/4" BSP parallel thread made of carbon steel with elastomeric NBR seal on the threaded end, order: 400405

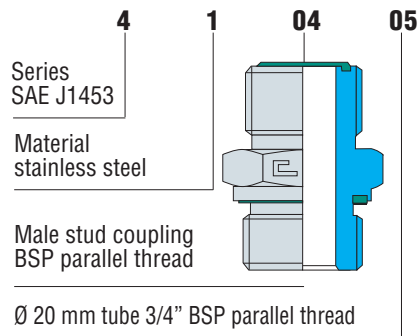
- If you require the VITON® seal, add "V" at the end.



### ORFS

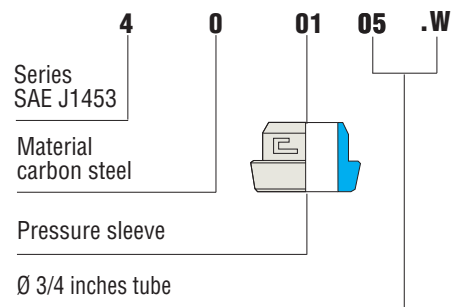
- If you require a male stud coupling for a  $\varnothing$  20 mm tube with 3/4" BSP parallel thread made of stainless steel with elastomeric VITON® seal on the threaded end, order: 410405

- If you require the NBR seal, add ".N" at the end.



### ORFS

- If you wish to use a steel tube with inch measurements, add the letter ".W" to the code of the pressure sleeve to order: 400105.W



## DELIVERIES

- Cast S.p.A. fittings are delivered in the configurations shown in the tables of this catalogue.
- Available on scheduled orders only: it means that the article is slow moving and will be delivered within 90 days.
- Available on request only: it means that the article is not commonly in stock; please contact our offices for further delivery details.

VITON® is a DuPont Dow Elastomers Trade Mark

## THEORY OF OPERATION-FLARED TUBE

The CAST fitting, manufactured according to ISO 8434-3/SAE J1453, is a mechanical fitting traditionally used for high pressure fluid-dynamic systems. The sealing is made between two flat surfaces, metal to metal, with no deformation of the components, plus an elastomeric sealing (O-Ring) placed into a groove on the front surface of the fitting.

The coupling between the body of the fitting and the flared tube is guaranteed by the tightening nut and by the sleeve on the inside. It helps fast assembly of removable tubes, avoids welding and tapping, thus assuring maximum simplicity for complex oleo-dynamic systems. Repeated assemblies do not alter the performance of the coupling.

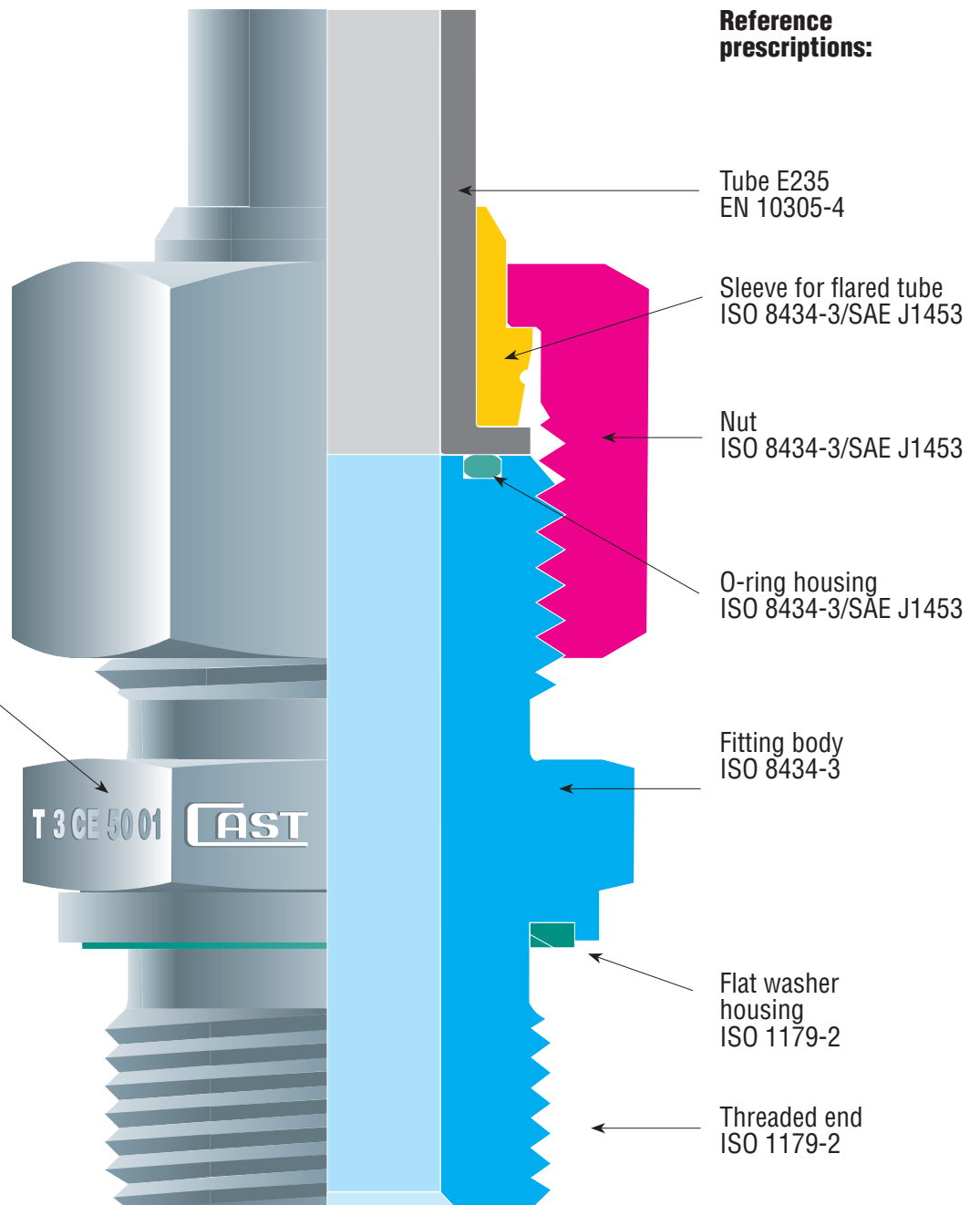
### COUPLING SYSTEM SAE J1453

### Reference prescriptions:

### Traceability decoding:

**CAST** =  
Logo of the  
Manufacturer

- T =  
Production plant
- 3 =  
Year of manufacture
- CE =  
Made in EEC
- 50 =  
Type of steel used
- 01 =  
Heat number of the  
steel used



## THEORY OF OPERATION - BRAZED TUBE

The CAST fitting, manufactured according to ISO 8434-3/SAE J1453, is a mechanical fitting traditionally used for high pressure fluid-dynamic systems. The sealing is made between two flat surfaces, metal to metal, with no deformation of the components, plus an elastomeric sealing (O-Ring) placed into a groove on the front surface of the fitting.

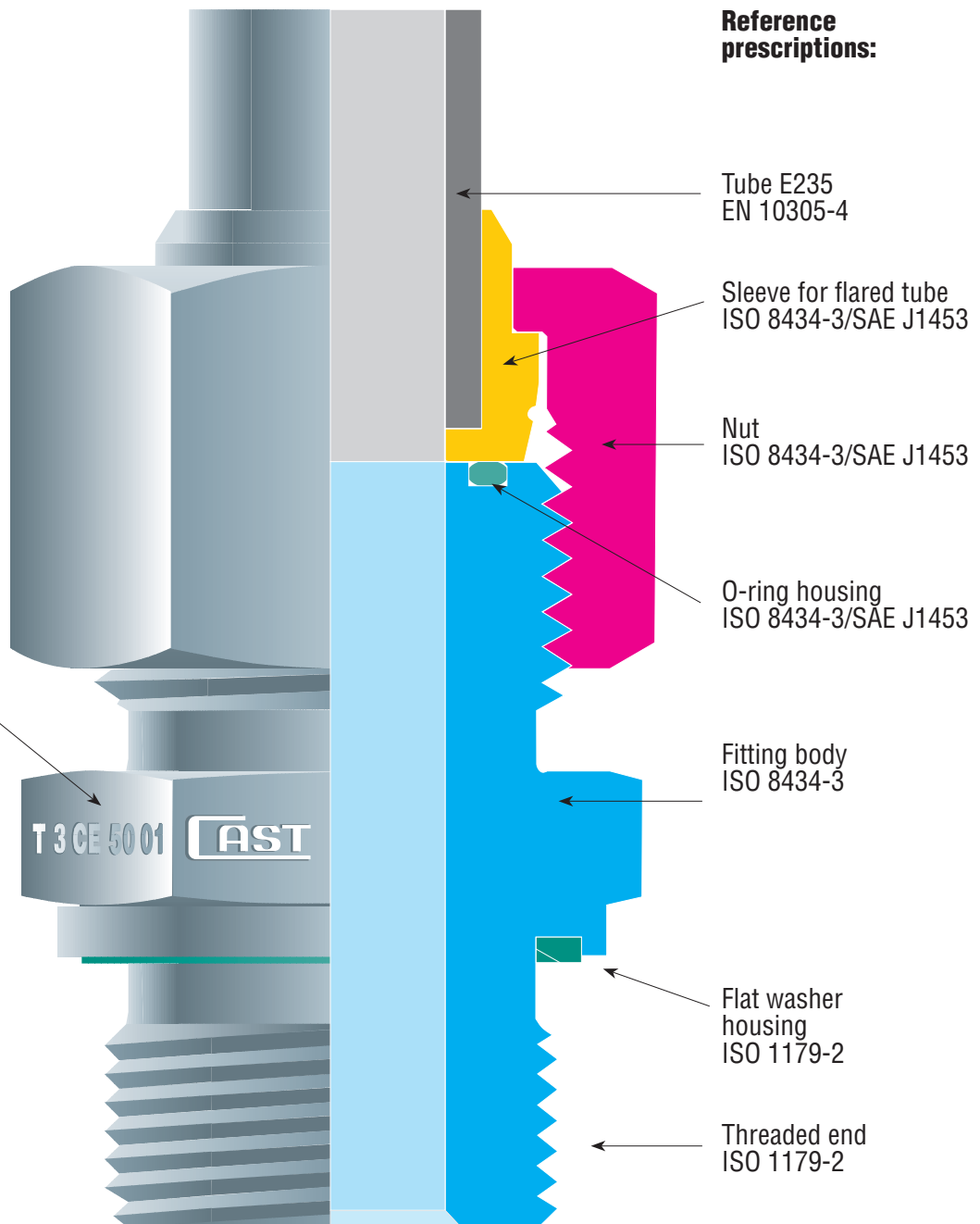
The coupling between the body of the fitting and the brazed tube is guaranteed by the tightening nut. It helps fast assembly of removable tubes, avoids flarings and tapping, thus assuring maximum simplicity for complex oleo-dynamic systems. Repeated assemblies do not alter the performance of the coupling.

### COUPLING SYSTEM SAE J1453

#### Traceability decoding:

**CAST** = Logo of the Manufacturer

- T = Production plant
- 3 = Year of manufacture
- CE = Made in EEC
- 50 = Type of steel used
- 01 = Heat number of the steel used



### Reference prescriptions:

- Tube E235  
EN 10305-4
- Sleeve for flared tube  
ISO 8434-3/SAE J1453
- Nut  
ISO 8434-3/SAE J1453
- O-ring housing  
ISO 8434-3/SAE J1453
- Fitting body  
ISO 8434-3
- Flat washer housing  
ISO 1179-2
- Threaded end  
ISO 1179-2

## TECHNICAL CHARACTERISTICS - FLARED TUBE

The CAST ORFS fittings assure perfect seal regardless of the fluid used, provided that no corrosive fluids be employed, the nominal pressures of the fittings and the indicated temperatures be respected and the prescriptions of the manufacturer be followed scrupulously.

These fittings are manufactured in a single series defined "UNIVERSAL" since the fitting body and the tightening nut remain the same also when switching from a metric tube at an inches sized tube. There are no doubles of diameters with different working pressures.

Normal vibrations do not alter the functionality of this type of fitting, also at the top quoted values. Therefore the fitting maintains its best characteristics of absolute guarantee, safety and reliability. For these specific reasons this fitting may be used in hard working conditions.

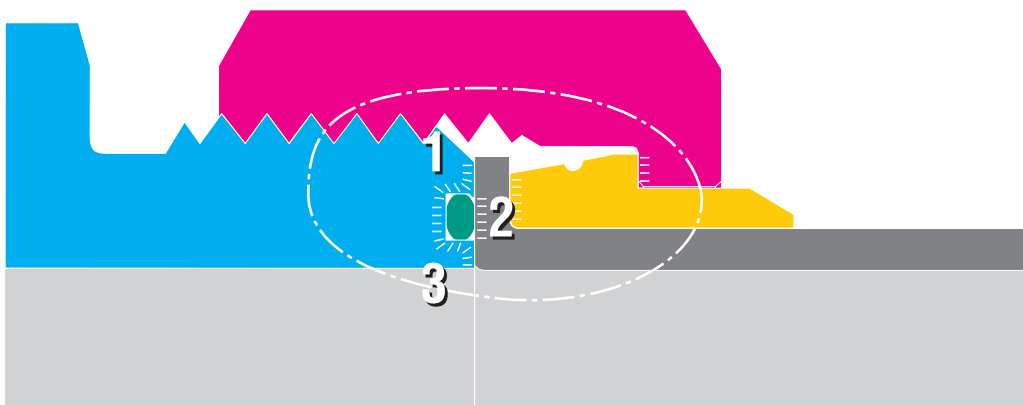
Under the mechanical strength given by the tightening of the nut on the fitting body, the part of the flared tube and the part of the brazed tube united with the sleeve couple with the front surface of the fitting body to provide a very effective metal to metal seal supported by the elastomeric seal as well.

The flared sleeve housed inside the tightening nut ensures the self-alignment of the flared tube to the axis of the fitting body, supports the tube during operation, lowers the vibrations and avoids damage to the tube while tightening.

Before assembly on the metal tube



After assembly on the metal tube



Field of force  
- - - - -

Pressure surfaces  
|||||

Sealing points  
1-2-3

## SEALING

The new ORFS fitting solves the total sealing problem in the following way:

- On the front side of the fitting a groove was created to insert an O-ring. This elastomeric seal guarantees a perfect seal at all times, as dry as dust.
- The particular shape of the groove, according to the new prescriptions of standards ISO 8434-3 and SAE J1453, guarantees the containment of the O-Ring inside its groove without the assistance of adhesives.
- The presence of the O-Ring groove improves the sealing metal to metal characteristics, since the groove divides the front seal surface of the fitting in two. The new ORFS fitting solves the problem of small leakages, leaks and sweating that are typical of a metal to metal sealing system on high pressure fittings.
- Strenuous tests carried out in our technical laboratory in Casalgrasso (CN) have clarified, beyond any doubt, the reliability of the sealing of this range of oleo-dynamic fittings.

## GENERAL INSTRUCTIONS

- Before starting to flare the tubes, please check that all the tools to be used in the process conform to the standards. Carefully check the tools every 30-50 flarings.
- Before starting to braze the tubes, please check that all the tools to be used in the process conform to the standards. Always check the compliance of the brazing.
- Before assembling the preassembled tube to the equipment it is necessary to check that the tube and the fitting are aligned. Fittings should never be used to correct a wrong alignment or to be a support for the tube. Extremely long tubes or tubes undergoing high stress must be fixed by using some support to avoid excessive vibrations. A poor alignment could damage the operation of the system.
- The proper lubrication of the components involved in the tightening is essential for good system operation. We advise the use of mineral oils or torquen tension for carbon steel fittings, consisting of anti-seizing compound (Nickel based), Chesterton or similar, for stainless steel fittings.
- Indicated pressures are for steel tubes only.
- The fittings in this technical catalogue may be used for fluid-dynamic connections only.
- Mixing carbon and stainless steel components is not allowed.

## UTILISATION STANDARDS

### CARBON STEEL FITTINGS

- High quality tubes must be employed to assure correct use and related technical performance of the carbon steel fitting. The use of tubes without the aforementioned characteristics may seriously impair the efficiency of the fitting. We recommend using the following tubes only: calibrated and polished, cold drawn seamless tubes, normalised with inert gas, in E235 material according to EN 10305-4 (ST 37.4 according to DIN 1630 I DIN 2391 ). The maximum hardness allowed on the outside diameter of the tube is 75 HRB.
- The flaring of the tube must be carried out with extreme care and precision. It is important that the flaring is concentric and perpendicular compared to the tube and sleeve.
- Brazing the tube must be carried out with suitable materials. It is important that the brazing is carried out in a way to ensure the perfect perpendicularity of the sleeve to the tube.
- In order to obtain a curve of the tube as close to the tightening point as possible (fitting body), the structural constructing ties that are typical of the ORFS fittings must be considered. This product forces the user to leave a part of the ending section of the tube perfectly straight. This part must be used during the flaring operation to block the tube. Please refer to the table on page 218 "C" quote.

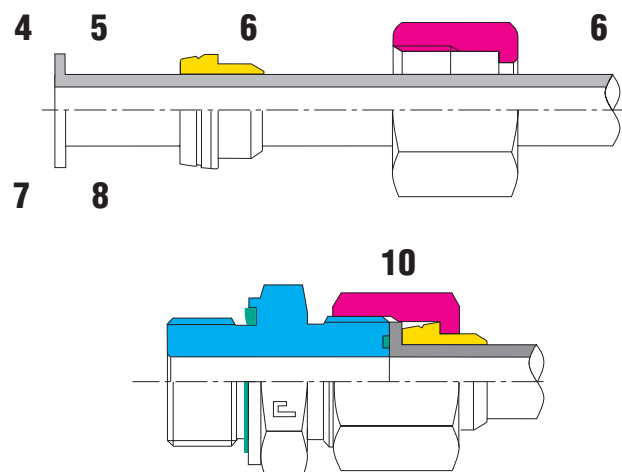
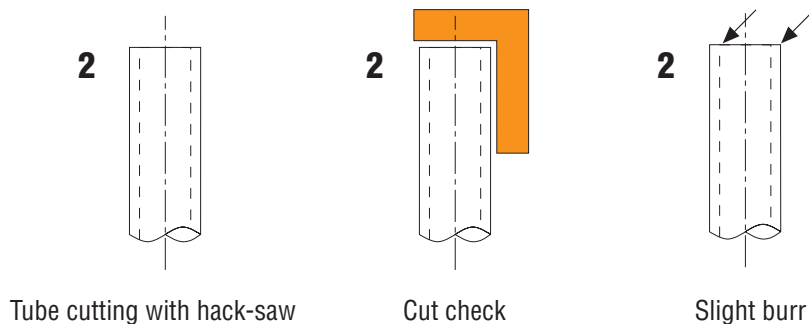
### STAINLESS STEEL FITTINGS

- High quality tubes must be employed to assure correct use and related technical performance of stainless steel fittings. The use of tubes without the aforementioned characteristics may seriously impair the efficiency of the fitting. We recommend using the following tubes only: calibrated and polished, cold drawn seamless tubes 1.4571 as per UNI EN 10216-5 or ASTM A 269; the maximum permitted hardness, measured on the outer diameter of the tube, is 85 HRB.
- The flaring of the tube must be carried out with extreme care and precision. It is important that the flaring is concentric and perpendicular compared to the tube and sleeve.
- Brazing the tube must be carried out with suitable materials. It is important that the brazing is carried out in a way to ensure the perfect perpendicularity of the sleeve to the tube.
- In order to obtain a curve of the tube as close to the tightening point as possible (fitting body), the structural constructing ties that are typical of the ORFS fittings must be considered. This product forces the user to leave a part of the ending section of the tube perfectly straight. This part must be used during the flaring operation to block the tube. Please refer to the table on page 218 "C" quote.



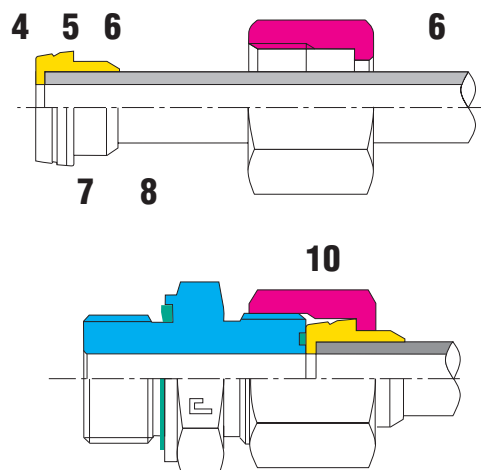
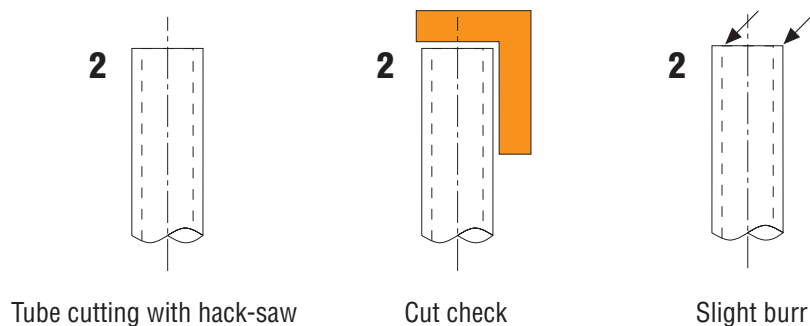
## ASSEMBLY INSTRUCTIONS ACCORDING TO SAE J1453 FOR FLARED TUBES

1. Before starting the tube flaring and assembly operations, please check that all the tools to be used are in perfect working order. Substitute those not complying to the requirements.
2. Cut the tube square by using an appropriate hack-saw (do not use roller type tube cutters). Check that the cut is properly made at 90°. Remove any internal and external burrs with the suitable deburring tool.
3. To obtain the desired length of the tube please add the L1 quote to the desired length of the tube in the table on page 218.
4. Check for any leakage line and other structural defects that may impair the seal of the fitting body. Reject any non complying tube.
5. Thoroughly clean the part of the tube to be flared and lubricate it with appropriate products.
6. Assemble the nut and sleeve on the tube as shown below, taking care that the open part of the nut faces the end of the tube to be flared; likewise, the end of the tube to be flared must face the greater diameter of the sleeve.
7. Flare the tube using the appropriate flaring machine, carefully respecting all the indications in the table on page 218.
8. Check that the flaring of the tube has been done correctly and that no peeling of the material appears inside it.
9. Clean the nut, fitting and tube and lubricate with the suggested products.
10. Couple the flared tube and tighten by hand the nut on the body of the fitting to check the correct alignment of the parts; using a wrench tighten until reaching the contact of the sealing surfaces and tighten according to the table (tightening torques of page 219).
11. Repeated assembly and disassembly will not alter the functionality of the system which, each time is closed, will always provide an immediate seal, which will last over time, guaranteeing the required seal.

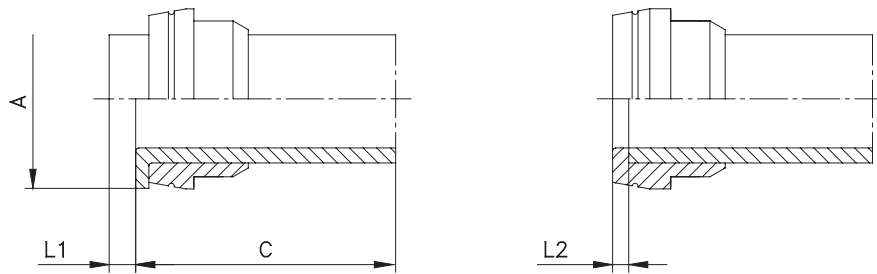


## ASSEMBLY INSTRUCTIONS ACCORDING TO SAE J1453 FOR BRAZED TUBES

1. Before starting the tube brazing and assembly operations, please check that all the tools to be used are in perfect working order. Substitute those not complying to the requirements.
2. Cut the tube square by using an appropriate hack-saw (do not use roller type tube cutters). Check that the cut is properly made at 90°. Remove any internal and external burrs with the suitable deburring tool.
3. To obtain the desired length of the tube please subtract the L2 quote from the desired length of the tube in the table on page 218.
4. Check for any leakage line and other structural defects that may impair the seal of the fitting body. Reject any non complying tube.
5. Clean properly the sleeve and the part of the tube to be brazed.
6. Assemble the nut and sleeve on the tube taking care that the open part of the nut faces the end of the tube to be brazed and that the tube is inserted in the related groove obtained in the sleeve.
7. Then apply the mould on the tip of the tube making sure that the tube is completely in touch with the sleeve and carry out the brazing making sure not to overheat and carbonize the mould.
8. Clean the area where the brazing was carried out and check that the brazing seam is even along the entire external diameter of the tube.
9. Clean the nut, fitting and sleeve and lubricate with the suggested products.
10. Couple the brazed tube and tighten by hand the nut on the body of the fitting to check the correct alignment of the parts; using a wrench tighten until reaching the contact of the sealing surfaces and tighten according to the table (tightening torques of page 219).
11. Repeated assembly and disassembly will not alter the functionality of the system which, each time is closed, will always provide an immediate seal, which will last over time, guaranteeing the required seal.



## TECHNICAL DATA FOR THE PREPARATION OF FLARED AND BRAZED TUBES



Ø tube Metric	Ø tube Inches	Ø flaring		L1	L2	C
		A min	A max			
6x1	1/4x0,035	12,10	12,75	-	1	32
6x1,5	1/4x0,065			-		
8x1	5/16x0,035	14,85	15,75	-	1	40
8x1,5	5/16x0,065			-		
10x1	3/8x0,035			2,5		
10x1,5	3/8x0,065			2		
10x2	3/8x0,083	1,5				
12x1	1/2x0,035	18	18,90	-	1	45
12x1,5	1/2x0,065			3		
12x2	1/2x0,083			2,5		
12x2,5	1/2x0,095			2		
14x1,5	-			-		
14x2	-	-				
14x2,5	-	-				
15x1,5	-	22,20	23,45	4,5	1,5	45
15x2	-			4		
15x2,5	-			3,5		
16x1,5	5/8x0,065			4		
16x2	5/8x0,083			3,5		
16x2,5	5/8x0,095			3		
16x3	5/8x0,120			2,5		
18x1,5	-			-		
18x2	-	26,60	27,85	5	1,5	50
18x2,5	-			4,5		
18x3	-			4		

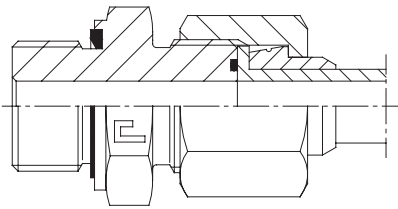
Ø tube Metric	Ø tube Inches	Ø flaring		L1	L2	C
		A min	A max			
20x2	3/4x0,083	26,60	27,85	4	1,5	50
20x2,5	3/4x0,095			3,5		
20x3	3/4x0,120			3		
20x3,5	3/4x0,134			2,5		
22x2	7/8x0,083	32,95	34,20	-	1,5	60
22x2,5	7/8x0,095			-		
22x3	7/8x0,120			-		
25x2,5	1x0,095			4,5		
25x3	1x0,120			4		
25x4	1x0,156	3				
25x5	1x0,188	2				
28x2	-	39,35	40,55	-	1,5	60
28x2,5	-			-		
28x3	-			-		
30x2	-			5,5		
30x2,5	-			5		
30x3	-			4,5		
30x4	-			4		
32x3	1 1/4x0,120			4		
32x4	1 1/4x0,156	-				
35x3	-	47,25	48,50	-	1,5	70
35x4	-			-		
38x3	1 1/2x0,120			7		
38x4	1 1/2x0,156			6		

## FUNCTIONALITY

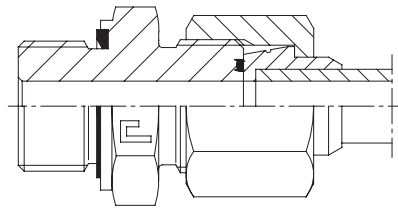
- The correct execution of the flaring and brazing is an essential condition for the functionality of the seal of the coupling.
- It is necessary to be aware of the importance of preparing the tubes, and total precision in the process is required.
- The quality of the processed tubes is a guarantee of safe functionality, easy assembly and a system created simply with an excellent yield.

## TIGHTENING TORQUES FOR TUBE ENDS

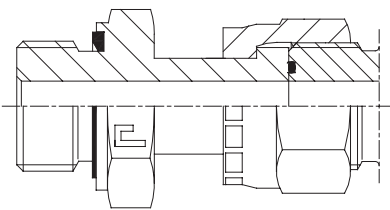
FLARED



BRAZED



## TIGHTENING TORQUES FOR STAPLED SEAM ENDS



## ASSEMBLY INSTRUCTIONS FOR FITTINGS WITH SWIVEL NUT

1. Before the assembly, check for the correct parameters of all the tools to be used and substitute those not complying to the requirements.
2. Clean the nut, fitting and tube and lubricate with the suggested products.
3. Check the correct alignment of the parts involved, then using a wrench tighten the stapled nut until reaching the contact of the seal surfaces and tighten according to the values of the table.
4. Repeated assembly and disassembly will not alter the functionality of the system which, each time is closed, will provide an immediate seal, which will last over time, guaranteeing the required seal.

Series	Ø tube Metric	Ø tube Inches	Thread UNF/UNS UN-2A	Tube side torque (Nm) <sup>+10%</sup> <sub>0</sub>	Stapled nut torque (Nm) <sup>+10%</sup> <sub>0</sub>
UNIVERSAL	6	1/4	9/16-18	25	25
	8-10	5/16-3/8	11/16-16	40	40
	12	1/2	13/16-16	55	55
	14-15-16	5/8	1-14	60	60
	18-20	3/4	1 3/16-12	90	90
	22-25	7/8-1	1 7/16-12	125	125
	28-30-32	1 1/4	1 11/16-12	170	170
	35-38	1 1/2	2-12	200	200

### Notes:

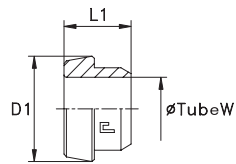
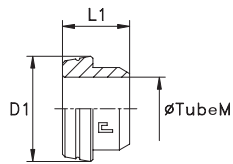
The values in the tightening tables are approximate and derive from practical tests run at the laboratory in Casalgrasso (CN), which may vary based on the materials and tolerances of the components used.

All the values expressed in Newton Meters (Nm) for the tightening torques on the ORFS side tube represent the torquing moment, calculated on the maximum thickness of the utilisation tube, needed to obtain the correct tightness.

All the values expressed in Newton Meters (Nm) for the tightening torques on the ORFS stapled seam represent the torquing moment needed to obtain the correct tightness. The tightening torques indicated in the table refer to carbon steel fittings. For stainless steel fittings, use the tightening torque values at maximum tolerance.

## SLEEVE

Type: 4001..

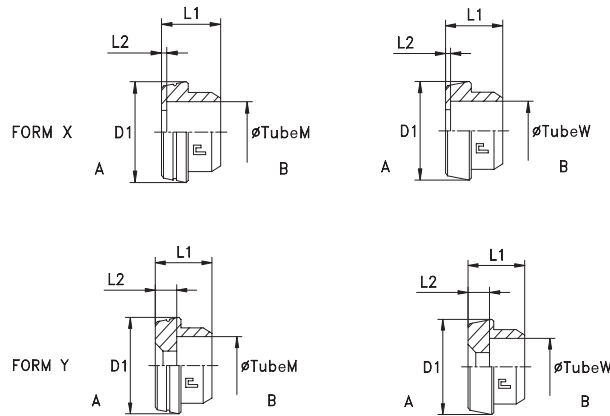


Series ORFS	40.... [bar]	41.... [bar]	Ordering metric Pipe	Ordering Inch Pipe	Ø Tube M	Ø Tube W	D1	L1
UNIVERSAL	630	630	400101	400101.W	6	1/4	12,75	7,5
			400102	400102.W	10	3/8	15,75	8,5
			400103	400103.W	12	1/2	18,9	10,5
	420	420	400104	400104.W	16	5/8	23,45	10,5
			400105	400105.W	20	3/4	27,85	12
			400106	400106.W	25	1	34,2	13,5
	280	280	400107	400107.W	30	1 1/4	40,55	13
			400108	400108.W	38	1 1/2	48,5	12,5
	630	630	400109	400109.W	8	5/16	15,75	8,5
	420	420	400110	-	14	-	23,45	10,5
			400111	-	15	-	23,45	10,5
			400112	-	18	-	27,85	12
			400113	400113.W	22	7/8	34,2	13,5
	280	280	400114	-	28	-	40,55	13
			400115	-	32	-	40,55	13
			400116	-	35	-	48,5	12,5

**Notes:** If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41.... .

# BRAZE SLEEVE

Type: 4002..

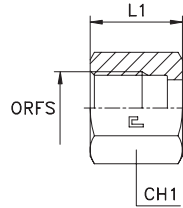


Series ORFS	40.... [bar]	41.... [bar]	Ordering metric Pipe	Ordering Inch Pipe	Ø Tube A <sup>M</sup>	Ø Tube B <sup>M</sup>	Ø Tube A <sup>W</sup>	Ø Tube B <sup>W</sup>	Form	D1	L1	L2	
UNIVERSAL	STANDARD	630	400201	400201.W	6	6	1/4	1/4	X	12,75	9,5	1	
			400202	400202.W	10	10	3/8	3/8	X	15,75	9,5	1	
			400203	400203.W	12	12	1/2	1/2	X	18,9	9,5	1	
		420	400204	400204.W	16	16	5/8	5/8	X	23,45	10,5	1,5	
			400205	400205.W	20	20	3/4	3/4	X	27,85	14	1,5	
			400206	400206.W	25	25	1	1	X	34,2	15,5	1,5	
		280	400207	400207.W	30	30	1 1/4	1 1/4	X	40,55	15,5	1,5	
			400208	400208.W	38	38	1 1/2	1 1/2	X	48,5	15,5	1,5	
		630	630	400209	400209.W	8	8	5/16	5/16	X	15,75	9,5	1
		420	420	400210	-	14	14	-	-	X	23,45	10,5	1,5
				400211	-	15	15	-	-	X	23,45	10,5	1,5
				400212	-	18	18	-	-	X	27,85	14	1,5
				400213	400213.W	22	22	7/8	7/8	X	34,2	15,5	1,5
				400214	-	28	28	-	-	X	40,55	15,5	1,5
				400215	-	32	32	-	-	X	40,55	15,5	1,5
	280	280	400216	-	35	35	-	-	X	48,5	15,5	1,5	
	JUMP SIZES	630	630	400217	400217.W	8-10	6	5/16-3/8	1/4	Y	15,75	10,5	2
				400218	400218.W	12	6	1/2	1/4	Y	18,9	12	3,5
				400219	400219.W	12	10	1/2	3/8	Y	18,9	12	3,5
		420	420	400220	400220.W	14-15-16	6	5/8	1/4	Y	23,45	13,5	5
				400221	400221.W	14-15-16	10	5/8	3/8	Y	23,45	13,5	5
				400222	400222.W	14-15-16	12	5/8	1/2	Y	23,45	13,5	5
				400223	400223.W	18-20	6	3/4	1/4	Y	27,85	14,5	6
				400224	400224.W	18-20	10	3/4	3/8	Y	27,85	14,5	6
				400225	400225.W	18-20	12	3/4	1/2	Y	27,85	14,5	6
				400226	400226.W	18-20	16	3/4	5/8	Y	27,85	14,5	5,5
				400227	400227.W	22-25	12	7/8-1	1/2	Y	34,2	15,5	7
				400228	400228.W	22-25	16	7/8-1	5/8	Y	34,2	15,5	6,5
				400229	400229.W	22-25	20	7/8-1	3/4	Y	34,2	17	4,5
		400230	400230.W	22-25	22	7/8-1	7/8	Y	34,2	17	3		
280		280	400231	400231.W	28-30-32	20	1 1/4	3/4	Y	40,55	19,5	7	
	400232		400232.W	28-30-32	25	1 1/4	1	Y	40,55	21	7		
	400233		400233.W	35-38	25	1 1/2	1	Y	48,5	21	7		
	400234		400234.W	35-38	30	1 1/2	1 1/4	Y	48,5	21	7		

Notes: If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41....

## NUT

Type: 4003..



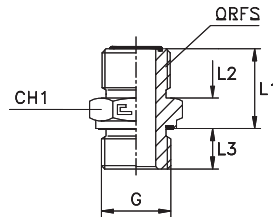
Series ORFS	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube M	Ø Tube W	ORFS	L1	CH1
UNIVERSAL	630	630	400301	6	1/4	9/16-18	15	17
			400302	8-10	5/16-3/8	11/16-16	17	22
			400303	12	1/2	13/16-16	20	24
	420	420	400304	14-15-16	5/8	1-14	24	30
			400305	18-20	3/4	13/16-12	26,5	36
			400306	22-25	7/8-1	17/16-12	27,5	41
	280	280	400307	28-30-32	1 1/4	1 11/16-12	27,5	50
			400308	35-38	1 1/2	2-12	27,5	60

**Notes:** If you wish to order AISI 316 stainless steel fittings, please change the first two digits from 40.... to 41....  
If you wish to order AISI 304 stainless steel fittings, please change the first two digits from 40.... to 44....

## MALE STUD COUPLING WITH ELASTOMER SEAL

Thread BSP Parallel

Type: 4004..



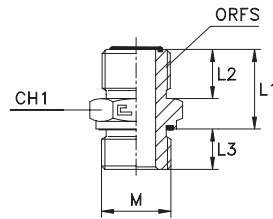
Series ORFS	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube M	Ø Tube W	G	L1	L2	L3	CH1	ORFS
UNIVERSAL	630	630	400401	6	1/4	1/8	17,5	10	8	17	9/16-18
			400402	8-10	5/16-3/8	1/4	20	11	12	19	11/16-16
			400403	12	1/2	3/8	22,5	13	12	22	13/16-16
	420	420	400404	14-15-16	5/8	1/2	27	15,5	14	27	1-14
			400405	18-20	3/4	3/4	30	17	16	32	13/16-12
			400406	22-25	7/8-1	1	32	17,5	18	41	17/16-12
	280	280	400407	28-30-32	1 1/4	1 1/4	34	17,5	20	50	11/16-12
			400408	35-38	1 1/2	1 1/2	35,5	17,5	22	55	2-12
	630	630	400409	6	1/4	1/4	19	10	12	19	9/16-18
			400410	6	1/4	3/8	19,5	10	12	22	9/16-18
			400411	6	1/4	1/2	21,5	10	14	27	9/16-18
			400412	8-10	5/16-3/8	1/8	19,5	11	8	19	11/16-16
			400413	8-10	5/16-3/8	3/8	20,5	11	12	22	11/16-16
			400414	8-10	5/16-3/8	1/2	22,5	11	14	27	11/16-16
	420	420	400415	8-10	5/16-3/8	3/4	24	11	16	32	11/16-16
	630	630	400416	12	1/2	1/4	22	13	12	22	13/16-16
			400417	12	1/2	1/2	24,5	13	14	27	13/16-16
	420	420	400418	12	1/2	3/4	26	13	16	32	13/16-16
			400419	14-15-16	5/8	1/4	26	15,5	12	27	1-14
			400420	14-15-16	5/8	3/8	26,5	15,5	12	27	1-14
			400421	14-15-16	5/8	3/4	28,5	15,5	16	32	1-14
			400422	14-15-16	5/8	1	30	15,5	18	41	1-14
			400423	18-20	3/4	1/4	29	17	12	32	13/16-12
			400424	18-20	3/4	1/2	30	17	14	32	13/16-12
			400425	18-20	3/4	1	31,5	17	18	41	13/16-12
			400426	18-20	3/4	1 1/4	33,5	17	20	50	13/16-12
			400427	22-25	7/8-1	1/4	31	17,5	12	41	17/16-12
			400428	22-25	7/8-1	3/4	32	17,5	16	41	17/16-12
	280	280	400429	22-25	7/8-1	1 1/4	34	17,5	20	50	17/16-12
			400430	22-25	7/8-1	1 1/2	35,5	17,5	22	55	17/16-12
			400431	28-30-32	1 1/4	1	34	17,5	18	46	11/16-12
			400432	28-30-32	1 1/4	1 1/2	35,5	17,5	22	55	11/16-12

**Notes:** If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41....

# MALE STUD COUPLING WITH ELASTOMER SEAL

Thread Metric Parallel

Type: **4005..**



Series	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube M	Ø Tube W	M	L1	L2	L3	CH1	ORFS
UNIVERSAL	630	630	400501	6	1/4	12x1,5	18	10	12	17	9/16-18
			400502	8-10	5/16-3/8	14x1,5	20	11	12	19	11/16-16
			400503	12	1/2	18x1,5	22,5	13	12	24	13/16-16
	420	420	400504	14-15-16	5/8	22x1,5	27	15,5	14	27	1-14
			400505	18-20	3/4	27x2	30	17	16	32	13/16-12
			400506	22-25	7/8-1	33x2	32	17,5	18	41	17/16-12
	280	280	400507	28-30-32	1 1/4	42x2	34	17,5	20	50	11 1/16-12
			400508	35-38	1 1/2	48x2	35,5	17,5	22	55	2-12
	350	350	400509	6	1/4	10x1	17,5	10	8	17	9/16-18
			400510	6	1/4	14x1,5	19	10	12	19	9/16-18
	630	630	400511	8-10	5/16-3/8	12x1,5	20	11	12	19	11/16-16
			400512	8-10	5/16-3/8	16x1,5	20	11	12	22	11/16-16
			400513	8-10	5/16-3/8	18x1,5	20,5	11	12	24	11/16-16
			400514	12	1/2	14x1,5	22	13	12	22	13/16-16
			400515	12	1/2	16x1,5	22,5	13	12	22	13/16-16
			400516	12	1/2	22x1,5	24,5	13	14	27	13/16-16
	420	420	400517	14-15-16	5/8	18x1,5	26,5	15,5	12	27	1-14
			400518	14-15-16	5/8	27x2	28,5	15,5	16	32	1-14
			400519	18-20	3/4	22x1,5	30	17	14	32	13/16-12
			400520	18-20	3/4	33x2	31,5	17	18	41	13/16-12
			400521	22-25	7/8-1	27x2	32	17,5	16	41	17/16-12
			400522	22-25	7/8-1	42x2	34	17,5	20	50	17/16-12
	280	280	400523	28-30-32	1 1/4	33x2	34	17,5	18	46	11 1/16-12
			400524	28-30-32	1 1/4	48x2	35,5	17,5	22	55	11 1/16-12

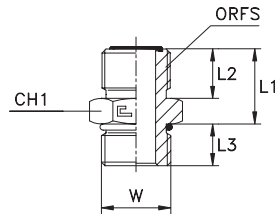
**Notes:** If you wish to order a fitting in stainless steel, please change the first two digit from **40....** to **41....** .



# MALE STUD COUPLING WITH O-RING

Thread UNF/UN-2A

Type: 4006..



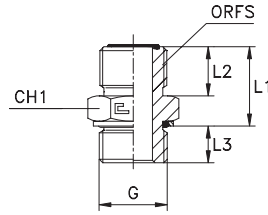
Series ORFS	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube M	Ø Tube W	W	L1	L2	L3	CH1	ORFS
UNIVERSAL	630	630	400601	6	1/4	7/16-20	18	10	11	17	9/16-18
			400602	8-10	5/16-3/8	9/16-18	20	11	12	19	11/16-16
			400603	12	1/2	3/4-16	22,5	13	14	22	13/16-16
	420	420	400604	14-15-16	5/8	7/8-14	27	15,5	16	27	1-14
			400605	18-20	3/4	1 1/16-12	30	17	18,5	32	13/16-12
			400606	22-25	7/8-1	1 5/16-12	32	17,5	18,5	41	17/16-12
	280	280	400607	28-30-32	1 1/4	1 5/8-12	33,5	17,5	18,5	46	11 1/16-12
			400608	35-38	1 1/2	1 7/8-12	35,5	17,5	18,5	55	2-12
	630	630	400609	6	1/4	1/2-20	18	10	11	17	9/16-18
			400610	6	1/4	9/16-18	18	10	12	19	9/16-18
			400611	6	1/4	3/4-16	19,5	10	14	22	9/16-18
			400612	8-10	5/16-3/8	7/16-20	20	11	11	19	11/16-16
			400613	8-10	5/16-3/8	1/2-20	20	11	11	19	11/16-16
			400614	8-10	5/16-3/8	3/4-16	20,5	11	14	22	11/16-16
	420	420	400615	8-10	5/16-3/8	7/8-14	22,5	11	16	27	11/16-16
			400616	8-10	5/16-3/8	1 1/16-12	24	11	18,5	32	11/16-16
	630	630	400617	12	1/2	9/16-18	22,5	13	12	22	13/16-16
			400618	12	1/2	7/8-14	24,5	13	16	27	13/16-16
	420	420	400619	12	1/2	1 1/16-12	26	13	18,5	32	13/16-16
			400620	12	1/2	1 5/16-12	27,5	13	18,5	41	13/16-16
			400621	14-15-16	5/8	3/4-16	27	15,5	14	27	1-14
			400622	14-15-16	5/8	1 1/16-12	28,5	15,5	18,5	32	1-14
			400623	18-20	3/4	3/4-16	30	17	14	32	13/16-12
			400624	18-20	3/4	7/8-14	30	17	16	32	13/16-12
			400625	18-20	3/4	1 5/16-12	31,5	17	18,5	41	13/16-12
	280	280	400626	22-25	7/8-1	1 1/16-12	32	17,5	18,5	41	17/16-12
			400627	22-25	7/8-1	1 5/8-12	33,5	17,5	18,5	46	17/16-12
			400628	28-30-32	1 1/4	1 5/16-12	33,5	17,5	18,5	46	11 1/16-12
			400629	28-30-32	1 1/4	1 7/8-12	35,5	17,5	18,5	55	11 1/16-12
				400630	35-38	1 1/2	1 5/8-12	35,5	17,5	18,5	55

Notes: If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41.... .

# MALE STUD COUPLING WITH O-RING AND WASHER

Thread BSP Parallel

Type: 4007..



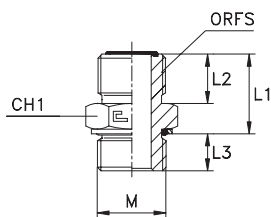
Series ORFS	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube M	Ø Tube W	G	L1	L2	L3	CH1	ORFS
UNIVERSAL	350	350	400701	6	1/4	1/8	18,8	10	6,7	17	9/16-18
	400	400	400702	8-10	5/16-3/8	1/4	21,8	11	10,2	19	11/16-16
	350	350	400703	12	1/2	3/8	24,3	13	10,2	22	13/16-16
	315	315	400704	14-15-16	5/8	1/2	28,8	15,5	12,2	27	1-14
			400705	18-20	3/4	3/4	31,8	17	12,7	36	13/16-12
	280	280	400706	22-25	7/8-1	1	34,6	17,5	15,4	41	17/16-12
			400707	28-30-32	1 1/4	1 1/4	36,5	17,5	16	50	111/16-12
	250	250	400708	35-38	1 1/2	1 1/2	38	17,5	16	55	2-12
	400	400	400709	6	1/4	1/4	20,8	10	10,2	19	9/16-18
	350	350	400710	6	1/4	3/8	21,3	10	10,2	22	9/16-18
	315	315	400711	6	1/4	1/2	23,3	10	12,2	27	9/16-18
	350	350	400712	8-10	5/16-3/8	1/8	20,8	11	6,7	19	11/16-16
			400713	8-10	5/16-3/8	3/8	22,3	11	10,2	22	11/16-16
	315	315	400714	8-10	5/16-3/8	1/2	24,3	11	12,2	27	11/16-16
			400715	8-10	5/16-3/8	3/4	25,8	11	12,7	36	11/16-16
	400	400	400716	12	1/2	1/4	24,8	13	10,2	22	13/16-16
	315	315	400717	12	1/2	1/2	26,3	13	12,2	27	13/16-16
			400718	12	1/2	3/4	27,8	13	12,7	36	13/16-16
	400	400	400719	14-15-16	5/8	1/4	27,8	15,5	10,2	27	1-14
	350	350	400720	14-15-16	5/8	3/8	28,3	15,5	10,2	27	1-14
	315	315	400721	14-15-16	5/8	3/4	30,3	15,5	12,7	36	1-14
	280	280	400722	14-15-16	5/8	1	32,6	15,5	15,4	41	1-14
	400	400	400723	18-20	3/4	1/4	30,8	17	10,2	32	13/16-12
	315	315	400724	18-20	3/4	1/2	31,8	17	12,2	32	13/16-12
			400725	18-20	3/4	1	34,1	17	15,4	41	13/16-12
	200	200	400726	18-20	3/4	1 1/4	36	17	16	50	13/16-12
			400727	22-25	7/8-1	1/4	32,8	17,5	10,2	41	17/16-12
	315	315	400728	22-25	7/8-1	3/4	33,8	17,5	12,7	41	17/16-12
	280	280	400729	22-25	7/8-1	1 1/4	36,5	17,5	16	50	17/16-12
	250	250	400730	22-25	7/8-1	1 1/2	38	17,5	16	55	17/16-12
	280	280	400731	28-30-32	1 1/4	1	36,6	17,5	15,4	46	111/16-12
	250	250	400732	28-30-32	1 1/4	1 1/2	38	17,5	16	55	111/16-12

Notes: If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41.... .

## MALE STUD COUPLING WITH O-RING AND WASHER

Thread Metric Parallel

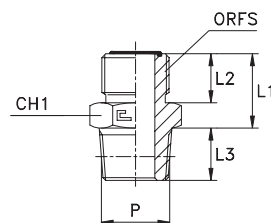
Type: 4008..



## MALE STUD COUPLING

Thread NPTF

Type: 4009..



Series ORFS	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube M	Ø Tube W	M	L1	L2	L3	CH1	ORFS
UNIVERSAL	400	400	400801	6	1/4	12x1,5	18,9	10	9,6	17	9/16-18
			400802	8-10	5/16-3/8	14x1,5	21,4	11	9,6	19	11/16-16
			400803	12	1/2	18x1,5	25,4	13	12,6	24	13/16-16
	315	315	400804	14-15-16	5/8	22x1,5	28,4	15,5	13,6	27	1-14
			400805	18-20	3/4	27x2	32	17	16,5	32	13/16-12
	280	280	400806	22-25	7/8-1	33x2	35,5	17,5	16,5	41	17/16-12
			400807	28-30-32	1 1/4	42x2	37,5	17,5	17	50	11/16-12
	250	250	400808	35-38	1 1/2	48x2	37,5	17,5	19,5	55	2-12
	400	400	400809	6	1/4	10x1	19	10	8,5	17	9/16-18
			400810	6	1/4	14x1,5	20,4	10	9,6	19	9/16-18
			400811	8-10	5/16-3/8	12x1,5	21,4	11	9,6	19	11/16-16
			400812	8-10	5/16-3/8	16x1,5	22,4	11	11,1	22	11/16-16
			400813	8-10	5/16-3/8	18x1,5	23,4	11	12,6	24	11/16-16
			400814	12	1/2	14x1,5	24,4	13	9,6	22	13/16-16
			400815	12	1/2	16x1,5	24,4	13	11,1	22	13/16-16
			400816	12	1/2	22x1,5	25,9	13	13,6	27	13/16-16
	400	400	400817	14-15-16	5/8	18x1,5	28,4	15,5	12,6	27	1-14
	315	315	400818	14-15-16	5/8	27x2	30,5	15,5	16,5	32	1-14
			400819	18-20	3/4	22x1,5	31,4	17	13,6	32	13/16-12
	280	280	400820	18-20	3/4	33x2	35	17	16,5	41	13/16-12
	315	315	400821	22-25	7/8-1	27x2	35,5	17,5	16,5	41	17/16-12
	280	280	400822	22-25	7/8-1	42x2	37,5	17,5	17	50	17/16-12
			400823	28-30-32	1 1/4	33x2	37,5	17,5	16,5	46	11/16-12
	250	250	400824	28-30-32	1 1/4	48x2	37,5	17,5	19,5	55	11/16-12

Notes: If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41....

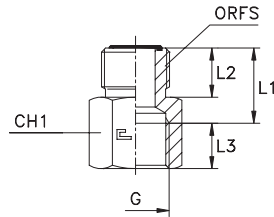
Series ORFS	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube M	Ø Tube W	P	L1	L2	L3	CH1	ORFS
UNIVERSAL	420	420	400901	6	1/4	1/8	17,5	10	10	17	9/16-18
			400902	8-10	5/16-3/8	1/4	20	11	14,5	19	11/16-16
			400903	12	1/2	3/8	22,5	13	14,5	22	13/16-16
	420	420	400904	14-15-16	5/8	1/2	27	15,5	19	27	1-14
			400905	18-20	3/4	3/4	30	17	19	32	13/16-12
			400906	22-25	7/8-1	1	32	17,5	24	41	17/16-12
	280	280	400907	28-30-32	1 1/4	1 1/4	34	17,5	25	46	11/16-12
			400908	35-38	1 1/2	1 1/2	35,5	17,5	26	55	2-12
	630	630	400909	6	1/4	1/4	17,5	10	14,5	17	9/16-18
			400910	6	1/4	3/8	17,5	10	14,5	17	9/16-18
			400911	8-10	5/16-3/8	3/8	20	11	14,5	19	11/16-16
			400912	8-10	5/16-3/8	1/2	20,5	11	19	22	11/16-16
			400913	12	1/2	1/4	22,5	13	14,5	22	13/16-16
			400914	12	1/2	1/2	22,5	13	19	22	13/16-16
	420	420	400915	12	1/2	3/4	24,5	13	19	27	13/16-16
			400916	14-15-16	5/8	3/8	27	15,5	14,5	27	1-14
			400917	14-15-16	5/8	3/4	27	15,5	19	27	1-14
			400918	18-20	3/4	1/2	30	17	19	32	13/16-12
			400919	18-20	3/4	1	30	17	24	36	13/16-12
			400920	22-25	7/8-1	3/4	32	17,5	19	41	17/16-12
	280	280	400921	28-30-32	1 1/4	1	34	17,5	24	46	11/16-12
			400922	35-38	1 1/2	1 1/4	35,5	17,5	25	55	2-12

Notes: If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41....

## FEMALE STUD COUPLING

Thread BSP Parallel

Type: 4010..



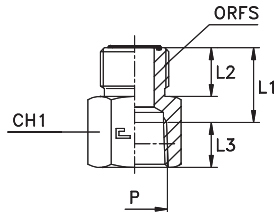
Series ORFS	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube M	Ø Tube W	G	L1	L2	L3	CH1	ORFS
UNIVERSAL	400	400	401001	6	1/4	1/4	17	10	14	19	9/16-18
			401002	8-10	5/16-3/8	1/4	18	11	14	19	11/16-16
			401003	12	1/2	3/8	21	13	14	24	13/16-16
			401004	14-15-16	5/8	1/2	24,5	15,5	17	30	1-14
	315	315	401005	18-20	3/4	3/4	27	17	19	36	13/16-12
			401006	22-25	7/8-1	1	27	17,5	21,5	41	17/16-12
	280	280	401007	28-30-32	1 1/4	1 1/4	30	17,5	23,5	55	1 11/16-12
	250	250	401008	35-38	1 1/2	1 1/2	30	17,5	25,5	60	2-12
	400	400	401009	12	1/2	1/4	20	13	14	22	13/16-16
			401010	18-20	3/4	1/2	26	17	17	32	13/16-12

Notes: If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41.... .

## FEMALE STUD COUPLING

Thread NPTF

Type: 4011..



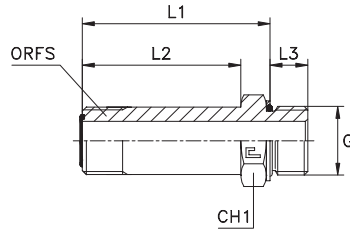
Series ORFS	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube M	Ø Tube W	P	L1	L2	L3	CH1	ORFS
UNIVERSAL	400	400	401101	6	1/4	1/4	17,5	10	14	19	9/16-18
			401102	8-10	5/16-3/8	1/4	18,5	11	14	19	11/16-16
			401103	12	1/2	3/8	21,5	13	14,5	24	13/16-16
			401104	14-15-16	5/8	1/2	25	15,5	19	30	1-14
	315	315	401105	18-20	3/4	3/4	27,5	17	19,5	36	13/16-12
			401106	22-25	7/8-1	1	30,5	17,5	23,5	41	17/16-12
	280	280	401107	28-30-32	1 1/4	1 1/4	32,5	17,5	24	55	1 11/16-12
	250	250	401108	35-38	1 1/2	1 1/2	32,5	17,5	24	60	2-12
	400	400	401109	12	1/2	1/4	20,5	13	14	22	13/16-16
			401110	18-20	3/4	1/2	26,5	17	19	32	13/16-12

Notes: If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41.... .

## LONG MALE STUD COUPLING WITH O-RING AND WASHER

Thread BSP Parallel

Type: 4012..



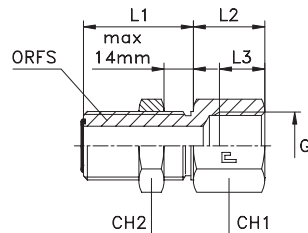
Series ORFS	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube M	Ø Tube W	G	L1	L2	L3	CH1	ORFS
UNIVERSAL	350	350	401201	6	1/4	1/8	42,3	33,5	6,7	17	9/16-18
	400	400	401202	8-10	5/16-3/8	1/4	47,8	37	10,2	19	11/16-16
	350	350	401203	12	1/2	3/8	55,8	44,5	10,2	22	13/16-16
	315	315	401204	14-15-16	5/8	1/2	65,8	52,5	12,2	27	1-14
			401205	18-20	3/4	3/4	78,8	64	12,7	36	13/16-12
	280	280	401206	22-25	7/8-1	1	90,1	73	15,4	41	17/16-12
			401207	28-30-32	1 1/4	1 1/4	105,5	86,5	16	50	11 1/16-12
	250	250	401208	35-38	1 1/2	1 1/2	117,5	97	16	55	2-12
	400	400	401209	6	1/4	1/4	44,3	33,5	10,2	19	9/16-18
	350	350	401210	6	1/4	3/8	44,8	33,5	10,2	22	9/16-18
			401211	8-10	5/16-3/8	3/8	48,3	37	10,2	22	11/16-16
	315	315	401212	8-10	5/16-3/8	1/2	50,3	37	12,2	27	11/16-16
	400	400	401213	12	1/2	1/4	56,3	44,5	10,2	22	13/16-16
	315	315	401214	12	1/2	1/2	57,8	44,5	12,2	27	13/16-16
			401215	12	1/2	3/4	59,3	44,5	12,7	36	13/16-16
	350	350	401216	14-15-16	5/8	3/8	65,3	52,5	10,2	27	1-14
	315	315	401217	14-15-16	5/8	3/4	67,3	52,5	12,7	36	1-14
			401218	18-20	3/4	1/2	78,8	64	12,2	32	13/16-12
	200	200	401219	18-20	3/4	1	81,1	64	15,4	41	13/16-12
			401220	18-20	3/4	1 1/4	83	64	16	50	13/16-12
	315	315	401221	22-25	7/8-1	3/4	89,3	73	12,7	41	17/16-12
	280	280	401222	22-25	7/8-1	1 1/4	92	73	16	50	17/16-12
			401223	28-30-32	1 1/4	1	105,6	86,5	15,4	46	11 1/16-12

Notes: If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41.... .

## FEMALE BULKHEAD CONNECTION

Thread BSP Parallel

Type: 4015..

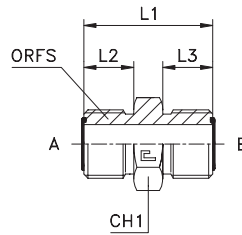


Series ORFS	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube M	Ø Tube W	G	L1	L2	L3	CH1	CH2	ORFS
UNIVERSAL	400	400	401501	6	1/4	1/4	31,5	21	14	22	22	9/16-18
			401502	8-10	5/16-3/8	1/4	34	21	14	27	27	11/16-16
			401503	12	1/2	3/8	36,5	22	14	30	30	13/16-16
			401504	14-15-16	5/8	1/2	40,5	26	17	36	36	1-14
			401505	18-20	3/4	3/4	41,5	29	19	41	41	13/16-12
	315	315	401506	22-25	7/8-1	1	42	31	21,5	46	46	17/16-12
	280	280	401507	28-30-32	1 1/4	1 1/4	42	36	23,5	55	50	11 1/16-12
	250	250	401508	35-38	1 1/2	1 1/2	42	38	25,5	60	60	2-12

Notes: If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41.... .

## STRAIGHT COUPLING

Type: 4017..

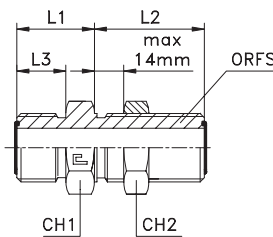


Series ORFS	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube A <sup>M</sup>	Ø Tube B <sup>M</sup>	Ø Tube A <sup>W</sup>	Ø Tube B <sup>W</sup>	L1	L2	L3	CH1	ORFS A	ORFS B
UNIVERSAL	630	630	401701	6	6	1/4	1/4	27,5	10	10	17	9/16-18	9/16-18
			401702	8-10	8-10	5/16-3/8	5/16-3/8	31	11	11	19	11/16-16	11/16-16
			401703	12	12	1/2	1/2	35,5	13	13	22	13/16-16	13/16-16
	420	420	401704	14-15-16	14-15-16	5/8	5/8	42,5	15,5	15,5	27	1-14	1-14
			401705	18-20	18-20	3/4	3/4	47	17	17	32	13/16-12	13/16-12
			401706	22-25	22-25	7/8-1	7/8-1	49,5	17,5	17,5	41	17/16-12	17/16-12
	280	280	401707	28-30-32	28-30-32	1 1/4	1 1/4	51,5	17,5	17,5	46	111/16-12	111/16-12
			401708	35-38	35-38	1 1/2	1 1/2	53	17,5	17,5	55	2-12	2-12
	630	630	401709	8-10	6	5/16-3/8	1/4	30	11	10	19	11/16-16	9/16-18
			401710	12	8-10	1/2	5/16-3/8	33,5	13	11	22	13/16-16	11/16-16
	420	420	401711	14-15-16	12	5/8	1/2	40	15,5	13	27	1-14	13/16-16
			401712	18-20	8-10	3/4	5/16-3/8	41	17	11	32	13/16-12	11/16-16
			401713	18-20	12	3/4	1/2	43	17	13	32	13/16-12	13/16-16
			401714	18-20	14-15-16	3/4	5/8	45,5	17	15,5	32	13/16-12	1-14
			401715	22-25	18-20	7/8-1	3/4	49	17,5	17	41	17/16-12	13/16-12
	280	280	401716	28-30-32	22-25	1 1/4	7/8-1	51,5	17,5	17,5	46	111/16-12	17/16-12

Notes: If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41....

## BULKHEAD STRAIGHT CONNECTION

Type: 4018..

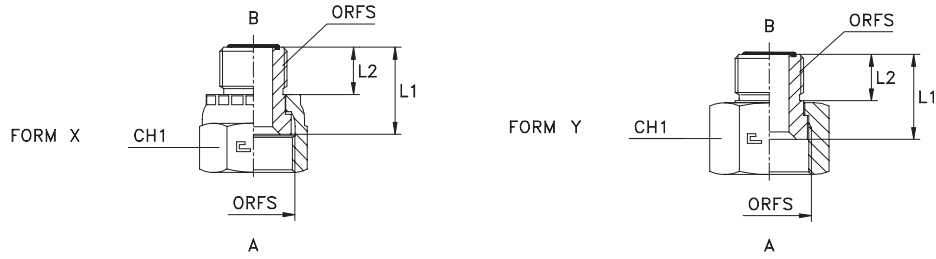


Series ORFS	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube M	Ø Tube W	L1	L2	L3	CH1	CH2	ORFS
UNIVERSAL	630	630	401801	6	1/4	16,5	31,5	10	22	22	9/16-18
			401802	8-10	5/16-3/8	19	34	11	27	27	11/16-16
			401803	12	1/2	22	36,5	13	30	30	13/16-16
	420	420	401804	14-15-16	5/8	26	40,5	15,5	36	36	1-14
			401805	18-20	3/4	27,5	41,5	17	41	41	13/16-12
	280	280	401806	22-25	7/8-1	28	42	17,5	46	46	17/16-12
			401807	28-30-32	1 1/4	28	42	17,5	50	50	111/16-12
			401808	35-38	1 1/2	28	42	17,5	60	60	2-12

Notes: If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41....

# STRAIGHT INTERMEDIATE REDUCTION

Type: 4019..



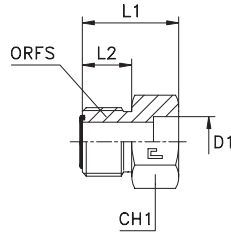
Series	40.... ORFS [bar]	41.... [bar]	Ordering Complete	Ø Tube A <sup>M</sup>	Ø Tube B <sup>M</sup>	Ø Tube A <sup>W</sup>	Ø Tube B <sup>W</sup>	Form	L1	L2	CH1	ORFS A	ORFS B
UNIVERSAL	630	630	401901	8-10	6	5/16-3/8	1/4	X	20	10	22	11/16-16	9/16-18
			401902	12	6	1/2	1/4	Y	22	10	24	13/16-16	9/16-18
	420	420	401903	14-15-16	6	5/8	1/4	Y	23	10	30	1-14	9/16-18
			401904	18-20	6	3/4	1/4	Y	25	10	36	13/16-12	9/16-18
			401905	22-25	6	7/8-1	1/4	Y	26	10	41	17/16-12	9/16-18
	280	280	401906	28-30-32	6	1 1/4	1/4	Y	26,5	10	50	11/16-12	9/16-18
			401907	35-38	6	1 1/2	1/4	Y	26,5	10	60	2-12	9/16-18
	630	630	401908	12	8-10	1/2	5/16-3/8	X	23	11	24	13/16-16	11/16-16
			401909	14-15-16	8-10	5/8	5/16-3/8	Y	24	11	30	1-14	11/16-16
	420	420	401910	18-20	8-10	3/4	5/16-3/8	Y	26	11	36	13/16-12	11/16-16
			401911	22-25	8-10	7/8-1	5/16-3/8	Y	27	11	41	17/16-12	11/16-16
			401912	28-30-32	8-10	1 1/4	5/16-3/8	Y	27,5	11	50	11/16-12	11/16-16
	280	280	401913	35-38	8-10	1 1/2	5/16-3/8	Y	27,5	11	60	2-12	11/16-16
			401914	14-15-16	12	5/8	1/2	Y	25,5	13	30	1-14	13/16-16
	420	420	401915	18-20	12	3/4	1/2	Y	27,5	13	36	13/16-12	13/16-16
			401916	22-25	12	7/8-1	1/2	Y	29	13	41	17/16-12	13/16-16
			401917	28-30-32	12	1 1/4	1/2	Y	29,5	13	50	11/16-12	13/16-16
	280	280	401918	35-38	12	1 1/2	1/2	Y	29,5	13	60	2-12	13/16-16
			401919	18-20	14-15-16	3/4	5/8	X	29,5	15,5	36	13/16-12	1-14
	420	420	401920	22-25	14-15-16	7/8-1	5/8	Y	32	15,5	41	17/16-12	1-14
			401921	28-30-32	14-15-16	1 1/4	5/8	Y	32	15,5	50	11/16-12	1-14
	280	280	401922	35-38	14-15-16	1 1/2	5/8	Y	32	15,5	60	2-12	1-14
			401923	22-25	18-20	7/8-1	3/4	X	33	17	46	17/16-12	13/16-12
	280	280	401924	28-30-32	18-20	1 1/4	3/4	Y	33,5	17	50	11/16-12	13/16-12
			401925	35-38	18-20	1 1/2	3/4	Y	33,5	17	60	2-12	13/16-12
			401926	28-30-32	22-25	1 1/4	7/8-1	X	34	17,5	50	11/16-12	17/16-12
			401927	35-38	22-25	1 1/2	7/8-1	Y	34	17,5	60	2-12	17/16-12
			401928	35-38	28-30-32	1 1/2	1 1/4	Y	34	17,5	60	2-12	11/16-12

**Notes:** If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41.... .

If you wish to order AISI 316 form Y stainless steel fittings with AISI 304 stainless steel nuts, please change the first two digits from 40.... to 44.... .

# WELDABLE STRAIGHT FEMALE

Type: 4020..



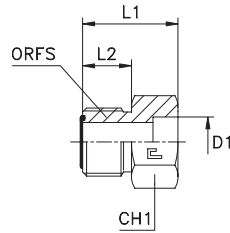
Series ORFS	40.... [bar]	41.... [bar]	Ordering metric Pipe	Ordering Inch Pipe	Ø Tube M	Ø Tube W	D1 <sup>m</sup>	D1 <sup>w</sup>	L1	L2	CH1	ORFS
UNIVERSAL	630	630	402001	402001.W	6	1/4	6	1/4	22	10	17	9/16-18
			402002	402002.W	8-10	5/16-3/8	10	3/8	23	11	19	11/16-16
			402003	402003.W	12	1/2	12	1/2	24,5	13	22	13/16-16
	420	420	402004	402004.W	14-15-16	5/8	16	5/8	28	15,5	27	1-14
			402005	402005.W	18-20	3/4	20	3/4	33,5	17	32	13/16-12
			402006	402006.W	22-25	7/8-1	25	1	38,5	17,5	41	17/16-12
	280	280	402007	402007.W	28-30-32	1 1/4	30	1 1/4	38,5	17,5	46	1 11/16-12
			402008	402008.W	35-38	1 1/2	38	1 1/2	38,5	17,5	55	2-12
	630	630	402009	402009.W	6	1/4	8	5/16	22	10	17	9/16-18
			402010	402010.W	6	1/4	10	3/8	22	10	17	9/16-18
			402011	402011.W	6	1/4	12	1/2	22	10	19	9/16-18
			402012	402012.W	8-10	5/16-3/8	6	1/4	23	11	19	11/16-16
			402013	402013.W	8-10	5/16-3/8	8	5/16	23	11	19	11/16-16
			402014	402014.W	8-10	5/16-3/8	12	1/2	23	11	19	11/16-16
	420	420	402015	-	8-10	5/16-3/8	14	-	23,5	11	22	11/16-16
			402016	-	8-10	5/16-3/8	15	-	23,5	11	22	11/16-16
			402017	402017.W	8-10	5/16-3/8	16	5/8	23,5	11	22	11/16-16
	630	630	402018	402018.W	12	1/2	6	1/4	24,5	13	22	13/16-16
			402019	402019.W	12	1/2	8	5/16	24,5	13	22	13/16-16
			402020	402020.W	12	1/2	10	3/8	24,5	13	22	13/16-16
	420	420	402021	-	12	1/2	14	-	25	13	22	13/16-16
			402022	-	12	1/2	15	-	25	13	22	13/16-16
			402023	402023.W	12	1/2	16	5/8	25	13	22	13/16-16
			402024	-	12	1/2	18	-	29	13	27	13/16-16
			402025	402025.W	12	1/2	20	3/4	29	13	27	13/16-16
			402026	402026.W	12	1/2	22	7/8	29,5	13	32	13/16-16
			402027	402027.W	12	1/2	25	1	31	13	32	13/16-16
			402028	402028.W	14-15-16	5/8	10	3/8	27,5	15,5	27	1-14
			402029	402029.W	14-15-16	5/8	12	1/2	27,5	15,5	27	1-14
			402030	-	14-15-16	5/8	14	-	28	15,5	27	1-14
			402031	-	14-15-16	5/8	15	-	28	15,5	27	1-14
			402032	-	14-15-16	5/8	18	-	31,5	15,5	27	1-14
			402033	402033.W	14-15-16	5/8	20	3/4	31,5	15,5	27	1-14
			402034	402034.W	18-20	3/4	12	1/2	29,5	17	32	13/16-12
			402035	-	18-20	3/4	14	-	30	17	32	13/16-12
			402036	-	18-20	3/4	15	-	30	17	32	13/16-12
			402037	402037.W	18-20	3/4	16	5/8	30	17	32	13/16-12
			402038	-	18-20	3/4	18	-	33,5	17	32	13/16-12
			402039	402039.W	18-20	3/4	22	7/8	33,5	17	32	13/16-12
			402040	402040.W	18-20	3/4	25	1	35	17	32	13/16-12
			402041	402041.W	22-25	7/8-1	12	1/2	33	17,5	41	17/16-12
			402042	-	22-25	7/8-1	14	-	33,5	17,5	41	17/16-12
			402043	-	22-25	7/8-1	15	-	33,5	17,5	41	17/16-12
			402044	402044.W	22-25	7/8-1	16	5/8	33,5	17,5	41	17/16-12
			402045	-	22-25	7/8-1	18	-	37	17,5	41	17/16-12
			402046	402046.W	22-25	7/8-1	20	3/4	37	17,5	41	17/16-12
			402047	402047.W	22-25	7/8-1	22	7/8	37	17,5	41	17/16-12
	280	280	402048	-	22-25	7/8-1	28	-	38,5	17,5	41	17/16-12
			402049	402049.W	22-25	7/8-1	30	1 1/4	38,5	17,5	41	17/16-12
			402050	-	22-25	7/8-1	32	-	38,5	17,5	41	17/16-12

Notes: If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41....



## WELDABLE STRAIGHT FEMALE

Type: 4020..

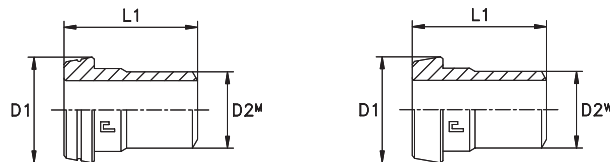


Series ORFS	40.... [bar]	41.... [bar]	Ordering metric Pipe	Ordering Inch Pipe	Ø Tube M	Ø Tube W	D1 <sup>M</sup>	D1 <sup>W</sup>	L1	L2	CH1	ORFS
UNIVERSAL	280	280	402051	-	28-30-32	1/4	18	-	37	17,5	46	11/16-12
			402052	402052.W	28-30-32	1/4	20	3/4	37	17,5	46	11/16-12
			402053	402053.W	28-30-32	1/4	22	7/8	37	17,5	46	11/16-12
			402054	402054.W	28-30-32	1/4	25	1	38,5	17,5	46	11/16-12
			402055	-	28-30-32	1/4	28	-	38,5	17,5	46	11/16-12
			402056	-	28-30-32	1/4	32	-	38,5	17,5	46	11/16-12
			402057	-	28-30-32	1/4	35	-	38,5	17,5	50	11/16-12
			402058	402058.W	28-30-32	1/4	38	1 1/2	38,5	17,5	50	11/16-12
			402059	402059.W	35-38	1 1/2	25	1	38,5	17,5	55	2-12
			402060	-	35-38	1 1/2	28	-	38,5	17,5	55	2-12
			402061	402061.W	35-38	1 1/2	30	1 1/4	38,5	17,5	55	2-12
			402062	-	35-38	1 1/2	32	-	38,5	17,5	55	2-12
			402063	-	35-38	1 1/2	35	-	38,5	17,5	55	2-12

Notes: If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41.... .

## WELDING NIPPLE

Type: 4021..



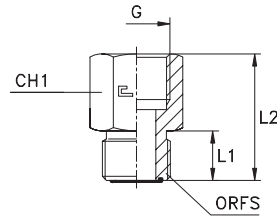
Series ORFS	40.... [bar]	41.... [bar]	Ordering metric Pipe	Ordering Inch Pipe	Ø Tube M	Ø Tube W	D1	D2 <sup>M</sup>	D2 <sup>W</sup>	L1
UNIVERSAL	630	630	402101	402101.W	6	1/4	12,75	6	1/4	25
			402102	402102.W	8-10	5/16-3/8	15,75	10	3/8	26
			402103	402103.W	12	1/2	18,9	12	1/2	26
	420	420	402104	402104.W	14-15-16	5/8	23,45	16	5/8	32
			402105	402105.W	18-20	3/4	27,85	20	3/4	37
			402106	402106.W	22-25	7/8-1	34,2	25	1	42
	280	280	402107	402107.W	28-30-32	1 1/4	40,55	30	1 1/4	44
			402108	402108.W	35-38	1 1/2	48,5	38	1 1/2	49
	630	630	402109	402109.W	8-10	5/16-3/8	15,75	8	5/16	25
	420	420	402110	-	14-15-16	5/8	23,45	14	-	32
			402111	-	14-15-16	5/8	23,45	15	-	32
			402112	-	18-20	3/4	27,85	18	-	37
			402113	402113.W	22-25	7/8-1	34,2	22	7/8	42
	280	280	402114	-	28-30-32	1 1/4	40,55	28	-	44
			402115	-	28-30-32	1 1/4	40,55	32	-	44
			402116	-	35-38	1 1/2	48,5	35	-	49

Notes: If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41.... .

## FEMALE GAUGE COUPLING

Thread BSP Parallel

Type: 4022..



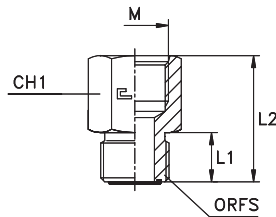
Series ORFS	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube M	Ø Tube W	G	L1	L2	CH1	ORFS
UNIVERSAL	400	400	402201	6	1/4	1/4	10	27	19	9/16-18
			402202	8-10	5/16-3/8	1/4	11	28	19	11/16-16
			402203	12	1/2	1/4	13	30	22	13/16-16
			402204	6	1/4	1/2	10	37	30	9/16-18
			402205	8-10	5/16-3/8	1/2	11	38	30	11/16-16
			402206	12	1/2	1/2	13	40	30	13/16-16

**Notes:** If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41.... .

## FEMALE GAUGE COUPLING

Thread Metric Parallel

Type: 4023..



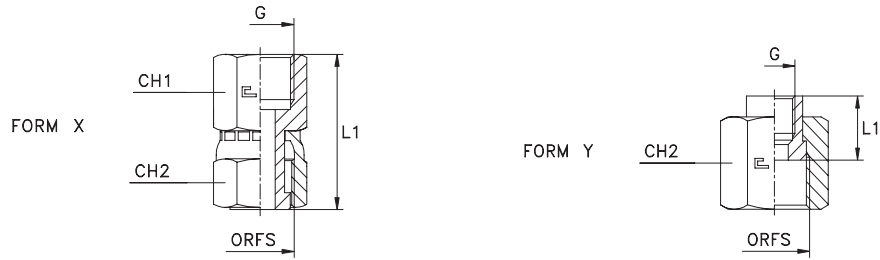
Series ORFS	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube M	Ø Tube W	M	L1	L2	CH1	ORFS
UNIVERSAL	400	400	402301	6	1/4	14x1,5	10	29	19	9/16-18
			402302	8-10	5/16-3/8	14x1,5	11	30	19	11/16-18
			402303	12	1/2	14x1,5	13	32	22	13/16-16
			402304	14-15-16	5/8	14x1,5	15,5	34,5	27	1-14
			402305	18-20	3/4	14x1,5	17	36	32	13/16-12

**Notes:** If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41.... .

## ADJUSTABLE FEMALE GAUGE COUPLING

Thread BSP Parallel

Type: 4024..



Series ORFS	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube M	Ø Tube W	Form	G	L1	CH1	CH2	ORFS
UNIVERSAL	630	630	402401	6	1/4	X	1/4	37	19	19	9/16-18
			402402	8-10	5/16-3/8	X	1/4	39	19	22	11/16-16
			402403	12	1/2	X	1/4	42	22	24	13/16-16
	420	420	402404	14-15-16	5/8	Y	1/4	14	-	30	1-14
			402405	18-20	3/4	Y	1/4	14	-	36	13/16-12
			402406	22-25	7/8-1	Y	1/4	15	-	41	17/16-12
	280	280	402407	28-30-32	1 1/4	Y	1/4	15	-	50	1 11/16-12
			402408	35-38	1 1/2	Y	1/4	15	-	60	2-12

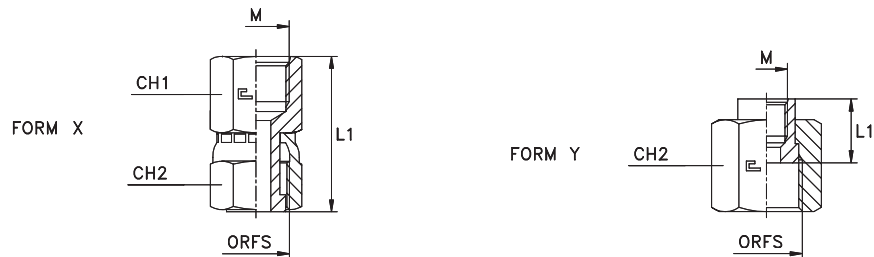
**Notes:** If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41....

If you wish to order AISI 316 form Y stainless steel fittings with AISI 304 stainless steel nuts, please change the first two digits from 40.... to 44....

## ADJUSTABLE FEMALE GAUGE COUPLING

Thread Metric Parallel

Type: 4025..



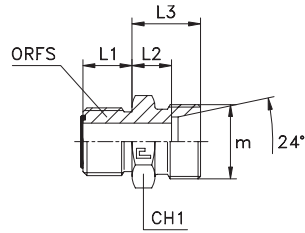
Series ORFS	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube M	Ø Tube W	Form	M	L1	CH1	CH2	ORFS
UNIVERSAL	630	630	402501	6	1/4	X	10x1	37	19	19	9/16-18
			402502	8-10	5/16-3/8	X	10x1	39	19	22	11/16-16
			402503	12	1/2	X	10x1	42	22	24	13/16-16
	420	420	402504	14-15-16	5/8	Y	10x1	14	-	30	1-14
			402505	18-20	3/4	Y	10x1	14	-	36	13/16-12
			402506	22-25	7/8-1	Y	10x1	15	-	41	17/16-12
	280	280	402507	28-30-32	1 1/4	Y	10x1	15	-	50	1 11/16-12
			402508	35-38	1 1/2	Y	10x1	15	-	60	2-12

**Notes:** If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41....

If you wish to order AISI 316 form Y stainless steel fittings with AISI 304 stainless steel nuts, please change the first two digits from 40.... to 44....

## ADAPTER SAE J1453 / DIN 2353

Type: 4026..

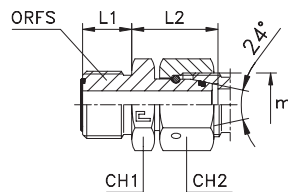


Series ORFS	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube M	Ø Tube W	Ø Tube 24°	m	L1	L2	L3	CH1	ORFS
UNIVERSAL	315	315	402601	6	1/4	6L	12x1,5	10	10,5	17,5	17	9/16-18
			402602	6	1/4	8L	14x1,5	10	10,5	17,5	17	9/16-18
			402603	8-10	5/16-3/8	10L	16x1,5	11	13	20	19	11/16-16
			402604	12	1/2	12L	18x1,5	13	13,5	20,5	22	13/16-16
			402605	14-15-16	5/8	15L	22x1,5	15,5	16,5	23,5	27	1-14
	160	160	402606	18-20	3/4	18L	26x1,5	17	17,5	25	32	13/16-12
			402607	22-25	7/8-1	22L	30x2	17,5	21	28,5	41	17/16-12
			402608	28-30-32	1 1/4	28L	36x2	17,5	23	30,5	46	11/16-12
			402609	35-38	1 1/2	35L	45x2	17,5	23,5	34	55	2-12
	630	630	402610	35-38	1 1/2	42L	52x2	17,5	23	34	55	2-12
			402611	6	1/4	6S	14x1,5	10	12,5	19,5	17	9/16-18
			402612	6	1/4	8S	16x1,5	10	12,5	20	17	9/16-18
			402613	8-10	5/16-3/8	10S	18x1,5	11	13,5	21	19	11/16-16
	420	420	402614	12	1/2	12S	20x1,5	13	14	22	22	13/16-16
			402615	14-15-16	5/8	14S	22x1,5	15,5	19,5	25,5	27	1-14
	400	400	402616	14-15-16	5/8	16S	24x1,5	15,5	20	25,5	27	1-14
			402617	18-20	3/4	20S	30x2	17	18,5	29	32	13/16-12
	280	280	402618	22-25	7/8-1	25S	36x2	17,5	20,5	32,5	41	17/16-12
			402619	28-30-32	1 1/4	30S	42x2	17,5	23	36,5	46	11/16-12
				402620	35-38	1 1/2	38S	52x2	17,5	24	40	55

Notes: If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41....

## ADAPTER SAE J1453 / DIN 2353 WITH SWIVEL NUT

Type: 4027..

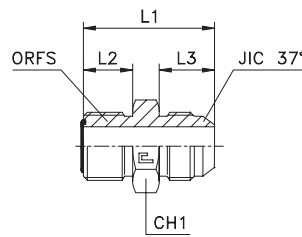


Series ORFS	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube M	Ø Tube W	Ø Tube 24°	m	L1	L2	CH1	CH2	ORFS
UNIVERSAL	315	315	402701	6	1/4	6L	12x1,5	10	24,5	17	14	9/16-18
			402702	6	1/4	8L	14x1,5	10	24,5	17	17	9/16-18
			402703	8-10	5/16-3/8	10L	16x1,5	11	26,5	19	19	11/16-16
			402704	12	1/2	12L	18x1,5	13	27	22	22	13/16-16
			402705	14-15-16	5/8	15L	22x1,5	15,5	31	27	27	1-14
	160	160	402706	18-20	3/4	18L	26x1,5	17	33,5	32	32	13/16-12
			402707	22-25	7/8-1	22L	30x2	17,5	36	41	36	17/16-12
			402708	28-30-32	1 1/4	28L	36x2	17,5	39	46	41	11/16-12
			402709	35-38	1 1/2	35L	45x2	17,5	45	55	50	2-12
	630	630	402710	35-38	1 1/2	42L	52x2	17,5	45	55	60	2-12
			402711	6	1/4	6S	14x1,5	10	24,5	17	17	9/16-18
			402712	6	1/4	8S	16x1,5	10	25	17	19	9/16-18
			402713	8-10	5/16-3/8	10S	18x1,5	11	27	19	22	11/16-16
	420	420	402714	12	1/2	12S	20x1,5	13	27,5	22	24	13/16-16
			402715	14-15-16	5/8	14S	22x1,5	15,5	32,5	27	27	1-14
	400	400	402716	14-15-16	5/8	16S	24x1,5	15,5	35	27	30	1-14
			402717	18-20	3/4	20S	30x2	17	39	32	36	13/16-12
	280	280	402718	22-25	7/8-1	25S	36x2	17,5	43	41	46	17/16-12
			402719	28-30-32	1 1/4	30S	42x2	17,5	47,5	46	50	11/16-12
				402720	35-38	1 1/2	38S	52x2	17,5	51	55	60

Notes: If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41....

## ADAPTER SAE J1453 / SAE J514

Type: 4028...3

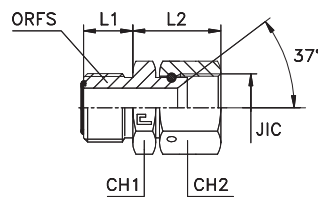


Series ORFS	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube M	Ø Tube W	Ø Tube 37°-M	Ø Tube 37°-W	L1	L2	L3	CH1	ORFS	JIC 37°
UNIVERSAL	450	450	402801.3	6	1/4	6	1/4	31,5	10	13,9	17	9/16-18	7/16-20
	350	350	402802.3	8-10	5/16-3/8	10	3/8	34	11	14	19	11/16-16	9/16-18
			402803.3	12	1/2	12	1/2	39	13	16,7	22	13/16-16	3/4-16
			402804.3	14-15-16	5/8	14-15-16	5/8	46,5	15,5	19,3	27	1-14	7/8-14
			402805.3	18-20	3/4	18-20	3/4	52	17	21,9	32	13/16-12	11/16-12
	290	290	402806.3	22-25	7/8-1	25	1	55	17,5	23,1	41	17/16-12	15/16-12
	240	240	402807.3	28-30-32	1 1/4	30-32	1 1/4	58,5	17,5	24,3	46	111/16-12	15/8-12
			402808.3	35-38	1 1/2	38	1 1/2	63	17,5	27,5	55	2-12	17/8-12
	450	450	402809.3	8-10	5/16-3/8	8	5/16	34	11	14	19	11/16-16	1/2-20

Notes: If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41.... .

## ADAPTER SAE J1453 / SAE J514 WITH SWIVEL NUT

Type: 4029..

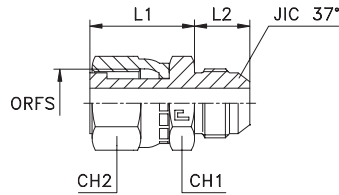


Series ORFS	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube M	Ø Tube W	Ø Tube 37°- M	Ø Tube 37°- W	L1	L2	CH1	CH2	ORFS	JIC 37°
UNIVERSAL	450	450	402901	6	1/4	6	1/4	10	25	17	14	9/16-18	7/16-20
	350	350	402902	8-10	5/16-3/8	10	3/8	11	29	19	19	11/16-16	9/16-18
			402903	12	1/2	12	1/2	13	31,5	22	22	13/16-16	3/4-16
			402904	14-15-16	5/8	14-15-16	5/8	15,5	37,5	27	27	1-14	7/8-14
			402905	18-20	3/4	18-20	3/4	17	39	32	32	13/16-12	11/16-12
	290	290	402906	22-25	7/8-1	25	1	17,5	44,5	41	41	17/16-12	15/16-12
	240	240	402907	28-30-32	1 1/4	30-32	1 1/4	17,5	45,5	46	50	111/16-12	15/8-12
			402908	35-38	1 1/2	38	1 1/2	17,5	55,5	55	60	2-12	17/8-12
	450	450	402909	8-10	5/16-3/8	8	5/16	11	28	19	17	11/16-16	1/2-20

Notes: If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41.... .

## ADAPTER SAE J1453 WITH SWIVEL NUT / SAE J514

Type: 4030...3

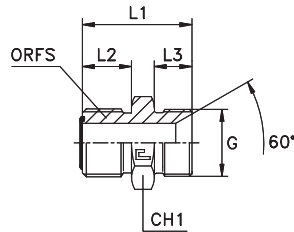


Series ORFS	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube M	Ø Tube W	Ø Tube 37°-M	Ø Tube 37°-W	L1	L2	CH1	CH2	ORFS	JIC 37°
UNIVERSAL	450	450	403001.3	6	1/4	6	1/4	23,5	13,9	17	19	9/16-18	7/16-20
	350	350	403002.3	8-10	5/16-3/8	10	3/8	26,9	14	19	22	11/16-16	9/16-18
			403003.3	12	1/2	12	1/2	30,3	16,7	22	24	13/16-16	3/4-16
			403004.3	14-15-16	5/8	14-15-16	5/8	36,7	19,3	27	30	1-14	7/8-14
			403005.3	18-20	3/4	18-20	3/4	40,6	21,9	32	36	13/16-12	11/16-12
	290	290	403006.3	22-25	7/8-1	25	1	42,9	23,1	41	46	17/16-12	15/16-12
	240	240	403007.3	28-30-32	1 1/4	30-32	1 1/4	45,2	24,3	46	50	111/16-12	15/8-12
			403008.3	35-38	1 1/2	38	1 1/2	46,5	27,5	55	60	2-12	17/8-12
	450	450	403009.3	8-10	5/16-3/8	8	5/16	27	14	19	22	11/16-16	1/2-20

Notes: If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41.... .

## ADAPTER SAE J1453 / BS 5200

Type: 4031..

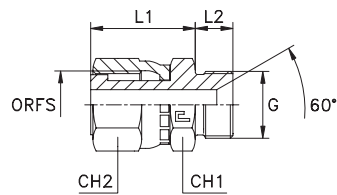


Series ORFS	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube M	Ø Tube W	G	L1	L2	L3	CH1	ORFS	
UNIVERSAL	400	400	403101	6	1/4	1/8	25,5	10	8	17	9/16-18	
			403102	8-10	5/16-3/8	1/4	31	11	11	19	11/16-16	
			403103	12	1/2	3/8	34,5	13	12	22	13/16-16	
	350	350	403104	14-15-16	5/8	1/2	41	15,5	14	27	1-14	
	315	315	403105	18-20	3/4	3/4	46	17	16	32	13/16-12	
	250	250	403106	22-25	7/8-1	1	51	17,5	19	41	17/16-12	
	200	200	403107	28-30-32	1 1/4	1 1/4	54	17,5	20	46	111/16-12	
	160	160	403108	35-38	1 1/2	1 1/2	58,5	17,5	23	55	2-12	
	400	400	400	403109	6	1/4	1/4	28,5	10	11	17	9/16-18
				403110	6	1/4	3/8	29,5	10	12	17	9/16-18
				403111	8-10	5/16-3/8	3/8	32	11	12	19	11/16-16
		350	350	403112	8-10	5/16-3/8	1/2	34,5	11	14	22	11/16-16
		400	400	403113	12	1/2	1/4	33,5	13	11	22	13/16-16
		350	350	403114	12	1/2	1/2	36,5	13	14	22	13/16-16
		315	315	403115	12	1/2	3/4	40,5	13	16	27	13/16-16
		400	400	403116	14-15-16	5/8	3/8	39	15,5	12	27	1-14
		350	350	403117	14-15-16	5/8	5/8	43	15,5	16	27	1-14
		315	315	403118	14-15-16	5/8	3/4	43	15,5	16	27	1-14
		350	350	403119	18-20	3/4	1/2	44	17	14	32	13/16-12
		250	250	403120	18-20	3/4	1	49	17	19	36	13/16-12
		315	315	403121	22-25	7/8-1	3/4	48	17,5	16	41	17/16-12
		200	200	403122	22-25	7/8-1	1 1/4	54	17,5	20	46	17/16-12

Notes: If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41.... .

## ADAPTER SAE J1453 WITH SWIVEL NUT / BS 5200

Type: 4032..



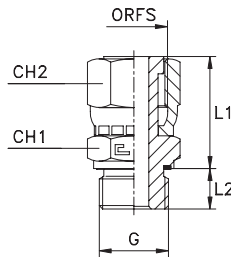
Series ORFS	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube M	Ø Tube W	G	L1	L2	CH1	CH2	ORFS
UNIVERSAL	400	400	403201	6	1/4	1/8	23,5	8	17	19	9/16-18
			403202	8-10	5/16-3/8	1/4	27	11	19	22	11/16-16
			403203	12	1/2	3/8	30,5	12	22	24	13/16-16
	350	350	403204	14-15-16	5/8	1/2	36,5	14	27	30	1-14
	315	315	403205	18-20	3/4	3/4	40,5	16	32	36	13/16-12
	250	250	403206	22-25	7/8-1	1	43	19	41	46	17/16-12
	200	200	403207	28-30-32	1 1/4	1 1/4	45	20	46	50	11 1/16-12
	160	160	403208	35-38	1 1/2	1 1/2	46,5	23	55	60	2-12
	400	400	403209	6	1/4	1/4	23,5	11	17	19	9/16-18
			403210	6	1/4	3/8	23,5	12	17	19	9/16-18
			403211	8-10	5/16-3/8	3/8	27	12	19	22	11/16-16
	350	350	403212	8-10	5/16-3/8	1/2	27,5	14	22	22	11/16-16
	400	400	403213	12	1/2	1/4	30,5	11	22	24	13/16-16
	350	350	403214	12	1/2	1/2	30,5	14	22	24	13/16-16
	315	315	403215	12	1/2	3/4	32,5	16	27	24	13/16-16
	400	400	403216	14-15-16	5/8	3/8	36,5	12	27	30	1-14
	350	350	403217	14-15-16	5/8	5/8	36,5	16	27	30	1-14
	315	315	403218	14-15-16	5/8	3/4	36,5	16	27	30	1-14
	350	350	403219	18-20	3/4	1/2	40,5	14	32	36	13/16-12
	250	250	403220	18-20	3/4	1	40,5	19	36	36	13/16-12
	315	315	403221	22-25	7/8-1	3/4	43	16	41	46	17/16-12
	200	200	403222	22-25	7/8-1	1 1/4	45	20	46	46	17/16-12

**Notes:** If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41.... .

## MALE STUD CRIMPED NUT COUPLING WITH CRIMPED NUT AND ELASTOMERIC SEAL

Thread BSP Parallel

Type: 4033..



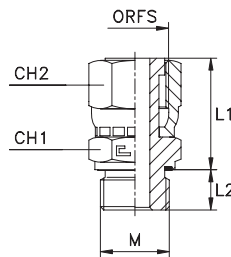
Series ORFS	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube M	Ø Tube W	G	L1	L2	CH1	CH2	ORFS
UNIVERSAL	630	630	403301	6	1/4	1/8	26,5	8	17	19	9/16-18
			403302	8-10	5/16-3/8	1/4	28,5	12	19	22	11/16-16
			403303	12	1/2	3/8	35,5	12	22	24	13/16-16
	420	420	403304	14-15-16	5/8	1/2	38	14	27	30	1-14
			403305	18-20	3/4	3/4	41,5	16	32	36	13/16-12
			403306	22-25	7/8-1	1	49	18	41	46	17/16-12
	280	280	403307	28-30-32	1 1/4	1 1/4	49	20	50	50	111/16-12
			403308	35-38	1 1/2	1 1/2	49	22	55	60	2-12
	630	630	403309	6	1/4	1/4	26,5	12	19	19	9/16-18
			403310	8-10	5/16-3/8	3/8	32,5	12	22	22	11/16-16
			403311	12	1/2	1/2	34	14	27	24	13/16-16
	420	420	403312	18-20	3/4	1 1/4	48	20	50	36	13/16-12

**Notes:** If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41.... .  
Articles available on scheduled orders only.

## MALE NUT COUPLING WITH CRIMPED NUT AND ELASTOMERIC SEAL

Thread Metric Parallel

Type: 4034..



Series ORFS	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube M	Ø Tube W	G	L1	L2	CH1	CH2	ORFS
UNIVERSAL	630	630	403401	6	1/4	12x1,5	26,5	12	17	19	9/16-18
			403402	8-10	5/16-3/8	14x1,5	28,5	12	19	22	11/16-16
			403403	12	1/2	18x1,5	35,5	12	24	24	13/16-16
	420	420	403404	14-15-16	5/8	22x1,5	38	14	27	30	1-14
			403405	18-20	3/4	27x2	41,5	16	32	36	13/16-12
			403406	22-25	7/8-1	33x2	49	18	41	46	17/16-12
	280	280	403407	28-30-32	1 1/4	42x2	49	20	50	50	111/16-12
			403408	35-38	1 1/2	48x2	49	22	55	60	2-12
	350	350	403409	6	1/4	10x1	26,5	8	17	19	9/16-18
	630	630	403410	8-10	5/16-3/8	16x1,5	28,5	12	22	22	11/16-16
			403411	12	1/2	16x1,5	31,5	12	22	24	13/16-16
	420	420	403412	14-15-16	5/8	18x1,5	38	12	27	30	1-14
			403413	18-20	3/4	22x1,5	41,5	14	32	36	13/16-12
			403414	22-25	7/8-1	27x2	49	16	41	46	17/16-12

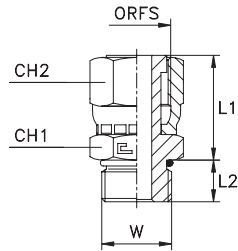
**Notes:** If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41.... .



## MALE STUD COUPLING WITH CRIMPED NUT AND O-RING

Thread UNF/UN-2A

Type: 4035..



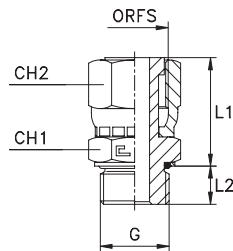
Series ORFS	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube M	Ø Tube W	W	L1	L2	CH1	CH2	ORFS
UNIVERSAL	630	630	403501	6	1/4	7/16-20	26,5	11	17	19	9/16-18
			403502	8-10	5/16-3/8	9/16-18	28,5	12	19	22	11/16-16
			403503	12	1/2	3/4-16	35,5	14	22	24	13/16-16
	420	420	403504	14-15-16	5/8	7/8-14	38	16	27	30	1-14
			403505	18-20	3/4	1 1/16-12	41,5	18,5	32	36	13/16-12
			403506	22-25	7/8-1	15/16-12	49	18,5	41	46	17/16-12
	280	280	403507	28-30-32	1 1/4	15/8-12	49	18,5	46	50	1 11/16-12
			403508	35-38	1 1/2	17/8-12	49	18,5	55	60	2-12
	630	630	403509	8-10	5/16-3/8	7/16-20	28,5	11	19	22	11/16-16
			403510	8-10	5/16-3/8	3/4-16	32,5	14	22	22	11/16-16
			403511	12	1/2	7/8-14	34	16	27	24	13/16-16
	420	420	403512	14-15-16	5/8	3/4-16	38	14	27	30	1-14
			403513	14-15-16	5/8	1 1/16-12	39	18,5	32	30	1-14
			403514	18-20	3/4	7/8-14	41,5	16	32	36	13/16-12
			403515	18-20	3/4	15/16-12	48	18,5	41	36	13/16-12

Notes: If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41.... .

## MALE STUD COUPLING WITH O-RING CRIMPED NUT AND WASHER

Thread BSP Parallel

Type: 4036..



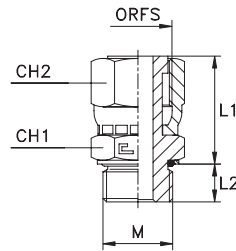
Series ORFS	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube M	Ø Tube W	G	L1	L2	CH1	CH2	ORFS
UNIVERSAL	350	350	403601	6	1/4	1/8	27,8	6,7	17	19	9/16-18
	400	400	403602	8-10	5/16-3/8	1/4	30,3	10,2	19	22	11/16-16
	350	350	403603	12	1/2	3/8	37,3	10,2	22	24	13/16-16
	315	315	403604	14-15-16	5/8	1/2	39,8	12,2	27	30	1-14
			403605	18-20	3/4	3/4	43,3	12,7	32	36	13/16-12
	280	280	403606	22-25	7/8-1	1	51,6	15,4	41	46	17/16-12
			403607	28-30-32	1 1/4	1 1/4	51,5	16	50	50	1 11/16-12
	250	250	403608	35-38	1 1/2	1 1/2	51,5	16	55	60	2-12
	400	400	403609	6	1/4	1/4	28,3	10,2	19	19	9/16-18
	350	350	403610	8-10	5/16-3/8	3/8	34,3	10,2	22	22	11/16-16
	315	315	403611	12	1/2	1/2	35,8	12,2	27	24	13/16-16
	200	200	403612	18-20	3/4	1 1/4	50,5	16	50	36	13/16-12

Notes: If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41.... .

## MALE STUD COUPLING WITH CRIMPED NUT O-RING AND WASHER

Thread Metric Parallel

Type: 4037..

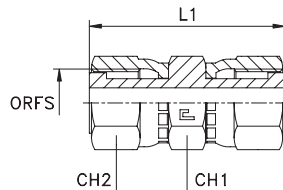


Series ORFS	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube M	Ø Tube W	M	L1	L2	CH1	CH2	ORFS
UNIVERSAL	400	400	403701	6	1/4	12x1,5	27,9	9,6	17	19	9/16-18
			403702	8-10	5/16-3/8	14x1,5	28,9	9,6	19	22	11/16-16
			403703	12	1/2	18x1,5	36,9	12,6	24	24	13/16-16
	315	315	403704	14-15-16	5/8	22x1,5	39,4	13,6	27	30	1-14
			403705	18-20	3/4	27x2	43,5	16,5	32	36	13/16-12
	280	280	403706	22-25	7/8-1	33x2	51	16,5	41	46	17/16-12
			403707	28-30-32	1 1/4	42x2	51	17	50	50	111/16-12
	250	250	403708	35-38	1 1/2	48x2	51	19,5	55	60	2-12
	400	400	403709	6	1/4	10x1	27,5	7,5	17	19	9/16-18
			403710	8-10	5/16-3/8	16x1,5	29,9	11,1	22	22	11/16-16
			403711	12	1/2	16x1,5	32,9	11,1	22	24	13/16-16
			403712	14-15-16	5/8	18x1,5	39,4	12,6	27	30	1-14
	315	315	403713	18-20	3/4	22x1,5	42,9	13,6	32	36	13/16-12
			403714	22-25	7/8-1	27x2	51	16,5	41	46	17/16-12

Notes: If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41.... .

## STRAIGHT WITH DOUBLE CRIMPED NUT COUPLING

Type: 4038..



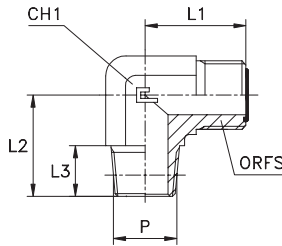
Series ORFS	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube M	Ø Tube W	L1	CH1	CH2	ORFS
UNIVERSAL	630	630	403801	6	1/4	39,5	17	19	9/16-18
			403802	8-10	5/16-3/8	45	19	22	11/16-16
			403803	12	1/2	51,5	22	24	13/16-16
	420	420	403804	14-15-16	5/8	61,5	27	30	1-14
			403805	18-20	3/4	68	32	36	13/16-12
			403806	22-25	7/8-1	71,5	41	46	17/16-12
	280	280	403807	28-30-32	1 1/4	73,5	46	50	111/16-12
			403808	35-38	1 1/2	75	55	60	2-12

Notes: If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41.... .

## MALE STUD ELBOW

Thread NPTF

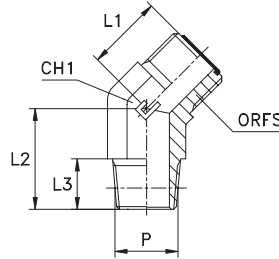
Type: 4039..



## MALE STUD ELBOW 45°

Thread NPTF

Type: 4040..



Series ORFS	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube M	Ø Tube W	P	L1	L2	L3	CH1	ORFS
UNIVERSAL	420	420	403901	6	1/4	1/8	21,5	20	10	14	9/16-18
	630	630	403902	8-10	5/16-3/8	1/4	25	31	14,5	19	11/16-16
			403903	12	1/2	3/8	28	31	14,5	19	13/16-16
	420	420	403904	14-15-16	5/8	1/2	33,5	37,5	19	27	1-14
			403905	18-20	3/4	3/4	37,5	40	19	30	13/16-12
			403906	22-25	7/8-1	1	41,5	50	24	36	17/16-12
			403907	28-30-32	1 1/4	1 1/4	44,5	60	25	41	11/16-12
	280	280	403908	35-38	1 1/2	1 1/2	49	67	26	48	2-12
			403909	6	1/4	1/4	21,5	28	14,5	14	9/16-18
	630	630	403910	6	1/4	3/8	23,5	31	14,5	19	9/16-18
			403911	8-10	5/16-3/8	3/8	25	31	14,5	19	11/16-16
			403912	8-10	5/16-3/8	1/2	28	37,5	19	22	11/16-16
			403913	12	1/2	1/4	28	31	14,5	19	13/16-16
			403914	12	1/2	1/2	30	37,5	19	22	13/16-16
			403915	12	1/2	3/4	31,5	40	19	27	13/16-16
	420	420	403916	14-15-16	5/8	3/8	33,5	33	14,5	27	1-14
			403917	14-15-16	5/8	3/4	33,5	40	19	27	1-14
			403918	18-20	3/4	1/2	37,5	40	19	30	13/16-12
			403919	18-20	3/4	1	38	50	24	33	13/16-12
			403920	22-25	7/8-1	3/4	41,5	45,5	19	36	17/16-12
			280	280	403921	28-30-32	1 1/4	1	44,5	51	24
	403922	35-38			1 1/2	1 1/4	49	66	25	48	2-12

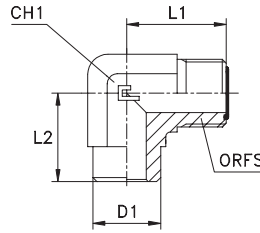
Notes: If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41....

Series ORFS	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube M	Ø Tube W	P	L1	L2	L3	CH1	ORFS
UNIVERSAL	420	420	404001	6	1/4	1/8	16	16,5	10	14	9/16-18
	630	630	404002	8-10	5/16-3/8	1/4	19	24	14,5	19	11/16-16
			404003	12	1/2	3/8	20,5	24	14,5	19	13/16-16
	420	420	404004	14-15-16	5/8	1/2	23,5	30,5	19	27	1-14
			404005	18-20	3/4	3/4	26	30,5	19	30	13/16-12
			404006	22-25	7/8-1	1	30	38	24	36	17/16-12
			404007	28-30-32	1 1/4	1 1/4	32	42	25	41	11/16-12
	280	280	404008	35-38	1 1/2	1 1/2	37	45	26	48	2-12
			404009	6	1/4	1/4	16	22	14,5	14	9/16-18
	630	630	404010	6	1/4	3/8	17,5	24	14,5	19	9/16-18
			404011	8-10	5/16-3/8	3/8	19	24	14,5	19	11/16-16
			404012	8-10	5/16-3/8	1/2	20	29,5	19	22	11/16-16
			404013	12	1/2	1/4	20,5	24	14,5	19	13/16-16
			404014	12	1/2	1/2	21	29,5	19	22	13/16-16
			404015	12	1/2	3/4	21,5	30,5	19	27	13/16-16
	420	420	404016	14-15-16	5/8	3/8	23,5	27	14,5	27	1-14
			404017	14-15-16	5/8	3/4	23,5	30,5	19	27	1-14
			404018	18-20	3/4	1/2	26	30,5	19	30	13/16-12
			404019	18-20	3/4	1	29,5	38	24	33	13/16-12
			404020	22-25	7/8-1	3/4	30	33	19	36	17/16-12
			280	280	404021	28-30-32	1 1/4	1	32	41	24
	404022	35-38			1 1/2	1 1/4	37	44	25	48	2-12

Notes: If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41....

## MALE WELDABLE ELBOW

Type: 4041..

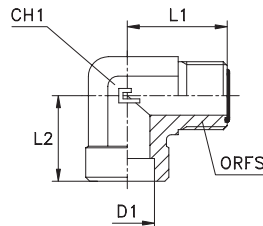


Series ORFS	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube M	Ø Tube W	D1	L1	L2	CH1	ORFS
UNIVERSAL	630	630	404101	6	1/4	6	21,5	20	14	9/16-18
			404102	8-10	5/16-3/8	10	25	25	19	11/16-16
			404103	12	1/2	12	28	25	19	13/16-16
	420	420	404104	14-15-16	5/8	16	33,5	33,5	27	1-14
			404105	18-20	3/4	20	37,5	37,5	30	13/16-12
			404106	22-25	7/8-1	25	41,5	42	36	17/16-12
	280	280	404107	28-30-32	1 1/4	30	44,5	45	41	1 11/16-12
			404108	35-38	1 1/2	38	49	49	48	2-12
	630	630	404109	8-10	5/16-3/8	8	25	25	19	11/16-16
			404110	14-15-16	5/8	14	33,5	33,5	27	1-14
	420	420	404111	14-15-16	5/8	15	33,5	33,5	27	1-14
			404112	18-20	3/4	18	37,5	37,5	30	13/16-12
			404113	22-25	7/8-1	22	41,5	42	36	17/16-12
	280	280	404114	28-30-32	1 1/4	28	44,5	45	41	1 11/16-12
			404115	28-30-32	1 1/4	32	44,5	45	41	1 11/16-12
			404116	35-38	1 1/2	35	49	49	48	2-12

Notes: If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41....

## FEMALE WELDABLE ELBOW

Type: 4042..

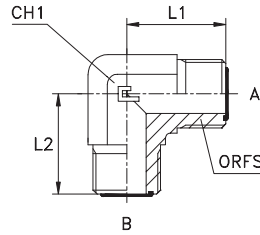


Series ORFS	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube M	Ø Tube W	D1	L1	L2	CH1	ORFS
UNIVERSAL	630	630	404201	6	1/4	6	21,5	20	14	9/16-18
			404202	8-10	5/16-3/8	10	25	23	19	11/16-16
			404203	12	1/2	12	28	25	19	13/16-16
	420	420	404204	14-15-16	5/8	16	33,5	30	27	1-14
			404205	18-20	3/4	20	37,5	32	30	13/16-12
			404206	22-25	7/8-1	25	41,5	36	36	17/16-12
	280	280	404207	28-30-32	1 1/4	30	44,5	42	41	1 11/16-12
			404208	35-38	1 1/2	38	49	44	48	2-12
	630	630	404209	8-10	5/16-3/8	8	25	23	19	11/16-16
			404210	14-15-16	5/8	14	33,5	30	27	1-14
	420	420	404211	14-15-16	5/8	15	33,5	30	27	1-14
			404212	18-20	3/4	18	37,5	32	30	13/16-12
			404213	22-25	7/8-1	22	41,5	36	36	17/16-12
	280	280	404214	28-30-32	1 1/4	28	44,5	42	41	1 11/16-12
			404215	28-30-32	1 1/4	32	44,5	42	41	1 11/16-12
			404216	35-38	1 1/2	35	49	44	48	2-12

Notes: If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41....

## EQUAL ELBOW

Type: 4043..

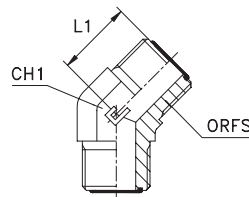


Series ORFS	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube A <sup>M</sup>	Ø Tube B <sup>M</sup>	Ø Tube A <sup>W</sup>	Ø Tube B <sup>W</sup>	L2	L3	CH1	ORFS A	ORFS B
UNIVERSAL	630	630	404301	6	6	1/4	1/4	21,5	21,5	14	9/16-18	9/16-18
			404302	8-10	8-10	5/16-3/8	5/16-3/8	25	25	19	11/16-16	11/16-16
			404303	12	12	1/2	1/2	28	28	19	13/16-16	13/16-16
	420	420	404304	14-15-16	14-15-16	5/8	5/8	33,5	33,5	27	1-14	1-14
			404305	18-20	18-20	3/4	3/4	37,5	37,5	30	13/16-12	13/16-12
			404306	22-25	22-25	7/8-1	7/8-1	41,5	41,5	36	17/16-12	17/16-12
	280	280	404307	28-30-32	28-30-32	1 1/4	1 1/4	44,5	44,5	41	1 11/16-12	1 11/16-12
			404308	35-38	35-38	1 1/2	1 1/2	49	49	48	2-12	2-12
	630	630	404309	8-10	6	5/16-3/8	1/4	25	23,5	19	11/16-16	9/16-18
			404310	12	8-10	1/2	3/8-5/16	28	25	19	13/16-16	11/16-16
	420	420	404311	14-15-16	12	5/8	1/2	33,5	31,5	27	1-14	13/16-16
			404312	18-20	8-10	3/4	5/16-3/8	37,5	32,5	30	13/16-12	11/16-16
			404313	18-20	12	3/4	1/2	37,5	34,5	30	13/16-12	13/16-16
			404314	18-20	14-15-16	3/4	5/8	37,5	36,5	30	13/16-12	1-14
			404315	22-25	18-20	7/8-1	3/4	41,5	41	36	17/16-12	13/16-12
	280	280	404316	28-30-32	22-25	1 1/4	7/8-1	44,5	44,5	41	1 11/16-12	17/16-12

Notes: If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41.... .

## EQUAL 45° ELBOW

Type: 4044..

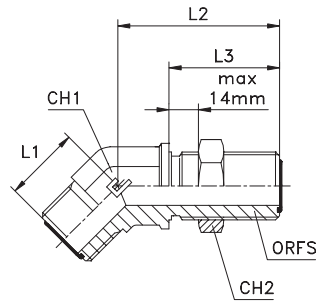


Series ORFS	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube M	Ø Tube W	L1	CH1	ORFS
UNIVERSAL	630	630	404401	6	1/4	16	14	9/16-18
			404402	8-10	5/16-3/8	19	19	11/16-16
			404403	12	1/2	20,5	19	13/16-16
	420	420	404404	14-15-16	5/8	23,5	27	1-14
			404405	18-20	3/4	26	30	13/16-12
			404406	22-25	7/8-1	30	36	17/16-12
	280	280	404407	28-30-32	1 1/4	32	41	1 11/16-12
			404408	35-38	1 1/2	37	48	2-12

Notes: If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41.... .

## 45° BULKHEAD ELBOW

Type: 4045..

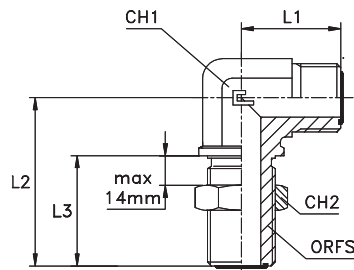


Series ORFS	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube M	Ø Tube W	L1	L2	L3	CH1	CH2	ORFS
UNIVERSAL	630	630	404501	6	1/4	16	44	31,5	14	22	9/16-18
			404502	8-10	5/16-3/8	19	48,5	34	19	27	11/16-16
			404503	12	1/2	20,5	51	36,5	19	30	13/16-16
	420	420	404504	14-15-16	5/8	23,5	56,5	40,5	27	36	1-14
			404505	18-20	3/4	26	60,5	41,5	30	41	13/16-12
			404506	22-25	7/8-1	30	65	42	36	46	17/16-12
	280	280	404507	28-30-32	1 1/4	32	67	42	41	50	111/16-12
			404508	35-38	1 1/2	37	67	42	48	60	2-12

Notes: If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41....

## BULKHEAD ELBOW

Type: 4046..

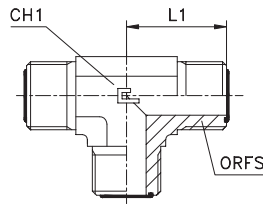


Series ORFS	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube M	Ø Tube W	L1	L2	L3	CH1	CH2	ORFS
UNIVERSAL	630	630	404601	6	1/4	21,5	47	31,5	14	22	9/16-18
			404602	8-10	5/16-3/8	25	52	34	19	27	11/16-16
			404603	12	1/2	28	55,5	36,5	19	30	13/16-16
	420	420	404604	14-15-16	5/8	33,5	63	40,5	27	36	1-14
			404605	18-20	3/4	37,5	67	41,5	30	41	13/16-12
			404606	22-25	7/8-1	41,5	71	42	36	46	17/16-12
	280	280	404607	28-30-32	1 1/4	44,5	75,5	42	41	50	111/16-12
			404608	35-38	1 1/2	49	79,5	42	48	60	2-12

Notes: If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41....

## EQUAL TEE

Type: 4049..

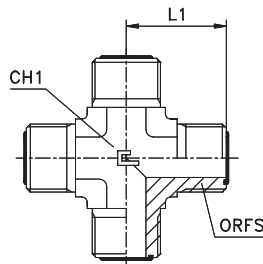


Series ORFS	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube M	Ø Tube W	L1	CH1	ORFS
UNIVERSAL	630	630	404901	6	1/4	21,5	14	9/16-18
			404902	8-10	5/16-3/8	25	19	11/16-16
			404903	12	1/2	28	19	13/16-16
	420	420	404904	14-15-16	5/8	33,5	27	1-14
			404905	18-20	3/4	37,5	30	13/16-12
			404906	22-25	7/8-1	41,5	36	17/16-12
	280	280	404907	28-30-32	1 1/4	44,5	41	1 11/16-12
			404908	35-38	1 1/2	49	48	2-12

Notes: If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41.... .

## EQUAL CROSS

Type: 4050..



Series ORFS	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube M	Ø Tube W	L1	CH1	ORFS
UNIVERSAL	630	630	405001	6	1/4	21,5	14	9/16-18
			405002	8-10	5/16-3/8	25	19	11/16-16
			405003	12	1/2	28	19	13/16-16
	420	420	405004	14-15-16	5/8	33,5	27	1-14
			405005	18-20	3/4	37,5	30	13/16-12
			405006	22-25	7/8-1	41,5	36	17/16-12
	280	280	405007	28-30-32	1 1/4	44,5	41	1 11/16-12
			405008	35-38	1 1/2	49	48	2-12

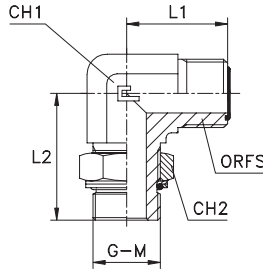
Notes: If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41.... .

# ADJUSTABLE MALE STUD ELBOW WITH O-RING AND WASHER

Thread BSP Parallel - Thread Metric Parallel

Type: 4051..

Type: 4052..



Series ORFS	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube M	Ø Tube W	G	L1	L2	CH1	CH2	ORFS
UNIVERSAL	350	350	405101	6	1/4	1/8	21,5	30	14	14	9/16-18
	315	315	405102	8-10	5/16-3/8	1/4	25	37	19	19	11/16-16
	250	250	405103	12	1/2	3/8	28	38	19	22	13/16-16
			405104	14-15-16	5/8	1/2	33,5	48	27	27	1-14
			405105	18-20	3/4	3/4	37,5	51,5	30	36	13/16-12
	200	200	405106	22-25	7/8-1	1	41,5	58,5	36	41	17/16-12
			405107	28-30-32	1 1/4	1 1/4	44,5	60,5	41	50	1 11/16-12
	160	160	405108	35-38	1 1/2	1 1/2	49	64	48	55	2-12
	315	315	405109	6	1/4	1/4	21,5	35	14	19	9/16-18
	250	250	405110	6	1/4	3/8	23,5	38	19	22	9/16-18
			405111	8-10	5/16-3/8	3/8	25	38	19	22	11/16-16
			405112	8-10	5/16-3/8	1/2	28	48	22	27	11/16-16
	315	315	405113	12	1/2	1/4	28	37	19	19	13/16-16
	250	250	405114	12	1/2	1/2	30	48	22	27	13/16-16
			405115	12	1/2	3/4	31,5	51,5	27	36	13/16-16
	315	315	405116	14-15-16	5/8	1/4	33,5	42,5	27	19	1-14
	250	250	405117	14-15-16	5/8	3/8	33,5	42,5	27	22	1-14
			405118	14-15-16	5/8	3/4	33,5	51,5	27	36	1-14
	200	200	405119	14-15-16	5/8	1	37	58,5	33	41	1-14
	315	315	405120	18-20	3/4	1/4	37,5	43,5	30	19	13/16-12
	250	250	405121	18-20	3/4	1/2	37,5	49	30	27	13/16-12
	200	200	405122	18-20	3/4	1	38	58,5	33	41	13/16-12
	315	315	405123	22-25	7/8-1	1/4	41,5	52	36	19	17/16-12
	250	250	405124	22-25	7/8-1	3/4	41,5	57,5	36	36	17/16-12
			405125	22-25	7/8-1	1 1/4	44,5	60,5	41	50	17/16-12
	200	200	405126	28-30-32	1 1/4	1	44,5	60,5	41	41	1 11/16-12
			405127	28-30-32	1 1/4	1 1/2	48,5	64	48	55	1 11/16-12

Notes: If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41....

Series ORFS	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube M	Ø Tube W	M	L1	L2	CH1	CH2	ORFS
UNIVERSAL	315	315	405201	6	1/4	12x1,5	21,5	33	14	17	9/16-18
			405202	8-10	5/16-3/8	14x1,5	25	35,5	19	19	11/16-16
			405203	12	1/2	18x1,5	28	41	19	24	13/16-16
	250	250	405204	14-15-16	5/8	22x1,5	33,5	49	27	27	1-14
			405205	18-20	3/4	27x2	37,5	55,5	30	32	13/16-12
			405206	22-25	7/8-1	33x2	41,5	59,5	36	41	17/16-12
	160	160	405207	28-30-32	1 1/4	42x2	44,5	63	41	50	1 11/16-12
			405208	35-38	1 1/2	48x2	49	68,5	48	55	2-12
			405209	6	1/4	10x1	21,5	30	14	14	9/16-18
	315	315	405210	8-10	5/16-3/8	16x1,5	25	37,5	19	22	11/16-16
			405211	12	1/2	16x1,5	28	37,5	19	22	13/16-16
			405212	12	1/2	22x1,5	31,5	49	27	27	13/16-16
	315	315	405213	14-15-16	5/8	18x1,5	33,5	47,5	27	24	1-14
	250	250	405214	14-15-16	5/8	27x2	33,5	55,5	27	32	1-14
			405215	18-20	3/4	22x1,5	37,5	49,5	30	27	13/16-12
	160	160	405216	18-20	3/4	33x2	38	59,5	33	41	13/16-12
	250	250	405217	22-25	7/8-1	27x2	41,5	59,5	36	32	17/16-12
			405218	22-25	7/8-1	42x2	44,5	63	41	50	17/16-12
	160	160	405219	28-30-32	1 1/4	48x2	48,5	68,5	48	55	1 11/16-12

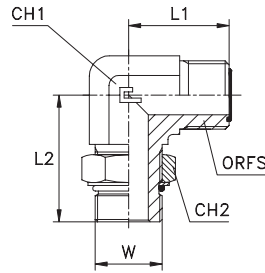
Notes: If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41....



# ADJUSTABLE MALE STUD ELBOW WITH O-RING

Thread UNF/UN-2A

Type: 4053..



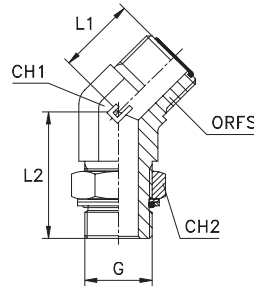
Series ORFS	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube M	Ø Tube W	W	L1	L2	CH1	CH2	ORFS
UNIVERSAL	420	420	405301	6	1/4	7/16-20	21,5	32,5	14	14	9/16-18
			405302	8-10	5/16-3/8	9/16-18	25	37	19	17	11/16-16
			405303	12	1/2	3/4-16	28	40,5	19	22	13/16-16
			405304	14-15-16	5/8	7/8-14	33,5	50	27	27	1-14
			405305	18-20	3/4	1 1/16-12	37,5	55	30	32	1 3/16-12
	380	380	405306	22-25	7/8-1	1 5/16-12	41,5	59,5	36	41	1 7/16-12
	280	280	405307	28-30-32	1 1/4	1 5/8-12	44,5	62	41	50	1 11/16-12
			405308	35-38	1 1/2	1 7/8-12	49	66	48	55	2-12
	420	420	405309	6	1/4	9/16-18	21,5	34,5	14	17	9/16-18
			405310	6	1/4	3/4-16	23,5	40,5	19	22	9/16-18
			405311	8-10	5/16-3/8	7/16-20	25	35	19	14	11/16-16
			405312	8-10	5/16-3/8	3/4-16	25	40,5	19	22	11/16-16
			405313	8-10	5/16-3/8	7/8-14	28	50	22	27	11/16-16
			405314	8-10	5/16-3/8	1 1/16-12	29,5	55	27	32	11/16-16
			405315	12	1/2	9/16-18	28	37	19	17	13/16-16
			405316	12	1/2	7/8-14	30	50	22	27	13/16-16
			405317	12	1/2	1 1/16-12	31,5	55	27	32	13/16-16
			405318	14-15-16	5/8	3/4-16	33,5	46	27	22	1-14
			405319	14-15-16	5/8	1 1/16-12	33,5	55	27	32	1-14
			405320	18-20	3/4	3/4-16	37,5	47	30	22	1 3/16-12
			405321	18-20	3/4	7/8-14	37,5	51	30	27	1 3/16-12
			380	380	405322	18-20	3/4	1 5/16-12	38	59,5	33
	420	420	405323	22-25	7/8-1	1 1/16-12	41,5	59	36	32	1 7/16-12
	280	280	405324	22-25	7/8-1	1 5/8-12	44,5	62	41	50	1 7/16-12
			405325	28-30-32	1 1/4	1 5/16-12	44,5	62	41	41	1 11/16-12
			405326	28-30-32	1 1/4	1 7/8-12	48,5	66	48	55	1 11/16-12
			405327	35-38	1 1/2	1 5/8-12	49	66	48	50	2-12

Notes: If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41....

## 45° ADJUSTABLE MALE STUD ELBOW WITH O-RING AND WASHER

Thread BSP Parallel

Type: 4054..



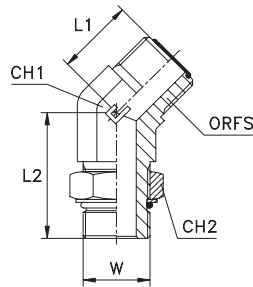
Series	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube M	Ø Tube W	G	L1	L2	CH1	CH2	ORFS
UNIVERSAL	350	350	405401	6	1/4	1/8	16	27,5	14	14	9/16-18
	315	315	405402	8-10	5/16-3/8	1/4	19	32,5	19	19	11/16-16
	250	250	405403	12	1/2	3/8	20,5	33,5	19	22	13/16-16
			405404	14-15-16	5/8	1/2	23,5	43	27	27	1-14
			405405	18-20	3/4	3/4	26	46,5	30	36	13/16-12
	200	200	405406	22-25	7/8-1	1	30	51	36	41	17/16-12
			405407	28-30-32	1 1/4	1 1/4	32	52,5	41	50	111/16-12
	160	160	405408	35-38	1 1/2	1 1/2	37	52,5	48	55	2-12
	315	315	405409	6	1/4	1/4	16	31,5	14	19	9/16-18
	250	250	405410	6	1/4	3/8	17,5	33,5	19	22	9/16-18
			405411	8-10	5/16-3/8	3/8	19	33,5	19	22	11/16-16
			405412	8-10	5/16-3/8	1/2	20	43	22	27	11/16-16
	315	315	405413	12	1/2	1/4	20,5	32,5	19	19	13/16-16
	250	250	405414	12	1/2	1/2	21	43	22	27	13/16-16
			405415	12	1/2	3/4	21,5	46,5	27	36	13/16-16
	315	315	405416	14-15-16	5/8	1/4	23,5	36	27	19	1-14
	250	250	405417	14-15-16	5/8	3/8	23,5	37	27	22	1-14
			405418	14-15-16	5/8	3/4	23,5	46,5	27	36	1-14
	200	200	405419	14-15-16	5/8	1	28,5	51	33	41	1-14
	315	315	405420	18-20	3/4	1/4	26	40,5	30	19	13/16-12
	250	250	405421	18-20	3/4	1/2	26	44,5	30	27	13/16-12
	200	200	405422	18-20	3/4	1	29,5	51	33	41	13/16-12
	315	315	405423	22-25	7/8-1	1/4	30	41	36	19	17/16-12
	250	250	405424	22-25	7/8-1	3/4	30	47	36	36	17/16-12
			405425	22-25	7/8-1	1 1/4	32	52,5	41	50	17/16-12
	200	200	405426	28-30-32	1 1/4	1	32	52,5	41	41	111/16-12
			405427	28-30-32	1 1/4	1 1/2	35,5	52,5	48	55	111/16-12

**Notes:** If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41....

# 45° ADJUSTABLE MALE STUD ELBOW WITH O-RING

Thread UNF/UN-2A

Type: 4056..



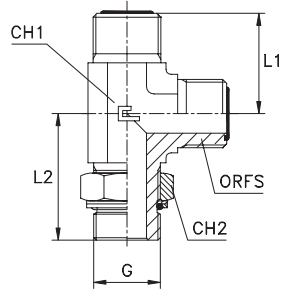
Series ORFS	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube M	Ø Tube W	W	L1	L2	CH1	CH2	ORFS
UNIVERSAL	420	420	405601	6	1/4	7/16-20	16	30	14	14	9/16-18
			405602	8-10	5/16-3/8	9/16-18	19	33	19	17	11/16-16
			405603	12	1/2	3/4-16	20,5	36,5	19	22	13/16-16
			405604	14-15-16	5/8	7/8-14	23,5	45	27	27	1-14
			405605	18-20	3/4	1 1/16-12	26	50	30	32	13/16-12
	380	380	405606	22-25	7/8-1	15/16-12	30	52,5	36	41	17/16-12
	280	280	405607	28-30-32	1 1/4	15/8-12	32	53,5	41	50	111/16-12
			405608	35-38	1 1/2	17/8-12	37	53,5	48	55	2-12
	420	420	405609	6	1/4	9/16-18	16	33	14	17	9/16-18
			405610	6	1/4	3/4-16	17,5	36,5	19	22	9/16-18
			405611	8-10	5/16-3/8	7/16-20	19	31	19	14	11/16-16
			405612	8-10	5/16-3/8	3/4-16	19	36,5	19	22	11/16-16
			405613	8-10	5/16-3/8	7/8-14	20	45	22	27	11/16-16
			405614	8-10	5/16-3/8	1 1/16-12	19,5	50	27	32	11/16-16
			405615	12	1/2	9/16-18	20,5	32,5	19	17	13/16-16
			405616	12	1/2	7/8-14	21	45	22	27	13/16-16
			405617	12	1/2	1 1/16-12	21,5	50	27	32	13/16-16
			405618	14-15-16	5/8	3/4-16	23,5	40,5	27	22	1-14
			405619	14-15-16	5/8	1 1/16-12	23,5	50	27	32	1-14
			405620	18-20	3/4	3/4-16	26	40,5	30	22	13/16-12
			405621	18-20	3/4	7/8-14	26	46	30	27	13/16-12
			380	380	405622	18-20	3/4	15/16-12	29,5	52,5	33
	420	420	405623	22-25	7/8-1	1 1/16-12	30	51,5	36	32	17/16-12
	280	280	405624	22-25	7/8-1	15/8-12	32	53,5	41	50	17/16-12
			405625	28-30-32	1 1/4	15/16-12	32	53,5	41	41	111/16-12
			405626	28-30-32	1 1/4	17/8-12	35,5	53,5	48	55	111/16-12
			405627	35-38	1 1/2	15/8-12	37	53,5	48	50	2-12

Notes: If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41....

# ADJUSTABLE MALE STUD BARREL TEE WITH O-RING AND WASHER

Thread BSP Parallel

Type: 4057..



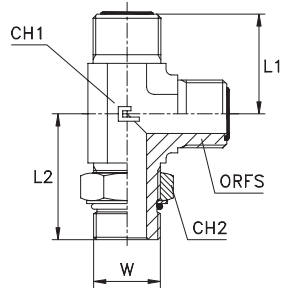
Series ORFS	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube M	Ø Tube W	G	L1	L2	CH1	CH2	ORFS
UNIVERSAL	350	350	<b>405701</b>	6	1/4	1/8	21,5	30	14	14	9/16-18
	315	315	<b>405702</b>	8-10	5/16-3/8	1/4	25	37	19	19	11/16-16
	250	250	<b>405703</b>	12	1/2	3/8	28	38	19	22	13/16-16
			<b>405704</b>	14-15-16	5/8	1/2	33,5	48	27	27	1-14
	200	200	<b>405705</b>	18-20	3/4	3/4	37,5	51,5	30	36	13/16-12
			<b>405706</b>	22-25	7/8-1	1	41,5	58,5	33	41	17/16-12
	160	160	<b>405707</b>	28-30-32	1 1/4	1 1/4	44,5	60,5	41	50	1 11/16-12
			<b>405708</b>	35-38	1 1/2	1 1/2	49	64	48	55	2-12
	315	315	<b>405709</b>	6	1/4	1/4	21,5	35	14	19	9/16-18
	250	250	<b>405710</b>	6	1/4	3/8	23,5	38	19	22	9/16-18
			<b>405711</b>	8-10	5/16-3/8	3/8	25	38	19	22	11/16-16
			<b>405712</b>	8-10	5/16-3/8	1/2	28	48	22	27	11/16-16
	315	315	<b>405713</b>	12	1/2	1/4	28	37	19	19	13/16-16
	250	250	<b>405714</b>	12	1/2	1/2	30	48	22	27	13/16-16
			<b>405715</b>	12	1/2	3/4	31,5	51,5	27	36	13/16-16
	315	315	<b>405716</b>	14-15-16	5/8	1/4	33,5	42,5	27	19	1-14
	250	250	<b>405717</b>	14-15-16	5/8	3/8	33,5	42,5	27	22	1-14
			<b>405718</b>	14-15-16	5/8	3/4	33,5	51,5	27	36	1-14
	200	200	<b>405719</b>	14-15-16	5/8	1	37	58,5	33	41	1-14
	315	315	<b>405720</b>	18-20	3/4	1/4	37,5	43,5	30	19	13/16-12
	250	250	<b>405721</b>	18-20	3/4	1/2	37,5	49	30	27	13/16-12
	200	200	<b>405722</b>	18-20	3/4	1	38	58,5	33	41	13/16-12
	315	315	<b>405723</b>	22-25	7/8-1	1/4	41,5	52	36	19	17/16-12
	250	250	<b>405724</b>	22-25	7/8-1	3/4	41,5	57,5	36	36	17/16-12
			<b>405725</b>	22-25	7/8-1	1 1/4	44,5	60,5	41	50	17/16-12
	200	200	<b>405726</b>	28-30-32	1 1/4	1	44,5	60,5	41	41	1 11/16-12
			<b>405727</b>	28-30-32	1 1/4	1 1/2	48,5	64	48	55	1 11/16-12

**Notes:** If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41....

# ADJUSTABLE MALE STUD BARREL TEE WITH O-RING

Thread UNF/UN-2A

Type: 4059..



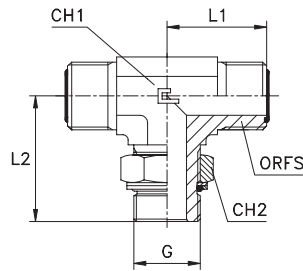
Series ORFS	40... [bar]	41... [bar]	Ordering Complete	Ø Tube M	Ø Tube W	W	L1	L2	CH1	CH2	ORFS		
UNIVERSAL	420	420	405901	6	1/4	7/16-20	21,5	32,5	14	14	9/16-18		
			405902	8-10	5/16-3/8	9/16-18	25	37	19	17	11/16-16		
			405903	12	1/2	3/4-16	28	40,5	19	22	13/16-16		
			405904	14-15-16	5/8	7/8-14	33,5	50	27	27	1-14		
			405905	18-20	3/4	1 1/16-12	37,5	55	30	32	13/16-12		
	380	380	405906	22-25	7/8-1	15/16-12	41,5	59,5	36	41	17/16-12		
			405907	28-30-32	1 1/4	1 5/8-12	44,5	62	41	50	11/16-12		
	280	280	405908	35-38	1 1/2	1 7/8-12	49	66	48	55	2-12		
			405909	6	1/4	9/16-18	21,5	34,5	14	17	9/16-18		
	420	420	405910	6	1/4	3/4-16	23,5	40,5	19	22	9/16-18		
			405911	8-10	5/16-3/8	7/16-20	25	35	19	14	11/16-16		
			405912	8-10	5/16-3/8	3/4-16	25	40,5	19	22	11/16-16		
			405913	8-10	5/16-3/8	7/8-14	28	50	22	27	11/16-16		
			405914	8-10	5/16-3/8	1 1/16-12	29,5	55	27	32	11/16-16		
			405915	12	1/2	9/16-18	28	37	19	17	13/16-16		
			405916	12	1/2	7/8-14	30	50	22	27	13/16-16		
			405917	12	1/2	1 1/16-12	31,5	55	27	32	13/16-16		
			405918	14-15-16	5/8	3/4-16	33,5	46	27	22	1-14		
			405919	14-15-16	5/8	1 1/16-12	33,5	55	27	32	1-14		
			405920	18-20	3/4	3/4-16	37,5	47	30	22	13/16-12		
			405921	18-20	3/4	7/8-14	37,5	51	30	27	13/16-12		
			380	380	405922	18-20	3/4	15/16-12	38	59,5	33	41	13/16-12
			420	420	405923	22-25	7/8-1	1 1/16-12	41,5	59	36	32	17/16-12
	280	280	405924	22-25	7/8-1	1 5/8-12	44,5	62	41	50	17/16-12		
			405925	28-30-32	1 1/4	1 5/16-12	44,5	62	41	41	11/16-12		
			405926	28-30-32	1 1/4	1 7/8-12	48,5	66	48	55	11/16-12		
			405927	35-38	1 1/2	1 5/8-12	49	66	48	50	2-12		

Notes: If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41....

# ADJUSTABLE MALE STUD BRANCH TEE WITH O-RING AND WASHER

Thread BSP Parallel

Type: 4060..



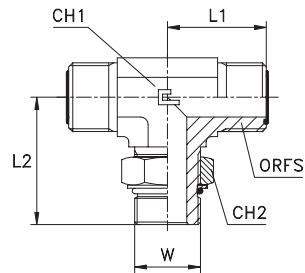
Series ORFS	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube M	Ø Tube W	G	L1	L2	CH1	CH2	ORFS
UNIVERSAL	350	350	406001	6	1/4	1/8	21,5	30	14	14	9/16-18
	315	315	406002	8-10	5/16-3/8	1/4	25	37	19	19	11/16-16
	250	250	406003	12	1/2	3/8	28	38	19	22	13/16-16
			406004	14-15-16	5/8	1/2	33,5	48	27	27	1-14
			406005	18-20	3/4	3/4	37,5	51,5	30	36	13/16-12
	200	200	406006	22-25	7/8-1	1	41,5	58,5	36	41	17/16-12
			406007	28-30-32	1 1/4	1 1/4	44,5	60,5	41	50	1 11/16-12
	160	160	406008	35-38	1 1/2	1 1/2	49	64	48	55	2-12
	315	315	406009	6	1/4	1/4	21,5	35	14	19	9/16-18
			406010	6	1/4	3/8	23,5	38	19	22	9/16-18
	250	250	406011	8-10	5/16-3/8	3/8	25	38	19	22	11/16-16
			406012	8-10	5/16-3/8	1/2	28	48	22	27	11/16-16
	315	315	406013	12	1/2	1/4	28	37	19	19	13/16-16
	250	250	406014	12	1/2	1/2	30	48	22	27	13/16-16
			406015	12	1/2	3/4	31,5	51,5	27	36	13/16-16
	315	315	406016	14-15-16	5/8	1/4	33,5	42,5	27	19	1-14
	250	250	406017	14-15-16	5/8	3/8	33,5	42,5	27	22	1-14
			406018	14-15-16	5/8	3/4	33,5	51,5	27	36	1-14
	200	200	406019	14-15-16	5/8	1	37	58,5	33	41	1-14
	315	315	406020	18-20	3/4	1/4	37,5	43,5	30	19	13/16-12
	250	250	406021	18-20	3/4	1/2	37,5	49	30	27	13/16-12
	200	200	406022	18-20	3/4	1	38	58,5	33	41	13/16-12
	315	315	406023	22-25	7/8-1	1/4	41,5	52	36	19	17/16-12
	250	250	406024	22-25	7/8-1	3/4	41,5	57,5	36	36	17/16-12
			406025	22-25	7/8-1	1 1/4	44,5	60,5	41	50	17/16-12
	200	200	406026	28-30-32	1 1/4	1	44,5	60,5	41	41	1 11/16-12
			406027	28-30-32	1 1/4	1 1/2	48,5	64	48	55	1 11/16-12

Notes: If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41.... .

# ADJUSTABLE MALE STUD BRANCH TEE WITH O-RING

Thread UNF/UN-2A

Type: 4062..



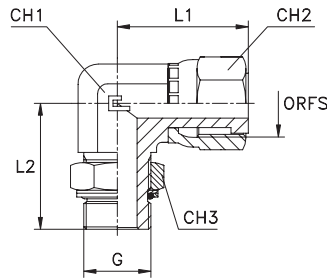
Series ORFS	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube M	Ø Tube W	W	L1	L2	CH1	CH2	ORFS		
UNIVERSAL	420	420	406201	6	1/4	7/16-20	21,5	32,5	14	14	9/16-18		
			406202	8-10	5/16-3/8	9/16-18	25	37	19	17	11/16-16		
			406203	12	1/2	3/4-16	28	40,5	19	22	13/16-16		
			406204	14-15-16	5/8	7/8-14	33,5	50	27	27	1-14		
			406205	18-20	3/4	1 1/16-12	37,5	55	30	32	13/16-12		
	380	380	406206	22-25	7/8-1	15/16-12	41,5	59,5	36	41	17/16-12		
	280	280	406207	28-30-32	1 1/4	15/8-12	44,5	62	41	50	11 1/16-12		
			406208	35-38	1 1/2	17/8-12	49	66	48	55	2-12		
	420	420	406209	6	1/4	9/16-18	21,5	34,5	14	17	9/16-18		
			406210	6	1/4	3/4-16	23,5	40,5	19	22	9/16-18		
			406211	8-10	5/16-3/8	7/16-20	25	35	19	14	11/16-16		
			406212	8-10	5/16-3/8	3/4-16	25	40,5	19	22	11/16-16		
			406213	8-10	5/16-3/8	7/8-14	28	50	22	27	11/16-16		
			406214	8-10	5/16-3/8	1 1/16-12	29,5	55	27	32	11/16-16		
			406215	12	1/2	9/16-18	28	37	19	17	13/16-16		
			406216	12	1/2	7/8-14	30	50	22	27	13/16-16		
			406217	12	1/2	1 1/16-12	31,5	55	27	32	13/16-16		
			406218	14-15-16	5/8	3/4-16	33,5	46	27	22	1-14		
			406219	14-15-16	5/8	1 1/16-12	33,5	55	27	32	1-14		
			406220	18-20	3/4	3/4-16	37,5	47	30	22	13/16-12		
			406221	18-20	3/4	7/8-14	37,5	51	30	27	13/16-12		
			380	380	406222	18-20	3/4	15/16-12	38	59,5	33	41	13/16-12
			420	420	406223	22-25	7/8-1	1 1/16-12	41,5	59	36	32	17/16-12
	406224	22-25			7/8-1	15/8-12	44,5	62	41	50	17/16-12		
	280	280	406225	28-30-32	1 1/4	15/16-12	44,5	62	41	41	11 1/16-12		
			406226	28-30-32	1 1/4	17/8-12	48,5	66	48	55	11 1/16-12		
			406227	35-38	1 1/4	15/8-12	49	66	48	50	2-12		

Notes: If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41....

## ADJUSTABLE MALE STUD ELBOW WITH CRIMPED NUT, O-RING AND WASHER

Thread BSP Parallel

Type: 4069..



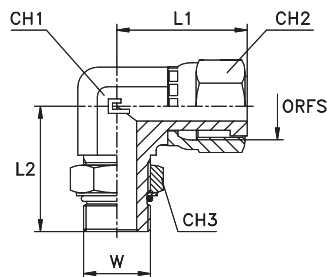
Series ORFS	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube M	Ø Tube W	G	L1	L2	CH1	CH2	CH3	ORFS
UNIVERSAL	350	350	406901	6	1/4	1/8	26,5	30	14	19	14	9/16-18
	315	315	406902	8-10	5/16-3/8	1/4	29	37	19	22	19	11/16-16
	250	250	406903	12	1/2	3/8	38	38	19	24	22	13/16-16
			406904	14-15-16	5/8	1/2	41	48	27	30	27	1-14
	200	200	406905	18-20	3/4	3/4	46,5	51,5	30	36	36	13/16-12
			406906	22-25	7/8-1	1	53,5	58,5	36	46	41	17/16-12
	160	160	406907	28-30-32	1 1/4	1 1/4	58	60,5	41	50	50	11/16-12
			406908	35-38	1 1/2	1 1/2	61	64	48	60	55	2-12

Notes: If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41.... .

## ADJUSTABLE MALE STUD ELBOW WITH CRIMPED NUT AND O-RING

Thread UNF/UN-2A

Type: 4071..



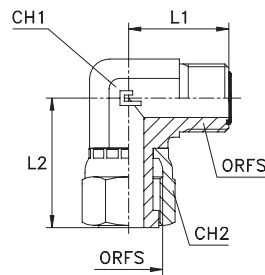
Series ORFS	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube M	Ø Tube W	W	L1	L2	CH1	CH2	CH3	ORFS
UNIVERSAL	420	420	407101	6	1/4	7/16-20	26,5	32,5	14	19	14	9/16-18
			407102	8-10	5/16-3/8	9/16-18	29	37	19	22	17	11/16-16
			407103	12	1/2	3/4-16	38	40,5	19	24	22	13/16-16
			407104	14-15-16	5/8	7/8-14	41	50	27	30	27	1-14
			407105	18-20	3/4	1 1/16-12	46,5	55	30	36	32	13/16-12
	380	380	407106	22-25	7/8-1	15/16-12	53,5	59,5	36	46	41	17/16-12
	280	280	407107	28-30-32	1 1/4	15/8-12	58	62	41	50	50	11/16-12
			407108	35-38	1 1/2	17/8-12	61	66	48	60	55	2-12

Notes: If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41.... .



## CRIMPED NUT ELBOW

Type: 4072..

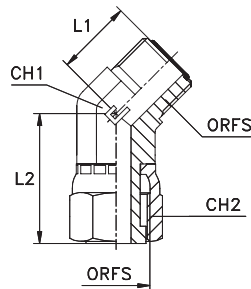


Series ORFS	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube M	Ø Tube W	L1	L2	CH1	CH2	ORFS
UNIVERSAL	630	630	407201	6	1/4	21,5	26,5	14	19	9/16-18
			407202	8-10	5/16-3/8	25	29	19	22	11/16-16
			407203	12	1/2	28	38	19	24	13/16-16
	420	420	407204	14-15-16	5/8	33,5	41	27	30	1-14
			407205	18-20	3/4	37,5	46,5	30	36	13/16-12
			407206	22-25	7/8-1	41,5	53,5	36	46	17/16-12
	280	280	407207	28-30-32	1 1/4	44,5	58	41	50	1 11/16-12
			407208	35-38	1 1/2	49	61	48	60	2-12

Notes: If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41.... .

## CRIMPED NUT 45° ELBOW

Type: 4073..

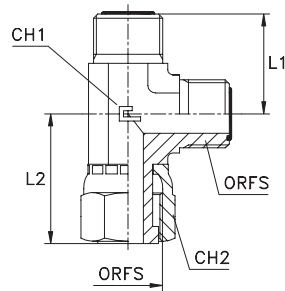


Series ORFS	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube M	Ø Tube W	L1	L2	CH1	CH2	ORFS
UNIVERSAL	630	630	407301	6	1/4	16	25	14	19	9/16-18
			407302	8-10	5/16-3/8	19	28	19	22	11/16-16
			407303	12	1/2	20,5	33,5	19	24	13/16-16
	420	420	407304	14-15-16	5/8	23,5	39	27	30	1-14
			407305	18-20	3/4	26	44	30	36	13/16-12
			407306	22-25	7/8-1	30	47,5	36	46	17/16-12
	280	280	407307	28-30-32	1 1/4	32	50	41	50	1 11/16-12
			407308	35-38	1 1/2	37	52	48	60	2-12

Notes: If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41.... .

## CRIMPED NUT BARREL TEE

Type: 4074..

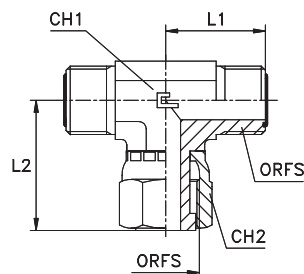


Series ORFS	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube M	Ø Tube W	L1	L2	CH1	CH2	ORFS
UNIVERSAL	630	630	407401	6	1/4	21,5	26,5	14	19	9/16-18
			407402	8-10	5/16-3/8	25	29	19	22	11/16-16
			407403	12	1/2	28	38	19	24	13/16-16
	420	420	407404	14-15-16	5/8	33,5	41	27	30	1-14
			407405	18-20	3/4	37,5	46,5	30	36	13/16-12
			407406	22-25	7/8-1	41,5	53,5	36	46	17/16-12
	280	280	407407	28-30-32	1 1/4	44,5	58	41	50	1 11/16-12
			407408	35-38	1 1/2	49	61	48	60	2-12

Notes: If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41.... .

## CRIMPED NUT BRANCH TEE

Type: 4075..



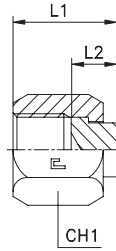
Series ORFS	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube M	Ø Tube W	L1	L2	CH1	CH2	ORFS
UNIVERSAL	630	630	407501	6	1/4	21,5	26,5	14	19	9/16-18
			407502	8-10	5/16-3/8	25	29	19	22	11/16-16
			407503	12	1/2	28	38	19	24	13/16-16
	420	420	407504	14-15-16	5/8	33,5	41	27	30	1-14
			407505	18-20	3/4	37,5	46,5	30	36	13/16-12
			407506	22-25	7/8-1	41,5	53,5	36	46	17/16-12
	280	280	407507	28-30-32	1 1/4	44,5	58	41	50	1 11/16-12
			407508	35-38	1 1/2	49	61	48	60	2-12

Notes: If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41.... .

## FEMALE PLUG

Thread UNF/UN-2B

Type: 4076..



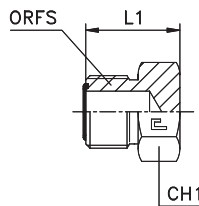
Series ORFS	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube M	Ø Tube W	L1	L2	CH1	ORFS
UNIVERSAL	630	630	407601	6	1/4	16,5	8,5	17	9/16-18
			407602	8-10	5/16-3/8	18	9,5	22	11/16-16
			407603	12	1/2	22	12	24	13/16-16
	420	420	407604	14-15-16	5/8	24,5	12	30	1-14
			407605	18-20	3/4	27	13,5	36	13/16-12
			407606	22-25	7/8-1	28,5	15	41	17/16-12
	280	280	407607	28-30-32	1 1/4	28,5	15	50	1 11/16-12
			407608	35-38	1 1/2	28,5	15	60	2-12

**Notes:** If you wish to order AISI 316 stainless steel fittings, please change the first two digits from 40.... to 41....  
 If you wish to order AISI 316 stainless steel fittings with AISI 304 stainless steel nuts, please change the first two digits from 40.... to 44....

## PIPE PLUG

Thread UNF/UN-2A

Type: 4077..



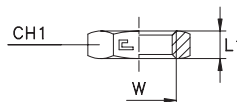
Series ORFS	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube M	Ø Tube W	L1	CH1	ORFS
UNIVERSAL	630	630	407701	6	1/4	16,5	17	9/16-18
			407702	8-10	5/16-3/8	19	19	11/16-16
			407703	12	1/2	22	22	13/16-16
	420	420	407704	14-15-16	5/8	26	27	1-14
			407705	18-20	3/4	27,5	32	13/16-12
			407706	22-25	7/8-1	28	41	17/16-12
	280	280	407707	28-30-32	1 1/4	28	46	1 11/16-12
			407708	35-38	1 1/2	28	55	2-12

**Notes:** If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41....

## EXAGONAL NUT

Thread UNF/UN-2B

Type: 4078..



Series ORFS	40.... [bar]	41.... [bar]	Ordering Complete	Ø Tube M	Ø Tube W	L1	CH1	ORFS
UNIVERSAL	630	630	207603	6	1/4	7	22	9/16-18
			407802	8-10	5/16-3/8	8	27	11/16-16
			407803	12	1/2	9	30	13/16-16
	420	420	407804	14-15-16	5/8	10,5	36	1-14
			407805	18-20	3/4	10,5	41	13/16-12
			407806	22-25	7/8-1	10,5	46	17/16-12
	280	280	407807	28-30-32	1 1/4	10,5	50	1 11/16-12
			407808	35-38	1 1/2	10,5	60	2-12

**Notes:** If you wish to order a fitting in stainless steel, please change the first two digit from 40.... to 41....



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