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INC.

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Close at hand

Installation material for Hygienic Fluid Handling Equipment,
October 2021



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Everything at your fingertips

Alfa Laval's solutions for hygienic applications are the result of continuous innovation, and our dedicated efforts to meet the challenges faced by industries. With the Alfa Laval online catalogue, detail of our comprehensive product range can now be conveniently at your fingertips at all times.

Whatever you need, and wherever you are, Alfa Laval's components and expertise are always readily available through our network of over 1500 channel partners, supported by our own sales companies around the world.

Alfa Laval has a wide range of tools and resources to make life easier. Our online catalogue is easily accessible and updated regularly. We also offer the possibility to download 2D and 3D drawings. Go to www.alfalaval.com/high.

At www.alfalaval.com/biopharm you can download the comprehensive Q-doc documentation for our UltraPure portfolio.

Our channel partners also have access to a growing pool of resources at the Alfa Laval eBusiness portal, including full documentation, real-time stock availability and the opportunity to order and track shipments online. As well as being kept up to date on the latest developments through the InSight newsletter.

Discover a world of hygienic solutions at our dedicated portals:

www.alfalaval.com/biopharm

www.alfalaval.com/food

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Technical Information

Stainless Steel and Rubber Materials

Stainless steel

Our stainless steel materials have the following demands to the contents of the most essential alloys:

Descriptions	Standard	Chromium	Nickel	Molybdenum	Carbon
AISI 304	ASTM A 304	18.0 - 20.0	8.0 - 10.5	0.0	≤ 0.08
AISI 304 L	ASTM A 304	18.0 - 20.0	8.0 - 10.5	0.0	≤ 0.03
AISI 316L	ASTM A 316L	16.0 - 18.0	10.0 - 12.0	0.0 - 0.05	≤ 0.03
1.4003	10088 1 5 r i 18 10	17.0 - 19.5	8.0 - 10.5	0.0	≤ 0.03
1.4003 L	10088 1 r i 18	17.5 - 19.5	8.0 - 10.0	0.0	≤ 0.03
1.4016	10088 1 5 r i o 1 1	16.5 - 18.5	10.0 - 12.0	0.0 - 0.05	≤ 0.03
1.4016 L	10088 1 r i o 1 1	16.5 - 18.5	10.0 - 12.0	0.0 - 0.05	≤ 0.03
1.4516	10088 1 r i o 18 1	17.0 - 19.0	11.5 - 15.0	0.0 - 0.05	≤ 0.03
1.4516 Ti	10088 1 6 r i o Ti 1	16.5 - 18.5	10.5 - 12.5	0.0 - 0.05	≤ 0.08

Rubber materials

In order to obtain the longest possible lifetime for rubber seals it is essential to choose the right quality for the actual duty. Consequently when choosing rubber quality, the characteristics of the different rubber types should be considered. All product wetted rubber material are in conformity with FDA.

Rubber ethylene propylene

EP rubber is widely used within the food industry as it is resistant to most products used in this sector. Another advantage is that it may be used to a recommend max. temperature of 100 °C / 212 °F. However, there is one essential limitation, EP is not resistant to organic and non-organic oils and fats.

Acrylonitrile butadiene rubber, NBR

NBR is the rubber type most frequently used for technical purposes. It is quite resistant to most hydrocarbons, e.g. oil, grease and fat. It is sufficiently resistant to diluted lye and nitric acid and may be used to a recommend max. 150 °C / 300 °F. As NBR is attacked by ozone it may not be exposed to ultraviolet rays and should thus consequently be stored so that this is avoided.

Silicone rubber, FVMQ

The most significant quality of silicone rubber is that it can be applied from temperatures below -50 °C / -58 °F to approx. 180 °C / 356 °F and still keep its elasticity. The chemical resistance is satisfactory to most products. However, undiluted lye and acids as well as hot water and steam may destroy silicone rubber. The resistance to ozone is good.

Fluorine rubber, FFKM

FFKM is often used when other rubber types are unsuited, especially at high temperatures up to approx. 180 °C / 356 °F. The chemical resistance is good to most products, however hot water, steam, lye, acid and alcohol should be avoided. The resistance to ozone is good.

Hydrogenated acrylonitrile butadiene rubber, HNBR

HNBR is mechanically strong and normally resistant to ozone and strong oxidizers, animal and vegetable fats, nonpolar solvents, oils and lubricants, water and aqueous solutions. The recommend max. temperature is 100 °C / 212 °F.

Perfluoroalkoxy polymer, PFA

PFA is very similar to FFKM, but opposite to those FFKM is thermo plastic and has minimal porosity. PFA has a very high mechanical strength which makes it a perfect choice when dealing with abrasive products. The PFA seal offers longer service intervals. The recommend max. temperature for the PFA seal is 100 °C / 212 °F.

Technical Information

Product and chemical resistance of flexible rubber materials

The information below is intended as an aid in selecting the best rubber quality for an actual application. It is not possible to state any general lifetime of rubber seals as many factors influence it: chemical attack, temperature, mechanical wear etc. Extreme temperatures, even within the generally accepted limits, may worsen other kinds of attack and thus reduce the lifetime.

Suitability ratings

- 1 Unsuitable.
- Limited suitability.
- Normal suitability.
- High suitability.
- Not recommended for other reasons.

The table contains data which have been compiled from the results of our own tests and the recommendations of our raw material suppliers. The data should be considered as recommendations only and will be brought up to date from time to time. They are based on constant contact with the specified product.

In case of doubt or lack of information it would be advisable to consult us directly, which will enable us to investigate specific applications.

Product or process	NBR ¹⁾	HNBR ²⁾	EPDM ³⁾	Q ⁴⁾	FPM ⁵⁾	PTFE ⁶⁾
Air products milk, cream						
Air products sour milk products						
Brewery products beer, hops etc.				1		
Wine and yeast						
Animal and vegetable fats	100°		1			
Water and water solutions	< 0°					
Hot water and steam	< 100°	1				
Concentrated fruit juices and etheral oils	< 100°	1	1	1		
Strong oxidising acids	< 80°	1		1		
Weak oxidising acids	< 80°			1		
Weak concentrate of lye	< 100°					
Strong concentrate of lye	< 100°	1		1	1	
Mineral oils	< 110°					
Aliphatic carburetted hydrogen hexane			1	1		
Aromatic carburetted hydrogen benzole	1		1	1		
Alcohols	1					
Esters and ketones	1	1	1	1		
Ethers	1		1	1		
Ethylene chloride	1		1			
Atmosphere and atmospheric conditions	1					

International designation of flexible rubber materials according to ISO 16 .

ISO International standard.

Notes

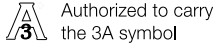
	Designation of flexible rubber materials	Abbreviation symbol
1	Nitrile rubber	
	Hydrogenated acrylonitrile rubber	H
	Ethylene propylene rubber	
	Silicone rubber	
5	Fluorinated rubber	F
6	Polytetrafluorethylene	

ompliance and certification

We can provide documented and certified compliance with a broad spectrum of relevant international and local hygiene standards, worldwide. This helps you Significantly reduce the engineering costs of setting up and operating standards compliant processing plants around the world.

Alfa Laval components covered by this catalog is designed to meet the hygienic design guidelines in the industry.

For special requests please contact your local Alfa Laval organisation



The mission of A SSI is to enhance product safety for consumers of food, beverages, and pharmaceutical products through the development and use of A Sanitary Standards and A Accepted practices. The A Symbol is a registered mark used to identify equipment that meets A Sanitary Standards for design and fabrication.



ATEX is based on the requirement of the European Directive also known as AT 5 100a , the equipment Directive. The name AT Atmospheres possible is commonly given to the framework for controlling explosive atmospheres and the standards of equipment and protective systems used in them



Alfa Laval doc includes:
- .1 certificate in accordance to 10 0 T
- Customer compliance declarations
- Surface finish conformity declaration
- Compliance to the regulation o. 1 5 00



CE marking is a mandatory conformity mark for products placed on the market in the European Economic Area . With the CE marking on a product the manufacturer ensures that the product conforms with the essential requirements of the applicable directives. The letters CE stand for Conformit  europ enne / European Conformity .



The ASME certification program is unique in the world, having resulted from widespread industry requested for standardization. It is the leading standard on how to design and build equipment and systems used in the production of biopharmaceuticals. It incorporates current best practices for enhancing product production efficiencies, lower development and manufacturing costs, and increase quality and safety, while complying with regulations. The certification mark with a designator indicates that components bearing the mark have been manufactured and certified by ASME certificate Holder.

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1. Installation material

Alfa Laval constantly focuses on producing installation material with long durability, problem free welding and assembly, and highest possible strength.



Product presentation	1.0
Hygienic, IS 0	1.1
| Fittings and Tubes	1.
Hygienic, S 8 5, art 1	1.
Tri-lover Hygienic Installation material	1.
Tri-lover Ultra-ure, AS	1.5
Unique Flexbody	1.6
Installation accessories	1.

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Sanitary fittings and tubes

The complete line



Performance in good hands

Working with hygienic applications is a question of care, attention to detail and dedication to outstanding performance. Alfa Laval has a proven track record in delivering superior safety, gentle efficiency and uncompromising cleanliness.

In fact, Alfa Laval has the world's broadest portfolio of components and solutions for the food, dairy, beverage, biotech, pharmaceutical and personal care industries. We draw on decades of experience in coming up with innovative and hygienic solutions based on our key technologies of separation, heat transfer, fluid handling, as well as tank equipment and installation material.

We create real value throughout your processes by helping you to optimize your processes, providing reliability, uptime, fast access to replacement parts and service. All this is readily available through our local offices and more than 1,500 sales and working partners around the world.

Here you will find an overview of Alfa Laval tubes and fittings for hygienic applications. For complete technical details and product specification, contact your local Alfa Laval supplier or visit us at www.alfalaval.com



Unions, clamp fittings and flanges

In order to sustain high quality, it is important that the products are uniform. Therefore tolerances and finishes are carefully controlled. Alfa Laval follows developments in the area of standards.

To enable you to select the best quality rubber seal for your process, Alfa Laval is able to offer various options in addition to its standard seal, including:

- NBR, Nitrile Rubber
- FPM, Fluorine Rubber
- EPDM, Ethylene Propylene
- Nitrile (Buna-N)
- White Nitrile (White Buna-N)
- Viton ®
- PTFE
- Silicone (Q)

Flanges and clamp fittings are suitable for flexible and easy maintenance. Flanges and clamp fittings with finger nuts are especially suited for processes where the load on seals is extra high, where easy control and replacement of seals is necessary and where optimal cleaning is required.



Unions are available in a number of standards, including SMS, ISO, BS, IDF, DS, DIN and clamps.

Alfa Laval's program of bends, tees and reducers are available in diameters from 1" to 4" and from DN10 to DN150.



Bends, tees and reducers

Alfa Laval constantly focuses on producing installation material with long durability, problem-free welding and assembly, and highest possible strength. Key criteria in the manufacturing process include tight tolerances, a variety of finishes and uniform wall thickness.

Welding

Alfa Laval is aware of the constantly increasing demands for the quality of welding. In accordance with these demands, all our weld end fittings meet the highest of standards.

The reducers have welding ends and are available for all tube combinations, ensuring you the right diameter and wall thickness for your process.

Tolerances

Alfa Laval ensures that all the angles are exact and that all the tube, bend and tee connections are uniform. It is very important that you do not have to compensate for any welding irregularities.

Finishes

In order to ensure that you are able to select a finish that exactly matches your process, Alfa Laval offers a wide range of finishes, including matt, raw, bright and polished.

The right part for your application

Alfa Laval provides many different standards of tubes and fittings. This means you can always find the part most suitable for your specific application, with exactly the process quality you need.

Sanitary range tubes and fittings

This product range provides a wide range of tubes and fittings with internal surface finishes that have a Roughness average (Ra) of $<0.8\text{--}1.6\ \mu\text{m}$. Tubes and fittings in the Sanitary range comply with DIN 11850, ISO 2037, BS 4825, JIS G 3447 and ASME dimension standards.



Tri-Clover BioPharm range tubes and fittings

The Tri-Clover BioPharm product range includes a comprehensive selection of tubes and fittings with internal surface finishes with a Roughness average (Ra) of $<0.4\text{--}0.8\ \mu\text{m}$, either electropolished or mechanically polished.

Tubes and fittings in this range comply with DIN 11850, ISO 1127 and ASME BPE dimension standards.

Tubing

Alfa Laval offers a variety of tubes for the sanitary application process in all worldwide standards.

A flexible pipe support system is also included in the Alfa Laval product program. The system can be used for floor, wall or ceiling installations, by means of a combination of connection pieces and anchor plates.

Tri-Clover BioPharm tubes

The Alfa Laval tubes are the perfect choice for ultra-clean processes within the demanding pharmaceutical, biotech and light chemical industries.

The tubes are produced in compliance with the DIN 11866, ASME BPE, ISO 2037 and BS 4825, with extremely high demands on materials, hygiene and manufacturing accuracy.



Whatever your sanitary application, Alfa Laval is able to supply the right tube.

Tri-Clover BioPharm packages

Alfa Laval is your complete source for specialized tubing and fittings required in biotech and pharmaceutical process applications. The quality and surface finish of the Tri-Clover BioPharm products match the exact requirements of the industry. So regardless of your installation material needs, we are able to supply you with the right product – making sure that your process quality is never compromised.

Tri-Clover BioPharm tubes and fittings

Tubes and fittings in the BioPharm range are manufactured in accordance with extra-strict quality assurance procedures.

All cold-formed BioPharm tubular products feature consistent wall thicknesses as a result of the use of fabrication-grade tubing. Once cold forming has been completed, these tubular products are resized to ensure that their ovality always falls within the prescribed tolerances.

A machined square-cut method is used to provide properly finished end facings, ensuring the most accurate, consistent orbital welds. All fittings are inspected visually, while ovality and squareness tolerances are inspected with calibrated equipment. All surface finishes are inspected with a calibrated profilometer to measure the Roughness average (Ra).



Tri-Clover BioPharm.



The quality and surface finish of the Tri-Clover BioPharm products are determined to match the exact requirements of the industry.

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Alfa Laval Installation material

Alfa Laval is your complete source for specialized fittings and tubing required in food, dairy, beverage, personal care, biotechnology and pharmaceutical process applications. Smooth, crevice free interiors and secure, self aligning joints are characteristic for Alfa Laval Fittings. Each offers superior corrosion resistance and unmatched service life. Alfa Laval fittings are designed and manufactured to ensure dimensional accuracy and structural integrity, making them easy to install. Tubing is manufactured to Alfa Laval's stringent specifications, making it a perfect match for the weld fittings. Choose from a wide range of tube sizes, surface finishes and connect options. All products are labelled with a bar code, product information and manufacturing date. This provides the optimum identification and ensures that the product arrives to the job site in a clean orbital weld condition.

The Alfa Laval tubes and fittings are divided into two product ranges, Hygienic and Ultra pure. The Hygienic range is suitable for most standard duties and the Ultra pure range is suitable for duties with extra high demands on hygiene and cleanability.

Hygienic range tubes and fittings

The Hygienic product range offers a wide range of tubes and fittings with an internal surface finish from $R_a < 0.8 \mu\text{m}$ to $R_a < 1.6 \mu\text{m}$. The Hygienic range has tubes and fittings according to ISO 11850, ISO 85 and ASME dimension standards.

Ultra pure range tubes and fittings

The Ultra pure product range offers a wide range of tubes and fittings with an internal surface finish from $R_a < 0.1 \mu\text{m}$ to $R_a < 0.8 \mu\text{m}$, either electro polished or mechanically polished. The Ultra pure range has tubes and fittings according to ASME dimension standard. The Ultra pure range is manufactured in compliance with the ASME standard. All tubes and fittings are internally cleaned and individually capped and bagged. All product wetted stainless steel products in the Ultra pure range are delivered with a Test Report or with a certificate in accordance to ISO 9001.

The Ultra pure range is manufactured under extra strict and thorough quality control methods. Wall thickness integrity is maintained through the use of fabrication grade minimum wall tubing for all cold formed tubular products. After cold forming, our tube product is resized to ensure that the ovality falls within the prescribed tolerances. End facing is provided with a machined square cut method. This allows for the most accurate and consistent orbital weld result. All fittings are put through 100% visual inspection and ovality and squareness tolerances are inspected with calibrated equipment. Surface finish is inspected with a calibrated profilometer to ensure the roughness average a maximum is not exceeded.



Surface specification for Alfa Laval Hygienic range

Hygienic tubes

Alfa Laval designation	Surface texture		a μm	Standard designation	According to	Treatment	Dimension ranges					Tri lover Hygienic	
	Internal Surface	Welded area					External	10	5	A	IS		0	S	8	5
	< 0.8	< 1.6			10 5 A	Annealed							
	< 0.8	< 1.6	< 1.0		10 5 A	Annealed							
	< 0.8	< 1.6			10 5 A	Not annealed							
	< 0.8	< 1.6	< 1.0		10 5 A	Not annealed							
Tri lover Hygienic	< 0.8	< 0.8	< 0.8	o. 1	A	Annealed							

1 According to A 01 section 1

Hygienic Fittings

Product	Surface designation		I	IS	Dimension ranges			Tri lover Hygienic
	Internal	External			S			
Unions	at	at						
	Semi bright	Semi bright						
	irror	irror						
	A	A						
ends	at	at						
	aw	aw						
	aw	Semi bright						
	aw	olished						
	Semi bright	Semi bright						
	olished	olished						
	irror	irror						
Tees	A	A						
	at	at						
	aw	aw						
	olished	olished						
educers	irror	irror						
	A	A						
	at	at						
	aw	Semi bright						
	aw	olished						
	Semi bright	Semi bright						
	A	A						

Explanation of surface designation for fittings

Alfa Laval designation	Surface texture		a μm	Method
	Internal	External		
at	< 1.6		Not spec.	Shot blasted
aw	< 0.8 ₁		Not spec.	As fabricated or tumbled
Semi bright	< 0.8		Not spec.	As fabricated or tumbled
olished	< 0.8		Not spec.	Mechanically polished
irror	< 0.8		Not spec.	Mechanically polished and buffed for a shiny surface
A	< 0.8	< 0.8		Mechanically polished or as fabricated

1 Not guaranteed in welds.

Surface specification for Alfa Laval Tri lover Ultra ure range
Ultra ure tubes and fittings

Alfa Laval designation	Surface texture μm			Standard designation		According to	Treatment	Tri lover Ultra ure AS
	Internal	Welded ended area	external	Tubular	achined			
L	< 0.5	< 0.5	< 0.8	SF1	SF1	AS	Annealed	
	< 0.	< 0.	< 0.8	SF	SF	AS	Annealed	

electro polished
SF Surface Finish. SF : $\mu\text{a} < 0.5$

conversion table Surface finish
correlation between rit and μa values

μa	μinch	US rit	UK rit
	1.5		10
	85		180
1.65	0	80	
1.5	50		0
0.5	0		0
0.6	5	180	
0.5	18	0	
0.0	15		500
0.5	10	0	

material specification for Alfa Laval Hygienic range
Wetted steel parts

material	dimension ranges		
	10 5 A	IS 0	S 8 5
1. 01 0			
1. 0 0 L			
1. 01 16			1
1. 0 16L			
0			
16L			

¹ Reducing tees are only available in 1. 01 16
According to I 10088 1
According to ASTM A 6 and A 0.

Seal ring material for clamp fittings

material	dimension ranges		
	10 5 A	IS 0	S 8 5
Tri lover Hygienic			
White tri lover White tri lover			
F			
iton			
TF			
Silicone			

material specification for Alfa Laval Tri lover Ultra ure range
Wetted steel parts

material	dimension ranges	
	Tri lover	Ultra ure
16L	AS	

According to ASTM A 6 and A 0 S . All Tri lover Ultra ure AS weld ends are also according to AS sulphur content 0.005 0.01

asket material in fittings

Material	Dimension ranges	
	Tri-lover	Ultra-ure
AS		
White nitrile		1
White nitrile		1
White nitrile		1
TF		1
Silicone		1

1, nitrile and Silicone available with US Class 6 certificate please request by order.

Chemical composition table

Material	Grade	Si	n	Chemical composition in by mass							
				S	r	i	o				
1.0	10088 1	≤ 0.00	≤ 1.000	≤ .00	0.0 5	≤ 0.015	≤ 0.11	16.50	10.00	.00	.50
16L	AST A 6	≤ 0.0 5	≤ 0. 50	≤ .00	0.0 0	≤ 0.0 0		18.50	1 .00		
16L	AST	≤ 0.0 5	≤ 0.0 5	≤ .00	0.0 0	0.005		16.00	10.00	.00	.00
	AST A					0.01		18.00	10.00		
	0 S										

According to ASTM A 6 and A 0 S . All Tri-lover Ultra-ure AS weld ends are also according to AS sulphur content 0.005 0.01

pressure ratings bar for Alfa Laval Hygienic range

material	dimension ranges				
	1	1.5	2	2.5	3
Tubes 0°	55		55		56-6
ends, Tees, reducers 80-00°	0-16		0-16		5-15
nut unions 80-00°	0-16		0-16		5-15
Flange unions 80-00°	5-16		5-16		5-15

Tube pressure ratings depending on size larger diameter smaller pressure rating

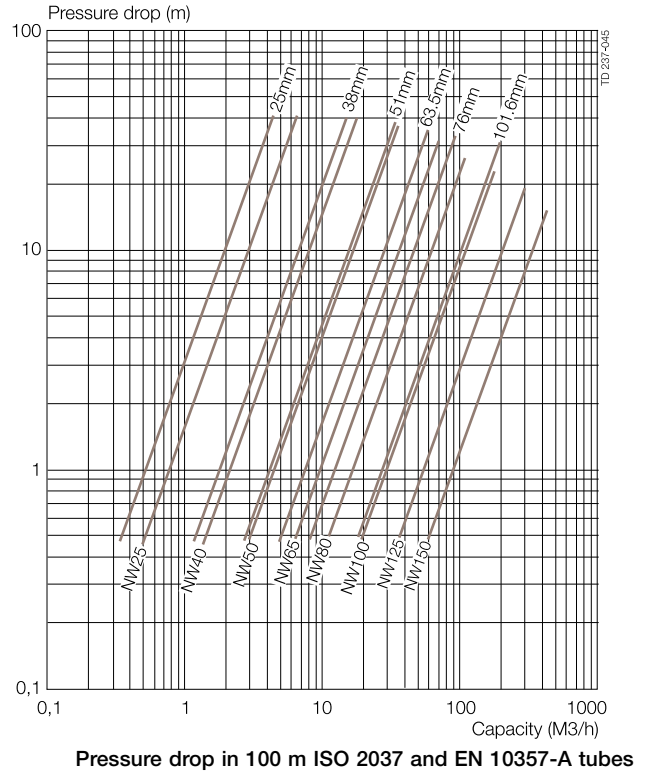
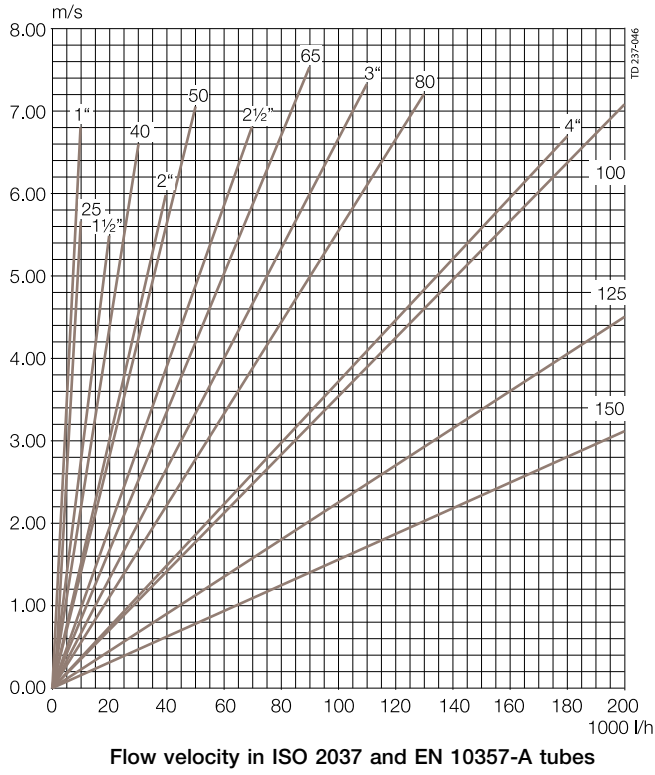
pressure ratings bar of Tri clamp connections

Size Tube	Service ratings bar					
	1 inch	1.5 inch	2 inch	2.5 inch	3 inch	6 inch
13MHLA	(Screw tightened to maximum)					
at 0°	10.	10.	10.	10.	10.	
at 1 0°	8.6	8.6	8.6	8.6	5.	
13MHHM	(Wing nut tightened to 2.8 Nm of torque)					
at 0°	10.	10.	10.	10.	10.	10.
at 1 0°	8.6	8.6	8.6	8.6	5.	
13MHHS	(Wing nut tightened to 2.8 Nm of torque)					
at 0°	151.	1.	1.	1.	1.	10.
at 1 0°	8.	0.	1.0	15.5	1.1	10.
13MHP	(Bolts tightened to 2.71 Nm of torque)					
at 0°	10	68.	68.	68.	55.1	0.
at 1 0°	8.	55.	55.	55.	1.	1.8
A13MO	(1-3" nuts tightened to 2.3 Nm, 4-6" 3.4 Nm of torque)					
at 0°	10.	10.	10.	10.	10.	5.
at 1 0°	1.	1.8	10.	10.	10.	
A13MHM	(Wing nut tightened to 2.8 Nm of torque)					
at 0°	10.	10.	10.	10.	10.	10.
at 1 0°	8.6	8.6	8.6	8.6	5.	

Service ratings are based on hydrostatic tests using standard molded Buna-N material gaskets, with proper installation of ferrules, assembly of joints and absence of shock pressure.

All ratings shown are dependent upon related components within the systems and proper installation. For temperatures above at 1 0° , we recommend using only 1 H clamps.

Pressure drop and flow velocity curves



1.1 Hygienic, IS 0

The installation material in this section is manufactured to meet IS 0 tube dimensions.



Ordering leaflets	
Tubes	1.1. 6
reducers	1.1.
ends	1.1.
Hose Liners	1.1.
Tees	1.1.
S S Union arts	1.1.
Seal rings for S S Union arts	1.1. 0
IS Union arts	1.1. 1
S Union arts S 0 tubes	1.1.
I Union arts	1.1. 6
lamp Union arts	1.1.
lamp rings for lamp Union arts	1.1.51
Flange connections	1.1.5

Tubes

Tubes of manufacturing lengths of approx 6 meters
 product code: 510
 According to standard: IS 0

Finish: and

aterial Item o.	L U	aterial Item o.	L U	Size	imension mm	
1. 0 0 L		1. 0 16L		mm	l x t	finish Inch tubes IS 0
61181 010		61181 10		5.00	5.00 .60x1.0	
61181 0 0		61181 0		8.00	8.00 5.60x1.0	
61181 060		61181 60		51.00	51.00 8.60x1.0	
61181 0 0		61181 80		6 .50	6 .50 60. 0x1.60	
61181 101		61181 0		6.10	6.10 . 0x1.60	
61181 1 0		61181 10		101.60	101.60 .60x .00	
finish Inch tubes IS 0						
61181 008		61181 868		5.00	5.00 .60x1.0	
61181 86		61181 8 0		8.00	8.00 5.60x1.0	
61181 86		61181 8 1		51.00	51.00 8.60x1.0	
61181 865		61181 8		6 .50	6 .50 60. 0x1.60	
61181 866		61181 8		6.10	6.10 . 0x1.60	
61181 86		61181 8		101.60	101.60 .60x .00	
finish Inch tubes IS 0 H execution						
61 0 50		61 0 50		5.00	5.00 .60x1.0	
61 0 50		61 0 511		8.00	8.00 5.60x1.0	
61 0 505		61 0 51		51.00	51.00 8.60x1.0	
61 0 506		61 0 51		6 .50	6 .50 60. 0x1.60	
61 0 50		61 0 51		6.10	6.10 . 0x1.60	
61 0 508		61 0 515		101.60	101.60 .60x .00	
finish Inch tubes IS 0 , H execution						
61 0 501		61 0 5		5.00	5.00 .60x1.0	
61 0 51		61 0 5		8.00	8.00 5.60x1.0	
61 0 518		61 0 5 5		51.00	51.00 8.60x1.0	
61 0 51		61 0 5 6		6 .50	6 .50 60. 0x1.60	
61 0 5 0		61 0 5		6.10	6.10 . 0x1.60	
61 0 5 1		61 0 5 8		101.60	101.60 .60x .00	

L prices per meter are updated monthly

H execution Inside surface texture a µm including welded area ≤ 0.8 H certified

lease contact your Alfa Laval contact person for further information.

Product code: 506

Finish: : Semi bright
 I : Semi bright

Material Item no.	L U	Size mm	Dimension mm			L	Concentric reducer
			$d_1 \times t_1$	$d \times t$			
1 1 08 51		8.00 5.00	8.00 5.60x1.0	5.00 .60x1.0		.00	
1 1 08 5		51.00 5.00	51.00 8.60x1.0	5.00 .60x1.0	86.00		
1 1 08 5		51.00 8.00	51.00 8.60x1.0	8.00 5.60x1.0	.00		
1 1 08 5		6 .50 8.00	6 .50 61.10x1.0	8.00 5.60x1.0	8 .00		
1 1 08 55		6 .50 51.00	6 .50 61.10x1.0	51.00 8.60x1.0	0.00		
1 1 08 56		6.10 51.00	6.10 .0x1.60	51.00 .80x1.60	.00		
1 1 08 5		6.10 6 .50	6.10 .0x1.60	6 .50 60.0x1.60	.00		
1 1 08 58		101.60 6.10	101.60 .60x .00	6.10 .10x .00	81.00		
							Concentric reducer
1 1 08 61		8.00 5.00	8.00 5.60x1.0	5.00 .60x1.0	.00		
1 1 08 6		51.00 5.00	51.00 8.60x1.0	5.00 .60x1.0	86.00		
1 1 08 6		51.00 8.00	51.00 8.60x1.0	8.00 5.60x1.0	.00		
1 1 08 6		6 .50 8.00	6 .50 61.10x1.0	8.00 5.60x1.0	8 .00		
1 1 08 65		6 .50 51.00	6 .50 61.10x1.0	51.00 8.60x1.0	0.00		
1 1 08 66		6.10 51.00	6.10 .0x1.60	51.00 .80x1.60	.00		
1 1 08 6		6.10 6 .50	6.10 .0x1.60	6 .50 60.0x1.60	.00		
1 1 08 68		101.60 6.10	101.60 .60x .00	6.10 .10x .00	81.00		
							Eccentric reducer

T : For pressure and surface, please see product leaflet.

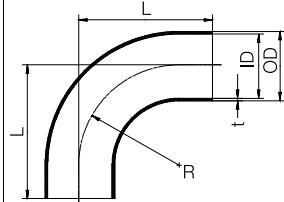
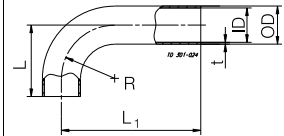
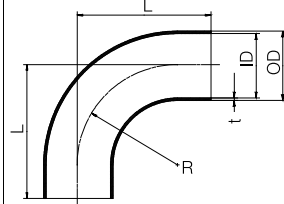
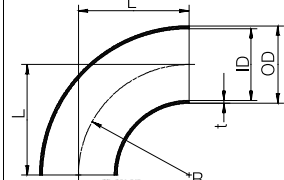
Item o.	L U	Item o.	L U	Size	imension mm			
1. 0 0 L		1. 0 16L		mm	$l_1 \times t_1$	$l \times t$	L	concentric reducer
61 8 50		61 8 5		8.10 5. 0	8.10 . 0x1.60	5. 0 . 0x1.60	0.00	
61 8 51		61 8 60		50.80 5. 0	50.80 .60x1.60	5. 0 . 0x1.60	80.00	
61 8 5		61 8 61		50.80 8.10	50.80 .60x1.60	8.10 . 0x1.60	1.00	
61 8 5		61 8 6		6 .50 8.10	6 .50 60. 0x1.60	8.10 . 0x1.60	80.00	
61 8 5		61 8 6		6 .50 50.80	6 .50 60. 0x1.60	50.80 .60x1.60	8.00	
61 8 55		61 8 6		6.10 50.80	6.10 .00x1.60	50.80 .60x1.60	6.00	
61 8 56		61 8 65		6.10 6 .50	6.10 .00x1.60	6 .50 60. 0x1.60	8.00	
61 8 5		61 8 66		101.60 6.10	101.60 .60x .00	6. 0 .00x1.60	6.00	
61 8 58		61 8 6		101.60 6 .50	101.60 .60x .00	6 .50 60. 0x1.60	108.00	
		61 8		8.10 5. 0	8.10 . 0x1.60	5. 0 . 0x1.60	.00	
		61 8 5		50.80 8.10	50.80 .60x1.60	8.10 . 0x1.60	.00	
		61 8 6		50.80 5. 0	50.80 .60x1.60	5. 0 . 0x1.60	115.00	
		61 8		6 .50 50.80	6 .50 60. 0x1.60	50.80 .60x1.60	.00	
		61 8 8		6 .50 8.10	6 .50 60. 0x1.60	8.10 . 0x1.60	1 0.00	
		61 8		6. 0 6 .50	6.10 .00x1.60	6 .50 60. 0x1.60	.00	
		61 8 80		6. 0 50.80	6.10 . 0x1.60	50.80 .60x1.60	115.00	
		61 8 81		6. 0 8.10	6.10 .10x .00	8.10 . 0x1.60	1 0.00	
		61 8 8		101.60 6. 0	101.60 .60x .00	6. 0 .00x1.60	1 0.00	
		61 8 8		101.60 6 .50	101.60 .60x .00	6 .50 60. 0x1.60	1 1.00	
		61 8 8		101.60 50.80	101.60 .60x .00	50.80 .60x1.60	151.00	
								concentric reducer
		61 8 85		8.10 5. 0	8.10 . 0x1.60	5. . 0x1.60	100.00	
		61 8 86		50.80 8.10	50.80 .60x1.60	8.10 . 0x1.60	100.00	
		61 8 8		50.80 5. 0	50.80 .60x1.60	5. 0 . 0x1.60	1 0.00	
		61 8 88		6 .50 50.80	6 .50 60. 0x1.60	50.80 .60x1.60	105.00	
		61 8 8		6 .50 8.10	6 .50 60. 0x1.60	8.10 . 0x1.60	1 0.00	
		61 8 0		6. 0 6 .50	6.10 .00x1.60	6 .50 60. 0x1.60	105.00	
		61 8 1		6. 0 50.80	6.10 .00x1.60	50.80 .60x1.60	1 5.00	
		61 8		101.60 6. 0	101.60 .60x .00	6. 0 .00x1.60	1 0.00	
		61 8		101.60 6 .50	101.60 .60x .00	6 .50 60. 0x1.60	1 0.00	
		61		10 .00 6.10	10 .00 100.00x .00	6. 0 .00x1.60	1 5.00	
		61		10 .00 6 .50	10 .00 100.00x .00	6 .50 60. 0x1.60	1 0.00	

T : For pressure and surface, please see product leaflet.

Wall thickness is not according to IS 0 .

Product code: 500

Finish: : Semi bright
I : Semi bright

Material Item no.	L U	Material Item no.	L U	Size mm	Dimension mm				end 0° 1 x
					l	x	t	L		L_{1}
1 0 0 L		1 0 16L		mm					
1 068		1 150		5.00	5.00	.60x1.0	55.00		5.00
1 1 0 101		1 1 0 111		8.00	8.00	5.60x1.0	0.00		8.00
1 1 0 181		1 1 0 1 1		51.00	51.00	8.60x1.0	8.00		51.00
1 1 0 61		1 1 0 1		6.50	6.50	60.0x1.60	105.00		6.00
1 1 0 1		1 1 0 51		6.10	6.00	.00x.00	110.00		6.00
									
									end 0° 1 x
		1 16		5.00	5.00	.60x1.0	55.00	55.00	5.00
		1 1 0 6 1		8.00	8.00	5.60x1.0	0.00	0.00	8.00
		1 1 0 51		51.00	51.00	8.60x1.0	8.00	8.00	51.00
		1 1 0 8 1		6.50	6.50	60.0x1.60	105.00	05.00	6.00
		1 1 0 11		6.10	6.10	.10x.00	110.00	10.00	6.00
									
According to standard: IS 851									end 0° 1.5 x
611 10010		611 10011		5.00	5.00	.60x1.0	65.00		.50
611 100 0		611 100 1		8.00	8.00	5.60x1.0	85.00		5.00
611 100 0		611 100 1		51.00	51.00	8.60x1.0	110.00		6.50
611 100 0		611 100 1		6.50	6.50	60.0x1.60	1 5.00		5.0
611 10050		611 10051		6.10	6.10	.0x1.60	155.00		11.0
611 10060		611 10061		101.60	101.60	.60x.00	1 5.00		15.50
									
									end 0° 1.5 x
611 1 661		611 1 6 1		5.00	5.00	.60x1.0	8.00		.50
611 1 66		611 1 6		8.00	8.00	5.60x1.0	5.00		5.00
611 1 66		611 1 6		51.00	51.00	8.60x1.0	6.00		6.50
611 1 66		611 1 6		6.50	6.50	60.0x1.60	5.00		5.0
611 1 665		611 1 6 5		6.10	6.10	.0x1.60	11.00		11.0
611 1 666		611 1 6 6		101.60	101.60	.60x.00	15.00		15.50
									

product code: 500

Finish: : olished
I : aw

aterial Item o.	L U	aterial Item o.	L U	Size	imension mm			I : aw
1. 0 0 L		1. 0 16L		mm	x t	L		end 0° 1 x
61 0 15		61 0		5.00	5.00x1. 0	55.00	5.00	
61 0 1		61 0		8.00	8.00x1. 0	0.00	8.00	
61 0 18		61 0 5		51.00	51.00x1. 0	8 .00	51.00	
61 0 1		61 0 6		6 .50	6 .50x1.60	105.00	6 .00	
61 0 0		61 0		6.10	6.10x .00	110.00	6.00	
								end 0° 1.5 x
61 0 01		61 0 0		5.00	5.00 .60x1. 0	8.00	.50	
61 0 0		61 0 08		8.00	8.00 5.60x1. 0	5 .00	5 .00	
61 0 0		61 0 0		51.00	51.00 8.60x1. 0	6.00	6.50	
61 0 0		61 0 10		6 .50	6 .50 60. 0x1.60	5.00	5. 0	
61 0 05		61 0 11		6.10	6.10 . 0x1.60	11 .00	11 . 0	
61 0 06		61 0 1		101.60	101.60 .60x .00	15 .00	15 .50	
								end 0° x
		61 8 68		5. 0	5. 0 . 0 1. 5	115.00	5.00	
		61 8 6		1.80	1.80 . 0 1. 5	1 6.00	.00	
		61 8 0		8.10	8.10 5.60 1. 5	1 0.00	115.00	
		61 8 1		50.80	50.80 8. 0 1. 5	5.00	150.00	
		61 8		6 .50	6 .50 60.50x1.50	0.00	185.00	
		61 8		6.00	6.00 .80x1.60	50.00	15.00	

Product code: 500

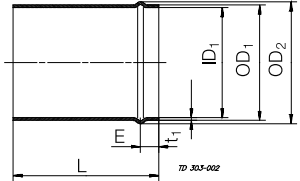
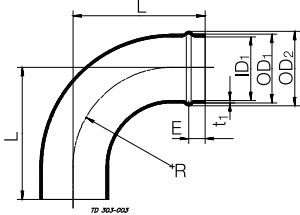
Finish: : olished
I : aw

Material Item no.	L U	Material Item no.	L U	Size mm	Dimension mm			Finish: : Semi bright I : Semi bright	
					I	x t	L ₁		L
611 00661		611 0080		5.00	5.00	.60x1.0	0.00	.00	
611 0066		611 00810		8.00	8.00	5.60x1.0	8.00	6.00	
611 0066		611 00811		51.00	51.00	8.60x1.0	11.50	86.50	
611 0066		611 0081		6.50	6.50	60.0x1.60	16.00	101.00	
611 00665		611 0081		6.10	6.10	.10x.00	15.00	11.00	
611 0008		611 0066		101.60	101.60	.60x.00	6.50	166.00	
								end 5°, I : olished	
61 0 01		61 0 0		5.00	5.00	.60x1.0	0.00	.00	
61 0 0		61 0 08		8.00	8.00	5.60x1.0	8.00	6.00	
61 0 0		61 0 0		51.00	51.00	8.60x1.0	11.50	86.50	
61 0 0		61 0 10		6.50	6.50	60.0x1.60	16.00	101.00	
61 0 05		61 0 11		6.10	6.10	.10x.00	15.00	11.00	
61 0 06		61 0 1		101.60	101.60	.60x.00	6.50	166.00	

T : For pressure and surface, please see product leaflet.

Product code: 5086, 5018

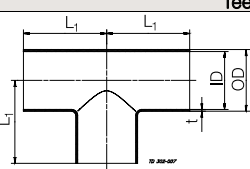
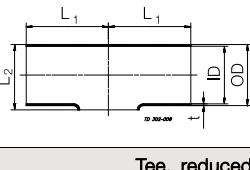
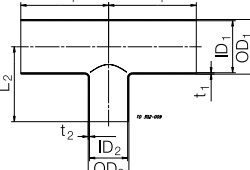
Finish: : Semi bright
I : Semi bright

Material Item no.	L U	Size	Dimension mm					L	
			l	l	x	t ₁			
Product code: 5086									
1 0 16L		mm						Hose liner, straight	
1 15 0		5.00	5.00	.60x1.0	.00	10.00	.50		
1 15		8.00	8.00	5.60x1.0	.00	10.00	1.00		
1 15		51.00	51.00	8.60x1.0	55.00	10.00	101.00		
1 15		6.50	6.50	6.0x1.60	6.00	10.00	116.00		
1 15 5		6.10	6.10	.10x.00	80.00	10.00	110.00		
1 1 080 1		101.60	101.60	.60x.00	105.60	10.00	16.00		
Product code: 5018									
Hose liner, bend									
1 15 6		5.00	5.00	.60x1.0	.00	10.00	55.00	5.00	
1 15 8		8.00	8.00	5.60x1.0	.00	10.00	0.00	8.00	
1 15		51.00	51.00	8.60x1.0	55.00	10.00	8.00	51.00	
1 1600		6.50	6.50	6.0x1.60	6.00	10.00	105.00	6.50	
1 1601		6.10	6.10	.10x.00	80.00	10.00	110.00	6.00	
1 1 05681		101.60	101.60	.60x.00	105.60	10.00	150.00	150.00	

T : For pressure and surface, please see product leaflet.

Product code: 50

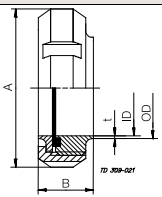
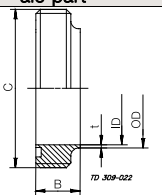
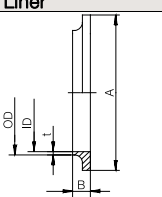
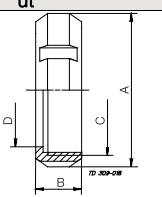
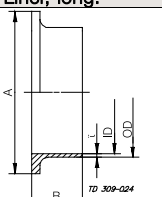
Finish: : olished
I : olished

Material Item no.	L U	Material Item no.	L U	Size mm	Dimension mm				Tee	
					l	x	t	L ₁		L
1 0 0 L		1 0 16L		mm	l	x	t	L ₁	L	
1 0 5		1 165		5.00	5.00	.60x1.0		55.00		
1 0		1 165		8.00	8.00	5.60x1.0		0.00		
1 0 8		1 1655		51.00	51.00	8.60x1.0		8.00		
1 0		1 1656		6.50	6.50	60.0x1.60		105.00		
1 0 0		1 165		6.10	6.10	.10x.00		110.00		
1 1 08511		1 1 0851		101.60	101.60	.60x.00		150.00		
Tee, short outlet										
611 0 05		611 0 155		5.00	5.00	.60x1.0		55.00	.00	
611 0 05		611 0 156		8.00	8.00	5.60x1.0		0.00	0.50	
611 0 05		611 0 15		51.00	51.00	8.60x1.0		8.00	5.50	
611 0 055		611 0 158		6.50	6.50	60.0x1.60		105.00	6.00	
611 0 056		611 0 15		6.10	6.10	.10x.00		110.00	81.00	
611 0 05		611 0 160		101.60	101.60	.60x.00		150.00	10.00	
Tee, reduced										
		1 0 16L		mm	l	x	t	L ₁	L	
		1 1 08061		51.00 8.00	51.00	8.60x1.0	8.00	5.60x1.0	8.00	0.00
		1 1 080 1		6.50 8.00	6.50	60.0x1.60	8.00	5.60x1.0	105.00	0.00
		1 1 08081		6.50 51.00	6.50	60.0x1.60	51.00	8.6x1.0	105.00	8.00
		1 1 080 1		6.10 8.00	6.10	.10x.00	8.10	.0x1.60	110.00	80.00
		1 1 08101		6.10 51.00	6.10	.10x.00	50.80	.60x1.60	110.00	8.00
Tee, reduced, short outlet										
		1801 0 1		8.00 5.00	8.00	5.60x1.0	5.00	.60x1.0	0.00	0.0
		1801 0		51.00 5.00	51.00	8.60x1.0	5.00	.60x1.0	8.00	5.10
		1801 0		51.00 8.00	51.00	8.60x1.0	8.00	5.60x1.0	8.00	5.10
		1801 0		6.50 5.00	6.50	60.0x1.60	5.00	.60x1.0	105.00	66.50
		1801 0 5		6.50 8.00	6.50	60.0x1.60	8.00	5.60x1.0	105.00	6.60
		1801 0 6		6.50 51.00	6.50	60.0x1.60	51.00	8.60x1.0	105.00	66.50
		1801 0		6.10 5.00	6.10	.10x.00	5.00	1.80x1.60	110.00	.0
		1801 0 8		6.10 8.00	6.10	.10x.00	8.00	.80x1.60	110.00	80.60
		1801 0		6.10 51.00	6.10	.10x.00	51.00	.80x1.60	110.00	80.60
		1801 0 01		6.10 6.50	6.10	.10x.00	6.50	60.0x1.60	110.00	80.00
		1801 0 0		101.60 5.00	101.60	.60x.00	5.00	1.80x1.60	150.00	105.00
		1801 0 0		101.60 8.00	101.60	.60x.00	8.00	.80x1.60	150.00	106.60
		1801 0 0		101.60 51.00	101.60	.60x.00	51.00	.80x1.60	150.00	106.60
		1801 0 05		101.60 6.50	101.60	.60x.00	6.50	60.0x1.60	150.00	106.60
		1801 0 06		101.60 6.10	101.60	.60x.00	6.10	.0x1.60	150.00	106.60
		61 0		10.00 5.00	10.00	100.00x.00	5.0	1.0x.00	150.00	108.00
		61 1		10.00 8.00	10.00	100.00x.00	8.10	.10x.00	150.00	110.00
		61		10.00 51.00	10.00	100.00x.00	50.80	6.80x.00	150.00	110.00
		61		10.00 6.50	10.00	100.00x.00	6.50	5.50x.00	150.00	11.00
		61		10.00 6.10	10.00	100.00x.00	6.10	.10x.00	150.00	11.00

T : For pressure and surface, please see product leaflet.

Product code: 50

 Finish: : Semi bright
 Seals: nitrile
 Thread: d according to I 05

Material Item no.	L U	Material Item no.	L U	Size	Dimension mm			
1. 0 0 L		1. 0 16L		mm	l x t		A	Union
611 00 8		611 0 8		5.00	5.00	.60x1.0	51.00	.50
611 00 8		611 0 8		8.00	8.00	5.60x1.0	.00	0.00
611 00 8		611 0 8		51.00	51.00	8.60x1.0	8.00	0.00
611 00 85		611 0 85		6.50	6.50	60.0x1.60	100.00	.00
611 00 86		611 0 86		6.10	6.10	.0x1.60	11.00	5.00
611 00 8		611 0 8		101.60	101.60	.60x.00	15.00	8.00
								
1. 0 0 L		1. 0 16L		mm	l x t		A	Seal part
1 0 11		1 1001		5.00	5.00	.60x1.0	15.00	0.00x1.6
1 0 1		1 100		8.00	8.00	5.60x1.0	0.00	60.00x1.6
1 0 1		1 100		51.00	51.00	8.60x1.0	0.00	0.00x1.6
1 0 15		1 1005		6.50	6.50	60.0x1.60	.00	85.00x1.6
1 0 16		1 1006		6.10	6.10	.0x1.60	.00	8.00x1.6
1 1 081 1		1 1 081		101.60	101.60	.60x.00	5.00	1.00x1.6
								
1. 0 0 L		1. 0 16L		mm	l x t		A	Liner
1 0 0		1 0		5.00	5.00	.60x1.0	5.50	.50
1 0 06		1 0 6		8.00	8.00	5.60x1.0	55.00	.00
1 0 0		1 0		51.00	51.00	8.60x1.0	65.00	.00
1 0 08		1 0 8		6.50	6.50	60.0x1.60	80.00	.00
1 0 0		1 0		6.10	6.10	.0x1.60	.00	10.00
1 1 08851		1 1 0885		101.60	101.60	.60x.00	1.00	1.00
								
1. 01 0				mm	A			nut
1 061				5.00	51.00	0.00	0.00x1.6	.00
1 0615				8.00	.00	5.00	60.00x1.6	8.00
1 0616				51.00	8.00	6.00	0.00x1.6	60.50
1 061				6.50	100.00	0.00	85.00x1.6	.00
1 0618				6.10	11.00	.00	8.00x1.6	8.00
1 1 088 1				101.60	15.00	5.00	1.00x1.6	11.00
61 6 01				10.00	1.800	1.00	1.500x1	11.00
								
1. 0 0 L		1. 0 16L		mm	l x t		A	Liner, long.
		611 0 611		5.00	5.00	.60x1.0	5.50	1.00
		611 0 61		8.00	8.00	5.60x1.0	55.00	0.00
		611 0 61		51.00	51.00	8.60x1.0	65.00	0.00
		611 0 615		6.50	6.50	60.0x1.60	80.00	5.00
		611 0 616		6.10	6.10	.0x1.60	.00	0.00
		611 0 61		101.60	101.60	.60x.00	1.00	5.00
								

T : Seal rings please see later this chapter.

T : For pressure and surface, please see product leaflet.

Product code: 50

Finish: : Semi bright
 Seals: itrole
 Thread: d according to I 05
 Connections: xpanding

Material Item no	L U	Size mm	Dimension mm				Union
			A				
1 0655		5.00	51.00	8.00		5.0	
1 065		8.00	.00	.00		8.0	
1 0658		51.00	8.00	6.00		51.0	
1 065		6.50	100.00	56.00		6.80	
1 0660		6.10	11.00	66.00		6.0	
							Male part
1 061		5.00		0.00	0.00x16	5.0	
1 06		8.00		.00	60.00x16	8.0	
1 06		51.00		5.00	0.00x16	51.0	
1 065		6.50		0.00	85.00x16	6.80	
1 066		6.10		5.00	8.00x16	6.0	
							Liner
1 06		5.00	5.50	1.00		5.0	
1 06		8.00	55.00	0.00		8.0	
1 060		51.00	65.00	0.00		51.0	
1 061		6.50	80.00	5.00		6.80	
1 06		6.10	.00	0.00		6.0	
							nut
1 061		5.00	51.00	0.00	0.00x16	.00	
1 0615		8.00	.00	5.00	60.00x16	8.00	
1 0616		51.00	8.00	6.00	0.00x16	60.50	
1 061		6.50	100.00	0.00	85.00x16	.00	
1 0618		6.10	11.00	.00	8.00x16	8.00	
1 1 088 1		101.60	15.00	5.00	1.00x16	11.00	

T : Seal rings please see later this chapter.

T : For pressure and surface, please see product leaflet.

Product code: 50

Finish: : Semi bright
 Seals: nitrile
 Thread: d according to I 05
 Connections: expanding welding

Material	L	Size	Dimension mm				
Item no	U			A			
1. 0 16L							
1 166		8.00 5.00		55.00	1 .00	5.0	
1 16 0		51.00 5.00		65.00	1 .00	5.0	
1 16 5		51.00 8.00		65.00	0.00	8.0	
1 16 6		6 .50 8.00		80.00	0.00	8.0	
1 16 8		6 .50 51.00		80.00	0.00	51.0	
1 16		6.10 8.00		.00	0.00	8.0	
1 16		6.10 51.00		.00	0.00	51.0	
1 1680		6.10 6 .50		.00	5.00	6 .80	
1. 0 16L							
		mm	l x t	A			
1 1 0		8.00 5.00	5.00 .60x1.0	5.60	0.00	60.00x1.6	
1 1 08 11		51.00 5.00	5.00 .60x1.0	8.60	0.00	0.00x1.6	
1 1 065 1		51.00 8.00	8.00 5.60x1.0	8.60	0.00	0.00x1.6	
1 1 08 1		6 .50 8.00	8.00 5.60x1.0	60.0	.00	85.00x1.6	
1 1 065 1		6 .50 51.00	51.00 8.60x1.0	60.0	.00	85.00x1.6	
1 1 08 1		6.10 51.00	51.00 8.60x1.0	.0	.00	8.00x1.6	
1 1 051 1		6.10 6 .50	6 .50 60.0x1.60	.0	.00	8.00x1.6	
1. 0 16L							
		mm	l x t	A			
1 1 0 65		8.00 5.00	5.00 .60x1.0	55.00	.00		
1 1 0 6		51.00 5.00	5.00 .60x1.0	65.00	.00		
1 1 06611		51.00 8.00	8.00 5.60x1.0	65.00	.00		
1 1 0 1		6 .50 8.00	8.00 5.60x1.0	80.00	.00		
1 1 066 1		6 .50 51.00	51.00 8.60x1.0	80.00	.00		
1 1 0 1		6.10 51.00	51.00 8.60x1.0	.00	10.00		
1 1 08881		6.10 6 .50	6 .50 60.0x1.60	.00	10.00		
1 1 088 1		101.60 6 .50	6 .50 60.0x1.60	1 .00	15.00		
1 1 08 01		101.60 6.10	6.10 .0x1.60	1 .00	15.00		
1. 01 0							
		mm	A				
1 061		5.00	51.00	0.00	0.00x1.6	.00	
1 0615		8.00	.00	5.00	60.00x1.6	8.00	
1 0616		51.00	8 .00	6.00	0.00x1.6	60.50	
1 061		6 .50	100.00	0.00	85.00x1.6	.00	
1 0618		6.10	11 .00	.00	8.00x1.6	8 .00	
1 1 088 1		101.60	15 .00	5.00	1 .00x1.6	11 .00	

T : Seal rings please see later this chapter.
 T : For pressure and surface, please see product leaflet.

Material Item no.	L U	Material Item no.	L U	Size	Dimension mm					
1. 0 0 L		1. 0 16L		mm	l x t				Male part	
61 0 501		61 0 50		5.00	5.00	.50 x 1.5	1.00	0.00x1.6	<p>TD 309-022</p>	
61 0 50		61 0 508		8.00	8.00	5.50 x 1.5	.00	60.00x1.6		
61 0 50		61 0 50		51.00	51.00	8.50 x 1.5	.00	0.00x1.6		
61 0 50		61 0 510		6.50	6.50	60.0 x 1.55	.00	85.00x1.6		
61 0 505		61 0 511		6.10	6.10	.0 x 1.0	.00	8.00x1.6		
61 0 506		61 0 51		10.00	10.00	.0 x .05	0.00	1.5 x 1		
1. 0 0 L		1. 0 16L		mm	A				Liner	
61 0 01		61 0 0		5.00	.50	5.00	15.60	5.50	<p>TD 309-042</p>	
61 0 0		61 0 08		8.00	5.50	8.00	16.00	55.00		
61 0 0		61 0 0		51.00	8.50	51.00	1.00	65.00		
61 0 0		61 0 10		6.50	60.0	6.50	1.00	80.00		
61 0 05		61 0 11		6.10	.0	6.10	1.00	.00		
61 0 06		61 0 1		10.00	.0	10.00	1.00	118.00		
1. 0 0 L		1. 0 16L		mm	l 1 x t 1				Hose liner	
		1 15		5.00	5.00	.60x1.0	50.00	.00	10.00	<p>TD 309-030</p>
		1 15		8.00	8.00	5.60x1.0	80.00	.00	10.00	
		1 1580		51.00	51.00	8.60x1.0	110.00	55.00	10.00	
		1 1581		6.50	6.50	60.0x1.60	1.50	6.00	10.00	
		1 158		6.10	6.10	.10x.00	150.00	80.00	10.00	
1. 01 0				mm	A				nut	
1 061				5.00	51.00	0.00	0.00x1.6	.00	<p>TD 309-018</p>	
1 0615				8.00	.00	5.00	60.00x1.6	8.00		
1 0616				51.00	8.00	6.00	0.00x1.6	60.50		
1 061				6.50	100.00	0.00	85.00x1.6	.00		
1 0618				6.10	11.00	.00	8.00x1.6	8.00		
1 1 088 1				101.60	15.00	5.00	1.00x1.6	11.00		

T : Seal rings please see later this chapter.

T : For pressure and surface, please see product leaflet.

Product code: 50

Finish: machined
Thread: round type

Material Item no.	L U	Material Item no.	L U	Size mm	Dimension mm			
1. 01 0		1. 0 16L		mm	A			nd cap
61 1 001		61 1 008		5.00	51.00	0.00	0.00x1 6	
61 1 00		61 1 00		8.00	.00	5.00	60.00x1 6	
61 1 00		61 1 010		51.00	8 .00	6.00	0.00x1 6	
61 1 00		61 1 011		6 .50	100.00	1.00	85.00x1 6	
61 1 005		61 1 01		6.10	11 .00	.00	8.00x1 6	
61 1 006		61 1 01		101.60	15 .00	5.00	1 .00x1 6	
								nd cap with chain
61 1 5101		61 1 5108		5.00	51.00	0.00	0.00x1 6	
61 1 510		61 1 510		8.00	.00	5.00	60.00x1 6	
61 1 510		61 1 5110		51.00	8 .00	6.00	0.00x1 6	
61 1 510		61 1 5111		6 .50	100.00	1.00	85.00x1 6	
61 1 5105		61 1 511		6.10	11 .00	.00	8.00x1 6	
61 1 5106		61 1 511		101.60	15 .00	5.00	1 .00x1 6	
								link
		1 008		5.00	5.50	.00		
		1 0086		8.00	55.00	.00		
		1 008		51.00	65.00	.00		
		1 0088		6 .50	80.00	.00		
		1 008		6.10	.00	5.00		
		1 1 0 1		101.60	1 .00	6.00		

T : Seal rings please see later this chapter.

T : For pressure and surface, please see product leaflet.

product code: 50
 product code: 500 , 5018

Finish: achined

aterial Item o.	L U	Size	imension mm					
1. 0 0 L		mm	A				Adapter, male to S male	
product code: 50								
1 050		5.00	0.00x1 6	0.00	1	.50	15.00	
1 0506		8.00	60.00x1 6	.00	1 ¹	5.50	.00	
1 0508		51.00	0.00x1 6	.00		8.50	8.00	
1 0510		6 .50	85.00x1 6	55.00	1	60.50	.00	
Adapter, male to S female								
1 051		5.00	0.00x1 6	15.00	1	.50	.00	
1 0518		8.00	60.00x1 6	.00	1 ¹	5.50	.00	
1 05 0		51.00	0.00x1 6	.00		8.50	8.00	
1 05		6 .50	85.00x1 6	1.00	1	60.50	.00	

aterial Item o.	L U	aterial Item o.	L U	Size	imension mm				Thread: d according to I 05	
1. 0 0 L		1. 0 16L		mm	l x t	A			Short bend, nut liner and male	
product code: 500										
1 0 60		1 10		5.00	5.00 .60x1. 0	55.00	55.00			
1 0 6		1 10 1		8.00	8.00 5.60x1. 0	0.00	0.00			
1 0 6		1 10		51.00	51.00 8.60x1. 0	8 .00	8 .00			
1 0 65		1 10		6.10	6.10 .10x .00	110.00	110.00			
end with hose and liner										
product code: 5018										
		1 160		5.00	5.00 .60x1. 0	6 .00	55.00	.00	10.00	
		1 1605		8.00	8.00 5.60x1. 0	.00	0.00	.00	10.00	
		1 1606		51.00	51.00 8.60x1. 0	1.00	8 .00	55.00	10.00	
		1 160		6 .50	6 .50 60. 0x1.60	11 .00	105.00	6 .00	10.00	

T : Seal rings please see later this chapter.

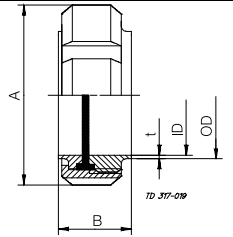
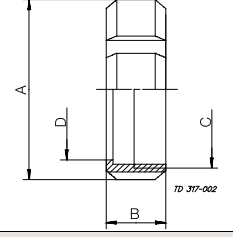
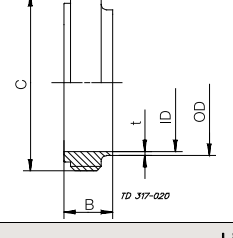
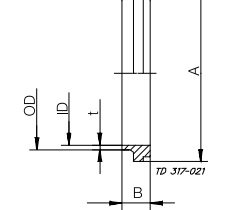
T : For pressure and surface, please see product leaflet.

product code: 50

Material Item no.	L U	Material Item no.	L U	Material Item no.	L U	Size mm	Dimension mm				Seal ring
							A				
1 0601		1 105		1 105		5.00	.00	5.50	.80		
1 060		1 10		1 1661		8.00	8.00	5.50	.80		
1 060		1 1085		1 108		51.00	61.00	5.50	50.80		
1 0605		1 10		1 10		6.50	.50	5.50	6.0		
1 0606		1 1080		1 10801		6.10	86.00	5.50	5.50		
1 108861		1 10886		1 10886		101.60	11.00	5.50	101.00		
611 5		611 56		611 58		10.00	116.00	5.50	10.00		
TF											
1 105511						5.00	.00	.00	5.00		
1 10551						8.00	8.00	.00	8.00		
1 10551						51.00	61.00	.00	51.00		
1 105515						6.50	.50	.00	6.50		
1 105516						6.10	86.00	.00	6.10		
1 10551						101.60	11.00	.00	101.60		
TF											
1 08						5.00	.00	.00	.50		
1 08						8.00	8.00	.00	5.50		
1 00						51.00	61.00	.00	8.50		
1 01						6.50	.50	.00	60.50		
1 0						6.10	86.00	.00	.00		
1 10511						101.60	11.00	.00	.60		

Product code: 50 1
 I F

Finish: achined
 Seals: itrole
 Thread: Trapezoidal type

Material Item no.	L U	Material Item no.	L U	Size mm	Dimension mm			Union
					l	x	t	
		1. 0 16L		mm			A	
		611 0 55		5.00	5.60	.50x1.55	8.00	5.50
		611 0 56		8.00	8.60	5.50x1.55	6 .00	5.50
		611 0 5		51.00	51.60	8.50x1.55	.00	5.50
		611 0 58		6 .50	6 .10	60.50x1.80	1.00	5.50
		611 0 5		6.10	6.60	.00x . 0	106.00	5.50
		611 0 60		101.60	10 .50	.60x . 5	1 5.00	5.00
								
1. 01 0				mm	A			ut
1 1 00011				5.00	8.00	0.00	8. 0 x 1 8	0.50
1 1 000 1				8.00	6 .00	0.00	51.80 x 1 8	.50
1 1 000 1				51.00	.00	0.00	65. 0 x 1 8	5 .00
1 1 000 1				6 .50	1.00	0.00	8.80 x 1 8	0. 0
1 1 00051				6.10	106.00	0.00	. 0 x 1 8	8 . 0
611 001				101.60	1 5.00	0.00	11 . 0 x 1 8	110.00
								
		1. 0 16L		mm	l	x	t	ale part
		1 1 006 1		5.00	5.60	.50x1.55	1.50	.10 x 1 8
		1 1 006 1		8.00	8.60	5.50x1.55	1.50	50.60 x 1 8
		1 1 0015		51.00	51.60	8.50x1.55	1.50	6 .10 x 1 8
		1 1 0016		6 .50	6 .10	60.50x1.80	1.50	.60 x 1 8
		1 1 001		6.10	6.60	.00x . 0	1.50	1.10 x 1 8
		611 008		101.60	10 .50	.60x . 5	1.50	118. 0 x 1 8
								
		1. 0 16L		mm	l	x	t	Liner
		1 1 00681		5.00	5.60	.50x1.55	.80	1 .00
		1 1 006 1		8.00	8.60	5.50x1.55	.00	1 .00
		1 1 00		51.00	51.60	8.50x1.55	60.50	1 .00
		1 1 00 11		6 .50	6 .10	60.50x1.80	.00	1 .00
		1 1 00 1		6.10	6.60	.00x . 0	8 .50	1 .00
		611 008 8		101.60	10 .50	.60x . 5	11 .10	1.50
								

T : Seal rings please see later this chapter.

T : For pressure and surface, please see sheet.

Material Item no.	L U	Size mm	Dimension mm			Seal ring
1. 0 16L			A			
611 08 0		5.00	10.50	.00		
611 08 1		8.00	10.50	.50		
611 08		51.00	60.50	56.00		
611 08		6 .50	10.50	6 . 0		
611 08		6.10	8 .50	10.50		
611 08 5		101.60	11 .10	108. 0		
			10.50			

T : For pressure and surface, please see product leaflet.

Material Item no.	L U	Material Item no.	L U	Material Item no.	L U	Size mm	Dimension mm			Seal ring
							A			
611 0 5		611 1 0				5.00	.50	6.00	.60	
611 0 5		611 1				8.00	6.00	6.00	6.60	
611 0 55		611 1				51.00	5 .	6.00	8. 0	
611 0 56		611 1				6 .50	. 0	6.00	61. 0	
611 0 5		611 1 5				6.10	86.50	6.00	. 0	
TF						mm	A			Seal ring
611 1						5.00	.50	6.00	.80	
611 1 6						8.00	6.00	6.00	5. 0	
611 1						51.00	5 .	6.00	8. 0	
611 1 8						6 .50	.00	6.00	60. 0	
611 1						6.10	86.50	6.00	. 0	
611 1 1						101.60	11 .00	6.00	8.00	
						mm	A			Seal ring
1 1 00 11		1 1 00 1		1 1 00 1		5.00	.50	.00	5.50	
1 1 00 1		1 1 00		1 1 00		8.00	6.00	.00	8.00	
1 1 00 1		1 1 00		1 1 00		51.00	5 .50	.00	51.00	
1 1 00 1		1 1 00		1 1 00		6 .50	.00	.00	6 .00	
1 1 00 51		1 1 00 5		1 1 00 5		6.10	86.50	.00	5.50	

on request

Product code: 50

Finish: achined
Seals: itrite
Thread: ound type

Material Item no.	L U	Material Item no.	L U	Size mm	Dimension mm			
		1. 0 16L			l x t	A		Union
		611 0 6		5.00	5.0 1.50x1.5	5.00	0.00	
		611 0 65		8.00	8.0 5.50x1.5	1.00	1.50	
		611 0 66		51.00	51.0 8.50x1.5	86.00	1.50	
		611 0 6		6.50	6.0 60.50x1.0	10.00	6.50	
		611 0 68		6.10	6.0 1.00x1.0	115.00	6.50	
		611 0 6		101.60	10.00 1.60x1.0	150.00	6.50	
1. 01 0				mm	A			ut
611 001				5.00	5.00 0.00	1.00x1.6	5.00	
611 001 8				8.00	1.00 0.00	58.00x1.6	8.50	
611 001				51.00	86.00 0.00	1.00x1.6	6.50	
611 00 00				6.50	10.00 0.00	88.00x1.6	6.50	
611 00 01				6.10	115.00 5.00	100.00x1.6	88.50	
611 00 6				101.60	150.00 8.00	1.00x1.6	11.00	
		1. 0 16L		mm	l x t			ale part
		611 068		5.00	5.0 1.50x1.5	18.50	1.00x1.6	
		611 0685		8.00	8.0 5.50x1.5	0.00	58.00x1.6	
		611 0686		51.00	51.0 8.50x1.5	0.00	1.00x1.6	
		611 068		6.50	6.0 60.50x1.0	0.00	88.00x1.6	
		611 0688		6.10	6.0 1.00x1.0	0.00	100.00x1.6	
		611 06 0		101.60	10.00 1.60x1.0	0.00	1.00x1.6	
		1. 0 16L		mm	l x t	A		Liner
		611 06 1		5.00	5.0 1.50x1.5	0.00	11.00	
		611 06		8.00	8.0 5.50x1.5	5.00	11.00	
		611 06		51.00	51.0 8.50x1.5	68.00	11.00	
		611 06		6.50	6.0 60.50x1.0	8.00	1.00	
		611 06 5		6.10	6.0 1.00x1.0	6.00	1.00	
		611 06		101.60	10.00 1.60x1.0	1.00	1.00	

T : For pressure and surface, please see product leaflet.

Product code: 50

Finish: achined
Thread: ound type
Connections: xpanding ends

aterial Item o.	L U	Size mm	imension mm				
1. 01 0			A				ale part
611 00 0		5.00		0.00	.00x1 6	5.00	
611 00 0		8.00		.00	58.00x1 6	8.00	
611 00 05		51.00		.00	.00x1 6	51.00	
611 00 06		6 .50		6.00	88.00x1 6	6 .50	
611 00 0		6.10		8.00	100.00x1 6	6.00	
Liner							
611 00 0		5.00	0.00	16.00		5.00	
611 00 10		8.00	5 .00	18.00		8.00	
611 00 11		51.00	68.00	0.00		51.00	
611 00 1		6 .50	8 .00	.00		6 .50	
611 00 1		6.10	6.00	.00		6.00	

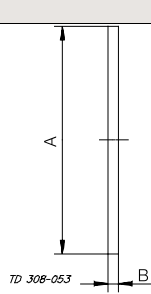
aterial Item o.	L U	Size mm	imension mm				
1. 01 0			A				nd cap for chain
611 0 5 0		5.00	5 .00	0.00			
611 0 5 0		8.00	1.00	0.00			
611 0 5 0		51.00	86.00	.00			
611 0 550		6 .50	10 .00	.00			
611 0 560		6.10	115.00	5.00			

T : Seal rings please see later this chapter.

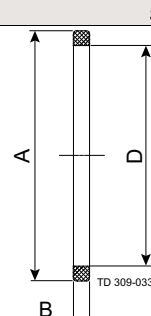
T : For pressure and surface, please see product leaflet.

Product code: 50

Finish: achined
 Thread: ound type
 onnections: xpanding ends

aterial Item o.	L U	aterial Item o.	L U	Size mm	imension mm			lank 
		1. 0 16L			A			
		611 00 5		5.00	0.00	.00		
		611 00 5		8.00	5 .00	.00		
		611 00 55		51.00	68.00	.00		
		611 00 56		6 .50	8 .00	.00		
		611 00 5		6.10	6.00	.00		
		611 00 5		101.60	11 .00	.00		

T : For pressure and surface, please see product leaflet.

aterial Item o.	L U	aterial Item o.	L U	Size mm	imension mm			Seal ring 
					A			
		611 01 0		5.00	.00	.50	5.00	
		611 01 1		8.00	.00	.50	8.00	
		611 01		51.00	5 .00	.50	51.00	
		611 01		6 .50	.50	.50	6 .50	
		611 01		6.10	88.00	.50	6.10	
		611 0558		101.60	11 .50	.50	101.60	
TF		F		mm	A		Seal ring	
		611 8		5.00	.00	.50	5.00	
		611 8 5		8.00	.00	.50	8.00	
		611 8 6		51.00	5 .00	.50	51.00	
		611 8		6 .50	.50	.50	6 .50	
		611 8 8		6.10	88.00	.50	6.10	
		611 8		101.60	11 .50	.50	101.60	

Product code: 50

Finish: achined
Thread: ound type

aterial Item o.	L U	aterial Item o.	L U	Size	imension mm				
1. 01 0				mm	A				ut
1 18001 1				5.00	6 .00	1.00	5 .00x1 6	6.00	
1 18001				.00	0.00	1.00	58.00x1 6	.00	
1 18001				0.00	8.00	1.00	65.00x1 6	.00	
1 18001				50.00	.00	.00	8.00x1 6	6 .00	
1 18001 5				65.00	11 .00	5.00	5.00x1 6	80.00	
611 06 0				5.00	1 0.00	6.00	10 .00x1 6	8 .00	
1 18001 6				80.00	1 .00	0.00	110.00x1	.00	
1 18001 8				100.00	1 8.00	1.00	1 0.00x1	115.00	
1. 0 0 L		1. 0 16L		mm	l x t				ale part
61 15 01		61 15 1		5.00	5. 0	. 0 x 1. 5	.00	5 .00x1 6	
61 15 0		61 15 1		0.00	8.10	5.10x1.50	.00	65.00x1 6	
61 15 0		61 15 0		50.00	50.80	.80x1.50	5.00	8.00x1 6	
61 15 05		61 15 1		65.00	6 .50	60.50x1.50	0.00	5.00x1 6	
61 15 06		61 15		5.00	6.10	.10x1.50	0.00	10 x 1 6	
61 15 0		61 15		80.00	6.10	.10x .00	5.00	110.00x1	
61 15 08		61 15		100.00	101.60	.60x .00	5 .00	1 0.00x1	
1. 0 0 L		1. 0 16L		mm	l x t		A			Liner
61 158001		61 15801		5.00	5. 0	. 0 x 1. 5	.00	.00	
61 15800		61 15801		0.00	8.10	5.10x1.50	56.00	6.00	
61 15800		61 1580 0		50.00	50.80	.80x1.50	68.50	8.00	
61 158005		61 1580 1		65.00	6 .50	60.50x1.50	86.00	.00	
61 158006		61 1580		5.00	6.10	.10x1.50	. 0	.00	
61 15800		61 1580		80.00	6.10	.10x .00	100.00	.00	
61 158008		61 1580		100.00	101.60	.60x .00	1 1.00	.00	

T : Seal rings please see later this chapter.

T : For pressure and surface, please see product leaflet.

Product code: 50

Finish: achined
Thread: ound type

Material Item no.	L U	Size	Dimension mm				Male part
			A				
611 00		5.00		.00	5 .00x1 6	5. 0	
611 00 8		0.00		.00	65.00x1 6	8. 0	
611 00		50.00		5.00	8.00x1 6	51. 0	
611 00 80		65.00		0.00	5.00x1 6	6 .80	
611 06 0		5.00		0.00	10 .00x1 6	6. 0	
							Liner
611 00 8		5.00		.00		5. 0	
611 00 85		0.00	56.00	6.00		8. 0	
611 00 86		50.00	68.00	8.00		51. 0	
611 00 8		65.00	86.00	.00		6 .80	
611 06 0		5.00	5.00	.00		6. 0	
611 00 0		100.00	1 1.00	.00		101. 0	

Material Item no.	L U	Material Item no.	L U	Size	Dimension mm			Male part	
					l x t				
1 18000		1 18000 1		5.00	5.00	.60x1. 0	.00	5 .00x1 6	
1 18000		1 18000 1		0.00	8.00	5.60x1. 0	.00	65.00x1 6	
1 180010		1 1800101		50.00	51.00	8.60x1. 0	.00	8.00x1 6	
1 180011		1 1800111		65.00	6 .50	60. 0x1.60	5.00	5.00x1 6	
611 060 0		611 060 1		5.00	6.10	.10x1.50	0.00	10 x 1 6	
1 18001		1 18001 1		80.00	6.10	. 0x1.60	0.00	110.00x1	
1 1800		1 1800 1		100.00	101.60	.60x .00	0.00	1 0.00x1	
1. 0 0 L		1. 0 16L		mm	l x t	A		Liner	
1 180018		1 1800181		5.00	5.00	.60x1. 0	.00	18.00	
611 00 1				.00	. 0	1. 0x1. 0	50.00	15.00	
1 18001		1 18001 1		0.00	8.00	5.60x1. 0	56.00	18.00	
1 1800 0		1 1800 01		50.00	51.00	8.60x1. 0	68.00	0.00	
1 1800 1		1 1800 11		65.00	6 .50	60. 0x1.60	86.00	0.00	
611 060 0		611 060 1		5.00	6.10	.10x1.50	5.00	0.00	
1 1800		1 1800 1		80.00	6.10	. 0x1.60	100.00	0.00.	
1 1800		1 1800 1		100.00	101.60	.60x .00	1 1.00	.00	

T : Seal rings please see later this chapter.

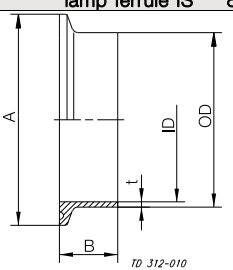
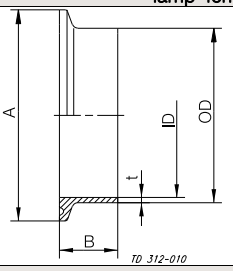
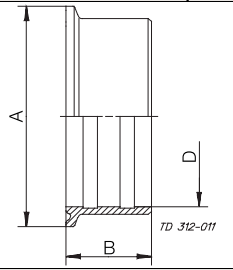
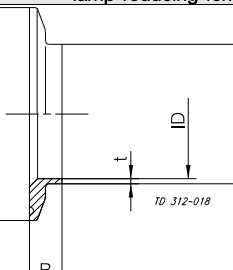
T : For pressure and surface, please see product leaflet.

Product code: 50

Seals: nitrile
Thread: round type

Material		L	Material		L	Size	Dimension mm				Seal ring	
Item	Code	U	Item	Code	U		mm	A				
						F						
5	60		611	1 6		611	186	5.00	0.00	5.00	0.00	
5	605		611	1 0				0.00	6.00	5.00	6.00	
5	606		611	1 1		611	1866	0.00	5.00	5.00	0.00	
5	60		611	1		611	186	50.00	6.00	5.00	5.00	
5	608		611	1		611	1868	65.00	81.00	5.00	1.00	
611	1 6		611	1		611	186	5.00	88.00	5.00	8.00	
5	60		611	1 5		611	11 8	80.00	5.00	5.00	85.00	
5	611		611	1 6		611	18 0	100.00	11.00	6.00	10.00	
Silicone			TF					mm	A			Seal ring
611	1 0		611	18 6				5.00	0.00	5.00	0.00	
611	1		611	18 8				0.00	5.00	5.00	0.00	
611	1		611	18				50.00	6.00	5.00	5.00	
611	1		611	1880				65.00	81.00	5.00	1.00	
611	1 5		611	1881				5.00	88.00	5.00	8.00	
611	1 6		611	188				80.00	5.00	5.00	85.00	
611	1		611	188				10.00	11.00	6.00	10.00	

T : For pressure and surface, please see product leaflet.

Material Item o.	L U	Material Item o.	L U	Size	Dimension mm			
1. 0 0 L		1. 0 16L		mm	l	x t	A	lamp ferrule IS 85
611 101 1		611 101 0		5.00	5.60	.60x1.50	50.50	1.50
611 10 01		611 10 00		8.00	8.60	5.60x1.50	50.50	1.50
611 10 11		611 10 10		51.00	51.60	8.60x1.50	6 .00	1.50
611 10 1		611 10 0		6 .50	6 .10	60. 0x1. 0	.50	1.50
611 10 1		611 10 0		6.10	6. 0	. 0x1. 0	1.00	1.50
611 10 1		611 10 0		101.60	10 .50	.60x . 5	11 .00	1.50
611 10 11		611 10 10		11 . 0	115.60	110. 0x .65	1 0.00	8.00
611 10 11		611 10 0		1 . 0	1 1. 0	1 5. 0x . 5	155.00	8.00
611 10 1		611 10 0		168. 0	1 0.00	16 .10x . 5	18 .00	8.00
								
								lamp ferrule
		61 010		5.00	5.00	.60x1. 0	50.50	1.50
		61 0108		8.00	8.00	5.60x1. 0	50.50	1.50
		61 010		51.00	51.00	8.60x1. 0	6 .00	1.50
		61 0110		6 .50	6 .50	60. 0x1.60	.50	1.50
		61 0111		6.10	6.10	. 0x1.60	1.00	1.50
		61 011		101.60	101.60	.60x .00	11 .00	1.50
								
								lamp ferrule
1. 01 0				mm	A			
611 10660				5.00	50.50	0.00	5.00	
611 106 0				8.00	50.50	0.00	8.00	
611 10680				51.00	6 .00	5.00	51.00	
611 10 00				6.10	1.00	0.00	6.10	
								
								lamp ferrule
		1. 0 16L		mm	l x t		A	
		611 10500		8.00 5.00	5.60	.60x1.50	50.50	1 .00
		611 10510		8.00 .00	.60	.60x1.50	50.50	1 .00
		611 105 0		51.00 8.00	8.60	5.60x1.50	6 .00	1 .00
		611 10550		6 .50 51.00	51.60	8.60x1.50	.50	1 .00
		611 105 0		6.10 6 .50	6 .10	60. 0x1. 0	1.00	1 .00
								
								lamp reducing ferrule

T : For pressure and surface, please see product leaflet.

aterial Item o.	L U	aterial Item o.	L U	Size	imension mm			
1. 0 0 L		1. 0 16L		mm	A			lank
product code: 50 5								
611 05 0		611 0600		5.00 8.00	50. 0	6. 0		
611 05 1		611 0601		51.00	6. 0	6. 0		
611 05		611 060		6.50	. 0	6. 0		
611 05		611 060		6.10	0. 0	6. 0		
10506		611 060		101.60	118. 0	6. 0		
		61 6 001		168. 0	18. 00	11.00		

not available

Item o.	L U	Item o.	L U	Item o.	L U	Size	imension mm				
				F		mm	A			Seal ring	
product code: 50 1											
611 0 65		611 1 58		611 18 0		5.00	5. 0	5.50	.80		
611 0 66		611 1 5		611 18 1		8.00	5. 0	5.50	5.80		
611 0 6		611 1 60		611 18		51.00	66. 0	5.50	8.80		
611 0 68		611 1 61		611 18		6.50	. 0	5.50	60.50		
611 0 6		611 1 6		611 18		6.10	. 0	5.50	.10		
611 0 0		611 1 6		611 18 5		101.60	1 1. 0	5.50	.80		
611 1 5		611 1 6		611 18 6		11. 0	1. 0	5.50	110.50		
611 1 55		611 1 65		611 18		1. 0	15. 0	5.50	1 5. 0		
611 1 56		611 1 66		611 18 8		168. 0	185. 0	5.50	16. 0		
611 1 5		611 1 6		611 18		1. 10	5. 0	5.50	1. 10		
TF						mm	A				Seal ring modified IS 85 , type A
product code: 50 1											
611 1 0						5.00	5. 0	5.10	.60		
611 1 0						8.00	5. 0	5.10	5.60		
611 1 05						51.00	66. 0	5.10	8.60		
611 1 06						6.50	. 0	5.10	60. 0		
611 1 0						6.10	. 0	5.10	. 0		
611 1 08						101.60	1 1. 0	5.10	.60		

product code: 50

Material Item no.	L U	Size mm	Dimension mm		Diagram
			A	H	
lamp ring					
1105		5.00 8.00	5 .00		
1105		51.00	6 .10		
11055		6 .50	81.00		
11056		6.10	.50		
1105		101.60	1 . 0		
lamp ring					
1115		5.00 8.00	5 .00		
1116		51.00	6 .50		
111		6 .50	81.00		
1118		6.10	.50		
111		101.60	1 .60		
lamp ring, wingnut					
611 5		5.00 8.00	5 .00		
611 5		51.00	6 .50		
611 55		6 .50	81.00		
611 56		6.10	.50		
611 5		101.60	1 .60		
lamp ring Allen screws					
611 11051		5.00 8.00	85.50	5 .50	
611 1105		51.00	.00	68.00	
611 1105		6 .50	11 .50	81.50	
611 1105		6.10	1 6.00	5.00	
611 11055		101.60	15 .00	1 .00	
611 11056		11 . 0	165.00	1 .00	
611 1105		1 . 0	1 8.00	15 .00	
611 11058		168. 0	6.00	18 .00	
611 1105		1 .10	80.50	.50	

T : For pressure and surface, please see product leaflet.

Material	L	Size	Pressure class	Dimension mm						
				U	mm	bar	l x t				A
1. 0 16L		mm	bar							complete flange
61 8 10		5.00	16		5.00 .60x1.0	.00	50.00		x 8	
61 8 11		8.00	16		8.00 5.60x1.0	.00	50.00		x 8	
61 8 1		51.00	16		51.00 8.60x1.0	.00	50.00		x 8	
61 8 1		6 .50	10		6 .50 60.0x1.60	11 .00	50.00		x 8	
61 8 1		6.10	10		6.10 .0x1.60	1 .00	50.00		x 8	
61 8 15		101.60	10		101.60 .60x .00	160.00	50.00		8 x 8	
1. 0 16L		mm			l x t			F		Flange with ring groove
61 010		5.00			5.00 .60x1.0	5.00	10.00		6 .00	
61 011		8.00			8.00 5.60x1.0	5.00	10.00		6 .00	
61 01		51.00			51.00 8.60x1.0	5.00	10.00		8 .00	
61 01		6 .50			6 .50 60.0x1.60	5.00	10.00		10 .00	
61 01		6.10			6.10 .0x1.60	5.00	10.00		11 .00	
61 015		101.60			101.60 .60x .00	5.00	10.00		1 .00	
										Flange without ring groove
61 10		5.00			5.00 .60x1.0	5.00	10.00		6 .00	
61 11		8.00			8.00 5.60x1.0	5.00	10.00		6 .00	
61 1		51.00			51.00 8.60x1.0	5.00	10.00		8 .00	
61 1		6 .50			6 .50 60.0x1.60	5.00	10.00		10 .00	
61 1		6.10			6.10 .0x1.60	5.00	10.00		11 .00	
61 15		101.60			101.60 .60x .00	5.00	10.00		1 .00	

T : Seal rings please see later this chapter.

T : For pressure and surface, please see product leaflet.

product code: 5058

Item o.	L U	Item o.	L U	Item o.	L U	Size	Dimension mm					
Silicone						F	mm	A				Flange seal
61 0 6 1		61 0 6 1		61 0 651		5.00	.0	.10	.0			
61 0 6		61 0 6		61 0 65		8.00	6.0	.10	6.0			
61 0 6		61 0 6		61 0 65		51.00	5.0	.10	.0			
61 0 6		61 0 6		61 0 65		6.50	1.0	.10	61.0			
61 0 6 5		61 0 6 5		61 0 655		6.10	8.0	.10	.0			
61 0 6 6		61 0 6 6		61 0 656		101.60	108.80	.10	.00			
				Flange size		Screws	uts	Screws and nut set				
		61 01		5.00 6.10		x 8 x 0.00	x 8					
		61 0		101.60		8x 8 x 0.00	8 x 8					
		61 0		1 5.00 150.00		8x 10 x 0.00	8 x 10					

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1. I Fittings and Tubes



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Hygienic Screw connections I 1185 1	1. . .10
Hygienic Flange connections I 1185	1. . .111

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Hygienic Lamp Connections 1185	1. .115
Aseptic Screw Connections 1186 1	1. .116
Aseptic Flange Connections | 1186	1. .1 0
Aseptic Lamp Connections | 1186	1. .1
Hygienic Lamp Connections | 6 6	1. .1
Lamp Fittings for Lamp Connections	1. .1 0

Fit to | Tubes

Fit to | Tubes, Ends	1. .1 1
Fit to | Tubes, Tees	1. .1
Fit to | Tubes, Flanges	1. .1 5
Fit to | Tubes, Seals	1. .1 6
Fit to | Tubes, End Caps with Thread	1. .1 8
Fit to | Tubes, Hose Liner	1. .1
Fit to | Tubes, Other Fittings	1. .1 0

Intro

I Fittings and Tubes

Intro

After years of intensive work with the portfolio we have achieved a unique surface appearance across the different I Fittings of which we are very proud. We have uniformed our marking, to support our high quality Fittings and the result is fantastic. We call this range for " I Standard, new surface", to highlight it, and give it a special space in the new catalogue, because it truly is unique. With focus on simplicity we have reduced the surface appearances to two on machined and one on tubular Fittings and we have concentrated on "Hygienic Fittings" with an exception of I 1186 . We have invested heavily in availability of " I Standard, new surface" portfolio and supported by the new automatic warehouse in Kolding and our online ordering tool "Anytime", this will provide a superior customer experience. Moreover, we have divided the catalogue into the different I standards, to show the differences and make it easy to choose the right product.

The old portfolio is, where possible and convenient, upgraded to our " I Standard, new surface", the rest we have kept "as is". In the price files we have made the following split:

" I Standard, new surface"

"Fit to I Tubes"

The complete I Fittings range we supply fits with the tube dimensions of 10 5 A and I 11866 eihe A except from I 11851 W, which is according to the standard . The products in the chapter "Fit to I Tubes", have deviations from the I standards, but will still fit to 10 5 A tubes.

Thank ou for reading this and we hope ou en oy

roduct presentation

Alfa Laval's range of I Tubes Fittings are used in food, dairy, beverage, personal care, biotechnology and pharmaceutical process applications. Smooth, crevice free interiors and secure, self aligning oints are characteristic for Alfa Laval fittings. ach offers superior corrosion resistance and unmatched service life. Alfa Laval fittings are designed and manufactured to ensure dimensional accuracy and structural integrity, making them easy to install. Tubing is manufactured to Alfa Laval's stringent specifications, making it a perfect match for the fittings. All products are labelled with a bar code, product information and manufacturing date. This provides the optimum identification and ensures that the product arrives to the ob site in a clean orbital weld condition. n the product we have laser marked all the needed information such as heat number, dimension, surface, material and country of origin.



I Standard, overview

Product	I Standard	Surface ¹	Material	Application	Part
Tubes	10 5	, ,	1. 0 0 L	Hygienic	
	A I 11850	and	1. 0 16L		
ends, Tees and reducers	I 11866 A	H	1. 0 16L	Aseptic	
	I 1185	HSF	1. 0 0 L	Hygienic	
	I 11865	H	1. 0 16L	Aseptic	For Welding. Ends are ready for orbital Welding
	I 11851	HSF0	1. 0 0 L	Hygienic	Screw connections
connections			1. 0 16L		W: Expanding
	I 1185	H	1. 0 16L	Hygienic	S: Welding
					1: Screw connection
	I 1186	H	1. 0 16L	Aseptic	: Flange connection
	I 6 6	HSF0	1. 0 0 L		: lamp connection
		H	1. 0 16L	Hygienic	1: Screw connection
					: Flange connection
					: lamp connection

¹ Surface table is available later in the document

Material is according to 10088 1. Regarding complete connections, it is always in 1. 01. A unit in 1. 0 is available as a single item. We hold the right to deliver better material than stated in our brochures and order confirmation. Meaning, if stated 1. 01, it is allowed for us to deliver 1. 0 or 1. 0 , at same price of course.

We do currently not offer this part of the I standard

Standard	Material	Symbol	Surface			Heat Treatment
			External surface and Welded area	Internal surface	Internal Welded area	
10 5 A I 11850	1. 0 0 L	H	pickled and passivated	a < 0.8 µm	pickled and passivated	o
			polished	a < 1.0 µm		
	1. 0 16L	H	pickled and passivated or right annealed	a < 0.8 µm	pickled and passivated or right annealed	o
			polished	a < 1.0 µm		
I 11866 A	1. 0 16L	H	pickled or right annealed without a requirement, or polished to a < 1.0 µm	a < 0.8 µm	a < 0.8 µm	es

Sizes

We supply 10 5 A which has the same dimensions as former I 11850 tube, and I 11866 A.

Please also notice “ nominal size” is not always equal to inner diameter see 15, 5, 0, 65 and 80. The 10 5 A standard is only referring to outer diameter. All dimensions in this catalogue are in millimeter.

nominal size only I 11866	outer diameter	I inner diameter	t wall thickness
10	1	10	1,5
15	1	16	
0		0	
5		6	
	5		
0	1	8	
50	5	50	
65	0	66	
80	85	81	
100	10	100	
1 5	1	1 5	
150	15	150	
00	0	00	

Tolerances

outer diameter tolerances in I 11866 are lower from 100 to 00.

outer diameter tolerances

nominal size:	10	15	0	5	0	50	65	80	100	1 5	150	00
:	1	1		5	1	5	0	85	10	1	15	0
10 5 A	±0,10	±0,10	±0,1	±0,15	±0,18	±0, 1	±0, 5	±0, 8	±0, 8	±0, 65	±1,16	±1,5
I 11866	±0,10	±0,10	±0,1	±0,15	±0,18	±0, 1	±0, 5	±0, 8	±0, 5	±0,65	±0, 65	±1,0

Wall thickness tolerances in | 11866 are lower from 65 to 00.

Wall thickness tolerances

nominal size:	10	15	20	25	30	35	40	50	65	80	100	125	150	200
10 5 A	±0,15	±0,15	±0,15	±0,15	±0,15	±0,15	±0,15	±0,15	±0,0	±0,0	±0,0	±0,0	±0,0	±0,0
| 11866	±0,15	±0,15	±0,15	±0,15	±0,15	±0,15	±0,15	±0,15	±0,15	±0,15	±0,15	±0,15	±0,15	±0,15

10 5 A | 11850

The stainless steel tubes in this standard are for the food, chemical and pharmaceutical industry.

Typically used with | 1185 , | 11851, | 1185 and | 6 6.

and tubes are annealed, whereas and tubes are pickled and passivated internal and external

All materials according to 10 1 .

| 11866

The stainless steel tubes in this standard are for aseptic, chemical and pharmaceutical industry.

Typically used with | 1186 and | 11865.

All tubes are annealed, pickled and passivated in accordance with | 10 1 W Ab.



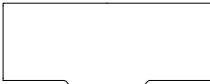

comment to | 11851 W

Regarding connections | 11851 W expanding, this is the only product in this catalogue which does not match tube 10 5 A from sizes up to 50, above 50 they fit. This standard is meant for the old " | 11850, Reihe 1".

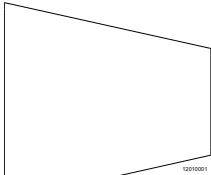
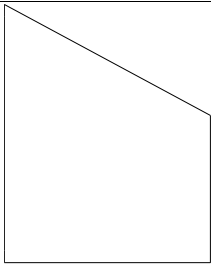
| 11850 Reihe 1, different measures up to 50:

dimensions	10	15	20	25	30	35	40	50	
	1	18				8		0	5
|	10	16	0			6		8	50
Thickness						1			

Tees

Type name	Design name	Comment	Picture
Tees	TS d ₁ d	Standard Tee	
	TS d ₁ d d pointing down	Reduced Tee	
	TK d ₁ d	Short Tee	
	TK d ₁ d d pointing down	Reduced Short Tee	

Reducers

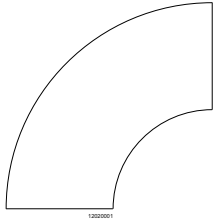
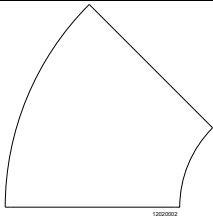
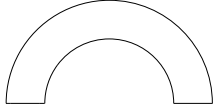
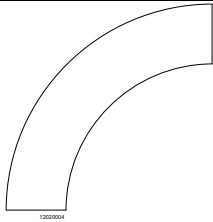
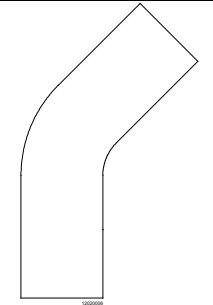
Type name	Design name	Comment	Picture
Reducers	K	Concentric Reducer	
		Eccentric Reducer	

Example of the Alfa Laval name for a short tee according to I 1185 :




T TK 5 HSF 1. 0 I 1185

T	TK	5	HSF	1. 0	I 1185
Type name	Design name	Nominal Size	Surface	Material	Standard

ends

Type name	Design name	Comment	Picture
	S 0	Standard end 0 degrees	
	S 5	Standard end 5 degrees	
	S 180	Standard end 180 degrees	
ends	A5 0	radius and l ₀ are the same in mm	
	L 0	Long end 0	
	L 5	Long end 5	

overview

I	Standard	Surface	aterial Steel parts	aterial ubber parts	art	Seal Type
I 11851		HSF0	1. 0 0 L 1. 0 16L	F TF	Screw onnection W: xpanding only 11851, Liner and ale end are expanded to the tube S: Welding	
asket						
I 1185		H	1. 0 16L	F	1: Screw onnection : Flange onnection : lamp onnection	
I 1186		H	1. 0 16L	F	1: Screw onnection : Flange onnection : lamp onnection	
ing						
I 6 6		HSF0 H	1. 0 0 L 1. 0 16L 1. 0 16L	TF F	lamp onnection	
asket						

I 11851 overview

All connections in I 11851 are screw connections

arts Type ame	arts esign ame	connection ame	omment
ale ewindestutzen Liner Kegelstutzen		W	connection to tube by expanding, 10 100
ale ewindestutzen Liner Kegelstutzen	S	S	
ale ewindestutzen Liner Kegelstutzen	S		connection to tube by welding, 10 150
ale ewindestutzen Liner Kegelstutzen	SK	SK Short	
blind ale blind ewindestutzen			Alfa Laval does currently not offer this real design name is " "
blind Liner blind Kegelstutzen			The real design name is " " but Alfa Laval has chosen to call it " ". The blind is not expanded or welded to the tube, therefore it can be used for all connection versions in I 11851
ut ut berwurfmutter	F		Used for all connection versions in I 11851
asket ichtring			Used for all connection versions in I 11851

A complete connection is ale Liner asket ut. It is possible to blind from Liner side. lease do not mix connection W with connection S.

The " connection ame" equal to W, is from the erman word, Walzen, which in nglish is translated to xpanding.

The " connection ame" equal to S, is from the erman word, Schweissen, which in nglish is translated to Welding.

The " connection ame" equal to SK, is from the erman word, Schweissen, Kurz, which in nglish is translated to Welding, Short.

xamples of I 11851 products:

SK :			SK :		
S	K	ale	S	K	Liner
Welding	Short	ale	Welding	Short	Liner

xample of the Alfa Laval name for a complete onnection, I 11851:

TI S 50 HSF0 1. 0 I 11851

TI	S	50	HSF0	1. 0	I 11851
Type ame	esign ame S Welding	ominal Size	Surface	aterial	Standard Seal Type

xample of the Alfa Laval name for a ale, I 11851:

AL S 50 HSF0 1. 0 I 11851

AL	S	50	HSF0	1. 0	I 11851
Type ame	esign ame	ominal Size	Surface	aterial	Standard

I 1185 overview

We state this product group is for hygienic application, but please be aware it is using the same ring as 1186 which is for aseptic applications, the only difference between the two standards is the "build in length". " build in length" of I 1186 is longer than I 1185 , which makes it easier to perform orbital welding.

I 1185 1

Screw connection Verschraubungen

arts Type name	arts design name	connection name
ale	S	
gewindestutzen		
Liner	S	
undstutzen		
blind ale	S	
blindgewindestutzen		
same item as in 1186 1		
blind Liner	S	
blindbundstutzen		
same item as in 1186 1		
nut	F I 11851	
nut berwurfmutter		
ring		

A complete connection is: ale S Liner S ring nut F.

It is possible to blind from both Liner and ale side, you will have to replace normal ale or Liner. The nut for I 1185 is the same as in I 11851.

I 1185

Flange connection Flanschverbindung

arts Type name	arts design name	connection name
currently not part of offering		
Flange roove	F	
nutflansch		
currently not part of offering		
Flange collar	F	
nutflansch		
blind Flange roove	F	
blindnutflansch		
same item as in 1186		F
blind Flange collar	F	
blindbundflansch		
same item as in 1186		
Screw		
Sechskantshraube, I IS 01		
nut		
Sechskantmutter, I IS 0		
ring		

For F and F please use 1186 F and F

A complete connection F is Flange roove F Flange collar F ring Screw and nut set.

It is possible to blind from both roove and collar side, you will have to replace normal roove or collar.

I 1185 overview

I 1185

lamp connection Klemmverbindung

arts Type ame	arts esign ame	onnection ame
urrently not part of offering		
lamp Liner roove utklemmstutzen	KS	
urrently not part of offering		
lamp Liner ollar undklemmstutzen	KS	
blind lamp Liner roove blindnutklemmstutzen	KS	K
Same Item As In 1186		
blind lamp Liner ollar blindbundklemmstutzen	KS	
Same Item As In 1186		
lamp ing Klammer ing		

For KS and KS please use from 1186 .

A complete connection K is: lamp Liner roove KS lamp Liner ollar KS ing lamp ing.

It is possible to blind from both roove and ollar side, you will have to replace normal roove or ollar.

I 1186

I 1186 1

Same structure as I 1185 1. Only "build in length" is different on male and Liner S and S, both are longer in the I 1186 1 version.

Screw connection Verschraubungen

arts Type ame	arts esign ame	onnection ame
ale		
ewindestutzen	S	
Liner		
undstutzen	S	
blind ale		
blindgewindestutzen	S	
blind Liner		
blindbundstutzen	S	
ut		
ut berwurfmutter	F I 11851	
ing		

A complete connection is: ale S Liner S ing ut F.

It is possible to blind from both Liner and ale side. Both "blind ale" and "blind Liner" are equal to the ones in I 1185 1. The ut for I 1186 is the same as in I 11851.

I 1186

Same structure as I 1185 1. Only "build in length" is different on Flange roove and Flange ollar F and F, both are longer in the I 1186 version.

Flange connection Flanschverbindung

arts Type ame	arts esign ame	onnection ame
Flange roove		
utflansch	F	
Flange ollar		
undflansch	F	
blind Flange roove		
blindnutflansch	F	
blind Flange ollar		
blindbundflansch	F	F
Screw		
Sechskantshcraube, in n Iso 01		
ut		
Sechskantmutter, in n Iso 0		
ing		

It is possible to blind from both roove and ollar side, F and F in I 1185 and I 1186 are identical.

A complete connection F is: Flange roove F Flange ollar F ing Screw and ut set.

I 1186

I 1186

Same structure as I 1185 . Only "build in length" is different on " lamp Liner roove" and lamp Liner ollar KS and KS , both are longer in the I 1186 version.

lamp onnection Klemmverbindung

arts Type ame	arts esign ame	onnection ame
lamp Liner roove utklemmstutzen	KS	
lamp Liner ollar undklemmstutzen	KS	
lind lamp Liner roove lindnutklemmstutzen	KS	K
lind lamp Liner ollar lindbundklemmstutzen	KS	
lamp ing Klammer ing		

A complete connection K is: lamp Liner roove KS lamp Liner ollar KS ing lamp ing.

It is possible to blind from both roove and ollar side, KS and KS in I 1185 and I 1186 are identical.

lamp connection Klemmverbindung

arts Type ame	arts esign ame	onnection ame
Ferrule Short Klemmstutzen Kurz	KK	
Ferrule Long Klemmstutzen Lang	KL	
blind blindklemmstutzen		KK KL
asket Schlingring		
lamp ring Klammer		

A complete connection is: Ferrule x asket lamp ring.

It is possible to blind from both sides by changing one of the Ferrules with a blind.

Length of assembled connections

Approx. length in mm of the assembled connections **aul nge**

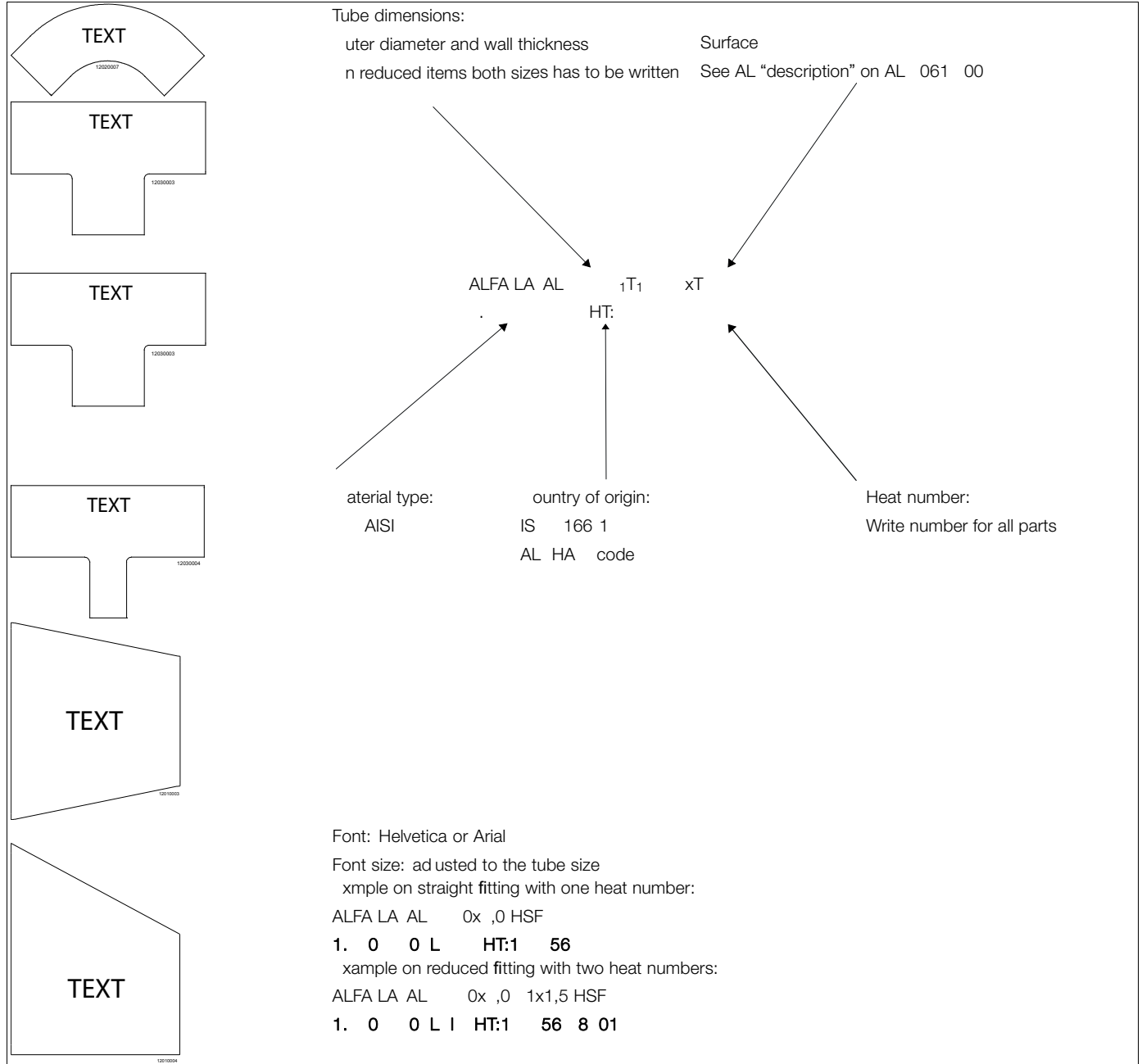
nominal size	I 11851			I 1185		I 1186			I 66	
	W and S	SK	1	8	1	80	6	KK	KL	
10	5									
15					6	80	6	,	58,	
20	5									
25	51	1	8	8	8	88	0	88	,	
30	5		5		8		8			
35	65		6		5	11	108	11		
40	5	5		5	5	11	116	11	,	
45	8	1	86	5	60	10		10	5 ,	
50										
55	0			56			10			
60	6	56							1 ,	

Marking

1.


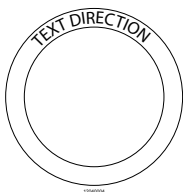

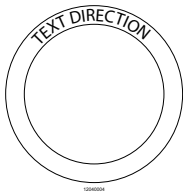

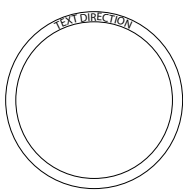

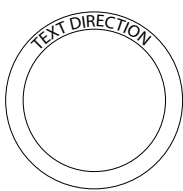

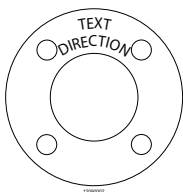
In Alfa Laval we have chosen to mark our product as shown in this chapter. The marking provides all the needed information and is placed logical on the products.

Tubular



Machined

Some of our machined products are very small and marking on the optimal place is impossible therefore we use "Secondary option" instead of "Primary option".

	Primary option	Secondary option	
Nut			<p>End cap union and ferrule blind</p> <p>Dimensions: Outer diameter and wall thickness In nut and blanks the standard size is added. e.g.: for 1 : 1 : 50, For IS :</p> <p>Surface: See "AL description" on AL 06 01</p> <p>ALFA LA AL xT HT:</p> <p>Material type: Country of origin: AISI IS 166 1 AL HA code</p> <p>Heat number: Nut do not have a heat number All other fittings need a heat number</p> <p>Font: Helvetica or Arial Font size: adjusted to the tube size</p> <p>Example on male part, liner, ferrule, and flange ALFA LA AL 0x .0 HSF0 1. 01 0 HT : 1 56</p> <p>Example on nut and blanks ALFA LA AL 0x .0 HSF0 1. 01 0 I HT : 1 56</p> <p>Example on secondary option, on nut, male part, liner and ferrule ALFA LA AL 0x .0 HSF0 1. 01 0 K HT : 1 56</p>
Male part			
Liner			
Ferrule			
Flange			

Surface descriptions

We have chosen to provide a limited choice, most used, of all the surface possibilities. We have given them an Alfa Laval name. The names and descriptions are like in the below table.

Our surface philosophy has been to create a uniform surface finish which meets the standard or better and at the same time fits with the outer surface appearance of the I tubes across all I Fittings. The range “ I Standard, new surface” will provide this benefit and will be visible in plants using Alfa Laval I Fittings only.

The new uniform appearance of all Alfa Laval I Fittings is also the reason for new surface descriptions. This is a unique product and therefore it deserves a unique surface description.

The surface on tubular fittings exceeds the requirement in I 1185 . We are meeting the requirements to surface roughness in H and A. Our customers are therefore buying a product with a better surface roughness than most of the market supplies.

Machined Fittings

AL description	Standard	Surface texture μm μ inch	
		Wetted	not wetted
HSF0	I Hygienic	< 0.8	< 1.6 6
H	I Ultra pure	< 0.8	< 1.0 0

Tubular Fittings

AL description	Standard	Surface structure	Surface texture μm μ inch			
			Wetted		not wetted	
		I	Surface	weld bead	Surface	weld bead
HSF	I Hygienic	polished Shot blasted	<0.8	<0.8	<1.6 6	<1.6 6
HSF 1	I Hygienic	polished polished	< 0.8	< 0.8	< 0.8	< 0.8

¹For sizes larger than 100, the not wetted surface μa can be upto 1.0 μm . Tolerances according to I 1185

Our products are mechanical polished. Mechanical polishing is achieved by using a progressive series of abrasives, from low to high grit. This allows a consistent internal finish and both optimal and economical cleaning.

HSF is our tubular AT version. Inside it is polished to μa <0.8 and outside it is shot blasted to a surface μa <1.6

Test procedure

1.

Our manufacturing facilities operate under an approved ISO 9001 quality standard. Wall thickness integrity is maintained using fabrication grade minimum wall tubing for all cold formed tubular products.

Our fittings are put through visual inspection and ovality and squareness tolerances are inspected with calibrated equipment. Surface finish is inspected with calibrated profilometer to ensure the roughness average maximum is not exceeded.

Certificates

All product wetted stainless steel products are delivered with a .1 certificate in accordance to ISO 9001. You can find the certificates here: <https://heatbase.alfalaval.com/certificates>

Packing

We protect our products by packing them into high quality cardboard boxes. This ensure they keep the high quality during storing and transportation.

Packing sizes as below:

10 - 80 - 10 pcs per cardboard box

100 - 5 pcs per cardboard box

100 - 1 pcs per cardboard box

Rubber**Rubber materials**

In order to obtain the longest possible lifetime for rubber seals it is essential to choose the right quality for the actual duty. Consequently when choosing rubber quality, the characteristics of the different rubber types should be considered. All product wetted rubber material are in conformity of FDA.

Rubber ethylene propylene

EPR rubber is widely used within the food industry as it is resistant to most products used in this sector. Another advantage is that it may be used to a recommend max. temperatures of 100° - 200° F. However, there is one essential limitation, EPR is not resistant to organic and non organic oils and fats. The resistance to ozone is excellent.

Acrylonitrile butadiene rubber,

NBR is the rubber type most frequently used for technical purposes. It is quite resistant to most hydrocarbons, e.g oil, grease and fat. It is sufficiently resistant to diluted lye and nitric acid and may be used to a recommend max. 50° - 200° F. As NBR is attacked by ozone it may not be exposed to ultraviolet rays and should thus consequently be stored so that this is avoided.

Silicone rubber,

The most significant quality of silicone rubber is that it can be applied from temperatures below 50° - 58°F to approx. 180° - 56°F and still keep its elasticity. The chemical resistance is satisfactory to most products. However, undiluted lye and acids as well as hot water and steam may destroy silicone rubber. The resistance to ozone is good.

Fluorine rubber, F

FFKM is often used when other rubber types are unsuited, especially at high temperatures up to approx. 180° - 56°F. The chemical resistance is good to most products, however hot water, steam, lye, acid and alcohol should be avoided. The resistance to ozone is good.

Hydrogenated acrylonitrile butadiene rubber, H

HNBR is mechanically strong and normally resistant to ozone and strong oxidizers, animal and vegetable fats, nonpolar solvents, oils and lubricants, water and aqueous solutions. The recommend max. temperature is 100° - 266°F.

Perfluoroalkoxy polymer, PFA

PFA is very similar to TFE, but opposite to those PFA is thermo plastic and has minimal porosity. PFA has a very high mechanical strength which makes it a perfect choice when dealing with abrasive products. The PFA seal offers longer service intervals. The recommend max. temperature for the PFA seal is 100° - 315° F.

Product and chemical resistance of flexible rubber materials

1.

The information below is intended as an aid in selecting the best rubber quality for an actual application. It is not possible to state any general lifetime of rubber seals as many factors influence it: chemical attack, temperature, mechanical wear etc. Extreme temperatures, even within the generally accepted limits, may worsen other kinds of attack and thus reduce the lifetime.

atings

- 1 Unsuitable.
- Limited suitability.
- Normal suitability.
- High suitability.
- Not recommended for other reasons.

The table contains data which have been compiled from the results of our own tests and the recommendations of our raw material suppliers. The data should be considered as recommendations only and will be brought up to date from time to time. They are based on constant contact with the specified product.

In case of doubt or lack of information it would be advisable to consult us directly, which will enable us to investigate specific applications.

Product or process	NBR ¹⁾	EPDM ²⁾	Q ³⁾	FPM ⁴⁾	PTFE ⁵⁾
Airy products milk, cream					
Airy products sour milk products					
Brewery products beer, hops etc.			1		
Wine and yeast					
Animal and vegetable fats	100°	1			
Water and water solutions	< 0°				
Hot water and steam	< 100°	1			
Concentrated fruit juices and etheral oils	< 100°	1	1	1	
Strong oxidising acids	< 80°	1		1	
Weak oxidising acids	< 80°			1	
Weak concentrate of lye	< 100°				
Strong concentrate of lye	< 100°	1		1	
Ineral oils	< 110°				
Aliphatic carburetted hydrogen hexane		1	1		
Aromatic carburetted hydrogen benzole	1	1	1		
Alcohols	1				
Ester and ketones	1	1	1		
Ether	1	1	1		
Ethylene chloride	1	1			
Ozone and atmospheric conditions	1				

International designation of flexible rubber materials according to ISO 16803.

ISO International standard.

Notes

	Designation of flexible rubber materials	Abbreviation symbol
1	Nitrile rubber	
	Ethylene propylene rubber	
	Silicone rubber	
	Fluorinated rubber	F
5	Polytetrafluorethylene	

lastomers

Seal rings are available in , F and TF

lastomer properties

		F	TF
F A F 1:1 . 600	es	es	es
US lass I certified	o	o	o
ecommended operating temperature. °	10 ⁰ to 1 0 ⁰	10 ⁰ to 180 ⁰	10 ⁰ to 0 ⁰
esistance			
Steam resistance	es	o	es
Alkali resistance	es	o	es
esistance to fats oils	o	es	es
zone resistance	es	es	es

Pressure ratings

10 5 A Tubes

Permissible maximum operating pressures at a temperature of 20°C

Nominal diameters												
10	15	20	25	30	35	40	50	65	80	100	150	
Permissible operating pressures in bar for tubes												
55		60	15	11	11	11	8	8		5		0

The permissible operating pressures have been calculated for welded pipes with the calculation value for material number 1.01 acc. to EN 10088 product shape cold strip taking into consideration calculation voltage of 100 in the welded seam.

Permissible maximum operating pressures at a temperature of 150°C

Nominal diameters												
10	15	20	25	30	35	40	50	65	80	100	150	
Permissible operating pressures in bar for tubes												
1	150	1	8	8	8	6	5	5		6		18

Maximum pressure for the connections bar

The pressures are usable up to maximum 1.0

Size	Standard						
	11851	1185 1	1185	1185	1186 1	1186	1186
10							
15							
20							
25	0	0	5	0	0	5	0
30							
35							
40							
50				5			5
65	5	5	16	16	5	16	16
80							
100							
150	16		10			10	

pressure ratings

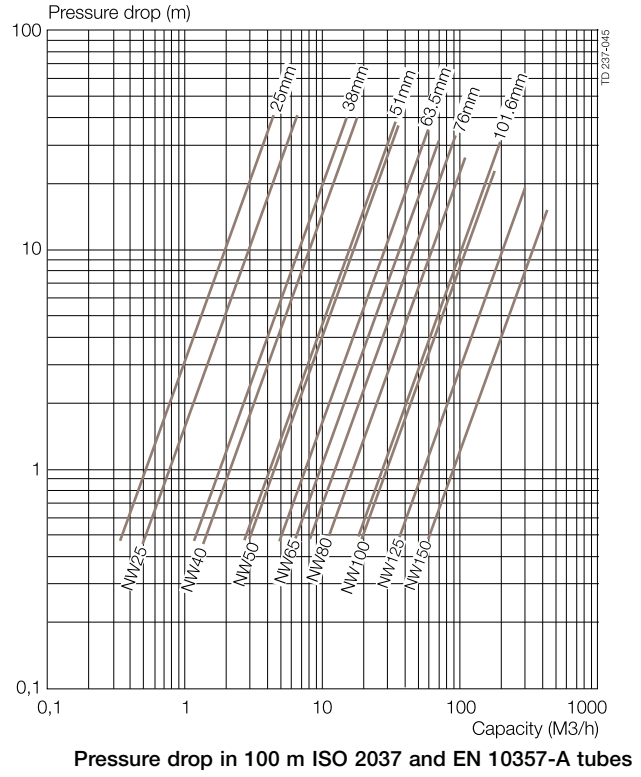
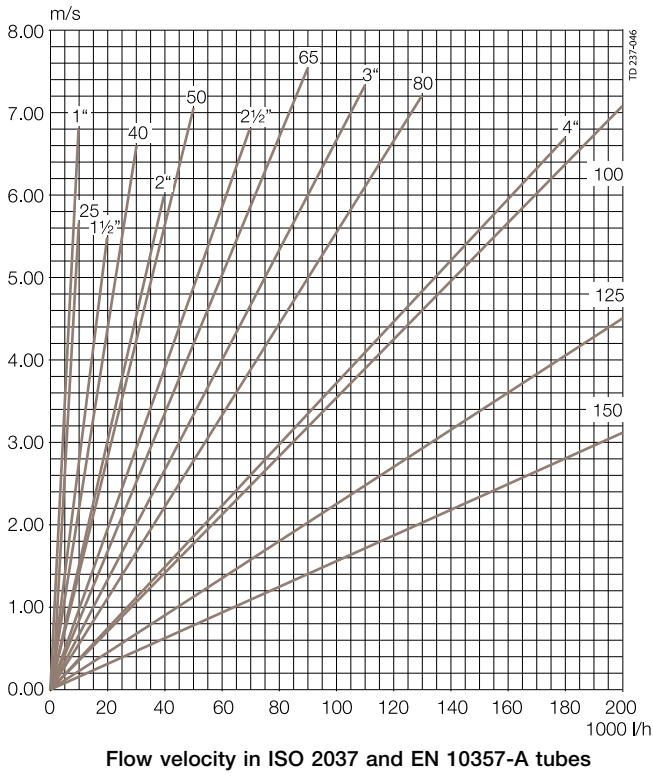
Maximum pressure for the Tubular Fittings bar

The pressures are usable up to maximum 150

Size	I 1185		
	T S	S	U S
10	5	5	5
15			
20			
25			
30			
40	16	16	16
50			
65			
80	10	10	10
100			
150			
200	5		

For reduced Tees and reducers the size refers to the largest diameter.

ressure drop and flow velocity curves



Steelgrades

Most common steelgrades

In the table below, we have shown the chemical composition of the materials.

Name	Material	Chemical composition							
		C	Si	Mn	max.	S	P	Cr	Ni
5 r i18 10	1. 01 0	≤ 0.0 0	≤ 1.00	≤ .00	0.0 5	≤ 0.015	≤ 0.011	1 .5 to 1 .5	8.0 to 10.5
r i18	1. 0 0 L	≤ 0.0 0	≤ 1.00	≤ .00	0.0 5	≤ 0.015	≤ 0.011	1 .5 to 1 .5	8.0 to 10.5
5 r i o1 1	1. 01 16	≤ 0.0 0	≤ 1.00	≤ .00	0.0 5	≤ 0.015	≤ 0.011	16.5 to 18.5	.0 to .5 10.0 to 1 .0
r i o1 1	1. 0 16L	≤ 0.0 0	≤ 1.00	≤ .00	0.0 5	≤ 0.015	≤ 0.011	16.5 to 18.5	.0 to .5 10.0 to 1 .0
r i o18 1	1. 5 16L	≤ 0.0 0	≤ 1.00	≤ .00	0.0 5	≤ 0.015	≤ 0.011	1 .0 to 1 .0	.5 to .0 1 .5 to 15.0

According to 10088 1

The material names 0 , 0 L, 16 and 16L according to AISI SA

We do not offer 1. 5, we have chosen 1. 0 instead. Both materials are designed for highly corrosive environments. Material 1. 5 has due to the higher content of Chromium and Nickel a better corrosion resistance and formability than 1. 0, it also has a significantly higher price. Our many years in the Installation Material business has proven 1. 0 as the best match for our customers processes.

Treatment of stainless steel

We will shortly touch two of the most important areas:

1. Heat treatment
2. Chemical surface treatment

Heat treatment

Processes where you are heating the metal to a certain temperature, which will make the atoms migrate in the in the crystal lattice.

We will focus on the most important.

Annealing

A process where the metal is heated to a temperature around 1050° - 1150° , kept there for a specific time and then cooled at a very slow and controlled rate. The process is used to:

- ° Reduce hardness
- ° Increase ductility
- ° Release mechanical stresses

After annealing the metal is more workable.

Chemical surface treatment

To understand why we do surface treatments, it is important to understand the role of the passive layer

The passive layer is a thin invisible oxide film - most important are the chromium and iron oxides , which protects the steel from its surroundings, and therefore from corrosion. If the layer is locally broken, for example by a scratch, it will, under normal conditions - clean surface and enough oxygen , naturally self passivate, and thereby restore the ability to avoid corrosion. Stainless steel's ability to have this in-built self-repairing corrosion protection system, is what we benefit from.

In some cases, typically after reworking the steel, we need to help the steel to restore the oxide film, here the surface treatment is important. The good thing is, stainless steel treated in the right way and not exposed above its "chemical strength", will last very long. On the other side, if the "rules" working with stainless steel are not followed or the stainless steel is placed in an environment above its "chemical strength", the oxide layer will "break" and corrosion will start, once the corrosion has started it will proceed very fast.

The two most common mentioned chemical surface treatments are "pickling" and "passivation"

Pickling

A process where the metal is put into an acid bath - typically 15% nitric acid and 5% Hydrofluoric acid . Time and temperature of the bath is depending by the case. Pickling is used to remove weld heat tinted layers from the surface. A thin layer of metal is removed by the process and cleaning the steel, after the process the steel has totally lost its oxide film, but after flushing with water it will automatically be reestablished. It will take up to 24 hours before the layer is as robust as before the welding process.

Passivation

When the surface is clean the passivation - reestablishing the oxide film , is happening automatically, but as discussed above it will take some time before the layer has the natural strength. This can be forced to happen very fast by a chemical passivation. The passivation bath is one type of acid - normally 20% nitric acid . No metal is removed from the surface and the surface roughness is not changed, only the passive layer is strengthened.

Tubes of manufacturing lengths of approx 6 meters
 product code: 5108

aterial Item o.	L U	aterial Item o.	L U	Size mm	imension mm l x t	H 0.8 .08
801000 88		801000 0		10	16.00 1 .00 x 1.50	
61181 0		61181 5		15	1 .00 16.00 x 1.50	
61181		61181 5		0	.00 0.00 x 1.50	
61181 1		61181 5 6		5	.00 6.00 x 1.50	
61181		61181 5 8			5.00 .00 x 1.50	
61181		61181 5		0	1.00 8.00 x 1.50	
61181 5		61181 55		50	5 .00 50.00 x 1.50	
61181 1 0		61181 65		65	0.00 66.00 x .00	
61181 1 5		61181 5		80	85.00 81.00 x .00	
61181 18		61181 88		100	10 .00 100.00 x .00	
						H 0.8 .08
801000 8		801000 1		10	16.00 1 .00 x 1.50	
61181 8		61181 6		15	1 .00 16.00 x 1.50	
61181 800		61181 6 8		0	.00 0.00 x 1.50	
61181 80		61181 6		5	.00 6.00 x 1.50	
61181 80		61181 650			5.00 .00 x 1.50	
61181 806		61181 651		0	1.00 8.00 x 1.50	
61181 808		61181 65		50	5 .00 50.00 x 1.50	
61181 1 1		61181 6		65	0.00 66.00 x .00	
61181 1 6		61181 656		80	85.00 81.00 x .00	
61181 186		61181 65		100	10 .00 100.00 x .00	

L prices per meter are updated monthly
 please contact your Alfa Laval contact person for further information.

1.

Tubes of manufacturing lengths of approx 6 meters
 product code: 5108

aterial Item o.	L U	aterial Item o.	L U	Size mm	imension mm l x t	finish
1. 01 0		1. 0 16L		mm	l x t	finish
61181 68		61181 5 8		15	1 .00 16.00 x 1.50	
		61181 5		0	.00 0.00 x 1.50	
61181 51		61181 6		5	.00 6.00 x 1.50	
61181 5 0		61181 6 8			5.00 .00 x 1.50	
61181 5 1		61181 6		0	1.00 8.00 x 1.50	
61181 5		61181 6 0		50	5 .00 50.00 x 1.50	
61181 68		61181 6 1		65	0.00 66.00 x .00	
61181 6 0		61181 6		80	85.00 81.00 x .00	
61181 6 1		61181 6		100	10 .00 100.00 x .00	
61181 6		61181 6		1 5	1 .00 1 5.00 x .00	
61181 6		61181 5		150	15 .00 150.00 x .00	
						finish
61181 660		61181 1		15	1 .00 16.00 x 1.50	
61181 661		61181 1		0	.00 0.00 x 1.50	
61181 6		61181 5		5	.00 6.00 x 1.50	
61181 6 5		61181 6			5.00 .00 x 1.50	
61181 6 6		61181		0	1.00 8.00 x 1.50	
61181 6		61181 8		50	5 .00 50.00 x 1.50	
61181 5		61181 50		65	0.00 66.00 x .00	
61181 6		61181 51		80	85.00 81.00 x .00	
61181		61181 5		100	10 .00 100.00 x .00	
61181 8		61181 6		1 5	1 .00 1 5.00 x .00	
61181		61181		150	15 .00 150.00 x .00	

L prices per meter are updated monthly

please contact your Alfa Laval contact person for further information.

product code: 500

Material Item no.	L U	Material Item no.	L U	Size	Dimension mm			5 S, HSF | 0.8 0.8 | 1185
1. 0 0		1. 0 16L		mm	l xt	L		
615 1		615		10	1 .00 10.00 x 1.50	18.8	6.00	
615		615		15	1 .00 16.00 x 1.50	.5	5.00	
615		615 5		0	.00 0.00 x 1.50	8.8	0.00	
61 15 6		61 15 611		5	.00 6.00 x 1.50	5.6	50.00	
61 15 6		61 15 61			5.00 .00 x 1.50	8.8	55.00	
61 15 6		61 15 61		0	1.00 8.00 x 1.50	.	60.00	
61 15 6 5		61 15 61		50	5 .00 50.00 x 1.50	.5	0.00	
611 861		611 86		65	0.00 66.00 x .00	56.5	80.00	
611 8 1		611 8		80	85.00 81.00 x .00	6.6	0.00	
611 881		611 88		100	10 .00 100.00 x .00	0.1	100.00	
611 8 1		611 8		1 5	1 .00 1 5.00 x .00	1 .58	18 .50	
611 01		611 0		150	15 .00 150.00 x .00	15 .1	5.00	
615 5		615 60		00	0 .00 00.00 x .00	1 .1	00.00	

Material Item no.	L U	Material Item no.	L U	Size	Dimension mm			5 S, HSF | 0.8 1.6 | 1185
1. 0 0		1. 0 16L		mm	l xt	L		
615 0		615 1		10	1 .00 10.00 x 1.50	18.8	6.00	
615 08		615 0		15	1 .00 16.00 x 1.50	.5	5.00	
615 0		615 1		0	.00 0.00 x 1.50	8.8	0.00	
615 10		615		5	.00 6.00 x 1.50	5.6	50.00	
615 11		615			5.00 .00 x 1.50	8.8	55.00	
615 1		615		0	1.00 8.00 x 1.50	.	60.00	
615 1		615 5		50	5 .00 50.00 x 1.50	.5	0.00	
615 1		615 6		65	0.00 66.00 x .00	56.5	80.00	
615 15		615		80	85.00 81.00 x .00	6.6	0.00	
615 16		615 8		100	10 .00 100.00 x .00	0.1	100.00	
615 1		615		1 5	1 .00 1 5.00 x .00	1 .58	18 .50	
615 18		615 0		150	15 .00 150.00 x .00	15 .1	5.00	
615 5		615 58		00	0 .00 00.00 x .00	1 .1	00.00	

product code: 500

1.

Material Item no.	L U	Material Item no.	L U	Size	Dimension mm					
0 S HSF | 0.8 0.8 | 1185										
61 150558		61 150508		10	1 .00 10.00 x 1.50	6.00	6.00			
61 15055		61 15050		15	1 .00 16.00 x 1.50	5.00	5.00			
61 150560		61 150510		0	.00 0.00 x 1.50	0.00	0.00			
61 150561		61 150511		5	.00 6.00 x 1.50	50.00	50.00			
61 15056		61 15051			5.00 .00 x 1.50	55.00	55.00			
61 15056		61 15051		0	1.00 8.00 x 1.50	60.00	60.00			
61 15056		61 15051		50	5 .00 50.00 x 1.50	0.00	0.00			
611 01066		611 0 1 1		65	0.00 66.00 x .00	80.00	80.00			
611 0106		611 0 181		80	85.00 81.00 x .00	0.00	0.00			
611 01068		611 0 1 1		100	10 .00 100.00 x .00	100.00	100.00			
611 0 00		611 0 01		1 5	1 .00 1 5.00 x .00	18 .50	18 .50			
611 0 10		611 0 11		150	15 .00 150.00 x .00	5.00	5.00			
615 0		615 0		00	0 .00 00.00 x .00	00.00	00.00			
0 S HSF | 0.8 1.6 | 1185										
1. 0 0 L		1. 0 16L		mm	l x t	L		L		
615 0 05		615 0 1		10	1 .00 10.00 x 1.50	6.00	6.00			
615 0 06		615 0 18		15	1 .00 16.00 x 1.50	5.00	5.00			
615 0 0		615 0 1		0	.00 0.00 x 1.50	0.00	0.00			
615 0 08		615 0 0		5	.00 6.00 x 1.50	50.00	50.00			
615 0 0		615 0 1			5.00 .00 x 1.50	55.00	55.00			
615 0 10		615 0		0	1.00 8.00 x 1.50	60.00	60.00			
615 0 11		615 0		50	5 .00 50.00 x 1.50	0.00	0.00			
615 0 1		615 0		65	0.00 66.00 x .00	80.00	80.00			
615 0 1		615 0 5		80	85.00 81.00 x .00	0.00	0.00			
615 0 1		615 0 6		100	10 .00 100.00 x .00	100.00	100.00			
615 0 15		615 0		1 5	1 .00 1 5.00 x .00	18 .50	18 .50			
615 0 16		615 0 8		150	15 .00 150.00 x .00	5.00	5.00			
615 0 1		615 0		00	0 .00 00.00 x .00	00.00	00.00			

product code: 500

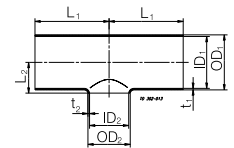
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Material Item no.	L U	Material Item no.	L U	Size	Dimension mm					
1. 0 0 L		1. 0 16L		mm	l x t	L		L	0 L HSF 0.8 0.8 1185	
615 01		615 0161		10	1 .00 10.00 x 1.50	51.00	6.00	5.00		
615 0150		615 016		15	1 .00 16.00 x 1.50	60.00	5.00	5.00		
615 0151		615 016		0	.00 0.00 x 1.50	65.00	0.00	5.00		
615 015		615 016		5	.00 6.00 x 1.50	0.00	50.00	0.00		
615 015		615 0165			5.00 .00 x 1.50	5.00	55.00	0.00		
615 015		615 0166		0	1.00 8.00 x 1.50	100.00	60.00	0.00		
615 0155		615 016		50	5 .00 50.00 x 1.50	110.00	0.00	0.00		
615 0156		615 0168		65	0.00 66.00 x .00	1 0.00	80.00	0.00		
615 015		615 016		80	85.00 81.00 x .00	1 5.00	0.00	55.00		
615 0158		615 01 0		100	10 .00 100.00 x .00	155.00	100.00	55.00		
615 015		615 01 1		1 5	1 .00 1 5.00 x .00	5.00	18 .50	5 .50		
615 0160		615 01		150	15 .00 150.00 x .00	85.00	5.00	60.00		
615 01		615 01 8		00	0 .00 00.00 x .00	0.00	00.00	0.00		
1. 0 0 L		1. 0 16L		mm	l x t	L		L		0 L HSF | 0.8 1.6 | 1185
615 01 5		615 01		10	1 .00 10.00 x 1.50	51.00	6.00	5.00		
615 01 6		615 01 8		15	1 .00 16.00 x 1.50	60.00	5.00	5.00		
615 01		615 01		0	.00 0.00 x 1.50	65.00	0.00	5.00		
615 01 8		615 01 0		5	.00 6.00 x 1.50	0.00	50.00	0.00		
615 01		615 01 1			5.00 .00 x 1.50	5.00	55.00	0.00		
615 01 0		615 01		0	1.00 8.00 x 1.50	100.00	60.00	0.00		
615 01 1		615 01		50	5 .00 50.00 x 1.50	110.00	0.00	0.00		
615 01		615 01		65	0.00 66.00 x .00	1 0.00	80.00	0.00		
615 01		615 01 5		80	85.00 81.00 x .00	1 5.00	0.00	55.00		
615 01		615 01 6		100	10 .00 100.00 x .00	155.00	100.00	55.00		
615 01 5		615 01		1 5	1 .00 1 5.00 x .00	5.00	18 .50	5 .50		
615 01 6		615 01 8		150	15 .00 150.00 x .00	85.00	5.00	60.00		
615 01 5		615 01 6		00	0 .00 00.00 x .00	0.00	00.00	0.00		

product code: 50 6

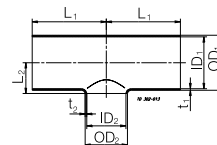
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Material Item no.	L U	Material Item no.	L U	Size mm	Dimension mm				T TK			
					l_1	$l_1 \times t_1$	$l \times t$	L_1	L	HSF	0.8	0.8
615 01		615 1		5	5.00	.00 x 1.50	.00 6.00 x 1.50	55.00	1 .00			
615 0		615 0		0 5	1.00	8.00 x 1.50	.00 6.00 x 1.50	60.00	.00			
615 0		615 0		0	1.00	8.00 x 1.50	5.00 .00 x 1.50	60.00	.50			
615 0		615 0		50 5	5 .00	50.00 x 1.50	.00 6.00 x 1.50	0.00	8.00			
615 05		615 5		50	5 .00	50.00 x 1.50	5.00 .00 x 1.50	0.00	8.50			
615 06		615 6		50 0	5 .00	50.00 x 1.50	1.00 8.00 x 1.50	0.00	.00			
615 0		615 6		65 5	0.00	66.00 x .00	.00 6.00 x 1.50	80.00	.00			
615 08		615 8		65	0.00	66.00 x .00	5.00 .00 x 1.50	80.00	.00			
615 0		615 8		65 0	0.00	66.00 x .00	1.00 8.00 x 1.50	80.00	.50			
615 10		615 0		65 50	0.00	66.00 x .00	5 .00 50.00 x 1.50	80.00	8.50			
615 11		615 1		80 5	85.00	81.00 x .00	.00 6.00 x 1.50	0.00	5.00			
615 1		615 1		80	85.00	81.00 x .00	5.00 .00 x 1.50	0.00	5.00			
615 1		615 1		80 0	85.00	81.00 x .00	1.00 8.00 x 1.50	0.00	5.00			
615 1		615 1		80 50	85.00	81.00 x .00	5 .00 50.00 x 1.50	0.00	6.00			
615 15		615 5		80 65	85.00	81.00 x .00	0.00 66.00 x .00	0.00	.50			
615 61		615 6		100 5	10 .00	100.00 x .00	.00 6.00 x 1.50	100.00	55.50			
615 16		615 6		100	10 .00	100.00 x .00	5.00 .00 x 1.50	100.00	55.50			
615 1		615 6		100 0	10 .00	100.00 x .00	1.00 8.00 x 1.50	100.00	55.50			
615 18		615 8		100 50	10 .00	100.00 x .00	5 .00 50.00 x 1.50	100.00	55.50			
615 1		615 8		100 65	10 .00	100.00 x .00	0.00 66.00 x .00	100.00	5 .00			
615 0		615 50		100 80	10 .00	100.00 x .00	85.00 81.00 x .00	100.00	5 .00			
615 1		615 51		1 5 0	1 .00	1 5.00 x .00	1.00 8.00 x 1.50	18 .50	6 .50			
615 1		615 5		1 5 50	1 .00	1 5.00 x .00	5 .00 50.00 x 1.50	18 .50	6 .50			
615 1		615 5		1 5 65	1 .00	1 5.00 x .00	0.00 66.00 x .00	18 .50	6 .50			
615 1		615 5		1 5 80	1 .00	1 5.00 x .00	85.00 81.00 x .00	18 .50	6 .50			
615 5		615 55		1 5 100	1 .00	1 5.00 x .00	10 .00 100.00 x .00	18 .50	0.50			
615 6		615 56		150 50	15 .00	150.00 x .00	5 .00 50.00 x 1.50	5.00	8 .00			
615 6		615 5		150 65	15 .00	150.00 x .00	0.00 66.00 x .00	5.00	8 .00			
615 8		615 58		150 80	15 .00	150.00 x .00	85.00 81.00 x .00	5.00	8 .00			
615 8		615 5		150 100	15 .00	150.00 x .00	10 .00 100.00 x .00	5.00	8 .00			
615 0		615 60		150 1 5	15 .00	150.00 x .00	1 .00 1 5.00 x .00	5.00	86.50			
615 6		615 68		00 65	0 .00	00.00 x .00	0.00 66.00 x .00	00.00	108.00			
615 6		615 6		00 80	0 .00	00.00 x .00	85.00 81.00 x .00	00.00	108.00			
615 6		615 0		00 100	0 .00	00.00 x .00	10 .00 100.00 x .00	00.00	108.00			
615 65		615 1		00 1 5	0 .00	00.00 x .00	1 .00 1 5.00 x .00	00.00	111.50			
615 66		615 1		00 150	0 .00	00.00 x .00	15 .00 150.00 x .00	00.00	115.00			



product code: 50 6

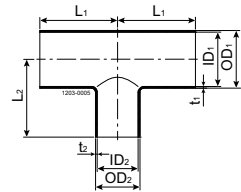
Material Item no.	L U	Material Item no.	L U	Size mm	Dimension mm				T HSF	TK 0.8 1.6
					t_1	$l_1 \times t_1$	$l \times t$	L_1			L
615 01		615 1		5	5.00	5.00 x 1.50	5.00	6.00 x 1.50	55.00	1.00
615 0		615 0		0 5	1.00	8.00 x 1.50	5.00	6.00 x 1.50	60.00	.00
615 0		615 0		0	1.00	8.00 x 1.50	5.00	6.00 x 1.50	60.00	.50
615 0		615 0		50 5	5.00	50.00 x 1.50	5.00	6.00 x 1.50	0.00	8.00
615 05		615 5		50	5.00	50.00 x 1.50	5.00	6.00 x 1.50	0.00	8.50
615 06		615 6		50 0	5.00	50.00 x 1.50	1.00	8.00 x 1.50	0.00	.00
615 0		615 0		65 5	0.00	66.00 x .00	5.00	6.00 x 1.50	80.00	.00
615 08		615 8		65	0.00	66.00 x .00	5.00	6.00 x 1.50	80.00	.00
615 0		615 0		65 0	0.00	66.00 x .00	1.00	8.00 x 1.50	80.00	.50
615 10		615 0		65 50	0.00	66.00 x .00	5.00	50.00 x 1.50	80.00	8.50
615 11		615 1		80 5	85.00	81.00 x .00	5.00	6.00 x 1.50	0.00	5.00
615 1		615 0		80	85.00	81.00 x .00	5.00	6.00 x 1.50	0.00	5.00
615 1		615 0		80 0	85.00	81.00 x .00	1.00	8.00 x 1.50	0.00	5.00
615 1		615 0		80 50	85.00	81.00 x .00	5.00	50.00 x 1.50	0.00	6.00
615 15		615 5		80 65	85.00	81.00 x .00	0.00	66.00 x .00	0.00	.50
615 61		615 6		100 5	10.00	100.00 x .00	5.00	6.00 x 1.50	100.00	55.50
615 16		615 6		100	10.00	100.00 x .00	5.00	6.00 x 1.50	100.00	55.50
615 1		615 0		100 0	10.00	100.00 x .00	1.00	8.00 x 1.50	100.00	55.50
615 18		615 8		100 50	10.00	100.00 x .00	5.00	50.00 x 1.50	100.00	55.50
615 1		615 0		100 65	10.00	100.00 x .00	0.00	66.00 x .00	100.00	5.00
615 0		615 50		100 80	10.00	100.00 x .00	85.00	81.00 x .00	100.00	5.00
615 1		615 51		1 5 0	1.00	1.50 x .00	1.00	8.00 x 1.50	18.50	6.50
615 0		615 5		1 5 50	1.00	1.50 x .00	5.00	50.00 x 1.50	18.50	6.50
615 0		615 5		1 5 65	1.00	1.50 x .00	0.00	66.00 x .00	18.50	6.50
615 0		615 5		1 5 80	1.00	1.50 x .00	85.00	81.00 x .00	18.50	6.50
615 5		615 55		1 5 100	1.00	1.50 x .00	10.00	100.00 x .00	18.50	0.50
615 6		615 56		150 50	15.00	150.00 x .00	5.00	50.00 x 1.50	5.00	8.00
615 0		615 5		150 65	15.00	150.00 x .00	0.00	66.00 x .00	5.00	8.00
615 8		615 58		150 80	15.00	150.00 x .00	85.00	81.00 x .00	5.00	8.00
615 0		615 5		150 100	15.00	150.00 x .00	10.00	100.00 x .00	5.00	8.00
615 0		615 60		150 1 5	15.00	150.00 x .00	1.00	1.50 x .00	5.00	86.50
615 6		615 68		00 65	0.00	00.00 x .00	0.00	66.00 x .00	00.00	108.00
615 6		615 6		00 80	0.00	00.00 x .00	85.00	81.00 x .00	00.00	108.00
615 6		615 0		00 100	0.00	00.00 x .00	10.00	100.00 x .00	00.00	108.00
615 65		615 1		00 1 5	0.00	00.00 x .00	1.00	1.50 x .00	00.00	111.50
615 66		615 0		00 150	0.00	00.00 x .00	15.00	150.00 x .00	00.00	115.00



product code: 50 6

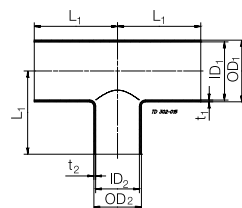
1.

aterial Item o.		L U	aterial Item o.		L U	Size	imension mm				T TS	
1. 0 0 L			1. 0 16L			mm	l ₁ x t ₁	l x t	L ₁	L	HSF	0.8 0.8 | 1185
615	101		615	1 1		5	5.00 .00 x 1.50	.00 6.00 x 1.50	55.00	5 .00		
615	10		615	1		0 5	1.00 8.00 x 1.50	.00 6.00 x 1.50	60.00	5 .00		
615	10		615	1		0	1.00 8.00 x 1.50	5.00 .00 x 1.50	60.00	58.00		
615	10		615	1		50 5	5 .00 50.00 x 1.50	.00 6.00 x 1.50	0.00	6 .00		
615	105		615	1 5		50	5 .00 50.00 x 1.50	5.00 .00 x 1.50	0.00	6 .00		
615	106		615	1 6		50 0	5 .00 50.00 x 1.50	1.00 8.00 x 1.50	0.00	66.00		
615	10		615	1		65 5	0.00 66.00 x .00	.00 6.00 x 1.50	80.00	0.50		
615	108		615	1 8		65	0.00 66.00 x .00	5.00 .00 x 1.50	80.00	.50		
615	10		615	1		65 0	0.00 66.00 x .00	1.00 8.00 x 1.50	80.00	.50		
615	110		615	1 0		65 50	0.00 66.00 x .00	5 .00 50.00 x 1.50	80.00	8.50		
615	111		615	1 1		80 5	85.00 81.00 x .00	.00 6.00 x 1.50	0.00	8.00		
615	11		615	1		80	85.00 81.00 x .00	5.00 .00 x 1.50	0.00	80.00		
615	11		615	1		80 0	85.00 81.00 x .00	1.00 8.00 x 1.50	0.00	8 .00		
615	11		615	1		80 50	85.00 81.00 x .00	5 .00 50.00 x 1.50	0.00	86.00		
615	115		615	1 5		80 65	85.00 81.00 x .00	0.00 66.00 x .00	0.00	8 .50		
615	161		615	16		100 5	10 .00 100.00 x .00	.00 6.00 x 1.50	100.00	.50		
615	116		615	1 6		100	10 .00 100.00 x .00	5.00 .00 x 1.50	100.00	.50		
615	11		615	1		100 0	10 .00 100.00 x .00	1.00 8.00 x 1.50	100.00	.00		
615	118		615	1 8		100 50	10 .00 100.00 x .00	5 .00 50.00 x 1.50	100.00	5.50		
615	11		615	1		100 65	10 .00 100.00 x .00	0.00 66.00 x .00	100.00	.00		
615	1 0		615	150		100 80	10 .00 100.00 x .00	85.00 81.00 x .00	100.00	.50		
615	1 1		615	151		1 5 0	1 .00 1 5.00 x .00	1.00 8.00 x 1.50	18 .50	10 .50		
615	1		615	15		1 5 50	1 .00 1 5.00 x .00	5 .00 50.00 x 1.50	18 .50	10 .00		
615	1		615	15		1 5 65	1 .00 1 5.00 x .00	0.00 66.00 x .00	18 .50	10 .50		
615	1		615	15		1 5 80	1 .00 1 5.00 x .00	85.00 81.00 x .00	18 .50	11 .00		
615	1 5		615	155		1 5 100	1 .00 1 5.00 x .00	10 .00 100.00 x .00	18 .50	11 .50		
615	1 6		615	156		150 50	15 .00 150.00 x .00	5 .00 50.00 x 1.50	5.00	1 .50		
615	1		615	15		150 65	15 .00 150.00 x .00	0.00 66.00 x .00	5.00	1 .00		
615	1 8		615	158		150 80	15 .00 150.00 x .00	85.00 81.00 x .00	5.00	1 .50		
615	1		615	15		150 100	15 .00 150.00 x .00	10 .00 100.00 x .00	5.00	1 5.00		
615	1 0		615	160		150 1 5	15 .00 150.00 x .00	1 .00 1 5.00 x .00	5.00	00.00		
615	16		615	168		00 65	0 .00 00.00 x .00	0.00 66.00 x .00	00.00	115.00		
615	16		615	16		00 80	0 .00 00.00 x .00	85.00 81.00 x .00	00.00	1 0.00		
615	16		615	1 0		00 100	0 .00 00.00 x .00	10 .00 100.00 x .00	00.00	150.00		
615	165		615	1 1		00 1 5	0 .00 00.00 x .00	1 .00 1 5.00 x .00	00.00	5.00		
615	166		615	1		00 150	0 .00 00.00 x .00	15 .00 150.00 x .00	00.00	50.00		



product code: 50 6

Material Item no.	L U	Material Item no.	L U	Size mm	Dimension mm				T TS		
					$d_1 \times t_1$	$d \times t$	L_1	L	HSF	0.8	1.6
615 01		615 1		5	5.00 1.00 x 1.50	6.00 1.50	55.00	5.00			
615 0		615 0		5	1.00 8.00 x 1.50	6.00 1.50	60.00	5.00			
615 0		615 0		0	1.00 8.00 x 1.50	6.00 1.50	60.00	58.00			
615 0		615 5		50	5.00 50.00 x 1.50	6.00 1.50	0.00	6.00			
615 05		615 5		50	5.00 50.00 x 1.50	6.00 1.50	0.00	6.00			
615 06		615 6		50	5.00 50.00 x 1.50	8.00 1.50	0.00	66.00			
615 0		615 8		65	0.00 66.00 x .00	6.00 1.50	80.00	0.50			
615 08		615 8		65	0.00 66.00 x .00	6.00 1.50	80.00	.50			
615 0		615 0		65	0.00 66.00 x .00	8.00 1.50	80.00	.50			
615 10		615 0		65	0.00 66.00 x .00	5.00 50.00 x 1.50	80.00	8.50			
615 11		615 1		80	85.00 81.00 x .00	6.00 1.50	0.00	8.00			
615 1		615 1		80	85.00 81.00 x .00	6.00 1.50	0.00	80.00			
615 1		615 0		80	85.00 81.00 x .00	8.00 1.50	0.00	8.00			
615 1		615 0		80	85.00 81.00 x .00	5.00 50.00 x 1.50	0.00	86.00			
615 15		615 5		80	85.00 81.00 x .00	6.00 1.50	0.00	8.50			
615 61		615 6		100	10.00 100.00 x .00	6.00 1.50	100.00	.50			
615 16		615 6		100	10.00 100.00 x .00	6.00 1.50	100.00	.50			
615 1		615 0		100	10.00 100.00 x .00	8.00 1.50	100.00	.00			
615 18		615 8		100	10.00 100.00 x .00	5.00 50.00 x 1.50	100.00	5.50			
615 1		615 50		100	10.00 100.00 x .00	6.00 1.50	100.00	.00			
615 0		615 50		100	10.00 100.00 x .00	85.00 81.00 x .00	100.00	.50			
615 1		615 51		15	1.00 1.50 x .00	8.00 1.50	18.50	10.50			
615 1		615 5		15	1.00 1.50 x .00	5.00 50.00 x 1.50	18.50	10.00			
615 1		615 5		15	1.00 1.50 x .00	6.00 1.50	18.50	10.50			
615 1		615 5		15	1.00 1.50 x .00	85.00 81.00 x .00	18.50	11.00			
615 5		615 55		15	1.00 1.50 x .00	10.00 100.00 x .00	18.50	11.50			
615 6		615 56		15	15.00 150.00 x .00	5.00 50.00 x 1.50	5.00	1.50			
615 6		615 5		15	15.00 150.00 x .00	6.00 1.50	5.00	1.00			
615 8		615 58		15	15.00 150.00 x .00	85.00 81.00 x .00	5.00	1.50			
615 0		615 5		15	15.00 150.00 x .00	10.00 100.00 x .00	5.00	1.50			
615 0		615 60		15	15.00 150.00 x .00	1.00 1.50 x .00	5.00	00.00			
615 6		615 68		00	0.00 00.00 x .00	6.00 1.50	00.00	115.00			
615 6		615 6		00	0.00 00.00 x .00	85.00 81.00 x .00	00.00	1.00			
615 6		615 0		00	0.00 00.00 x .00	10.00 100.00 x .00	00.00	150.00			
615 65		615 1		00	0.00 00.00 x .00	1.00 1.50 x .00	00.00	5.00			
615 66		615 1		00	0.00 00.00 x .00	15.00 150.00 x .00	00.00	50.00			



Product code: 50 6

1.

Material Item no.	L U	Material Item no.	L U	Size	Dimension mm			T TS
1. 0 0 L		1. 0 16L		mm	l x t	L	HSF | 0.8 0.8 | 1185	
61 15558		61 15558		10	1 .00 10.00 x 1.50	6.00		
61 15555		61 15550		15	1 .00 16.00 x 1.50	5.00		
61 15560		61 15510		0	.00 0.00 x 1.50	0.00		
61 15561		61 15511		5	.00 6.00 x 1.50	50.00		
61 15556		61 15551			5.00 .00 x 1.50	55.00		
61 15556		61 15551		0	1.00 8.00 x 1.50	60.00		
61 15556		61 15551		50	5 .00 50.00 x 1.50	0.00		
611 0 0		611 0 1		65	0.00 66.00 x .00	80.00		
611 0 00		611 0 01		80	85.00 81.00 x .00	0.00		
611 0 10		611 0 11		100	10 .00 100.00 x .00	100.00		
611 0 0		611 0 1		1 5	1 .00 1 5.00 x .00	18 .50		
611 0 0		611 0 1		150	15 .00 150.00 x .00	5.00		
615		615 0		00	0 .00 00.00 x .00	00.00		

Material Item no.	L U	Material Item no.	L U	Size	Dimension mm			T TS
1. 0 0 L		1. 0 16L		mm	l x t	L	HSF | 0.8 1.6 | 1185	
615 01		615 1		10	1 .00 10.00 x 1.50	6.00		
615 0		615 1		15	1 .00 16.00 x 1.50	5.00		
615 0		615 15		0	.00 0.00 x 1.50	0.00		
615 0		615 16		5	.00 6.00 x 1.50	50.00		
615 05		615 1			5.00 .00 x 1.50	55.00		
615 06		615 18		0	1.00 8.00 x 1.50	60.00		
615 0		615 1		50	5 .00 50.00 x 1.50	0.00		
615 08		615 0		65	0.00 66.00 x .00	80.00		
615 0		615 1		80	85.00 81.00 x .00	0.00		
615 10		615		100	10 .00 100.00 x .00	100.00		
615 11		615		1 5	1 .00 1 5.00 x .00	18 .50		
615 1		615		150	15 .00 150.00 x .00	5.00		
615		615 8		00	0 .00 00.00 x .00	00.00		

Product code: 50 6

1.

Material Item no.	L U	Material Item no.	L U	Size	Dimension mm			T TK
1. 0 0 L		1. 0 16L		mm	I x t	L ₁	L	HSF | 0.8 0.8 | 1185
61 8 01		61 8 11		15	1 .00 16.00 x 1.50	5.00	11.00	
61 8 0		61 8 1		0	.00 0.00 x 1.50	0.00	1 .00	
61 8 0		61 8 1		5	.00 6.00 x 1.50	50.00	16.00	
61 8 0		61 8 1			5.00 .00 x 1.50	55.00	1 .50	
61 8 05		61 8 15		0	1.00 8.00 x 1.50	60.00	.00	
61 8 06		61 8 16		50	5 .00 50.00 x 1.50	0.00	0.00	
611 0 580		611 0 58		65	0.00 66.00 x .00	80.00	0.00	
611 0 600		611 0 60		80	85.00 81.00 x .00	0.00	.50	
611 0 6 0		611 0 6		100	10 .00 100.00 x .00	100.00	58.00	
611 0 6 0		611 0 6		1 5	1 .00 1 5.00 x .00	18 .50	.00	
61 15005		61 1500 0		150	15 .00 150.00 x .00	5.00	0.00	
615 5		615 5		00	0 .00 00.00 x .00	00.00	115.00	

on request

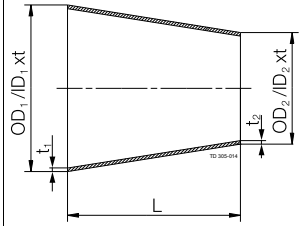
Material Item no.	L U	Material Item no.	L U	Size	Dimension mm			T TK
1. 0 0 L		1. 0 16L		mm	I x t	L ₁	L	HSF | 0.8 1.6 | 1185
615 50		615 516		15	1 .00 16.00 x 1.50	5.00	11.00	
615 505		615 51		0	.00 0.00 x 1.50	0.00	1 .00	
615 506		615 518		5	.00 6.00 x 1.50	50.00	16.00	
615 50		615 51			5.00 .00 x 1.50	55.00	1 .50	
615 508		615 5 0		0	1.00 8.00 x 1.50	60.00	.00	
615 50		615 5 1		50	5 .00 50.00 x 1.50	0.00	0.00	
615 510		615 5		65	0.00 66.00 x .00	80.00	0.00	
615 511		615 5		80	85.00 81.00 x .00	0.00	.50	
615 51		615 5		100	10 .00 100.00 x .00	100.00	58.00	
615 51		615 5 5		1 5	1 .00 1 5.00 x .00	18 .50	.00	
615 51		615 5 6		150	15 .00 150.00 x .00	5.00	0.00	
615 5 1		615 5		00	0 .00 00.00 x .00	00.00	115.00	

on request

product code: 5068

1.

Item o	L ur	item o	L ur	Size	imension mm			K
1. 0 0 L		1. 0 16L		mm	$d_1 \times t_1$	$d \times t$	L	HSF | 0.8 0.8 | 1185
615 001		615 1 01		15 10	1 .00 16.00 x 1.50	1 .00 10.00 x 1.50	11.00	
615 00		615 1 0		0 10	.00 0.00 x 1.50	1 .00 10.00 x 1.50	18.00	
615 00		615 1 0		0 15	.00 0.00 x 1.50	1 .00 16.00 x 1.50	.00	
615 00		615 1 0		5 10	.00 6.00 x 1.50	1 .00 10.00 x 1.50	.00	
615 005		615 1 05		5 15	.00 6.00 x 1.50	1 .00 16.00 x 1.50	18.00	
615 006		615 1 06		5 0	.00 6.00 x 1.50	.00 0.00 x 1.50	11.00	
615 00		615 1 0		15	5.00 .00 x 1.50	1 .00 16.00 x 1.50	.00	
615 008		615 1 08		0	5.00 .00 x 1.50	.00 0.00 x 1.50	11.00	
615 00		615 1 0		5	5.00 .00 x 1.50	.00 6.00 x 1.50	11.00	
615 010		615 1 10		0 15	1.00 8.00 x 1.50	1 .00 16.00 x 1.50	0.00	
615 011		615 1 11		0 0	1.00 8.00 x 1.50	.00 0.00 x 1.50	.00	
615 01		615 1 1		0 5	1.00 8.00 x 1.50	.00 6.00 x 1.50	.00	
615 01		615 1 1		0	1.00 8.00 x 1.50	5.00 .00 x 1.50	11.00	
615 01		615 1 1		50 5	5 .00 50.00 x 1.50	.00 6.00 x 1.50	.00	
615 015		615 1 15		50	5 .00 50.00 x 1.50	5.00 .00 x 1.50	.00	
615 016		615 1 16		50 0	5 .00 50.00 x 1.50	1.00 8.00 x 1.50	.00	
615 01		615 1 1		65 5	0.00 66.00 x .00	.00 6.00 x 1.50	.00	
615 018		615 1 18		65	0.00 66.00 x .00	5.00 .00 x 1.50	6 .00	
615 01		615 1 1		65 0	0.00 66.00 x .00	.00 8.00 x .00	51.00	
615 0 0		615 1 0		65 50	0.00 66.00 x .00	5 .00 50.00 x .00	.00	
615 0 1		615 1 1		80 5	85.00 81.00 x .00	.00 6.00 x 1.50	100.00	
615 0		615 1		80	85.00 81.00 x .00	5.00 .00 x 1.50	8 .00	
615 0		615 1		80 0	85.00 81.00 x .00	1.00 8.00 x 1.50	8.00	
615 0		615 1		80 50	85.00 81.00 x .00	5 .00 50.00 x .00	56.00	
615 0 5		615 1 5		80 65	85.00 81.00 x .00	0.00 66.00 x .00	.00	
615 0 6		615 1 6		100 5	10 .00 100.00 x .00	.00 6.00 x 1.50	1 .00	
615 0		615 1		100	10 .00 100.00 x .00	5.00 .00 x 1.50	1 .00	
615 0 8		615 1 8		100 0	10 .00 100.00 x .00	.00 8.00 x .00	11 .00	
615 0		615 1		100 50	10 .00 100.00 x .00	5 .00 50.00 x .00	0.00	
615 0 0		615 1 0		100 65	10 .00 100.00 x .00	0.00 66.00 x .00	61.00	
615 0 1		615 1 1		100 80	10 .00 100.00 x .00	85.00 81.00 x .00	.00	
615 0		615 1		1 5 5	1 .00 1 5.00 x .00	.00 6.00 x 1.50	1 .00	
615 0		615 1		1 5	1 .00 1 5.00 x .00	5.00 .00 x 1.50	168.00	
615 0		615 1		1 5 0	1 .00 1 5.00 x .00	1.00 8.00 x 1.50	15 .00	
615 0 5		615 1 5		1 5 50	1 .00 1 5.00 x .00	5 .00 50.00 x .00	1 5.00	
615 0 6		615 1 6		1 5 65	1 .00 1 5.00 x .00	0.00 66.00 x .00	106.00	
615 0		615 1		1 5 80	1 .00 1 5.00 x .00	85.00 81.00 x .00	.00	
615 0 8		615 1 8		1 5 100	1 .00 1 5.00 x .00	10 .00 100.00 x .00	5.00	



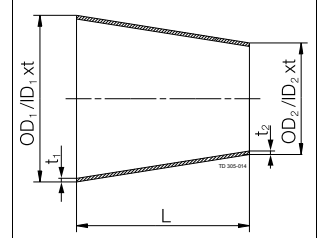
product code: 5068

Item no	Length	Item no	Length	Size	Dimension mm			K
1. 0 0 L		1. 0 16L		mm	$d_1 \times t_1$	$d_2 \times t_2$	L	
615 0		615 1		150 65	15 .00 150.00 x .00	0.00 66.00 x .00	151.00	
615 0 0		615 1 0		150 80	15 .00 150.00 x .00	85.00 81.00 x .00	1 .00	
615 0 1		615 1 1		150 100	15 .00 150.00 x .00	10 .00 100.00 x .00	0.00	
615 0		615 1		150 1 5	15 .00 150.00 x .00	1 .00 1 5.00 x .00	5.00	
615 0		615 1		00 65	0 .00 00.00 x .00	0.00 66.00 x .00	50.00	
615 0		615 1		00 80	0 .00 00.00 x .00	85.00 81.00 x .00	.00	
615 0 5		615 1 5		00 100	0 .00 00.00 x .00	10 .00 100.00 x .00	186.00	
615 0 6		615 1 6		00 1 5	0 .00 00.00 x .00	1 .00 1 5.00 x .00	1 0.00	
615 0		615 1		00 150	0 .00 00.00 x .00	15 .00 150.00 x .00	.00	

product code: 5068

1.

Item o	L ur	item o	L ur	Size	Dimension mm			K
1. 0 0 L		1. 0 16L		mm	$d_1 \times t_1$	$d \times t$	L	HSF | 0.8 1.6 | 1185
615 6 01		615 601		15 10	1 .00 16.00 x 1.50	1 .00 10.00 x 1.50	11.00	
615 6 0		615 60		0 10	.00 0.00 x 1.50	1 .00 10.00 x 1.50	18.00	
615 6 0		615 60		0 15	.00 0.00 x 1.50	1 .00 16.00 x 1.50	.00	
615 6 0		615 60		5 10	.00 6.00 x 1.50	1 .00 10.00 x 1.50	.00	
615 6 05		615 605		5 15	.00 6.00 x 1.50	1 .00 16.00 x 1.50	18.00	
615 6 06		615 606		5 0	.00 6.00 x 1.50	.00 0.00 x 1.50	11.00	
615 6 0		615 60		15	5.00 .00 x 1.50	1 .00 16.00 x 1.50	.00	
615 6 08		615 608		0	5.00 .00 x 1.50	.00 0.00 x 1.50	.00	
615 6 0		615 60		5	5.00 .00 x 1.50	.00 6.00 x 1.50	11.00	
615 6 10		615 610		0 15	1.00 8.00 x 1.50	1 .00 16.00 x 1.50	0.00	
615 6 11		615 611		0 0	1.00 8.00 x 1.50	.00 0.00 x 1.50	.00	
615 6 1		615 61		0 5	1.00 8.00 x 1.50	.00 6.00 x 1.50	.00	
615 6 1		615 61		0	1.00 8.00 x 1.50	5.00 .00 x 1.50	11.00	
615 6 1		615 61		50 5	5 .00 50.00 x 1.50	.00 6.00 x 1.50	.00	
615 6 15		615 615		50	5 .00 50.00 x 1.50	5.00 .00 x 1.50	.00	
615 6 16		615 616		50 0	5 .00 50.00 x 1.50	1.00 8.00 x 1.50	.00	
615 6 1		615 61		65 5	0.00 66.00 x .00	.00 6.00 x 1.50	.00	
615 6 18		615 618		65	0.00 66.00 x .00	5.00 .00 x 1.50	6 .00	
615 6 1		615 61		65 0	0.00 66.00 x .00	.00 8.00 x .00	51.00	
615 6 0		615 6 0		65 50	0.00 66.00 x .00	5 .00 50.00 x .00	.00	
615 6 1		615 6 1		80 5	85.00 81.00 x .00	.00 6.00 x 1.50	100.00	
615 6		615 6		80	85.00 81.00 x .00	5.00 .00 x 1.50	8 .00	
615 6		615 6		80 0	85.00 81.00 x .00	1.00 8.00 x 1.50	8.00	
615 6		615 6		80 50	85.00 81.00 x .00	5 .00 50.00 x .00	56.00	
615 6 5		615 6 5		80 65	85.00 81.00 x .00	0.00 66.00 x .00	.00	
615 6 6		615 6 6		100 5	10 .00 100.00 x .00	.00 6.00 x 1.50	1 .00	
615 6		615 6		100	10 .00 100.00 x .00	5.00 .00 x 1.50	1 .00	
615 6 8		615 6 8		100 0	10 .00 100.00 x .00	.00 8.00 x .00	11 .00	
615 6		615 6		100 50	10 .00 100.00 x .00	5 .00 50.00 x .00	0.00	
615 6 0		615 6 0		100 65	10 .00 100.00 x .00	0.00 66.00 x .00	61.00	
615 6 1		615 6 1		100 80	10 .00 100.00 x .00	85.00 81.00 x .00	.00	
615 6		615 6		1 5 5	1 .00 1 5.00 x .00	.00 6.00 x 1.50	1 .00	
615 6		615 6		1 5	1 .00 1 5.00 x .00	5.00 .00 x 1.50	168.00	
615 6		615 6		1 5 0	1 .00 1 5.00 x .00	1.00 8.00 x 1.50	15 .00	
615 6 5		615 6 5		1 5 50	1 .00 1 5.00 x .00	5 .00 50.00 x .00	1 5.00	
615 6 6		615 6 6		1 5 65	1 .00 1 5.00 x .00	0.00 66.00 x .00	106.00	
615 6		615 6		1 5 80	1 .00 1 5.00 x .00	85.00 81.00 x .00	.00	
615 6 8		615 6 8		1 5 100	1 .00 1 5.00 x .00	10 .00 100.00 x .00	5.00	



product code: 5068

1.

Item o	L ur	item o	L ur	Size	imension mm			K
1. 0 0 L		1. 0 16L		mm	l ₁ x t ₁	l x t	L	HSF | 0.8 1.6 | 1185
615 6		615 6		150 65	15 .00 150.00 x .00	0.00 66.00 x .00	151.00	
615 6 0		615 6 0		150 80	15 .00 150.00 x .00	85.00 81.00 x .00	1 .00	
615 6 1		615 6 1		150 100	15 .00 150.00 x .00	10 .00 100.00 x .00	0.00	
615 6		615 6		150 1 5	15 .00 150.00 x .00	1 .00 1 5.00 x .00	5.00	
615 6		615 6		00 65	0 .00 00.00 x .00	0.00 66.00 x .00	50.00	
615 6		615 6		00 80	0 .00 00.00 x .00	85.00 81.00 x .00	.00	
615 6 5		615 6 5		00 100	0 .00 00.00 x .00	10 .00 100.00 x .00	186.00	
615 6 6		615 6 6		00 1 5	0 .00 00.00 x .00	1 .00 1 5.00 x .00	1 0.00	
615 6		615 6		00 150	0 .00 00.00 x .00	15 .00 150.00 x .00	.00	

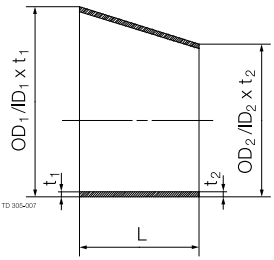
product code: 5068

1.

Item o	L ur	item o	L ur	Size	imension mm			HSF | 0.8 0.8
1. 0 0 L		1. 0 16L		mm	l | l x t ₁	l x t	L	| 1185
615 01		615 1 501		15 10	1 .00 16.00 x 1.50	1 .00 10.00 x 1.50	16.50	
615 0		615 1 50		0 10	.00 0.00 x 1.50	1 .00 10.00 x 1.50	.50	
615 0		615 1 50		0 15	.00 0.00 x 1.50	1 .00 16.00 x 1.50	11.00	
615 0		615 1 50		5 10	.00 6.00 x 1.50	1 .00 10.00 x 1.50	.00	
615 05		615 1 505		5 15	.00 6.00 x 1.50	1 .00 16.00 x 1.50	.50	
615 06		615 1 506		5 0	.00 6.00 x 1.50	.00 0.00 x 1.50	16.50	
615 0		615 1 50		15	5.00 .00 x 1.50	1 .00 16.00 x 1.50	.00	
615 08		615 1 508		0	5.00 .00 x 1.50	.00 0.00 x 1.50	.00	
615 0		615 1 50		5	5.00 .00 x 1.50	.00 6.00 x 1.50	16.50	
615 10		615 1 510		0 15	1.00 8.00 x 1.50	1 .00 16.00 x 1.50	60. 0	
615 11		615 1 511		0 0	1.00 8.00 x 1.50	.00 0.00 x 1.50	.50	
615 1		615 1 51		0 5	1.00 8.00 x 1.50	.00 6.00 x 1.50	.00	
615 1		615 1 51		0	1.00 8.00 x 1.50	5.00 .00 x 1.50	16.50	
615 1		615 1 51		50 5	5 .00 50.00 x 1.50	.00 6.00 x 1.50	65. 0	
615 15		615 1 515		50	5 .00 50.00 x 1.50	5.00 .00 x 1.50	.50	
615 16		615 1 516		50 0	5 .00 50.00 x 1.50	1.00 8.00 x 1.50	.00	
615 1		615 1 51		65 5	0.00 66.00 x .00	.00 6.00 x 1.50	10 . 0	
615 18		615 1 518		65	0.00 66.00 x .00	5.00 .00 x 1.50	. 0	
615 1		615 1 51		65 0	0.00 66.00 x .00	.00 8.00 x .00	6. 0	
615 0		615 1 5 0		65 50	0.00 66.00 x .00	5 .00 50.00 x .00	.00	
615 1		615 1 5 1		80 5	85.00 81.00 x .00	.00 6.00 x 1.50	151.10	
615		615 1 5		80	85.00 81.00 x .00	5.00 .00 x 1.50	1 . 60	
615		615 1 5		80 0	85.00 81.00 x .00	1.00 8.00 x 1.50	118.10	
615		615 1 5		80 50	85.00 81.00 x .00	5 .00 50.00 x .00	85. 0	
615 5		615 1 5 5		80 65	85.00 81.00 x .00	0.00 66.00 x .00	1. 0	
615 6		615 1 5 6		100 5	10 .00 100.00 x .00	.00 6.00 x 1.50	0 . 0	
615		615 1 5		100	10 .00 100.00 x .00	5.00 .00 x 1.50	186.80	
615 8		615 1 5 8		100 0	10 .00 100.00 x .00	.00 8.00 x .00	1 0. 0	
615		615 1 5		100 50	10 .00 100.00 x .00	5 .00 50.00 x .00	1 . 0	
615 0		615 1 5 0		100 65	10 .00 100.00 x .00	0.00 66.00 x .00	. 0	
615 1		615 1 5 1		100 80	10 .00 100.00 x .00	85.00 81.00 x .00	5 . 0	
615		615 1 5		1 5 5	1 .00 1 5.00 x .00	.00 6.00 x 1.50	.00	
615		615 1 5		1 5	1 .00 1 5.00 x .00	5.00 .00 x 1.50	55.50	
615		615 1 5		1 5 0	1 .00 1 5.00 x .00	1.00 8.00 x 1.50	.00	
615 5		615 1 5 5		1 5 50	1 .00 1 5.00 x .00	5 .00 50.00 x .00	06.10	
615 6		615 1 5 6		1 5 65	1 .00 1 5.00 x .00	0.00 66.00 x .00	16 .10	
615		615 1 5		1 5 80	1 .00 1 5.00 x .00	85.00 81.00 x .00	1 0. 0	
615 8		615 1 5 8		1 5 100	1 .00 1 5.00 x .00	10 .00 100.00 x .00	68. 0	
615		615 1 5		150 65	15 .00 150.00 x .00	0.00 66.00 x .00	0.80	
615 0		615 1 5 0		150 80	15 .00 150.00 x .00	85.00 81.00 x .00	18 .60	
615 1		615 1 5 1		150 100	15 .00 150.00 x .00	10 .00 100.00 x .00	1 . 0	
615		615 1 5		150 1 5	15 .00 150.00 x .00	1 .00 1 5.00 x .00	68. 0	
615		615 1 5		00 65	0 .00 00.00 x .00	0.00 66.00 x .00	68.00	
615		615 1 5		00 80	0 .00 00.00 x .00	85.00 81.00 x .00	.00	
615 5		615 1 5 5		00 100	0 .00 00.00 x .00	10 .00 100.00 x .00	5.00	
615 6		615 1 5 6		00 1 5	0 .00 00.00 x .00	1 .00 1 5.00 x .00	06.00	
615		615 1 5		00 150	0 .00 00.00 x .00	15 .00 150.00 x .00	1 .00	

Product code: 5068

Item o	L ur	item o	L ur	Size	Dimension mm			HSF | 0.8 | 1.6
1. 0 0 L		1. 0 16L		mm	$d_1 \times t_1$	$d \times t$	L	| 1185
615 01		615 801		15 10	1 .00 16.00 x 1.50	1 .00 10.00 x 1.50	16.50	
615 0		615 80		0 10	.00 0.00 x 1.50	1 .00 10.00 x 1.50	.50	
615 0		615 80		0 15	.00 0.00 x 1.50	1 .00 16.00 x 1.50	11.00	
615 0		615 80		5 10	.00 6.00 x 1.50	1 .00 10.00 x 1.50	.00	
615 05		615 805		5 15	.00 6.00 x 1.50	1 .00 16.00 x 1.50	.50	
615 06		615 806		5 0	.00 6.00 x 1.50	.00 0.00 x 1.50	16.50	
615 0		615 80		15	5.00 .00 x 1.50	1 .00 16.00 x 1.50	.00	
615 08		615 808		0	5.00 .00 x 1.50	.00 0.00 x 1.50	.00	
615 0		615 80		5	5.00 .00 x 1.50	.00 6.00 x 1.50	16.50	
615 10		615 810		0 15	1.00 8.00 x 1.50	1 .00 16.00 x 1.50	60. 0	
615 11		615 811		0 0	1.00 8.00 x 1.50	.00 0.00 x 1.50	.50	
615 1		615 81		0 5	1.00 8.00 x 1.50	.00 6.00 x 1.50	.00	
615 1		615 81		0	1.00 8.00 x 1.50	5.00 .00 x 1.50	16.50	
615 1		615 81		50 5	5 .00 50.00 x 1.50	.00 6.00 x 1.50	65. 0	
615 15		615 815		50	5 .00 50.00 x 1.50	5.00 .00 x 1.50	.50	
615 16		615 816		50 0	5 .00 50.00 x 1.50	1.00 8.00 x 1.50	.00	
615 1		615 81		65 5	0.00 66.00 x .00	.00 6.00 x 1.50	10 . 0	
615 18		615 818		65	0.00 66.00 x .00	5.00 .00 x 1.50	. 0	
615 1		615 81		65 0	0.00 66.00 x .00	.00 8.00 x .00	6. 0	
615 0		615 8 0		65 50	0.00 66.00 x .00	5 .00 50.00 x .00	.00	
615 1		615 8 1		80 5	85.00 81.00 x .00	.00 6.00 x 1.50	151.10	
615		615 8		80	85.00 81.00 x .00	5.00 .00 x 1.50	1 .60	
615		615 8		80 0	85.00 81.00 x .00	1.00 8.00 x 1.50	118.10	
615		615 8		80 50	85.00 81.00 x .00	5 .00 50.00 x .00	85. 0	
615 5		615 8 5		80 65	85.00 81.00 x .00	0.00 66.00 x .00	1. 0	
615 6		615 8 6		100 5	10 .00 100.00 x .00	.00 6.00 x 1.50	0 . 0	
615		615 8		100	10 .00 100.00 x .00	5.00 .00 x 1.50	186.80	
615 8		615 8 8		100 0	10 .00 100.00 x .00	.00 8.00 x .00	1 0. 0	
615		615 8		100 50	10 .00 100.00 x .00	5 .00 50.00 x .00	1 . 0	
615 0		615 8 0		100 65	10 .00 100.00 x .00	0.00 66.00 x .00	. 0	
615 1		615 8 1		100 80	10 .00 100.00 x .00	85.00 81.00 x .00	5 . 0	
615		615 8		1 5 5	1 .00 1 5.00 x .00	.00 6.00 x 1.50	.00	
615		615 8		1 5	1 .00 1 5.00 x .00	5.00 .00 x 1.50	55.50	
615		615 8		1 5 0	1 .00 1 5.00 x .00	1.00 8.00 x 1.50	.00	
615 5		615 8 5		1 5 50	1 .00 1 5.00 x .00	5 .00 50.00 x .00	06.10	
615 6		615 8 6		1 5 65	1 .00 1 5.00 x .00	0.00 66.00 x .00	16 .10	
615		615 8		1 5 80	1 .00 1 5.00 x .00	85.00 81.00 x .00	1 0. 0	
615 8		615 8 8		1 5 100	1 .00 1 5.00 x .00	10 .00 100.00 x .00	68. 0	
615		615 8		150 65	15 .00 150.00 x .00	0.00 66.00 x .00	0.80	
615 0		615 8 0		150 80	15 .00 150.00 x .00	85.00 81.00 x .00	18 .60	
615 1		615 8 1		150 100	15 .00 150.00 x .00	10 .00 100.00 x .00	1 . 0	
615		615 8		150 1 5	15 .00 150.00 x .00	1 .00 1 5.00 x .00	68. 0	
615		615 8		00 65	0 .00 00.00 x .00	0.00 66.00 x .00	68.00	
615		615 8		00 80	0 .00 00.00 x .00	85.00 81.00 x .00	.00	
615 5		615 8 5		00 100	0 .00 00.00 x .00	10 .00 100.00 x .00	5.00	
615 6		615 8 6		00 1 5	0 .00 00.00 x .00	1 .00 1 5.00 x .00	06.00	
615		615 8		00 150	0 .00 00.00 x .00	15 .00 150.00 x .00	1 .00	



Product code: 50

1.

Material Item no.	L U	Material Item no.	L U	Size mm	Dimension mm			
1. 01 0		1. 0 16L		mm	A			AL HSFO | 0.8 1.6 | 11851
1 1800 1		611 0660		5	.00	5 x 16	8.0	
1 1800		611 0661			.00	58 x 16	.0	
1 1800		611 066		0	.00	65 x 16	0.0	
1 1800		611 066		50	5.00	8 x 16	5.0	
1 1800 5		611 066		65	0.00	5 x 16	0.0	
1 1800 6		611 0665		80	5.00	110 x 1	85.0	
1 1800 8		611 0666		100	5.00	1 0 x 1	10.0	
1 1800151		611 066		5	.00	.00	8.0	
1 180015		611 0668			50.00	5.00	.0	
1 180015		611 066		0	56.00	6.00	0.0	
1 180015		611 06 0		50	68.00	8.00	5.0	
1 1800155		611 06 1		65	86.00	.00	0.0	
1 1800156		611 06		80	100.00	.00	85.0	
1 1800158		611 06		100	1 1.00	.00	10.0	

Item no.	L U	Item no.	L U	Size mm	Dimension mm				
1. 01 0		1. 0 16L		mm	A			UT F HSFO | 0.8 1.6 | 11851	
611 06 0		61 150 01		10	8.00	18.00	8 x 18	1.00	
611 06 0		61 150 0		15	.00	18.00	x 18	5.00	
611 00 1		61 150 0		0	5.00	0.00	x 16	1.00	
1 18001 1		61 150 0		5	6.00	1.00	5 x 16	6.00	
1 18001		61 150 05			0.00	1.00	58 x 16	.00	
1 18001		61 150 06		0	8.00	1.00	65 x 16	.00	
1 18001		61 150 0		50	.00	.00	8 x 16	6.00	
1 18001 5		61 150 08		65	11.00	5.00	5 x 16	80.00	
1 18001 6		61 150 10		80	1.00	.00	110 x 1	.00	
1 18001 8		61 150 11		100	1 8.00	1.00	1 0 x 1	115.00	
611 06 50		61 150 1		1 5	1 8.00	.00	160 x 1	1 8.00	
611 06 60		61 150 1		150	10.00	0.00	1 0 x 1	16.00	

Material Item no.	L U	Material Item no.	L U	Size	Dimension mm				
1. 0 0 L		1. 0 16L		mm	A				LI HSFO | 0.8 1.6 | 11851
611 06 0		61 15 1		10	.50	6.00	18.00	.00	<p>TD 310-046</p>
611 06 80		61 15 1		15	8.50	6.00	.00	.00	
611 1111		61 15 15		0	6.50	8.00	0.00	11.00	
1 1800 51		61 15 16		5	.00	10.00	5.00	1 .00	
1 1800 5		61 15 1		50	50.00	10.00	1.00	1 .00	
1 1800 5		61 15 18		0	56.00	10.00	8.00	1 .00	
1 1800 5		61 15 1		50	68.50	11.00	61.00	1 .00	
1 1800 55		61 15 0		65	86.00	1 .00	.00	16.00	
1 1800 56		61 15		80	100.00	1 .00	.00	16.00	
1 1800 58		61 15		100	1 1.00	15.00	11 .00	0.00	
611 06500		61 15		1 5	150.00	1 .00	1 .00	.00	
611 06510		61 15 5		150	1 6.00	18.00	16 .00	.00	

1.

Item o.	L U	Item o.	L U	Size	Dimension mm				
		F		mm	A			ASK T | 11851	
Product code 506									
5 601		611 1861		10	0.00	.50	1.00		
5 60		611 186		15	6.00	.50	18.00		
5 60		611 186		0	.00	.50	.00		
5 60		611 186		5	0.00	5.00	0.00		
5 605		611 1865			6.00	5.00	6.00		
5 606		611 1866		0	5.00	5.00	.00		
5 60		611 186		50	6.00	5.00	5.00		
5 608		611 1868		65	81.00	5.00	1.00		
611 1 6		611 186		5	88.00	5.00	8.00		
5 60		611 11 8		80	5.00	5.00	85.00		
5 611		611 18 0		100	11.00	6.00	10.00		
611 1 65		611 18 1		1 5	1.00	.00	1 0.00		
611 1 66		611 18		150	16.00	.00	155.00		
Silicone									
ASK T | 11851									
611 1 6		611 1 1		10	0.00	.50	1.00		
611 1 68		611 1 18		15	6.00	.50	18.00		
611 1		611 1 1		0	.00	.50	.00		
611 1 6		611 1 0		5	0.00	5.00	0.00		
611 1 0		611 1 1			6.00	5.00	6.00		
611 1 1		611 1		0	5.00	5.00	.00		
611 1		611 1		50	6.00	5.00	5.00		
611 1		611 1		65	81.00	5.00	1.00		
611 1		611 1 5		5	88.00	5.00	8.00		
611 1 5		611 1 6		80	5.00	5.00	85.00		
611 1 6		611 1		100	11.00	6.00	10.00		
611 1		611 1 8		1 5	1.00	.00	1 0.00		
611 1 8		611 1		150	16.00	.00	155.00		
TF									
ASK T | 11851									
611 18				10	0.00	.50	1.00		
611 18				15	6.00	.50	18.00		
611 18 5				0	.00	.50	.00		
611 18 6				5	0.00	5.00	0.00		
611 18					6.00	5.00	6.00		
611 18 8				0	5.00	5.00	.00		
611 18				50	6.00	5.00	5.00		
611 1880				65	81.00	5.00	1.00		
611 1881				5	88.00	5.00	8.00		
611 188				80	5.00	5.00	85.00		
611 188				100	11.00	6.00	10.00		
611 188				1 5	1.00	.00	1 0.00		
611 1885				150	16.00	.00	155.00		

Product code: 50

Material Item no.	L U	Material Item no.	L U	Size	Dimension mm			AL S HSF0 I 0.8 1.6 I 11851	
1. 0 0 L		1. 0 16L		mm	l x t				
611 06100		611 06101		10	1 .00 10.00 x 1.50	1.00	8 x 1 8		
611 06110		611 06111		15	1 .00 16.00 x 1.50	1.00	x 1 8		
611 0081		611 008		0	.00 0.00 x 1.50	.00	x 1 6		
611 0110		611 110		5	.00 6.00 x 1.50	.00	5 x 1 6		
611 0110		611 110			5.00 .00 x 1.50	.00	58 x 1 6		
611 01105		611 1105		0	1.00 8.00 x 1.50	.00	65 x 1 6		
611 01106		611 1106		50	5 .00 50.00 x 1.50	5.00	8 x 1 6		
611 0110		611 110		65	0.00 66.00 x .00	0.00	5 x 1 6		
611 01108		611 1108		80	85.00 81.00 x .00	5.00	110 x 1		
611 01110		611 1110		100	10 .00 100.00 x .00	5 .00	1 0 x 1		
611 061 0		611 061 1		1 5	1 .00 1 5.00 x .00	6.00	160 x 1		
611 061 0		611 061 1		150	15 .00 150.00 x .00	50.00	1 0 x 1		
						A			LI S HSF0 I 0.8 1.6 I 11851
611 06150		611 06151		10	1 .00 10.00 x 1.50	.50	1 .00		
611 06160		611 06161		15	1 .00 16.00 x 1.50	8.50	1 .00		
611 00 1		611 00		0	.00 0.00 x 1.50	6.50	18.00		
611 01111		611 1111		5	.00 6.00 x 1.50	.00	.00		
611 0111		611 111			5.00 .00 x 1.50	50.00	5.00		
611 0111		611 111		0	1.00 8.00 x 1.50	56.00	6.00		
611 0111		611 111		50	5 .00 50.00 x 1.50	68.50	8.00		
611 01115		611 1115		65	0.00 66.00 x .00	86.00	.00		
611 01116		611 1116		80	85.00 81.00 x .00	100.00	.00		
611 01118		611 1118		100	10 .00 100.00 x .00	1 1.00	.00		
611 06180		611 06181		1 5	1 .00 1 5.00 x .00	150.00	.00		
611 061 0		611 061 1		150	15 .00 150.00 x .00	1 6.00	.00		

Product code: 50

1.

Item o.	L U	Item o.	L U	Size	Dimension mm				UT F
1. 01 0		1. 0 16L		mm	A				HSF0 | 0.8 1.6 | 11851
611 06 0		61 150 01		10	8.00	18.00	8 x 18	1 .00	
611 06 0		61 150 0		15	.00	18.00	x 18	5.00	
611 00 1		61 150 0		0	5 .00	0.00	x 16	1.00	
1 18001 1		61 150 0		5	6 .00	1.00	5 x 16	6.00	
1 18001		61 150 05			0.00	1.00	58 x 16	.00	
1 18001		61 150 06		0	8.00	1.00	65 x 16	.00	
1 18001		61 150 0		50	.00	.00	8 x 16	6 .00	
1 18001 5		61 150 08		65	11 .00	5.00	5 x 16	80.00	
1 18001 6		61 150 10		80	1 .00	.00	110 x 1	.00	
1 18001 8		61 150 11		100	1 8.00	1.00	1 0 x 1	115.00	
611 06 50		61 150 1		1 5	1 8.00	.00	160 x 1	1 8.00	
611 06 60		61 150 1		150	10.00	0.00	1 0 x 1	16 .00	

Material Item o.	L U	Material Item o.	L U	Size	Dimension mm				LI
1. 0 0 L		1. 0 16L		mm	A				HSF0 | 0.8 1.6 | 11851
611 06 0		61 15 1		10	.50	6.00	18.00	.00	
611 06 80		61 15 1		15	8.50	6.00	.00	.00	
611 1111		61 15 15		0	6.50	8.00	0.00	11.00	
1 1800 51		61 15 16		5	.00	10.00	5.00	1 .00	
1 1800 5		61 15 1			50.00	10.00	1.00	1 .00	
1 1800 5		61 15 18		0	56.00	10.00	8.00	1 .00	
1 1800 5		61 15 1		50	68.50	11.00	61.00	1 .00	
1 1800 55		61 15 0		65	86.00	1 .00	.00	16.00	
1 1800 56		61 15		80	100.00	1 .00	.00	16.00	
1 1800 58		61 15		100	1 1.00	15.00	11 .00	0.00	
611 06500		61 15		1 5	150.00	1 .00	1 .00	.00	
611 06510		61 15 5		150	1 6.00	18.00	16 .00	.00	

Product code: 506

Item o.	L U	Item o.	L U	Size	Dimension mm			
		F		mm	A			ASK T | 11851
5 601		611 1861		10	0.00	.50	1 .00	
5 60		611 186		15	6.00	.50	18.00	
5 60		611 186		0	.00	.50	.00	
5 60		611 186		5	0.00	5.00	0.00	
5 605		611 1865			6.00	5.00	6.00	
5 606		611 1866		0	5 .00	5.00	.00	
5 60		611 186		50	6 .00	5.00	5 .00	
5 608		611 1868		65	81.00	5.00	1.00	
611 1 6		611 186		5	88.00	5.00	8.00	
5 60		611 11 8		80	5.00	5.00	85.00	
5 611		611 18 0		100	11 .00	6.00	10 .00	
611 1 65		611 18 1		1 5	1 .00	.00	1 0.00	
611 1 66		611 18		150	16 .00	.00	155.00	
		Silicone						
611 1 6		611 1 1		10	0.00	.50	1 .00	
611 1 68		611 1 18		15	6.00	.50	18.00	
611 1		611 1 1		0	.00	.50	.00	
611 1 6		611 1 0		5	0.00	5.00	0.00	
611 1 0		611 1 1			6.00	5.00	6.00	
611 1 1		611 1		0	5 .00	5.00	.00	
611 1		611 1		50	6 .00	5.00	5 .00	
611 1		611 1		65	81.00	5.00	1.00	
611 1		611 1 5		5	88.00	5.00	8.00	
611 1 5		611 1 6		80	5.00	5.00	85.00	
611 1 6		611 1		100	11 .00	6.00	10 .00	
611 1		611 1 8		1 5	1 .00	.00	1 0.00	
611 1 8		611 1		150	16 .00	.00	155.00	
TF								
611 18				10	0.00	.50	1 .00	
611 18				15	6.00	.50	18.00	
611 18 5				0	.00	.50	.00	
611 18 6				5	0.00	5.00	0.00	
611 18					6.00	5.00	6.00	
611 18 8				0	5 .00	5.00	.00	
611 18				50	6 .00	5.00	5 .00	
611 1880				65	81.00	5.00	1.00	
611 1881				5	88.00	5.00	8.00	
611 188				80	5.00	5.00	85.00	
611 188				100	11 .00	6.00	10 .00	
611 188				1 5	1 .00	.00	1 0.00	
611 1885				150	16 .00	.00	155.00	

Product code: 50

1.

Material Item no.	L U	Material Item no.	L U	Size	Dimension mm			TI SK
1. 0 0 L		1. 0 16L		mm	l x t	A		HSF0 I 0.8 1.6 I 11851
611 05 0		611 05 1		10	1 .00 10.00 x 1.50	8.00	5.00	
611 05800		611 05801		15	1 .00 16.00 x 1.50	.00	5.00	
611 0011		611 001		0	.00 0.00 x 1.50	5 .00	5.00	
611 0111		611 111		5	.00 6.00 x 1.50	6 .00	1.00	
611 011 0		611 11 0			5.00 .00 x 1.50	0.00	1.00	
611 011 1		611 11 1		0	1.00 8.00 x 1.50	8.00	1.00	
611 011		611 11		50	5 .00 50.00 x 1.50	.00	.00	
611 011		611 11		65	0.00 66.00 x .00	11 .00	5.00	
611 011		611 11		80	85.00 81.00 x .00	1 .00	5.00	
611 011 6		611 11 6		100	10 .00 100.00 x .00	1 8.00	1.00	
								AL SK HSF0 I 0.8 1.6 I 11851
611 05 00		611 05 01		10	1 .00 10.00 x 1.50	1 .00	8 x 1 8	
611 05 10		611 05 11		15	1 .00 16.00 x 1.50	1 .00	x 1 8	
611 00 1		611 00		0	.00 0.00 x 1.50	1 .00	x 1 6	
611 0108		611 108		5	.00 6.00 x 1.50	.00	5 x 1 6	
611 01088		611 1088			5.00 .00 x 1.50	.00	58 x 1 6	
611 0108		611 108		0	1.00 8.00 x 1.50	.00	65 x 1 6	
611 010 0		611 10 0		50	5 .00 50.00 x 1.50	.00	8 x 1 6	
611 010 1		611 10 1		65	0.00 66.00 x .00	5.00	5 x 1 6	
611 010		611 10		80	85.00 81.00 x .00	5.00	110 x 1	
611 010		611 10		100	10 .00 100.00 x .00	0.00	1 0 x 1	
611 05 0		611 05 1		1 5	1 .00 1 5.00 x .00	5.50	160 x 1	
611 05 0		611 05 1		150	15 .00 150.00 x .00	0.00	1 0 x 1	
						A		LI SK HSF0 I 0.8 1.6 I 11851
611 05 50		611 05 51		10	1 .00 10.00 x 1.50	.00	1 .00	
611 05 60		611 05 61		15	1 .00 16.00 x 1.50	8.00	1 .00	
611 00 1		611 00		0	.00 0.00 x 1.50	6.00	1 .00	
611 010 5		611 10 5		5	.00 6.00 x 1.50	.00	15.00	
611 010 6		611 10 6			5.00 .00 x 1.50	50.00	15.00	
611 010		611 10		0	1.00 8.00 x 1.50	56.00	15.00	
611 010 8		611 10 8		50	5 .00 50.00 x 1.50	68.00	16.00	
611 010		611 10		65	0.00 66.00 x .00	86.00	1 .00	
611 01100		611 1100		80	85.00 81.00 x .00	100.00	1 .00	
611 0110		611 110		100	10 .00 100.00 x .00	1 1.00	0.00	
611 05 0		611 05 1		1 5	1 .00 1 5.00 x .00	150.00	.50	
611 05 80		611 05 81		150	15 .00 150.00 x .00	1 6.00	.00	

Product code: 50

1.

Item no.	L U	Item no.	L U	Size	Dimension mm				UT F
1. 01 0		1. 0 16L		mm	A				HSFO I 0.8 1.6 I 11851
611 06 0		61 150 01		10	8.00	18.00	8 x 18	1 .00	
611 06 0		61 150 0		15	.00	18.00	x 18	5.00	
611 00 1		61 150 0		0	5 .00	0.00	x 16	1.00	
1 18001 1		61 150 0		5	6 .00	1.00	5 x 16	6.00	
1 18001		61 150 05			0.00	1.00	58 x 16	.00	
1 18001		61 150 06		0	8.00	1.00	65 x 16	.00	
1 18001		61 150 0		50	.00	.00	8 x 16	6 .00	
1 18001 5		61 150 08		65	11 .00	5.00	5 x 16	80.00	
1 18001 6		61 150 10		80	1 .00	.00	110 x 1	.00	
1 18001 8		61 150 11		100	1 8.00	1.00	1 0 x 1	115.00	
611 06 50		61 150 1		1 5	1 8.00	.00	160 x 1	1 8.00	
611 06 60		61 150 1		150	10.00	0.00	1 0 x 1	16 .00	

Material Item no.	L U	Material Item no.	L U	Size	Dimension mm				LI
1. 0 0 L		1. 0 16L		mm	A				HSFO I 0.8 1.6 I 11851
611 06 0		61 15 1		10	.50	6.00	18.00	.00	
611 06 80		61 15 1		15	8.50	6.00	.00	.00	
611 1111		61 15 15		0	6.50	8.00	0.00	11.00	
1 1800 51		61 15 16		5	.00	10.00	5.00	1 .00	
1 1800 5		61 15 1			50.00	10.00	1.00	1 .00	
1 1800 5		61 15 18		0	56.00	10.00	8.00	1 .00	
1 1800 5		61 15 1		50	68.50	11.00	61.00	1 .00	
1 1800 55		61 15 0		65	86.00	1 .00	.00	16.00	
1 1800 56		61 15		80	100.00	1 .00	.00	16.00	
1 1800 58		61 15		100	1 1.00	15.00	11 .00	0.00	
611 06500		61 15		1 5	150.00	1 .00	1 .00	.00	
611 06510		61 15 5		150	1 6.00	18.00	16 .00	.00	

Product code: 506

1.

Item o.	L U	Item o.	L U	Size	Dimension mm			
		F		mm	A			ASK T | 11851
5 601		611 1861		10	0.00	.50	1 .00	
5 60		611 186		15	6.00	.50	18.00	
5 60		611 186		0	.00	.50	.00	
5 60		611 186		5	0.00	5.00	0.00	
5 605		611 1865			6.00	5.00	6.00	
5 606		611 1866		0	5 .00	5.00	.00	
5 60		611 186		50	6 .00	5.00	5 .00	
5 608		611 1868		65	81.00	5.00	1.00	
611 1 6		611 186		5	88.00	5.00	8.00	
5 60		611 11 8		80	5.00	5.00	85.00	
5 611		611 18 0		100	11 .00	6.00	10 .00	
611 1 65		611 18 1		1 5	1 .00	.00	1 0.00	
611 1 66		611 18		150	16 .00	.00	155.00	
		Silicone						
611 1 6		611 1 1		10	0.00	.50	1 .00	
611 1 68		611 1 18		15	6.00	.50	18.00	
611 1		611 1 1		0	.00	.50	.00	
611 1 6		611 1 0		5	0.00	5.00	0.00	
611 1 0		611 1 1			6.00	5.00	6.00	
611 1 1		611 1		0	5 .00	5.00	.00	
611 1		611 1		50	6 .00	5.00	5 .00	
611 1		611 1		65	81.00	5.00	1.00	
611 1		611 1 5		5	88.00	5.00	8.00	
611 1 5		611 1 6		80	5.00	5.00	85.00	
611 1 6		611 1		100	11 .00	6.00	10 .00	
611 1		611 1 8		1 5	1 .00	.00	1 0.00	
611 1 8		611 1		150	16 .00	.00	155.00	
TF								
611 18				10	0.00	.50	1 .00	
611 18				15	6.00	.50	18.00	
611 18 5				0	.00	.50	.00	
611 18 6				5	0.00	5.00	0.00	
611 18					6.00	5.00	6.00	
611 18 8				0	5 .00	5.00	.00	
611 18				50	6 .00	5.00	5 .00	
611 1880				65	81.00	5.00	1.00	
611 1881				5	88.00	5.00	8.00	
611 188				80	5.00	5.00	85.00	
611 188				100	11 .00	6.00	10 .00	
611 188				1 5	1 .00	.00	1 0.00	
611 1885				150	16 .00	.00	155.00	

product code: 505

1.

Item o.	L U	Item o.	L U	Size	Dimension mm			
1. 0 0 L		1. 0 16L		mm	l x t			AL S H | 0.8 1.0 I 1185 1
801000056		615 6 01		10	1 .00 10.00 x 1.50	1 .00	8 x 18	
80100005 1		615 6 0		15	1 .00 16.00 x 1.50	1 .00	x 18	
80100005		615 6 0		0	.00 0.00 x 1.50	1.00	x 16	
80100005		61 88		5	.00 6.00 x 1.50	6.00	5 x 16	
80100005		61 88 5			5.00 .00 x 1.50	0.00	58 x 16	
80100005 5		61 88 6		0	1.00 8.00 x 1.50	1.00	65 x 16	
80100005 6		61 88		50	5 .00 50.00 x 1.50	1.00	8 x 16	
80100005		61 88 8		65	0.00 66.00 x .00	6.00	5 x 16	
80100005 8		61 88		80	85.00 81.00 x .00	.00	110 x 1	
80100005		61 88 0		100	10 .00 100.00 x .00	50.00	1 0 x 1	
						A		LI S H | 0.8 1.0 I 1185 1
8010000580		615 6 101		10	1 .00 10.00 x 1.50	1 .0	1 .00	
8010000581		615 6 10		15	1 .00 16.00 x 1.50	. 0	1 .00	
801000058		615 6 10		0	.00 0.00 x 1.50	5. 0	18.00	
801000058		61 88		5	.00 6.00 x 1.50	. 0	.00	
8010000585		61 88 5			5.00 .00 x 1.50	8. 0	5.00	
8010000586		61 88 6		0	1.00 8.00 x 1.50	5 . 0	6.00	
801000058		61 88		50	5 .00 50.00 x 1.50	66. 0	0.00	
801000058		61 88 8		65	0.00 66.00 x .00	8 . 0	.00	
80100005 0		61 88		80	85.00 81.00 x .00	8. 0	8.00	
80100005 1		61 8850		100	10 .00 100.00 x .00	118. 0	6.00	

Product code: 50

1.

Item no.	L U	Item no.	L U	Size	Dimension mm				UT F HSFO | 0.8 1.6 | 11851
					A				
1. 01 0		1. 0 16L		mm	A				
611 06 0		61 150 01		10	8.00	18.00	8 x 18	1 .00	
611 06 0		61 150 0		15	.00	18.00	x 18	5.00	
611 00 1		61 150 0		0	5 .00	0.00	x 16	1.00	
1 18001 1		61 150 0		5	6 .00	1.00	5 x 16	6.00	
1 18001		61 150 05			0.00	1.00	58 x 16	.00	
1 18001		61 150 06		0	8.00	1.00	65 x 16	.00	
1 18001		61 150 0		50	.00	.00	8 x 16	6 .00	
1 18001 5		61 150 08		65	11 .00	5.00	5 x 16	80.00	
1 18001 6		61 150 10		80	1 .00	.00	110 x 1	.00	
1 18001 8		61 150 11		100	1 8.00	1.00	1 0 x 1	115.00	
611 06 50		61 150 1		1 5	1 8.00	.00	160 x 1	1 8.00	
611 06 60		61 150 1		150	10.00	0.00	1 0 x 1	16 .00	

Product code: 5060

Material	L	Size	Dimension mm						
Item no.	U		A					F	LI S
1. 0 16L		mm	A					F	H I 0.8 1.0 I 1186 1 1185 1
615 0601		10	1.00	1.00	8 x 18	.00	.00	1.00	
615 060		15	8.00	1.00	x 18	.00	.00	1.00	
615 060		0	6.00	1.00	x 16	5.00	.00	.00	
615 060		5	.00	1.00	5 x 16	6.00	.00	.00	
615 0605			.00	1.00	58 x 16	.00	.00	5.00	
615 0606		0	55.00	1.00	65 x 16	.00	.00	1.00	
615 060		50	6.00	1.00	8 x 16	.00	.00	5.00	
615 0608		65	85.00	16.00	5 x 16	8.00	8.00	0.00	
615 060		80	.00	0.00	110 x 1	8.00	8.00	85.00	
615 0610		100	11.00	0.00	1 0 x 1	10.00	0.00	10.00	
									LI S H I 0.8 1.0 I 1186 1 1185 1
615 0 01		10	1.0	18.00	.00	.00			
615 0 0		15	.0	.00	.00	.00			
615 0 0		0	5.0	0.00	10.00	.00			
615 0 0		5	.0	5.00	1.00	.00			
615 0 05			8.0	1.00	1.00	.00			
615 0 06		0	5.0	8.00	1.00	.00			
615 0 0		50	66.0	61.00	1.00	.00			
615 0 08		65	8.0	.00	16.00	.00			
615 0 0		80	8.0	.00	16.00	.00			
615 0 10		100	118.0	11.00	0.00	5.00			

Product code: 50 5

1.

Item o.	L U	Item o.	L U			Size	Dimension mm		
		F				mm			I 1186 1185
61 06 01		61 06 11				10	.50	1 .00	
61 06 0		61 06 1				15	.50	18.00	
61 06 0		61 06 1				0	.50	.00	
61 06 0		61 06 1				5	.50	8.00	
61 06 05		61 06 15					5.00	.00	
61 06 06		61 06 16				0	5.00	0.00	
61 06 0		61 06 1				50	5.00	5 .00	
61 06 08		61 06 18				65	5.00	68.00	
61 06 0		61 06 1				80	5.00	8 .00	
61 06 10		61 06 0				100	5.00	10 .00	
61 06 1		61 06				1 5	5.00	1 .00	
61 06		61 06				150	5.00	15 .00	

product code: 505

1.

Item o	L	Item o	L	Size	imension mm				FLA	F
1. 0 0 L	U	1. 0 16L	U	mm	l x t	A		F	H I 0.8 1.0	
8010000 8		8010000506		10	1 .00 10.00 x 1.50	5 .00	5.50	.00		
8010000 8		801000050		15	1 .00 16.00 x 1.50	5 .00	5.50	.00		
8010000 85		8010000508		0	.00 0.00 x 1.50	6 .00	5.50	.00		
8010000 86		801000050		5	.00 6.00 x 1.50	0.00	5.50	5 .00		
8010000 88		8010000510			5.00 .00 x 1.50	6.00	5.50	5 .00		
8010000 0		8010000511		0	1.00 8.00 x 1.50	8 .00	5.50	65.00		
8010000 1		801000051		50	5 .00 50.00 x 1.50	.00	5.50	.00		
8010000		801000051		65	0.00 66.00 x .00	11 .00	5.50	5.00		
8010000		801000051		80	85.00 81.00 x .00	1 .00	.50	11 .00		
8010000 5		8010000515		100	10 .00 100.00 x .00	15 .00	.50	1 .00		
8010000 6		8010000516		1 5	1 .00 1 5.00 x .00	18 .00	.50	161.00		
8010000		801000051		150	15 .00 150.00 x .00	1 .00	.50	188.00		
FLA LLA F H I 0.8 1.0 I 1185										
8010000 8		8010000518		10	1 .00 10.00 x 1.50	5 .00	.00	.00		
8010000		801000051		15	1 .00 16.00 x 1.50	5 .00	.00	.00		
8010000 00		80100005 0		0	.00 0.00 x 1.50	6 .00	.00	.00		
8010000 01		80100005 1		5	.00 6.00 x 1.50	0.00	.00	5 .00		
8010000 0		80100005			5.00 .00 x 1.50	6.00	.00	5 .00		
8010000 0		80100005		0	1.00 8.00 x 1.50	8 .00	.00	65.00		
8010000 0		80100005		50	5 .00 50.00 x 1.50	.00	.00	.00		
8010000 05		80100005 5		65	0.00 66.00 x .00	11 .00	.00	5.00		
8010000 06		80100005 6		80	85.00 81.00 x .00	1 .00	6.00	11 .00		
8010000 08		80100005		100	10 .00 100.00 x .00	15 .00	6.00	1 .00		
8010000 0		80100005 8		1 5	1 .00 1 5.00 x .00	18 .00	8.00	161.00		
8010000 10		80100005		150	15 .00 150.00 x .00	1 .00	8.00	188.00		

Product code: 5060

1.

Material	L	Size	Dimension							
Item no.	U	mm	A							
1. 0 16L		mm	A							
615 1 0		10	5.00	.00	.0	10.00	.00 x .00			
615 1 0		15	5.00	.00	8.0	10.00	.00 x .00			
615 1 05		0	6.00	.00	.0	10.00	.00 x .00			
615 1 06		5	0.00	5.00	8.0	10.00	.00 x .00			
615 1 0			6.00	5.00	.0	10.00	.00 x .00			
615 1 08		0	8.00	65.00	5.0	10.00	.00 x .00			
615 1 0		50	.00	.00	65.0	10.00	.00 x .00			
615 1 10		65	11.00	5.00	81.0	10.00	8.00 x .00			
615 1 11		80	1.00	11.00	.0	1.00	8.00 x 11.00			
615 1 1		100	15.00	1.00	116.0	1.00	8.00 x 11.00			
615 1 1		15	18.00	161.00	11.0	1.00	8.00 x 11.00			
615 1 1		150	1.00	188.00	16.0	16.00	8.00 x 1.00			
LI F H I 0.8 1.0 I 1186 1185										
615 1 0		10	5.00	.00	.0	11.50	.00 x .00			
615 1 0		15	5.00	.00	8.0	11.50	.00 x .00			
615 1 05		0	6.00	.00	.0	11.50	.00 x .00			
615 1 06		5	0.00	5.00	8.0	11.50	.00 x .00			
615 1 0			6.00	5.00	.60	11.50	.00 x .00			
615 1 08		0	8.00	65.00	5.60	11.50	.00 x .00			
615 1 0		50	.00	.00	65.60	11.50	.00 x .00			
615 1 10		65	11.00	5.00	81.60	11.50	8.00 x .00			
615 1 11		80	1.00	11.00	.60	1.50	8.00 x 11.00			
615 1 1		100	15.00	1.00	116.60	15.50	8.00 x 11.00			
615 1 1		15	18.00	161.00	11.60	15.50	8.00 x 11.00			
615 1 1		150	1.00	188.00	16.60	1.50	8.00 x 1.00			
LI F H I 0.8 1.0 I 1186 1185										

product code: 50 5

Item o.	L U	Item o.	L U			Size	Dimension mm		
		F				mm			I I 1186 I185
61 06 01		61 06 11				10	.50	1 .00	
61 06 0		61 06 1				15	.50	18.00	
61 06 0		61 06 1				0	.50	.00	
61 06 0		61 06 1				5	.50	8.00	
61 06 05		61 06 15					5.00	.00	
61 06 06		61 06 16				0	5.00	0.00	
61 06 0		61 06 1				50	5.00	5 .00	
61 06 08		61 06 18				65	5.00	68.00	
61 06 0		61 06 1				80	5.00	8 .00	
61 06 10		61 06 0				100	5.00	10 .00	
61 06 1		61 06				15	5.00	1 .00	
61 06		61 06				150	5.00	15 .00	

Product code: 5060

1.

Item no.	L U	Flange size I	Ports	Screws	
1. 01 0		mm			Screws and nut set
61 05161		10 50	8 x 8 x 0	8 x 8	
61 0516		65	8 x 8 x 0	8 x 8	
61 0516		80	8 x 10 x 5	8 x 10	
61 05165		100 1 5	8 x 10 x 0	8 x 10	
61 05166		150	8 x 1 x 50	8 x 1	

1185 KS and KS in 1. 0 and H

1.

1185 KS and KS in 1. 0 and H , not available, please use 1186

Product code: 5060

1.

Material	L	Size	Dimension mm			
Item no.	U		l x t	A		AL S
1. 0 16L		mm				H | 0.8 1.0 | 1186 1
61 0 01		10	1 .00 10.00 x 1.50	8 x 18	1.00	
61 0 0		15	1 .00 16.00 x 1.50	x 18	1.00	
61 0 0		0	.00 0.00 x 1.50	x 16	.00	
61 0 0		5	.00 6.00 x 1.50	5 x 16	.00	
61 0 05			5.00 .00 x 1.50	58 x 16	8.00	
61 0 06		0	1.00 8.00 x 1.50	65 x 16	8.00	
61 0 0		50	5 .00 50.00 x 1.50	8 x 16	8.00	
61 0 08		65	0.00 66.00 x .00	5 x 16	60.00	
61 0 0		80	85.00 81.00 x .00	110 x 1	6 .00	
61 0 10		100	10 .00 100.00 x .00	1 0 x 1	6 .00	
LI S H | 0.8 1.0 | 1186 1						
61 0 11		10	1 .00 10.00 x 1.50		.00	
61 0 1		15	1 .00 16.00 x 1.50		.00	
61 0 1		0	.00 0.00 x 1.50		8.00	
61 0 1		5	.00 6.00 x 1.50		0.00	
61 0 15			5.00 .00 x 1.50		.00	
61 0 16		0	1.00 8.00 x 1.50		.00	
61 0 1		50	5 .00 50.00 x 1.50		8.00	
61 0 18		65	0.00 66.00 x .00		61.00	
61 0 1		80	85.00 81.00 x .00		61.00	
61 0 0		100	10 .00 100.00 x .00		66.00	

Product code: 50

1.

Item o.	L U	Item o.	L U	Size	Dimension mm				UT F
1. 01 0		1. 0 16L		mm	A				HSFO I 0.8 1.6 | 11851
611 06 0		61 150 01		10	8.00	18.00	8 x 18	1 .00	
611 06 0		61 150 0		15	.00	18.00	x 18	5.00	
611 00 1		61 150 0		0	5 .00	0.00	x 16	1.00	
1 18001 1		61 150 0		5	6 .00	1.00	5 x 16	6.00	
1 18001		61 150 05			0.00	1.00	58 x 16	.00	
1 18001		61 150 06		0	8.00	1.00	65 x 16	.00	
1 18001		61 150 0		50	.00	.00	8 x 16	6 .00	
1 18001 5		61 150 08		65	11 .00	5.00	5 x 16	80.00	
1 18001 6		61 150 10		80	1 .00	.00	110 x 1	.00	
1 18001 8		61 150 11		100	1 8.00	1.00	1 0 x 1	115.00	
611 06 50		61 150 1		1 5	1 8.00	.00	160 x 1	1 8.00	
611 06 60		61 150 1		150	10.00	0.00	1 0 x 1	16 .00	

Product code: 5060

1.

Material	L	Size	Dimension mm						
Item no.	U		A				F	LI S	
1. 0 16L		mm						H I 0.8 1.0 | 1186 11185 1	
615 0601		10	.00	1.00	8 x 8	.00	.00	1.00	
615 060		15	8.00	1.00	x 8	.00	.00	1.00	
615 060		0	6.00	1.00	x 16	5.00	.00	.00	
615 060		5	.00	1.00	5 x 16	6.00	.00	.00	
615 0605			.00	1.00	58 x 16	.00	.00	5.00	
615 0606		0	55.00	1.00	65 x 16	.00	.00	1.00	
615 060		50	6.00	1.00	8 x 16	.00	.00	5.00	
615 0608		65	85.00	16.00	5 x 16	8.00	8.00	0.00	
615 060		80	.00	0.00	110 x 1	8.00	8.00	85.00	
615 0610		100	11.00	0.00	10 x 1	10.00	0.00	10.00	
								LI S H I 0.8 1.0 | 1186 11185 1	
615 001		10	1.0	18.00	.00	.00			
615 00		15	.0	.00	.00	.00			
615 00		0	5.0	0.00	10.00	.00			
615 00		5	.0	5.00	1.00	.00			
615 005			8.0	1.00	1.00	.00			
615 006		0	5.0	8.00	1.00	.00			
615 00		50	66.0	61.00	1.00	.00			
615 008		65	8.0	.00	16.00	.00			
615 00		80	8.0	.00	16.00	.00			
615 010		100	118.0	11.00	0.00	5.00			

Product code: 50 5

Item o.	L U	Item o.	L U			Size	Dimension mm		
		F				mm			I 1186 1185
61 06 01		61 06 11				10	.50	1 .00	
61 06 0		61 06 1				15	.50	18.00	
61 06 0		61 06 1				0	.50	.00	
61 06 0		61 06 1				5	.50	8.00	
61 06 05		61 06 15					5.00	.00	
61 06 06		61 06 16				0	5.00	0.00	
61 06 0		61 06 1				50	5.00	5 .00	
61 06 08		61 06 18				65	5.00	68.00	
61 06 0		61 06 1				80	5.00	8 .00	
61 06 10		61 06 0				100	5.00	10 .00	
61 06 1		61 06				1 5	5.00	1 .00	
61 06		61 06				150	5.00	15 .00	

Product code: 5060

1.

Item No	L U	Size	Dimension mm				FLA H I 0.8 1.0 I 1186	
			I x t	A		F		
61 0 1		10	1 .00 10.00 x 1.50	5 .00	1.50	.00		
61 0		15	1 .00 16.00 x 1.50	5 .00	1.50	.00		
61 0		0	.00 0.00 x 1.50	6 .00	1.50	.00		
61 0		5	.00 6.00 x 1.50	0.00	1.50	5 .00		
61 0 5		5	5.00 .00 x 1.50	6.00	6.50	5 .00		
61 0 6		0	1.00 8.00 x 1.50	8 .00	6.50	65.00		
61 0		50	5 .00 50.00 x 1.50	.00	6.50	.00		
61 0 8		65	0.00 66.00 x .00	11 .00	55.50	5.00		
61 0		80	85.00 81.00 x .00	1 .00	5 .50	11 .00		
61 0 0		100	10 .00 100.00 x .00	15 .00	5 .50	1 .00		
615 111		1 5	1 .00 1 5.00 x .00	18 .00	61.50	161.00		
615 111		150	15 .00 150.00 x .00	1 .00	61.50	188.00		
								FLA LLA F H I 0.8 1.0 I 1186
61 0 1		10	1 .00 10.00 x 1.50	5 .00	0.00	.00		
61 0		15	1 .00 16.00 x 1.50	5 .00	0.00	.00		
61 0		0	.00 0.00 x 1.50	6 .00	0.00	.00		
61 0		5	.00 6.00 x 1.50	0.00	0.00	5 .00		
61 0 5		5	5.00 .00 x 1.50	6.00	5.00	5 .00		
61 0 6		0	1.00 8.00 x 1.50	8 .00	5.00	65.00		
61 0		50	5 .00 50.00 x 1.50	.00	5.00	.00		
61 0 8		65	0.00 66.00 x .00	11 .00	5 .00	5.00		
61 0		80	85.00 81.00 x .00	1 .00	58.00	11 .00		
61 0 0		100	10 .00 100.00 x .00	15 .00	58.00	1 .00		
615 101		1 5	1 .00 1 5.00 x .00	18 .00	60.00	161.00		
615 101		150	15 .00 150.00 x .00	1 .00	60.00	188.00		

product code: 5060

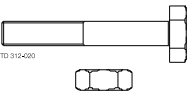
Material	L	Size	Dimension						
Item no.	U	mm	A						
									LI F H I 0.8 1.0 I 1186 1185
615 1 0		10	5.00	.00	.0	10.00	.00 x .00		
615 1 0		15	5.00	.00	8.0	10.00	.00 x .00		
615 1 05		0	6.00	.00	.0	10.00	.00 x .00		
615 1 06		5	0.00	5.00	8.0	10.00	.00 x .00		
615 1 0			6.00	5.00	.0	10.00	.00 x .00		
615 1 08		0	8.00	65.00	5.0	10.00	.00 x .00		
615 1 0		50	.00	.00	65.0	10.00	.00 x .00		
615 1 10		65	11.00	5.00	81.0	10.00	8.00 x .00		
615 1 11		80	1.00	11.00	.0	1.00	8.00 x 11.00		
615 1 1		100	15.00	1.00	116.0	1.00	8.00 x 11.00		
615 1 1		15	18.00	161.00	1 1.0	1.00	8.00 x 11.00		
615 1 1		150	1.00	188.00	16.0	16.00	8.00 x 1.00		
									LI F H I 0.8 1.0 I 1186 1185
615 1 0		10	5.00	.00	.0	11.50	.00 x .00		
615 1 0		15	5.00	.00	8.0	11.50	.00 x .00		
615 1 05		0	6.00	.00	.0	11.50	.00 x .00		
615 1 06		5	0.00	5.00	8.0	11.50	.00 x .00		
615 1 0			6.00	5.00	.60	11.50	.00 x .00		
615 1 08		0	8.00	65.00	5.60	11.50	.00 x .00		
615 1 0		50	.00	.00	65.60	11.50	.00 x .00		
615 1 10		65	11.00	5.00	81.60	11.50	8.00 x .00		
615 1 11		80	1.00	11.00	.60	1.50	8.00 x 11.00		
615 1 1		100	15.00	1.00	116.60	15.50	8.00 x 11.00		
615 1 1		15	18.00	161.00	1 1.60	15.50	8.00 x 11.00		
615 1 1		150	1.00	188.00	16.60	1.50	8.00 x 1.00		

product code: 50 5

1.

Item o.	L U	Item o.	L U			Size	Dimension mm		
		F				mm			I 1186 1185
61 06 01		61 06 11				10	.50	1 .00	
61 06 0		61 06 1				15	.50	18.00	
61 06 0		61 06 1				0	.50	.00	
61 06 0		61 06 1				5	.50	8.00	
61 06 05		61 06 15					5.00	.00	
61 06 06		61 06 16				0	5.00	0.00	
61 06 0		61 06 1				50	5.00	5 .00	
61 06 08		61 06 18				65	5.00	68.00	
61 06 0		61 06 1				80	5.00	8 .00	
61 06 10		61 06 0				100	5.00	10 .00	
61 06 1		61 06				1 5	5.00	1 .00	
61 06		61 06				150	5.00	15 .00	

product code: 5060

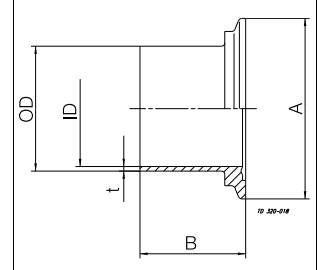
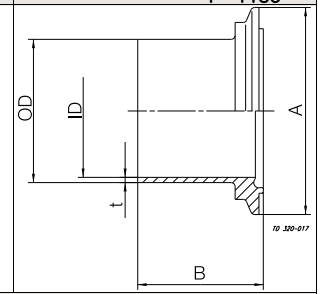
Item no.	L U	Flange size I	Ports	Screws	
1. 01 0		mm			Screws and nut set
61 05161		10 50	8 x 8 x 0	8 x 8	
61 0516		65	8 x 8 x 0	8 x 8	
61 0516		80	8 x 10 x 5	8 x 10	
61 05165		100 1 5	8 x 10 x 0	8 x 10	
61 05166		150	8 x 1 x 50	8 x 1	

Product code: 5060

1.

Item no.	L U	Size	Dimension mm			LA	LI	KS
1. 0 16L		mm	l x t	A		H	I 0.8 1.0	
61 0 1		10	1 .00 10.00 x 1.50	.00	.50			
61 0		15	1 .00 16.00 x 1.50	.00	.50			
61 0		0	.00 0.00 x 1.50	50.50	.50			
61 0		5	.00 6.00 x 1.50	50.50	0.00			
61 0 5			5.00 .00 x 1.50	50.50	5.50			
61 0 6		0	1.00 8.00 x 1.50	6 .00	5.50			
61 0		50	5 .00 50.00 x 1.50	.50	6.00			
61 0 8		65	0.00 66.00 x .00	1.00	58.00			
61 0		80	85.00 81.00 x .00	106.00	60.00			
61 0 50		100	10 .00 100.00 x .00	1 0.00	61.50			

LA	LI	LLA	KS				
H	I 0.8	1.0	I 1186				
61 0 51		10	1 .00 10.00 x 1.50	.00	8.00		
61 0 5		15	1 .00 16.00 x 1.50	.00	8.00		
61 0 5		0	.00 0.00 x 1.50	50.50	8.00		
61 0 5		5	.00 6.00 x 1.50	50.50	8.50		
61 0 55			5.00 .00 x 1.50	50.50	.00		
61 0 56		0	1.00 8.00 x 1.50	6 .00	.00		
61 0 5		50	5 .00 50.00 x 1.50	.50	.50		
61 0 58		65	0.00 66.00 x .00	1.00	56.50		
61 0 5		80	85.00 81.00 x .00	106.00	58.50		
61 0 60		100	10 .00 100.00 x .00	1 0.00	60.00		



Recommended clamp ring for | 1186 LI

LI	Item no.	lamp ring
10	611 11	
15	611 11	
0	1105	
5	1105	
	1105	
0	1105	
50	11055	
65	11056	
80	611 11	
100	611 1	

product code: 5060

Material Item no.	L U	Size mm	Dimension mm				L H	KS 0.8 1.0
			A					
615 1601		10	.00	. 0	11.50	5.00	I 1186 1185	
615 160		15	.00	8. 0	11.50	5.00		
615 160		0	50.50	. 0	11.50	.00		
615 160		5	50.50	8. 0	11.50	.00		
615 1605			50.50	. 0	11.50	.00		
615 1606		0	6 .00	5 . 0	11.50	5 .00		
615 160		50	.50	65. 0	1 .50	6 .00		
615 1608		65	1.00	81. 0	1 .50	8.00		
615 160		80	106.00	. 0	1 .50	.00		
615 1610		100	1 0.00	116. 0	1 .50	115.00		
								I 1186 1185
615 1 01		10	.00	. 0	1 .00	5.00		
615 1 0		15	.00	8. 0	1 .00	5.00		
615 1 0		0	50.50	. 0	1 .00	.00		
615 1 0		5	50.50	8. 0	1 .00	.00		
615 1 05			50.50	. 0	1 .00	.00		
615 1 06		0	6 .00	5 . 0	1 .00	5 .00		
615 1 0		50	.50	65. 0	15.00	6 .00		
615 1 08		65	1.00	81. 0	15.00	8.00		
615 1 0		80	106.00	. 0	15.00	.00		
615 1 10		100	1 0.00	116. 0	15.00	115.00		
							I 1186 1185	

product code: 50 5

1.

Item o.	L U	Item o.	L U			Size	Dimension mm		
		F				mm			I 1186 1185
61 06 01		61 06 11				10	.50	1 .00	
61 06 0		61 06 1				15	.50	18.00	
61 06 0		61 06 1				0	.50	.00	
61 06 0		61 06 1				5	.50	8.00	
61 06 05		61 06 15					5.00	.00	
61 06 06		61 06 16				0	5.00	0.00	
61 06 0		61 06 1				50	5.00	5 .00	
61 06 08		61 06 18				65	5.00	68.00	
61 06 0		61 06 1				80	5.00	8 .00	
61 06 10		61 06 0				100	5.00	10 .00	
61 06 1		61 06				1 5	5.00	1 .00	
61 06		61 06				150	5.00	15 .00	

product code: 505

Material Item no.	L U	Material Item no.	L U	Size	Dimension mm			F UL KK
1. 0 0 L		1. 0 16L		mm	l x t	A		HSF0 I 0.8 1.6 I 6 6
61 156101		61 1561 1		10	1 .00 10.00 x 1.50	.00	18.00	
61 15610		61 1561		15	1 .00 16.00 x 1.50	.00	18.00	
61 15610		61 1561		0	.00 0.00 x 1.50	.00	18.00	
61 15610		61 1561		5	.00 6.00 x 1.50	50.50	1.50	
61 156105		61 1561 5			5.00 .00 x 1.50	50.50	1.50	
61 156106		61 1561 6		0	1.00 8.00 x 1.50	50.50	1.50	
61 15610		61 1561		50	5 .00 50.00 x 1.50	6 .00	1.50	
61 156108		61 1561 8		65	0.00 66.00 x .00	1.00	8.00	
61 15610		61 1561		80	85.00 81.00 x .00	106.00	8.00	
61 156110		61 1561 0		100	10 .00 100.00 x .00	11 .00	8.00	
61 1561 1		61 1561 5		1 5	1 .00 1 5.00 x .00	155.00	8.00	
61 1561		61 1561 6		150	15 .00 150.00 x .00	18 .00	8.00	

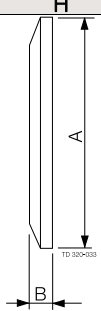
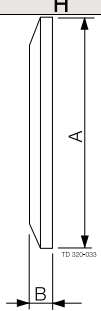
Item no.	L U	Size	Dimension mm				F UL KL
1. 0 16L		mm	l x t	A		L	HSF0 I 0.8 1.6 I 6 6
61 001		10	1 .00 10.00 x 1.50	.00	8.60	.00	
61 00		15	1 .00 16.00 x 1.50	.00	8.60	.00	
61 00		0	.00 0.00 x 1.50	.00	8.60	5.00	
61 00		5	.00 6.00 x 1.50	50.50	6.00	0.00	
61 005			5.00 .00 x 1.50	50.50	6.00	.00	
61 006		0	1.00 8.00 x 1.50	50.50	6.00	.00	
61 00		50	5 .00 50.00 x 1.50	6 .00	6.00	.00	
61 008		65	0.00 66.00 x .00	1.00	8.00	.00	
61 00		80	85.00 81.00 x .00	106.00	8.00	.00	
61 010		100	10 .00 100.00 x .00	11 .00	8.00	.00	

Recommended clamp ring for I 6 6 F UL

F UL	Item no.	lamp ring
10	611	11
15	611	11
0	611	11
5	1105	
	1105	
0	1105	
50	1105	
65	11056	
80	611	11
100	1105	
1 5	611	0
150	611	0

product code: 505

1.

Material		L U	Size	Dimensions mm		
Item	no.			mm	A			lind 6 6
61	5 0		10 0	6.00	6.00	
61	5 0		50 0	50.50	6.00	
61	5 0		50	6.00	6.00	
61	5 05		65	1.00	6.00	
61	5 06		80	106.00	8.00	
61	5 0		100	11.00	8.00	
61	5 08		115	155.00	1.00	
61	5 01		150	18.00	1.00	

product code: 50 5

Item o.	L U	Item o.	L U	Size	Dimensions mm			asket I 6 6
		TF		mm	A			
611 00		61 1586		10	6.0	5.50	10.0	
611 010		61 158		15	6.0	5.50	16.0	
611 011		61 1588		0	6.0	5.50	0.0	
611 01		61 158		5	5.0	5.50	6.0	
611 01		61 15 0			5.0	5.50	.0	
611 01		61 15 1		0	5.0	5.50	8.0	
611 015		61 15		50	66.0	5.50	50.0	
611 016		61 15		65	.0	5.50	66.0	
611 01		61 15		80	108.0	5.50	81.0	
611 018		61 15 5		100	111.0	5.50	100.0	
611 05				15	15.0	5.50	15.0	
611 06				150	185.0	5.50	150.0	

Item o.	L U	Item o.	L U	Size	Dimensions mm			asket I 6 6
		F		mm	A			
611 1		611 18		10	6.0	5.50	10.0	
600 000		611 18		15	6.0	5.50	16.0	
600 001		611 18		0	6.0	5.50	0.0	
600 00		611 185		5	5.0	5.50	6.0	
600 00		611 186			5.0	5.50	.0	
600 00		611 18		0	5.0	5.50	8.0	
600 005		611 188		50	66.0	5.50	50.0	
600 006		611 18		65	.0	5.50	66.0	
600 00		611 1 0		80	108.0	5.50	81.0	
600 008		611 1 1		100	111.0	5.50	100.0	
		611 5100		15	15.0	5.50	15.0	
		611 10		150	185.0	5.50	150.0	

n request

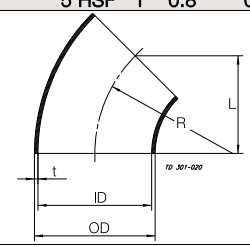
product code: 50

1.

Item no.	L U	Size mm	Dimension mm			Diagram
			A			
1. 01 0		mm	A			A1 H lamp ring
1105		50	5.00			
1105		50	6.10			
11056		65	.50			
1105		100	1.0			
lamp ring						
611 11		10 15 0	.00			
611 11		80	10.00			
611 1		100	1.00			
611 0		15	15.00			
611 0		150	18.00			
lamp ring Allen Screws						
611 11051		50	58.50	85.50		
611 1105		50	.00	.00		
611 1105		65	.00	16.00		
611 11055		100	1.00	15.00		
1 HH						
1 1 5		50	5.00			
1 1 6		50	6.50			
1 1 8		65	.50			
1 1		100	1.60			
lamp ring, wingnut						
611 58		100	.50			
611 5		50	5.00			
611 5		50	6.50			
611 56		65	.50			
611 5		80	10.50			
611 5		100	1.60			

product code: 501

Material		L	Material		L	Size	Dimension mm			5 HSF | 0.8 | 0.8
Item	o.	U	Item	o.	U		mm	l	x t		L
1.	0	0	1.	0	16L	mm				
611	8	1	611	8		5	8.00	5.00 x 1.50	.00	50.00
611	8	1	611	8			.00	1.00 x 1.50	.00	55.00
611	8	1	611	8		0	0.00	.00 x 1.50	1.00	60.00
611	851		611	85		50	5 .00	.00 x 1.50	8.00	0.00



on request

Product code: 501

1.

Material Item no.	L U	Material Item no.	L U	Size mm	Dimension mm			
1. 0 0 L		1. 0 16L		mm	l x t	L		0
								HSF | 0.8 0.8
61 15 558		61 15 508		10	1 .00 10.00 x 1.50	8.00	6.00	
61 15 55		61 15 50		15	1 .00 16.00 x 1.50	.00	5.00	
61 15 560		61 15 510		0	.00 0.00 x 1.50	5 .00	0.00	
61 15 561		61 15 511		5	.00 6.00 x 1.50	0.00	50.00	
61 15 56		61 15 51			5.00 .00 x 1.50	8.00	55.00	
61 15 56		61 15 51		0	1.00 8.00 x 1.50	85.00	60.00	
61 15 56		61 15 51		50	5 .00 50.00 x 1.50	.00	0.00	
611 0 060		611 0 06		65	0.00 66.00 x .00	110.00	80.00	
611 0 080		611 0 08		80	85.00 81.00 x .00	118.00	0.00	
611 0 0 0		611 0 0		100	10 .00 100.00 x .00	1 0.00	100.00	
								HSF | 0.8 1.6
615 000		615 00 1		10	1 .00 10.00 x 1.50	8.00	6.00	
615 0010		615 00		15	1 .00 16.00 x 1.50	.00	5.00	
615 0011		615 00		0	.00 0.00 x 1.50	5 .00	0.00	
615 001		615 00		5	.00 6.00 x 1.50	0.00	50.00	
615 001		615 00 5			5.00 .00 x 1.50	8.00	55.00	
615 001		615 00 6		0	1.00 8.00 x 1.50	85.00	60.00	
615 0015		615 00		50	5 .00 50.00 x 1.50	.00	0.00	
615 0016		615 00 8		65	0.00 66.00 x .00	110.00	80.00	
615 001		615 00		80	85.00 81.00 x .00	118.00	0.00	
615 0018		615 00 0		100	10 .00 100.00 x .00	1 0.00	100.00	
								HSF | 0.8 0.8 SH T
611 0 100		611 0 101		10	1 .00 .00 x 1.50	6.00	6.00	
611 01060		611 0 111		15	18.00 15.00 x 1.50	5.00	5.00	
611 01061		611 0 1 1		0	.00 1 .00 x 1.50	0.00	0.00	
611 0106		611 0 1 1		5	8.00 5.00 x 1.50	50.00	50.00	
611 0106		611 0 1 1			.00 1.00 x 1.50	55. 0	55.00	
611 0106		611 0 151		0	0.00 .00 x 1.50	60.00	60.00	
611 01065		611 0 161		50	5 .00 .00 x 1.50	0.00	0.00	
								0
								HSF | 0.8 0.8
611 0 1 0		611 0 1		10	1 .00 .00 x 1.50	8.00	6.00	
611 0 1 0		611 0 1		15	18.00 15.00 x 1.50	.00	5.00	
611 1		611		0	.00 1 .00 x 1.50	5 .00	0.00	
611 0 1 0		611 0 1		5	8.00 5.00 x 1.50	0.00	50.00	
611 0 150		611 0 15			.00 1.00 x 1.50	8.00	55.00	
611 0 160		611 0 16		0	0.00 .00 x 1.50	85.00	60.00	
611 0 1 0		611 0 1		50	5 .00 .00 x 1.50	.00	0.00	

product code: 501

Material Item no.	L U	Material Item no.	L U	Size	Dimension mm				
1. 01 0		1. 0 16L		mm	l x t	A			end 180°, : Semi bright, l : aw, non standard
61 156801		61 1568 5		10	1 .00 .00 x 1.50	5 .00			
61 15680		61 1568 6		15	18.00 15.00 x 1.50	68.00			
61 15680		61 1568		0	.00 1 .00 x 1.50	6.00			
61 15680		61 1568 8		5	8.00 5.00 x 1.50	100.00			
61 156805		61 1568			.00 1.00 x 1.50	110.00			
61 156806		61 1568 0		0	0.00 .00 x 1.50	1 0.00			
61 15680		61 1568 1		50	5 .00 .00 x 1.50	1 0.00			
61 156808		61 1568		65	0.00 66.00 x .00	160.00			
61 15680		61 1568		80	85.00 81.00 x .00	180.00			
61 156810		61 1568		100	10 .00 100.00 x .00	00.00			
T double bend									: Semi bright, l : aw
61 15 01		61 15 15		5		.00	50.00	5.00	
61 15 0		61 15 16				5 .00	55.00	1.00	
61 15 0		61 15 1		0		5 .00	60.00	.00	
61 15 0		61 15 18		50		6 .00	0.00	.00	
61 15 05		61 15 1		65		.00	80.00	66.00	
61 15 06		61 15 0		80		8 .00	0.00	81.00	
61 15 0		61 15 1		100		.00	100.00	100.00	

on request

Product code: 50 8

Finish: I : olished

1.

Material Item no.	L U	Material Item no.	L U	Size mm	Dimension mm				
					l	x t	L		
1. 0 0 L		1. 0 16L						Tee, form TS, non standard	
611 0 0		611 0 1		10	1 .00	.00 x 1.50	6.00		
611 0 0		611 0 1		15	18.00	15.00 x 1.50	5.00		
611 0 0		611 0 1		0	.00	1 .00 x 1.50	0.00		
611 0 50		611 0 51		5	8.00	5.00 x 1.50	50.00		
611 0 60		611 0 61			.00	1.00 x 1.50	55.00		
611 0 0		611 0 1		0	0.00	.00 x 1.50	60.00		
611 0 80		611 0 81		50	5 .00	.00 x 1.50	0.00		
1. 01 0							L₁		Tee, short, form TK, non standard
61 15000		61 1500		5	8.00	5.00 x 1.50	50.00	15.50	
61 150005		61 1500			.00	1.00 x 1.50	55.00	18.50	
61 150006		61 1500		0	0.00	.00 x 1.50	60.00	1.50	
61 15000		61 1500 5		50	5 .00	.00 x 1.50	0.00	.50	

Product code: 50

Finish: Semi bright
Seals:

Material	L	Size	Pressure	Dimension mm				
Item no.	U	mm	class	l x t	A			Complete flange
61 8 01		5	16	5.00 6.00 x 1.50	5.00	50.00	x 8	
61 8 0		5	16	5.00 6.00 x 1.50	5.00	50.00	x 8	
61 8 0		8	16	1.00 8.00 x 1.50	8.00	50.00	x 8	
61 8 0		50	16	5.00 50.00 x 1.50	106.00	50.00	x 8	
61 8 05		65	10	0.00 66.00 x 1.00	15.00	50.00	x 8	
61 8 06		80	10	85.00 81.00 x 1.00	10.00	50.00	8 x 8	
61 8 0		100	10	10.00 100.00 x 1.00	160.00	50.00	8 x 8	
61 8 08		150	10	15.00 150.00 x 1.00	15.00	60.00	8 x 10	
61 8 0		150	10	15.00 150.00 x 1.00	15.00	60.00	8 x 10	
Flange with ring groove								
61 001		5	16	5.00 6.00 x 1.50	5.00	10.00	6.00	
61 00		5	16	5.00 6.00 x 1.50	5.00	10.00	6.00	
61 00		8	16	1.00 8.00 x 1.50	5.00	10.00	1.00	
61 00		50	16	5.00 50.00 x 1.50	5.00	10.00	1.00	
61 005		65	10	0.00 66.00 x 1.00	5.00	10.00	110.00	
61 006		80	10	85.00 81.00 x 1.00	5.00	10.00	15.00	
61 00		100	10	10.00 100.00 x 1.00	5.00	10.00	1.00	
61 008		150	10	15.00 150.00 x 1.00	0.00	15.00	1.00	
61 00		150	10	15.00 150.00 x 1.00	0.00	15.00	1.60	
Flange without ring groove								
61 01		5	16	5.00 6.00 x 1.50	5.00	10.00	6.00	
61 0		5	16	5.00 6.00 x 1.50	5.00	10.00	6.00	
61 0		8	16	1.00 8.00 x 1.50	5.00	10.00	1.00	
61 0		50	16	5.00 50.00 x 1.50	5.00	10.00	1.00	
61 05		65	10	0.00 66.00 x 1.00	5.00	10.00	110.00	
61 06		80	10	85.00 81.00 x 1.00	5.00	10.00	15.00	
61 0		100	10	10.00 100.00 x 1.00	5.00	10.00	1.00	
61 08		150	10	15.00 150.00 x 1.00	0.00	15.00	1.00	
61 0		150	10	15.00 150.00 x 1.00	0.00	15.00	1.60	

Item no.	L	Flange size	Screws	nut	Screws and nut set for pressure flanges, Fit to 10 5 A tubes
61 01		5 65	x 8x 0	x 8	
61 0		80 100	8x 8x 0	8x 8	
61 0		15 150	8x 10x 0	8x 10	

Product code: 506

1.

Item o.	L U	Item o.	L U	Size mm	Dimension mm			Seal ring
					A			
		611 00 5		10	10.50	0.00	5.00	
		611 00 5		15	16.50	6.00	5.00	
		611 00 55		0	0.50	.00	5.00	
		611 00 56		5	6.50	0.00	6.00	
		611 00 5			.50	6.00	6.00	
		611 00 58		0	8.50	5.00	6.00	
		611 00 5		50	50.50	6.00	6.00	
		611 00 60		65	66.50	81.00	6.00	
		611 00 61		80	81.50	88.00	6.00	
		611 00 6		100	100.50	10.00	6.00	
		611 00 6		15	15.00	1.00	.00	
		611 00 65		150	150.00	16.00	.00	
611 18 8		611 1851		5		8.00		
611 18		611 185				8.00		
611 18 0		611 185		0		8.00		
611 18 1		611 185		50		8.00		
611 18		611 1855		65		8.00		
611 18		611 1856		5		8.00		
611 18		611 185		80		8.00		
611 18 5		611 1858		100		8.00		

Item o.	L U	Item o.	L U	Item o.	L U	Size mm	Dimension mm			Flange seal
							A			
		Silicone		F		mm	A			
61 0 601		61 0 611		61 0 6 1		5	.0	.10	.0	
61 0 60		61 0 61		61 0 6			.0	.10	.0	
61 0 60		61 0 61		61 0 6		0	.0	.10	.0	
61 0 60		61 0 61		61 0 6		50	61.0	.10	51.0	
61 0 605		61 0 615		61 0 6 5		65	.0	.10	6.0	
61 0 606		61 0 616		61 0 6 6		80	.0	.10	8.0	
61 0 60		61 0 61		61 0 6		100	111.0	.10	101.0	
61 0 608		61 0 618		61 0 6 8		15	16.0	.10	16.0	
61 0 60		61 0 61		61 0 6		150	161.0	.10	151.0	

product code: 506

Item o.	L U	Item o.	L U	Size	imension mm			
				mm	A		Seal disc	
611 11 1				10	8.00	.00		
611 11 1				15	.00	.00		
611 1151				0	.00	.00		
611 1161				5	5 .00	.00		
611 11 1					58.00	.00		
611 1181				0	65.00	.00		
611 11 1				50	8.00	.00		
611 1 01				65	5.00	.00		
611 1 1				80	110.00	.00		
611 1 1				100	1 0.00	.00		
611 1 51				1 5	160.00	.00		
611 1 61				150	1 0.00	.00		

Item o.	L U	Item o.	L U	Item o.	L U	Size	imension mm			
TF				F		mm	A			Seal ring
611 01						10	6. 0	5.10	10.00	
611 0 0						15	6. 0	5.10	16.00	
611 0 1						0	6. 0	5.10	0.00	
611 0						5	5 . 0	5.10	6.00	
611 0							5 . 0	5.10	.00	
611 0						0	5 . 0	5.10	8.00	
611 0 5						50	66. 0	5.10	50.00	
611 0 6						65	. 0	5.10	66.00	
611 0						80	108. 0	5.10	81.00	
611 0 8						100	1 1. 0	5.10	100.00	

Product code: 50

Finish: Semi bright
Thread: Round type

1.

Material Item no.	L U	Material Item no.	L U	Size mm	Dimension mm				
1. 0 0 L		1. 0 16L		mm	A			End cap with chain and seal disc	
611 1 11		61 15 01		10	8.00	1 .00	8.00 x 18		
611 1 1		61 15 0		15	.00	1 .00	.00 x 18		
611 1 1		61 15 0		0	5 .00	1.00	.00 x 16		
611 1 1		61 15 0		5	6 .00	.00	5 .00 x 16		
611 1 51		61 15 05			0.00	.00	58.00 x 16		
611 1 61		61 15 06		0	8.00	.00	65.00 x 16		
611 1 1		61 15 0		50	.00	.00	8.00 x 16		
611 1 81		61 15 08		65	11 .00	6.00	5.00 x 16		
611 1 1		61 15 0		80	1 .00	0.00	110.00 x 1		
611 1511		61 15 10		100	1 8.00	.00	1 0.00 x 1		
611 15 1		61 15 11		1 5	1 8.00	6.00	160.00 x 1		
611 15 1		61 15 1		150	10.00	1.00	1 0.00 x 1		
									End cap
611 1 1		61 15 01		10	8.00	1 .00	8.00 x 18		
611 1 81		61 15 0		15	.00	1 .00	.00 x 18		
611 1 1		61 15 0		0	5 .00	1.00	.00 x 16		
611 1 01		61 15 0		5	6 .00	.00	5 .00 x 16		
611 1 11		61 15 05			0.00	.00	58.00 x 16		
611 1 1		61 15 06		0	8.00	.00	65.00 x 16		
611 1 1		61 15 0		50	.00	.00	8.00 x 16		
611 1 1		61 15 08		65	11 .00	6.00	5.00 x 16		
611 1 51		61 15 0		80	1 .00	0.00	110.00 x 1		
611 1 1		61 15 10		100	1 8.00	.00	1 0.00 x 1		
611 1 81		61 15 11		1 5	1 8.00	6.00	160.00 x 1		
611 1 1		61 15 1		150	10.00	1.00	1 0.00 x 1		

Product code: 50

Finish: Semi bright
Thread: Round type

Material Item no.	L U	Size mm	Dimension mm					n x K	Hose liner
			Ø	Ø 5	Ø	L			
615 86501		15	8.0	1.00	1.00	0.00	x 6		
615 8650		0	6.0	16.00	.00	0.00	x 6		
615 8650		5	.80	.00	.00	5.00	x 8		
615 8650			.80	.50	5.00	5.00	x 8		
615 86505		0	55.80	5.00	1.00	6.00	x		
615 86506		50	68.0	6.00	5.00	68.00	x 10		
615 8650		65	85.60	65.00	0.00	.00	x 10		
615 86508		80	.0	80.00	85.00	8.00	x 1		
615 8650		100	10.0	8.00	10.00	110.00	x 15		

Material Item no.	L U	Size mm	Dimension mm				Hose liner, beer
			A				
61 15 0		5	80.00	6.00	.00	.00	
61 15 05			0.00	0.00	1.00	.00	
61 15 06		0	105.00	8.00	.00	.00	
61 15 0		50	10.00	.00	5.00	5.00	
61 15 08		65	10.00	11.00	60.00	68.00	
61 15 0		80	160.00	1.00	.00	8.00	
61 15 10		100	180.00	1.00	.00	10.00	

on request

1.

Sockets and male parts
product code: 50

Material	L	Size	Dimension mm		
Item no.	U	mm		L	
1. 0 16L					Half socket
611 566		18	1.00	.50	
611 56		1	18.00	11.00	
611 568		8	1.0	11.50	
611 56		1	6.0	15.00	
611 50			1.80	16.50	
611 51		1	.50	1.00	
611 5		1 ¹	8.0	1.50	
611 5		1 ¹	5.50	1.50	
611 5			66.0	6.00	
611 55		1	8.00	0.00	
611 56			5.00	.00	
Socket					
611 5		18	1.00	1.00	
611 55		1	18.00	5.00	
611 56		8	1.0	6.00	
611 5		1	6.0	.00	
611 58			1.80	6.00	
611 5		1	.50	.00	
611 550		1 ¹	8.0	8.00	
611 551		1 ¹	5.50	8.00	
611 55			66.0	56.00	
611 55		1	8.00	65.00	
611 55			5.00	1.00	
1. 5 1 16Ti					Welding male part
611 588		18		0.00	
611 58		1		0.00	
611 50		8		0.00	
611 51		1		5.00	
611 5				0.00	
611 5		1		0.00	
611 5		1 ¹		50.00	
611 55		1 ¹		50.00	
611 56				55.00	
611 5		1		60.00	
611 58				65.00	

on request

1. Hygienic, S 8 5, art 1

The installation material in this section is manufactured to meet S 8 5, art 1 tube dimensions.



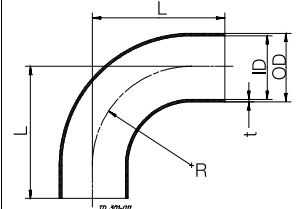
Ordering leaflets	
Reducers, art 1	1. .1
Ends, art 1	1. .1
Tees, art 1	1. .1
I F Union parts, art 1	1. .1 6
T Union parts, art 1	1. .1 8
S S Union parts, art 1	1. .150
Lamp Union parts, art 1	1. .151

1.

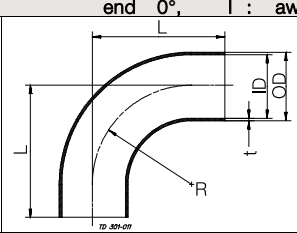
aterial		L U	Size	imension mm			oncentric reducer
Item	o.			mm	$l_1 \times t_1$	$l \times t$		L
61	601		5.0x1.0	5.0 .0x1.60	1.0 .50x1.60	1.00	
61	60		5.0x1.00	5.0 .0x1.60	1.00 15.80x1.60	.00	
61	60		8.10x 5.0	8.10 .0x1.60	5.0 .0x1.60	0.00	
61	60		50.80x 5.0	50.80 .60x1.60	5.0 .0x1.60	55.00	
61	605		50.80x 8.10	50.80 .60x1.60	8.10 .0x1.60	0.00	
61	606		6.50x 5.0	6.50 60.0x1.60	5.0 .0x1.60	80.00	
61	60		6.50x 8.10	6.50 60.0x1.60	8.10 .0x1.60	5.00	
61	608		6.50x50.80	6.50 60.0x1.60	50.80 .60x1.60	0.00	
61	60		6.10x 5.0	6.10 .00x1.60	5.0 .0x1.60	108.00	
61	610		6.10x 8.10	6.10 .00x1.60	8.10 .0x1.60	8.00	
61	611		6.10x50.80	6.10 .00x1.60	50.80 .60x1.60	5.00	
61	61		6.10x6.50	6.10 .00x1.60	6.50 60.0x1.60	0.00	
61	61		101.60x 5.0	101.60 .60x .00	5.0 .0x1.60	160.00	
61	61		101.60x 8.10	101.60 .60x .00	8.10 .0x1.60	16.00	
61	615		101.60x50.80	101.60 .60x .00	50.80 .60x1.60	10.00	
61	616		101.60x6.50	101.60 .60x .00	6.50 60.0x1.60	.00	
61	61		101.60x .0	101.60 .60x .00	6.10 .00x1.60	5.00	
61	618		8.10x 5.0	8.10 .0x1.60	5.0 .0x1.60	6.00	
61	61		50.80x 5.0	50.80 .60x1.60	5.0 .0x1.60	5.00	
61	60		50.80x 8.10	50.80 .60x1.60	8.10 .0x1.60	.00	
61	61		6.50x 5.0	6.50 60.0x1.60	5.0 .0x1.60	6.00	
61	6		6.50x 8.10	6.50 60.0x1.60	8.10 .0x1.60	5.00	
61	6		6.50x50.80	6.50 60.0x1.60	50.80 .60x1.60	.00	
61	6		6.10x 5.0	6.10 .00x1.60	5.0 .0x1.60	101.00	
61	65		6.10x 8.10	6.10 .00x1.60	8.10 .0x1.60	6.00	
61	66		6.10x50.80	6.10 .00x1.60	50.80 .60x1.60	6.00	
61	6		6.10x6.50	6.10 .00x1.60	6.50 60.0x1.60	.00	
61	68		101.60x 5.0	101.60 .60x .00	5.0 .0x1.60	156.00	
61	6		101.60x 8.10	101.60 .60x .00	8.10 .0x1.60	10.00	
61	60		101.60x50.80	101.60 .60x .00	50.80 .60x1.60	100.00	
61	61		101.60x6.50	101.60 .60x .00	6.50 60.0x1.60	.00	
61	6		101.60x .0	101.60 .60x .00	6.10 .00x1.60	.00	

T : For pressure and surface, please see product leaflet.

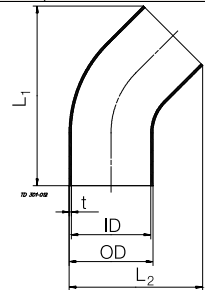
aterial Item o.	L U	aterial Item o.	L U	Size	imension mm			end 0°, Finish: I : olished
1. 0 0 L		1. 0 16L		mm	l x t	L		
61 6 6501		61 6 650		5.00	5.0 . 0x1.60	65.00	.50	
61 6 650		61 6 6508		8.00	8.10 . 0x1.60	85.00	5 .00	
61 6 650		61 6 650		51.00	50.80 .60x1.60	110.00	6.50	
61 6 650		61 6 6510		6 .50	6 .50 60. 0x1.60	1 5.00	5. 0	
61 6 6505		61 6 6511		6.10	6. 0 .00x1.60	155.00	11 . 0	
61 6 6506		61 6 651		101.60	101.60 .60x .00	1 5.00	15 .50	



aterial Item o.	L U	aterial Item o.	L U	Size	imension mm			end 0°, I : aw
1. 0 0 L		1. 0 16L		mm	l x t	L		
611 11568		611 1156		5.00	5.0 . 0x1.60	65.00	.50	
611 115 8		611 115		8.00	8.10 . 0x1.60	85.00	5 .00	
611 11588		611 1158		51.00	50.80 .60x1.60	110.00	6.50	
611 115 8		611 115		6 .50	6 .50 60. 0x1.60	1 5.00	5. 0	
611 11608		611 1160		6.10	6. 0 .00x1.60	155.00	11 . 0	
611 11618		611 1161		101.60	101.60 .60x .00	1 5.00	15 .50	



aterial Item o.	L U	Size	imension mm			end 5°, Finish: I : olished
1. 0 16L		mm	l x t	L ₁	L	
61 6 660		5.00	5.0 . 0x1.60	108.10	6 . 0	
61 6 6608		8.00	8.10 . 0x1.60	1 . 0	.60	
61 6 660		51.00	50.80 .60x1.60	1 6. 0	6.00	
61 6 6610		6 .50	6 .50 60. 0x1.60	165.80	11 .60	
61 6 6611		6.10	6. 0 .00x1.60	185.00	1 0.50	
61 6 661		101.60	101.60 .60x .00	.10	16 . 0	



T : For pressure and surface, please see product leaflet.

1.

Material Item no.	L U	Size	Dimension mm			Tee. | : polished
			l	x	t	
1. 0 16L		mm				
61 6 6 0		5.00	5.0	.0	1.60	
61 6 6 08		8.00	8.10	.0	1.60	
61 6 6 0		51.00	50.80	.60	1.60	
61 6 6 10		6.50	6.50	60.0	1.60	
61 6 6 11		6.10	6.0	.00	1.60	
61 6 6 1		101.60	101.60	.60	1.60	
						Tee. | : aw
611 116		8.00	8.10	.0	1.60	
611 11		6.10	6.0	.00	1.60	
1. 0 16L		mm				Tee, short. | : polished
61 158		5.00	5.0	.0	1.60	
61 158		8.00	8.10	.0	1.60	
61 158 5		51.00	50.80	.60	1.60	
61 158 6		6.50	6.50	60.0	1.60	
61 158		6.10	6.0	.00	1.60	
61 158 8		101.60	101.60	.60	1.60	

T : For pressure and surface, please see product leaflet.

aterial		L U	Size	imension mm				educing tee
Item	o.			mm	$l_1 \times t_1$	$l \times t$	L_1		L
61	6		8.10 5. 0	8.10 . 0x1.60	5. 0 . 0x1.60	5.00	0.60	
61	6		50.80 5. 0	50.80 .60x1.60	5. 0 . 0x1.60	8 .00	5 . 0	
61	6 5		50.80 8.10	50.80 .60x1.60	8.10 . 0x1.60	8 .00	5 . 0	
61	6		6 .50 5. 0	6 .50 60. 0x1.60	5. 0 . 0x1.60	5.00	6 .00	
61	6 8		6 .50 8.10	6 .50 60. 0x1.60	8.10 . 0x1.60	5.00	6 .00	
61	6		6 .50 50.80	6 .50 60. 0x1.60	50.80 .60x1.60	5.00	6 .00	
61	0		6.10 5. 0	6.10 .00x1.60	5. 0 . 0x1.60	5.00	81. 0	
61	0		6.10 8.10	6.10 .00x1.60	8.10 . 0x1.60	5.00	81. 0	
61	0		6.10 50.80	6.10 .00x1.60	50.80 .60x1.60	5.00	81. 0	
61	05		6.10 6 .50	6.10 .00x1.60	6 .50 60. 0x1.60	5.00	81. 0	
61	0		101.60 5. 0	101.60 .60x .00	5. 0 . 0x1.60	1 .00	10 .00	
61	08		101.60 8.10	101.60 .60x .00	8.10 . 0x1.60	1 .00	10 .00	
61	0		101.60 50.80	101.60 .60x .00	50.80 .60x1.60	1 .00	10 .00	
61	10		101.60 6 .50	101.60 .60x .00	6 .50 60. 0x1.60	1 .00	10 .00	
61	11		101.60 6.10	101.60 .60x .00	6.10 .00x1.60	1 .00	10 .00	
61	1		15 . 0 50.80	15 . 1 8. x .00	50.80 .60x1.60	15 .00	156.00	
61	1		15 . 0 6 .50	15 . 1 8. x .00	6 .50 60. 0x1.60	15 .00	156.00	
61	1		15 . 0 6.10	15 . 1 8. x .00	6.10 .00x1.60	15 .00	156.00	
61	15		15 . 0 101.60	15 . 1 8. x .00	101.60 .60x .00	15 .00	156.00	

1.

Material Item no.	L U	Size mm	Dimension mm					nut hexagon		
			l	x	t	A				
611 0005		5.00				6.00	0.00	8.0x1.8	0.50	
611 0005		8.00				61.00	0.00	51.80x1.8	.50	
611 00055		51.00				6.00	0.00	65.0x1.8	5.00	
611 00056		6.50				1.00	0.00	8.80x1.8	0.00	
611 0005		6.10				106.50	0.00	.0x1.8	8.00	
611 0 0		101.60				1.0	5.00	1.680x1.6	11.00	
1. 0 16L		mm	l	x	t	A				male part
611 0 810		5.00	5.80	.0x1.80		1.50		.10x1.8		
611 0 811		8.00	8.50	.0x1.80		1.50		50.60x1.8		
611 0 81		51.00	51.0	.60x1.80		1.50		6.10x1.8		
611 0 81		6.50	6.0	.60.0x1.80		1.50		.60x1.8		
611 0 81		6.10	6.60	.00x1.80		1.50		1.10x1.8		
611 0 815		101.60	10.10	.0x.0		0.00		1.5.0x1.6		
1. 0 16L		mm	l	x	t	A				Liner
611 0 5 0		5.00	5.80	.0x1.80	.80	1.50				
611 0 5 1		8.00	8.50	.0x1.80	.00	1.50				
611 0 5		51.00	51.0	.60x1.80	60.50	1.50				
611 0 5		6.50	6.0	.60.0x1.80	.00	1.50				
611 0 5		6.10	6.60	.00x1.80	8.50	1.50				
611 0 8 5		101.60	10.10	.0x.0	1.0.0	0.00				
1. 0 16L		mm				A				lank
611 08 0		5.00			.80	10.50		.00		
611 08 1		8.00			.00	10.50		.50		
611 08		51.00			60.50	10.50		56.00		
611 08		6.50			.00	10.50		6.0		
611 08		6.10			8.50	10.50		8.0		

T : Seal rings please see later this chapter.

T : For pressure and surface, please see product leaflet.

product code: 50 1

aterial Item o.	L U	aterial Item o.	L U	aterial Item o.	L U	Size	imension mm			Seal ring
						mm	A			
611 0 5		611 1 0				5.00	.50	6.00	.60	
611 0 5		611 1				8.00	6.00	6.00	6.60	
611 0 55		611 1				51.00	5 .50	6.00	.60	
611 0 56		611 1				6 .50	. 0	6.00	61. 0	
611 0 5		611 1 5				6.10	86.50	6.00	. 0	
611 0 5		611 1				101.60	11 .50	6.00	8.60	
TF						mm	A			Seal ring
611 1						5.00	.50	6.00	.80	
611 1 6						8.00	6.00	6.00	5. 0	
611 1						51.00	5 . 0	6.00	8. 0	
611 1 8						6 .50	.00	6.00	60. 0	
611 1						6.10	86.50	6.00	. 0	
611 5						101.60	11 . 0	6. 0	. 0	
				F		mm	A			Seal ring
1 1 00 11		1 1 00 1		1 1 00 1		5.00	5.50	.00	.50	
1 1 00 1		1 1 00		1 1 00		8.00	8.00	.00	6.00	
1 1 00 1		1 1 00		1 1 00		51.00	51.00	.00	5 .50	
1 1 00 1		1 1 00		1 1 00		6 .50	6 .00	.00	.00	
1 1 00 51		1 1 00 5		1 1 00 5		6.10	5.50	.00	86.50	
611 1		611 6				101.60	110.00	.50	11 .00	

not available

1.

Material Item no.	L U	Material Item no.	L U	Size	Dimension mm				Drawing
					A				
1. 01 0				mm					nut
611 005 5				5.00	51.00	.00	6.0x1.8	.0	
611 005 6				8.00	65.00	.00	5.00x1.8	6.00	
611 005				51.00	.00	.00	.0x1.6	58.0	
611 005 8				6.50	.00	.00	86.00x1.6	1.0	
611 005				6.10	105.00	.00	8.0x1.6	8.10	
611 005 1				101.60	100.00	.00	1.0x1.6	110.00	
1. 01 0		1. 0 16L		mm	l x t				male part
611 0 880		611 0 8 0		5.00	5.80	.0x1.80	5.0x1.8	.00	
611 0 881		611 0 8 1		8.00	8.50	.0x1.80	58.0x1.8	.00	
611 0 88		611 0 8		51.00	51.0	.60x1.80	.0x1.6	.00	
611 0 88		611 0 8		6.50	6.0	60.60x1.80	85.0x1.6	.00	
611 0 88		611 0 8		6.10	6.60	.00x1.80	8.10x1.6	.00	
611 0 885		611 0 8 5		101.60	10.00	.60x.0	1.80x1.6	1.80	
		1. 0 16L		mm	l x t					Liner
		611 0 1		5.00	5.80	.0x1.80	1.0	1.0	
		611 0		8.00	8.50	.0x1.80	5.00	1.0	
		611 0		51.00	51.0	.60x1.80	66.0	1.0	
		611 0		6.50	6.0	60.60x1.80	.0	1.0	
		611 0 5		6.10	6.60	.00x1.80	.10	1.0	
		611 0 6		101.60	10.00	.60x.0	11.80	1.0	

T : Seal rings please see later this chapter.

T : For pressure and surface, please see product leaflet.

Material Item no.	L U	Size mm	Dimension mm			Diagram
1. 0 16L			l x t	A	lank	
611 06		5.00		1. 0	8. 0	
611 06 0		8.00		5 .00	8. 0	
611 06 1		51.00		66. 0	8. 0	
611 06		6 .50		. 0	8. 0	
611 06		6.10		.10	8. 0	
611 06		101.60		11 .80	8. 0	

Material Item no.	L U	Material Item no.	L U	Material Item no.	L U	Size mm	Dimension mm		Diagram
				F			A	Seal ring	
611 01 5		611 8 1		611 8		5.00	. 0	6.60	
611 01 6		611 8		611 8 8		8.00	6.00	6.60	
611 01		611 8		611 8		51.00	58. 0	6.60	
611 01 8		611 8		611 8 0		6 .50	1. 0	6.60	
611 01		611 8 5		611 8 1		6.10	8 .10	6.60	
611 0550		611 8 6		611 8		101.60	10 .50	6.60	

T : For pressure and surface, please see product leaflet.

product code: 50

Finish: achined
Thread: ound type

1.

Material Item no.	L U	Size	Dimension mm			Male part	
			l	x	t		A
61 51 05		5.0	5.0	.0	1.60	15.00	
61 51 06		8.00	8.00	.80	1.60	0.00	
61 51 0		51.00	51.00	.80	1.60	0.00	
61 51 08		6.10	6.10	.10	.00	.00	
61 51 005		5.0	5.0	.0	1.60	5.50	
61 51 006		8.00	8.00	.80	1.60	55.00	
61 51 00		51.00	51.00	.80	1.60	65.00	
61 51 008		6.10	6.10	.10	.00	.00	
61 51 05		5.0	5.0	.0	1.60	5.50	
61 51 06		8.00	8.00	.80	1.60	55.00	
61 51 0		51.00	51.00	.80	1.60	65.00	
61 51 08		6.10	6.10	.10	.00	.00	

T : For nuts and seal rings, please see under S S fittings.

T : For pressure and surface, please see product leaflet.

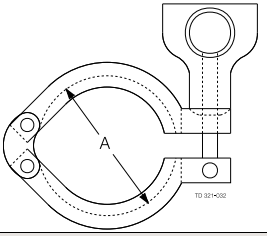
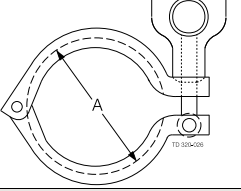
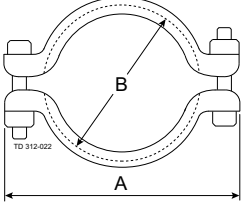
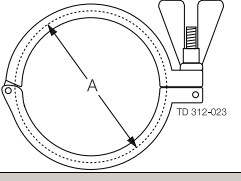
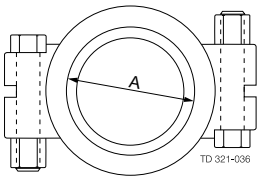
aterial Item o.	L U	aterial Item o.	L U	Size	imension mm				
1. 0 0 L		1. 0 16L		mm	l x t	A		lamp ferrule	
611 01 0		611 0180		5.00	5.0 . 0x1.5	50.0	1.0	<p>TO 312-014</p>	
611 01 1		611 0181		8.00	8.0 . 0x1.5	50.0	1.0		
611 01		611 018		51.00	51.10 .50x1.80	6.0	1.0		
611 01		611 018		6.50	6.80 60. 0x1.80	.0	1.0		
611 01		611 018		6.10	6.50 . 0x1.80	0.0	1.0		
611 01 5		611 0185		101.60	101.0 . 0x . 5	118.0	15.0		
		1. 0 16L		mm	A			lamp ferrule	
		61 1 0		5.0	.0	5.0	50.50	1.50	<p>TO 312-019</p>
		61 1 0		8.10	.0	8.10	50.50	1.50	
		61 1 05		51.00	.60	50.80	6.00	1.50	
		61 1 06		6.50	60.0	6.50	.50	1.50	
		61 1 0		6.10	.00	6.0	1.00	1.50	
		61 1 08		101.60	.60	101.60	11.00	1.50	
								lank	
611 05 0		611 0600		5.00	50.0	6.0		<p>TO 312-012</p>	
611 05 0		611 0600		8.00	50.0	6.0			
611 05 1		611 0601		51.00	6.0	6.0			
611 05		611 060		6.50	.0	6.0			
611 05		611 060		6.10	0.0	6.0			
		611 060		101.60	118.0	6.0			

T : Seal rings please see later this chapter.

T : For pressure and surface, please see product leaflet.

product code: 50

1.

Material	L	Size	Dimension mm			
Item no.	U		A			
1. 01 0		mm	A			1 HH lamp ring Finger nut
1 1 5		5.00 8.00	5 .00			
1 1 6		51.00	6 .50			
1 1		6 .50	81.00			
1 1 8		6.10	.50			
1 1		101.60	1 .60			
101		15 . 0	16 . 0			
						A1 H lamp ring Finger nut
1105		5.00 8.00	5 .00			
1105		51.00	6 .10			
11055		6 .50	81.00			
11056		6.10	.50			
1105		101.60	1 . 0			
11058		15 . 0	16 . 0			
						lamp ring Allen Screws
611 11051		5.00	85.50	5 .50		
611 11051		8.00	85.50	5 .50		
611 1105		51.00	.00	68.00		
611 1105		6 .50	11 .50	81.50		
611 1105		6.10	1 6.00	5.00		
611 11055		101.60	15 .00	1 . 00		
						lamp ring, wingnut
611 5		5.00 8.00	5 .00			
611 5		51.00	6 .50			
611 55		6 .50	81.00			
611 56		6.10	.50			
611 5		101.60	1 .60			
Material	L	Size	Dimension			
Item number	U		A			
0		Inch	mm	Inch	mm	A1 H lamp ring
615 6 01		1	1 . 0	1 .00	1.0	
615 65 01		1	1 . 0	1 .00	1.0	
615 65 01		1 1 1	5. 0	8.10	.05	
615 65 01			50.80		.58	
615 65501		1	6 .50		.11	
615 65601			6. 0		.6	
615 65 01			101.60		.	
6 0 8 8		6	15 . 0		6.6	
					1 0. 0	
					168. 0	

T : Seal rings please see later this chapter.
 T : For pressure and surface, please see product leaflet.

product code: 50 5

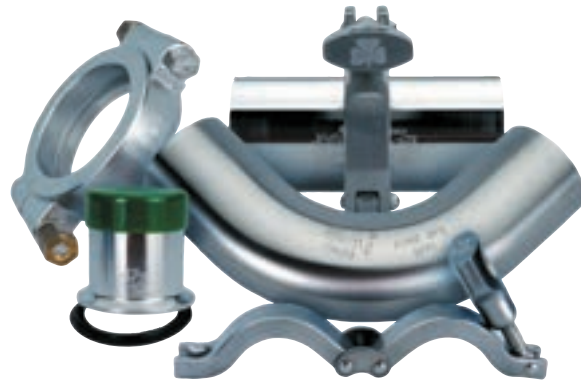
1.

aterial Item o.	L U	aterial Item o.	L U	aterial Item o.	L U	Size	imension mm				
						F	mm	A			Seal ring IS 85
611 1 58		611 0 65		611 18 0		5.00	5 . 0	5.50	.80		
611 1 5		611 0 66		611 18 1		8.00	5 . 0	5.50	5.80		
611 1 60		611 0 6		611 18		51.00	66. 0	5.50	8.80		
611 1 61		611 0 68		611 18		6 .50	. 0	5.50	60.50		
611 1 6		611 0 6		611 18		6.10	. 0	5.50	.10		
611 1 6		611 0 0		611 18 5		101.60	1 1. 0	5.50	.80		
01 1						15 .00	16 .00	5.00	1 .00		
						TF	mm	A			Seal ring, odified IS 85 , type A
611 1 0						5.00	5 . 0	5.10	.60		
611 1 0						8.00	5 . 0	5.10	5.60		
611 1 05						51.00	66. 0	5.10	8.60		
611 1 06						6 .50	. 0	5.10	60. 0		
611 1 0						6.10	. 0	5.10	. 0		
611 1 08						101.60	1 1. 0	5.10	.60		

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1. Tri-lover Hygienic Installation Material

The Tri-lover Hygienic installation material in this section is with dimensions according to AS .



Ordering leaflets		
Tri-lover Hygienic Tubes	.....	1. .156
Tri-lover Hygienic ends	.....	1. .15
Tri-lover Hygienic Tees	.....	1. .161
Tri-lover Hygienic reducing Tees	.....	1. .16
Tri-lover Hygienic crosses	.....	1. .16
Tri-lover Hygienic reducers	.....	1. .16
Tri-lover Hygienic clamp Ferrule	.....	1. .165
Tri-lover Hygienic clamp Ferrules and end caps	.....	1. .166
Tri-lover Hygienic Thermometer caps	.....	1. .16
Clamp rings for clamp Union parts	.....	1. .168
Tri-lover Hygienicaskets	.....	1. .10
Tri-lover Hygienic Adapters	.....	1. .1

1.

lease see Tri lover Ultra ure tubes

Material Item no.	L U	Material Item no.	L U	Size		Dimension		Diagram
				Inch	mm	Inch	mm	
6 000 08		6 000		1	5.0	.00	6.0	
6 000 0		6 000		1 ¹	8.10	.5	5.0	
6 000 10		6 000			50.80	.5	10.0	
6 000 11		6 000 5		1	6.50	5.50	1.0	
6 000 1		6 000 6			6.0	6.5	158.80	
6 000 1		6 000			101.60	8.00	0.0	
6 000 1		6 0 86		6	15.0	11.50	.10	
0 0		5 0		1	5.0	.06	5.0	
1 0		0015		1 ¹	8.10	.06	.60	
0		00			50.80	.06	10.0	
0		5 66		1	6.50	5.1	11.80	
0		001			6.0	6.1	160.0	
060 8		06058		1	5.0	1.50	8.10	
06008		0605 0		1 ¹	8.10	.5	5.0	
0600		060 1			50.80	.00	6.0	
060185		0600 5		1	6.50	.5	5.0	
060 88		060 81			6.0	.50	11.0	
060 5		0605 1			101.60	6.00	15.0	
060		060 68		6	15.0	.00	8.60	

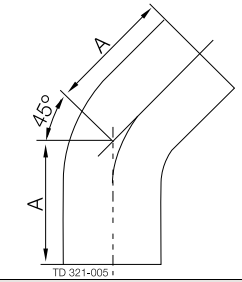
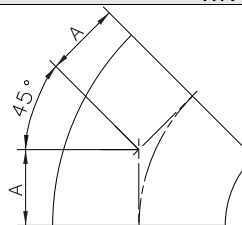
not available

AISI 304

T : For pressure and surface, please see product leaflet.



1.

Material Item no.	L U	Material Item no.	L U	Size		Dimension A		KS A
				Inch	mm	Inch	mm	
6 000508		6 0005		1	5.0	.5	5.0	
6 00050		6 0005		1 ¹	8.10	.50	6.50	
6 000510		6 0005			50.80	.00	6.0	
6 000511		6 0005 5		1	6.50	.8	85.0	
6 00051		6 0005 6			6.0	.6	.10	
6 00051		6 0005			101.60	.50	11.0	
6 6000 58		6 0 86		6	15.0	6.5	158.80	
								WK A
		060 8		1	5.0	0.6	15.0	
		060		1 ¹	8.10	0.	.80	
		060 0			50.80	1.5	1.80	
		060 1		1	6.50	1.56	.0	
		060 8			6.0	1.88	.60	
		060			101.60	.50	6.50	
		6 050000		6	15.0	.5	5.0	

not available

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1.

Material Item no.	L U	Material Item no.	L U	Size		Dimension				L	A
				Inch	mm	A		Inch	mm		
Product code: 500											
0 6		60 6		1	5.0	.06	5.0	.56	65.10		
1		60 8		1 ¹	8.10	.5	6.0	.56	8.0		
		5 0			50.80	.06	10.0	.56	115.0		
		6100		1	6.50	5.1	11.80	5.6	1.50		
		60 6			6.0	6.1	160.0	6.81	1.00		
5 10		068			101.60	8.1	11.10	8.	.00		
Product code: 5010											
6 00 15		6 00 6		1	5.0	.00	50.80				
6 00 16		6 00		1 ¹	8.10	.5	6.0				
6 00 1		6 00 8			50.80	.50	88.0				
6 00 18		6 00		1	6.50	.5	108.00				
6 00 1		6 00 0			6.0	5.00	1.00				
6 00 0		6 00 1			101.60	6.6	168.0				
		6 05000		6	15.0	10.50	66.0				

not available

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1.

Material Item no.	L U	Material Item no.	L U	Size		Dimension				K	A
				Inch	mm	A		Inch	mm		
6 00 115		6 00 1 6		1	5.0	1.1	8.60				
6 00 116		6 00 1		1 ¹	8.10	1.	6.50				
6 00 11		6 00 1 8			50.80	1.5	.50				
6 00 118		6 00 1		1	6.50	.06	5.0				
6 00 11		6 00 1 0			6.0	.8	60.0				
6 00 1 0		6 00 1 1			101.60	.1	.0				
		6 00 1		6	15.0	5.5	1.0				

on request

not available

T : For pressure and surface, please see product leaflet.



Material Item no.	L U	Material Item no.	L U	Size		Dimension A		Dimension		WWW	A
				Inch	mm	Inch	mm	Inch	mm		
Product code: 50											
6 000 08		6 000		1	5.0	.1	5.00				
6 000 0		6 000		1 ¹	8.10	.8	60.0				
6 000 10		6 000			50.80	.88	.00				
6 000 11		6 000 5		1	6.50	.1	.0				
6 000 1		6 000 6			6.0	.8	85.0				
6 000 1		6 000			101.60	.1	10.80				
		6 000 8		6	15.0	5.6	1.0				
Product code: 500											
61 6660		61 6661		1	5.0	1.1	8.60				
61 66608		61 666 0		1 ¹	8.10	1.66	.10				
61 6660		61 666 1			50.80	.06	5.0				
61 66610		61 666		1	6.50	.	5.50				
61 66611		61 666			6.0	.5	65.0				
61 6661		61 666			101.60	.	8.0				
Product code: 500											
6 00 15		6 00 6		1	5.0	.6	66.0				
6 00 16		6 00		1 ¹	8.10	.88	.00				
6 00 1		6 00 8			50.80	.8	85.0				
6 00 18		6 00		1	6.50	.6	.10				
6 00 1		6 00 0			6.0	.88	8.0				
6 00 1		6 00 1			101.60	.1	181.00				
6 00 0		6 00		6	15.0	.1	181.00				

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not available

T : For pressure and surface, please see product leaflet.



1.

Material Item no.	L U	Material Item no.	L U	Size		Dimension A		Dimension		WWW A
				Inch	mm	Inch	mm	Inch	mm	
Product code: 50										
6 001 1		6 001		1 ¹ x 1	8.10x 5.0	.8	60.0	.8	60.0	
6 001 18		6 001 50		x 1	50.80x 5.0	.88	.00	.6	66.0	
6 001 1		6 001 51		x 1 ¹	50.80x 8.10	.88	.00	.6	66.0	
6 001 0		6 001 5		1 x 1	6.50x 5.0	.1	.0	.88	.00	
6 001 1		6 001 5		1 x 1 ¹	6.50x 8.10	.1	.0	.88	.00	
6 001		6 001 5		1 x	6.50x50.80	.1	.0	.88	.00	
6 001		6 001 55		x 1	6.0x 5.0	.8	85.0	.88	.0	
6 001		6 001 56		x 1 ¹	6.0x 8.10	.8	85.0	.1	.0	
6 001 5		6 001 5		x	6.0x50.80	.8	85.0	.1	.0	
6 001 6		6 001 58		x 1	6.0x6.50	.8	85.0	.1	.0	
6 001		6 001 5		x 1	101.60x 5.0	.1	10.80	.1	.10	
6 001 8		6 001 60		x 1 ¹	101.60x 8.10	.1	10.80	.6	.10	
6 001		6 001 61		x	101.60x50.80	.1	10.80	.88	8.0	
6 001 0		6 001 6		x 1	101.60x6.50	.1	10.80	.88	8.0	
6 001 1		6 001 6		x	101.60x 6.0	.1	10.80	.88	8.0	
		6 0 8 0		6 x 1	15.0x 5.0	5.6	1.0	5.1	10.0	
		6 0 8 0		6 x 1 ¹	15.0x 8.10	5.6	1.0	5.1	10.0	
				6 x 1	15.0x1.0	5.6	1.0	5.1	10.0	
				6 x	15.0x1.00	5.6	1.0	5.1	10.0	
				6 x 1	15.0x 5.0	5.6	1.0	5.1	10.0	
				6 x 1 ¹	15.0x 8.10	5.6	1.0	5.1	10.0	
		6 0 8 05		6 x	15.0x50.80	5.6	1.0	5.1	10.0	
		6 0 8 06		6 x 1	15.0x6.50	5.6	1.0	5.1	10.0	
		6 0 8 0		6 x	15.0x 6.0	5.6	1.0	5.1	10.0	
		6 001 6		6 x	15.0x101.60	5.6	1.0	5.1	10.0	
0										
Product code: 500										
		6 00 88		x 1	50.80x 5.0	.8	85.0	.1	.0	
		6 00 88		x 1 ¹	50.80x 8.10	.8	85.0	.1	.0	
		6 00 886		1 x	6.50x50.80	.6	.10	.8	85.0	
		801000 81		x	6.0x50.80	.88	8.0	.88	8.0	
		801000 8 1		x 1	6.0x6.50	.88	8.0	.88	8.0	
				x 1 ¹	101.60x 8.10	.5	10.0	.1	10.80	
		6 00 8		x	101.60x50.80	.5	10.0	.8	111.10	
				x	101.60x 6.0	.5	10.0	.8	111.10	

on request

not available

T : For pressure and surface, please see product leaflet.



Material Item no.	L U	Material Item no.	L U	Size		Dimension A		WWWW A
				Inch	mm	Inch	mm	
Product code: 50								
6 000 08		6 000		1	5.0	.1	5.00	
6 000 0		6 000		1	8.10	.8	60.0	
6 000 10		6 000			50.80	.88	.00	
6 000 11		6 000 5		1	6.50	.1	.0	
6 000 1		6 000 6			6.0	.8	85.0	
6 000 1		6 000			101.60	.1	10.80	
6 000 1		6 000						
Product code: 500								
6 00 515		6 00 5 6		1	5.0	.6	66.0	
6 00 516		6 00 5		1	8.10	.88	.00	
6 00 51		6 00 5 8			50.80	.8	85.0	
		6 00 5		1	6.50	.6	.10	
6 00 51		6 00 5 0			6.0	.88	8.0	
6 00 5 0					101.60	.5	10.0	
6 00 5 0								

T : For pressure and surface, please see product leaflet.



1.

Material Item no.	L U	Material Item no.	L U	Size		Dimension A		L 1 A	
				Inch	mm	Inch	mm		
Product code: 506									
		6 1		1 ¹ x 1	8.10x 5. 0	.00	50.80		
		6 0		x 1	50.80x 5. 0	.00	101.60		
		00 0		x 1 ¹	50.80x 8.10	.00	50.80		
		0 6		1 ¹ x 1 ¹	6 .50x 8.10	.00	101.60		
		6005		1 ¹ x	6 .50x50.80	.00	50.80		
		61		x 1 ¹	6. 0x 8.10	6.00	15 . 0		
		00		x	6. 0x50.80	.00	101.60		
		60 6		x 1 ¹	6. 0x6 .50	.00	50.80		
		0 6		x	101.60x50.80	8.00	0 . 0		
		0 6		x 1 ¹	101.60x6 .50	6.00	15 . 0		
		606		x	101.60x 6. 0	.00	101.60		
		6 0 55		6 x	15 . 0x 6. 0	5.50	1 . 0		
		6 0 56		6 x	15 . 0x101.60	5.50	1 . 0		
L A									
		0 6		1 ¹ x 1	8.10x 5. 0	.00	50.80		
		0		x 1	50.80x 5. 0	.00	101.60		
		0 8		x 1 ¹	50.80x 8.10	.00	50.80		
		0		1 ¹ x 1 ¹	6 .50x 8.10	.00	101.60		
		0 80		1 ¹ x	6 .50x50.80	.00	50.80		
		0 8		x	6. 0x50.80	.00	101.60		
		0 8		x 1 ¹	6. 0x6 .50	.00	50.80		
		0 8		x	101.60x50.80	8.00	0 . 0		
		0 85		x 1 ¹	101.60x6 .50	6.00	15 . 0		
		0 86		x	101.60x 6. 0	.00	101.60		
		6 05000		6 x	15 . 0x 6. 0	5.50	1 . 0		
		6 0 5		6 x	15 . 0x101.60	5.50	1 . 0		
L A									
Product code: 50 0									
		6 05 58		1 ¹ x 1	8.10x 5. 0	.00	6. 0		
		6 05 5		x 1	50.80x 5. 0	5.00	1 .00		
		6 05 60		x 1 ¹	50.80x 8.10	.00	6. 0		
		6 06 011		1 ¹ x 1 ¹	6 .50x 8.10	5.00	1 .00		
		6 05 61		1 ¹ x	6 .50x50.80	.00	6. 0		
		6 60000		x	6. 0x50.80	5.00	1 .00		
		6 60000		x 1 ¹	6. 0x6 .50	.00	6. 0		
		6 000006		x	101.60x 6. 0	5.1	1 0. 0		
		6 0500		6 x	15 . 0x 6. 0	.6	1 . 0		
		6 0500 5		6 x	15 . 0x101.60	.6	1 . 0		
1 A									
		6 60000		1 ¹ x 1	8.10x 5. 0	.00	6. 0		
		6 600010		x 1	50.80x 5. 0	5.00	1 .00		
		6 600010		x 1 ¹	50.80x 8.10	.00	6. 0		
		6 60000		1 ¹ x 1 ¹	6 .50x 8.10	5.00	1 .00		
		6 60001		1 ¹ x	6 .50x50.80	.00	6. 0		
		6 60001		x	6. 0x50.80	5.00	1 .00		
		6 60001		x 1 ¹	6. 0x6 .50	.00	6. 0		
		6 600016		x	101.60x 6. 0	5.1	1 0. 0		
		6 0500 1		6 x	15 . 0x 6. 0	.6	1 . 0		
		6 0500 1		6 x	15 . 0x101.60	.6	1 . 0		
1 A									

on request

T : For pressure and surface, please see product leaflet.



1.

Material Item no.	L U	Material Item no.	L U	Size		Dimension				Diagram
				Inch	mm	A		mm		
0		16L				Inch	mm	Inch	mm	L1 A A
0606		06		1	5.0	1.1	8.60	1.8	50.	
1605		00 8		1 ¹	8.10	1.1	8.60	1.8	50.	
605		00			50.80	1.1	8.60	.5	6 . 1	
605		6 6		1	6 .50	1.1	8.60	.05	.	
606		61			6.0	1.1	8.60	.58	0.1	
55 6		6 00			101.60	1.1	8.60	.6	118.	
660016		6 0 8		6	15 . 0	1.50	8.10	6.5	166.88	
1 W S A										
61085		610 05		1	1 . 0	0.50	1 . 0	0.8	. 0	
610855		610 8		1	1 .00	0.50	1 . 0	0.8	. 0	
610856		610 65		1 ¹	5.0	0.50	1 . 0	1.8	50.0	
61085		610 6			8.10	0.50	1 . 0	1.8	50.0	
610858		610 68		1	50.80	0.50	1 . 0	.5	6 . 0	
61085		610 6			6 .50	0.50	1 . 0	.05	. 0	
610858		610 0			6.0	0.50	1 . 0	.58	0.0	
61085		610			101.60	0.6	15.0	.6	118.	
881 1		88 1 65		6	15 .. 0	1.50	8.10	6.5	166.88	
1 WL A										
10 08		10 8		1	5.0	.00	6.0	1.8	50.	
10 1		10		1 ¹	8.10	.00	6.0	1.8	50.	
1 101		10 5			50.80	.00	6.0	.5	6 . 1	
1 108		10 6		1	6 .50	.00	6.0	.05	.	
11 0		10			6.0	.00	101.60	.58	0.1	
10		10 8			101.60	.00	101.60	.6	118.	
61 18		60 5		6	15 . 0	6.00	15 . 0	6.5	166.88	

not available

T : For pressure and surface, please see product leaflet.



1.

Material Item no.	L U	Material Item no.	L U	Size		Dimension						Diagram
				Inch	mm	A						
0		16L		Inch	mm	Inch	mm	Inch	mm	Inch	mm	<p>TD 321-012</p>
10		1		1	5.0	0.5	1.10	1.00	5.0			
10		1		1 ¹	8.10	1.1	8.60	1.50	8.10			
10 50		1 50			50.80	1.1	.0	.00	50.80			
10 51		1 51		1	6.50	1.8	.0	.50	6.50			
10 5		1 5			6.0	1.	6.50	.00	6.0			
10 5					101.60	1.50	8.10	.00	101.60			
1 W A												
1051		105 5		1	5.0	1.6	1.0	0.88	.0	1.16	.0	<p>TD 321-013</p>
10 65		105 6		1 ¹	8.10	1.6	1.0	1.8	.0	1.6	.50	
10 66		105			50.80	1.5	.50	1.88	.60	.1	55.60	
10 6		105 8		1	6.50	1.5	.50	.8	60.0	.0	68.0	
10 68		105			6.0	1.81	6.00	.88	.00	.	81.80	
10 6		105 0			101.60	.1	5.00	.8	.0	.5	108.00	
16A A												
10501		10518		1 ¹	1.00	0.1	.80	0.8	.0			<p>TD 321-030</p>
1050		1085			8.10	0.5	6.0	1.8	50.			
1050		10855		1	50.80	0.5	6.0	.5	6.1			
1050		10856			6.50	0.5	6.0	.05	.			
10506		1085			6.0	0.5	6.0	.58	0.1			
61 0		10858		6	101.60	0.5	6.0	.6	118.			
		60			15.0	0.	6.58	6.5	166.88			

not available

T : For pressure and surface, please see product leaflet.



Material Item no.	L U	Material Item no.	L U	Size		Dimension				Solid
				Inch	mm	A		Inch	mm	
615 5		615 66		1 11	8.10	1. 8	50. 0	0.6	15. 0	
615 58		615 6			50.80	.5	6 . 0	0.6	15. 0	
615 60				1	6 .50	.05	. 0	0.6	15. 0	
615 61		615 6			6. 0	.58	0. 0	0.6	15. 0	
		615 1			101.60	.6	11 .10	0.6	15. 0	
Tapped with T threads										
106		1 06		1 x 1	5. 0x1 . 0	1. 8	50. 0	0.6	15. 0	
105 6		116		1 x	8.10x1 .00	1. 8	50. 0	0.6	15. 0	
106 6		1 5		x	50.80x1 .00	.5	6 .00	0.6	15. 0	
11 8		610		1 x	6 .50x1 .00	.05	.50	0.6	15. 0	
11555		610		x	6. 0x1 .00	.58	0. 0	0.6	15. 0	
11		610 6		x	101.60x1 .00	.6	11 .10	0.6	15. 0	

on request.

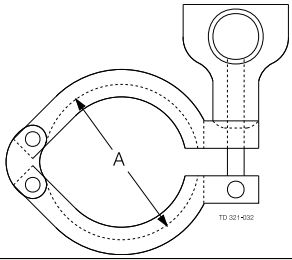
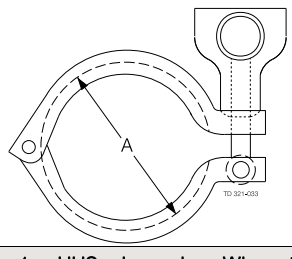
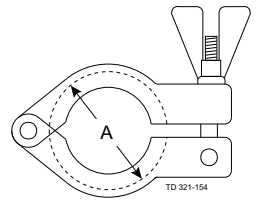
not available

T : For pressure and surface, please see product leaflet.



product code: 50

1.

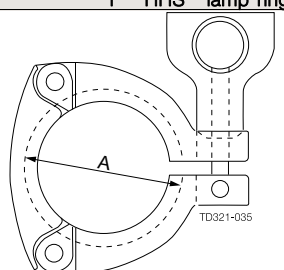
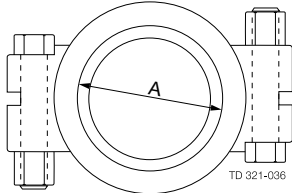
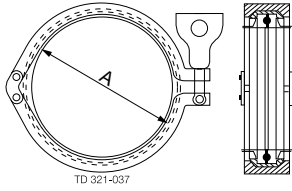
Material Item no.	L U	Size		Dimension A		1 HH lamp ring
		Inch	mm	Inch	mm	
61 08801		1 3/4	1 . 0 1 .00	1.1	8.00	
1 1 5		1 1 1	5. 0 8.10	.1	5 .00	
1 1 6			50.80	.66	6 .50	
1 1		1	6 .50	.1	81.00	
1 1 8			6. 0	.	.50	
1 1			101.60	.8	1 .60	
101		6	15 . 0	6.6	16 . 0	
A1 H lamp ring						
11 0		1	1 . 0 1 .00	1.1	8.60	
1105		1 1 1	5. 0 8.10	.1	5 .00	
1105			50.80	.6	6 .10	
11055		1	6 .50	.1	81.00	
11056			6. 0	.	.50	
1105			101.60	.8	1 . 0	
11058		6	15 . 0	6.6	16 . 0	
1 HHS lamp ring, Wingnut						
611 5		1	1 . 0 1 .00	1.1	8.60	

T : For pressure and surface, please see product leaflet.



Product code: 50

1.



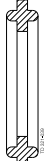
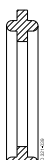
Material Item no.	L U	Size		Dimension A		Description
		Inch	mm	Inch	mm	
11 8		1 ¹	8.10	.1	5.00	1 HHS lamp ring 
11 8			50.80	.66	6.50	
11 86		1	6.50	.1	81.00	
11 8			6.0	.	.50	
11 8			101.60	.8	1.60	
Material Item number	L U	Size		Dimension A		Description
		Inch	mm	Inch	mm	
615 6 01		1	1.0 1.00	1.0	6.0	A1 H lamp ring 
615 65 01		1	1.0 1.00	1.0	6.0	
615 65 01		1 1 1	5.0 8.10	.05	5.00	
615 65 01			50.80	.58	65.50	
615 65501		1	6.50	.11	.00	
615 65601			6.0	.6	.50	
615 65 01			101.60	.	10.0	
6 0 8 8		6	15.0	6.6	168.0	
						A1 S lamp ring
101 5		1 ¹	8.10	1.8	50.0	A1 S lamp ring 
101 6			50.80	.5	6.0	
101		1	6.50	.05	.0	
101 8			6.0	.58	0.0	
101 0			101.60	.6	11.10	

T : For pressure and surface, please see product leaflet.



Product code: 506

1.

Material Item no.	L U	Material Item no.	L U	Material Item no.	L U	Material Item no.	L U	Size	
				U		SF		Inch	
0 0 65				0 0 6		0 0 66 61 006 0		1 1	
								Inch	
0 0 0 1 61 006 0		00 0 00						1 1	
0				0 U		0 SF		Inch	0 0
01 1 00 00 00 8 00 6 0018 0				8 51 8 5 8 5 8 5 8 55 8 56 011		000 00 00 0 00 0 00 005 0 0		1 1' 1 6	
0		0		0 UW				Inch	0 0
8 8 8 8 8 8 5 8 6 8 5		851 850 8508 850 8510 8511		8501 8 5 8 6 8 8 8 8 01 5				1 1' 1 6	

not available



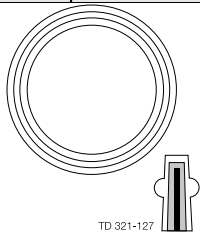
Material Descriptions

Code Letter	Material	Code Letter	Material
	TF	SF	Steam resistant Fluoroelastomer
		UW	Silicone
		U	White Buna



Product code: 50 6

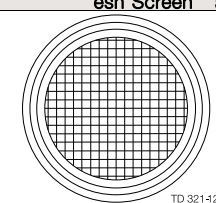
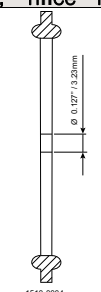
1.

Material Item no.	L U	Material Item no.	L U	Material Item no.	L U	Size	
0 F		0 F U		0 F SF		Inch	0 F 0 F
00 8		8 6		00		1	
001		8		0115		1 ¹	
00 5		8 6		011		1	
01 8		8 8		0118		1	
00 5		8 5		011		1	
01 1		8		01		6	
		8 0		018		6	
0 F		0 F UW					0 F 0 F
8 11		8 08				1	
8 1		8 1				1 ¹	
8 1		8 1				1	
8 1		006				1	
8 15		8				6	
8 16		8				6	
8605		0 6				6	
A 0							A 0 A 0
							TF envelope gasket with SF
00						1	
00						1 ¹	
00						1	
00 5						1	
00 6						6	
00						6	
0085						6	



Product code: 506

1.

Material Item no.	L U	Material Item no.	L U	Material Item no.	L U	Size		
0888						Inch	mm	0 S, 10 Mesh Screen basket
0888						1	8.10	
0860						1	50.80	
0800							6.50	
0888							6.0	
0888							101.60	
A8008		A80SF		A80U		Inch	mm	A80, rifice late 16L
0800		0001		0160		1	8.10	
0855		0000		0101		1	50.80	
0801		0000		0100			6.50	
0805		0180		0100			6.0	
0805		0180		0100			6.0	

Material Descriptions

Code Letter	Material	Code Letter	Material
SF		U	Steam resistant Fluoroelastomer

Wire diameter 0.6 mm

Holes 1. mm square

Open area 56.



1.

Material Item no.	L U	Material Item no.	L U	Size		Dimension				1 H		
				Inch	mm	A		Inch	mm			
11 6		1 8		1 x 1	5.0x 5.0	1.6	.0					
11		1 8		1 ¹ x 1 ¹	8.10x 8.10	1.6	.0					
11 8		1 8		x	50.80x50.80	.1	58.0					
11 80		10		1 x 1	6.50x6.50	.00	50.80					
11 81		115		x	6.0x 6.0	.11	.00					
11 8		115 5		x	101.60x101.60	.1	86.50					
Material Item no.	L U	Material Item no.	L U	Size		Dimension				1 HT		
0		16L		Inch	mm	Inch	mm	Inch	mm		Inch	mm
11		115 6		1	5.0	.50	11.0	0.88	.0	1.00	5.0	
11 6		115		1 ¹	8.10	.50	11.0	1.8	.0	1.50	8.10	
11 8		11			50.80	.50	11.0	1.88	.60	.00	50.80	
11		1 0		1	6.50	.50	11.0	.8	60.0	.50	6.50	
11		1 68			6.0	.50	11.0	.88	.00	.00	6.0	
11 0		1			101.60	.6	11.50	.8	.0	.00	101.60	

Material Item no.	L U	Material Item no.	L U	Size		Dimension				1	
				Inch	mm	A		Inch	mm		
11 8		10 8		1 x	5.0x1.00	1.6	1.0				
11 1		1 6 5		1 x 1	5.0x 5.0	1.6	1.0				
11		1 1		1 ¹ x 1 ¹	8.10 x 1.8	.5	5.0				
11 5		1		1 ¹ x 1 ¹	8.10x 8.10	.5	5.0				
11		1 8 1		1 ¹ x	8.10x1.00	1.6	1.0				
11 6		11 6		1 ¹ x 1	8.10x 5.0	1.6	1.0				
11 6		1 1		x 1 ¹	50.80x 8.10	.	5.50				
11		1 6		x	50.80x50.80	1.6	.0				
115		10		1 x	6.50x50.80	1.1	5.0				
11		10 18		1 x 1	6.50x6.50	.0	5.0				
11 0		1 6		x	6.0x 6.0	.1	55.60				
11		10		x	101.60x101.60	.66	6.50				
1 . .T. Pipe Thread											
11 1		1 650		1 x	5.0x1.00	0.8	5.00	.1	55.60		
11		1 5 8		1 x 1	5.0x 5.0	0.6	1.50	.5	5.0		
11 6		1 1		1 ¹ x 1 ¹	8.10 x 1.8	0.0	1.0	.	61.0		
11 00		1 6 6		1 ¹ x 1 ¹	8.10x 8.10	0.	18.0	.	61.0		
11 1		1 0		1 ¹ x	8.10x1.00	0.55	1.0	.1	55.60		
11 06		1 0		1 ¹ x 1	8.10x 5.0	0.	18.0	.1	58.0		
11 05		108 1		1 ¹ x	8.10x50.80	0.	18.0	.6	66.0		
11 5		1 1 8		x 1 ¹	50.80x 8.10	0.5	1.10	.	6.0		
11 01		1 6		x	50.80x50.80	0.5	1.10	.66	6.50		
11 6		1 00		1 x	6.50x50.80	1.1	.00	.1	.0		
11 0		1 18		1 x 1	6.50x6.50	1.8	.0	.8	8.0		
11 0		1 5		x	6.0x 6.0	1.0	0.60	.50	88.0		
11 0		1 5 6		x	101.60x101.60	1.0	.0	.81	6.80		

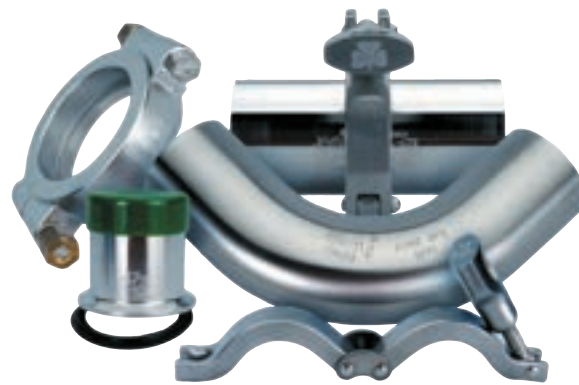
T : For pressure and surface, please see product leaflet.



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1.5 Tri lover Ultra ure, AS

The installation material in this section is manufactured to meet Tri lover Ultra ure, AS tube dimensions.



Ordering leaflets

Tri lover Ultra ure Tubes	1.5.1	6
Tri lover Ultra ure ends	1.5.1	
Tri lover Ultra ure Tees	1.5.180	
Tri lover Ultra ure reducing Tees	1.5.18	
Tri lover Ultra ure Instrument Tees	1.5.18	
Tri lover Ultra ure crosses reducing crosses	1.5.188	
Tri lover Ultra ure reducers	1.5.18	
Tri lover Ultra ure Ferrules and end caps	1.5.1	5
Tri lover Ultra ure clamp rings	1.5.1	6
Tri lover Ultra ure Seal rings	1.5.1	8
Tri lover Ultra ure Adaptors	1.5.	00
Tri lover Ultra ure Adaptors Use Joint Fittings	1.5.	0

1.5

Finish Item no.	L U	Finish Item no.	L U	Size		Dimension mm	T 1 AS
				Inch	mm		
61 0 101		61 0 111		1	1 . 0	1 . 0 . 0x1.65	
61 0 10		61 0 11		1	1 .05	1 .00 15. 5x1.65	
61 0 10		61 0 11		1	5. 0	5. 0 .10x1.65	
61 0 10		61 0 11		1 ¹	8.10	8.10 .80x1.65	
61 0 105		61 0 115			50.80	50.80 .50x1.65	
61 0 106		61 0 116		1	6 .50	6 .50 60. x1.65	
61 0 10		61 0 11			6. 0	6. 0 . 0x1.65	
61 0 108		61 0 118			101.60	101.60 . 8x .11	

L prices per meter are updated monthly

please contact your Alfa Laval contact person for further information.

T : All tubes are delivered in lengths of 6.10 meters.



Product code: 5016, 501
 Lamp Ferrules according to T 1

Material: 16L

Finish Item o.	L U	Finish Item o.	L U	Size		Dimension A		T .1.1 S end 0° A
				Inch	mm	Inch	mm	
L SF1		SF						
Product code: 5016								
6 000 1		6 000 8		1	1 . 0	.00	6. 0	
6 000 0		6 000			1 .00	.00	6. 0	
6 000 1		6 000 0		1	5. 0	.00	6. 0	
6 000		6 000 1		1 ¹	8.10	. 5	5. 0	
6 000		6 000			50.80	. 5	1 0. 0	
6 000		6 000		1	6 .50	5.50	1 . 0	
6 000 5		6 000			6. 0	6. 5	158.80	
6 000 6		6 000 5			101.60	8.00	0 . 0	
6 000		6 000 6		6	15 . 0	11.50	.10	

T : For pressure and surface, please see product leaflet.

l and t wall thickness please see page 1.5.1 6

Finish Item o.	L U	Finish Item o.	L U	Size		Dimension				T .1.1 W end 0° A
				Inch	mm	A		Inch	mm	
L SF1		SF				Inch	mm	Inch	mm	
Product code: 5016										
6 001 1		6 001 8		1	1 . 0	.00	6. 0	1.6	1. 0	
6 001 0		6 001			1 .00	.00	6. 0	1.6	1. 0	
6 001 1		6 001 0		1	5. 0	.00	6. 0	.00	50.80	
6 001		6 001 1		1 ¹	8.10	. 5	5. 0	. 5	6 . 0	
6 001		6 001			50.80	. 5	1 0. 0	.50	88. 0	
6 001		6 001		1	6 .50	5.50	1 . 0	. 5	108.00	
6 001 5		6 001			6. 0	6. 5	158.80	5.00	1 .00	
6 001 6		6 001 5			101.60	8.00	0 . 0	6.6	168. 0	
Product code: 501										
6 00 81		6 00 8 8		1	1 . 0	1.6	1. 0			
6 00 8 0		6 00 8			1 .00	1.6	1. 0			
6 00 8 1		6 00 8 0		1	5. 0	.00	50.80			
6 00 8		6 00 8 1		1 ¹	8.10	. 5	6 . 0			
6 00 8		6 00 8			50.80	.50	88. 0			
6 00 8		6 00 8		1	6 .50	. 5	108.00			
6 00 8 5		6 00 8			6. 0	5.00	1 .00			
6 00 8 6		6 00 8 5			101.60	6.6	168. 0			
6 00 8		6 00 8 6		6	15 . 0	10.50	66. 0			

T : For pressure and surface, please see product leaflet.

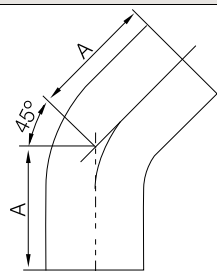
l and t wall thickness please see page 1.5.1 6



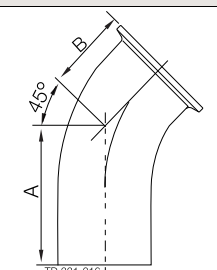
roduct code: 5016, 501
lamp Ferrules according to T 1

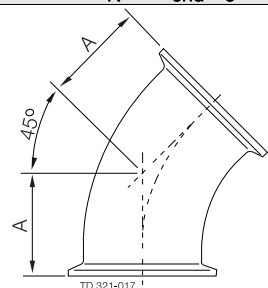
aterial: 16L

1.5

Finish Item o.	L U	Finish Item o.	L U	Size		Dimension A		T .1.1 KS A end 5°
				Inch	mm	Inch	mm	
L SF1		SF						
roduct code: 5016								
6 000 1		6 000 8		1	1 . 0	. 5	5 . 0	
6 000 0		6 000			1 .00	. 5	5 . 0	
6 000 1		6 000 0		1	5 . 0	. 5	5 . 0	
6 000		6 000 1		1 ¹	8.10	.50	6 .50	
6 000		6 000			50.80	.00	6 . 0	
6 000		6 000		1	6 .50	. 8	85 . 0	
6 000 5		6 000			6 . 0	.6	.10	
6 000 6		6 000 5			101.60	.50	11 . 0	
6 000		6 000 6		6	15 . 0	6 . 5	158.80	

l and t wall thickness please see page 1.5.1 6

Finish Item o.	L U	Finish Item o.	L U	Size		Dimension				T .1.1 5 K W A end 5°
				Inch	mm	A		Inch	mm	
L SF1		SF								
roduct code: 5016										
6 00 11		6 00 1 8		1	1 . 0	. 5	5 . 0	1.00	5 . 0	
6 00 1 0		6 00 1			1 .00	. 5	5 . 0	1.00	5 . 0	
6 00 1 1		6 00 1 0		1	5 . 0	. 5	5 . 0	1.10	8.60	
6 00 1		6 00 1 1		1 ¹	8.10	.50	6 .50	1 . 0	6.50	
6 00 1		6 00 1			50.80	.00	6 . 0	1.80	.50	
6 00 1		6 00 1		1	6 .50	. 8	85 . 0	.10	5 . 0	
6 00 1 5		6 00 1			6 . 0	.6	.10	. 0	60 . 0	
6 00 1 6		6 00 1 5			101.60	.50	11 . 0	.10	. 0	

Finish Item o.	L U	Finish Item o.	L U	Size		Dimension				T .1.1 6 K end 5° A
				Inch	mm	A		Inch	mm	
roduct code: 501										
6 00 01		6 00 0 8		1	1 . 0	1.00	5 . 0			
6 00 0 0		6 00 0			1 .00	1.00	5 . 0			
6 00 0 1		6 00 0 0		1	5 . 0	1.1	8.60			
6 00 0		6 00 0 1		1 ¹	8.10	1 .	6.50			
6 00 0		6 00 0			50.80	1 . 5	.50			
6 00 0		6 00 0		1	6 .50	.06	5 . 0			
6 00 0 5		6 00 0			6 . 0	. 8	60 . 0			
6 00 0 6		6 00 0 5			101.60	.1	. 0			

T : For pressure and surface, please see product leaflet.

l and t wall thickness please see page 1.5.1 6



1.5

Item number L SF1	L U	Item number SF	L U	Size	Dimensions				Diagram
					A	H	L		
					in	mm	in	mm	
88									
6 080				1	1.65	.10	1.60	0.0	
6 080 6		6 080 5		1	1.65	.00	1.58	0.60	
6 080 8		6 080		1	.05	51.0	1.65	.0	
6 080 00		6 080 01		1	.1	0.0	.6	68.50	
6 080 0		6 080 05		1	.551	0.0	.	8.10	
				1	5.06	18.0	.8	1.0	
88									
6 080 1		6 080 11		1	1.58	0.0	1.68	1.60	
6 080 16		6 080 15		1	.681	68.10	.6	0.50	
6 080 18		6 080 1		1	.1	86.0	.51	8.0	
6 080 0		6 080 1		1	.16	105.0	.1	10.00	
		6 080 1		1	.88	1.0	5.051	18.0	
S 88									
6 080		6 080 5		1	.0	8.0	.6	5.60	
6 080 6		6 080		1	.0	8.0	.	5.50	
6 080 8		6 080		1	.01	8.00	.65	5.0	
6 080 0		6 080 1		1	.8	.0	.6	.0	
6 080		6 080		1	.86	1.10	.681	118.0	
6 080		6 080 5		1	5.60	1.0	5.0	1.0	
6 080 6		6 080		1	6.6	161.60	6.16	156.10	
6 080 8		6 080		1	8.18	06.0	.858	1.60	
S									
6 080 0		6 080 1		1	.1	.00	.016	6.60	
6 080		6 080		1	.8	.00	.01	6.50	
6 080		6 080 5		1	.1	.00	.016	6.60	
6 080 6		6 080		1	.66	.60	.6	5.0	
6 080 8		6 080		1	.618	11.0	.8	1.150	
6 080 50		6 080 51		1	5.50	15.0	5.5	1.080	
6 080 5		6 080 5		1	6.08	15.50	6.	160.00	
6 080 5		6 080 55		1	.1	1.0	8.06	0.0	



Product code: 50 6, 50
 Lamp Ferrules according to T 1

Material: 16L

1.5

Finish Item no.	L U	Finish Item no.	L U	Size		Dimension				T .1. 1 WWW Tee A
						A		Inch	mm	
L SF1		SF		Inch	mm	Inch	mm			Inch	mm
Product code: 50 6										
6 00061		6 0006 8		1	1 . 0	1.88	.60			
6 0006 0		6 0006		1	1 .00	.00	50.80			
6 0006 1		6 0006 0		1	5 . 0	.1	5 .00			
6 0006		6 0006 1		1 ¹	8.10	.8	60 . 0			
6 0006		6 0006		1	50.80	.88	.00			
6 0006		6 0006		1	6 .50	.1	. 0			
6 0006 5		6 0006		1	6 . 0	.8	85 . 0			
6 0006 6		6 0006 5		1	101.60	.1	10 .80			
6 0006		6 0006 6		6	15 . 0	5.6	1 . 0			
Product code: 50										
T .1. Tee A										
801000 85		801000 855		1	1 . 0	.8	60 .			
801000 856		801000 85		1	1 .00	.50	6 .50			
6 00 1		6 00 0		1	5 . 0	.6	66.68			
6 00		6 00 1		1 ¹	8.10	.88	.0			
6 00		6 00		1	50.80	.8	85 .			
6 00		6 00		1	6 .50	.6	.08			
6 00 5		6 00		1	6 . 0	.88	8 .			
6 00 6		6 00 5		1	101.60	.6	1 0.65			
6 00				6	15 . 0	.1	180 . 8			

on request

T : For pressure and surface, please see product leaflet.

I and t wall thickness please see page 1.5.1 6



Product code: 50 6, 50
 Lamp Ferrules according to T 1

Material: 16L

1.5

Finish Item no.	L U	Finish Item no.	L U	Size		Dimension				T .1.
						A				
L SF1		SF		Inch	mm	Inch	mm	Inch	mm	WW S A Short outlet tee
Product code: 50 6										
6 00 61		6 00 6 8		1	1 . 0	1.88	.60	1.00	5. 0	
6 00 6 0		6 00 6			1 .00	.00	50.80	1.1	8.60	
6 00 6 1		6 00 6 0		1	5. 0	.1	5 .00	1.1	8.60	
6 00 6		6 00 6 1		1 ¹	8.10	. 8	60. 0	1. 8	. 0	
6 00 6		6 00 6			50.80	.88	.00	1.6	1. 0	
6 00 6		6 00 6		1	6 .50	.1	. 0	1.88	.60	
6 00 6 5		6 00 6			6. 0	. 8	85. 0	.1	5 .00	
6 00 6 6		6 00 6 5			101.60	.1	10 .80	. 5	6 . 0	
6 00 6		6 00 6 6		6	15 . 0	5.6	1 . 0	. 5	5. 0	
T .1.										
W SW A Tee										
6 0 1		6 0 8		1	1 . 0	0.88	. 0	1.88	.60	
6 0 0		6 0			1 .00	1.00	5. 0	.00	50.80	
6 0 1		6 0 0		1	5. 0	1.1	8.50	.1	5 .00	
6 0		6 0 1		1 ¹	8.10	1. 8	5.10	. 8	60. 0	
6 0		6 0			50.80	1.6	1. 0	.88	.00	
6 0		6 0		1	6 .50	1.88	.80	.1	. 0	
6 0 5		6 0			6. 0	.1	5 . 0	. 8	85. 0	
6 0 6		6 0 5			101.60	. 5	6 . 0	.1	10 .80	
T .1. 5										
S Tee A										
801000 8 6		801000 8		1	1 . 0	. 8	60.	1.00	5. 0	
801000 8 8		801000 8			1 .00	.50	6 .50	1.1	8.58	
6 0 01		6 0 0		1	5. 0	.6	66.68	1.1	8.58	
6 0 0 0		6 0 0 8		1 ¹	8.10	.88	. 0	1. 8	.	
6 0 0 1		6 0 0			50.80	. 8	85.	1.6	1. 8	
6 0 0		6 0 0 0		1	6 .50	.6	.08	1.88	.6	
6 0 0		6 0 0 1			6. 0	.88	8.	.1	5 . 8	
6 0 0		6 0 0			101.60	. 5	1 0.65	. 5	6 .85	

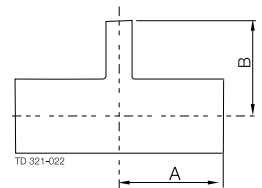
T : For pressure and surface, please see product leaflet.

l and t wall thickness please see page 1.5.1 6



1.5

Finish Item o.	L U	Finish Item o.	L U	Size		Dimension				T .1. 6 WWW A educing tee
						A		Inch	mm	
L SF1		SF		Inch	mm	Inch	mm			Inch	mm
6 0010		6 00106		x 1	1 .00x1 .0	.00	50.80	.00	50.80	
6 0010		6 001065		1 x 1	5. 0x1 .0	.1	5 .00	.1	5 .00	
6 0010 5		6 001066		1 x	5. 0x1 .00	.1	5 .00	.1	5 .00	
6 0010 6		6 00106		1 ¹ x 1	8.10x1 .0	.8	60. 0	.8	60. 0	
6 0010		6 001068		1 ¹ x	8.10x1 .00	.8	60. 0	.8	60. 0	
6 0010 8		6 00106		1 ¹ x 1	8.10x 5. 0	.8	60. 0	.8	60. 0	
6 0010		6 0010 0		x 1	50.80x1 .0	.88	.00	.6	66. 0	
6 001050		6 0010 1		x	50.80x1 .00	.88	.00	.6	66. 0	
6 001051		6 0010		x 1	50.80x 5. 0	.88	.00	.6	66. 0	
6 00105		6 0010		x 1 ¹	50.80x 8.10	.88	.00	.6	66. 0	
6 00105		6 0010		1 x 1	6 .50x1 .0	.1	. 0	.88	.00	
6 00105		6 0010 5		1 x	6 .50x1 .00	.1	. 0	.88	.00	
6 001055		6 0010 6		1 x 1	6 .50x 5. 0	.1	. 0	.88	.00	
6 001056		6 0010		1 x 1 ¹	6 .50x 8.10	.1	. 0	.88	.00	
6 00105		6 0010 8		1 x	6 .50x50.80	.1	. 0	.88	.00	
6 001058		6 0010		x 1	6. 0x1 .0	.8	85. 0	.1	. 0	
6 00105		6 001080		x	6. 0x1 .00	.8	85. 0	.1	. 0	
6 001060		6 001081		x 1	6. 0x 5. 0	.8	85. 0	.1	. 0	
6 001061		6 00108		x 1 ¹	6. 0x 8.10	.8	85. 0	.1	. 0	
6 00106		6 00108		x	6. 0x50.80	.8	85. 0	.1	. 0	
6 00106		6 00108		x 1	6. 0x6 .50	.8	85. 0	.1	. 0	
6 00111		6 0011 5		x 1	101.60x1 .0	.1	10 .80	.6	.10	
6 001118		6 0011 6		x	101.60x1 .00	.1	10 .80	.6	.10	
6 00111		6 0011		x 1	101.60x 5. 0	.1	10 .80	.6	.10	
6 0011 0		6 0011 8		x 1 ¹	101.60x 8.10	.1	10 .80	.6	.10	
6 0011 1		6 0011		x	101.60x50.80	.1	10 .80	.88	8. 0	
6 0011		6 0011 0		x 1	101.60x6 .50	.1	10 .80	.88	8. 0	
6 0011		6 0011 1		x	101.60x 6. 0	.1	10 .80	.88	8. 0	
61 600 81		6 0 8 15		6 x 1	15 . 0x1 .0	5.6	1 . 0	5.1	1 0. 0	
61 600 8		6 0 8 16		6 x	15 . 0x1 .00	5.6	1 . 0	5.1	1 0. 0	
		6 0 8 1		6 x 1	15 . 0x 5. 0	5.6	1 . 0	5.1	1 0. 0	
61 600 8		6 0 8 18		6 x 1 ¹	15 . 0x 8.10	5.6	1 . 0	5.1	1 0. 0	
6 0 8 1		6 0 8 1		6 x	15 . 0x50.80	5.6	1 . 0	5.1	1 0. 0	
		6 0 8 0		6 x 1	15 . 0x6 .50	5.6	1 . 0	5.1	1 0. 0	
		6 0 8 1		6 x	15 . 0x 6. 0	5.6	1 . 0	5.1	1 0. 0	
6 0011		6 0011		6 x	15 . 0x101.60	5.6	1 . 0	5.1	1 0. 0	



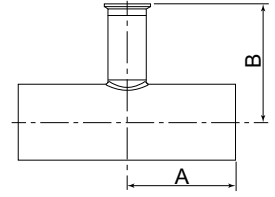
n request

T : For pressure and surface, please see product leaflet.

I and t wall thickness please see page 1.5.1 6



Finish Item no.	L U	Finish Item no.	L U	Size		Dimension				WW	A	Reducing tee
						A		Inch	mm			
L SF1		SF		Inch	mm	Inch	mm			Inch	mm	
6 0		6 0 6		x ¹	1.00x1.0	.00	50.80	.50	6.50			
6 0		6 0 65		1 x ¹	5.0x1.0	.1	5.00	.6	66.0			
6 0 5		6 0 66		1 x	5.0x1.00	.1	5.00	.6	66.0			
6 0 6		6 0 6		1 ¹ x ¹	8.10x1.0	.8	60.0	.88	.00			
6 0		6 0 68		1 ¹ x	8.10x1.00	.8	60.0	.88	.00			
6 0 8		6 0 6		1 ¹ x 1	8.10x 5.0	.8	60.0	.88	.00			
6 0		6 0 0		x ¹	50.80x1.0	.88	.00	.1	.0			
6 0 50		6 0 1		x	50.80x1.00	.88	.00	.1	.0			
6 0 51		6 0		x 1	50.80x 5.0	.88	.00	.1	.0			
6 0 5		6 0		x 1 ¹	50.80x 8.10	.88	.00	.1	.0			
6 0 55		6 0 6		1 x 1	6.50x 5.0	.1	.0	.8	85.0			
6 0 56		6 0		1 x 1 ¹	6.50x 8.10	.1	.0	.8	85.			
6 0 5		6 0 8		1 x	6.50x50.80	.1	.0	.8	85.			
6 0 60		6 0 81		x 1	6.0x 5.0	.8	85.0	.6	.10			
6 0 61		6 0 8		x 1 ¹	6.0x 8.10	.8	85.0	.6	.10			
6 0 6		6 0 8		x	6.0x50.80	.8	85.0	.6	.10			
6 0 6		6 0 8		x ¹	6.0x6.50	.8	85.0	.6	.10			
6 0 001				x 1	101.60x 5.0	.1	10.80	.1	10.8			
6 0 00 0				x 1 ¹	101.60x 8.10	.1	10.80	.1	10.8			
6 0 00 1		6 0 00		x	101.60x50.80	.1	10.80	.8	111.10			
6 0 00				x ¹	101.60x6.50	.1	10.80	.8	111.10			
6 0 00		6 0 00 1		x	101.60x 6.0	.1	10.80	.8	111.10			



T : For pressure and surface, please see product leaflet.
 l and t wall thickness please see page 1.5.1 6

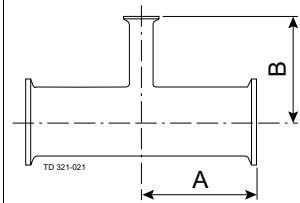


Product code: 50
 Lamp Ferrules according to T 1

Material: 16L

1.5

Finish Item o.	L U	Finish Item o.	L U	Size		Dimension				T .1. 8 educing tee A
						A				
L SF1		SF		Inch	mm	Inch	mm	Inch	mm	
6 00 6		6 00 66		x 1	1 .00x1 .0	.50	6 .50	.50	6 .50	
6 00 6		6 00 665		1 x 1	5. 0x1 .0	.6	66. 0	.6	66. 0	
6 00 6 5		6 00 666		1 x	5. 0x1 .00	.6	66. 0	.6	66. 0	
6 00 6 6		6 00 66		1 ¹ x 1	8.10x1 .0	.88	.00	.88	.00	
6 00 6		6 00 668		1 ¹ x	8.10x1 .00	.88	.00	.88	.00	
6 00 6 8		6 00 66		1 ¹ x 1	8.10x 5. 0	.88	.00	.88	.00	
6 00 6		6 00 6 0		x 1	50.80x1 .0	.8	85. 0	.1	.0	
6 00 650		6 00 6 1		x	50.80x1 .00	.8	85. 0	.1	.0	
6 00 651		6 00 6		x 1	50.80x 5. 0	.8	85. 0	.1	.0	
6 00 65		6 00 6		x 1 ¹	50.80x 8.10	.8	85. 0	.1	.0	
6 00 65				1 x 1	6 .50x1 .0	.6	.10	.8	85. 0	
6 00 65		6 00 6 5		1 x	6 .50x1 .00	.6	.10	.8	85. 0	
6 00 655				1 x 1	6 .50x 5. 0	.6	.10	.8	85. 0	
6 00 656		6 00 6		1 x 1 ¹	6 .50x 8.10	.6	.10	.8	85. 0	
6 00 65		6 00 6 8		1 x	6 .50x50.80	.6	.10	.8	85. 0	
6 00 658		6 00 6		x 1	6. 0x1 .0	.88	8. 0	.6	.10	
6 00 65				x	6. 0x1 .00	.88	8. 0	.6	.10	
6 00 660		6 00 681		x 1	6. 0x 5. 0	.88	8. 0	.6	.10	
6 00 661		6 00 68		x 1 ¹	6. 0x 8.10	.88	8. 0	.6	.10	
801000 8 1		801000 8 0		x	6. 0x50.80	.88	8. 0	.88	8. 0	
801000 8		801000 8		x 1	6. 0x6 .50	.88	8. 0	.88	8. 0	
6 00 1				x 1	101.60x1 .0	.5	1 0. 0	.1	10 .80	
6 00 1				x 1	101.60x 5. 0	.5	1 0. 0	.1	10 .80	
6 00 0				x 1 ¹	101.60x 8.10	.5	1 0. 0	.1	10 .80	
6 00 1		6 00		x	101.60x50.80	.5	1 0. 0	.8	111.10	
6 00				x 1	101.60x6 .50	.5	1 0. 0	.8	111.10	
6 00		6 00 1		x	101.60x 6. 0	.5	1 0. 0	.8	111.10	



T : For pressure and surface, please see product leaflet.

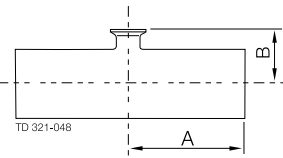


Product code: 50 6
 Flange Ferrules according to T 1

Material: 16L

1.5

Finish Item no.	L U	Finish Item no.	L U	Size		Dimension				T 1. WW S A Short outlet reducing tee
						A				
L SF1		SF		Inch	mm	Inch	mm	Inch	mm	
6 00		6 00 6		x 1	1 .00x1 . 0	.00	50.80	1.00	5. 0	
6 00		6 00 65		1 x 1	5. 0x1 . 0	.1	5 .00	1.1	8.60	
6 00 5		6 00 66		1 x	5. 0x1 .00	.1	5 .00	1.1	8.60	
6 00 6		6 00 6		1 ¹ x 1	8.10x1 . 0	. 8	60. 0	1. 8	. 0	
6 00		6 00 68		1 ¹ x	8.10x1 .00	. 8	60. 0	1. 8	. 0	
6 00 8		6 00 6		1 ¹ x 1	8.10x 5. 0	. 8	60. 0	1. 8	. 0	
6 00		6 00 0		x 1	50.80x1 . 0	.88	.00	1.6	1. 0	
6 00 50		6 00 1		x	50.80x1 .00	.88	.00	1.6	1. 0	
6 00 51		6 00		x 1	50.80x 5. 0	.88	.00	1.6	1. 0	
6 00 5		6 00		x 1 ¹	50.80x 8.10	.88	.00	1.6	1. 0	
6 00 5		6 00		1 x 1	6 .50x1 . 0	.1	. 0	1.88	.60	
6 00 5		6 00 5		1 x	6 .50x1 .00	.1	. 0	1.88	.60	
6 00 55		6 00 6		1 x 1	6 .50x 5. 0	.1	. 0	1.88	.60	
6 00 56		6 00		1 x 1 ¹	6 .50x 8.10	.1	. 0	1.88	.60	
6 00 5		6 00 8		1 x	6 .50x50.80	.1	. 0	1.88	.60	
6 00 58		6 00		x 1	6. 0x1 . 0	. 8	85. 0	.1	5 .00	
6 00 5		6 00 80		x	6. 0x1 .00	. 8	85. 0	.1	5 .00	
6 00 60		6 00 81		x 1	6. 0x 5. 0	. 8	85. 0	.1	5 .00	
6 00 61		6 00 8		x 1 ¹	6. 0x 8.10	. 8	85. 0	.1	5 .00	
6 00 6		6 00 8		x	6. 0x50.80	. 8	85. 0	.1	5 .00	
6 00 6		6 00 8		x 1	6. 0x6 .50	. 8	85. 0	.1	5 .00	
6 00 1		6 00 5		x 1	101.60x1 . 0	.1	10 .80	.6	66. 0	
6 00 18		6 00 6		x	101.6x1 .00	.1	10 .80	.6	66. 0	
6 00 1		6 00		x 1	101.60x 5. 0	.1	10 .80	.6	66. 0	
6 00 0		6 00 8		x 1 ¹	101.60x 8.10	.1	10 .80	.6	66. 0	
6 00 1		6 00		x	101.60x50.80	.1	10 .80	.6	66. 0	
6 00		6 00 0		x 1	101.60x6 .50	.1	10 .80	.6	66. 0	
6 00		6 00 1		x	101.60x 6. 0	.1	10 .80	.6	66. 0	



T : For pressure and surface, please see product leaflet.

l and t wall thickness please see page 1.5.1 6

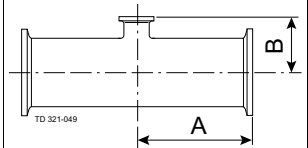


Product code: 50
 Flange Ferrules according to T 1

Material: 16L

1.5

Finish Item no.	L U	Finish Item no.	L U	Size		Dimension				T .1. S Short outlet Reducing Tee A
						A				
L SF1		SF		Inch	mm	Inch	mm	Inch	mm	
6 00		6 00 6		x 1	1 .00x1 .0	.50	6 .5	1.00	5.0	
6 00		6 00 65		1 x 1	5.0x1 .0	.6	66.	1.1	8.60	
6 00 5		6 00 66		1 x	5.0x1 .00	.6	66.	1.1	8.60	
6 00 6		6 00 6		1 ¹ x 1	8.10x1 .0	.88	.00	1.8	.0	
6 00		6 00 68		1 ¹ x	8.10x1 .00	.88	.00	1.8	.0	
6 00 8		6 00 6		1 ¹ x 1	8.10x 5.0	.88	.00	1.8	.0	
6 00		6 00 0		x 1	50.80x1 .0	.8	85.	1.6	1.0	
6 00 50		6 00 1		x	50.80x1 .00	.8	85.	1.6	1.0	
6 00 51		6 00		x 1	50.80x 5.0	.8	85.	1.6	1.0	
6 00 5		6 00		x 1 ¹	50.80x 8.10	.8	85.	1.6	1.0	
6 00 5		6 00		1 x 1	6 .50x1 .0	.6	.10	1.88	.60	
6 00 5		6 00 5		1 x	6 .50x1 .00	.6	.10	1.88	.60	
6 00 55		6 00 6		1 x 1	6 .50x 5.0	.6	.10	1.88	.60	
6 00 56		6 00		1 x 1 ¹	6 .50x 8.10	.6	.10	1.88	.60	
6 00 5		6 00 8		1 x	6 .50x50.80	.6	.10	1.88	.60	
6 00 58		6 00		x 1	6.0x1 .0	.88	8.0	.1	5.00	
6 00 5				x	6.0x1 .00	.88	8.0	.1	5.00	
6 00 60		6 00 81		x 1	6.0x 5.0	.88	8.0	.1	5.00	
6 00 61		6 00 8		x 1 ¹	6.0x 8.10	.88	8.0	.1	5.00	
6 00 6		6 00 8		x	6.0x50.80	.88	8.0	.1	5.00	
6 00 6				x 1	6.0x6 .50	.88	8.0	.1	5.00	
6 00 01				x 1	101.60x1 .0	.5	10.0	.6	66.0	
6 00 018		6 00 0 6		x	101.6x1 .00	.5	10.0	.6	66.0	
6 00 01		6 00 0		x 1	101.60x 5.0	.5	10.0	.6	66.0	
6 00 0 0		6 00 0 8		x 1 ¹	101.60x 8.10	.5	10.0	.6	66.0	
6 00 0 1		6 00 0		x	101.60x50.80	.5	10.0	.6	66.0	
6 00 0				x 1	101.60x6 .50	.5	10.0	.6	66.0	
6 00 0				x	101.60x 6.0	.5	10.0	.6	66.0	
6 0500 5				6 x 1	15 .0x1 .0	.1	181.00	.5	5.0	
6 0500 8				6 x	15 .0x1 .00	.1	181.00	.5	5.0	
6 0500 1				6 x 1	15 .0x 5.0	.1	181.00	.5	5.0	
6 0500				6 x 1 ¹	15 .0x 8.10	.1	181.00	.5	5.0	
6 0500				6 x	15 .0x50.80	.1	181.00	.5	5.0	
6 050050				6 x 1	15 .0x6 .50	.1	181.00	.5	5.0	
6 05005				6 x	15 .0x 6.0	.1	181.00	.5	5.0	
6 00 0				6 x	15 .0x101.60	.1	181.00	.5	5.0	



T : For pressure and surface, please see product leaflet.



Product code: 50 6, 50
 Ramp Ferrules according to T 1

Material: 16L

1.5

Finish Item no.	L U	Finish Item no.	L U	Size		Dimension				T I S Instrument tee A
						A				
L SF1		SF		Inch	mm	Inch	mm	Inch	mm	T .1. 11 I S Instrument tee A
Product code: 50										
111 1		1116		1 x 1 ¹	1 . 0x 8.10	.00	6. 0	0.88	. 0	
115		115		1 x	1 . 0x50.80	. 5	8 .50	1.00	5. 0	
111 0		11		x 1 ¹	1 . 00x 8.10	.00	6. 0	1.00	5. 0	
115 5		115 6		x	1 . 00x50.80	. 5	8 .50	1.1	8.60	
111		11158		1 x 1 ¹	5. 0x 8.10	.00	6. 0	1.1	8.60	
115		11616		1 x	5. 0x50.80	. 5	8 .50	1. 5	1. 0	
111		1118		1 ¹ x	8.10x50.80	. 5	8 .50	1.50	8.10	
Product code: 50 6										
T .1. 10 IWW S A Instrument tee										
1		1 51		1 x 1 ¹	1 . 0x 8.10	.50	6 .50	0.88	. 0	
1 8		08		1 x	1 . 0x50.80	. 5	6 .80	1.00	5. 0	
1		18 0		x 1 ¹	1 . 00x 8.10	.50	6 .50	1.00	5. 0	
1 0		08		x	1 . 00x50.80	. 5	6 .80	1.1	8.60	
1 1		1 5		1 x 1 ¹	5. 0x 8.10	.50	6 .50	1.1	8.60	
1		18 8		1 x	5. 0x50.80	. 5	6 .80	1. 5	1. 0	
1		186		1 ¹ x	8.10x50.80	. 5	6 .80	1.50	8.10	

T : For pressure and surface, please see product leaflet.

I and t wall thickness please see page 1.5.1 6



roduct code: 50 6, 50
lamp Ferrules according to T 1

aterial: 16L

1.5

Finish Item o.	L U	Finish Item o.	L U	Size		imension				T .1. 1 WWWW A ross
						A		Inch	mm	
L SF1		SF		Inch	mm	Inch	mm			Inch	mm
roduct code: 50 6										
6 00081		6 0008 8		1	1 . 0	1.88	.60			
6 0008 0		6 0008			1 .00	.00	50.80			
6 0008 1		6 0008 0		1	5. 0	.1	5 .00			
6 0008		6 0008 1		1 1	8.10	. 8	60. 0			
6 0008		6 0008			50.80	.88	.00			
6 0008		6 0008		1	6 .50	.1	. 0			
6 0008 5		6 0008			6. 0	. 8	85. 0			
6 0008 6		6 0008 5			101.60	.1	10 .80			
roduct code: 50										
801000 8		801000 8 5		1	1 . 0	. 5	5 . 0			
801000 8		801000 8			1 .00	. 8	60. 0			
6 00 1		6 00 0		1	5. 0	.6	66. 0			
6 00		6 00 1		1 1	8.10	.88	.00			
6 00		6 00			50.80	. 8	85. 0			
6 00				1	6 .50	.6	.10			
6 00 5					6. 0	.88	8. 0			
6 00 6		6 00 5			101.60	. 5	1 0. 0			

on request

T : For pressure and surface, please see product leaflet.

I and t wall thickness please see page 1.5.1 6



Finish Item no.	L U	Finish Item no.	L U	Size		Dimension A		1 concentric reducer A
				Inch	mm	Inch	mm	
6 001 01		6 001 6		x ¹	1.00x1.0	.00	101.60	
6 001 0		6 001 8		1 x ¹	5.0x1.0	.50	11.0	
6 001 0		6 001 8		1 x	5.0x1.0	.00	101.60	
6 001 0		6 001 1		1 ¹ x ¹	8.10x1.0	5.50	1.0	
6 001 05		6 001 0		1 ¹ x	8.10x1.0	5.00	1.0	
6 001 06		6 001 1		1 ¹ x 1	8.10x 5.0	5.00	1.0	
6 001 08		6 001		x	50.80x1.0	.5	18.0	
6 001 0		6 001		x 1	50.80x 5.0	.5	18.0	
6 001 10		6 001 5		x 1 ¹	50.80x 8.10	5.5	1.0	
6 001 1		6 001		1 x 1 ¹	6.50x 8.10	.50	18.0	
6 001 15		6 001 0		1 x	6.50x50.80	5.50	1.0	
6 001 1		6 001		x 1 ¹	6.0x 8.10	.5	5.00	
6 001 18		6 001		x	6.0x50.80	.50	1.050	
6 001 1		6 001		x ¹	6.0x6.50	5.50	1.0	
6 001		6 001		x	101.60x50.80	11.5	8.0	
6 001		6 001 8		x ¹	101.60x6.50	.5	.0	
6 001		6 001		x	101.60x 6.0	.5	1.6.0	
6 050058		6 05005		6 x	15.0x 6.0	10.00	5.00	
6 001 5		6 001 50		6 x	15.0x101.60	10.00	5.00	

T : For pressure and surface, please see product leaflet



1.5

Finish Item o.	L U	Finish Item o.	L U	Size		Dimension A		eccentric educer A
				Inch	mm	Inch	mm	
L SF1		SF						
6 0 01		6 0 6		x 1	1 .00x1 . 0	.00	101.60	
6 0 0		6 0		1 x 1	5. 0x1 . 0	.50	11 . 0	
6 0 0		6 0 8		1 x	5. 0x1 .00	.00	101.60	
6 0 0		6 0		1 ¹ x 1	8.10x1 . 0	5.50	1 . 0	
6 0 05		6 0 0		1 ¹ x	8.10x1 .00	5.00	1 .00	
6 0 06		6 0 1		1 ¹ x 1	8.10x 5. 0	5.00	1 .00	
6 0 0		6 0		x 1	50.80x 5. 0	. 5	18 . 0	
6 0 10		6 0 5		x 1 ¹	50.80x 8.10	5. 5	1 . 0	
6 0 1		6 0		1 x 1 ¹	6 .50x 8.10	. 5	18 . 0	
6 0 15		6 0 0		1 x	6 .50x50.80	5.50	1 . 0	
6 0 1		6 0		x 1 ¹	6. 0x 8.10	. 5	5.00	
6 0 18		6 0		x	6. 0x50.80	.50	1 0.50	
6 0 1		6 0		x 1	6. 0x6 .50	5.50	1 . 0	
6 0		6 0		x	101.60x50.80	11. 5	8. 0	
6 0		6 0 8		x 1	101.60x6 .50	. 5	. 0	
6 0		6 0		x	101.60x 6. 0	. 5	1 6. 0	
n request		6 0 5		6 x	15 . 0x 6. 0	10.00	5 .00	
6 0 5		6 0 50		6 x	15 . 0x101.60	10.00	5 .00	

T : For pressure and surface, please see product leaflet.

Finish Item o.	L U	Finish Item o.	L U	Size		Dimension A		1 1 concentric reducer A
				Inch	mm	Inch	mm	
6 00 01		6 00 6		x ¹	1.00x1.0	.00	50.80	
6 00 0		6 00 8		1 x ¹	5.0x1.0	.50	6.50	
6 00 0		6 00 8		1 x	5.0x1.0	.00	50.80	
6 00 0		6 00 0		1 ¹ x ¹	8.10x1.0	.50	88.0	
6 00 05		6 00 0		1 ¹ x	8.10x1.0	.00	6.0	
6 00 06		6 00 1		1 ¹ x 1	8.10x 5.0	.00	6.0	
6 00 08		6 00 0		x	50.80x1.0	5.00	1.00	
6 00 0		6 00 0		x 1	50.80x 5.0	5.00	1.00	
6 00 10		6 00 5		x 1 ¹	50.80x 8.10	.00	6.0	
6 00 1		6 00 0		1 x 1 ¹	6.50x 8.10	5.00	1.00	
6 00 15		6 00 0		1 x	6.50x50.80	.00	6.0	
6 00 1		6 00 0		x 1 ¹	6.0x 8.10	.00	1.80	
6 00 18		6 00 0		x	6.0x50.80	5.00	1.00	
6 00 1		6 00 0		x ¹	6.0x6.50	.00	6.0	
6 00 0		6 00 0		x	101.60x50.80	.1	1.80	
6 00 0		6 00 8		x ¹	101.60x6.50	.1	1.80	
6 00 0		6 00 0		x	101.60x 6.0	5.1	10.0	
6 00 5		6 00 50		6 x	15.0x101.60	.6	1.0	
1 1 eccentric reducer A								
6 0 01		6 0 6		x ¹	1.00x1.0	.00	50.80	
6 0 0		6 0 8		1 x ¹	5.0x1.0	.50	6.50	
6 0 0		6 0 8		1 x	5.0x1.0	.00	50.80	
6 0 0		6 0 0		1 ¹ x ¹	8.10x1.0	.50	88.0	
6 0 05		6 0 0		1 ¹ x	8.10x1.0	.00	6.0	
6 0 06		6 0 1		1 ¹ x 1	8.10x 5.0	.00	6.0	
6 0 0		6 0 0		x 1	50.80x 5.0	5.00	1.00	
6 0 10		6 0 5		x 1 ¹	50.80x 8.10	.00	6.0	
6 0 1		6 0 0		1 x 1 ¹	6.50x 8.10	5.00	1.00	
6 0 15		6 0 0		1 x	6.50x50.80	.00	6.0	
6 0 1		6 0 0		x 1 ¹	6.0x 8.10	.00	1.80	
6 0 18		6 0 0		x	6.0x50.80	5.00	1.00	
6 0 1		6 0 0		x ¹	6.0x6.50	.00	6.0	
6 0 0		6 0 0		x	101.60x50.80	.1	1.80	
6 0 0		6 0 8		x ¹	101.60x6.50	.1	181.00	
6 0 0		6 0 0		x	101.60x 6.0	5.1	10.0	

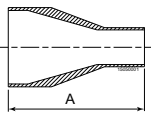
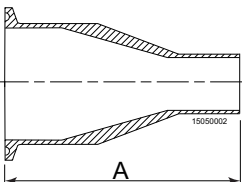
T : For pressure and surface, please see product leaflet.



Product code: 50 6
 lamp Ferrules according to T 1

Material: 16L

1.5

Finish Item o. L SF1	L U	Finish Item o. SF	L U	Size		Dimension A			
				Inch	mm	Inch	mm		
T .1. 1									
1S oncentric reducer									
61 06101		61 061		3/8 x 1/4	.5 6.5	1.6 6	1.0		
61 0610		61 061		1/2 x 1/4	1.0 6.5	1.8 5	6.50		
61 0610		61 061		1/2 x 3/8	1.0 6.5	1.8 5	6.50		
61 0610		61 061 5		3/4 x 3/8	1.05 6.5	.000	50.80		
61 06105		61 061 6		3/4 x 1/2	1.05 1.0	.1 5	5.00		
61 06106		61 061		1 x 1/2	5.0 1.0	.500	6.50		
61 0610		61 061 8		1 x 3/4	5.0 1.05	.1 5	5.00		
61 06108		61 061		1 1/2 x 3/4	8.10 1.05	.000	6.0		
61 0610		61 061 0		1 1/2 x 1	8.10 5.0	.500	6.50		
61 06110		61 061 1		x 1	50.80 5.0	.5	85.80		
61 06111		61 061		x 1 1/2	50.80 8.10	.500	6.50		
61 0611		61 061		1/2 x 1 1/2	6.50 8.10	.5	85.80		
61 0611		61 061		1/2 x	6.50 50.80	.500	6.50		
61 0611		61 061 5		x 1 1/2	6.0 8.10	.50	108.00		
61 06115		61 061 6		x	6.0 50.80	.5	85.80		
61 06116		61 061		x 1/2	6.0 6.50	.6 5	66.0		
61 0611		61 061 8		x	101.60 50.80	5.1 5	1 0.0		
61 06118		61 061		x 1/2	101.60 6.50	.08	180.00		
61 0611		61 061 0		x	101.60 6.0	.8 5	8.0		
61 061 0		61 061 1		6 x	15.0 6.0	.50	18.0		
61 061 1		61 061		6 x	15.0 101.60	5.6 5	1.0		
T .1.									
1 S oncentric reducer									
61 06 01		61 06 1		1 x 1/2	5.0 1.0	.000	6.0		
61 06 0		61 06 18		1 x 3/4	5.0 1.05	.6 6	66.0		
61 06 0		61 06 1		1 1/2 x 3/4	8.10 1.05	.500	88.0		
61 06 0		61 06 0		1 1/2 x 1	8.10 5.0	.000	6.0		
61 06 05		61 06 1		x 1	50.80 5.0	.8	8.0		
61 06 06		61 06		x 1 1/2	50.80 8.10	.000	6.0		
61 06 0		61 06		1/2 x 1 1/2	6.50 8.10	.8	8.0		
61 06 08		61 06		1/2 x	6.50 50.80	.000	6.0		
61 06 0		61 06 5		x 1 1/2	6.0 8.10	.5	1 0.0		
61 06 10		61 06 6		x	6.0 50.80	.8 8	8.50		
61 06 11		61 06		x 1/2	6.0 6.50	.1 6	.0		
61 06 1		61 06 8		x	101.60 50.80	5.5 5	1 6.10		
61 06 1		61 06		x 1/2	101.60 6.50	.8 8	1.0		
61 06 1		61 06 0		x	101.60 6.0	.500	11.0		
61 06 15		61 06 1		6 x	15.0 6.0	8.000	0.0		
61 06 16		61 06		6 x	15.0 101.60	6.	161.0		



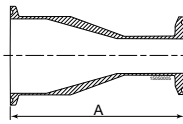
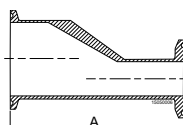
Finish Item o. L SF1	L U	Finish Item o. SF	L U	Size		Dimension A		
				Inch	mm	Inch	mm	
T .1. 1 S								
eccentric reducer								
61 0 601		61 0 6		3/8 x 1/4	.5 6.5	1.6 6	1.0	
61 0 60		61 0 6		1/2 x 1/4	1.0 6.5	1.8 1	6.5	
61 0 60		61 0 6		1/2 x 3/8	1.0 .5	1.8 1	6.5	
61 0 60		61 0 6 5		3/4 x 3/8	1.05 .5	.000	50.80	
61 0 605		61 0 6 6		3/4 x 1/2	1.05 1.0	.1 6	5.00	
61 0 606		61 0 6		1 x 1/2	5.0 1.0	.500	6.50	
61 0 60		61 0 6 8		1 x 3/4	5.0 1.05	.1 6	5.00	
61 0 608		61 0 6		1 1/2 x 3/4	8.10 1.05	.000	6.0	
61 0 60		61 0 6 0		1 1/2 x 1	8.10 5.0	.500	6.50	
61 0 610		61 0 6 1		x 1	50.80 5.0	.8	85.80	
61 0 611		61 0 6		x 1 1/2	50.80 8.10	.500	6.50	
61 0 61		61 0 6		1/2 x 1 1/2	6.50 8.10	.8	85.80	
61 0 61		61 0 6		1/2 x	6.50 50.80	.500	6.50	
61 0 61		61 0 6 5		x 1 1/2	6.0 8.10	.5	108.00	
61 0 615		61 0 6 6		x	6.0 50.80	.8	85.80	
61 0 616		61 0 6		x 1/2	6.0 6.50	.6 6	66.0	
61 0 61		61 0 6 8		x	101.60 50.80	5.1 6	1 0.0	
61 0 618		61 0 6		x 1/2	101.60 6.50	.08	180.00	
61 0 61		61 0 6 0		x	101.60 6.0	.8	8.0	
61 0 6 0		61 0 6 1		6 x	15.0 6.0	.5	18.0	
				6 x	15.0 101.60	5.6 6	1.0	
T .1.								
S eccentric reducer								
61 0 805		61 0 8 1		3/4 x 1/2	1.05 1.0	.6 6	66.0	
61 0 801		61 0 81		1 x 1/2	5.0 1.0	.000	6.0	
61 0 80		61 0 818		1 x 3/4	5.0 1.05	.6 6	66.0	
61 0 80		61 0 81		1 1/2 x 3/4	8.10 1.05	.500	88.0	
61 0 80		61 0 8 0		1 1/2 x 1	8.10 5.0	.000	6.0	
61 0 805		61 0 8 1		x 1	50.80 5.0	.8	8.0	
61 0 806		61 0 8		x 1 1/2	50.80 8.10	.000	6.0	
61 0 80		61 0 8		1/2 x 1 1/2	6.50 8.10	.8	8.0	
61 0 808		61 0 8		1/2 x	6.50 50.80	.000	6.0	
61 0 80		61 0 8 5		x 1 1/2	6.0 8.10	.5	1 0.0	
61 0 810		61 0 8 6		x	6.0 50.80	.8 8	8.50	
61 0 811		61 0 8		x 1/2	6.0 6.50	.1 6	.0	
61 0 81		61 0 8 8		x	101.60 50.80	5.5	1 6.10	
61 0 81		61 0 8		x 1/2	101.60 6.50	.8 8	1.0	
61 0 81		61 0 8 0		x	101.60 6.0	.500	11.0	
61 0 815		61 0 8 1		6 x	15.0 6.0	8.000	0.0	
61 0 816		61 0 8		6 x	15.0 101.60	6.	161.0	



roduct code: 50 6
lamp Ferrules according to T 1

aterial: 16L

1.5

Finish Item o. L SF1	L U	Finish Item o. SF	L U	Size		imension A			
				Inch	mm	Inch	mm		
T .1.									
1S 1 oncentric reducer									
61 0 05		61 0 1		¾ x ½	1 .05 1 . 0	.1 6	. 0		
61 0 01		61 0 06		1 x ½	5. 0 1 . 0	.500	88. 0		
61 0 0		61 0 0		1 x ¾	5. 0 1 .05	.1 6	. 0		
61 0 0		61 0 08		1½ x ¾	8.10 1 .05	.000	101.60		
61 0 501		61 0 51		1½ x 1	8.10 5. 0	.500	88. 0		
61 0 50		61 0 515		x 1	50.80 5. 0	.	111.10		
61 0 50		61 0 516		x 1½	50.80 8.10	.500	88. 0		
61 0 50		61 0 51		½ x 1½	6 .50 8.10	.	111.10		
61 0 505		61 0 518		½ x	6 .50 50.80	.500	88. 0		
61 0 506		61 0 51		x 1½	6. 0 8.10	5. 50	1 . 5		
61 0 50		61 0 5 0		x	6. 0 50.80	.	111.10		
61 0 508		61 0 5 1		x ½	6. 0 6 .50	.6 6	.10		
61 0 50		61 0 5		x	101.60 50.80	6. 50	158. 5		
61 0 510		61 0 5		x ½	101.60 6 .50	5.	1 6.50		
61 0 511		61 0 5		x	101.60 6. 0	5.000	1 .00		
61 0 51		61 0 5 5		6 x	15 . 0 6. 0	8.500	15. 0		
61 0 51		61 0 5 6		6 x	15 . 0 101.60	.000	1 .80		
T .1.									
S 1 ccentric reducer									
61 0 05		61 0 1		¾ x ½	1 .05 1 . 0	.1 6	. 0		
61 08001		61 08006		1 x ½	5. 0 1 . 0	.500	88. 0		
61 0800		61 0800		1 x ¾	5. 0 1 .05	.1 6	. 0		
61 0800		61 08008		1½ x ¾	8.10 1 .05	.000	101.60		
61 08101				1½ x 1	8.10 5. 0	.500	88. 0		
61 0810		61 08115		x 1	50.80 5. 0	.	111.10		
61 0810		61 08116		x 1½	50.80 8.10	.500	88. 0		
61 0810		61 0811		½ x 1½	6 .50 8.10	.	111.10		
61 08105		61 08118		½ x	6 .50 50.80	.500	88. 0		
61 08106		61 0811		x 1½	6. 0 8.10	5. 50	1 . 5		
61 0810		61 081 0		x	6. 0 50.80	.	111.10		
61 08108		61 081 1		x ½	6. 0 6 .50	.6 6	.10		
61 0810		61 081		x	101.60 50.80	6. 50	158. 5		
61 08110		61 081		x ½	101.60 6 .50	5.	1 6.50		
61 08111		61 081		x	101.60 6. 0	5.000	1 .00		
61 0811		61 081 5		6 x	15 . 0 6. 0	8.500	15. 0		
61 0811		61 081 6		6 x	15 . 0 101.60	.000	1 .80		



Product code: 5056
 Lamp Ferrules according to T 1

Material: 16L

1.5

Finish Item no.	L U	Finish Item no.	L U	Size		Dimension				Type	Image
						A					
L SF1		SF		Inch	mm	Inch	mm	Inch	mm		T .1. 1 L1 A Ferrule A
615 10		615 10		1/2	12.0	1.1	8.58	0.8	5.00	Type	
615 101		615 10		3/4	19.0	1.1	8.58	0.8	5.00	A	
615 66801		615 66808		1	50.0	1.1	8.58	1.8	50.0	Type	
615 6680		615 6680		1 1/2	81.0	1.1	8.58	1.8	50.0		
615 6680		615 66810			50.80	1.1	8.58	.5	6.1		
615 6680		615 66811		1/2	6.50	1.1	8.58	.05	.		
615 66805		615 6681			6.0	1.1	8.58	.58	0.1		
615 66806		615 6681			101.60	1.1	8.58	.68	118.		
615 6680		615 6681		6	151.0	1.5	8.10	6.5	166.88		
T .1. 1, S1 A Ferrule A											
6 00 801		6 00 810		1/2	12.0	1.5	5.5	0.8	5.00	Type	
6 00 80		6 00 811		3/4	19.0	1.5	5.5	0.8	5.00	A	
6 00 80		6 00 81		1	50.0	1.5	5.5	1.8	50.0	Type	
6 00 80		6 00 81		1 1/2	81.0	1.5	5.5	1.8	50.0		
6 00 805		6 00 81			50.80	.5	5.15	.5	6.1		
6 00 806		6 00 815		1/2	6.50	.5	5.15	.05	.		
6 00 80		6 00 816			6.0	.5	5.15	.58	0.1		
6 00 808		6 00 81			101.60	.5	5.15	.68	118.		
6 00 80		6 00 818		6	151.0	1.0	6.0	6.5	166.88		
T .1. 1, 1 W S Short ferrule A											
610 6		610 65		1/2	12.0	0.50	12.0	0.8	5.00	Type	
610 6		610 0		3/4	19.0	0.50	12.0	0.8	5.00	A	
610		610 5		1	50.0	0.50	12.0	1.8	50.0	Type	
610 6		61081		1 1/2	81.0	0.50	12.0	1.8	50.0		
610 0		610			50.80	0.50	12.0	.5	6.1		
610 8		610		1/2	6.50	0.50	12.0	.05	.		
610 80		610 81			6.0	0.50	12.0	.58	0.1		
610 8		610 8			101.60	0.5	15.88	.6	118.		
6600 8		615 81		6	151.0	1.50	11.05	6.58	166.88		
T .1.5 , 16A A end cap											
1 1		1000		1/2 3/4	19.0	0.1	12.80	0.8	5.00	Type	
10		1016		1 1/2	81.0	0.5	6.0	1.8	50.0	A	
108 1		108 1			50.80	0.5	6.0	.5	6.1	Type	
1 1		10		1/2	6.50	0.5	6.0	.05	.		
10 0		108			6.0	0.5	6.0	.58	0.1		
10 8		101 1			101.60	0.5	6.0	.6	118.		
60 1		60 1		6	151.0	0.	11.10	6.58	166.88		
T .1.5 1, 16W end cap A											
018		0 0		1/2	12.0	1.6	12.0				
0		0		3/4	19.0	1.6	12.0				
15 6		0		1	50.0	1.6	12.0				
16 8		100		1 1/2	81.0	1.8	6.8				
1681		101			50.80	.0	51.				
10		10		1/2	6.50	.1	5.0				
168		105			6.0	.0	58.51				
1 1		10			101.60	.5	6.01				
6 50001 5		615 001		6	151.0	.8	5.5				

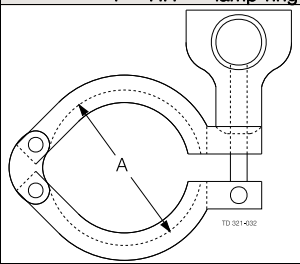
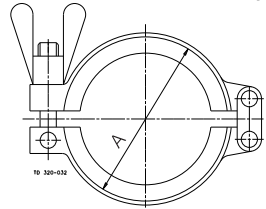
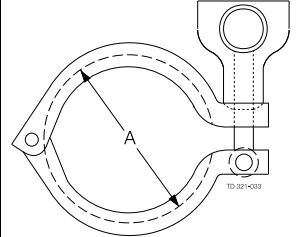
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T : For pressure and surface, please see product leaflet. l and t wall thickness please see page 1.5.1 6



roduct code: 50

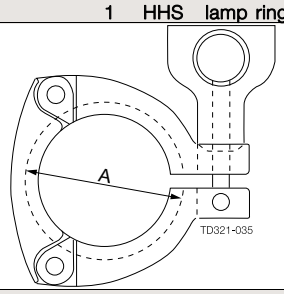
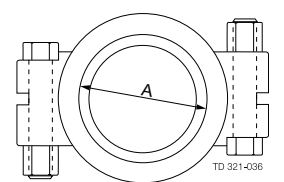
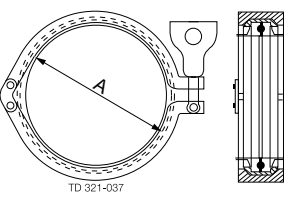
1.5

Material Item no.	L U	Size		Dimension A		1 HH lamp ring
		Inch	mm	Inch	mm	
61 08801		1	1 . 0 1 .00	1.1	8.00	
1 1 5		1 1 ¹	5. 0 8.10	.1	5 .00	
1 1 6			50.80	.66	6 .50	
1 1		1	6 .50	.1	81.00	
1 1 8			6 . 0	.	.50	
1 1			101.60	.8	1 .60	
101		6	15 . 0	6.6	16 . 0	
lamp ring						
611 11		1	5. 0	1. 5	.00	
A1 H lamp ring						
11 0		1	1 . 01 .00	1.1	8.60	
1105		1 1 ¹	5. 0 8.10	.1	5 .00	
1105			50.80	.66	6 .10	
11055		1	6 .50	.1	81.00	
11056			6 . 0	.	.50	
1105			101.60	.8	1 . 0	
11058		6	15 . 0	6.6	16 . 0	

T : For pressure and surface, please see product leaflet.



Product code: 50

Material Item no.	L U	Size		Dimension A		1 HHS lamp ring
		Inch	mm	Inch	mm	
11 8		1 1/16	5.0 8.10	.1	5.00	
11 8			50.80	.66	6.50	
11 86		1	6.50	.1	81.00	
11 8			6.0	.	.50	
11 8			101.60	.8	1.60	
A1 H lamp ring						
615 6 01		1	1.0 1.00	1.0	6.0	
615 65 01		1	1.0 1.00	1.0	6.0	
615 65 01		1 1/16	5.0 8.10	.05	5.00	
615 65 01			50.80	.58	65.50	
615 65501		1	6.50	.11	.00	
615 65601			6.0	.6	.50	
615 65 01			101.60	.	10.0	
6 0 8 8		6	15.0	6.6	168.0	
A1 S lamp ring						
101 5		1 1/16	8.10	1.8	50.0	
101 6			50.80	.5	6.0	
101		1	6.50	.05	.0	
101 8			6.0	.58	0.0	
101 0			101.60	.6	11.10	



T : For pressure and surface, please see product leaflet.





Product code: 50 6

1.5

Seal rings for type A

Material Item no.	L U	Material Item no.	L U	Material Item no.	L U	Material Item no.	L U	Size	Seal ring
				U		SF		Inch	
0 0 65				0 0 6		0 0 66 61 006 0		1 1	
								Inch	Seal ring
0 0 0 1 61 006 0		00 0 00						1 1	

Seal rings for type

Material Item no.	L U	Material Item no.	L U	Material Item no.	L U	Material Item no.	L U	Size	Seal ring
0				0 U		0 SF		Inch	0 Seal ring
01 1 00 00 00 8 00 6 0018 0				8 51 8 5 8 5 8 5 8 55 8 56 011		000 00 00 0 00 0 00 005 0 0		1 1' 1 6	
0		0		0 UW		0 SF W		Inch	0 Seal ring
8 8 8 8 8 8 5 8 6 8 5		851 850 8508 850 8510 8511		8501 8 5 8 6 8 8 8 8 01 5		00 1 00 0 006 005 0055 0086 not available		1 1' 1 6	

not available

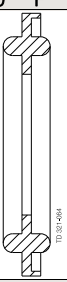
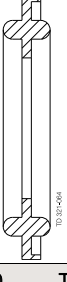
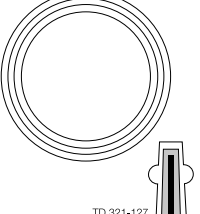
Material descriptions

Code Letter	Material	Code Letter	Material
SF	TF Steam resistant Fluoroelastomer	U UW SF W	una White una White iton Silicone



Product code: 50 6

1.5

Material Item no.	L U	Material Item no.	L U	Material Item no.	L U	Size	
0 F		0 F U		0 F SF		Inch	0 F F Seal ring
00 1		8 6		00		1	
00 8		8		0115		1 1/2	
001		8 6		011		1	
00 5		8 8		0118		1	
01 8		8 5		011		1	
00 5		8		01		1	
01 1		8 0		018		6	
0 F		0 F UW				Inch	0 F F Seal ring
8 11		8 08				1	
8 1		8 1				1 1/2	
8 1		8 1				1	
8 1		006				1	
8 15		8				1	
8 16		8				1	
8605		0 6				6	
A 0						Inch	A 0 A 0 . TF nvelope asket with SF Seal ring
00						1	
00						1 1/2	
00						1	
00 5						1	
00 6						1	
00						6	
0085						6	



1.5

Finish Item no.	L U	Finish Item no.	L U	Size		Dimension				1 H Hose adapter
						A		Inch	mm	
L SF1		SF		Inch	mm	Inch	mm			Inch	mm
10		10 5		1 x 1	1.0x6.0	1.50	8.10			
10		1066		1 x 8	1.0x.0	1.50	8.10			
10 5		10 1		1 x 1	1.0x1.0	1.50	8.10			
1060				x 1	1.00x6.0	1.50	8.10			
1060				x 8	1.00x.0	1.50	8.10			
105 1				x 1	1.00x1.0	1.50	8.10			
105		1001		x	1.00x1.00	1.50	8.10			
10		10 65		1 x 1	5.0x 5.0	1.6	.0			
10 6		10 0		1 x 1	8.10x 8.10	1.6	.0			
10		10 8		x	50.80x50.80	.1	58.0			
10 86		10 8		1 x 1	6.50x6.50	.00	50.80			
10 0		10 1		x	6.0x 6.0	.11	.00			
11618				x	101.60x101.60	.1	86.50			
1 Male T adapter										
105		105		1 x 8	1.0x.0	.00	50.80	0.0	10.0	
105 5		10581		1 x 1	1.0x6.0	.00	50.80	0.5	15.00	
1058		1058		1 x 8	1.0x.50	.00	50.80	0.60	15.0	
105		10586		1 x 1	1.0x1.0	.00	50.80	0.8	1.80	
10551		10588		1 x	1.0x1.00	.00	50.80	0.	0.10	
		11551		x 8	1.00x.0	.00	50.80	0.0	10.0	
105		10		x 1	1.00x6.0	.00	50.80	0.5	15.00	
105 8		10 8		x 8	1.00x.50	.00	50.80	0.60	15.0	
105 8		105		x 1	1.00x1.0	.00	50.80	0.8	1.80	
105		10601		x	1.00x1.00	.00	50.80	0.	0.10	
1 1 5		108 0		1 x 1	5.0x 5.0	.5	5.0	0.6	1.50	
1 1 6		108 1		1 x 1	8.10x 8.10	.	61.0	0.	18.0	
1 1 1		1155		x	50.80x50.80	.66	6.50	0.5	1.10	
115		1155		1 x 1	6.50x6.50	.8	8.0	1.8	.0	
105 1		1155		x	6.0x 6.0	.50	88.0	1.0	0.60	
11550				x	101.60x101.60	.81	6.80	1.0	.0	

on request
not available



Finish Item no.	L U	Finish Item no.	L U	Size		Dimension A		Female T adapter
				Inch	mm	Inch	mm	
L SF1		SF						
10686		1155		1 x 1 8	1 . 0x . 0	1. 5	1.80	
10 6		108 8		1 x 1	1 . 0x6. 0	1.50	8.10	
10 0		1156		1 x 8	1 . 0x . 0	1.50	8.10	
10550		10055		1 x 1	1 . 0x1 . 0	1.50	8.10	
105		111 5		1 x	1 . 0x1 .00	1.6	1.10	
1055		1156		x 1 8	1 .00x . 0	1. 5	1.80	
1055		11566		x 1	1 .00x6. 0	1.50	8.10	
10560				x 8	1 .00x .50	1.50	8.10	
1056		111		x 1	1 .00x1 . 0	1.50	8.10	
105 6		1056		x	1 .00x1 .00	1.6	1.10	
1 1		115 0		1 x 1	5. 0x 5. 0	1.6	1. 0	
10 60		108		1 1 x 1 1	8.10x 8.10	. 5	5 . 0	
10 5		10 6		x	50.80x50.80	.	5 . 0	
11558		115 1		1 x 1	6 .50x6 .50	.0	5 . 0	
10 15		115		x	6. 0x 6. 0	.1	55.60	
11560				x	101.60x101.60	.66	6 .50	

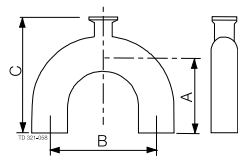
T : For pressure and surface, please see product leaflet.

l and t wall thickness please see page 1.5.1 6



1.5

Finish Item no.	L U	Finish Item no.	L U	Size		Dimension						U	A	A
						A								
						Inch	mm	Inch	mm	Inch	mm			
6 0 01		6 0 8		1 x 1	5.0x1.0	.00	6.0	.00	6.0	.1	10.80			
6 0 0		6 0 0		1 x	5.0x1.00	.00	6.0	.00	6.0	.1	10.80			
6 0 0		6 0 0		1 ¹ x 1	8.10x1.0	.50	11.0	.50	11.0	5.88	1.0			
6 0 0		6 0 1		1 ¹ x	8.10x1.00	.50	11.0	.50	11.0	5.88	1.0			
6 0 05		6 0		1 ¹ x 1	8.10x 5.0	.50	11.0	.50	11.0	5.88	1.0			
6 0 06		6 0		x 1	50.80x1.0	5.00	1.00	6.00	15.0	6.6	168.0			
6 0 0		6 0		x	50.80x1.00	5.00	1.00	6.00	15.0	6.6	168.0			
6 0 08		6 0 5		x 1	50.80x 5.0	5.00	1.00	6.00	15.0	6.6	168.0			
6 0 0		6 0 6		x 1 ¹	50.80x 8.10	5.00	1.00	6.00	15.0	6.6	168.0			
6 0 10		6 0		1 x 1	6.50x1.0	5.5	1 6.10	.50	1 0.50	.6	1.0			
6 0 11		6 0 8		1 x	6.50x1.00	5.5	1 6.10	.50	1 0.50	.6	1.0			
6 0 1		6 0		1 x 1	6.50x 5.0	5.5	1 6.10	.50	1 0.50	.6	1.0			
6 0 1		6 0 0		1 x 1 ¹	6.50x 8.10	5.5	1 6.10	.50	1 0.50	.6	1.0			
6 0 1		6 0 1		1 x	6.50x50.80	5.5	1 6.10	.50	1 0.50	.6	1.0			
6 0 15		6 0		x 1	6.0x1.0	6.50	165.10	.00	8.60	8.6	1.10			
6 0 16		6 0		x	6.0x1.00	6.50	165.10	.00	8.60	8.6	1.10			
6 0 1		6 0		x 1	6.0x 5.0	6.50	165.10	.00	8.60	8.6	1.10			
6 0 18		6 0 5		x 1 ¹	6.0x 8.10	6.50	165.10	.00	8.60	8.6	1.10			
6 0 1		6 0 6		x	6.0x50.80	6.50	165.10	.00	8.60	8.6	1.10			
6 0 0				x 1	6.0x6.50	6.50	165.10	.00	8.60	8.6	1.10			
6 0				x 1	101.60x 5.0	8.50	15.0	1.00	0.80	11.1	8.60			
6 0				x 1 ¹	101.60x 8.10	8.50	15.0	1.00	0.80	11.1	8.60			
6 0 5				x	101.60x50.80	8.50	15.0	1.00	0.80	11.1	8.60			



l and t wall thickness please see page 1.5.1 6



1.6 Unique Flexbody

The Alfa Laval Unique Flexbody is a flexible in line housing to fit instruments or sight glasses into hygienic fluid processing lines. Up to two instruments or sight glasses can be positioned in any pipeline. Its simple, no dead zone design makes the Unique Flexbody easy to use, maintain and clean.

Product leaflet	
Unique Flexbody	1.6. 0
Ordering leaflet	
Unique Flexbody	1.6. 06

Alfa Laval Unique Flexbody

Instrumentation Accessories

1.6

Introduction

The Alfa Laval Unique Flexbody is a flexible in line platform or housing to fit instruments or sight glasses into hygienic fluid processing lines. It easily fits into any piping system to enhance process monitoring and control. Up to two instruments or sight glasses can be positioned in any pipeline. Its simple, no dead zone design makes the Unique Flexbody easy to use, maintain and clean.

Application

The Alfa Laval Unique Flexbody is designed to enable various instruments or sight glasses to be installed into any pipeline in hygienic applications across the dairy, food, beverage, brewery and pharmaceutical industries.

enefits

- Improve control, measurement and visual inspection of your hygienic fluid process lines
- Higher productivity and profitability
 - nsure process hygiene due to ease of cleaning no dead zones, domes or sumps
- Two connection sizes fit all instrumentation and sight glasses
 - asy to remove, clean, calibrate and maintain instrumentation or sight glasses

Standard design

The Unique Flexbody consists of hygienic stainless steel in line housing, two o rings, and a choice between either a blind cap and one sight glass or two sight glasses. It can be welded into any piping system with various pipe diameters. The process connection can be sealed with the hygienic blind cap when instrument or sight glass is not attached.

Working principle

The Unique Flexbody has two openings to accommodate two instruments or sight glasses at the same time. When one or both of the openings is not being used for measurement or visual monitoring, hygienic blind caps can seal the process connections.



T H I A L ATA

Temperature	
Temperature range:	5 - 100 °

Pressure	
Max product pressure:	10 bar
In product pressure:	full vacuum

Please note: apply the relevant temperature and pressure ranges of the instrumentation that is applicable

Selection guide	
Select the option Unique Flexbody or Unique Flexbody with sight glasses	
Choose the size of the piping.	

Standard configuration	
The Unique Flexbody has two main configurations	
The Unique Flexbody includes a housing, one blind cap, one sight glass, clamp rings and rings	
The Unique Flexbody with sight glass includes a housing, sight glasses, clamp rings and rings.	

H I A L ATA

Materials	
Product wetted part:	1.0 - 16L
Surface finish internal external:	a<0.8 µm
Product wetted elastomer:	
Sight glass:	Option: F Fused silica

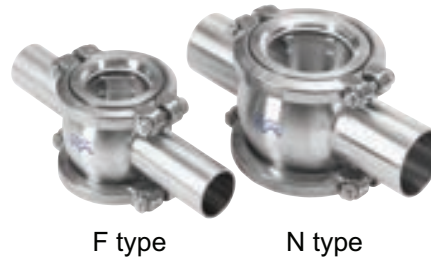
Available sizes	
10 5 A:	5, 10, 50, 60, 80, 100, 150, 160
IS 0 :	IS 5, 8, 51, 60, 65, 6.1, 101.6
AS :	1", 1½", 2", 2½", 3", 4"

Unique Flexbody F type

10 5 A: 5,
IS 0 : IS 5,
AS : 1"

Unique Flexbody N type

10 5 A: 10, 50, 65, 80, 100, 150,
IS 0 : IS 8, 51, 60, 65, 6.1, 101.6,
AS : 1½", 2", 2½", 3", 4"



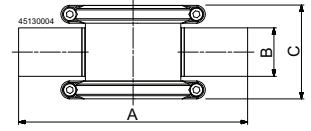
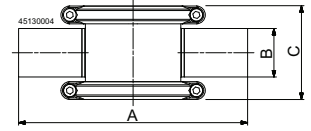
F type

N type

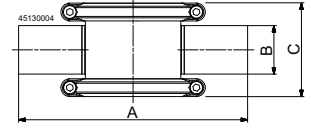
roduct code: 56 0

1.6

Item no	L U	Size		imensions mm			Unique Flexbody IS with 1 blind cap, 1 sightglass, clamp rings, rings
		IS	0	Inch	A		
61 6 1		5		1"	180	5	5 .
61 6 18		8		1.5"	180	8	.0
61 6 1		51		"	180	51	85.0
61 6 0		6 .5		.5"	50	6 .5	6.5
61 6 1		6.1		"	50	6.1	108.
61 6		101.6		"	50	101.6	1 5.6
		IS	0	Inch	A		Unique Flexbody IS with sightglasses, clamp rings, rings
61 6		5		1"	180	5	5 .
61 6		8		1.5"	180	8	.0
61 6 5		51		"	180	51	85.0
61 6 6		6 .5		.5"	50	6 .5	6.5
61 6		6.1		"	50	6.1	108.
61 6 8		101.6		"	50	101.6	1 5.6



Item no	L U	Size		imensions mm			Unique Flexbody I with 1 blind cap, 1 sightglass, clamp rings, rings
		I	10 5 A	Inch	A		
61 6 01		5		1"	180		6 .0
61 6 0		0		1½"	180	1	.0
61 6 0		50		"	180	5	86.0
61 6 0		65		½"	50	0	10 .0
61 6 05		80		"	50	85	11 .0
61 6 06		100		"	50	10	1 8.0
61 6 0		1 5		5"	50	1	16 .0
61 6 08		150		6"	50	15	1 .5



product code: 56 0

1.6

Item no	L U	Size		Dimensions mm			Unique Flexbody I with sightglasses, clamp rings, rings
		I 10 5 A	Inch	A			
61 6 0		5	1"	180		6 .0	
61 6 10		0	1½"	180	1	.0	
61 6 11		50	"	180	5	86.0	
61 6 1		65	½"	50	0	10 .0	
61 6 1		80	"	50	85	11 .0	
61 6 1		100	"	50	10	1 8.0	
61 6 15		1 5	5"	50	1	16 .0	
61 6 16		150	6"	50	15	1 .5	

Item no	L U	Size		Dimensions mm			Unique Flexbody AS with 1 blind cap, 1 sightglass, clamp rings, rings
		AS		A			
61 6		1"		180	5.	5 .	
61 6 0		1½"		180	8.1	.0	
61 6 1		"		180	50.8	85.0	
61 6		½"		50	6 .5	6.5	
61 6		"		50	6.	108.	
61 6		"		50	101.6	1 5.6	
		AS		A	Unique Flexbody AS with sightglasses, clamp rings, rings		
61 6 5		1"		180	5.	5 .	
61 6 6		1½"		180	8.1	.0	
61 6		"		180	50.8	85.0	
61 6 8		½"		50	6 .5	6.5	
61 6		"		50	6.	108.	
61 6 0		"		50	101.6	1 5.6	
		blind cap incl. ring					
61 6 1		blind cap for Unique Flexbody type F		5			
61 6		blind cap for Unique Flexbody type		8 150			

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1. Installation accessories

Tube support systems and tools make our installation material package complete.



Ordering leaflets

Tube Holders IS 10 tubes	1.	10
Tube Holders I 11850 tubes	1.	1
Tube Support System	1.	15
Tools for Unions	1.	0
Tools for Tubing	1.	1
and caps counting plates	1.	

1.

Material	L	Size	Dimension mm				
Item no.	U	mm	A		S		Tube holder with welding attachment
611850 50		5.00	1.00	1.0			
611850 51		8.00	6.00	1.0			
611850 5		51.00	5.00	1.0			
611850 5		6.50	8.60	5.0			
611850 5		6.10	100.00	60.50			
611850 55		101.60	15.60	1.0			
							Tube holder without welding attachment
61 8 01		5.00	1.00	1.0			
61 8 0		8.00	6.00	1.0			
61 8 0		51.00	5.00	1.0			
61 8 0		6.50	8.60	1.0			
61 8 05		6.10	100.00	0.50			
61 8 06		101.60	15.60	5.0			

Product code: 508

Tube: IS
Material: 1.010

Item no.	L U	Size mm	Dimension mm					Tube holder with short shaft
			A					
Loose								
61 1110		5.00	80.00	.00	0.00	1.0		
61 11108		8.00	.00	0.00	0.00	1.0		
61 1110		51.00	106.00	5.00	0.00	1.0		
61 11110		6.50	118.00	65.50	0.00	1.0		
61 11111		6.00	1.00	8.00	0.00	1.0		
61 1111		101.60	15.00	10.00	0.00	1.0		
Tight								
Tube holder with short shaft								
61 11101		5.00	8.00	.00	0.00	1.0		
61 1110		8.00	1.00	8.10	0.00	1.0		
61 1110		51.00	10.00	51.00	0.00	1.0		
61 1110		6.50	116.00	6.50	0.00	1.0		
61 11105		6.00	1.00	6.0	0.00	1.0		
61 11106		101.60	155.00	101.60	0.00	1.0		
Loose								
Tube holder with long shaft								
61 1111		5.00	80.00	.00	150.00	1.0		
61 1110		8.00	.00	0.00	150.00	1.0		
61 1111		51.00	106.00	5.00	150.00	1.0		
61 111		6.50	118.00	65.50	150.00	1.0		
61 111		6.00	1.00	8.00	150.00	1.0		
61 111		101.60	15.00	10.00	150.00	1.0		
Tight								
Tube holder with long shaft								
61 1111		5.00	8.00	5.0	150.00	1.0		
61 1111		8.00	1.00	8.10	150.00	1.0		
61 11115		51.00	10.00	51.00	150.00	1.0		
61 11116		6.50	116.00	6.50	150.00	1.0		
61 1111		6.00	1.00	6.0	150.00	1.0		
61 11118		101.60	155.00	101.60	150.00	1.0		
Tight								
Tube holder with short shaft								
61 1005			101.00	8.0	0.00	1.0		
61 1006			11.00	60.0	0.00	1.0		
61 100			1.00	88.0	0.00	1.0		
61 1008			16.00	11.00	5.00	1.0		

1.

Hinged Hex pipe holders
 product code: 508

Tube: IS
 material: 1. 01 0

1.

Material Item no.	L U	Size mm	Dimension mm				HK , hinged H Attachment
			A				
61 8 1		5.00	5.00	15.00			
61 8 1		8.00	8.00	1.50			
61 8 15		51.00	51.00	8.00			
61 8 16		6 .50	6 .50	.50			
61 8 1		6.00	6.00	0.50			
61 8 18		10 .00	10 .00	5 .50			
61 8 1		5.00	5.00	100.00	10.00		
61 8 0		8.00	8.00	100.00	10.00		
61 8 1		51.00	51.00	100.00	1 .00		
61 8		6 .50	6 .50	100.00	1 .00		
61 8		6.00	6.00	100.00	1 .00		
61 8		10 .00	10 .00	100.00	1 .00		

Product code: 508

Tube: 1
Material: 1.010

Finish	L	Finish	L	Size	Dimension mm					
Item o.	U	Item o.	U	mm						
Semi bright		mat								
611 80 00		611 80 01		10.00	6 .50	1 .00	8.00			
611 80 10		611 80 11		15.00	65.50	18.00	8.00			
611 811		611 811 1		0.00	68.50	.00	8.00			
611 80 0		611 80 1		5.00	1.50	8.00	10.00			
611 80 0		611 80 1		0.00	.50	0.00	10.00			
611 80 50		611 80 51		50.00	8 .50	5 .00	1 .00			
611 80 60		611 80 61		65.00	.50	0.00	1 .00			
611 80 80		611 80 81		80.00	100.00	85.00	1 .00			
611 80 0		611 80 1		100.00	10 .50	10 .00	1 .00			
611 80800		611 80801		1 5.00	1 0.50	1 .00	16.00			
611 80810		611 80811		150.00	1 .50	15 .00	16.00			
					A		H	S	olt	
611 8115		611 81151		10.00	51	16	1	6	6x 0	
611 8116		611 81161		15.00	5	18			6x 0	
611 811		611 811 1		0.00	61	8		6	6x 0	
611 8118		611 81181		5.00	6		8	5	6x 0	
611 81 0		611 81 01		0.00		6	0	6	6x 0	
611 81 1		611 81 11		50.00	1	58	5	6	6x 0	
611 81		611 81 1		65.00	10	6	0		6x 0	
611 81		611 81 1		80.00	1	1	85	10	6x 0	
611 81		611 81 1		100.00	1	110	10	1 8	6x 0	
611 81 5		611 81 51		1 5.00	168	1 5	1	15	6x 0	
611 81 6		611 81 61		150.00	1	160	15	1 8	6x 0	

1.

Product code: 508

Tube: 1
Material: 1.01 0

1.

Item no.	L U	Size mm	Dimension mm						
			A						
Loose									Tube holder with short shaft
61 1101		50.00	10 .00	5 .00	0.00			1. 0	
61 110 0		65.00	1 5.00	.00	0.00			1. 0	
61 110 1		80.00	1 .00	8 .00	0.00			1. 0	
61 110		100.00	15 .00	106.00		50.00		1. 0	
61 110		1 5.00	18 .00	1 1.00		50.00		1. 0	
61 110		150.00	0 .00	156.00		50.00		1. 0	
Tight									Tube holder with short shaft
61 1100		0.00	.00	.00	0.00			1. 0	
61 1100		5.00	80.00	.00	0.00			1. 0	
61 11005		.00	88.00	5.00	0.00			1. 0	
61 11006		0.00	.00	1.00	0.00			1. 0	
61 1100		50.00	10 .00	5 .00	0.00			1. 0	
61 11008		65.00	1 .00	0.00	0.00			1. 0	
61 1100		80.00	1 .00	85.00	0.00			1. 0	
61 11010		100.00	15 .00	10 .00		50.00		1. 0	
61 11011		1 5.00	18 .00	1 .00		50.00		1. 0	
61 1101		150.00	0 .00	15 .00		50.00		1. 0	

Supports system
 product code: 5118, 508

Material	L			Size	Dimension mm			
Item no.	U			mm	A			Square tube
product code: 5118								
6118 1					5.00	5.00	.00	
6118 1 6					5.00	5.00	.00	
6118 1501					0.00	0.00	1.50	
6118 150					0.00	0.00	.00	
6118 151					50.00	50.00	.00	
6118 1 81					50.00	50.00	.00	
6118 1 8					60.00	60.00	.00	
6118 1 8					60.00	60.00	.00	
6118 1 8					80.00	80.00	.00	
6118 15					80.00	80.00	.00	
6118 1 8					100.00	100.00	.00	
product code: 5118								
rectangular tube								
6118 1 0					0.00	0.00	.00	
6118 1 1					50.00	0.00	.00	
6118 15					60.00	0.00	.00	
6118 1					80.00	0.00	.00	
6118 1565					80.00	0.00	.00	
6118 1					100.00	50.00	.00	

1.

L prices are updated monthly
 All tubes are in lengths of 6 meters .

Supports system
 product code: 5118, 508

1.

Material	L			Size	Dimension mm			
Item no.	U				A			
1. 01 0								
Flat steel								
product code: 5118								
6118 1 01					0.00	.00		
6118 1 0					5.00	.00		
6118 1 08					0.00	6.00		
6118 1 1					0.00	.00		
6118 1 16					0.00	6.00		
6118 1 0					50.00	8.00		
6118 1 0					100.00	10.00		
1. 01 0								
Angle steel								
product code: 5118								
6118 1 1					0.00	.00		
6118 1 5					0.00	.00		
6118 1 6					50.00	5.00		
product code: 508								
Stud bolt								
611850 0					110.00	1		

L prices are updated monthly

All tubes are in lengths of 6 meters .

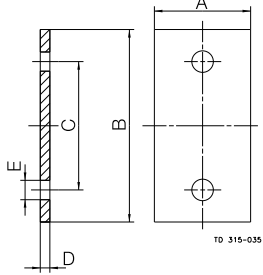
Supports system
product code: 508

Material Item no.	L U	Dimension mm		Diagram
		A		
1. 01 0 611850660		150.00	0.00	<p>Floor plate</p>
611850 0		150.00	0.00	<p>Wall plate, ceiling plate</p>
611850 0		150.00	.00	<p>Wall plate, ceiling plate</p>

1.

Supports system
 product code: 508

1.

Material Item no.	L U	Dimension mm					Wall plate
		A					
611880 0		60.00	1 0.00	80.00	6.00	1 .50	 <p style="text-align: right; font-size: small;">TD 315-035</p>

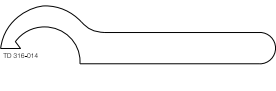
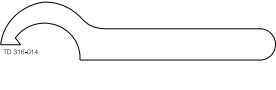
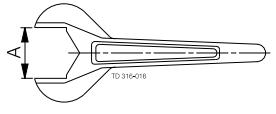

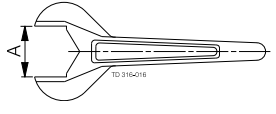

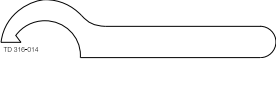
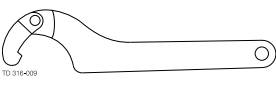
Supports system
 product code: 508 , 5086

Material Item no.	L U	Size	Dimension mm			Tube holder
			A			
product code: 508						
6118505 0		5.00	0.50	5.00	1 . 0	
6118505 1		8.00	0.50	5.00	1 . 0	
6118505		51.00	0.50	5.00	5.60	
6118505		6 .50	0.50	5.00	.00	
6118505		6.10	0.50	5.00	8 . 0	
6118505 5		101.60	0.50	5.00	51 . 0	

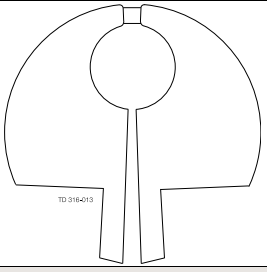
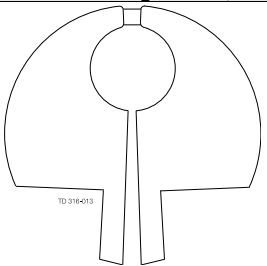
1.

Union spanners
product code: 5086

1.

Material Item no.	L U	Material Item no.	L U	Size mm	Dimension mm		Spanners for S S and S round nuts	
					A	For nut diam. from to		
611 80118 611 8011 611 801 0 611 801 611 801 1 611 801 5		Light alloy		5.00 8.00 51.00 6 .50 6.10 101.60		58.00 68.00 80.00 5.00 110.00 155.00	6 .00 5.00 0.00 100.00 115.00 165.00	
Spanners for I F round nuts								
611 8011 611 80118 611 8011 611 801 0 611 801 1 611 801 6				5.00 8.00 51.00 6 .50 6.10 101.60		5.00 58.00 68.00 80.00 110.00 1 5.00	50.00 6 .00 5.00 0.00 115.00 1 5.00	
Spanner, hexagon nuts I F IS								
		611 80111 611 8011 611 8011 611 8011 611 80115 611 801		5.00 8.00 51.00 6 .50 6.10 101.60	.00 6 .00 .00 .00 108.00 1 5.50			
Universal spanners for round nuts								
1 1 0 51				5.00 6.10				
Spanners for T S hexagon nuts								
		611 801 0 611 801 1 611 801 611 8011 611 811 1		5.00 8.00 51.00 6 .50 6.10	5 .00 66.00 80.00 .00 106.00			
Universal spanner for IS I								
1. 01 0 6 6 6				mm 5.00 6.00				
Spanners for I								
611 80118 611 8011 611 801 0 611 801 1 611 801 611 801 6				5.00 0.00 50.00 65.00 80.00 100.00	58.00 68.00 80.00 110.00 1 0.00 1 5.00	6 .00 5.00 0.00 115.00 1 5.00 1 5.00		
spanners for I								
611 010 611 010 8 611 010 611 010 0				10.00 0.00 5.00 0.00 50.00 100.00 1 5.00 150.00	5.00 60.00 0.00 155.00	60.00 0.00 155.00 0.00		

product code: 5086

Item o.	L U	Size		imension mm	
Steel		mm	mm	ax. thickness of saw blades	utting device, IS
611 810 0		5.00		1. 0	
611 810 1		8.00		1.50	
611 810		51.00		1.60	
611 810		6 .50		1. 0	
611 810		6.10		1. 0	
611 810 5		101.60		1. 0	
utting device, I					
611 81080			15.00		
611 81081			0.00		
611 8108			5.00		
611 8108			0.00		
611 81085			50.00		
611 81086			65.00		
611 8108			80.00		
611 8108			100.00		

1.

roduct code: 5086

Tube: IS
Semi bright

1.

aterial Item o.	L U	aterial Item o.	L U	Size mm	imension mm				nd cap, IS
1. 01 0		1. 0 16L		mm	A				
		61 6 01		5.00	5.00	1.80	.00		
		61 6 0		8.00	8.00	.80	10.00		
		61 6 0		51.00	51.00	.80	1 .00		
		61 6 0		6 .50	6 .50	60. 0	1 .00		
		61 6 05		6.00	6.00	.00	1 .00		
		61 6 06		101.60	101.60	.60	6.00		

roduct code: 5086

Tube: l
at

aterial Item o.	L U	aterial Item o.	L U	Size mm	imension mm				
1. 01 0		1. 0 16L		mm	A			nd cap olished	
611 01011		611 0 50		5.00	8.00	5.00	11.00		
611 0101		611 0 5		0.00	0.00	.00	1 .00		
611 0101		611 0 5		50.00	5 .00	.00	1 .00		
611 01015		611 0 5		65.00	0.00	66.00	.00		
611 01016		611 0 55		80.00	85.00	81.00	.00		
611 0101		611 0 56		100.00	10 .00	100.00	8.00		
611 01018		611 0 5		1 5.00	1 .00	1 5.00	.00		
611 0101		611 0 58		150.00	15 .00	150.00	8.00		
611 010 0		611 0 5		00.00	0 .00	00.00	.00		
611 010 1		611 0 60		50.00	5 .00	50.00	50.00		
									ounting plate,
18015 11					1 0.00	5.00			
18015 1					160.00	8.00			

1.



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