



Fittings for Science and Industry



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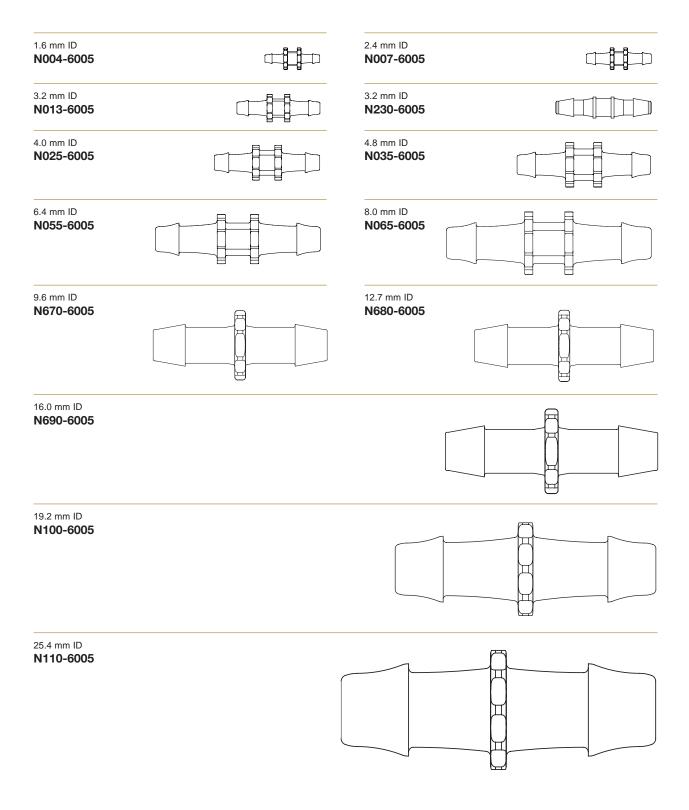
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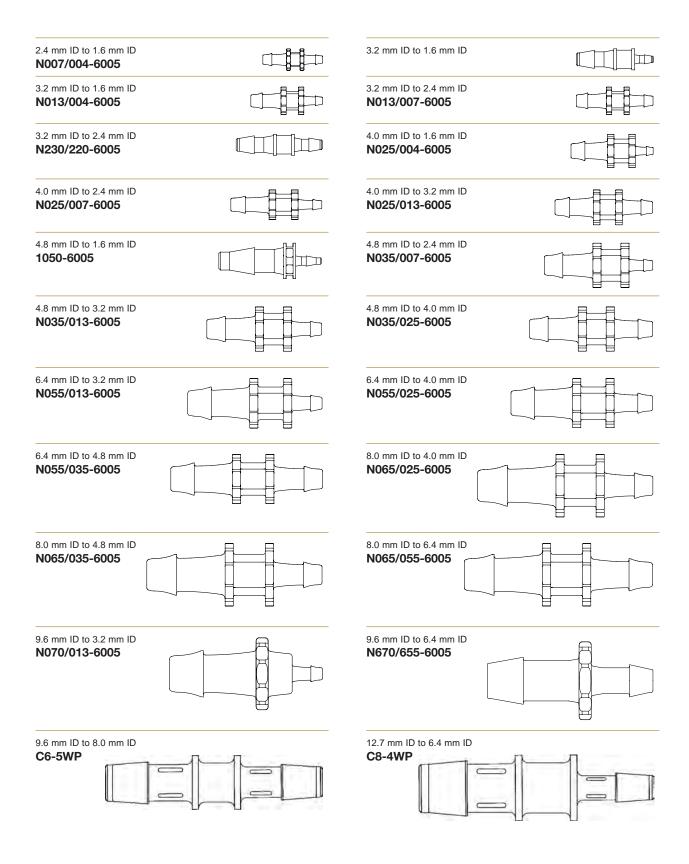
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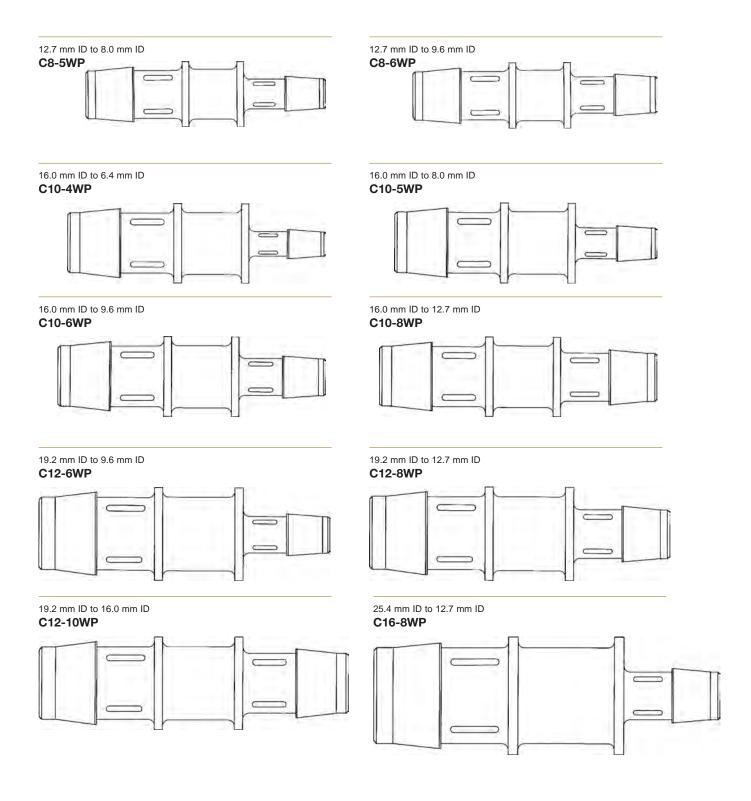
Straight connectors, equal legs



Straight reductions

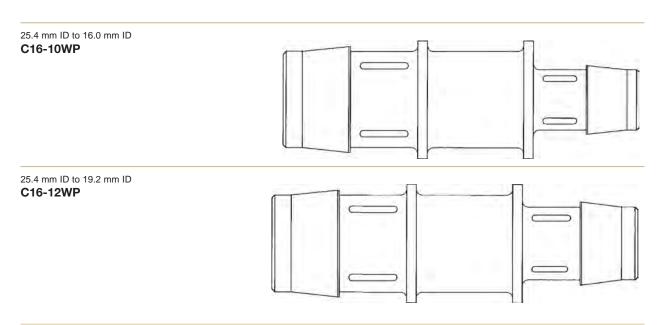


Straight reductions



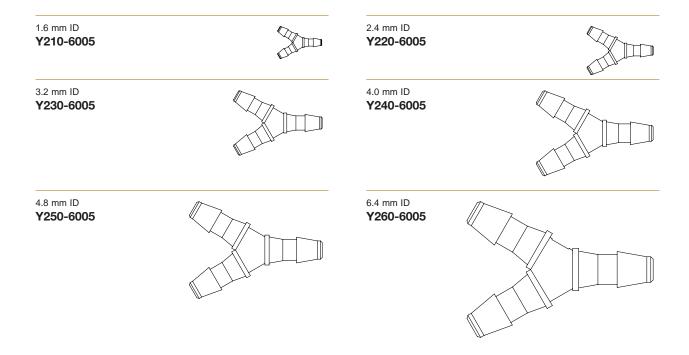
Straight reductions

For flexible tubing



Also see the Panel Mount section for further tube to tube options.

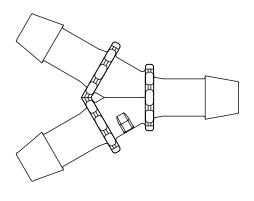
Y-connectors, equal legs



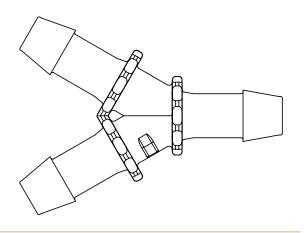
Y-connectors, equal legs

For flexible tubing

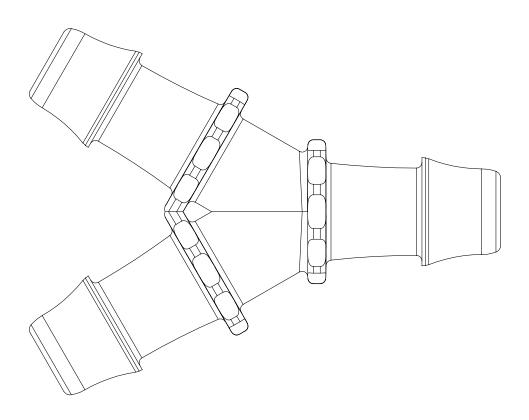
9.5 mm ID **Y670-6005**



12.7 mm ID Y680-6005 16,0 mm ID Y0-10WP

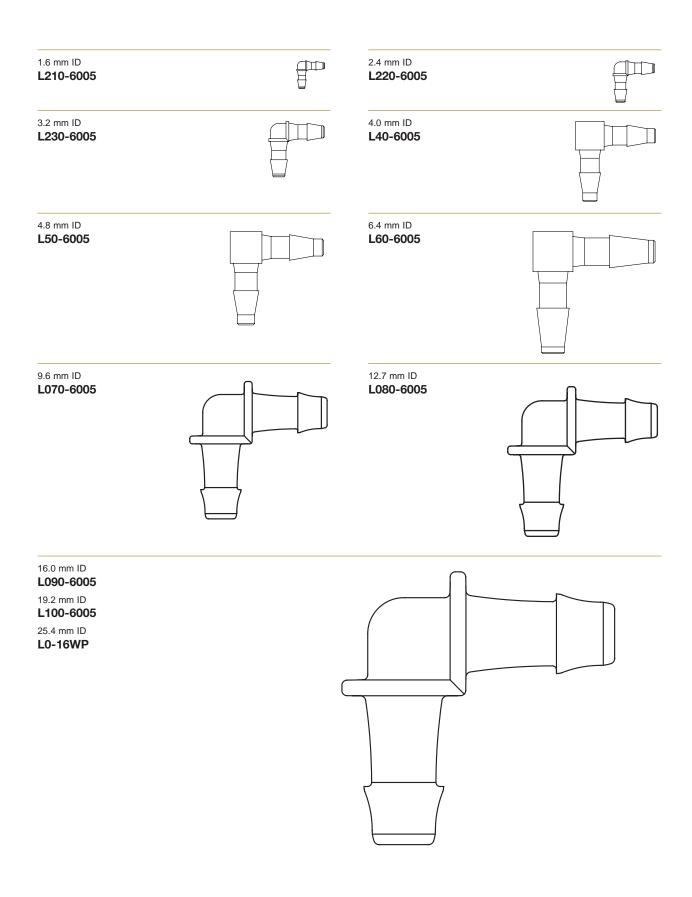


19,2 mm ID Y100-6005 25,4 mm ID Y110-6005



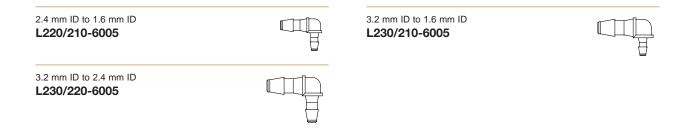
In addition to the Y-connectors in polypropylene shown above, Kynar/PVDF Y-connectors and a wide range of stainless steel manifolds are available from www.flexicon.dk

Elbow connectors, equal legs

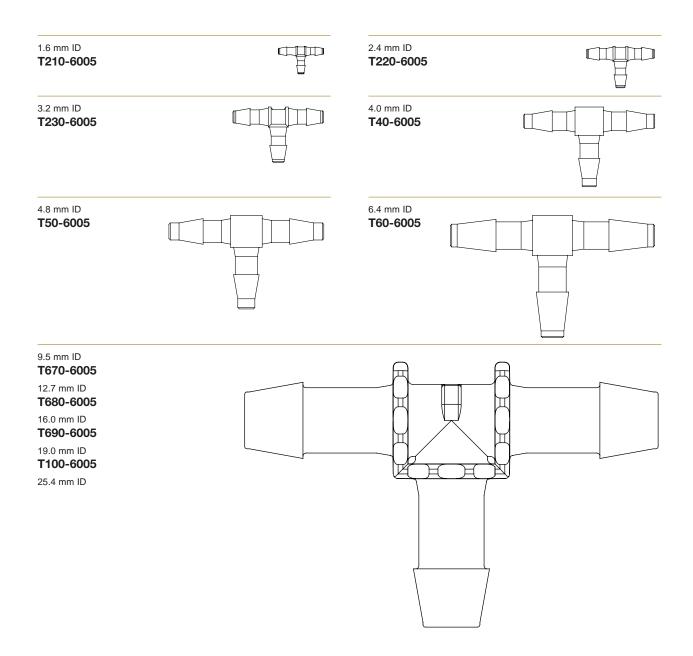


Elbow, reductions

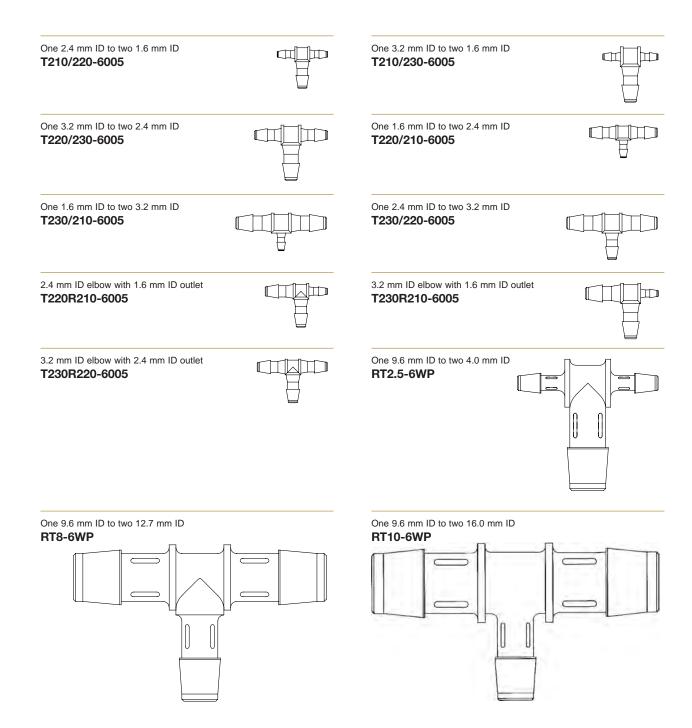
For flexible tubing



T-connectors, equal legs

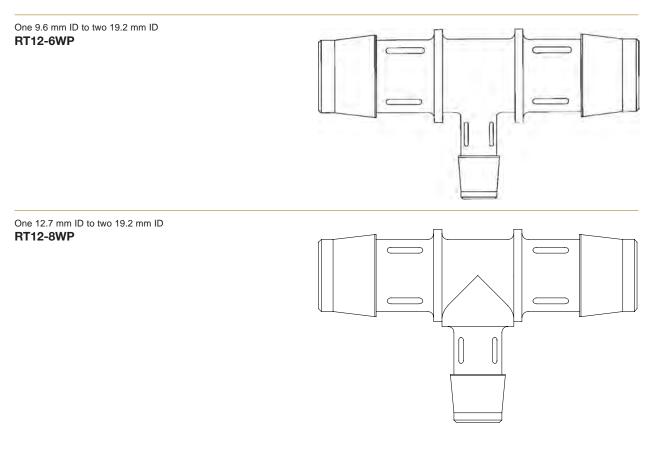


T-connectors, reductions



T-connectors, reductions

For flexible tubing



Plugs

1.6 mm ID PIP210-6005	2.4 mm ID PIP220-6005	
3.2 mm ID PIP230-6005	4.0 mm ID PIP240-6005	
4.8 mm ID PIP50-6005	6.4 mm ID PIP60-6005	
9.6 mm ID PIP070-6005	12.7 mm ID PIP080-6005	

Tube to tube connectors

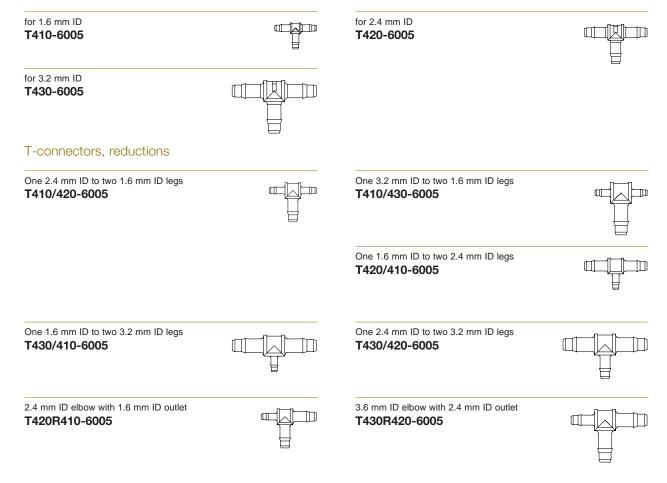
For semi-rigid tubing

Straight connectors, equal legs for 1.6 mm ID for 2.4 mm ID N410-6005 N420-6005 for 3.2 mm ID for 4.0 mm ID N430-6005 N440-6005 Straight reductions 2.4 mm ID to 1.6 mm ID 3.2 mm ID to 1.6 mm ID N420/410-6005 N430/410-6005 3.2 mm ID to 2.4 mm ID N430/420-6005 Y-connectors, equal legs for 1.6 mm ID for 4.8 mm ID Y410-6005 Y450-6005 for 2.4 mm ID Y420-6005 for 3.2 mm ID for 6.4 mm ID Y430-6005 Y460-6005 Elbow reductions Elbow connectors, equal legs for 1.6 mm ID 2.4 mm ID to 1.6 mm ID L410-6005 L420/410-6005 3.2 mm ID to 1.6 mm ID for 2.4 mm ID L420-6005 L430/410-6005 3.2 mm ID to 2.4 mm ID for 3.2 mm ID L430-6005 L430/420-6005

Tube to tube connectors

For semi-rigid tubing

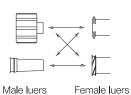
T-connectors, equal legs



Luer Taper Standards

All luers are made to ANSI/HIMA and ISO Standards MD70-1-1983, ISO 594-1-2 and may be connected to other luers which meet these standards. Please test your application to verify performance of your interconnection.

All Male Luers connect to all Females



Luer connectors

For flexible tubing

Male Luer, integral fixed lock ring

for 1.6 mm ID MTLL004-6005	for 2.4 mm ID MTLL007-6005	
for 3.2 mm ID MTLL013-6005	for 4.0 mm ID MTLL025-6005	
for 4.8 mm ID MTLL035-6005	for 6.4 mm ID MTLL055-6005	

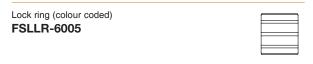
Male Luer for separate rotating lock ring (Lock ring FSLLR is sold separately)



Luer connectors

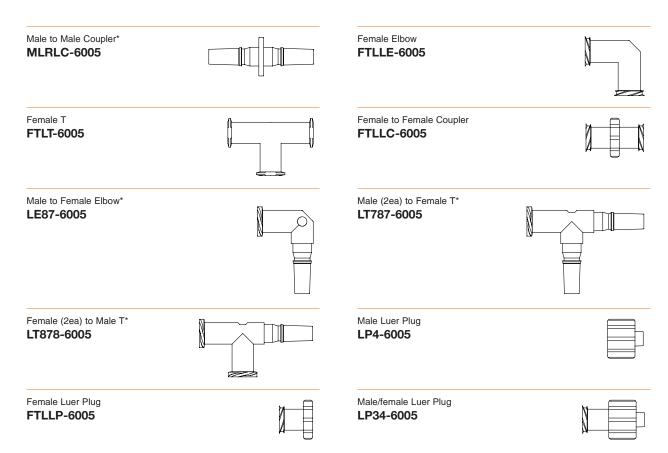
For flexible tubing

Male Luer rotating lock ring



Female Luer		
for 1.6 mm ID FTLL004-6005	for 2.4 mm ID FTLL007-6005	
for 3.2 mm ID FTLL013-6005	for 4.0 mm ID FTLL025-6005	
for 4.8 mm ID FTLL035-6005	for 6.4 mm ID FTLL055-6005	

Luer to Luer connectors and Plugs



^{*} May be used with separate rotating lock ring

Luer to thread connectors

For flexible tubing

Male Luer

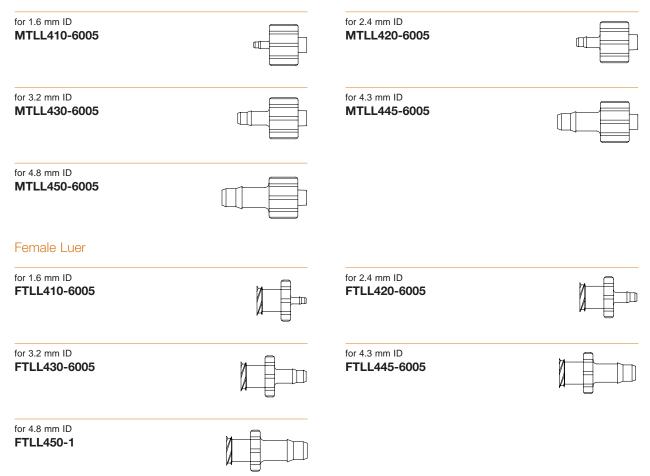
to 10-32 tapered* to 1/4-28 UNF* **XMLRL-6005 SMLRL-6005** to 1/8-27 NPT, Integral Lock Ring to 1/4-18 NPT, Integral Lock Ring 18MTLL-6005 14MTLL-6005 * May be used with separate rotating lock ring FSLLR. Female Luer to 10-32 UNF to 10-32 tapered KFTLL-6005 **XFTLL-6005** to 1/4-28 UNF Elbow to 1/8-27 NPT SFTLL-6005 18LFTLL-6005 to 1/8-27 NPT 18FTLL-6005

See Thread section for thread specifications.
Also see the Panel Mount section for further Lucr options.

Luer connectors

For semi-rigid tubing

Male Luer, integral fixed lock ring



Panel mount fittings

Panel mount M5 mm (10-32 UNF thread)

Reduction connector for 2.4 to 1.6 mm ID flexible tubing

Connector for 1.6 mm ID flexible tubing

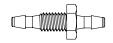
PMK210-6005

PMK220/210-6005



Connector for 2.4 mm ID flexible tubing

PMK220-6005



Lock nut, stainless steel, Hex 3/8" (10 mm)

PMKN-X0





Panel mount M6.5 mm (1/4-28 UNF thread)

Female Luer to 1.6 mm ID flexible tubing

FTLLB210-6005



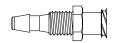
Female Luer to 2.4 mm ID flexible tubing

FTLLB220-6005



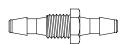
Female Luer to 3.2 mm ID flexible tubing

FTLLB230-6005



Connector for 3.2 mm ID flexible tubing

PMS230-6005



Reduction connector for 3.2 to 1.6 mm ID flexible tubing

PMS230/210-6005



PMS230/220-6005



Lock nut

LNS-1



Lock nut, stainless steel, Hex 7/16" (11 mm)

PMSN-X0





Colour coded ring

CCR-1



Colour coded lock ring

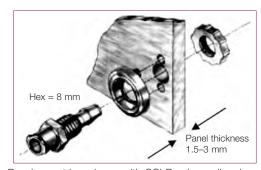
CCLR-1





Non-Threaded Panel Openings

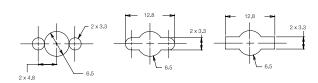
Use any one of the three panel patterns shown below with a CCLR lock ring and LNS lock nut. For PMK-series the center hole diameter may be reduced to Ø 5 mm. Together, the panel opening and CCLR prevent the bulkhead fitting from rotating. Tighten LNS snug plus 1/4 turn only.



Panel mount luer shown with CCLR color coding ring, and LNS lock nut.

Threaded Panel Openings

Tap the panel with 1/4-28 UNF or 10-32 UNF thread and use a CCR color coded ring. In this case, the fitting tightened into the panel prevents fitting rotation. Use an LNS lock nut for additional security; tighten snug plus 1/4 turn only.



Dimensions in mm (for inch, multilply by 0.0394).

Threaded Fittings













M530.8

M631

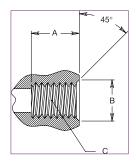
10-32 UNF

10-32 Tapered

1/4"-28 UNF

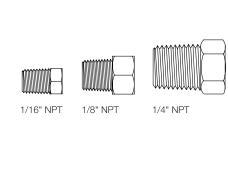
1/4"-28 UNF Bottom Sealed (rotating thread)

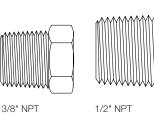
Port Design for secure and leak-free connection

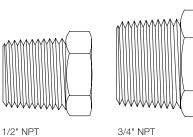


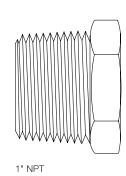
Fitting thread series	Dim. A Minimum full thread length	Dim. B Countersink diameter	C Internal screw thread
10-32 Taper	6.4 mm	5.3–5.8 mm	10-32 UNF 2B
10-32	5.1 mm	5.3–5.8 mm	10-32 UNF 2B
1/4-28 UNF	6.4 mm	6.8–7.3 mm	1/4-28 UNF 2B
M530.8	6.4 mm ¹	5.3–5.8 mm	M530.8
M631.0	9.6 mm¹	6.8–7.3 mm	M631.0

¹ This depth provides clearance needed to provide chamfer seal.





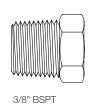


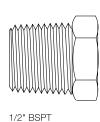


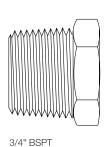


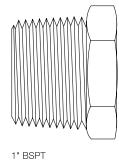












Thread	M5	M6	10-32 UNF	10-32 Special Tapered	1/4"-18 NPT	1/16" NPT	1/8" NPT	1/8" BSPT	1/4" NPT
/ inch			32	32	28	27	27	28	18
Hex [mm]	6.5	8	6.5	6.5	8	8	11–12	11–12	15
								D 1/9"	

Thread	1/4" BSPT	3/8" NPT	3/8" BSPT	1/2" NPT	1/2" BSPT	3/4" NPT	3/4" BSPT	1" NPT	1" BSPT
/ inch	19	18	19	14	14	14	14	11.5	11
Hex [mm]	15	18	18	23	23	29	29	35	35
	R 1/4"		R 3/8"		R 1/2"		R 3/4"		R 1"

For flexible tubing

Straight connectors, thread to 1.6 mm ID

М5

M5210-6005

Μ6

M6210-6005

10-32 UNF

K210-6005

10-32 tapered

X210-6005

1/4"-28 UNF

S210-6005

1/4"-28 UNF Bottom Sealed

ABR004-6005-1

1/16"-27 NPT

16210-6005

1/8"-27 NPT

18210-6005

Straight connectors, thread to 3.2 mm ID

M5

M5230-6005

M6

M6230-6005

10-32 UNF

K230-6005

10-32 tapered **X230-6005**

1/4"-28 UNF

S230-6005

1/4"-28 UNF Bottom Sealed

ABR013-6005-1

1/16"-27 NPT

16230-6005

1/8"-27 NPT

18230-6005

1/8" BSPT

A2B-2WP

1/4" BSPT

A4B-2WP

Straight connectors, thread to 4.8 mm ID

М6

M6250-6005

1/4"-28 UNF **\$250-6005**

1/16"-27 NPT

16250-1

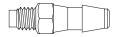
1/8"-27 NPT

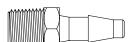
1850-6005

1/4"-18 NPT **A4-3WP**

1/4" BSPT

A4B-3WP





Straight connectors, thread to 2.4 mm ID

M5

M5220-6005

M6

M6220-6005

10-32 UNF

K220-6005

10-32 tapered

X220-6005

1/4"-28 UNF

S220-6005

1/4"-28 UNF Bottom Sealed

ABR007-6005-1

1/16"-27 NPT

16220-6005

1/8"-27 NPT

18220-6005

Straight connectors, thread to 4 mm ID

M5

M5240-6005

M6

M6240-6005

10-32 UNF

K240-1

10-32 tapered

X240-6005

1/4"-28 UNF

S240-6005

1/16"-27 NPT

16240-1

1/8"-27 NPT

18240-6005

1/8" BSPT

A2B-2.5WP

1/4" BSPT

A4B-2.5WP

Straight connectors, thread to 6.4 mm ID

M1/4"-18 NPT

A4-4WP 1/8"-27 NPT

1860-6005

3/8"-18 NPT

A6-4WP

1/2"-14 NPT

A8-4WP

3/4"-14 NPT

A12-4WP

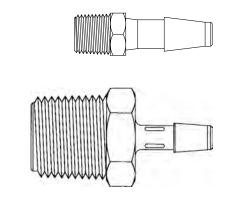
1/8" BSPT

A2B-4WP

1/4" BSPT

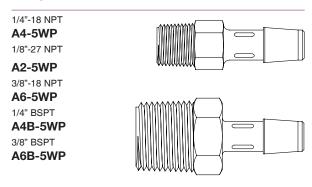
A4B-4WP

3/8" BSPT **A6B-4WP**

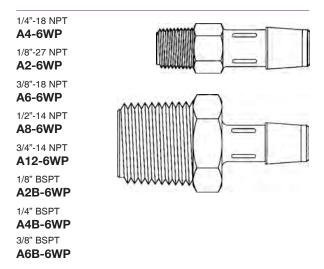


For flexible tubing

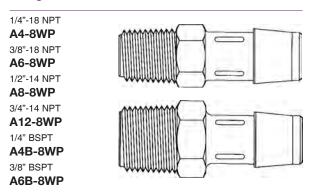
Straight connectors, thread to 8 mm ID



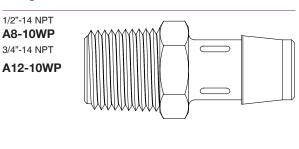
Straight connectors, thread to 9.6 mm ID



Straight connectors, thread to 12.7 mm ID



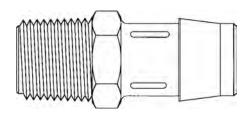
Straight connectors, thread to 16 mm ID



Straight connectors, thread to 19 mm ID

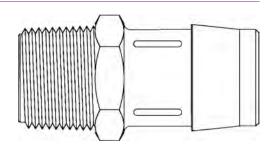
1/2"-14 NPT **A8-12WP** 3/4"-14 NPT

A12-12WP



Straight connectors, thread to 25.4 mm ID

3/4"-14 NPT **A12-16WP** 1"-11_{1/2} NPT **A16-16WP**



For flexible tubing

Elbow, thread to 1.6 mm ID

10-32 UNF **KL210-1** 10-32 tapered

XL210-6005

Elbow, thread to 3.2 mm ID

10-32 UNF 1/4"-18 NPT **KL230-1 L4-2WP**10-32 tapered 1/8" BSPT **L2B-2WP**1/4" BSPT

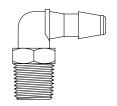
L4B-2WP

1/8"-27 NPT **18L230-6005**

Elbow, thread to 4.8 mm ID

18L250-6005 1/4"-18 NPT L4-3WP 1/4" BSPT L4B-3WP

1/8"-27 NPT



Elbow, thread to 8 mm ID

1/8"-27 NPT
L2-5WP
1/4"-18 NPT
L4-5WP
3/8"-18 NPT
L6-5WP
1/8" BSPT
L2B-5WP
1/4" BSPT
L4B-5WP
3/8" BSPT
L4B-5WP

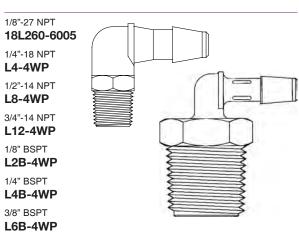
Elbow, thread to 2.4 mm ID

10-32 UNF **KL220-1** 10-32 tapered **XL220-6005**

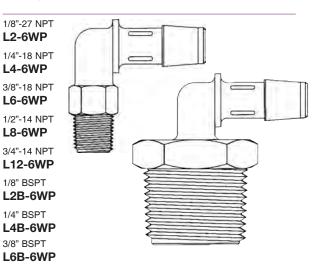
Elbow, thread to 4 mm ID

1/8"-27 NPT **L2-2.5WP** 1/4"-18 NPT **L4-2.5WP** 1/8" BSPT **L2B-2.5WP** 1/4" BSPT **L4B-2.5WP**

Elbow, thread to 6.4 mm ID

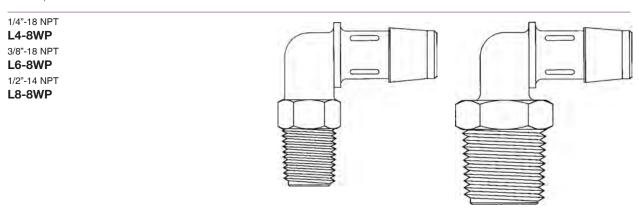


Elbow, thread to 9.6 mm ID

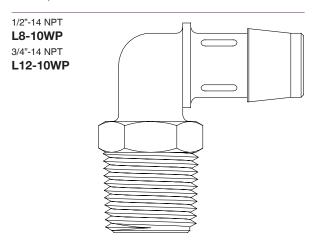


For flexible tubing

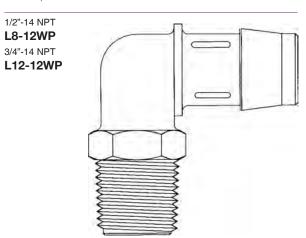
Elbow, thread to 12.7 mm ID



Elbow, thread to 16 mm ID

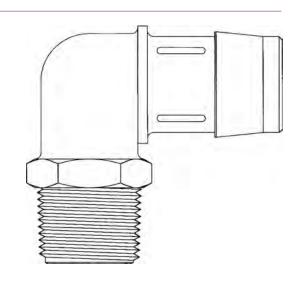


Elbow, thread to 19 mm ID



Elbow, thread to 25.4 mm ID

3/4"-14 NPT **L12-16WP** 1"-111/2" NPT **L16-16WP**



For flexible tubing

T-connector, thread to 1.6 mm ID

10-32 UNF **KT210-1**

10-32 tapered

XT210-6005



T-connector, thread to 2.4 mm ID

10-32 UNF

KT-220-1

10-32 tapered

XT220-6005



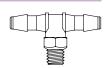
T-connector, thread to 3.2 mm ID

10-32 UNF

KT230-1

10-32 tapered

XT230-6005



T-connector, thread to 4 mm ID

1/8"-27 NPT

T2-2.5WP

1/4"-18 NPT

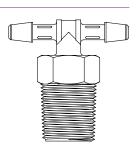
T4-2.5WP

1/8" BSPT

T2B-2.5WP

1/4" BSPT

T4B-2.5WP



T-connector, thread to 4.8 mm ID

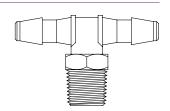
1/4"-18 NPT

T4-3WP

1/8"-27 NPT

18T250-6005 1/4" BSPT

T4B-3WP



T-connector, thread to 6.4 mm ID

1/8"-27 NPT

18T260-6005

1/4"-18 NPT **T4-4WP**

3/8"-18 NPT

T6-4WP

1/2"-14 NPT

T8-4WP

3/4"-14 NPT

T12-4WP

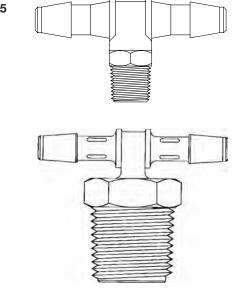
1/8" BSPT

T2B-4WP

1/4" BSPT **T4B-4WP**

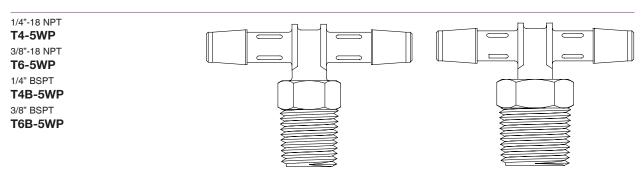
3/4" BSPT

T6B-4WP

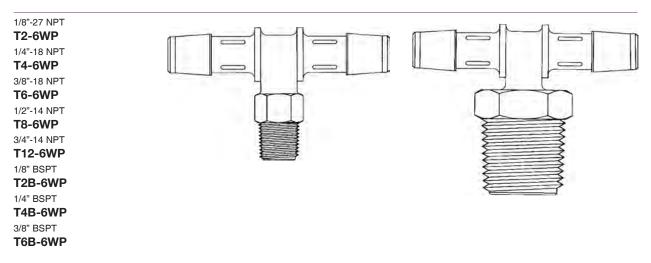


For flexible tubing

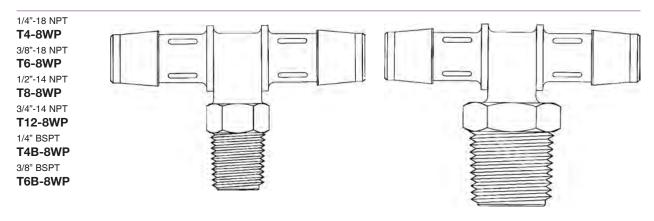
T-connector, thread to 8.0 mm ID



T-connector, thread to 9.6 mm ID

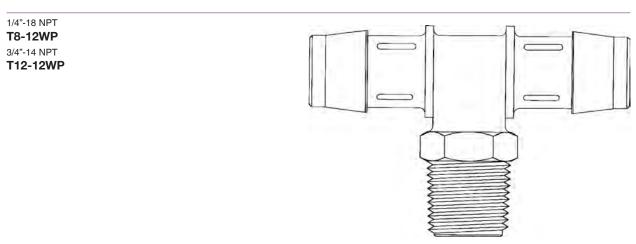


T-connector, thread to 12.7 mm ID



For flexible tubing

T-connector, thread to 19.2 mm ID



T-connector, thread to 25.4 mm ID

3/4"-14 NPT
T12-16WP
1"-111/2" NPT
T16-16WP

Threaded Plugs

M6 M6P-6005 10-32 UNF **KP-6005** 10-32 tapered XP-6005 1/4"-28 UNF

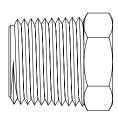
SP-6005 1/16"-27 NPT 1600-1

1/8"-27 NPT 1800-6005 1/4"-18 NPT P4WP

3/8"-18 NPT P6WP 1/2"-14 NPT P8WP 3/4"-14 NPT P12WP

1"-11_{1/2} NPT P16WP 1/4" BSPT P4BWP 3/8" BSPT

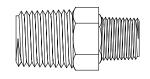
P6BWP



Threaded reductions

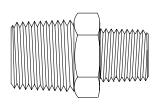
Reduction, male 1/8"-27 NPT to male

1/4"-18 NPT RN4-2WP 3/8"-18 NPT RN6-2WP 1/2"-14 NPT RN8-2WP



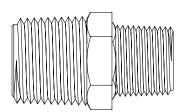
Reduction, male 1/4"-18 NPT to male

3/8"-18 NPT RN6-4WP 1/2"-14 NPT RN8-4WP



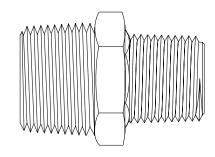
Reduction, male 3/8"-27 NPT to male

1/2"-14 NPT RN8-6WP



Reduction, male 3/4"-14 NPT to male

1"-11_{1/2} NPT **RN16-12WP**



Reduction, female 10-32 UNF to male

1/8"-27 NPT 1801-6005 1/4"-18 NPT 1401-6005







Reduction, female 1/4-28 UNF to male

1/8"-27 NPT 1802-6005 1/4"-18 NPT







For semi-rigid tubing

Straight connector, thread to 1.6 mm ID

M6

10-32 UNF

10-32 tapered X410-2



1/4"-28 UNF

1/16"-27 NPT

1/8"-27 NPT



Straight connector, thread to 2.4 mm ID

M6

10-32 UNF

10-32 tapered K420-6005 X420-6005



1/4"-28 UNF S420-6005 1/16" 27 NPT

1/8"-27 NPT 18420-2



Straight connector, thread to 3.2 mm ID

10-32 UNF

10-32 tapered M6430-6005 K430-6005 X430-2



1/4"-28 UNF S430-6005

1/16"-27 NPT

1/8"-27 NPT

18430-1



Straight connector, thread to 4.3 mm ID

M6 M6445-2 10-32 UNF K445-2

10-32 tapered X445-J1A



1/4"-28 UNF

1/16"-27 NPT S445-6005 16445-1

1/8"-27 NPT

18445-6005



Elbow, thread to 1.6 mm ID

10-32 tapered

10-32 UNF

XL410-J1A



T-connector, thread to 1.6 mm ID

10-32 tapered

XT410-J1A



Elbow, thread to 2.4 mm ID

10-32 tapered

10-32 UNF

XL420-6005



T-connector, thread to 2.4 mm ID

10-32 tapered

XT420-J1A



Elbow, thread to 3.2 mm ID

10-32 tapered XL430-2

10-32 UNF

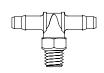
KL430-6005



T-connector, thread to 3.2 mm ID

10-32 tapered

XT430-2



Barb design

Each barb is designed to combine minimum flow restriction, pressure capability, hold and ease of assembly for a given range of tube sizes and tube materials. Together with the recommendations below the fitting range of this catalogue provides solutions to most applications.

However, if your requirements can not be met with the range in this catalogue it is likely that we can offer a similar fitting with an alternative barb design.

Pressure Capability

The single-barb design enables the tubing to relax behind the barb creating a perfect seal with minimal risk for leakage. The tube is extended over the barb – higher extension is required for more flexible tubing and for handling higher pressure. For the smaller tube bore fittings an over size fitting can be considered to improve the pressure capability. For larger tube bores a clamp can be necessary, see picture below.

Hold

For example in a peristaltic pump or whenever tension is applied to the tube it has to be prevented from slipping of the fitting. For the smaller tube bore fittings an over size fitting can be considered. For larger tube bores a clamp can be necessary, see picture below.

Alternatively, a simple plastic cable tie can be used.

Ease of Assembly

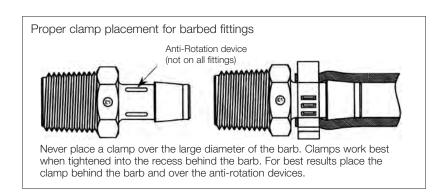
Standard barbs for semi rigid tubing expand the tubing 25% above its nominal inner diameter and barbs for flexible tubing expand 40-60%. Barb for semi-rigid tubing can be used also for flexible tubing when tensile/pressure properties are not highly critical but ease of assembly is.



Barb styles for Flexible tubing

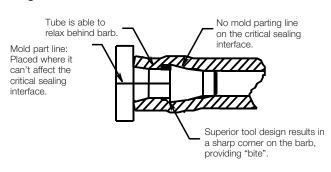


...and for Semi-Rigid

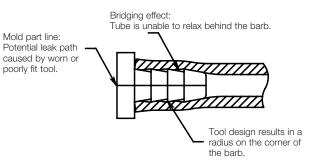


Benefits with single barb design

Single-barb



Multi-barb



Fitting materials

Guideline information about chemical compatibility and sterilization resistance for common resins.

Kynar®

Poly Vinylidene Fluoride or PVDF, is physically strong, damage resistant, and resistant to multiple radiation or autoclave sterilization cycles. In spite of its initially higher cost in comparison with many other materials, its durability and long-term use potential under harsh conditions makes it cost-effective.

Nylon

Poly Amide, PA, combines strength, moderate stiffness, high service temperature, and toughness. Nylon resist fuels, lubricants and many chemicals, but are attacked by phenols, strong acids and oxidizing agents. Acceptable sterilization methods include Ethylene Oxide or Autoclave, see sterilization chart for details. Nylon is available in different colours.

Polyproylene

PP, is highly resistant to solvents and chemicals. It has outstanding resistance to water and other inorganic environments. It resists most strong mineral acids and bases, but, like other polyolefins, it is subject to attack by oxidizing agents. Polypropylene has excellent resistance to environmental stress-cracking. Acceptable sterilization methods include Gamma Radiation and Ethylene Oxide, see sterilization chart for details.

Polycarbonate

PC, is a clear and colourless resin. Outstanding properties include impact strength and scratch resistance. Polycarbonate resists weak acids, animal and vegetable oils and greases but is attacked by oxidizing agents and hot water. Acceptable sterilization methods are gamma radiation and ethylene oxide.

ABS

Acrylonitrile Butadiene Styrene, has good mechanical properties even at low temperatures. ABS is chemically resistant to many acids and bases. Acceptable sterilization methods are gamma radiation and ethylene oxide, see sterilization chart for details.

Fitting materials

Sterilization

	GAMMA RADIATION	ETHYLENE OXIDE	AUTOCLAVE
Kynar [®]	Highly compatible, but will discolor to brownish hue. Physical Properties typically improve.	Excellent	Excellent
Polycarbonate	Compatible to 10 M-Rad dose with little loss of physical properties. Will discolor to light yellow-green hue.	Highly compatible with 100% EtO; may stress crack if sterilized in EtO/ CFC mix, due to molding stresses.	Not recommended. May craze or stress crack due to molding stresses.
Radiation Stable Polycarbonate	Excellent up to 10 M-Rad dose with little loss of physical properties. Light violet hue turns clear upon sterilization.	Highly compatible. Withstands normal EtO sterilization conditions, but multiple exposures can reduce tensile elongation properties.	Not recommended.
Polypropylene	Excellent up to commonly used sterilization doses (approximately 6 M-Rad).	Fair; may stress crack in EtO/ CFC mix due to molding stresses.	Poor. Parts may distort due to low heat deflection temperature.
Nylon and Glass Filled Nylon	Physically compatible with commonly used sterilization doses, but may discolor to brownish hue.	Very Good. Some susceptibility to oxidizing agents.	Very Good. Components may swell slightly due to water absorption.
ABS	Compatible to 10 M-Rad dose with some loss of impact strength, but increased tensile strength. Some discoloration to slight brownish hue.	Excellent retention of properties for at least 5 sterilization cycles.	Poor. Parts may distort due to low heat deflection temperature.

Mechanical Properties

	E-Modulus, GPa	Elongation at break, %	Tensile yield strength, MPa	Izod Impact Notched, J/m	Water %,24h absorbation,	Density, kg/ dm³	
Test Method	DIN 53 457	DIN 53 452	DIN 53 455	ASTM D256	ASTM D510		
ABS	2.1	25	45	85	0.4	1.05	
Kynar®	0.8		40	166	0.015	1.76	
Nylon	2	200	80	53	1.2	1.14	
Polycarbonate	2.3	100	70	> 800	0.15	1.2	
Polypropylene	1.5	500	37	69	0	0.9	

The data presented in this section is for reference only. It was compiled primarily by the resin manufacturers to provide our customers with a means of comparing the characteristics of resins used at the time of publication. The particular conditions of your use and application of our products are beyond our control. Thus, it is imperative that you test our products in your specific application to determine their suitability. All information is provided without implied or expressed warranty or guarantee by W-M Alitea AB, or the resin manufacturers. None of the information provided constitutes a recommendation or endorsement of any kind by W-M Alitea AB. In critical applications please contact W-M Alitea for more information and product certifications. Note, all fittings are not available in all materials. Kynar® is a registered trademark of Atochem North America, Inc.

Resin Regulatory Status

The last 1-4 characters of the product code tell the specific resin of the fitting.

Description	Product code ending with:	Resin regulatory status
ABS, White	8012	USP Classification VI, ISO10993 P.1
Kynar (PVDF), Natural*	J1A	USP Classification VI, FDA 21 CFR 177.2510/177.1520
Kynar (PVDF), Natural*	NK	USP Classification VI, NSF Standards 61, FDA 21 CFR 177.2510
Nylon, Black	2	FDA 21 CFR 177.1500
Nylon, Black	BN	
Nylon, Black, Glass Filled	GFBN	
Nylon, Blue	5	FDA 21 CFR 177.1500
Nylon, Green	4	FDA 21 CFR 177.1500
Nylon, Natural	NN	FDA 21 CFR 177.1550
Nylon, Natural	0	FDA 21 CFR 177.1500
Nylon, Orange	06	FDA 21 CFR 177.1500
Nylon, Red	3	FDA 21 CFR 177.1500
Nylon, White	1	FDA 21 CFR 177.1500
Nylon, White	WN	
Nylon, Yellow	07	FDA 21 CFR 177.1500
Polycarbonate	9	USP Classification VI, FDA 21 CFR 177.1580, ISO 10993
Polycarbonate, Rad. Stable	9002	USP Classification VI, ISO10993
Polyethylene, High Density	HDPE	FDA 21 CFR 177.1520
Polypropylene, Black	62	
Polypropylene, Natural*	6005	USP Classification VI, FDA 21 CFR 177.1520
Polypropylene, Natural	PP	USP Classification VI, FDA 21 CFR 177.1520,
Polypropylene, White	WP	
Stainless Steel	XO	

^{&#}x27;Animal Derivative Free

Product Certification

For classified products, Product Certification documents are provided upon request, free of charge. The Product Certification document references all relevant purchase order, customer order and material lot information. Natural Kynar and Natural Polypropylene materials are Animal Derivative Free.

All resins are RoHs compliant. All resins except white polypropylene are also DEHP free. White polypropylene may contain small amounts of phalates.

The list of SVHC's is updated regularly. The status of SVHC and REACH is available from your distributor.

Chemical compatibility chart

Price index*			0.9	2 – 4	0.9	1.1	1	
Chemical	Concent.	Temp °C	ABS	Kynar®	Nylon	Polycarb.	Polyprop.	
Acetic Acid	5%	23 °C	Excellent	Excellent Satisfactory		Satisfactory	Excellent	
Acetone	100%	50 °C	Satisfactory	Unsatisfactory	Satisfactory	Unsatisfactory	Excellent	
Acetophenone	100%	24 °C	Satisfactory	Unsatisfactory	Excellent	Satisfactory		
Acetylene	100%	24 °C		Excellent	Excellent			
Air	100%	82 °C	Excellent	Excellent	Excellent			
Ammonia, Liquid	100%	24 °C	Satisfactory	Unsatisfactory	Satisfactory	Unsatisfactory	Excellent	
Ammonium Hydroxide	10%	23 °C	Satisfactory	Excellent	Excellent	Unsatisfactory	Excellent	
Ammonium Hydroxide	10%	70 °C	Unsatisfactory	Excellent	Unsatisfactory	Unsatisfactory	Excellent	
Barium Sulfide	100%	24 °C	Excellent	Excellent	Satisfactory		Excellent	
Benzene	100%	23 °C	Satisfactory	Excellent	Excellent	Unsatisfactory	Satisfactory	
Bleach	100%	23 °C	Satisfactory	Excellent	Satisfactory	Unsatisfactory	Satisfactory	
Boric Acid	7%	35 °C	Excellent	Excellent	Unsatisfactory	Excellent	Excellent	
Calcium Carbonate	Sat. sol.	24 °C	Excellent	Excellent			Excellent	
Carbon Dioxide	100%	50 °C	Satisfactory	Excellent	Excellent		Excellent	
Carbon Monoxide	100%	50 °C	Satisfactory	Excellent Excellent			Excellent	
Carbon Tetrachloride	100%	50 °C	Unsatisfactory	Excellent Excellent		Unsatisfactory	Unsatisfactory	
Chlorine Water	Dilute	23 °C	Unsatisfactory	Excellent	Satisfactory	Unsatisfactory	Unsatisfactory	
Chlorine Water	Concent.	23 °C	Unsatisfactory	Excellent	Unsatisfactory	Unsatisfactory	Unsatisfactory	
Chlorobenzene	100%	23 °C	Satisfactory	Excellent	Excellent	Unsatisfactory	Unsatisfactory	
Chlorofluorocarbon 11	100%	24 °C		Excellent	Excellent	Satisfactory		
Chloroform	100%	23 °C	Unsatisfactory	Excellent	Satisfactory	Unsatisfactory	Unsatisfactory	
Cyclohexanone	100%	24 °C	Satisfactory	Excellent	Excellent	Unsatisfactory	Satisfactory	
Dichlorethylene	100%	23 °C		Excellent	Satisfactory		Excellent	
Ethanol	95%	50 °C	Satisfactory	Excellent	Excellent	Satisfactory	Excellent	
Ethyl Acetate	95%	50 °C	Satisfactory	Unsatisfactory	Excellent	Unsatisfactory	Satisfactory	
Ethylene Glycol	100%	23 °C	Excellent	Excellent	Excellent	Satisfactory	Excellent	
Ethylene Oxide	100%	24 °C	Unsatisfactory	Excellent	Satisfactory	Satisfactory	Satisfactory	
Ethylene Oxide	100%	79 °C	Unsatisfactory	Excellent	Unsatisfactory	Satisfactory	Unsatisfactory	
Fatty Acids	_	1.0 0	Cricationactory	Excellent	on out of our	outionactory	Excellent	
Fluorine	100%	23 °C	Unsatisfactory	Excellent	Unsatisfactory		EXOCION	
Formaldehyde	37%	24 °C	Unsatisfactory	Excellent	Orisatisfactory	Unsatisfactory	Excellent	
Gasoline	100%	85 °C	Excellent	Excellent	Excellent	Unsatisfactory	Satisfactory	
Glucose	Concent.	24 °C	Excellent	Excellent	EXCENCIA	Orisatisfactory	Excellent	
Glycerin	100%	24 °C	Excellent	Excellent		Excellent	Excellent	
Hydrochloric Acid	2%	23 °C	Excellent	Excellent	Excellent	Excellent	Excellent	
Hydrochloric Acid	10%	25 °C	Excellent	Excellent	Unsatisfactory	Excellent	Excellent	
Hydrofluoric Acid	10%	23 °C	Satisfactory	Excellent	Unsatisfactory	LACGIGIT	Excellent	
Hydrogen Peroxide	1%	24 °C	Excellent	Excellent	Satisfactory	Excellent	Excellent	
Hydrogen Peroxide	5%	43 °C	Satisfactory	Excellent	Unsatisfactory Excellent		Satisfactory	
Isopropanol	100%	23 °C	Excellent	Excellent	Excellent			
Kerosene	100%	85 °C	Satisfactory	Excellent	Excellent	Satisfactory	Excellent Satisfactory	
Methanol	100%	23 °C	Unsatisfactory	Excellent	Excellent	Satisfactory	Excellent	
Methyl Ethyl Ketone		50 °C		Unsatisfactory				
	100%		Satisfactory	-	Excellent	Unsatisfactory	Satisfactory	
Methylene Chloride	100%	23 °C	Unsatisfactory	Excellent	Satisfactory	Unsatisfactory	Excellent	
Nitric Acid	10%	23 °C	Satisfactory	Excellent	Unsatisfactory	Unsatisfactory	Excellent	
Oxygen	100%	24 °C	0-4:-f4	Excellent	Satisfactory	l lasatisfastas.		
Ozone	100%	43 °C	Satisfactory	Excellent	Unsatisfactory	Unsatisfactory	E	
Phenol	90%	23 °C	Unsatisfactory	Excellent	Unsatisfactory	I I a salla fa a I a a	Excellent	
Phosphoric Acid	5%	98 °C	Satisfactory	Excellent	Unsatisfactory	Unsatisfactory	Excellent	
Propane	100%	23 °C	Satisfactory	Excellent	Excellent			
Sodium Bicarbonate	Concent.	24 °C	Excellent	Excellent	Excellent		Excellent	
Sodium Chloride	10%	23 °C	Excellent	Excellent	Excellent		Excellent	
Sodium Chloride	Sat. sol.	24 °C	Excellent	Excellent	Excellent		Excellent	
Sodium Hydroxide	10%	70 °C	Satisfactory	Excellent	Satisfactory		Excellent	
Steam	-	120 °C	Unsatisfactory	Excellent	Unsatisfactory	Unsatisfactory	Satisfactory	
Sulfuric Acid	30%	23 °C	Satisfactory	Excellent	Unsatisfactory	Excellent	Excellent	
Tetrahydrofuran	100%	23 °C	Satisfactory	Unsatisfactory	Excellent		Unsatisfactory	
Toluene	100%	50 °C	Satisfactory	Excellent	Excellent	Unsatisfactory	Unsatisfactory	
Trichloroethylene	100%	23 °C	Satisfactory	Excellent	Satisfactory	Unsatisfactory	Unsatisfactory	
Water	100%	79 °C	Excellent	Excellent	Excellent	Unsatisfactory	Excellent	

The data presented here is for reference only. It was compiled primarily by the resin manufacturers to provide our customers with a means of comparing the characteristics of resins used. The particular conditions of your use and application of our products are beyond our control. Thus, it is imperative that you test our products in your specific application to determine their suitability. All information is provided without implied or expressed warranty or guarantee by W-M Alitea AB . None of the information provided constitutes a recommendation or endorsement of any kind by W-M Alitea AB.

^{*} Price index should only be seen as a guideline. Prices will differ for different products. Note, all fittings are not available in all materials.

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A6B-4	19	L2-6	21	MTLL007	13	RN4-2	26	T6-4	23		
A6B-5	20	L210	7	MTLL013	13	RN6-2	26	T6-5	24		
A6B-6	20	L220	7	MTLL025	13	RN6-4	26	T6-6	24		
A6B-8	20	L220/210	8	MTLL035	13	RN8-2	26	T6-8	24		
A8-10	20	L230	7	MTLL055	13	RN8-4	26	T60	8		
A8-12	20	L230/210	8	MTLL410	16	RN8-6	26	T6B-4	23		
A8-4	19	L230/220	8	MTLL420	16	RT10-6	9	T6B-5	24		
A8-6	20	L2B-2	21	MTLL430	16	RT12-6	10	T6B-6	24		
A8-8	20	L2B-2.5	21	MTLL445	16	RT12-8	10	T6B-8	24		
ABR004	19	L2B-4	21	MTLL450	16	RT2.5-6	9	T670	8		
ABR007	19	L2B-5	21	N004	2	RT8-6	9	T680	8		
ABR013	19	L2B-6	21	N007	2	S210	19	T690	8		



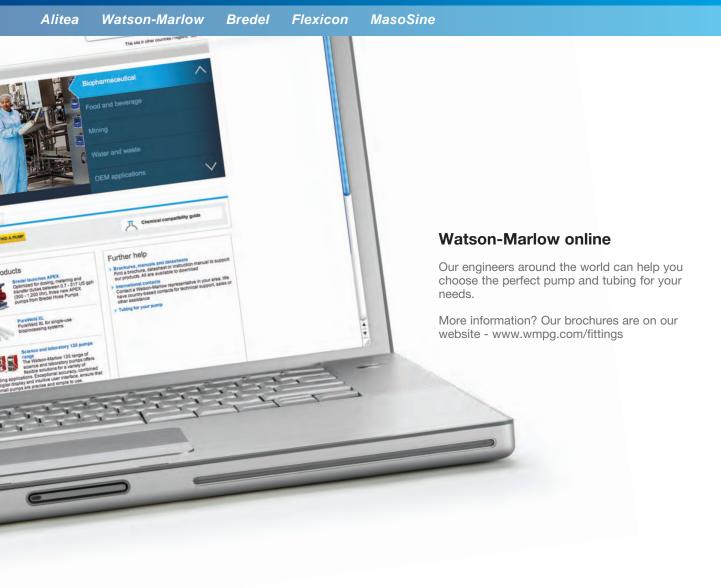
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