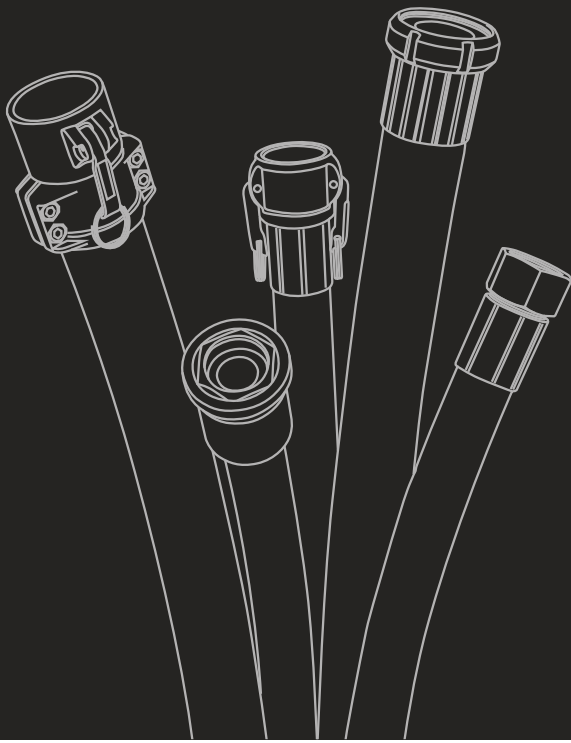




INDUSTRIAL HOSE FITTINGS & ADAPTERS





Dunlop Hiflex is one of the market's most established suppliers of hydraulic fluid conveyance and industrial fluid conveyance products and systems.

The manufacturing of hoses and couplings, for both high and low pressure, gives Dunlop Hiflex extensive knowledge of the products and enables us to put forward suggestions for new solutions and improvements for the industry.

Halmstad, Sweden



Pirkkala, Finland



// DUNLOP HIFLEX

// THE FIRST HOSES

Scotland, 1887. John Boyd Dunlop, a Scottish born inventive veterinarian observes his son as he's cycling down a bumpy road. The bike has hard solid rubber tyres and the ride is rough and shaky. The ride is neither fast nor particularly comfortable. He then comes up with an idea of wrapping an air filled rubber hose around the rim. In 1888 he patented the idea and the rest as we say, is history.



// A PRODUCT THAT CHANGED THE WORLD

John Dunlop's idea about air-filled rubber hoses was the beginning of an industrial manufacturing of air-filled tires and, later, a development of hydraulic and industrial hoses.

We, at Dunlop Hiflex, **are specialists at hoses for high and low pressure** and through our unique position with **manufacturing** in our own factories, in **Halmstad** and **Pirkkala**, we are leading the development of the **next generation of top-quality hoses**. Moreover, our widespread branch network throughout the Nordic Countries and Germany provides customers with an excellent service.

Today we are a part of the Alfacomma Group, one of the leading manufactures of hoses in the world. But we still carry the name that originated from a Scot and bike with pride.

2

PLANTS

41

STORES

121

DISTRIBUTORS

FINLAND

Hämeenlinna
Imatra
Joensuu
Jyväskylä
Kotka
Kouvola
Lahti
Mikkeli
Pirkkala
Pori
Rovaniemi
Turku
Vantaa

ESTONIA

Tallinn
Tartu

SWEDEN

Borlänge
Göteborg
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Ljungby
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Norrköping
Stockholm
Umeå
Växjö
Örebro

DENMARK

Aarhus
Brøndby
Esbjerg
Kolding
Odense

NORWAY

Bergen
Harstad
Kristiansand
Oslo
Stavanger
Tromsø
Trondheim
Ålesund

GERMANY

Hamburg
Nürnberg
Wiel



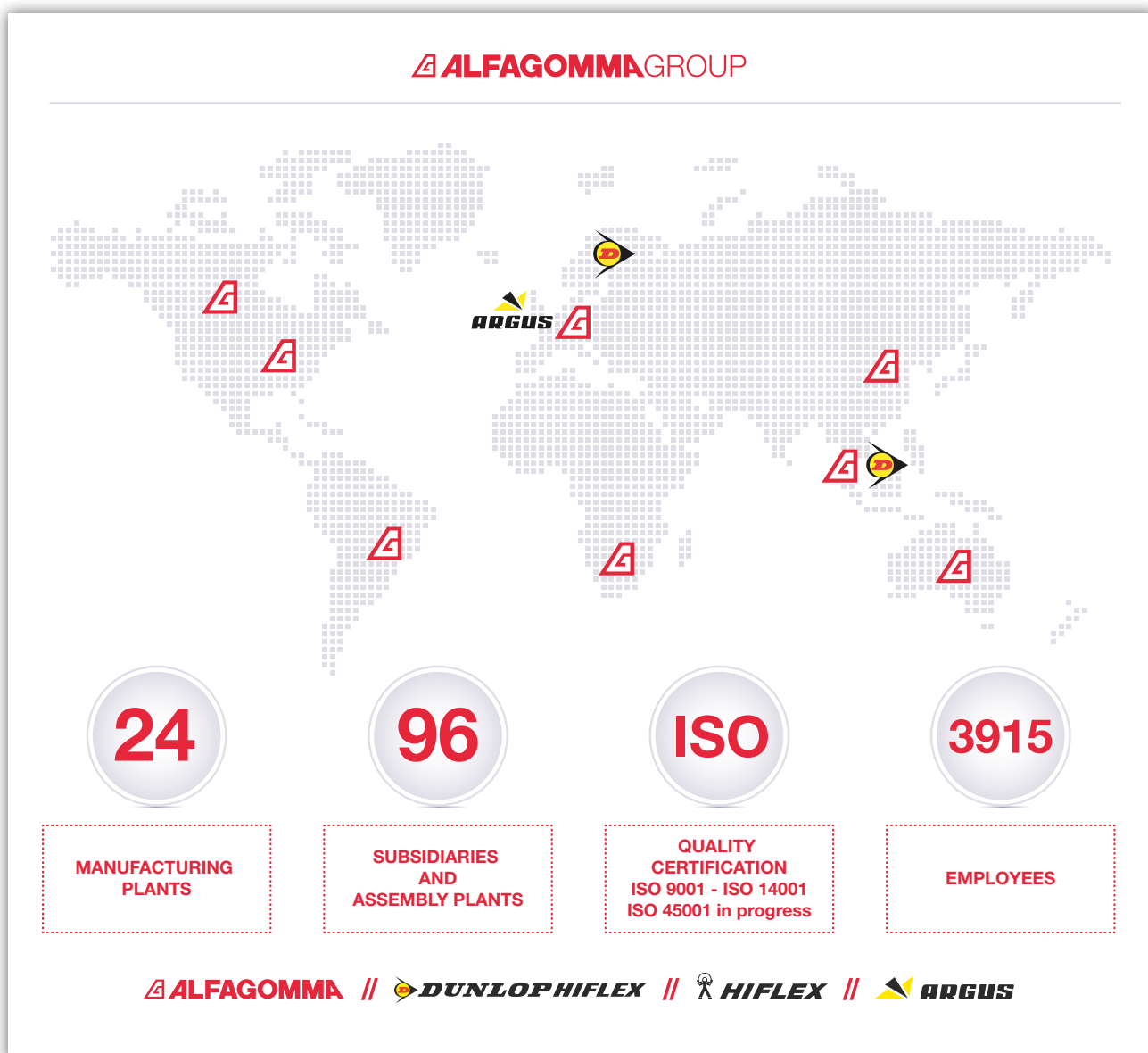
// ALFAGOMMA GROUP

Dunlop Hiflex was acquired by Alfagomma Group in 2005. The Group, established in 1956, is a global manufacturer specialized in highly engineered, technically demanding hydraulic and industrial products, created with a commitment to excellence in quality and innovation.

// RESEARCH AND DEVELOPMENT

Alfagomma is focused on continuous improvement, proven by its constant engineering innovation at product, process and production level, which has made it possible to quickly respond to evolving international regulations, improving products performance, safety and efficiency.

The company's distinguishing feature is its ability to innovate, by investing in research and development of products and materials, and designing solutions that meet customer's requirements, in compliance with international regulations.



// MAIN PLANTS OVERVIEW

4

DUNLOP HIFLEX



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// INDUSTRIAL HOSE 9

**REACH**

ALFAGOMMA industrial hoses fully comply with REACH Regulation concerning the Registration, Evaluation, Authorization and restriction of Chemicals. They are totally free from any Substance of Very High Concern (SVHC).

// INDUSTRIAL FITTINGS 79



// APPENDIX 222



NOTE: since ALFAGOMMA continually examines ways to improve products, we reserve the right to alter specifications without prior notice. Weights and dimensions are nominal. Pressures and vacuum ratings for hose are based at ambient temperature of 20 °C (68 °F). Pictures shown are for illustration purpose only. Actual hose construction might be different. Refer to local price list for items available in the different sales area, included available lengths and stock lengths.

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// ICON



Minimum Bend Radius =
2 x Internal Diameter



Minimum Bend Radius =
3 x Internal Diameter



Top abrasion resistance



High temperature
resistance



Low temperature
resistance



Extruded tube



Premium tube abrasion
resistance



Conductive tube & cover
 $R \leq 10^6 \Omega/\text{length}$



Conductivity through the
hose wall $R \leq 10^9 \Omega$



Electrical bonded
 $R \leq 10^2 \Omega/\text{length}$



High performance
product



IANESCO approved



2004/1935 EC
2006/2023 EC



Phthalate Free



Oil resistance



LLOYD'S approved



MSHA approved



74SAA

TEXTILE-REINFORCED HOSE FOR CONCRETE PUMPING APPLICATION

MAIN FEATURES

- EXCELLENT ABRASION RESISTANT TUBE AND COVER
- 4 LAYERS OF HIGH TENSILE TEXTILE REINFORCEMENT
- 85 bar WP, 170 bar BP
- ID RANGE 51-102mm
- LIGHTWEIGHT CONSTRUCTION
- ELECTRICAL CONDUCTIVITY ALONG TUBE AND COVER
- BRAND PICTOGRAMS TO HIGHLIGHT APPLICATION HAZARDS AND SAFETY WARNINGS

The latest **74SAA textile-reinforced concrete pumping hose** extends Alfagomma's existing range for high-pressure concrete handling, placement and tunnelling applications.

The new hose is on average **20% lighter than the standard 740AA steel-reinforced hose**, still maintaining a robust **kink resistance** construction, which guarantees outstanding performance and **maximum safety** in the most demanding conditions at a construction site.

The significant weight reduction makes the hose **easier to handle** when manually held by

workers to pour concrete and plays a role in the relevant aim to generally **lighten the pumping equipment**.

74SAA is **suitable to be fitted with Alfagomma's** existing wide range of high quality, abrasion-resistant **concrete couplings**. **Full flow internal pathway** between hose and fitting eliminates obstructions caused by dried concrete.

The reference **crimping table is available** to ensure proper permanent swaging, to protect against disconnection and undesired discharge of concrete in the application.



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REV.1.1

// CONCRETE & PLASTER

// 740AA

**Concrete pumping 85 bar (1275 psi) - Heavy duty - Steel reinforced****Tube:** black conductive NR - abrasion resistant.**Reinforcement:** high tensile steel cords.**Cover:** black conductive SBR/NR - abrasion and ozone resistant.**Application:** high pressure concrete pumping.**Temperature:** -30 °C +80 °C (-22 °F +176 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	BR (mm)	Weight (kg/m)	Length (m)
2006405	51,0	2"	69,0	85	170	255	2,440	4,900
2006408	51,0	2"	69,0	85	170	255	2,440	20,000
2006419	76,0	3"	100,0	85	170	380	4,650	3,900
2006420	76,0	3"	100,0	85	170	380	4,650	4,900
2001927	76,0	3"	100,0	85	170	380	4,650	20,000
2015286	90,0	3 1/2"	116,0	85	170	450	5,610	3,900
2014189	102,0	4"	126,0	85	170	510	6,710	20,000
2014180	127,0	5"	153,0	85	170	635	9,970	20,000

// 741AA

**Concrete pumping 100 bar (1500 psi) - Extra service - Steel reinforced****Tube:** black conductive NR - abrasion resistant.**Reinforcement:** high tensile steel cords.**Cover:** black conductive SBR/NR - abrasion and ozone resistant.**Application:** high pressure concrete pumping. Designed for long service life in heavy duty applications.**Temperature:** -30 °C +80 °C (-22 °F +176 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	BR (mm)	Weight (kg/m)	Length (m)
2006449	51,0	2"	69,0	100	200	255	2,420	20,000
2015637	65,0	2 9/16"	87,0	100	200	335	3,930	4,000
2015638	65,0	2 9/16"	87,0	100	200	335	3,930	5,000
2014453	65,0	2 9/16"	87,0	100	200	335	3,930	61,000

// 74SAA **NEW****Concrete pumping 85 bar (1275 psi) - Heavy duty - Textile Reinforced****Tube:** black conductive NR - abrasion resistant.**Reinforcement:** high tensile textile cords.**Cover:** black conductive SBR/NR - abrasion and ozone resistant.**Application:** high pressure concrete pumping. Special lightweight construction.**Temperature:** -30 °C +80 °C (-22 °F +176 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	Weight (kg/m)	Length (m)
2015738	51,0	2"	71,0	85	170	2,150	30,500
2015739	63,0	2 1/2"	83,0	85	170	2,640	30,500
2016232	76,0	3"	101,0	85	170	3,650	30,500

// 757AA

**Plaster 40 bar (600 psi)****Tube:** black conductive NR - abrasion resistant.**Reinforcement:** high tensile textile cords.**Cover:** black SBR/NR - abrasion and ozone resistant - pin pricked.**Application:** plaster pumping.**Temperature:** -30 °C +80 °C (-22 °F +176 °F)

Item Code	ID (mm)	OD (mm)	OD (in)	WP (bar)	BP (bar)	Weight (kg/m)	Length (m)
2015461	19,0	32,0	1,26	40	100	0,600	61,000
2001943	25,0	38,0	1,50	40	100	0,730	40,000
2004809	25,0	38,0	1,50	40	100	0,730	61,000
2001944	32,0	46,0	1,81	40	100	1,070	40,000
2004700	32,0	46,0	1,81	40	100	1,070	61,000
2001945	35,0	49,0	1,93	40	100	1,000	40,000
2001946	38,0	54,0	2,13	40	100	1,250	40,000
2001947	51,0	67,0	2,64	40	100	1,680	40,000

// 755AA

**Sandblast 12 bar (180 psi) - Top quality****Tube:** black conductive NR - abrasion resistance 36 mm³ (ISO 4649/A).**Reinforcement:** high tensile textile cords.**Cover:** black SBR/NR - abrasion and ozone resistant - pin pricked.**Application:** abrasive material blasting. Designed for long service life in heavy duty application.**Temperature:** -40 °C +80 °C (-40 °F +176 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	Weight (kg/m)	Length (m)
2014230	19,0	3/4"	33,0	12	36	0,770	40,000
2013949	25,0	1"	39,0	12	36	0,950	40,000
2014231	32,0	1 1/4"	48,0	12	36	1,340	40,000
2014232	38,0	1 1/2"	55,0	12	36	1,530	40,000
2014233	51,0	2"	71,0	12	36	2,550	40,000

REV.1.1

// 753AA

**Sandblast 12 bar (180 psi) - Premium quality**

Tube: black conductive NR - abrasion resistance 50 mm³ (ISO 4649/A).

Reinforcement: high tensile textile cords.

Cover: black SBR/NR - abrasion and ozone resistant - pin pricked.

Application: abrasive material blasting. Designed for long service life in heavy duty applications.

Temperature: -40 °C +80 °C (-40 °F +176 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	Weight (kg/m)	Length (m)
2004980	13,0	1/2"	27,0	12	36	0,630	61,000
2004981	19,0	3/4"	33,0	12	36	0,740	61,000
2004982	25,0	1"	39,0	12	36	0,940	61,000
2004983	32,0	1 1/4"	48,0	12	36	1,320	61,000
2004984	38,0	1 1/2"	55,0	12	36	1,510	61,000
2004975	51,0	2"	71,0	12	36	2,540	61,000



// BULK FOOD & MATERIAL

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REV.1.1

// BULK FOOD & MATERIAL

// 703AA **NEW****Material handling 5 bar (75 psi) - Corrugated - Light duty****Tube:** black conductive NR - abrasion resistant.**Reinforcement:** high tensile textile cords with embedded steel helix wire.**Cover:** black conductive SBR/NR - abrasion and ozone resistant.**Application:** bulk material suction and delivery. Special light weight and flexible construction.**Temperature:** -30 °C +80 °C (-22 °F +176 °F)

Item Code	ID (mm)	ID (in)	WP (bar)	BP (bar)	BR (mm)	Vacuum %	Weight (kg/m)	Length (m)
2015004	51,0	2"	5	15	102	100,00	1,020	30,000
2016143	63,0	2 1/2"	5	15	152	90,00	1,520	61,000
2015006	76,0	3"	5	15	152	90,00	1,810	30,000
2015008	102,0	4"	5	15	204	90,00	2,470	30,000
2015010	127,0	5"	5	15	254	80,00	3,290	30,000
2015012	152,0	6"	5	15	304	80,00	4,070	30,000
2016145	203,0	8"	5	15	406	70,00	5,790	20,000

// 700AA **NEW****Material handling - Corrugated - Medium duty****Tube:** black conductive NR - abrasion resistant.**Reinforcement:** high tensile textile cords with embedded steel helix wire.**Cover:** black conductive SBR - abrasion and ozone resistant.**Application:** Material handling in industrial vacuum applications. Specially designed for industrial cleaning trucks. Corrugated construction for maximum flexibility.**Temperature:** -30 °C +80 °C (-22 °F +176 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	BR (mm)	Vacuum %	Weight (kg/m)	Length (m)
2016613	76,0	3"	89,0	150	90,00	2,000	40,000
2016614	102,0	4"	115,0	170	90,00	3,100	12,000
2016615	127,0	5"	141,0	200	90,00	4,000	12,000
2016616	152,0	6"	166,0	270	90,00	5,200	12,000
2016617	203,0	8"	219,0	450	90,00	8,300	12,000

// 714HA

**Drill cutting suction 5 bar (75 psi) - Corrugated**

Tube: Red NR - abrasion resistant.

Reinforcement: high tensile textile cords with embedded steel helix wire - antistatic wire.

Cover: black conductive SBR/NR - abrasion and ozone resistant.

Application: bulk material suction and delivery. Specially designed for drill cutting suction in mobile drilling rigs. Corrugated construction for maximum flexibility.

Temperature: -30 °C +80 °C (-22 °F +176 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	BR (mm)	Vacuum %	Weight (kg/m)	Length (m)
2003631	51,0	2"	63,0	5	15	127	100,00	1,220	20,000
2003633	63,0	2 1/2"	77,0	5	15	157	90,00	1,810	20,000
2003635	76,0	3"	92,0	5	15	190	90,00	2,510	20,000
2003639	102,0	4"	119,0	5	15	255	90,00	3,510	20,000
2005026	115,0	4 1/2"	132,0	5	15	287	90,00	3,990	20,000
2005298	127,0	5"	144,0	5	15	318	80,00	4,620	20,000
2003645	152,0	6"	169,0	5	15	380	80,00	5,480	20,000

// 704HA **NEW****Industrial vacuum 10 bar (150 psi) - Corrugated**

Tube: red NR - abrasion resistant.

Reinforcement: high tensile textile cords with embedded steel helix wire - antistatic wire.

Cover: black conductive SBR/NR - abrasion and ozone resistant.

Application: bulk material suction and delivery in heavy duty applications. Specially designed for sewer and waste suction vehicles, industrial vacuum, drill cuttings suction in mobile drilling rigs.

Corrugated construction for maximum flexibility.

Temperature: -40 °C +80 °C (-40 °F +176 °F)

Item Code	ID (in)	ID (mm)	OD (mm)	WP (bar)	BP (bar)	BR (mm)	Vacuum %	Weight (kg/m)	Length (m)
2008925	8"	203,0	233,0	10	30	812	100,00	14,020	15,250

REV.1.1

// 720AA

**Bulk material S&D 10 bar (150 psi)****Tube:** black conductive NR - abrasion resistant.**Reinforcement:** high tensile textile cords with embedded steel helix wire.**Cover:** black conductive SBR/NR - abrasion and ozone resistant.**Application:** bulk material suction and delivery in heavy duty applications.

Specially designed for dry cement, grain and animal feed transfer.

Temperature: -30 °C +80 °C (-22 °F +176 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	BR (mm)	Vacuum %	Weight (kg/m)	Length (m)
2001919	63,0	2 1/2"	77,0	10	30	189	90,00	1,960	30,500
2001920	76,0	3"	92,0	10	30	228	90,00	2,690	30,500
2004828	90,0	3 1/2"	106,0	10	30	270	90,00	3,270	30,500
2001921	102,0	4"	118,0	10	30	306	90,00	3,650	30,500
2001922	127,0	5"	145,0	5	15	508	80,00	5,430	30,500
2005529	152,0	6"	168,0	5	15	608	80,00	6,120	30,500

// 722AA

**Sewage suction 5 bar (75 psi)****Tube:** black conductive NR - abrasion resistant.**Reinforcement:** high tensile textile cords with embedded steel helix wire.**Cover:** black conductive SBR/NR - abrasion and ozone resistant.**Application:** cassette hose for sewer cleaning and waste suction vehicles.

Also suitable for bulk material suction and delivery.

Special construction for maximum flexibility.

Temperature: -30 °C +80 °C (-22 °F +176 °F)

Item Code	ID (in)	ID (mm)	OD (mm)	WP (bar)	BP (bar)	BR (mm)	Vacuum %	Weight (kg/m)	Length (m)
2013620	4"	102,0	118,0	5	15	408	90,00	4,690	20,000
2013622	5"	127,0	145,0	5	15	508	90,00	6,940	20,000
2015114	6"	152,0	172,0	5	15	608	90,00	8,880	20,000

// 760AA

**Bulk material delivery 5 bar (75 psi)****Tube:** black conductive NR - abrasion resistant.**Reinforcement:** high tensile textile cords.**Cover:** black conductive SBR/NR - abrasion and ozone resistant.**Application:** bulk material delivery. Specially designed for dry cement, grain and animal feed transfer.**Temperature:** -30 °C +80 °C (-22 °F +176 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	Weight (kg/m)	Length (m)
2000381	75,0	3"	93,0	5	15	2,760	20,000
2003691	90,0	3 1/2"	102,0	5	15	2,170	20,000
2001949	100,0	4"	120,0	5	15	4,070	20,000
2003693	127,0	5"	145,0	5	15	4,520	30,500

// 720LA

**Bulk food S&D 10 bar (150 psi)****FDA**

Tube: white NR - abrasion resistant.

Reinforcement: high tensile textile cords with embedded steel helix wire - antistatic wire.

Cover: black conductive SBR/NR - abrasion and ozone resistant.

Application: bulk food and material suction and delivery. Specially designed for grain, flour and plastic pellets transfer.

Temperature: -30 °C +80 °C (-22 °F +176 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	BR (mm)	Vacuum %	Weight (kg/m)	Length (m)
2001923	76,0	3"	92,0	10	30	228	90,00	2,780	30,500
2001924	102,0	4"	118,0	10	30	306	90,00	3,760	30,500

// 719AA **NEW****Abrasive slurry S&D 10 bar (150 psi) - Corrugated ALFATRAC TO muff couplings**

Tube: black conductive NR - abrasion resistance 50 mm³ (ISO 4649/A).

Reinforcement: high tensile textile cords with embedded steel helix wire.

Cover: black conductive CR - abrasion, ozone, sea water and hydrocarbon resistant

Application: bulk material and abrasive slurries suction and delivery in heavy duty applications.

Designed for ALFATRAC TO 719 muff coupling use.

Temperature: -30 °C +80 °C (-22 °F +176 °F)

Item Code	ID (in)	ID (mm)	OD (mm)	WP (bar)	BP (bar)	BR (mm)	Vacuum %	Weight (kg/m)	Length (m)
2015340	3"	76,0	114,0	10	30	380	90,00	7,500	30,500
2014908	4"	102,0	133,0	10	30	510	90,00	8,200	20,000
2015445	5"	127,0	162,0	10	30	635	90,00	12,390	20,000
2014909	6"	152,0	188,0	10	30	760	90,00	14,510	20,000
2014910	8"	203,0	241,0	10	30	1218	80,00	19,960	20,000

Designed for ALFATRAC TO 719 muff coupling use.

// SWD01C

**Stripwound metal flexible hose AISI 304**

Application: hot air, fumes, exhaust gas, granular substances. Flow direction must be respected.

Temperature: up to 60 °C

Item Code	ID (mm)	ID (in)	OD (mm)	BR (mm)
2600457	100,0	4"	105,0	430
2600458	125,0	5"	130,0	500
2600587	150,0	6"	155,0	575

REV.1.1

// SWD02C

**Stripwound metal flexible hose Zinc plated steel**

Application: hot air, fumes, exhaust gas, granular substances.
Flow direction must be respected.

Temperature: up to 60 °C

Item Code	ID (mm)	ID (in)	OD (mm)	BR (mm)
2600269	100,0	4"	105,0	430
2600359	125,0	5"	130,0	500
2600455	150,0	6"	155,0	575

// 902AA

**Hot air blower 10 bar (150 psi) - Hard wall**

Tube: black EPDM - heat resistant.

Reinforcement: high tensile textile cords with embedded steel helix wire.

Cover: black EPDM - heat, abrasion and ozone resistant.

Application: hot air connection from volumetric compressor to bulk food/material road tanker. Special light weight and flexible construction.

Temperature: -40 °C +180 °C (-40 °F +356 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	BR (mm)	Vacuum %	Weight (kg/m)	Length (m)
2007597	51,0	2"	63,0	10	30	153	100,00	1,560	30,500
2003694	63,0	2 1/2"	77,0	10	30	189	90,00	2,050	30,500
2003695	76,0	3"	90,0	10	30	228	90,00	2,460	30,500
2004339	102,0	4"	116,0	10	30	306	90,00	3,360	30,500



// GAS & WELDING

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// GAS & WELDING

// 078AI

**Propane-butane 10 bar (150 psi)****EN 16436-1 Class 2****Tube:** black NBR.**Reinforcement:** high tensile textile cords.**Cover:** orange EPDM - abrasion and ozone resistant.**Application:** propane and butane in vapour phase.**Temperature:** -30 °C +70 °C (-22 °F +158 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	BR (mm)	Weight (kg/m)	Length (m)
2014535	6,3	1/4"	13,3	10	30	60	0,165	50,000
2014537	8,0	5/16"	15,0	10	30	80	0,195	50,000
2014539	10,0	3/8"	20,0	10	30	100	0,360	50,000

// 076AE

**Oxygen welding 20 bar (300 psi)****EN ISO 3821****Tube:** black SBR.**Reinforcement:** high tensile textile cords.**Cover:** blue SBR/EPDM - abrasion and ozone resistant.**Application:** oxygen welding.**Temperature:** -25 °C +80 °C (-13 °F +176 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	BR (mm)	Weight (kg/m)	Length (m)
2003708	6,0	1/4"	13,0	20	60	80	0,170	50,000
2001325	8,0	5/16"	15,0	20	60	80	0,200	100,000
2003710	10,0	3/8"	17,0	20	60	100	0,240	50,000
2003704	12,5	1/2"	19,4	20	60	125	0,260	50,000

// 076AH

**Acetylene welding 20 bar (300 psi)****EN ISO 3821****Tube:** black SBR.**Reinforcement:** high tensile textile cords.**Cover:** red SBR/EPDM - abrasion and ozone resistant.**Application:** acetylene welding.**Temperature:** -25 °C +80 °C (-13 °F +176 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	BR (mm)	Weight (kg/m)	Length (m)
2003713	6,0	1/4"	13,0	20	60	80	0,170	50,000
2001331	8,0	5/16"	15,0	20	60	80	0,200	100,000
2003715	10,0	3/8"	17,0	20	60	100	0,240	50,000

// 076EH

**Oxygen/acetylene twin welding 20 bar (300 psi)****EN ISO 3821****Tube:** black SBR.**Reinforcement:** high tensile textile cords.**Cover:** blue, red SBR/EPDM - abrasion and ozone resistant.**Application:** oxygen/acetylene twin welding.**Temperature:** -25 °C +80 °C (-13 °F +176 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	BR (mm)	Weight (kg/m)	Length (m)
2003719	5,0	3/16"	12,0	20	60	50	0,240	50,000
2003720	6,0	1/4"	13,0	20	60	80	0,360	50,000
2003721	8,0	5/16"	15,0	20	60	80	0,410	50,000
2003722	10,0	3/8"	17,0	20	60	100	0,500	50,000

// 076AA

**Argon welding 20 bar (300 psi)****EN ISO 3821****Tube:** black SBR.**Reinforcement:** high tensile textile cords.**Cover:** black SBR/EPDM - abrasion and ozone resistant.**Application:** argon welding.**Temperature Range:** -25 °C +80 °C (-13 °F +176 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	BR (mm)	Weight (kg/m)	Length (m)
2003703	6,0	1/4"	13,0	20	60	60	0,150	120,000

// 076AI

**LPG welding 20 bar (300 psi)****EN ISO 3821****Tube:** black NBR.**Reinforcement:** high tensile textile cords.**Cover:** orange SBR/EPDM - abrasion and ozone resistant.**Application:** LPG welding.**Temperature:** -30 °C +80 °C (-22 °F +176 °F)

Item Code	ID (mm)	ID (in)	OD (in)	WP (bar)	BP (bar)	BR (mm)	Weight (kg/m)	Length (m)
2003716	6,0	1/4"	0,51	20	60	80	0,160	50,000
2003717	8,0	5/16"	0,59	20	60	80	0,190	50,000
2003718	10,0	3/8"	0,67	20	60	100	0,220	50,000



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// HOT WATER & STEAM

// 340AH

EXTRUDED
TUBE**Steam 18 bar (270 psi) - Steel braided****Tube:** black conductive EPDM.**Reinforcement:** one or two high tensile steel wire braids.**Cover:** red EPDM - heat, abrasion and ozone resistant - pin pricked.**Application:** saturated and superheated steam.**Temperature:** -40 °C +210 °C (-40 °F +410 °F) intermittent to 232 °C (450 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	BR (mm)	Weight (kg/m)
2014913	13,0	1/2"	23,0	18	180	130	0,390
2009132	19,0	3/4"	31,0	18	180	190	0,830
2009134	25,0	1"	38,0	18	180	250	1,050
2009136	32,0	1 1/4"	46,0	18	180	320	1,370
2009138	38,0	1 1/2"	52,0	18	180	380	1,590
2009140	51,0	2"	67,0	18	180	510	2,460
2009154	76,0	3"	94,0	18	180	760	4,250

// 350AA

Ω
R≤10°ΩΩ/T
R≤10°Ω**Steam 6 bar (90 psi) - Hot water 15 bar (225 psi)****Tube:** black conductive EPDM.**Reinforcement:** high tensile textile cords.**Cover:** black conductive EPDM - heat, abrasion and ozone resistant.**Application:** saturated steam and hot water delivery in general industrial applications.**Temperature:** water -40 °C +120 °C (-40 °F +248 °F) steam +165 °C (+330 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	Weight (kg/m)	Length (m)
2004925	13,0	1/2"	23,0	6	60	0,380	61,000
2004963	19,0	3/4"	29,0	6	60	0,480	61,000
2004964	25,0	1"	35,0	6	60	0,600	61,000
2004966	32,0	1 1/4"	46,0	6	60	0,980	61,000
2003510	38,0	1 1/2"	52,0	6	60	1,140	61,000
2004969	51,0	2"	67,0	6	60	1,750	61,000

REV.1.1

// 957LL

**Cable cooling 20 bar (300 psi) - Non conductive****Tube:** white EPDM.**Reinforcement:** high tensile textile cords.**Cover:** white non conductive EPDM, heat resistant - resin coated dust free fibreglass cover.**Application:** non conductive cable cooling in electric furnaces. Specially designed to withstand heat, splashes of molten metal and open flame.**Temperature:** -40 °C +120 °C (-40 °F +248 °F)
cover resistant up to 540 °C (1000 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	Weight (kg/m)	Length (m)
2001960	13,0	1/2"	25,0	20	60	0,490	30,500
2012480	19,0	3/4"	31,0	20	60	0,640	30,500
2012481	25,0	1"	37,0	20	60	0,800	30,500
2012335	32,0	1 1/4"	46,0	20	60	1,180	30,500
2001965	38,0	1 1/2"	54,0	20	60	1,560	30,500
2001966	51,0	2"	67,0	20	60	2,070	30,500
2001967	63,0	2 1/2"	81,0	20	60	2,220	30,500

// 315EE

**Radiator - Silicone
SAE J20 R1 Class A****Tube:** blue silicone.**Reinforcement:** high tensile textile cords.**Cover:** blue silicone.**Application:** radiator.**Temperature:** -55 °C +180 °C (-67 °F +356 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	BR (mm)	Weight (kg/m)	Length (m)
2004400	6,0	1/4"	15,0	13	39	60	0,180	1,000
2004671	8,0	5/16"	17,0	12	36	80	0,220	1,000
2004401	10,0	3/8"	19,0	10	30	100	0,250	1,000
2004402	13,0	1/2"	22,0	9	27	130	0,280	1,000
2004403	16,0	5/8"	25,0	7	21	160	0,330	1,000
2004404	19,0	3/4"	28,0	7	21	190	0,380	1,000
2004405	22,0	7/8"	31,0	5	15	220	0,420	1,000
2004406	25,0	1"	34,0	5	15	250	0,470	1,000
2004407	28,0	1 1/8"	37,0	5	15	280	0,510	1,000
2004408	32,0	1 1/4"	41,0	4	12	320	0,570	1,000
2004409	35,0	1 3/8"	44,0	4	12	350	0,620	1,000
2004410	38,0	1 1/2"	47,0	4	12	380	0,850	1,000
2004673	40,0	1 9/16"	49,0	4	12	400	0,890	1,000
2004411	42,0	1 5/8"	51,0	4	12	420	0,930	1,000
2004412	45,0	1 3/4"	54,0	3	9	450	0,980	1,000
2004413	48,0	1 7/8"	57,0	3	9	480	1,040	1,000
2004414	51,0	2"	61,0	3	9	510	1,110	1,000
2004416	55,0	2 1/6"	65,0	3	9	550	1,180	1,000
2004418	60,0	2 3/8"	70,0	2	6	600	1,280	1,000
2004419	63,0	2 1/2"	73,0	2	6	630	1,340	1,000
2004420	70,0	2 3/4"	80,0	2	6	700	1,440	1,000
2004421	76,0	3"	86,0	2	6	760	1,550	1,000
2004422	80,0	3 1/8"	90,0	2	5	800	1,630	1,000
2004423	90,0	3 1/2"	100,0	2	5	900	2,010	1,000

// 318EE

**Radiator - Silicone - 90° Elbow****Tube:** blue silicone**Reinforcement:** high tensile textile cords.**Cover:** blue silicone**Application:** radiator.**Temperature:** -56 °C +177 °C (-69 °F +350 °F)

Item Code	ID (mm)	OD (mm)	WP (bar)	BP (bar)	Length (m)
2004386	13,0	21,0	9	27	0,150
2004387	16,0	24,0	7	21	0,150
2004656	19,0	27,0	7	21	0,150
2004388	22,0	30,0	5	15	0,150
2004389	25,0	34,0	5	15	0,150
2004390	28,0	37,0	5	15	0,150
2004391	32,0	41,0	4	12	0,150
2004392	35,0	44,0	4	12	0,150
2004393	38,0	47,0	4	12	0,150
2004394	42,0	51,0	4	12	0,150
2004395	45,0	54,0	3	9	0,150
2004662	48,0	56,0	3	9	0,150
2005413	51,0	62,0	3	9	0,150
2004397	55,0	65,0	3	9	0,150
2004334	60,0	70,0	2	6	0,150

REV.1.1

// 352AA

**Radiator 5 bar (75 psi)****exceeds din 73411 - SAE 20R1 D****Tube:** black EPDM - DIN 73411/A compliant.**Reinforcement:** high tensile textile cords.**Cover:** black EPDM - heat, abrasion and ozone resistant - DIN 73411/A compliant.**Application:** radiator.**Temperature:** -40 °C +120 °C (-40 °F +248 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	Weight (kg/m)	Length (m)
2000124	13,0	1/2"	21,0	5	15	0,300	1,000
2000126	16,0	5/8"	24,0	5	15	0,360	1,000
2000130	20,0	13/16"	28,0	5	15	0,420	1,000
2000132	22,0	7/8"	30,0	5	15	0,450	1,000
2000134	25,0	1"	33,0	5	15	0,510	1,000
2000136	28,0	1 1/8"	36,0	5	15	0,560	1,000
2000139	32,0	1 1/4"	40,0	5	15	0,620	1,000
2000140	35,0	1 3/8"	43,0	5	15	0,670	1,000
2000141	38,0	1 1/2"	48,0	5	15	0,880	1,000
2000143	40,0	1 9/16"	50,0	5	15	0,920	1,000
2000145	42,0	1 5/8"	52,0	5	15	0,960	1,000
2000146	45,0	1 3/4"	55,0	5	15	1,020	1,000
2000148	48,0	1 7/8"	58,0	5	15	1,080	1,000
2000149	51,0	2"	61,0	5	15	1,150	1,000
2000150	55,0	2 1/6"	65,0	5	15	1,230	1,000
2000151	57,0	2 1/4"	67,0	5	15	1,270	1,000
2000153	60,0	2 3/8"	70,0	5	15	1,330	1,000
2000155	63,0	2 1/2"	73,0	5	15	1,390	1,000
2000156	70,0	2 3/4"	80,0	5	15	1,490	1,000
2000157	76,0	3"	86,0	5	15	1,610	1,000
2000158	80,0	3 1/8"	90,0	5	15	1,680	1,000
2000159	90,0	3 1/2"	102,0	5	15	2,090	1,000
2000160	102,0	4"	114,0	5	15	2,340	1,000
2000161	110,0	4 5/16"	122,0	5	15	2,510	1,000

// 328AA

**Radiator S&D 6 bar (90 psi)****Tube:** black EPDM**Reinforcement:** high tensile textile cords with embedded steel helix wire**Cover:** black CR - square corrugated, abrasion, ozone and hydrocarbon resistant**Application:** general purpose-hot water. Specially designed for automotive heating systems. Special square corrugated construction for maximum flexibility.**Temperature:** -40 °C +120 °C (-40 °F +248 °F) mm

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	BR (mm)	Vacuum %	Weight (kg/m)	Length (m)
2013587	13,0	1/2"	22,0	6	18	33	80,00	0,350	40,000
2013193	16,0	5/8"	25,0	6	18	40	80,00	0,370	40,000
2015173	20,0	13/16"	29,0	6	18	50	80,00	0,460	20,000
2016249	22,0	7/8"	31,0	6	18	55	80,00	0,520	20,000
2016250	25,0	1"	34,0	6	18	63	80,00	0,570	20,000
2016251	28,0	1 1/8"	37,0	6	18	70	80,00	0,630	20,000
2016252	32,0	1 1/4"	41,0	6	18	80	80,00	0,750	20,000
2016253	38,0	1 1/2"	48,0	6	18	95	80,00	0,870	20,000
2016254	45,0	1 3/4"	55,0	6	18	113	80,00	1,000	20,000
2016255	51,0	2"	61,0	6	18	128	80,00	1,120	20,000

// 3SCIG



Hot water-car heater - Silicone

SAE J20 R3 Class A

Tube: orange silicone.**Reinforcement:** high tensile textile cords.**Cover:** green silicone.**Application:** hot water. Specially designed for automotive heating systems.**Temperature:** -55 °C +180 °C (-67 °F +356 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	Weight (kg/m)	Length (m)
2013936	10,0	3/8"	20,0	10	30	0,250	15,000
2005050	13,0	1/2"	23,0	10	30	0,310	15,000
2005051	13,0	1/2"	23,0	10	30	0,310	152,000
2005052	16,0	5/8"	26,0	8	24	0,360	15,000
2013938	19,0	3/4"	29,0	8	22	0,450	15,000
2005053	25,0	1"	35,0	7	21	0,540	15,000

// 375AA



Hot water-car heater 10 bar (150 psi)

Tube: black EPDM.**Reinforcement:** high tensile textile cords.**Cover:** black EPDM - heat, abrasion and ozone resistant.**Application:** general purpose-hot water. Specially designed for automotive heating systems.**Temperature:** -35 °C +100 °C (-31 °F +212 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	BR (mm)	Weight (kg/m)	Length (m)
2005197	10,0	3/8"	17,0	10	30	100	0,230	50,000
2003769	13,0	1/2"	19,0	10	30	130	0,235	50,000
2003770	16,0	5/8"	22,0	10	30	160	0,280	50,000
2003771	19,0	3/4"	27,0	10	30	190	0,445	50,000
2004311	25,0	1"	33,0	10	30	250	0,570	50,000

// 375AH



Hot water 10 bar (150 psi)

Tube: black EPDM.**Reinforcement:** high tensile textile cords.**Cover:** red EPDM - heat, abrasion and ozone resistant.**Application:** general purpose-hot water.**Temperature:** -35 °C +100 °C (-31 °F +212 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	BR (mm)	Weight (kg/m)	Length (m)
2003773	13,0	1/2"	19,0	10	30	130	0,240	50,000
2003775	16,0	5/8"	22,0	10	30	160	0,280	50,000
2003777	19,0	3/4"	27,0	10	30	190	0,450	50,000
2003779	25,0	1"	33,0	10	30	250	0,570	50,000

REV.1.1

// 395BT



Hot water wash down 40 bar (600 psi)
EU 10/2011 A+B+C

Tube: grey non-toxic PVC.
Reinforcement: high tensile textile cords.
Cover: light blue synthetic elastomer - abrasion, ozone, animal fats and vegetable oils resistant.
Application: hot water wash down.
Specially designed for the food and dairy industry.
Designed for 40 bar at 70° C continuous use.
240 bar minimum burst pressure at 20 °C.
Food grade.
Temperature: -10 °C +70 °C (+14 °F +158 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	BR (mm)	Weight (kg/m)	Length (m)
2014808	12,0	15/32"	22,0	50	150	84	0,340	25,000
2014799	12,0	15/32"	22,0	40	120	84	0,340	100,000



// CHEMICAL

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REV.1.1

// CHEMICAL

// 503AA

**Acid-chemical S&D 16 bar (240 psi) - EPDM
EN 12115****Tube:** black conductive EPDM.**Reinforcement:** high tensile textile cords with embedded steel helix wire - antistatic wire.**Cover:** black conductive EPDM - abrasion, ozone and fire resistant.**Application:** acid and chemical suction and delivery.

Suitable to be used in potentially explosive environments.

Temperature: -30 °C +100 °C (-22 °F +212 °F) depending on conveyed chemical

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	BR (mm)	Vacuum %	Weight (kg/m)	Length (m)
2001819	25,0	1"	37,0	16	64	125	90,00	0,850	30,500
2001820	32,0	1 1/4"	44,0	16	64	160	90,00	1,040	30,500
2001821	38,0	1 1/2"	51,0	16	64	190	90,00	1,300	30,500
2001822	51,0	2"	67,0	16	64	255	90,00	1,950	30,500
2004329	63,0	2 1/2"	79,0	16	64	300	90,00	2,340	30,500
2003546	76,0	3"	92,0	16	64	350	80,00	2,790	30,500
2004330	102,0	4"	118,0	16	64	450	80,00	3,930	30,500

// 529AA

**Acid-chemical S&D 16 bar (240 psi) - UPE
EN 12115 - EU 10/2011 A+B+C+D2****Tube:** black conductive UPE (Ultra High Molecular Weight Polyethylene).**Reinforcement:** high tensile textile cords with embedded steel helix wire - antistatic wire.**Cover:** black conductive EPDM - abrasion, ozone and fire resistant.**Application:** acid and chemical suction and delivery.

Suitable for 98% of existing chemicals.

Suitable to be used in potentially explosive environments.

Temperature: -30 °C +100 °C (-22 °F +212 °F) depending on conveyed chemical

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	BR (mm)	Vacuum %	Weight (kg/m)
2011286	19,0	3/4"	31,0	16	64	114	90,00	0,660
2011481	25,0	1"	37,0	16	64	150	90,00	0,810
2011518	38,0	1 1/2"	51,0	16	64	228	90,00	1,340
2011524	51,0	2"	67,0	16	64	306	90,00	2,000
2011526	76,0	3"	92,0	16	64	456	80,00	2,790
2012572	102,0	4"	118,0	16	64	612	80,00	3,930

// 5090E

**Acid-chemical S&D 16 bar (240 psi) - UPE
FDA - EU 10/2011 A+B+C+D2**

Tube: transparent UPE (Ultra High Molecular Weight Polyethylene).

Reinforcement: high tensile textile cords with embedded steel helix wire.

Cover: blue EPDM - abrasion and ozone resistant.

Application: acid and chemical suction and delivery.

Suitable for 98% of existing chemicals.

Temperature: -30 °C +100 °C (-22 °F +212 °F) depending on conveyed chemical

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	BR (mm)	Vacuum %	Weight (kg/m)
2001829	19,0	3/4"	31,0	16	48	114	90,00	0,750
2001830	25,0	1"	37,0	16	48	150	90,00	0,910
2001831	32,0	1 1/4"	44,0	16	48	192	90,00	0,950
2001832	38,0	1 1/2"	50,0	16	48	228	90,00	1,090
2001834	51,0	2"	63,0	16	48	306	90,00	1,440
2001837	76,0	3"	92,0	16	48	456	80,00	3,050

// 99HLA

**Multipurpose 20 bar (300 psi) - Polyester**

Tube: white polyester elastomer.

Reinforcement: high tensile textile cords.

Cover: black PVC - abrasion and ozone resistant.

Application: compressed air, water, fuel and oil delivery in general industrial applications.

Temperature: -15 °C + 60 °C (+5 °F +140 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	BR (mm)	Weight (kg/m)	Length (m)
2004368	6,0	1/4"	11,0	20	60	42	0,085	50,000
2004201	8,0	5/16"	14,0	20	60	56	0,140	50,000
2004203	10,0	3/8"	16,0	20	60	75	0,160	50,000
2004205	13,0	1/2"	19,5	20	60	90	0,230	50,000
2005122	19,0	3/4"	27,5	20	60	200	0,410	30,000
2004209	25,0	1"	34,5	18	55	250	0,590	50,000

REV.1.1

// 9TS OM

**Smooth PTFE Stainless Steel braid - Standard duty****exceeds SAE 100 R14**

Tube: smooth PTFE - high mechanical and vibration resistance, low permeability, dielectrical, fire resistant, food grade (FDA, DVGW, BFR compliant). Chemically inert, non sticking, ozone and weather resistant.

Reinforcement: high tensile stainless steel braid AISI 304.

Application: compressed air, gas, steam, fuel, oil, chemical and pharmaceutical products, particularly suitable for steam piping on injection moulding machines, diathermic oil installations, charging lines for cryogenic gas, compressor discharge lines, automotive, pharmaceutical and food sectors. Solvents, pigments and paint transfer lines. Hydraulic lines in power steering marine applications.

Not suitable for molten alkali metals and halogens at high temperature.

Temperature: -60 °C +260 °C (-76 °F +500 °F)

DH SCAN crimp short code: 9TS

Item Code	ID (mm)	ID (in)	OD (mm)	WP (Mpa)	BR (mm)	Weight (kg/m)
2600557	5,0	3/16"	7,9	27,6	51	0,090
2600558	6,0	1/4"	8,6	24,1	76	0,090
2600559	8,0	5/16"	11,1	20,7	102	0,130
2600560	10,0	3/8"	12,7	18,3	127	0,150
2600561	13,0	1/2"	15,4	16,1	140	0,200
2600797	16,0	5/8"	16,6	11,4	178	0,290
2600563	19,0	3/4"	22,1	11,4	203	0,330
2600564	25,0	1"	29,8	6,9	305	0,520

// 9TC OM

**Convolute PTFE Stainless Steel braid**

Tube: convoluted PTFE - high mechanical and vibration resistance, low permeability, dielectrical, fire resistant, food grade (FDA, DVGW, BFR compliant). Chemically inert, non sticking, ozone and weather resistant.

Reinforcement: high tensile stainless steel braid AISI 304.

Application: compressed air, gas, steam, fuel, oil, chemical and pharmaceutical products, particularly suitable for steam piping on injection moulding machines, diathermic oil installations, charging lines for cryogenic gas, compressor discharge lines, automotive, pharmaceutical and food sectors. Solvents, pigments and paint transfer lines. Hydraulic lines in power steering marine applications.

Not suitable for molten alkali metals and halogens at high temperature.

Temperature: -60 °C +260 °C (-76 °F +500 °F)

DH SCAN crimp short code: 9TC

Item Code	ID (mm)	ID (in)	OD (mm)	WP (Mpa)	BR (mm)	Weight (kg/m)
2600573	10,0	3/8"	14,8	13,8	20	0,220
2600574	13,0	1/2"	18,8	10,3	25	0,280
2600575	16,0	5/8"	22,1	8,3	51	0,330
2600577	25,0	1"	32,8	4,6	89	0,550
2600578	32,0	1 1/4"	40,7	3,4	127	0,690
2600579	38,0	1 1/2"	48,2	3,0	152	0,890
2600580	51,0	2"	61,5	2,3	200	1,240

// 99DMM

**Stainless steel hose - Parallel corrugation - AISI 316L with 1 braid AISI 304**

Application: For all liquid or gaseous fluids compatible with stainless steel under severe environmental conditions combined with aggressive chemicals, high temperatures, high pressure, frequent movement, static or dynamic offset, vibrations.

Applications in chemical, petrochemical, cryogenic, nuclear, thermal, hygienic and many other fields.

Temperature: -270 °C +700 °C

Safety factor: 4:1

Hose: AISI 316L - DIN 1.4404 - Z2CN17-12

Braid: AISI 304 - DIN 1.4301 - Z6CN18-09

Tolerances: +/- 0,2mm: DN 6 - DN 32 +/- 0,3mm: DN 40 - DN 200

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BR static (mm)	BR dynamic (mm)	Weight (kg/m)
2600401	10,0	3/8"	15,5	90	38	140	0,214
2600402	12,0	15/32"	18,0	80	45	140	0,240
2600403	20,0	13/16"	28,3	64	70	170	0,494
2600404	25,0	1"	33,5	50	85	190	0,628
2600363	32,0	1 1/4"	42,8	40	105	260	0,847
2600405	40,0	1 9/16"	51,5	35	130	300	1,172
2600406	50,0	2"	62,5	30	160	320	1,606
2600407	65,0	2 9/16"	83,0	24	180	410	1,984
2600408	80,0	3 1/8"	97,0	18	200	450	2,154
2600409	100,0	4"	119,0	16	290	560	3,001
2600365	150,0	6"	177,5	10	380	815	5,705
2600336	200,0	8"	228,0	8	500	1015	9,150

all these data are based for a temperature of 20°C



// FOOD

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// FOOD

// 400LE EVOLUTION

**Multi food S&D 10 bar (150 psi)****FDA - D.M. 21/03/73 - 3A Sanitary Standard****Tube:** white synthetic rubber.**Reinforcement:** high tensile textile cords with embedded steel helix wire.**Cover:** blue synthetic rubber - abrasion and ozone resistant.**Application:** liquid and fat food-alcoholic beverages suction and delivery - max 75%. Special construction for maximum flexibility.**Temperature:** liquid food -30 °C +110 °C (-22 °F +230 °F)
fat food +120 (248 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	BR (mm)	Vacuum %	Weight (kg/m)	Length (m)
2014802	25,0	1"	36,0	10	30	50	100,00	0,790	61,000
2014803	32,0	1 1/4"	43,0	10	30	64	100,00	0,960	61,000
2014804	38,0	1 1/2"	49,0	10	30	76	100,00	1,120	61,000
2014469	51,0	2"	63,0	10	30	102	100,00	1,440	61,000
2014805	63,0	2 1/2"	76,0	10	30	189	90,00	2,340	61,000
2014554	76,0	3"	89,0	10	30	228	90,00	2,740	61,000
2014806	102,0	4"	116,0	10	30	306	90,00	3,770	61,000

// 418LE

**Milk tanker 10 bar (150 psi) - Hard wall - Crush resistant****FDA - Arrêté du 9/11/1994 D****Tube:** white NR.**Reinforcement:** high tensile textile cords with embedded PET helix.**Cover:** blue NR/EPDM - abrasion and ozone resistant.**Application:** liquid food suction and delivery. Special lightweight construction for maximum flexibility and crush resistance in milk tanker applications. Sterilize with 110 °C (230 °F) steam for 10 minutes or with 5% soda solution.**Temperature:** -40 °C +80 °C (-40 °F +176 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	BR (mm)	Vacuum %	Weight (kg/m)	Length (m)
2010327	51,0	2"	65,0	10	30	153	100,00	1,590	61,000
2010328	63,0	2 1/2"	77,0	10	30	189	70,00	1,840	61,000

REV.1.1

// 422LH

**Brewery S&D 10 bar (150 psi)****FDA - 3A Sanitary Standard****Tube:** white chlorobutyl.**Reinforcement:** high tensile textile cords with embedded helix wires.**Cover:** red NR/EPDM – abrasion and ozone resistant.**Application:** liquid food and alcoholic beverages suction and delivery - max 95%.

Special construction for maximum flexibility in brewery applications.

Sterilize with 130 °C (266 °F) steam for 30 minutes or with 5% soda solution.

Temperature: -30 °C +108 °C (-22 °F +226 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	BR (mm)	Vacuum %	Weight (lb/ft)
2016596	32,0	1 1/4"	46,0	10	30	64	100,00	0,81
2016598	38,0	1 1/2"	52,0	10	30	76	100,00	0,94
2016600	51,0	2"	65,0	10	30	102	100,00	1,21

// 455LE

**Fat food delivery 10 bar (150 psi)****FDA - D.M. 21/03/1973 - 3A Sanitary Standard****Tube:** white NBR.**Reinforcement:** high tensile textile cords.**Cover:** blue NBR/PVC - abrasion, ozone and oil resistant.**Application:** liquid and fat food-alcoholic beverages delivery - max 75%. Sterilize with 130 °C (266 °F) steam for 30 minutes or with 5% soda solution.**Temperature:** -30 °C +100 °C (-22 °F +212 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	Weight (kg/m)	Length (m)
2005311	13,0	1/2"	23,0	10	30	0,390	30,500
2005312	19,0	3/4"	31,0	10	30	0,640	30,500
2013566	19,0	3/4"	31,0	10	30	0,640	61,000
2005313	25,0	1"	37,0	10	30	0,800	30,500
2003542	32,0	1 1/4"	44,0	10	30	0,970	61,000
2005044	38,0	1 1/2"	50,0	10	30	1,140	30,500
2006028	51,0	2"	65,0	10	30	1,760	30,500

// 350LE



Steam 6 bar (90 psi) - Hot water 15 bar (225 psi)

FDA - ARRÊTÉ DU 09/11/94 D

Tube: white EPDM.

Reinforcement: high tensile textile cords.

Cover: blue EPDM - heat, abrasion and ozone resistant.

Application: saturated steam and hot water delivery in general industrial applications. Specially designed for wash down use in the food and dairy industry. Also suitable for liquid food and alcoholic beverages - max 50%.

Temperature: water -40 °C +120 °C (-40 °F +248 °F)
steam +165 °C (+330 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	Weight (kg/m)	Length (m)
2001786	13,0	1/2"	23,0	6	60	0,380	61,000
2001787	19,0	3/4"	31,0	6	60	0,630	61,000
2001788	25,0	1"	37,0	6	60	0,780	61,000

// 49200



General purpose food quality - PVC

FDA - AS 2070 - EU 10/2011 A+B+C

Tube: transparent PVC.

Reinforcement: high tensile textile cords.

Cover: transparent PVC with longitudinal red stripes - abrasion and ozone resistant.

Application: general purpose food quality. Sterilize with 5% soda solution.

Temperature: -5 °C +60 °C (+23 °F +140 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	Weight (kg/m)	Length (m)
2009317	6,0	1/4"	11,0	20	60	0,085	100,000
2005427	6,0	1/4"	12,0	20	60	0,110	50,000
2011577	8,0	5/16"	13,0	15	45	0,105	50,000
2005431	8,0	5/16"	14,0	15	45	0,130	50,000
2011579	10,0	3/8"	15,0	15	45	0,125	50,000
2005434	10,0	3/8"	16,0	15	45	0,155	50,000
2005437	13,0	1/2"	19,0	10	30	0,190	50,000
2005440	16,0	5/8"	22,0	10	30	0,225	50,000
2011581	19,0	3/4"	25,0	10	30	0,260	50,000
2005442	19,0	3/4"	26,0	10	30	0,310	50,000
2011583	25,0	1"	32,0	10	30	0,390	50,000
2005444	25,0	1"	33,0	10	30	0,450	50,000
2011587	32,0	1 1/4"	42,0	7	21	0,715	50,000
2011589	38,0	1 1/2"	48,0	7	21	0,830	50,000
2001086	51,0	2"	63,0	6	18	1,320	50,000

REV.1.1

// 48000

**General purpose tubing - Silicone****Tube:** transparent silicone**Application:** general purpose.**Temperature:** -60 °C +220 °C (-76 °F +428 °F)

Item Code	ID (mm)	OD (mm)
2004692	2,0	4,0
2004747	3,0	5,0
2004693	5,0	10,0
2004694	6,0	10,0
2004695	8,0	12,0
2003793	10,0	14,0

// 949AA

**Fish pump 3 bar (45 psi)****Tube:** black NBR - oil, abrasion and sea water resistant.**Reinforcement:** high tensile textile cords.**Cover:** black conductive CR - oil, abrasion, ozone and sea water resistant.**Application:** fish transfer from fishing net to ship deck.**Temperature:** -30 °C +80 °C (-22 °F +176 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	Weight (kg/m)	Length (m)
2004315	305,0	12"	313,0	3	10	5,760	61,000
2003698	355,0	14"	363,0	3	10	6,680	61,000
2004316	355,0	14"	367,0	3	10	9,040	61,000
2004317	406,0	16"	418,0	3	10	10,920	61,000
2004318	457,0	18"	469,0	3	10	12,410	61,000
2015271	457,0	18"	469,0	3	10	12,410	80,000
2016162	457,0	18"	469,0	3	10	12,410	100,000
2013195	508,0	20"	522,0	3	10	14,960	61,000
2014526	508,0	20"	522,0	3	10	14,960	80,000
2015038	508,0	20"	522,0	3	10	14,960	100,000

// HOSE IDENTIFICATION TABLE

TECHNICAL FEATURES AND NORMS										
HOSE	TUBE	MAX TEMP. (°C)	WP (bar)	STERILIZATION						FRANCE 1994/11/09 CAT. D

PVC HOSE

	49200	PVC	+60	Max 20	5% Soda	●	●		●	A+B+C	
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RUBBER HOSE

	400LE EVOLUTION	NBR	+120	10	Steam 130°C / 30' 5% Soda	●	●	Class II	●		
	350LE	EPDM	+165	15 Water 6 Steam	Steam 130°C / 30' 5% Soda	●	●	Class III	●		IANESCO
	422LH	CIIR	+108	10	Steam 130°C / 30' 5% Soda	●	●	Class IV			
	418LE	NR	+80	10	Steam 110°C / 10' 5% Soda	●	●		●		IANESCO
	455LE	NBR	+100	10	Steam 130°C / 30' 5% Soda	●	●	Class II	●		
	720LA	NR	+80	10	5% Soda	●	●				

	ALCOHOLIC BEVERAGES				DAIRY INDUSTRY		FOOD INDUSTRY				CLEANING
ITALY D.M. 21/03/73	≤20%	≤50%	≤75%	≤95%	MILK COLLECTING	MILK TRANSPORT	JUICES, SODAS, SAUCES, SOUPS WITH ACIDITY CONTENT	LIQUID FOOD	FAT FOOD	BULK FOOD	FOOD ENVIRONMENT

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CERISIE											
CERISIE							Max Temp. +80 °C				



// MARINE

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// 616AA BOAT	Marine fuel 10 bar (150 psi) - Hard wall - Fire resistant.....	43
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// 266LL	Marine sanitary hose - PVC.....	45

// MARINE

// 654AA BOAT **NEW**

RINA

Marine fuel 20 bar (300 psi) - Soft wall - Fire resistant**EU 2013/53 - ISO 7840 A1 - SAE J1527 A1/R1****Tube:** black conductive NBR.**Reinforcement:** high tensile textile braids.**Cover:** black NBR/PVC - abrasion, ozone, hydrocarbon and fire resistant.**Application:** marine fuel transfer. Also suitable for oxygenated fuels up to E10/B10. Specially designed for engine fuel feed applications.**Temperature:** -20 °C +100 °C (-4 °F +212 °F)

Item Code	Brand	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	BR (mm)	Weight (kg/m)
2016414	AG	6,0	1/4"	13,0	20	60	36	0,115
2016415	AG	8,0	5/16"	15,0	20	60	48	0,170
2016416	AG	10,0	3/8"	17,0	20	60	48	0,190
2016417	AG	13,0	1/2"	20,0	20	60	78	0,235
2016418	AG	16,0	5/8"	24,0	20	60	96	0,330
2016419	AG	19,0	3/4"	27,0	20	60	114	0,405
2016420	AG	25,0	1"	34,0	20	60	150	0,540

// 616AA BOAT **NEW**

RINA

Marine fuel 10 bar (150 psi) - Hard wall - Fire resistant**EU 2013/53 - ISO 7840 A1 - SAE J1527 A1/R2****Tube:** black conductive NBR.**Reinforcement:** high tensile textile cords with embedded steel helix wire.**Cover:** black NBR/PVC - abrasion, ozone, hydrocarbon and fire resistant.**Application:** marine fuel transfer. Also suitable for oxygenated fuels up to E10/B10. Specially designed for fuel fill port to fuel tank connection.**Temperature:** -20 °C +100 °C (-4 °F +212 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	BR (mm)	Vacuum %	Weight (kg/m)	Length (m)
2016653	32,0	1 1/4"	43,0	10	30	96	100,00	1,040	30,500
2016654	38,0	1 1/2"	49,0	10	30	114	100,00	1,220	30,500
2016658	51,0	2"	62,0	10	30	153	100,00	1,570	30,500

// 6E1AA

**Marine exhaust - Hard wall****ISO 13363/2 A+B - SAE J2006/R2**

Tube: black synthetic rubber - oil resistant.

Reinforcement: high tensile textile cords with embedded steel helix wire.

Cover: black synthetic rubber - abrasion and ozone resistant.

Application: marine wet exhaust. Also suitable for bilge pump connection. Special lightweight construction for maximum flexibility. Max 40% aromatic content resistance.

Temperature: -30 °C +100 °C (-22 °F +212 °F)

Item Code	ID (mm)	ID (in)	WP (bar)	BP (bar)	BR (mm)	Vacuum %	Weight (kg/m)	Length (m)
2012364	25,0	1"	3	15	50	100,00	0,560	20,000
2012366	32,0	1 1/4"	3	15	64	100,00	0,700	20,000
2012368	38,0	1 1/2"	3	15	76	100,00	0,810	20,000
2012584	40,0	1 9/16"	3	15	80	100,00	0,850	20,000
2012588	45,0	1 3/4"	3	15	90	100,00	0,950	20,000
2012370	51,0	2"	3	15	102	100,00	1,060	20,000
2012592	63,0	2 1/2"	3	15	126	90,00	1,690	20,000
2012594	76,0	3"	3	15	152	90,00	2,010	20,000
2012598	90,0	3 1/2"	3	15	180	90,00	2,550	20,000
2012372	102,0	4"	3	15	204	90,00	2,870	20,000
2013403	127,0	5"	3	15	254	80,00	3,850	20,000

// 202LL

**Marine sanitary hose 7 bar (100 psi)****ISO 8099**

Tube: white chlorobutyl - impermeable and odourless.

Reinforcement: high tensile textile cords with embedded steel helix wire.

Cover: white NBR/PVC - abrasion, ozone and hydrocarbon resistant.

Application: sanitary hose for marine installations. Designed for excellent kink resistance at tight bend radius and maximum flexibility. Top permeability resistance.

Temperature: -30 °C +80 °C (-22 °F +176 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	BR (mm)	Vacuum %	Weight (kg/m)	Length (m)
2012399	19,0	3/4"	29,0	7	21	38	100,00	0,690	20,000
2013699	25,0	1"	35,0	7	21	50	100,00	0,870	20,000
2016148	38,0	1 1/2"	48,0	7	21	76	100,00	1,300	40,000
2013723	51,0	2"	61,0	7	21	102	100,00	1,690	20,000

REV.1.1

// 266LL

**Marine sanitary hose - PVC****Construction:** white thermoplastic elastomer.**Reinforcement:** white shock resistant rigid PVC.**Application:** sanitary hose for marine installations.**Temperature:** -5 °C +60 °C (+23 °F +140 °F)

Item Code	ID (mm)	ID (in)	WP (bar)	BP (bar)	BR (mm)	Vacuum %	Weight (kg/m)	Length (m)
2001388	19,0	3/4"	8	24	75	70,00	0,300	30,000
2001054	25,0	1"	8	24	120	70,00	0,380	30,000
2001055	38,0	1 1/2"	6	18	170	70,00	0,580	30,000



// OIL & FUEL

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// 668EL	Fuel-oil S&D - PVC - Heavy duty.....	53

REV.1.1

// OIL & FUEL

// 6P2AA

**Fuel-oil S&D - Square corrugated - Extra flexible****Tube:** black NBR**Reinforcement:** high tensile textile cords with embedded steel helix wire**Cover:** black CR - square corrugated, abrasion, ozone and hydrocarbon resistant**Application:** fuel and oil suction and delivery. Specially designed for tank truck and general industrial applications. Special square corrugated construction for maximum flexibility.**Temperature:** -25 °C +100 °C (-13 °F +212 °F) mm

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	BR (mm)	Vacuum %	Weight (kg/m)	Length (m)
2016260	32,0	1 1/4"	42,0	10	36	80	90,00	0,850	20,000
2016259	25,0	1"	34,0	15	46	63	90,00	0,580	20,000
2016261	38,0	1 1/2"	48,0	10	32	95	80,00	0,980	20,000
2016262	51,0	2"	62,0	9	28	128	80,00	1,380	20,000
2016263	63,0	2 1/2"	76,0	9	28	158	80,00	1,940	20,000
2016264	76,0	3"	90,0	9	28	190	80,00	2,300	20,000

// 605AA



MSHA

Fuel-oil S&D 10 bar (150 psi)**ISO 13363/2 A+B - exceeds SAE 100 R4 - SAE J2006/R2****Tube:** black conductive NBR.**Reinforcement:** high tensile textile cords with embedded steel helix wire.**Cover:** black CR - abrasion, ozone, hydrocarbon and flame resistant.**Application:** fuel and oil suction and delivery. Specially designed for tank truck and general industrial applications. Also suitable for marine wet exhaust and bilge pump connection.**Temperature:** -30 °C +80 °C (-22 °F +176 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	BR (mm)	Vacuum %	Weight (kg/m)	Length (m)
2001851	19,0	3/4"	30,0	10	30	76	100,00	0,590	61,000
2001853	25,0	1"	36,0	10	30	100	100,00	0,740	61,000
2001856	32,0	1 1/4"	43,0	10	30	128	100,00	0,950	61,000
2001860	38,0	1 1/2"	49,0	10	30	152	100,00	1,100	61,000
2001862	42,0	1 5/8"	53,0	10	30	168	100,00	1,210	30,500
2001863	45,0	1 3/4"	56,0	10	30	180	100,00	1,280	30,500
2001865	51,0	2"	62,0	10	30	204	100,00	1,430	30,500
2001867	60,0	2 3/8"	73,0	10	30	240	100,00	2,010	30,500
2001868	63,0	2 1/2"	76,0	10	30	252	90,00	2,100	30,500
2001870	76,0	3"	89,0	10	30	304	90,00	2,520	30,500
2001872	90,0	3 1/2"	104,0	10	30	360	90,00	3,080	30,500
2001873	102,0	4"	116,0	10	30	408	90,00	3,440	30,500
2001875	115,0	4 1/2"	129,0	10	30	460	90,00	4,410	30,500
2001877	127,0	5"	145,0	10	30	508	80,00	5,970	30,500
2001879	152,0	6"	170,0	10	25	608	80,00	7,410	30,500

// 619AA

**Fuel-oil S&D 16 bar (240 psi)
exceeds EN 1761 - EN 12115****Tube:** black conductive NBR.**Reinforcement:** high tensile textile cords with embedded steel helix wire - antistatic wire.**Cover:** black conductive CR - abrasion, ozone, hydrocarbon and fire resistant.**Application:** fuel and oil suction and delivery.

Designed for long service life in heavy duty applications.

Suitable to be used in potentially explosive environments.

Temperature: -30 °C +70 °C (-22 °F +158 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	BR (mm)	Vacuum %	Weight (kg/m)	Length (m)
2011208	38,0	1 1/2"	51,0	16	64	225	100,00	1,240	61,000
2011213	51,0	2"	67,0	16	64	275	100,00	1,850	61,000
2011240	63,0	2 1/2"	79,0	16	64	300	90,00	2,350	61,000
2011217	76,0	3"	92,0	16	64	350	90,00	2,810	61,000
2011221	102,0	4"	118,0	16	64	450	90,00	3,950	61,000
2011538	152,0	6"	170,0	16	48	760	80,00	7,400	30,500

// FLEXOR R4 634

**Extra flexible
SAE 100 R4****Tube:** oil resistant synthetic rubber.**Reinforcement:** high tensile textile cords with embedded steel helix wire.**Cover:** abrasion, ozone and hydrocarbon resistant synthetic rubber.**Application:** fuel, oil and hydraulic fluids with 50% max aromatic content suction and delivery.

Specially designed for hydraulic oil return lines requiring tight bend radius.

Temperature: -40 °C +100 °C (-40 °F +212 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (Mpa)	BP (Mpa)	BR (mm)	Weight (kg/m)	Length (m)
1001272	19,0	3/4"	30,0	2,1	8,4	38	0,610	30,500
1001273	25,0	1"	36,0	1,7	6,8	50	0,760	30,500
1001275	32,0	1 1/4"	43,0	1,4	5,6	64	0,930	30,500
1001278	38,0	1 1/2"	49,0	1,0	4,0	76	1,080	30,500
1001280	51,0	2"	62,0	0,7	2,8	102	1,400	30,500
1001282	63,0	2 1/2"	76,0	0,4	1,6	125	2,220	30,500
1001284	76,0	3"	89,0	0,4	1,6	152	2,630	30,500
1001288	102,0	4"	116,0	0,2	0,8	204	3,910	30,500

REV.1.1

// FLEXOR R4 644 HT



MSHA

Extra flexible - High temperature
SAE 100 R4**Tube:** oil resistant synthetic rubber.**Reinforcement:** high tensile textile cords with embedded steel helix wire.**Cover:** abrasion, ozone and hydrocarbon resistant synthetic rubber.**Application:** fuel, oil and hydraulic fluids with 50% max aromatic content suction and delivery.

Specially designed for high temperature applications and hydraulic oil return lines requiring tight bend radius.

Temperature: -40 °C +135 °C (-40 °F +275 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (Mpa)	BP (Mpa)	BR (mm)	Weight (kg/m)	Length (m)
1001277	19,0	3/4"	30,0	2,1	8,4	38	0,620	30,500
1001274	25,0	1"	36,0	1,7	6,8	50	0,770	30,500
1001196	32,0	1 1/4"	43,0	1,4	5,6	64	0,950	30,500
1001279	38,0	1 1/2"	49,0	1,0	4,0	76	1,100	30,500
1001281	51,0	2"	62,0	0,7	2,8	102	1,430	30,500
1001283	63,0	2 1/2"	76,0	0,4	1,6	126	2,170	30,500
1001285	76,0	3"	89,0	0,4	1,6	152	2,690	30,500
1001290	102,0	4"	116,0	0,2	0,8	204	3,530	30,500

// 614AA



Hot tar 10 bar (150 psi)

Tube: black NBR.**Reinforcement:** high tensile textile cords with embedded steel helix wire.**Cover:** black CSM - abrasion and ozone resistant.**Application:** hot tar, asphalt and bitumen suction and delivery.**Temperature:** -20 °C +180 °C (-4 °F +356 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	BR (mm)	Vacuum %	Weight (kg/m)	Length (m)
2003589	51,0	2"	69,0	10	40	255	100,00	2,360	30,500
2003590	76,0	3"	96,0	10	40	380	90,00	3,920	30,500

// 650AA



Fuel-oil delivery 10 bar (150 psi)

Tube: black conductive NBR.**Reinforcement:** high tensile textile cords.**Cover:** black conductive CR - abrasion, ozone, hydrocarbon and fire resistant.**Application:** general purpose fuel and oil delivery.**Temperature:** -30 °C +80 °C (-22 °F +176 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	Weight (kg/m)	Length (m)
2005203	25,0	1"	35,0	10	30	0,580	61,000
2001898	32,0	1 1/4"	44,0	10	30	0,880	61,000
2001900	38,0	1 1/2"	50,0	10	30	1,020	61,000
2010365	51,0	2"	61,0	10	30	1,110	61,000
2005418	63,0	2 1/2"	75,0	10	30	1,630	61,000
2004972	76,0	3"	88,0	10	30	1,970	61,000

// 655AA

**Fuel-oil delivery 16 bar (240 psi)****exceeds EN 1761****Tube:** black conductive NBR.**Reinforcement:** high tensile textile cords.**Cover:** black conductive CR - abrasion, ozone, hydrocarbon and fire resistant.**Application:** fuel and oil delivery.

Designed for long service life in heavy duty applications.

Temperature: -30 °C +70 °C (-22 °F +158 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	BR (mm)	Weight (kg/m)	Length (m)
2001905	32,0	1 1/4"	44,0	16	48	175	0,900	61,000
2001906	38,0	1 1/2"	51,0	16	48	225	1,060	61,000
2003623	51,0	2"	67,0	16	48	275	1,630	61,000
2003624	76,0	3"	92,0	16	48	350	2,100	61,000

// 654AA

**Multi-fuel 20 bar (300 psi)****SAE J30R7****Tube:** black conductive NBR.**Reinforcement:** high tensile textile cords.**Cover:** black conductive CR - abrasion, ozone and hydrocarbon resistant.**Application:** fuel and oil delivery. Also suitable for oxygenated fuels up to E10/B10 in automotive applications.**Temperature:** -40 °C +125 °C (-40 °F +257 °F)

Item Code	ID (in)	ID (mm)	OD (mm)	WP (bar)	BP (bar)	BR (mm)	Weight (kg/m)
2015076	3/16"	5,0	11,0	20	60	30	0,080
2014980	1/4"	6,0	12,0	20	60	36	0,100
2014981	5/16"	8,0	14,0	20	60	48	0,120
2014982	3/8"	10,0	16,0	20	60	60	0,150
2014636	1/2"	13,0	20,0	20	60	78	0,210
2014977	5/8"	16,0	24,0	20	60	96	0,300
2014978	3/4"	19,0	27,0	20	60	114	0,370
2014979	1"	25,0	34,0	20	60	150	0,490

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// 671AA

**Fuel-oil delivery 16 bar (240 psi)****Tube:** black conductive NBR.**Reinforcement:** high tensile textile cords.**Cover:** black synthetic rubber - abrasion, ozone and hydrocarbon resistant.**Application:** general purpose fuel and oil delivery.**Temperature:** -25 °C +80 °C (-13 °F +176 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	BR (mm)	Weight (kg/m)	Length (m)
2004343	5,0	3/16"	12,0	16	48	50	0,130	50,000
2003798	6,0	1/4"	13,0	16	48	60	0,140	50,000
2003801	8,0	5/16"	15,0	16	48	80	0,170	50,000
2003804	10,0	3/8"	17,0	16	48	100	0,200	50,000
2003807	13,0	1/2"	20,0	16	48	130	0,250	50,000
2003810	16,0	5/8"	24,0	16	48	160	0,350	50,000
2003812	19,0	3/4"	27,0	16	48	190	0,400	50,000
2004711	22,0	7/8"	32,0	16	48	220	0,595	50,000
2001631	25,0	1"	35,0	16	48	250	0,680	50,000

// 687AA

**Automotive fuel 10 bar (150 psi)****DIN 73379/2A****Tube:** black NBR.**Reinforcement:** high tensile textile cords.**Cover:** black CR - abrasion, ozone and hydrocarbon resistant.**Application:** petrol and diesel transfer in automotive applications. Also suitable for ecodiesel.**Temperature:** -35 °C +90 °C (-31 °F +194 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	BR (mm)	Weight (kg/m)	Length (m)
2005090	3,5	9/64"	9,5	10	30	30	0,080	20,000
2005091	5,0	3/16"	11,0	10	30	55	0,100	20,000
2005092	5,5	7/32"	11,5	10	30	55	0,105	20,000
2005093	6,0	1/4"	12,0	10	30	60	0,115	20,000
2005094	7,5	19/64"	13,5	10	30	75	0,130	20,000
2005095	9,5	3/8"	15,5	10	30	85	0,160	20,000

// 689AA

**Automotive fuel 10 bar (150 psi) - External textile braid****Tube:** black NBR.**Reinforcement:** high tensile textile braid.**Application:** petrol and diesel transfer in automotive applications. Also suitable for unleaded fuel.**Temperature:** -20 °C +100 °C (-4 °F +212 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	BR (mm)	Weight (kg/m)	Length (m)
2005085	3,2	1/8"	7,0	10	30	32	0,040	20,000
2003830	3,5	9/64"	7,5	10	30	28	0,045	20,000
2005086	4,0	5/32"	9,0	10	30	40	0,050	20,000
2003831	4,5	11/64"	9,5	10	30	38	0,060	20,000
2003832	5,0	3/16"	10,0	10	30	40	0,065	20,000
2003833	5,5	7/32"	10,5	10	30	45	0,070	20,000
2003834	6,0	1/4"	11,0	10	30	50	0,075	20,000
2005087	7,0	9/32"	12,0	10	30	70	0,080	20,000
2004313	7,5	19/64"	12,5	10	30	60	0,085	20,000
2003835	8,0	5/16"	13,0	10	30	65	0,090	20,000
2005088	9,0	23/64"	15,0	10	30	90	0,105	20,000
2005089	11,0	7/16"	17,0	10	30	110	0,120	20,000

// 688AA

**Diesel oil delivery 15 bar (225 psi) - External steel braid****Tube:** black NBR.**Reinforcement:** plated steel braid.**Application:** diesel oil delivery. Specially designed for burner feed line.**Temperature:** -20 °C +100 °C (-4 °F +212 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	BR (mm)	Weight (kg/m)
2001281	6,0	1/4"	11,0	15	70	30	0,100
2001282	8,0	5/16"	13,0	15	70	40	0,155
2001283	10,0	3/8"	15,0	15	70	45	0,190
2001284	12,0	15/32"	17,0	15	70	55	0,230

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// 668EL

**Fuel-oil S&D - PVC - Heavy duty**

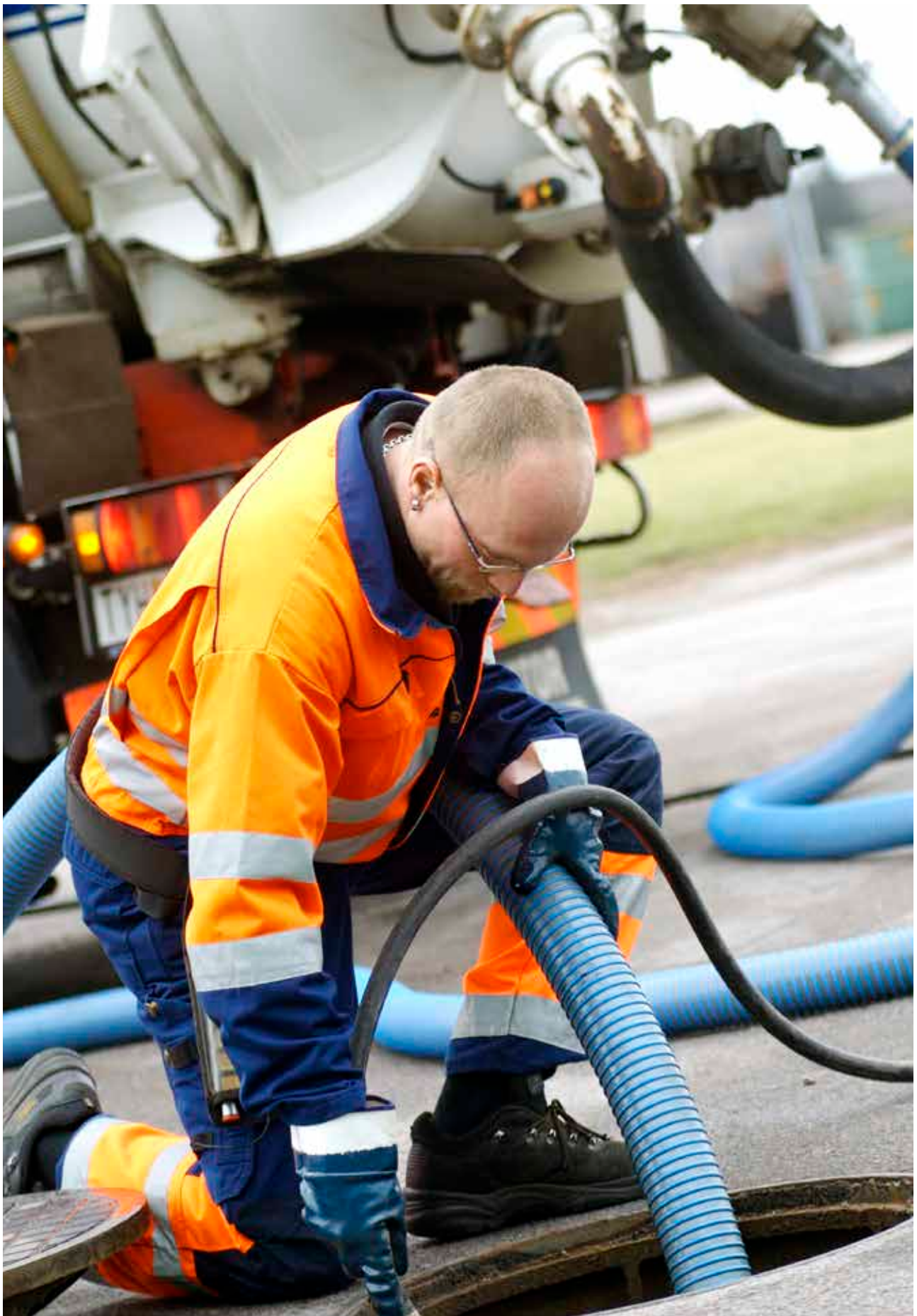
Construction: blue PVC - abrasion, ozone and hydrocarbon resistant.

Reinforcement: white shock resistant rigid PVC.

Application: general purpose fuel and oil suction and delivery.

Temperature: -10 °C +60 °C (+14 °F +140 °F)

Item Code	ID (mm)	WP (bar)	BP (bar)	BR (mm)	Vacuum %	Weight (kg/m)	Length (m)	special feature IH
2001278	25,0	7	21	150	90,00	0,540	50,000	
2004103	32,0	6	18	228	90,00	0,680	50,000	
2004104	38,0	6	18	228	90,00	0,760	50,000	
2004105	51,0	5	15	306	90,00	1,150	50,000	
2013880	51,0	5	15	306	90,00	1,150	50,000	ANTISTATIC WIRE
2004106	63,0	4	12	378	90,00	1,600	50,000	
2012341	63,0	4	12	378	90,00	1,600	50,000	ANTISTATIC WIRE
2004107	76,0	4	12	456	90,00	2,000	50,000	
2012342	76,0	4	12	456	90,00	2,000	50,000	ANTISTATIC WIRE
2004108	102,0	3	9	612	90,00	3,100	50,000	



// WATER

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// WATER

// 49200

**General purpose food quality - PVC****FDA - AS 2070 - EU 10/2011 A+B+C****Tube:** transparent PVC.**Reinforcement:** high tensile textile cords.**Cover:** transparent PVC with longitudinal red stripes - abrasion and ozone resistant.**Application:** general purpose food quality. Sterilize with 5% soda solution.**Temperature:** -5 °C +60 °C (+23 °F +140 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	Weight (kg/m)	Length (m)
2011575	6,0	1/4"	11,0	20	60	0,085	50,000
2005427	6,0	1/4"	12,0	20	60	0,110	50,000
2011577	8,0	5/16"	13,0	15	45	0,105	50,000
2005431	8,0	5/16"	14,0	15	45	0,130	50,000
2011579	10,0	3/8"	15,0	15	45	0,125	50,000
2005434	10,0	3/8"	16,0	15	45	0,155	50,000
2005437	13,0	1/2"	19,0	10	30	0,190	50,000
2005440	16,0	5/8"	22,0	10	30	0,225	50,000
2011581	19,0	3/4"	25,0	10	30	0,260	50,000
2005442	19,0	3/4"	26,0	10	30	0,310	50,000
2011583	25,0	1"	32,0	10	30	0,390	50,000
2005444	25,0	1"	33,0	10	30	0,450	50,000
2011587	32,0	1 1/4"	42,0	7	21	0,715	50,000
2011589	38,0	1 1/2"	48,0	7	21	0,830	50,000
2001086	51,0	2"	63,0	6	18	1,320	50,000

// 49000

**General purpose tubing - PVC****FDA****Tube:** transparent PVC.**Application:** general purpose. Sterilize with 5% soda solution.**Temperature:** -5 °C +60 °C (+23 °F +140 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	Weight (kg/m)	Length (m)
2004156	3,0	1/8"	5,0	0,015	50,000
2004157	4,0	5/32"	6,0	0,020	50,000
2004159	5,0	3/16"	8,0	0,040	50,000
2004160	6,0	1/4"	9,0	0,045	50,000
2004161	7,0	9/32"	11,0	0,070	50,000
2004162	8,0	5/16"	12,0	0,080	50,000
2004163	10,0	3/8"	14,0	0,095	50,000
2004164	12,0	15/32"	16,0	0,110	50,000
2002018	16,0	5/8"	22,0	0,200	100,000
2002019	18,0	23/32"	24,0	0,245	50,000
2002020	20,0	13/16"	26,0	0,265	50,000
2002021	22,0	7/8"	28,0	0,290	50,000
2002023	25,0	1"	32,0	0,415	50,000
2004723	30,0	1 3/16"	38,0	0,500	25,000
2004724	32,0	1 1/4"	42,0	0,700	25,000
2004725	38,0	1 1/2"	48,0	0,790	25,000
2004153	50,0	2"	60,0	1,050	50,000
2004155	60,0	2 3/8"	70,0	1,200	50,000

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// 293AK

**Antitorsion garden irrigation - PVC****Tube:** black PVC.**Reinforcement:** high tensile textile cords.**Cover:** yellow PVC.**Application:** water delivery.**Temperature:** -10 °C +60 °C (+14 °F +140 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	BR (mm)	Weight (kg/m)	Length (m)
2005124	19,0	3/4"	25,4	9	23	180	0,270	50,000
2005123	12,5	1/2"	17,7	10	25	125	0,140	50,000
2005125	25,0	1"	32,5	8	20	240	0,430	50,000

// 976AB

**General purpose 20 bar (300 psi) - EPDM****Tube:** black EPDM.**Reinforcement:** high tensile textile cords.**Cover:** grey EPDM - abrasion and ozone resistant.**Application:** air, water and mild chemicals delivery in general industrial applications.**Temperature:** -40 °C +100 °C (-40 °F +212 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	BR (mm)	Weight (kg/m)	Length (m)
2003838	6,0	1/4"	13,0	20	60	40	0,160	100,000
2003839	8,0	5/16"	15,0	20	60	50	0,200	100,000
2003840	10,0	3/8"	17,0	20	60	60	0,220	100,000
2003841	13,0	1/2"	21,0	20	60	75	0,340	50,000
2003842	16,0	5/8"	25,0	20	60	95	0,450	50,000
2003843	19,0	3/4"	29,0	20	60	100	0,570	50,000
2003844	25,0	1"	35,0	20	60	120	0,740	50,000

// 202AA

**General purpose S&D 10 bar (150 psi) - EPDM****Tube:** black conductive EPDM.**Reinforcement:** high tensile textile cords with embedded steel helix wire.**Cover:** black conductive EPDM - abrasion and ozone resistant.**Application:** water suction and delivery. Also suitable for mild chemicals and fertilizers in general industrial and agricultural applications.**Temperature:** -40 °C +100 °C (-40 °F +212 °F) depending on conveyed chemical

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	BR (mm)	Vacuum %	Weight (kg/m)	Length (m)
2009122	19,0	3/4"	30,0	10	30	76	100,00	0,580	61,000
2015967	25,0	1"	36,0	10	30	50	100,00	0,700	61,000
2015859	32,0	1 1/4"	43,0	10	30	64	100,00	0,870	61,000
2015861	38,0	1 1/2"	49,0	10	30	76	100,00	1,010	61,000
2015865	51,0	2"	62,0	10	30	102	100,00	1,310	61,000
2001702	63,0	2 1/2"	76,0	10	30	252	90,00	2,130	61,000
2001703	76,0	3"	89,0	10	30	304	90,00	2,560	30,500
2001705	102,0	4"	116,0	10	30	408	90,00	3,490	30,500
2005181	127,0	5"	145,0	10	30	635	80,00	5,460	20,000
2005182	152,0	6"	170,0	10	25	760	80,00	6,810	20,000

// 22AAA

**Sewage suction - Square corrugated**

Tube: black conductive NR/SBR - abrasion resistant.

Reinforcement: high tensile textile cords with embedded steel helix wire.

Cover: black SBR/NR - abrasion and ozone resistant.

Application: cassette hose for sewer cleaning and waste suction vehicles.

Also suitable for bulk material suction and delivery.

Special construction for maximum flexibility.

Temperature: -30 °C +80 °C (-22 °F +176 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	BR (mm)	Vacuum %	Weight (kg/m)	Length (m)
2005269	102,0	4"	118,0	3	9	400	80,00	4,200	20,000
2005270	127,0	5"	144,0	3	9	500	80,00	5,700	20,000

// 253AA

**Water discharge 10 bar (150 psi) - Lay flat**

Tube: black EPDM.

Reinforcement: high tensile textile cords.

Cover: black EPDM - abrasion and ozone resistant.

Application: lay flat water discharge.

Temperature: -30 °C +80 °C (-22 °F +176 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	Weight (kg/m)	Length (m)
2003459	32,0	1 1/4"	40,0	10	30	0,560	61,000
2003460	38,0	1 1/2"	46,0	10	30	0,670	61,000
2001741	51,0	2"	59,0	10	30	0,890	30,500
2001743	63,0	2 1/2"	71,0	10	30	1,090	30,500
2001745	76,0	3"	86,0	10	30	1,530	30,500
2001747	102,0	4"	112,0	10	30	2,090	30,500
2001748	127,0	5"	139,0	10	30	2,820	30,500
2001749	152,0	6"	164,0	10	30	3,460	30,500

// 254AH

**Air-water delivery 10 bar (150 psi)**

Tube: black SBR.

Reinforcement: high tensile textile cords.

Cover: red SBR - abrasion and ozone resistant.

Application: air and water delivery.

Temperature: -30 °C +80 °C (-22 °F +176 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	Weight (kg/m)	Length (m)
2004821	32,0	1 1/4"	42,0	10	30	0,870	61,000
2003472	38,0	1 1/2"	48,0	10	30	1,020	61,000
2001755	51,0	2"	61,0	10	30	1,350	20,000

REV.1.1

// 956AB

**General purpose 20 bar (300 psi) - EPDM****Tube:** black conductive EPDM.**Reinforcement:** high tensile textile cords.**Cover:** grey EPDM - abrasion and ozone resistant.**Application:** air, water and mild chemicals delivery in general industrial applications.**Temperature:** -40 °C +100 °C (-40 °F +212 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	Weight (kg/m)	Length (m)
2003699	32,0	1 1/4"	44,0	20	60	0,960	61,000
2003700	38,0	1 1/2"	52,0	20	60	1,110	61,000

// 265TA **NEW****Water-slurry S&D - Standard duty - Superior flexibility****Construction:** light blue PVC/NBR with helical black stripe - abrasion and ozone resistant.**Reinforcement:** white shock resistant rigid PVC.**Application:** water suction and delivery. Special construction for slurry tankers and general applications. Superior flexibility at low temperature.**Temperature:** -30 °C +60 °C (-22 °F +140 °F)

Item Code	ID (mm)	ID (in)	WP (bar)	BR (mm)	Vacuum %	Weight (kg/m)	Length (m)
2016632	51,0	2"	4	178	80,00	0,860	50,000
2016634	63,0	2 1/2"	3	222	80,00	1,270	50,000
2016636	76,0	3"	3	266	80,00	1,520	50,000
2016638	102,0	4"	2	357	80,00	2,220	30,000

// 265TH

**Water-slurry S&D - PVC - Standard duty - Super elastic****Construction:** Light blue PVC with helical red stripe - abrasion and ozone resistant.**Reinforcement:** white shock resistant rigid PVC.**Application:** water suction and delivery. Special light weight construction for slurry tankers. Good flexibility at low temperature.**Temperature:** -20 °C +60 °C (-4 °F +140 °F)

Item Code	ID (mm)	WP (bar)	BP (bar)	BR (mm)	Vacuum %	Weight (kg/m)	Length (m)
2005101	76,0	4	12	304	90,00	1,515	50,000
2005102	102,0	3	9	408	90,00	2,220	30,000

// 267BE

**Water-slurry S&D - PVC - Medium duty - Super elastic**

Construction: grey PVC with helical blue stripe - abrasion and ozone resistant.

Reinforcement: white shock resistant rigid PVC.

Application: water suction and delivery. Special construction for slurry tankers. Good flexibility at low temperature.

Temperature: -20 °C +60 °C (-4 °F +140 °F)

Item Code	ID (mm)	ID (in)	WP (bar)	BP (bar)	BR (mm)	Vacuum %	Weight (kg/m)	Length (m)
2001011	38,0	1 1/2"	7	21	152	90,00	0,705	50,000
2000953	51,0	2"	5	15	204	90,00	1,000	50,000
2000955	63,0	2 1/2"	5	15	252	90,00	1,340	50,000
2004096	76,0	3"	5	15	304	90,00	1,750	30,000
2000956	76,0	3"	5	15	304	90,00	1,750	50,000
2000958	90,0	3 1/2"	4	12	360	90,00	2,260	30,000
2000959	102,0	4"	4	12	408	90,00	2,700	30,000
2000960	110,0	4 5/16"	4	12	440	90,00	3,100	20,000
2000962	127,0	5"	4	12	508	90,00	3,800	20,000
2000963	152,0	6"	3	9	608	90,00	4,850	20,000
2000964	203,0	8"	3	9	812	90,00	9,100	10,000

// 269BA

**Water-slurry S&D - PVC/NBR - Medium duty - Superior flexibility**

Construction: grey PVC/NBR - abrasion and ozone resistant.

Reinforcement: black shock resistant rigid PVC.

Application: water suction and delivery. Special construction for slurry tankers and general applications. Superior flexibility at low temperature.

Temperature: -30 °C +60 °C (-22 °F +140 °F)

Item Code	ID (mm)	ID (in)	WP (bar)	BP (bar)	BR (mm)	Vacuum %	Weight (kg/m)	Length (m)
2008553	51,0	2"	5	15	178	90,00	1,010	50,000
2011348	63,0	2 1/2"	5	15	220	90,00	1,365	50,000
2005302	76,0	3"	5	15	266	90,00	1,765	50,000
2005304	90,0	3 1/2"	4	12	315	90,00	2,265	30,000
2005306	102,0	4"	4	12	357	90,00	2,720	30,000
2008014	127,0	5"	3	9	444	90,00	3,830	20,000
2008016	152,0	6"	3	9	532	90,00	4,935	20,000

// 2660L

**Water S&D - PVC - Standard duty - Super elastic**

Construction: transparent PVC - abrasion and ozone resistant.

Reinforcement: white shock resistant rigid PVC.

Application: water suction and delivery. Good flexibility at low temperature.

Temperature: -20 °C +60 °C (-4 °F +140 °F)

Item Code	ID (mm)	ID (in)	WP (bar)	BP (bar)	BR (mm)	Vacuum %	Weight (kg/m)	Length (m)
2004348	38,0	1 1/2"	5	15	152	60,00	0,510	50,000
2004928	45,0	1 3/4"	5	15	180	60,00	0,670	50,000
2004439	51,0	2"	5	15	204	60,00	0,760	50,000

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// 4660L

**General purpose S&D - PVC - Standard duty
FDA - AS 2070 - EU 10/2011 A+B+C****Construction:** transparent PVC - abrasion and ozone resistant.**Reinforcement:** white shock resistant rigid PVC.**Application:** general purpose liquid food and alcoholic beverages suction and delivery - max 20% - Sterilize with 5% soda solution.**Temperature:** -5 °C +60 °C (+23 °F +140 °F)

Item Code	ID (mm)	ID (in)	WP (bar)	BP (bar)	BR (mm)	Vacuum %	Weight (kg/m)	Length (m)
2000896	20,0	13/16"	8	24	90	70,00	0,230	50,000
2000899	32,0	1 1/4"	7	21	144	70,00	0,390	50,000
2000901	38,0	1 1/2"	6	18	171	70,00	0,510	50,000
2000904	51,0	2"	5	15	230	70,00	0,760	50,000
2000907	63,0	2 1/2"	5	15	284	70,00	0,970	25,000
2000910	76,0	3"	5	15	342	70,00	1,330	25,000
2000913	90,0	3 1/2"	4	12	405	70,00	1,800	25,000
2000914	102,0	4"	4	12	459	70,00	2,190	25,000

// 27EAA

**Fire reel - Light weight
EN 694/A2****Tube:** black EPDM.**Reinforcement:** PET helix.**Cover:** high-tenacity polyester yarn.**Application:** wall hydrants according to DIN EN 671-1**Temperature:** -40 °C +100 °C (-40 °F +212 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	BR (mm)	Weight (kg/m)	Length (m)
2003750	19,0	3/4"	22,6	12	42	20	0,120	30,000
2003752	25,0	1"	28,6	12	42	20	0,150	30,000

// 98NAA

**Air-water delivery - Lay flat****Tube:** black NBR/PVC**Reinforcement:** high tensile textile cords.**Cover:** black NBR/PVC**Application:** air and water delivery.**Temperature:** -20 °C +80 °C (-4 °F +176 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	Weight (kg/m)	Length (m)
2003846	20,0	13/16"	24,0	25	75	0,180	100,000
2003848	26,0	1 1/32"	30,4	25	75	0,210	100,000
2003850	32,0	1 1/4"	36,4	20	60	0,240	100,000
2003852	38,0	1 1/2"	42,6	16	50	0,300	100,000
2003854	52,0	2 3/64"	57,0	16	50	0,400	100,000
2003856	65,0	2 9/16"	70,0	16	50	0,540	100,000
2003858	76,0	3"	81,8	16	50	0,650	100,000
2004435	102,0	4"	108,2	16	50	1,000	100,000

// 27DAL

**Fire fighting - Lay flat****DIN 14811****Tube:** black EPDM.**Cover:** high-tenacity polyester yarn.**Application:** fire fighting and water delivery.**Temperature:** -40 °C +80 °C (-40 °F +176 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	OD (in)	WP (bar)	BP (bar)	Weight (kg/m)	Length (m)
2005388	25,0	1"	29,0	1,14	16	45	0,150	30,000
2005063	32,0	1 1/4"	35,0	1,38	16	50	0,160	30,000
2005064	38,0	1 1/2"	41,0	1,61	16	50	0,185	30,000
2005065	52,0	2 3/64"	55,0	2,17	16	50	0,260	30,000
2005067	63,0	2 1/2"	66,0	2,60	16	50	0,310	30,000
2005068	76,0	3"	79,0	3,11	16	50	0,400	30,000
2005069	102,0	4"	106,0	4,17	10	30	0,640	30,000
2005071	127,0	5"	133,0	5,24	10	30	0,750	30,000

// 28ULI

**Snow maker 25 bar (375 psi) - Polyurethane - Lay flat****Tube:** transparent polyurethane**Reinforcement:** high tensile textile cords.**Cover:** orange polyurethane**Application:** heavy duty air and water delivery. Also suitable for snow making and well drilling.**Temperature:** -51 °C +90 °C (-60 °F +194 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	Weight (kg/m)	Length (m)
2004141	51,0	2"	57,4	25	100	0,590	20,000

// 286EE

**Water discharge - PVC - Lay flat - Standard duty****Tube:** blue PVC.**Reinforcement:** high tensile textile cords.**Cover:** blue PVC - abrasion and ozone resistant.**Application:** lay flat water discharge.**Temperature:** -10 °C +60 °C (+14 °F +140 °F)

Item Code	ID (mm)	ID (in)	WP (bar)	BP (bar)	Weight (kg/m)	Length (m)
2004139	32,0	1 1/4"	10	30	0,190	50,000
2000951	38,0	1 1/2"	5	15	0,210	100,000
2000816	51,0	2"	5	15	0,270	100,000
2000868	63,0	2 1/2"	4	12	0,380	100,000
2000811	76,0	3"	4	12	0,530	100,000
2000796	102,0	4"	4	12	0,710	100,000
2011268	127,0	5"	3	9	0,940	50,000
2000795	152,0	6"	3	9	1,180	50,000
2000952	203,0	8"	3	9	1,800	50,000

REV.1.1

// 288HH

**Water discharge - PVC - Lay flat - Heavy duty****Tube:** Red PVC.**Reinforcement:** high tensile textile cords.**Cover:** red PVC - abrasion and ozone resistant.**Application:** lay flat water discharge.**Temperature:** -10 °C +60 °C (+14 °F +140 °F)

Item Code	ID (mm)	ID (in)	WP (bar)	BP (bar)	Weight (kg/m)	Length (m)
2001020	25,0	1"	10	30	0,250	100,000



// COMPRESSED AIR

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// COMPRESSED AIR

// 155AA

**Compressed air 20 bar (300 psi) - Heavy duty****Tube:** black SBR/NBR - oil mist resistant.**Reinforcement:** high tensile textile cords.**Cover:** black SBR - abrasion and ozone resistant.**Application:** compressed air designed for heavy duty applications.**Temperature:** -30 °C +80 °C (-22 °F +176 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	Weight (kg/m)	Length (m)
2015756	25,0	1"	35,0	20	60	0,660	61,000
2004889	35,0	1 3/8"	47,0	20	60	0,950	61,000
2015762	38,0	1 1/2"	50,0	20	60	1,030	61,000
2015766	45,0	1 3/4"	57,0	20	60	1,200	61,000
2015768	51,0	2"	65,0	20	60	1,480	61,000
2001687	55,0	2 1/6"	69,0	20	50	1,830	30,500
2004936	63,0	2 1/2"	79,0	20	50	2,380	30,500
2004937	76,0	3"	92,0	20	50	2,930	30,500
2004675	102,0	4"	118,0	20	50	3,820	30,500

// 155AK Ω-L **NEW****Compressed air 20 bar (300 psi) - Heavy duty - Conductive tube****Tube:** black conductive NR.**Reinforcement:** high tensile textile cords.**Cover:** yellow SBR - abrasion and ozone resistant.**Application:** compressed air designed for heavy duty applications.**Temperature:** -30 °C +80 °C (-22 °F +176 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	Weight (kg/m)	Length (m)
2016622	13,0	1/2"	21,0	20	60	0,300	61,000
2016624	19,0	3/4"	29,0	20	60	0,530	61,000
2016486	25,0	1"	35,0	20	60	0,660	40,000
2016626	32,0	1 1/4"	44,0	20	60	0,840	40,000
2016628	38,0	1 1/2"	50,0	20	60	0,980	40,000
2016488	51,0	2"	65,0	20	60	1,530	40,000

// 155AK

**Compressed air 20 bar (300 psi) - Heavy duty****Tube:** black SBR/NBR - oil mist resistant.**Reinforcement:** high tensile textile cords.**Cover:** yellow SBR - abrasion and ozone resistant.**Application:** compressed air designed for heavy duty applications.**Temperature:** -30 °C +80 °C (-22 °F +176 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	Weight (kg/m)	Length (m)
2003426	13,0	1/2"	21,0	20	60	0,330	61,000
2003427	19,0	3/4"	29,0	20	60	0,580	40,000
2004939	19,0	3/4"	29,0	20	60	0,580	61,000
2003428	25,0	1"	35,0	20	60	0,730	40,000
2004940	25,0	1"	35,0	20	60	0,730	61,000
2003429	32,0	1 1/4"	44,0	20	60	0,930	40,000
2003430	38,0	1 1/2"	50,0	20	60	1,080	40,000
2003431	51,0	2"	65,0	20	60	1,740	40,000
2003432	63,0	2 1/2"	79,0	20	50	2,410	30,500
2003433	76,0	3"	92,0	20	50	2,960	30,500
2012046	76,0	3"	92,0	20	50	2,960	61,000
2016043	102,0	4"	118,0	20	50	3,950	30,500

// 175AA

**Compressed air 20 bar (300 psi) - Standard duty****Tube:** black SBR/NBR - oil mist resistant.**Reinforcement:** high tensile textile cords.**Cover:** black SBR - abrasion and ozone resistant.**Application:** compressed air and general industrial applications.**Temperature:** -25 °C +80 °C (-13 °F +176 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	BR (mm)	Weight (kg/m)	Length (m)
2003730	6,0	1/4"	12,0	20	60	80	0,150	50,000
2003731	8,0	5/16"	14,0	20	60	80	0,170	50,000
2003733	10,0	3/8"	17,0	20	60	100	0,245	50,000
2003732	10,0	3/8"	17,0	20	60	100	0,245	100,000
2003735	13,0	1/2"	21,0	20	60	110	0,350	50,000
2003736	16,0	5/8"	24,0	20	60	140	0,415	50,000
2003738	19,0	3/4"	28,0	20	60	160	0,520	50,000
2003740	25,0	1"	35,0	20	60	210	0,780	50,000

REV.1.1

// 977AK

**General purpose 20 bar (300 psi) - EPDM****Tube:** black conductive EPDM.**Reinforcement:** high tensile textile cords.**Cover:** yellow EPDM - abrasion and ozone resistant.**Application:** air, water and mild chemicals delivery in general industrial applications.**Temperature:** -25 °C +95 °C (-13 °F +203 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	BR (mm)	Weight (kg/m)	Length (m)
2016491	6,0	1/4"	12,0	20	60	80	0,140	60,000
2016490	10,0	3/8"	17,0	20	60	100	0,230	60,000
2016492	13,0	1/2"	21,0	20	60	120	0,330	60,000
2016500	19,0	3/4"	29,0	20	60	160	0,590	60,000
2016501	25,0	1"	35,0	20	60	210	0,750	60,000

// 195AT

**Compressed air 20 bar (300 psi) - Polyurethane - Pneumatic tools****Tube:** black polyurethane/PVC - oil mist resistant.**Reinforcement:** high tensile textile cords.**Cover:** light blue synthetic elastomer - abrasion and ozone resistant.**Application:** compressed air. Specially designed for pneumatic tools and paint spray.**Temperature:** -20 °C +60 °C (-4 °F +140 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	BR (mm)	Weight (kg/m)	Length (m)
2001312	6,0	1/4"	10,0	20	60	24	0,065	50,000
2001313	8,0	5/16"	12,0	20	60	32	0,080	50,000
2001314	10,0	3/8"	15,0	20	60	40	0,115	50,000
2001315	13,0	1/2"	19,0	20	60	52	0,185	50,000
2001307	16,0	5/8"	23,0	20	60	64	0,260	50,000
2001309	19,0	3/4"	26,0	20	60	76	0,305	50,000
2001311	25,0	1"	33,0	20	60	100	0,450	50,000

// 165AA

**Air brake 10 bar (150 psi)****DIN 74310****Tube:** black EPDM.**Reinforcement:** high tensile textile cords.**Cover:** black EPDM - abrasion and ozone resistant.**Application:** air brake hose.**Temperature:** -40 °C +100 °C (-40 °F +212 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	BR (mm)	Weight (kg/m)	Length (m)
2003726	11,0	7/16"	18,0	10	25	70	0,210	50,000
2003727	13,0	1/2"	25,0	10	25	100	0,470	50,000

// 166AA



Air brake 20 bar (300 psi)

SAE J1402

Tube: black NBR.**Reinforcement:** high tensile textile cords.**Cover:** black NBR - abrasion and ozone resistant.**Application:** air brake hose.**Temperature:** -40 °C +100 °C (-40 °F +212 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	BR (mm)	Weight (kg/m)	Length (m)
2003728	9,5	3/8"	19,0	20	60	90	0,320	50,000
2003729	14,5	37/64"	25,5	20	60	115	0,515	50,000

// 97FAA



Air-water delivery - 12 bar (180 psi)

Tube: black EPDM.**Reinforcement:** high tensile textile cords.**Cover:** black EPDM.**Application:** air and water delivery.**Temperature:** -40 °C +100 °C (-40 °F +212 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	BR (mm)	Weight (kg/m)	Length (m)
2005252	13,0	1/2"	22,0	12	36	130	0,225	50,000
2004842	19,0	3/4"	28,0	12	36	200	0,410	60,000
2004846	25,0	1"	35,0	12	36	250	0,535	50,000
2005250	32,0	1 1/4"	41,0	12	36	330	0,640	50,000

// 28ULI



Snow maker 25 bar (375 psi) - Polyurethane - Lay flat

Tube: transparent polyurethane**Reinforcement:** high tensile textile cords.**Cover:** orange polyurethane**Application:** heavy duty air and water delivery. Also suitable for snow making and well drilling.**Temperature:** -51 °C +90 °C (-60 °F +194 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	Weight (kg/m)	Length (m)
2004141	51,0	2"	57,4	25	100	0,590	20,000
2004142	51,0	2"	57,4	25	100	0,590	30,000

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// 49HAG



Breathing air - PVC

EN 14593 - EN 14594

Tube: black antistatic PVC.**Reinforcement:** high tensile textile cords.**Cover:** Green PVC - abrasion and ozone resistant.**Application:** breathing air.**Temperature:** -20 °C +70 °C (-4 °F +158 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BR (mm)	Weight (kg/m)	Length (m)
2005129	10,0	3/8"	16,0	15	65	0,150	50,000

// 19BAA



Breathing air

EN 14593 - EN 14594

Tube: black antistatic NBR.**Reinforcement:** high tensile textile cords.**Cover:** black NBR/PVC with green stripe - abrasion and ozone resistant.**Application:** breathing air.**Temperature:** -30 °C +100 °C (-22 °F +212 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	WP (bar)	BP (bar)	BP (psi)	BR (mm)	Weight (kg/m)	Length (m)
2004237	9,5	3/8"	19,5	10	60	900	78	0,290	50,000



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// VENTILATION

// 161BL

**Air ducting****Construction:** grey PVC - abrasion and ozone resistant.**Reinforcement:** white shock resistant rigid PVC.**Application:** air, gas, fumes extraction. Air conditioning-ventilation.**Temperature:** -10 °C +60 °C (+14 °F +140 °F)

Item Code	ID (mm)	ID (in)	BR (mm)	Vacuum %	Weight (kg/m)	Length (m)
2001152	20,0	13/16"	20	50,00	0,130	50,000
2001369	25,0	1"	25	50,00	0,170	50,000
2001370	32,0	1 1/4"	32	50,00	0,230	50,000
2001155	40,0	1 9/16"	40	40,00	0,300	50,000
2001156	45,0	1 3/4"	45	40,00	0,350	50,000
2001157	51,0	2"	51	40,00	0,440	50,000
2001159	63,0	2 1/2"	63	40,00	0,560	50,000
2001160	70,0	2 3/4"	70	40,00	0,630	50,000
2001161	76,0	3"	76	40,00	0,700	50,000
2001162	80,0	3 1/8"	80	40,00	0,760	50,000
2001163	90,0	3 1/2"	90	40,00	0,850	50,000
2001164	102,0	4"	102	40,00	0,990	50,000
2001166	110,0	4 5/16"	110	40,00	1,100	30,000
2001558	127,0	5"	127	40,00	1,270	30,000
2000974	152,0	6"	152	35,00	1,700	30,000
2001345	160,0	6 5/16"	160	35,00	1,850	20,000
2001344	180,0	7 1/16"	180	30,00	2,200	20,000
2001165	254,0	10"	254	10,00	3,200	10,000

// 17FAA

**Air ducting - PVC - Steel helix****Construction:** black PVC**Reinforcement:** pvc coated steel helix wire**Application:** air, gas, fumes extraction. Air conditioning-ventilation.**Temperature:** -10 °C +60 °C (+14 °F +140 °F)

Item Code	ID (mm)	ID (in)	BR (mm)	Vacuum %	Weight (kg/m)	Length (m)
2004347	25,0	1"	25	30,00	0,200	10,000
2004035	32,0	1 1/4"	32	30,00	0,250	10,000
2004037	38,0	1 1/2"	38	30,00	0,310	10,000
2004039	50,0	2"	50	25,00	0,370	10,000
2004041	65,0	2 9/16"	65	25,00	0,420	10,000
2004043	76,0	3"	76	25,00	0,475	10,000
2004045	80,0	3 1/8"	80	25,00	0,700	10,000
2004049	100,0	4"	100	25,00	1,000	10,000
2004053	127,0	5"	127	25,00	1,360	10,000

// 178AA

**Air ducting - High temperature +120 °C (+248 °F)**

Construction: black EPDM/PP fully recyclable and halogens/phthalates free.

Reinforcement: steel helix wire.

Application: hot air, gas, fumes extraction-ventilation where high temperature resistance is required.

Temperature: -40 °C +120 °C (-40 °F +248 °F)

Item Code	ID (mm)	ID (in)	BR (mm)	Vacuum %	Weight (kg/m)	Length (m)
2003992	63,0	2 1/2"	55	15,00	0,310	20,000
2004379	76,0	3"	65	15,00	0,460	20,000
2004380	102,0	4"	85	10,00	0,610	15,000
2004443	127,0	5"	105	10,00	0,830	15,000
2003993	160,0	6 5/16"	130	5,00	1,090	15,000
2004381	203,0	8"	165	3,00	1,480	15,000

// 17100

**Air ducting - Polyurethane - Gauge 0,4 mm**

Construction: transparent polyurethane - abrasion and ozone resistant.

Reinforcement: copper plated steel helix wire.

Application: air, gas, fumes extraction-ventilation. Also suitable for abrasive material suction - good oil mist resistance.

Temperature: -40 °C +85 °C (-40 °F +185 °F)

Item Code	ID (mm)	ID (in)	BR (mm)	Vacuum %	Weight (kg/m)	Length (m)
2003926	51,0	2"	55	25,00	0,220	10,000
2003928	63,0	2 1/2"	67	25,00	0,270	10,000
2003930	76,0	3"	80	25,00	0,350	10,000
2003931	80,0	3 1/8"	84	20,00	0,370	10,000
2003933	102,0	4"	106	10,00	0,470	10,000
2003936	127,0	5"	132	10,00	0,750	10,000
2003937	130,0	5 1/8"	130	10,00	0,700	10,000
2000989	140,0	5 1/2"	145	10,00	0,830	10,000
2003938	152,0	6"	157	10,00	0,900	10,000
2000991	160,0	6 5/16"	165	6,00	0,940	10,000
2000993	203,0	8"	209	6,00	1,190	10,000
2000994	254,0	10"	260	2,00	1,960	10,000
2000995	305,0	12"	311	2,00	2,350	10,000
2003939	355,0	14"	362	2,00	2,700	10,000
2003940	406,0	16"	412	2,00	3,080	10,000

REV.1.1

// 17200

**Air ducting - Polyurethane - Gauge 0,8 mm**

Construction: transparent polyurethane - abrasion and ozone resistant.

Reinforcement: copper plated steel helix wire.

Application: air, gas, fumes extraction-ventilation. Also suitable for abrasive material suction - good oil mist resistance.

Temperature: -40 °C +85 °C (-40 °F +185 °F)

Item Code	ID (mm)	ID (in)	BR (mm)	Vacuum %	Weight (kg/m)	Length (m)
2003941	40,0	1 9/16"	46	55,00	0,310	10,000
2003942	51,0	2"	57	40,00	0,390	10,000
2003943	63,0	2 1/2"	69	40,00	0,480	10,000
2004792	70,0	2 3/4"	70	40,00	0,520	10,000
2003946	76,0	3"	82	40,00	0,560	10,000
2003947	80,0	3 1/8"	88	35,00	0,590	10,000
2003948	90,0	3 1/2"	90	35,00	0,730	10,000
2003950	102,0	4"	109	30,00	0,900	10,000
2003952	110,0	4 5/16"	110	30,00	0,950	10,000
2003953	120,0	4 3/4"	127	30,00	1,040	10,000
2003954	127,0	5"	134	30,00	1,100	10,000
2003955	140,0	5 1/2"	147	30,00	1,210	10,000
2003956	152,0	6"	159	30,00	1,310	10,000
2003957	160,0	6 5/16"	167	25,00	1,380	10,000
2004350	180,0	7 1/16"	187	25,00	1,550	10,000
2003958	203,0	8"	210	25,00	2,150	10,000
2003959	254,0	10"	261	15,00	2,650	10,000
2003960	305,0	12"	312	15,00	3,180	10,000
2004351	315,0	12 3/8"	322	15,00	3,290	10,000

// 17300

**Air ducting - Polyurethane - Gauge 1,2 mm**

Construction: transparent polyurethane - abrasion and ozone resistant.

Reinforcement: copper plated steel helix wire.

Application: air, gas, fumes extraction-ventilation. Also suitable for abrasive material suction - good oil mist resistance.

Temperature: -40 °C +85 °C (-40 °F +185 °F)

Item Code	ID (mm)	ID (in)	BR (mm)	Vacuum %	Weight (kg/m)	Length (m)
2003963	76,0	3"	101	60,00	0,870	10,000
2003967	102,0	4"	133	40,00	1,360	10,000
2003969	127,0	5"	152	42,00	1,680	10,000
2003974	152,0	6"	193	40,00	2,010	10,000
2003976	160,0	6 5/16"	192	33,00	2,120	10,000
2003978	254,0	10"	313	25,00	3,350	10,000

// 17700



Air ducting - Polyurethane - Gauge 1,7 mm

Construction: transparent polyurethane - abrasion and ozone resistant.

Reinforcement: copper plated steel helix wire.

Application: air, gas, fumes extraction-ventilation. Also suitable for abrasive material suction - good oil mist resistance.

Temperature: -40 °C +85 °C (-40 °F +185 °F)

Item Code	ID (mm)	ID (in)	BR (mm)	Vacuum %	Weight (kg/m)	Length (m)
2004227	51,0	2"	63	70,00	0,730	12,000
2003987	63,0	2 1/2"	110	70,00	0,970	10,000
2003988	76,0	3"	129	70,00	1,140	10,000
2003989	102,0	4"	170	50,00	1,710	10,000
2003990	127,0	5"	207	50,00	2,120	10,000
2003991	152,0	6"	245	50,00	2,540	10,000
2004775	203,0	8"	305	43,00	3,410	10,000

// 16U0L



Air ducting - Polyurethane - PVC helix

Construction: transparent polyurethane - abrasion, microbe and hydrolysis resistant.

Reinforcement: white shock resistant rigid PVC.

Application: Designed for light suction and transport of abrasive particles, granules, waste, dust, in wood, pharmaceutical and plastic industry, sweepers, lawn mowers. Good resistance to hydrolysis, microbes and abrasion.

Temperature: -30 °C +80 °C (+-22 °F +176 °F)

Item Code	ID (mm)	ID (in)	BR (mm)	Vacuum %	Weight (kg/m)	Length (m)	special feature IH
2003871	25,0	1"	25	60,00	0,160	20,000	
2003875	32,0	1 1/4"	32	60,00	0,210	20,000	
2003876	32,0	1 1/4"	32	60,00	0,210	25,000	ANTISTATIC WIRE
2003881	40,0	1 9/16"	40	50,00	0,265	20,000	
2003882	40,0	1 9/16"	40	50,00	0,265	25,000	ANTISTATIC WIRE
2003885	51,0	2"	51	45,00	0,335	20,000	
2003886	51,0	2"	51	45,00	0,335	25,000	ANTISTATIC WIRE
2003889	63,0	2 1/2"	63	30,00	0,425	20,000	
2003897	76,0	3"	76	25,00	0,580	20,000	
2003898	76,0	3"	76	25,00	0,580	25,000	ANTISTATIC WIRE
2003904	102,0	4"	102	16,00	0,880	10,000	ANTISTATIC WIRE
2003903	102,0	4"	102	16,00	0,880	20,000	
2003906	127,0	5"	127	16,00	1,080	10,000	ANTISTATIC WIRE
2003909	127,0	5"	127	16,00	1,080	20,000	
2003913	152,0	6"	152	16,00	1,440	20,000	
2003917	160,0	6 5/16"	160	16,00	1,600	20,000	
2003919	203,0	8"	203	16,00	2,230	10,000	
2003924	252,0	10"	252	15,00	3,000	10,000	ANTISTATIC WIRE
2005345	300,0	12"	300	15,00	3,700	10,000	

REV.1.1

// 17CAA

**Air ducting - Extra flexible****Construction:** black PVC - abrasion and ozone resistant.**Reinforcement:** PVC coated steel wire helix and yarn reinforcement.**Application:** air, gas, fumes extraction-ventilation. Also suitable for light abrasive material suction**Temperature:** 0 °C +60 °C (+32 °F +140 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	BR (mm)	Vacuum %	Weight (kg/m)	Length (m)
2003999	25,0	1"	31,0	25	40,00	0,190	15,000
2004001	32,0	1 1/4"	38,0	32	35,00	0,260	15,000
2004003	38,0	1 1/2"	44,0	38	30,00	0,350	15,000
2004005	44,0	1 6/8"	50,0	45	28,00	0,500	15,000
2004007	51,0	2"	57,0	51	28,00	0,650	15,000
2004009	63,0	2 1/2"	69,0	63	25,00	0,900	15,000
2004011	76,0	3"	82,0	76	18,00	1,250	10,000

// 17GBB

**Air ducting - High temperature +140 °C (284 °F)
EN 13180****Tube:** aluminum foil**Reinforcement:** steel helix wire.**Cover:** textile fabric coated with flame resistant PVC.**Application:** hot air, gas, fumes extraction.

Air conditioning-ventilation.

Temperature Range: -30 °C +140 °C (-22 °F +284 °F)

Item Code	ID (mm)	BR (mm)	Length (m)
2004057	51,0	30	10,000
2004059	63,0	37	10,000
2004061	76,0	44	10,000
2004063	80,0	46	10,000
2004065	90,0	52	10,000
2004067	102,0	59	10,000
2004069	115,0	67	10,000
2004071	125,0	73	10,000
2004075	160,0	93	10,000
2004073	152,0	88	10,000
2004077	203,0	118	10,000
2004081	305,0	177	10,000
2004079	254,0	147	10,000
2004083	320,0	186	10,000
2005113	165,0	96	10,000
2005114	406,0	235	10,000

// 17DBB



Air ducting - EVA

Application: air, gas, fumes extraction-ventilation. Also suitable for light abrasive material suction.

Construction: profile hose.

Temperature Range: -40 °C +60 °C (-58 °F +140 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	BR (mm)	Vacuum %	Weight (kg/m)	Length (m)
2004017	32,0	1 1/4"	40,5	70	50,00	0,275	30,000
2004019	38,0	1 1/2"	48,0	80	40,00	0,320	30,000
2004021	50,0	2"	61,0	120	25,00	0,420	30,000
2004438	65,0	2 9/16"	72,0	140	20,00	0,620	25,000

// 17DAA



Air ducting - EVA - Conductive

Application: air, gas, fumes extraction-ventilation. Also suitable for light abrasive material suction.

Temperature: -40 °C +60 °C (-58 °F +140 °F)

Construction: profile hose.

Item Code	ID (mm)	ID (in)	OD (mm)	BR (mm)	Vacuum %	Weight (kg/m)	Length (m)
2004344	32,0	1 1/4"	40,5	70	50,00	0,230	30,000
2004012	38,0	1 1/2"	48,0	80	40,00	0,355	30,000
2004849	45,0	1 3/4"	55,0	100	30,00	0,410	30,000
2004014	51,0	2"	61,0	120	25,00	0,460	30,000
2013861	51,0	2"	61,0	120	25,00	0,460	15,000

// 17EAA



Air ducting - EVA - Antistatic

Application: air, gas, fumes extraction-ventilation. Also suitable for light abrasive material suction.

Construction: profile hose.

Temperature Range: -40 °C +60 °C (-58 °F +140 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	BR (mm)	Vacuum %	Weight (kg/m)	Length (m)
2004022	25,0	1"	33,0	50	60,00	0,250	30,000
2004024	32,0	1 1/4"	40,5	70	50,00	0,320	30,000
2004026	38,0	1 1/2"	48,0	80	40,00	0,380	30,000
2004030	50,0	2"	61,0	120	25,00	0,510	30,000

REV.1.1

DR02



Air ducting - High temperature +170 °C - Crush resistant

Construction: fabric coated with black EPDM

Reinforcement: Polyamide spiral coated with EPDM

Application: suction hose for vehicles exhaust gasses and other warm gasses. Light and crush resistant structure, used on floors, winders, suspended guides, in all garages, coach works, test centers, ect.

Temperature: -40 °C +170 °C (-40 °F +338 °F)

Item Code	ID (mm)	ID (in)	OD (mm)	Vacuum %
2600202	51,0	2"	64,0	15,00
2600203	63,0	2 1/2"	76,0	15,00
2600204	76,0	3"	90,0	15,00
2600205	102,0	4"	116,0	15,00
2600206	127,0	5"	142,0	15,00
2600207	152,0	6"	167,0	15,00



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// TYPE A CLAW COUPLING (EUROPEAN TYPE)

// I919L3-NC

TYPE A CLAW COUPLING (EUROPEAN TYPE) - DIN 3489

Hose shank without safety collar complete with seal - Malleable iron



Item Code	ID (in)	Hose ID (mm)	Claw Dist. Internal (mm)
2305290	3/8"	10,0	42
2304833	1/2"	13,0	42
2304851	5/8"	16,0	42
2306080	5/8"	16,0	42
2305286	3/4"	19,0	42
2305279	1"	25,0	42
2304840	1 1/4"	32,0	42

// I919L30S

TYPE A CLAW COUPLING (EUROPEAN TYPE)

Hose shank with safety collar - complete with hot temperature seal - Malleable iron



Item Code	ID (in)	Hose ID (mm)	Claw Dist. Internal (mm)
2305218	1/2"	13,0	42
2305226	3/4"	19,0	42
2305211	1"	25,0	42

// I9A9L306

TYPE A CLAW COUPLING (EUROPEAN TYPE) - DIN 3489

BSPP Female complete with seal - Malleable iron



Item Code	Claw Dist. Int. 1 (mm)	Thread 2
2302827	42	1"
2304841	42	1 1/4"
2302826	42	1/2"
2302076	42	3/4"
2303051	42	3/8"

// I9A9L206

TYPE A CLAW COUPLING (EUROPEAN TYPE) - DIN 3489

BSPT Male complete with seal - Malleable iron



Item Code	Claw Dist. Int. 1 (mm)	Thread 2
2302825	42	1"
2304842	42	1"1/4
2302074	42	1/2"
2302075	42	3/4"
2303050	42	3/8"

// I9A9L400

TYPE A CLAW COUPLING (EUROPEAN TYPE) - DIN 3489

Blank cap complete with seal - Malleable iron



Item Code	Claw Dist. Int. 1 (mm)
2303055	42

// I91C4300

TYPE A CLAW COUPLING (EUROPEAN TYPE) - WITH SAFETY PIN HOLES

Hose shank with safety collar complete with seal - Plated steel



Item Code	ID (in)	Hose ID (mm)	Claw Dist. Internal (mm)	Claw Dist. External (mm)
2304835	1/2"	13,0	42	63
2305227	3/4"	19,0	42	63
2304830	1"	25,0	42	63

To assemble the insert with "R5YBFF0" crimping ring, consult chapter "Ferrule & Crimping ring"

REV.1.1

// I9LG2A

TYPE A CLAW COUPLING (EUROPEAN TYPE)

Claw clamp (A-Europe) - DIN 20 039 B - Malleable iron



Item Code	ID (mm)	Hose OD Range (mm)
2302828	13,0	22 - 29
2302829	19,0	28 - 32
2302830	25,0	35 - 42
2305300	28,0	42 - 45

// I9AC4306

TYPE A CLAW COUPLING (EUROPEAN TYPE) - WITH SAFETY PIN HOLES

BSPP Female complete with seal - Plated steel



Item Code	Claw Dist. Int. 1 (mm)	Claw Dist. Ext. 1 (mm)	Thread Type 2	Thread 2
2304829	42	63	BSPP	1"
2304834	42	63	BSPP	1/2"
2304844	42	63	BSPP	3/4"

// I9AC4206

TYPE A CLAW COUPLING (EUROPEAN TYPE) - WITH SAFETY PIN HOLES

BSPT Male complete with seal - Plated steel



Item Code	Claw Dist. Int. 1 (mm)	Claw Dist. Ext. 1 (mm)	Thread Type 2	Thread 2
2304831	42	63	BSPP	1"
2304836	42	63	BSPP	1/2"
2304846	42	63	BSPP	3/4"

// I9Y9L-3W

TYPE A CLAW COUPLING (EUROPEAN TYPE) - DIN 3489

Three way connector complete with seal - Malleable iron



Item Code	Claw Dist. Int. 1 (mm)
2303054	42
2305104	42

// I319L3-NC

TYPE A CLAW COUPLING (EUROPEAN TYPE) - DIN 3489

Hose shank without safety collar complete with seal - Stainless steel 316



Item Code	ID (in)	Hose ID (mm)	Claw Dist. Internal (mm)
2305645	1/2"	13,0	42
2304843	3/4"	19,0	42
2304828	1"	25,0	42

// I3A9L306

TYPE A CLAW COUPLING (EUROPEAN TYPE) - DIN 3489

BSPP Female complete with seal - Stainless steel 316



Item Code	Claw Dist. Int. 1 (mm)	Thread 2
2305208	42	1"
2305216	42	1/2"
2305224	42	3/4"

REV.1.1

// I3A9L206

TYPE A CLAW COUPLING (EUROPEAN TYPE) - DIN 3489

BSPP Male complete with seal - Stainless steel 316



Item Code	Claw Dist. Int. 1 (mm)	Thread 2
2305214	42	1"
2305221	42	1/2"
2305230	42	3/4"

// I3A9L4CH

TYPE A CLAW COUPLING (EUROPEAN TYPE) - DIN 3489

Blank cap with chain complete with seal - Stainless steel 316



Item Code	Claw Dist. Int. 1 (mm)
2305644	42

// MODY-SAFETY-SCREWING CLAW COUPLING - DIN 3238

// I91F1300

MODY-SAFETY-SCREWING CLAW COUPLING - DIN 3238

Hose shank without safety collar complete with seal - Malleable iron



Item Code	ID (in)	Hose ID (mm)	Claw Dist. Internal (mm)
2304849	3/8"	10,0	42
2305284	1/2"	13,0	42
2304852	5/8"	16,0	42
2305288	3/4"	19,0	42
2305281	1"	25,0	42

// I9AF1206

MODY-SAFETY-SCREWING CLAW COUPLING - DIN 3238

BSPP Male complete with seal - Malleable iron



Item Code	Claw Dist. Int. 1 (mm)	Thread Type 2	Thread 2
2305282	42	BSPP	1"
2305285	42	BSPP	1/2"
2305289	42	BSPP	3/4"
2306367	42	BSPP	3/8"

// I9AF1306

MODY-SAFETY-SCREWING CLAW COUPLING - DIN 3238

BSPP Female complete with seal - Malleable iron



Item Code	Claw Dist. Int. 1 (mm)	Thread Type 2	Thread 2
2305280	42	BSPP	1"
2305283	42	BSPP	1/2"
2305287	42	BSPP	3/4"
2304848	42	BSPP	3/8"

// TYPE B CLAW COUPLING (U.S. TYPE)

// I919K300

TYPE B CLAW COUPLING (U.S. TYPE) - WITH SAFETY PIN HOLES

Hose shank with safety collar complete with seal - Malleable iron



Item Code	ID (in)	Hose ID (mm)	Claw Dist. Internal (mm)
2303335	3/8"	10,0	41
2302919	1/2"	13,0	41
2302920	3/4"	19,0	41
2302921	1"	25,0	41

To assemble the insert with "R5YBFF0" crimping ring, consult chapter "Ferrule & Crimping ring"

// I919K34L

TYPE B CLAW COUPLING (U.S. TYPE) - WITH SAFETY PIN HOLES

Hose shank with safety collar - 4 Lug type - complete with seal - Malleable iron



Item Code	ID (in)	Hose ID (mm)	Claw Dist. Internal (mm)	Claw Dist. External (mm)	Note
2303366	1 1/4"	32,0	41	62	4 LUG TYPE
2303367	1 1/2"	38,0	41	62	4 LUG TYPE
2303368	2"	51,0	41	62	4 LUG TYPE

To assemble the insert use claw clamp or crimping ring.

// I919KL00

TYPE B CLAW COUPLING (U.S. TYPE) - WITH SAFETY PIN HOLES

Hose shank with pre-crimped ferrule - complete with seal - Malleable iron



Item Code	ID (in)	Hose ID (mm)	Claw Dist. Internal (mm)	Hose OD Range (mm)
2306298	1/2"	13,0	41	21.4 - 23
2306299	3/4"	19,0	41	26.9 - 34.1
2306300	1"	25,0	41	32.5 - 38.8
2308044	2"	51,0	41	61.9 - 66.7

// I9A9K228

TYPE B CLAW COUPLING (U.S. TYPE) - WITH SAFETY PIN HOLES

NPT Male complete with seal - Malleable iron



Item Code	Claw Dist. Int. 1 (mm)	Thread 2
2302924	41	1"
2302922	41	1/2"
2302923	41	3/4"
2303345	41	3/8"

// I9A9K328

TYPE B CLAW COUPLING (U.S. TYPE) - WITH SAFETY PIN HOLES

NPT Female complete with seal - Malleable iron



Item Code	Claw Dist. Int. 1 (mm)	Thread 2
2302927	41	1"
2302925	41	1/2"
2302926	41	3/4"
2303355	41	3/8"

// I9A9K3284L

TYPE B CLAW COUPLING (U.S. TYPE) - WITH SAFETY PIN HOLES

NPT Female - 4 Lugs - complete with seal - Malleable iron



Item Code	Claw Dist. Int. 1 (mm)	Thread Type 2	Thread 2
2303373	41	NPT	1"1/2
2303372	41	NPT	1"1/4
2303374	41	NPT	2"

REV.1.1

// CLAW COUPLING - ACCESSORY

// R1YCCA3

SAFETY CABLE

Safety cable - Hose to Hose - Plated steel



Item Code	Max OD (mm)	Cable L (mm)
1901149	76	965
1901644	32	514

// IIJM9L

TYPE A CLAW COUPLING (EUROPEAN TYPE) - DIN 3489

Seal - FKM/FPM



Item Code	DN (mm)
2304441	42

// IOJM9L

TYPE A CLAW COUPLING (EUROPEAN TYPE) - DIN 3489

Seal - Silicone



Item Code	DN (mm)
2304439	42

// INJM9L

TYPE A CLAW COUPLING (EUROPEAN TYPE) - DIN 3489

Seal - NBR



Item Code	DN (mm)
2303056	42

// INJMF1

MODY-SAFETY-SCREWING CLAW COUPLING - DIN 3238

Seal - NBR



Item Code	DN (mm)
2304445	42

// IOJMF1

MODY-SAFETY-SCREWING CLAW COUPLING - DIN 3238

Seal - Silicone



Item Code	DN (mm)
2305682	42

// I1YC4-PIN

SAFETY PIN

Safety Pin - standard type (A-Europe / B-U.S.A. / S-Australia) - Plated steel



Item Code	Material
2303232	Plated Steel



// WATER

// TYPE 42.....	92
// TYPE B - BAUER COMPATIBLE.....	96
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// TYPE 42

// I11D8100

TYPE 42

Male - Hose shank - Plated steel



Item Code	ID (in)	Hose ID (mm)	Head DN (mm)	Technical Note
2305186	2"	51,0	48,0	
2304741	2"	51,0	76,0	
2305275	2 1/2"	63,0	76,0	
2305187	3"	76,0	76,0	(74)
2308774	3"	76,0	76,0	
2308775	3"	76,0	76,0	74-SHORT
2304736	3"	76,0	102,0	(74)
2305188	4"	102,0	102,0	
2305189	5"	127,0	133,0	
2305190	6"	152,0	152,0	

// I11D8200

TYPE 42

Female with closure lever complete with seal - Hose shank - Plated steel



Item Code	ID (in)	Hose ID (mm)	Head DN (mm)	Technical Note
2305199	2"	51,0	48,0	
2304749	2"	51,0	76,0	
2305278	2 1/2"	63,0	76,0	
2305200	3"	76,0	76,0	(74)
2308776	3"	76,0	76,0	
2308777	3"	76,0	76,0	74-SH
2305576	3"	76,0	102,0	(74)
2305201	4"	102,0	102,0	
2305202	5"	127,0	133,0	
2305203	6"	152,0	152,0	

REV.1.1

// I1AD8007

TYPE 42

Female with closure lever complete with seal - BSPT Male - Plated steel



Item Code	DN Head 1 (mm)	Thread Type 2	Thread 2
2305196	48	BSPT	2"
2304747	76	BSPT	3"
2305581	102	BSPT	3"
2305277	102	BSPT	4"

// I1AD8507

TYPE 42

Male - BSPT Male - Plated steel



Item Code	DN Head 1 (mm)	Thread 2
2305183	48	2"
2304739	76	3"
2305273	102	4"

// I0BD8100

TYPE 42

Male - Weld on - Plated steel



Item Code	DN Head 1 (mm)	DN Head 2 (mm)
2305569	48	51
2305180	76	76
2305181	102	102
2304737	133	133
2305272	152	152

// I0BD8200

TYPE 42

Female with closure lever complete with seal - Weld on - Plated steel



Item Code	DN Head 1 (mm)	DN Head 2 (mm)
2305192	48	51
2305193	76	76
2305194	102	102
2304746	133	133
2305276	152	152

// I1AD8700

TYPE 42

Male plug - Plated steel



Item Code	DN Head 1 (mm)
2305573	48
2304742	76
2304743	102
2305574	133
2304744	152

// I1AD8900

TYPE 42

Female cap with closure lever complete with seal - Plated steel



Item Code	DN Head 1 (mm)
2304750	48
2304751	76
2304752	102
2305571	133

REV.1.1

// IEJMD8

TYPE 42

Seal - EPDM



Item Code	DN (mm)
2305588	48
2304418	60
2304419	76
2304420	102
2304421	133
2304422	152

// INJMD8

TYPE 42

Seal - NBR



Item Code	DN (mm)
2304423	48
2304424	76
2304425	102
2305589	133
2304426	152

// TYPE B - BAUER COMPATIBLE

// I119B100

TYPE B - BAUER COMPATIBLE

Male with closure lever - Hose shank - Plated steel



Item Code	ID (in)	Hose ID (mm)	Head DN (mm)
2301799	2"	50,0	50,0
2302221	3"	76,0	76,0
2301800	3"	76,0	89,0
2301801	4"	102,0	108,0
2302268	5"	125,0	133,0
2301802	6"	152,0	159,0
2302269	8"	203,0	194,0

// I119B200

TYPE B - BAUER COMPATIBLE

Female - Hose shank complete with seal - Plated steel



Item Code	ID (in)	Hose ID (mm)	Head DN (mm)
2301803	2"	50,0	50,0
2302222	3"	76,0	76,0
2301804	3"	76,0	89,0
2301805	4"	102,0	108,0
2302270	5"	125,0	133,0
2301806	6"	152,0	159,0
2302271	8"	203,0	194,0

REV.1.1

// I1A9B007

TYPE B - BAUER COMPATIBLE

Female complete with seal - BSPT Male - Plated steel



Item Code	DN Head 1 (mm)	Thread 2
2303133	50	2"
2303134	76	3"
2303135	89	3"
2303136	108	4"
2303137	159	6"

// I1A9B507

TYPE B - BAUER COMPATIBLE

Male with closure lever - BSPT Male - Plated steel



Item Code	DN Head 1 (mm)	Thread 2
2305934	76	3"
2305935	89	3"
2305937	108	4"
2305938	133	5"
2305939	159	6"

// I0BSB100

TYPE B - BAUER COMPATIBLE

Male without closure lever - Black weld on - Unplated steel



Item Code	DN Head 1 (mm)	DN Head 2 (mm)
2305931	76	76
2303095	89	89
2303096	108	108
2305932	133	133
2303097	159	159
2303098	194	194

// I0B9B200

TYPE B - BAUER COMPATIBLE

Female complete with seal - Black weld on - Unplated steel



Item Code	DN Head 1 (mm)	DN Head 2 (mm)
2303087	89	89
2303088	108	108
2303089	159	159

// I1Y9B-HAND

TYPE B - BAUER COMPATIBLE

Closure lever - Plated steel



Item Code	ID (mm)
2303127	50
2303128	76
2303129	89
2303130	108
2305904	133
2303131	159

// INJM9B

TYPE B - BAUER COMPATIBLE

Antioil Rubber Seal - NBR



Item Code	DN (mm)
2302869	50
2302870	76
2302871	89
2302872	108
2302873	133
2302874	159

// TYPE C - CARDAN/PERROT COMPATIBLE

// I119P100

TYPE C - CARDAN/PERROT COMPATIBLE

Male - Hose shank - Plated steel



Item Code	ID (in)	Hose ID (mm)	Head DN (mm)
2302272	2"	50,0	50,0
2302273	3"	76,0	70,0
2306072	3"	76,0	89,0
2301791	4"	102,0	108,0
2301792	5"	125,0	133,0
2302275	6"	152,0	159,0

// I119P200

TYPE C - CARDAN/PERROT COMPATIBLE

Female with closure lever - Hose shank complete with seal - Plated steel



Item Code	ID (in)	Hose ID (mm)	Head DN (mm)
2302276	2"	50,0	50,0
2302277	3"	76,0	70,0
2306071	3"	76,0	89,0
2301793	4"	102,0	108,0
2301794	5"	125,0	133,0
2302279	6"	152,0	159,0

// I1A9P007

TYPE C - CARDAN/PERROT COMPATIBLE

Female with closure lever complete with seal - BSPT Male - Plated steel



Item Code	DN Head 1 (mm)	Thread 2
2306137	89	3"
2306476	108	4"
2306138	133	5"

// ISJM9P

TYPE C - CARDAN/PERROT COMPATIBLE

Seal - SBR



Item Code	DN (mm)
2306259	50
2307613	89
2307614	108
2306260	133
2307615	159

// BRASS WATER FITTING

// I86061HXWA

BRASS WATER FITTING

BSPP Male with hexagone - Serrated hose shank - Brass



Item Code	ID (in)	Hose ID (mm)	Thread Type	Thread (in)
2305035	1/4"	6,0	BSPP	1/4"
2305299	5/16"	8,0	BSPP	1/4"
2305048	3/8"	10,0	BSPP	1/2"
2305051	3/8"	10,0	BSPP	1/4"
2305041	3/8"	10,0	BSPP	3/8"
2305039	1/2"	13,0	BSPP	1/2"
2305050	1/2"	13,0	BSPP	1/4"
2305056	1/2"	13,0	BSPP	3/4"
2305058	1/2"	13,0	BSPP	3/8"
2305049	5/8"	16,0	BSPP	1/2"
2305057	5/8"	16,0	BSPP	3/4"
2305046	3/4"	19,0	BSPP	1"
2305047	3/4"	19,0	BSPP	1/2"
2305040	3/4"	19,0	BSPP	3/4"
2305036	1"	25,0	BSPP	1"
2305016	1"	25,0	BSPP	1"1/2"
2305052	1"	25,0	BSPP	1"1/4"
2305055	1"	25,0	BSPP	3/4"
2305070	1 1/4"	32,0	BSPP	1"
2305298	1 1/4"	32,0	BSPP	1"1/2"
2305043	1 1/4"	32,0	BSPP	1"1/4"
2305015	1 1/2"	38,0	BSPP	1"
2305042	1 1/2"	38,0	BSPP	1"1/2"
2305017	1 1/2"	38,0	BSPP	1"1/4"
2305053	1 1/2"	38,0	BSPP	2"
2305045	2"	51,0	BSPP	1"1/2"
2305060	2"	51,0	BSPP	1"1/4"
2305037	2"	51,0	BSPP	2"
2305054	2 1/2"	63,0	BSPP	2"
2305044	2 1/2"	63,0	BSPP	2"1/2"
2305038	3"	76,0	BSPP	3"
2306055	4"	102,0	BSPP	4"

// I86062WA

BRASS WATER FITTING

BSPP Female with swivel hexagone nut - Serrated hose shank - Brass



Item Code	ID (in)	Hose ID (mm)	Thread Type	Thread (in)
2305030	3/8"	10,0	BSPP	1/2"
2305025	3/8"	10,0	BSPP	3/8"
2305023	1/2"	13,0	BSPP	1/2"
2305031	1/2"	13,0	BSPP	3/4"
2305032	5/8"	16,0	BSPP	3/4"
2305024	3/4"	19,0	BSPP	3/4"
2305021	1"	25,0	BSPP	1"
2305028	1 1/4"	32,0	BSPP	1 1/4"
2305027	1 1/2"	38,0	BSPP	1 1/2"
2305022	2"	51,0	BSPP	2"

// I86561WA

BRASS WATER FITTING

Hose mender - Serrated hose shank - Brass



Item Code	ID (in)	Hose ID (mm)
2305010	1/4"	6,0
2305013	5/16"	8,0
2305012	3/8"	10,0
2305009	1/2"	13,0
2305014	5/8"	16,0
2305011	3/4"	19,0
2305008	1"	25,0

REV.1.1

// CLEANING GUN & NOZZLE

// I8Y-GUN-F

INDUSTRIAL WASH GUN

Adjustable gun - BSPP Female - Brass / Blue EPDM



Item Code	ID (mm)	ID (in)
2305596	13	1/2

// I8YF2-GUN

NITO QUICK RELEASE

Gun - Hose shank - Chromium-plated Brass



Item Code	ID (mm)	ID (in)
2305844	13	1/2"

// I8Y-NOZ-IN

SPRAY NOZZLE - HIGH-TEMPERATURE HOT WATER

Adjustable nozzle - Hose shank - Heat insulated handle for flushing with hot water - Brass / Polyamide



Item Code	ID (mm)	ID (in)
2305593	13	1/2"
2305594	19	3/4"
2305595	25	1"

// I8Y-NOZ-M

SPRAY NOZZLE

BSP Male - Brass / Polyamide



Item Code	ID (mm)	ID (in)	Note
2305599	19	3/4	RED COLOUR
2305598	19	3/4	WHITE COLOUR

// IY-NOZ-L

SPRAY NOZZLE - MAPLE

BSPP Female - SBR



Item Code	ID (in)
2305408	3/4"

// NITO QUICK RELEASE

// I81F2200

NITO QUICK RELEASE

Female - Hose shank - Chromium-plated Brass



Item Code	ID (in)	Hose ID (mm)	Head DN (mm)
2304906	3/8"	10,0	13,0
2304900	1/2"	13,0	13,0
2304904	3/4"	19,0	13,0

// I8AF2806

NITO QUICK RELEASE

Female - BSPP Female - Chromium-plated Brass



Item Code	DN Head 1 (mm)	Thread 2	Technical Note
2304899	13	1/2"	
2304903	13	3/4"	
2307987	13	3/4"	&STOP+1/2"BSPP
2304902	19	3/4"	

// I8AF2006

NITO QUICK RELEASE

Female - BSPP Male - Chromium-plated Brass



Item Code	DN Head 1 (mm)	Thread 2
2304901	13	1/2"
2304905	13	3/4"

// I81F2100

NITO QUICK RELEASE

Male - Hose shank - Chromium-plated Brass



Item Code	ID (in)	Hose ID (mm)	Head DN (mm)	Technical Note
2305842	3/8"	10,0	13,0	
2304887	1/2"	13,0	13,0	
2304889	1/2"	13,0	13,0	ID13+19
2304891	3/4"	19,0	19,0	

// I8AF2606

NITO QUICK RELEASE

Male - BSPP Female - Chromium-plated Brass



Item Code	DN Head 1 (mm)	Thread 2
2304893	13	3/8"
2304886	13	1/2"
2304890	19	3/4"

// I8AF2506

NITO QUICK RELEASE

Male - BSPP Male - Chromium-plated Brass



Item Code	DN Head 1 (mm)	Thread 2
2304888	13	1/2"
2304892	19	3/4"

// TYPE GK CLAW COUPLING

// I818A300

TYPE GK CLAW COUPLING

Hose shank complete with seal - Brass



Item Code	ID (in)	Hose ID (mm)	Claw Dist. Internal (mm)
2304856	3/8"	10,0	40
2301796	1/2"	13,0	40
2304857	5/8"	16,0	40
2301797	3/4"	19,0	40
2301798	1"	25,0	40
2304859	1 1/4"	32,0	40
2304858	1 1/2"	38,0	40

To assemble the insert with "R5YBFF0" crimping ring, consult chapter "Ferrule & crimping ring"

// I8A8A306

TYPE GK CLAW COUPLING

BSPP Female complete with seal - Brass



Item Code	Claw Dist. Int. 1 (mm)	Thread Type 2	Thread 2
2305653	40	BSPP	1"
2305656	40	BSPP	1"1/2
2305659	40	BSPP	1"1/4
2305654	40	BSPP	1/2"
2305657	40	BSPP	3/4"
2305658	40	BSPP	3/8"

// I8A8A206

TYPE GK CLAW COUPLING

BSPP Male complete with seal - Brass



Item Code	Claw Dist. Int. 1 (mm)	Thread Type 2	Thread 2
2305647	40	BSPP	1"
2305649	40	BSPP	1"1/2
2305652	40	BSPP	1"1/4
2305648	40	BSPP	1/2"
2305650	40	BSPP	3/4"
2305651	40	BSPP	3/8"

// I8A8A400

TYPE GK CLAW COUPLING

Blank cap complete with seal - Brass



Item Code	Claw Dist. Int. 1 (mm)
2305660	40

// INJM8A

TYPE GK CLAW COUPLING

Seal - NBR



Item Code	DN (mm)
2304440	40



// HYGIENIC FOOD

// SMS 1145.....	110
// DIN 11851.....	111
// FERRULE.....	112

// SMS 1145

// I389S200

SMS 1145

Female - Serrated hose shank with collar - Stainless steel 316



Item Code	ID (in)	Hose ID (mm)	Thread Type	Thread (in)
2301612	1"	25,0	SMS	40 x 1/6"
2308650	1 1/4"	32,0	SMS	48 X 1/6"
2301813	1 1/2"	38,0	SMS	60 x 1/6"
2301276	2"	51,0	SMS	70 x 1/6"
2301637	2 1/2"	63,0	SMS	85 x 1/6"
2301814	3"	76,0	SMS	98 x 1/6"
2302568	4"	102,0	SMS	132 x 1/6"

// I389S100

SMS 1145

Male - Serrated hose shank with collar - complete with seal -
Stainless steel 316

Item Code	ID (in)	Hose ID (mm)	Thread Type	Thread (in)
2301812	1 1/2"	38,0	SMS	60 x 1/6"
2301611	2"	51,0	SMS	70 x 1/6"
2301638	2 1/2"	63,0	SMS	85 x 1/6"
2301737	3"	76,0	SMS	98 x 1/6"

// DIN 11851

// I389Q200

DIN 11851

Female with round nut - Serrated hose shank - Stainless steel 316



Item Code	ID (in)	Hose ID (mm)	Thread (in)
2301816	1"	25,0	52 x 1/6"
2302565	1 1/4"	32,0	58 x 1/6"
2301741	1 1/2"	38,0	65 x 1/6"
2301639	2"	51,0	78 x 1/6"
2301640	2 1/2"	63,0	95 x 1/6"
2301641	3"	76,0	110 x 1/4"
2302566	4"	102,0	130 x 1/4"

// I389Q100

DIN 11851

Male - Serrated hose shank complete with seal - Stainless steel 316



Item Code	ID (in)	Hose ID (mm)	Thread Type	Thread (in)
2302561	1"	25,0	DIN11851	52 x 1/6"
2302562	1 1/4"	32,0	DIN11851	58 x 1/6"
2302563	1 1/2"	38,0	DIN11851	65 x 1/6"
2301713	2"	51,0	DIN11851	78 x 1/6"
2301642	2 1/2"	63,0	DIN11851	95 x 1/6"
2301643	3"	76,0	DIN11851	110 x 1/4"

// FERRULE

// I307U-RK

I307U-RK

Serrated ferrule - Stainless steel 316



Item Code	ID (in)	Hose ID (mm)	Hose OD Range (mm)
2307446	1/2"	13,0	19 - 21
2306863	3/4"	19,0	28 - 32
2307442	1"	25,0	35 - 40
2307447	1 1/4"	32,0	41 - 44
2307845	1 1/2"	38,0	52 - 57
2303961	1 1/2"	38,0	49 - 53
2307448	2"	51,0	60 - 64
2303962	2"	51,0	64 - 67
2309058	2"	51,0	64 - 67
2303963	2"	51,0	68 - 74
2304503	2 1/2"	63,0	79 - 82
2303964	2 1/2"	63,0	87 - 91
2304504	3"	76,0	88.5 - 92.5
2303965	3"	76,0	95 - 101
2304556	4"	102,0	117 - 122



// STEAM

// EN 14 423 / DIN 2826.....	114
// GROUND JOINT SEAL.....	115

// EN 14 423 / DIN 2826

// I8107100

EN 14 423 / DIN 2826

BSPT Male - Hose shank EN 14 423 / DIN 2826 - Brass



Item Code	ID (in)	Hose ID (mm)	Thread Type	Thread (in)
2302755	1/2"	13,0	BSPT	1/2"
2302218	3/4"	19,0	BSPT	3/4"
2301718	1"	25,0	BSPT	1"
2301819	1 1/2"	38,0	BSPT	1 1/2"
2301820	2"	51,0	BSPT	2"

// I8106200

EN 14 423 / DIN 2826

BSPP Female - Hose shank EN 14 423 / DIN 2826 - Brass



Item Code	ID (in)	Hose ID (mm)	Thread Type	Thread (in)
2302754	1/2"	13,0	BSPP	1/2"
2301821	3/4"	19,0	BSPP	3/4"
2301822	1"	25,0	BSPP	1"
2301823	1 1/2"	38,0	BSPP	1 1/2"
2301824	2"	51,0	BSPP	2"

// I8LG4C

EN 14 423 / DIN 2826

Safety clamps - Brass



Item Code	ID (in)	ID (mm)	Hose OD Range (mm)
2302810	1/2"	13,0	24 - 26
2302223	3/4"	19,0	32 - 34
2302811	1"	25,0	39 - 41
2302812	1 1/2"	38,0	53 - 56
2302813	2"	51,0	67 - 69

// GROUND JOINT SEAL

// I118B107

GROUND JOINT SEAL

BSPT Male - Serrated hose shank with safety collar - Plated steel



Item Code	ID (in)	Hose ID (mm)	Thread Type	Thread (in)
2302983	1/2"	13,0	BSPT	1/2"
2302984	3/4"	19,0	BSPT	3/4"
2302985	1"	25,0	BSPT	1"

// I918B107

GROUND JOINT SEAL

BSPT Male - Serrated hose shank with safety collar - Malleable iron



Item Code	ID (in)	Hose ID (mm)	Thread Type	Thread (in)
2302986	1 1/4"	32,0	BSPT	1"1/4
2302987	1 1/2"	38,0	BSPT	1"1/2
2302988	2"	51,0	BSPT	2"
2302990	3"	76,0	BSPT	3"

// I918B128

GROUND JOINT SEAL

NPT Male - Serrated hose shank with safety collar - Malleable iron



Item Code	ID (in)	Hose ID (mm)	Thread Type	Thread (in)
2303428	1/2"	13,0	NPT	1/2"
2303429	3/4"	19,0	NPT	3/4"
2303430	1"	25,0	NPT	1"
2303431	1 1/4"	32,0	NPT	1"1/4
2303432	1 1/2"	38,0	NPT	1"1/2
2303433	2"	51,0	NPT	2"

// I918B206

GROUND JOINT SEAL

BSPP Female complete with wing nut and seal - Serrated hose shank with collar - Malleable iron



Item Code	ID (in)	Hose ID (mm)	Thread Type	Thread (in)
2302966	1/2"	13,0	BSPP	1/2"
2302967	3/4"	19,0	BSPP	3/4"
2302968	1"	25,0	BSPP	1"
2302969	1 1/4"	32,0	BSPP	1 1/4"
2302970	1 1/2"	38,0	BSPP	1 1/2"
2302971	2"	51,0	BSPP	2"

// I9LG2F

GROUND JOINT SEAL

Clamps - 2 bolt - 2 gripping finger type - Malleable iron



Item Code	ID (in)	ID (mm)	Hose OD Range (mm)
2302992	1/2"	13,0	24 - 27
2302993	3/4"	19,0	30 - 33
2303440	3/4"	19,0	33.3 - 38.1

// I9LG4F

GROUND JOINT SEAL

Clamps - 4 bolt - 2 gripping finger type - Malleable iron



Item Code	ID (in)	ID (mm)	Hose OD Range (mm)
2303443	1"	25,0	35.7 - 39.7
2302994	1"	25,0	39 - 43.5
2302995	1 1/4"	32,0	43 - 47.5
2302996	1 1/2"	38,0	46 - 51
2307855	1 1/2"	38,0	51 - 56
2303448	1 1/2"	38,0	55.5 - 60
2302997	2"	51,0	63 - 70
2307547	2 1/2"	63,0	78.5 - 87.5
2302998	3"	76,0	89 - 100



// FIRE BRIGADE EQUIPMENT

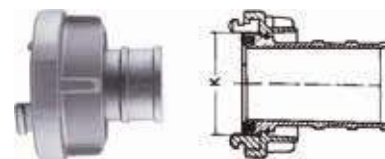
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// STORZ - HOSE SHANK

// I519Z300

STORZ

Suction & delivery hose shank complete with seal - Aluminium



Item Code	ID (in)	Hose ID (mm)	Head DN (mm)	Claw Dist. Internal (mm)	Tech. Note
2306056	3/4"	19,0	25,0	31	TYPE D-DS
2305397	1"	25,0	25,0	31	TYPE D-DS
2306058	1"	25,0	52,0	66	TYPE C-DS
2306057	1 1/4"	32,0	52,0	66	TYPE C-DS
2305089	1 1/2"	38,0	52,0	66	TYPE C-DS
2301825	2"	51,0	52,0	66	TYPE C-DS
2306193	2 1/2"	63,0	75,0	89	TYPE B-DS
2301764	3"	76,0	75,0	89	TYPE B-DS
2302684	4"	102,0	100,0	115	TYPE DS
2305301	4"	102,0	110,0	133	TYPE A-DS
2300647	4 5/16"	110,0	110,0	133	TYPE A-DS
2306059	6"	152,0	150,0	160	TYPE DS

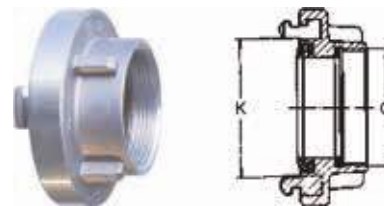
REV.1.1

// STORZ - ADAPTER

// I5A9Z306

STORZ

BSPP Female complete with seal - Aluminium

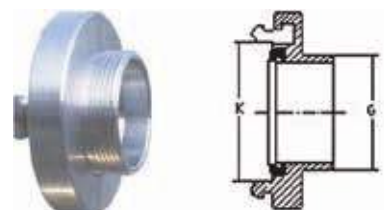


Item Code	DN Head 1 (mm)	Claw Dist. Int. 1 (mm)	Tech. Note 1	Thread Type 2	Thread 2
2305400	25	31	TYPE D-DS	BSPP	1"
2305086	52	66	TYPE C-DS	BSPP	1 1/2"
2302720	52	66	TYPE C-DS	BSPP	2"
2305919	52	66	TYPE C-DS	BSPP	1"
2305921	52	66	TYPE C-DS	BSPP	1 1/4"
2305087	65	81	TYPE DS	BSPP	2 1/2"
2305403	75	89	TYPE B-DS	BSPP	2"
2301688	75	89	TYPE B-DS	BSPP	3"
2305924	75	89	TYPE B-DS	BSPP	2 1/2"
2302721	100	115	TYPE DS	BSPP	4"
2302722	110	133	TYPE A-DS	BSPP	4"
2306196	125	148	TYPE DS	BSPP	5"
2305404	150	160	TYPE DS	BSPP	6"

// I5A9Z206

STORZ

BSPP Male complete with seal - Aluminium

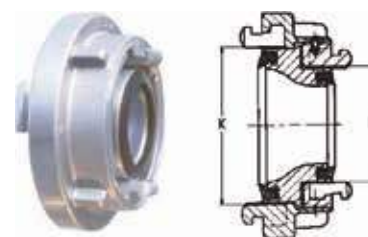


Item Code	DN Head 1 (mm)	Claw Dist. Int. 1 (mm)	Thread Type 2	Thread 2	Tech. Note 1
2302714	25	31	BSPP	1"	TYPE D-DS
2306195	25	31	BSPP	3/4"	TYPE D-DS
2305922	52	66	BSPP	1 1/4"	TYPE C-DS
2300208	52	66	BSPP	2"	TYPE C-DS
2305090	52	66	BSPP	1 1/2"	TYPE C
2305920	52	66	BSPP	1"	TYPE C-DS
2305925	75	89	BSPP	2 1/2"	TYPE B-DS
2301743	75	89	BSPP	3"	TYPE B-DS
2302717	100	115	BSPP	4"	TYPE DS
2302718	110	133	BSPP	4"	TYPE A-DS

// I5A9Z19Z

STORZ

Reducer adapter complete with seal - Aluminium



Item Code	DN Head 1 (in)	DN Head 1 (mm)	Claw Dist. Int. 1 (mm)	Tech. Note 1	DN Head 2 (in)	DN Head 2 (mm)	Claw Dist. Int. 2 (mm)	Tech. Note 2
2305927	2"	52	66	TYPE C-DS	1"	25	31	TYPE D-DS
2305091	3"	75	89	TYPE B-DS	2"	52	66	TYPE C-DS
2305928	4"	100	115	TYPE DS	3"	75	89	TYPE B-DS
2305092	4 5/16"	110	133	TYPE A-DS	3"	75	89	TYPE B-DS

// I5A9Z400

STORZ

Blank cap with chain complete with seal - Aluminium



Item Code	DN Head 1 (mm)	Claw Dist. Int. 1 (mm)	Tech. Note 1
2302723	25	31	TYPE D-DS
2302726	52	66	TYPE C-DS
2301742	75	89	TYPE B-DS
2302727	100	115	TYPE DS
2302728	110	133	TYPE A-DS
2305399	150	160	TYPE DS

// STORZ - SEAL & ACCESSORY

// INJM9Z

STORZ

Seal - NBR



Item Code	DN (mm)
2306197	25
2306198	52
2304400	75
2304401	100
2305412	110
2306199	125
2306200	150

// INJM9Z-WH

STORZ

Seal - white NBR - food grade



Item Code	DN (mm)
2306201	25
2305411	52
2306469	75
2306468	100
2306467	110

// I1Y9Z-SPAN

STORZ

Wrenches - Plated steel



Item Code	Technical Note
2305406	A-B-C
2305405	B-C

// SYMETRIC NORWAY - HOSE SHANK

// I51F5300

SYMMETRIC NORWAY - NOR LAS 1

Hose shank complete with seal - Aluminium



Item Code	ID (in)	Hose ID (mm)	Head DN (mm)
2306471	1 1/2"	38,0	38,0
2306472	2"	51,0	51,0
2306301	2 1/2"	63,0	63,0
2306302	3"	76,0	76,0

// SYMETRIC NORWAY - ADAPTER

// I5AF5306

SYMMETRIC NORWAY - NOR LAS 1

Symmetric complete with seal - BSPP Female - Aluminium



Item Code	DN Head 1 (mm)	Thread Type 2	Thread 2
2306368	83	BSPP	1"1/2
2306370	83	BSPP	2"1/2
2306369	83	BSPP	2"
2306371	83	BSPP	3"

// I5AF5206

SYMMETRIC NORWAY - NOR LAS 1

Symmetric complete with seal - BSPP Male - Aluminium



Item Code	DN Head 1 (mm)	Thread Type 2	Thread 2
2306372	83	BSPP	1"1/2
2306374	83	BSPP	2"1/2
2306373	83	BSPP	2"
2306375	83	BSPP	3"

// I5AF5400

SYMMETRIC NORWAY - NOR LAS 1

Blank cap complete with seal - Aluminium

Item Code	DN Head 1 (mm)
2306376	83

// SYMETRIC SMS - HOSE SHANK

// I51F3300

SYMMETRIC SMS

Hose shank complete with seal - Aluminium



Item Code	ID (in)	Hose ID (mm)	Head DN (mm)	Claw Dist. Internal (mm)
2305157	2"	51,0	63,0	76
2305158	2 1/2"	63,0	63,0	76
2305159	3"	76,0	63,0	76

REV.1.1

// SYMETRIC SMS - ADAPTER

// I5AF3206

SYMMETRIC SMS

Male complete with seal - Aluminium



Item Code	DN Head 1 (mm)	Claw Dist. Int. 1 (mm)	Thread Type 2	Thread 2
2305160	63	76	BSPP	2"
2305161	63	76	BSPP	2" 1/2

// I5AF3306

SYMMETRIC SMS

Female complete with seal - Aluminium



Item Code	DN Head 1 (mm)	Claw Dist. Int. 1 (mm)	Thread Type 2	Thread 2
2304639	63	76	BSPP	2"
2305263	63	76	BSPP	2" 1/2

// I5AF31D2

SYMMETRIC SMS

Symmetric SMS - Claw Coupling SMS complete with seal - Aluminium



Item Code	Thread Type 1	DN Head 1 (mm)	Claw Dist. Int. 1 (mm)	Thread Type 2	DN Head 2 (mm)	Claw Dist. Int. 2 (mm)
2304926	SYM.SMS	63	76	AIR SWE	41	41

125

FITTINGS

// I5AF3400

SYMMETRIC SMS

Blank cap with chain complete with seal - Aluminium



Item Code	DN Head 1 (mm)	Claw Dist. Int. 1 (mm)
2304869	63	76

// TYPE SMS CLAW COUPLING

// I81D2300

TYPE SWE CLAW COUPLING

Hose shank complete with seal - Brass



Item Code	ID (in)	Hose ID (mm)	Claw Dist. Internal (mm)
2305163	3/4"	19,0	41
2305164	1"	25,0	41
2305165	1 1/4"	32,0	41

// I8AD2306

TYPE SWE CLAW COUPLING

BSPP Female complete with seal - Brass



Item Code	Claw Dist. Int. 1 (mm)	Thread Type 2	Thread 2	DN Head 2 (mm)
2304640	41	BSPP	3/4"	19
2305264	41	BSPP	1"	25
2305392	41	BSPP	1 1/2"	38

// I8AD2206

TYPE SWE CLAW COUPLING

BSPP Male complete with seal - Brass



Item Code	Claw Dist. Int. 1 (mm)	Thread Type 2	Thread 2	DN Head 2 (mm)
2305389	41	BSPP	1/2"	13
2305167	41	BSPP	3/4"	19
2305168	41	BSPP	1"	25

// IGJMD2

TYPE SWE CLAW COUPLING

Seal - CR-Neoprene



Item Code	DN (mm)
2305396	41



// TANKWAGEN

// TANKWAGEN EN 14 420-6 / DIN 28 450

130

// TANKWAGEN EN 14 420-6 / DIN 28 450

// I8A9T606

TANKWAGEN EN 14 420-6 / DIN 28 450

Type VK - Male part - BSPP Female - Brass



Item Code	Thread Type 2	Thread 2
2302803	BSPP	2"
2302804	BSPP	3"
2301395	BSPP	4"

// I3A9T606

TANKWAGEN EN 14 420-6 / DIN 28 450

Type VK - Male part - BSPP Female - Stainless steel 316



Item Code	Thread Type 2	Thread 2
2302636	BSPP	2"
2301815	BSPP	3"
2305915	BSPP	4"

// I8A9T806

TANKWAGEN EN 14 420-6 / DIN 28 450

Type MK - Female part complete with locking handle and seal - BSPP
Female - Brass

Item Code	DN Head 2 (mm)	Thread 2
2302807	51	2"
2301827	76	3"
2301394	102	4"

REV.1.1

// I3A9T806

TANKWAGEN EN 14 420-6 / DIN 28 450

Type MK - Female part complete with locking handle and seal - BSPP
 Female - Stainless steel 316



Item Code	Thread Type 2	Thread 2
2302638	BSPP	2"
2302639	BSPP	3"
2305914	BSPP	4"

// I8A9T700

TANKWAGEN EN 14 420-6 / DIN 28 450

Type VB - Male plug - Brass



Item Code	DN Head 1 (mm)
2302805	50
2301828	80

// I5A9T700

TANKWAGEN EN 14 420-6 / DIN 28 450

Type VB - Male plug - Aluminium



Item Code	DN Head 1 (mm)
2306088	50
2305916	80
2306090	100

// I3A9T700

TANKWAGEN EN 14 420-6 / DIN 28 450

Type VB - Male plug - Stainless steel 316



Item Code	DN Head 1 (mm)
2302637	50
2301537	80
2306089	100

// IPA9T700

TANKWAGEN EN 14 420-6 / DIN 28 450

Type VB - Male plug - PP



Item Code	DN Head 1 (mm)
2305368	50
2305369	80
2305370	100

// I8A9T900

TANKWAGEN EN 14 420-6 / DIN 28 450

Type MB - Female Cup - Brass



Item Code	DN Head 1 (mm)
2302808	50
2301829	80

REV.1.1

// I5A9T900

TANKWAGEN EN 14 420-6 / DIN 28 450

Type MB - Female Cup - Aluminium



Item Code	DN Head 1 (mm)
2305364	50
2305365	80
2305366	100

// I3A9T900

TANKWAGEN EN 14 420-6 / DIN 28 450

Type MB - Female Cup - Stainless steel 316



Item Code	DN Head 1 (mm)
2302640	50
2301538	80
2302809	100

// INJ09T

TANKWAGEN EN 14 420-6 / DIN 28 450

Square Seal for type MB - NBR



Item Code	DN (mm)
2302866	50
2302867	80
2302868	100

// ITJ09T

TANKWAGEN EN 14 420-6 / DIN 28 450

Square Seal for type MK and VK thread end - PTFE



Item Code	DN (mm)
2302886	50
2302887	80

// ITJ09T-PU

TANKWAGEN EN 14 420-6 / DIN 28 450

Square Seal for type MK and VK thread end - Polyurethane



Item Code	DN (mm)
2304383	50
2304386	80
2304387	100

// IJMJ9T

TANKWAGEN EN 14 420-6 / DIN 28 450

Profiled Seal for type MK - FKM/FPM



Item Code	DN (mm)
2306843	50
2304385	80

REV.1.1

// IHJM9T
TANKWAGEN EN 14 420-6 / DIN 28 450
Profiled Seal for type MK - CSM



Item Code	DN (mm)
2302860	50
2302861	80
2308827	100

// INJM9T
TANKWAGEN EN 14 420-6 / DIN 28 450
Profiled Seal for type MK - NBR



Item Code	DN (mm)
2302876	50
2302877	80
2302878	100



// CAM & GROOVE

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// CAM & GROOVE MIL A-A-59326A / MIL C-27487 - TYPE A

// I5A9C606

CAM & GROOVE MIL A-A-59326A / MIL C-27487

Type A - Adapter, BSPP Female - Aluminium



Item Code	DN Head 1 (in)	DN Head 1 (mm)	Thread Type 2	Thread 2
2303234	1/2"	13	BSPP	1/2"
2301830	3/4"	19	BSPP	3/4"
2300182	1"	25	BSPP	1"
2300183	1 1/4"	32	BSPP	1"1/4
2301831	1 1/2"	38	BSPP	1"1/2
2301832	2"	51	BSPP	2"
2301833	2 1/2"	63	BSPP	2"1/2
2301834	3"	76	BSPP	3"
2301835	4"	102	BSPP	4"
2302706	5"	127	BSPP	5"
2301836	6"	152	BSPP	6"

137

FITTINGS

// I8A9C606

CAM & GROOVE MIL A-A-59326A / MIL C-27487

Type A - Adapter, BSPP Female - Brass



Item Code	DN Head 1 (in)	DN Head 1 (mm)	Thread Type 2	Thread 2
2303235	1/2"	13	BSPP	1/2"
2301841	3/4"	19	BSPP	3/4"
2301842	1"	25	BSPP	1"
2302789	1 1/4"	32	BSPP	1"1/4
2302790	1 1/2"	38	BSPP	1"1/2
2301843	2"	51	BSPP	2"
2301844	2 1/2"	63	BSPP	2"1/2
2301845	3"	76	BSPP	3"
2301846	4"	102	BSPP	4"

// I3A9C606

CAM & GROOVE MIL A-A-59326A / MIL C-27487

Type A - Adapter, BSPP Female - Stainless steel 316



Item Code	DN Head 1 (in)	DN Head 1 (mm)	Thread Type 2	Thread 2
2303236	1/2"	13	BSPP	1/2"
2301837	3/4"	19	BSPP	3/4"
2300148	1"	25	BSPP	1"
2300149	1 1/4"	32	BSPP	1" 1/4
2305350	1 1/4"	32	BSPP	1" 1/4
2301838	1 1/2"	38	BSPP	1" 1/2
2301839	2"	51	BSPP	2"
2301840	2 1/2"	63	BSPP	2" 1/2
2302602	3"	76	BSPP	3"
2302603	4"	102	BSPP	4"
2302604	6"	152	BSPP	6"

// IPA9C606

CAM & GROOVE MIL A-A-59326A / MIL C-27487

Type A - Adapter, BSPP Female - PP



Item Code	DN Head 1 (in)	DN Head 1 (mm)	Thread Type 2	Thread 2
2303260	3/4"	19	BSPP	3/4"
2303261	1"	25	BSPP	1"
2303262	1 1/4"	32	BSPP	1" 1/4
2303263	1 1/2"	38	BSPP	1" 1/2
2303264	2"	51	BSPP	2"
2303266	3"	76	BSPP	3"

// CAM & GROOVE MIL A-A-59326A / MIL C-27487 - TYPE B**// I5A9C007****CAM & GROOVE MIL A-A-59326A / MIL C-27487****Type B - Coupler, BSPT Male - Aluminium**

Item Code	DN Head 1 (in)	DN Head 1 (mm)	Thread Type 2	Thread 2
2301850	1 1/2"	38	BSPT	1"1/2
2301849	1 1/4"	32	BSPT	1"1/4
2301848	1"	25	BSPT	1"
2303239	1/2"	13	BSPT	1/2"
2301852	2 1/2"	63	BSPT	2"1/2
2301851	2"	51	BSPT	2"
2301853	3"	76	BSPT	3"
2301847	3/4"	19	BSPT	3/4"
2302699	4"	102	BSPT	4"
2302701	6"	152	BSPT	6"

// I8A9C007**CAM & GROOVE MIL A-A-59326A / MIL C-27487****Type B - Coupler, BSPT Male - Brass**

Item Code	DN Head 1 (in)	DN Head 1 (mm)	Thread Type 2	Thread 2
2301858	1 1/2"	38	BSPT	1"1/2
2301857	1 1/4"	32	BSPT	1"1/4
2302780	1"	25	BSPT	1"
2302781	2"	51	BSPT	2"
2302783	3"	76	BSPT	3"
2302779	3/4"	19	BSPT	3/4"
2302784	4"	102	BSPT	4"

// I3A9C007

CAM & GROOVE MIL A-A-59326A / MIL C-27487

Type B - Coupler, BSPT Male - Stainless steel 316



Item Code	DN Head 1 (in)	DN Head 1 (mm)	Thread Type 2	Thread 2
2301855	1 1/2"	38	BSPT	1"1/2
2302593	1 1/4"	32	BSPT	1"1/4
2301854	1"	25	BSPT	1"
2303241	1/2"	13	BSPT	1/2"
2305619	1/2"	13	BSPT	1/2"
2302594	2 1/2"	63	BSPT	2"1/2
2301856	2"	51	BSPT	2"
2302595	3"	76	BSPT	3"
2301765	3/4"	19	BSPT	3/4"
2302596	4"	102	BSPT	4"
2302597	6"	152	BSPT	6"

// IPA9C007

CAM & GROOVE MIL A-A-59326A / MIL C-27487

Type B - Coupler, BSPT Male - PP



Item Code	DN Head 1 (in)	DN Head 1 (mm)	Thread Type 2	Thread 2
2303272	1 1/2"	38	BSPT	1"1/2
2303270	1"	25	BSPT	1"
2303273	2"	51	BSPT	2"
2303275	3"	76	BSPT	3"

// CAM & GROOVE MIL A-A-59326A / MIL C-27487 - TYPE C**// I519C200****CAM & GROOVE MIL A-A-59326A / MIL C-27487****Type C - Coupler, hose shank - Aluminium**

Item Code	ID (in)	Hose ID (mm)	Head DN (in)	Head DN (mm)
2301859	3/4"	19,0	3/4"	19,0
2300640	1"	25,0	1"	25,0
2300641	1 1/4"	32,0	1 1/4"	32,0
2301860	1 1/2"	38,0	1 1/2"	38,0
2301861	2"	51,0	2"	51,0
2301862	2 1/2"	63,0	2 1/2"	63,0
2301863	3"	76,0	3"	76,0
2301864	4"	102,0	4"	102,0
2302679	5"	127,0	5"	127,0
2301865	6"	152,0	6"	152,0

// I819C200**CAM & GROOVE MIL A-A-59326A / MIL C-27487****Type C - Coupler, hose shank - Brass**

Item Code	ID (in)	Hose ID (mm)	Head DN (in)	Head DN (mm)
2301871	3/4"	19,0	3/4"	19,0
2302759	1"	25,0	1"	25,0
2302760	1 1/4"	32,0	1 1/4"	32,0
2301872	1 1/2"	38,0	1 1/2"	38,0
2301750	2"	51,0	2"	51,0
2301873	2 1/2"	63,0	2 1/2"	63,0
2301874	3"	76,0	3"	76,0

// I319C200

CAM & GROOVE MIL A-A-59326A / MIL C-27487

Type C - Coupler, hose shank - Stainless steel 316



Item Code	ID (in)	Hose ID (mm)	Head DN (in)	Head DN (mm)
2301866	3/4"	19,0	3/4"	19,0
2300620	1"	25,0	1"	25,0
2300621	1 1/4"	32,0	1 1/4"	32,0
2301867	1 1/2"	38,0	1 1/2"	38,0
2302448	2"	51,0	2"	51,0
2301868	2 1/2"	63,0	2 1/2"	63,0
2301869	3"	76,0	3"	76,0
2301870	4"	102,0	4"	102,0
2303605	5"	127,0	5"	127,0
2302449	6"	152,0	6"	152,0

// IP19C200

CAM & GROOVE MIL A-A-59326A / MIL C-27487

Type C - Coupler, hose shank - PP



Item Code	ID (in)	Hose ID (mm)	Head DN (in)	Head DN (mm)
2303278	3/4"	19,0	3/4"	19,0
2303279	1"	25,0	1"	25,0
2303280	1 1/4"	32,0	1 1/4"	32,0
2303281	1 1/2"	38,0	1 1/2"	38,0
2303282	2"	51,0	2"	51,0
2303284	3"	76,0	3"	76,0
2303285	4"	102,0	4"	102,0

// CAM & GROOVE MIL A-A-59326A / MIL C-27487 - TYPE D

// I5A9C806

CAM & GROOVE MIL A-A-59326A / MIL C-27487

Type D - Coupler, BSPP Female - Aluminium



Item Code	DN Head 1 (in)	DN Head 1 (mm)	Thread Type 2	Thread 2
2303245	1/2"	13	BSPP	1/2"
2301876	3/4"	19	BSPP	3/4"
2300193	1"	25	BSPP	1"
2300194	1 1/4"	32	BSPP	1" 1/4"
2301877	1 1/2"	38	BSPP	1" 1/2"
2301878	2"	51	BSPP	2"
2301879	2 1/2"	63	BSPP	2" 1/2"
2301880	3"	76	BSPP	3"
2301881	4"	102	BSPP	4"
2301882	6"	152	BSPP	6"

// I8A9C806

CAM & GROOVE MIL A-A-59326A / MIL C-27487

Type D - Coupler, BSPP Female - Brass



Item Code	DN Head 1 (in)	DN Head 1 (mm)	Thread Type 2	Thread 2
2304806	1/2"	13	BSPP	1/2"
2301888	3/4"	19	BSPP	3/4"
2301889	1"	25	BSPP	1"
2301890	1 1/4"	32	BSPP	1" 1/4"
2301891	1 1/2"	38	BSPP	1" 1/2"
2301892	2"	51	BSPP	2"
2301893	2 1/2"	63	BSPP	2" 1/2"
2301894	3"	76	BSPP	3"
2301895	4"	102	BSPP	4"

// I3A9C806

CAM & GROOVE MIL A-A-59326A / MIL C-27487

Type D - Coupler, BSPP Female - Stainless steel 316



Item Code	DN Head 1 (in)	DN Head 1 (mm)	Thread Type 2	Thread 2
2303247	1/2"	13	BSPP	1/2"
2301883	3/4"	19	BSPP	3/4"
2300155	1"	25	BSPP	1"
2301884	1 1/2"	38	BSPP	1 1/2"
2301885	2"	51	BSPP	2"
2301886	2 1/2"	63	BSPP	2 1/2"
2301887	3"	76	BSPP	3"
2302224	4"	102	BSPP	4"

// IPA9C806

CAM & GROOVE MIL A-A-59326A / MIL C-27487

Type D - Coupler, BSPP Female - PP



Item Code	DN Head 1 (in)	DN Head 1 (mm)	Thread Type 2	Thread 2
2303286	1/2"	13	BSPP	1/2"
2303287	3/4"	19	BSPP	3/4"
2303288	1"	25	BSPP	1"
2303290	1 1/2"	38	BSPP	1 1/2"
2303291	2"	51	BSPP	2"
2303293	3"	76	BSPP	3"

// CAM & GROOVE MIL A-A-59326A / MIL C-27487 - TYPE E

// I519C100

CAM & GROOVE MIL A-A-59326A / MIL C-27487

Type E - Adapter, hose shank - Aluminium



Item Code	ID (in)	Hose ID (mm)	Head DN (in)	Head DN (mm)
2303248	1/2"	13,0	1/2"	13,0
2302675	3/4"	19,0	3/4"	19,0
2300633	1"	25,0	1"	25,0
2301736	1 1/4"	32,0	1 1/4"	32,0
2301915	1 1/2"	38,0	1 1/2"	38,0
2301916	2"	51,0	2"	51,0
2302676	2 1/2"	63,0	2 1/2"	63,0
2301918	3"	76,0	3"	76,0
2302677	4"	102,0	4"	102,0
2302678	5"	127,0	5"	127,0
2301920	6"	152,0	6"	152,0

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FITTINGS

// I819C100

CAM & GROOVE MIL A-A-59326A / MIL C-27487

Type E - Adapter, hose shank - Brass



Item Code	ID (in)	Hose ID (mm)	Head DN (in)	Head DN (mm)
2302756	3/4"	19,0	3/4"	19,0
2302757	1"	25,0	1"	25,0
2301944	1 1/2"	38,0	1 1/2"	38,0
2301749	2"	51,0	2"	51,0
2301946	3"	76,0	3"	76,0

// I319C100

CAM & GROOVE MIL A-A-59326A / MIL C-27487

Type E - Adapter, hose shank - Stainless steel 316



Item Code	ID (in)	Hose ID (mm)	Head DN (in)	Head DN (mm)
2303250	1/2"	13,0	1/2"	13,0
2301927	3/4"	19,0	3/4"	19,0
2300618	1"	25,0	1"	25,0
2301929	1 1/4"	32,0	1 1/4"	32,0
2302443	1 1/2"	38,0	1 1/2"	38,0
2302444	2"	51,0	2"	51,0
2302445	2 1/2"	63,0	2 1/2"	63,0
2301931	3"	76,0	3"	76,0
2302446	4"	102,0	4"	102,0
2303683	5"	127,0	5"	127,0
2302447	6"	152,0	6"	152,0

// IP19C100

CAM & GROOVE MIL A-A-59326A / MIL C-27487

Type E - Adapter, hose shank - PP



Item Code	ID (in)	Hose ID (mm)	Head DN (in)	Head DN (mm)
2303296	3/4"	19,0	3/4"	19,0
2303297	1"	25,0	1"	25,0
2303298	1 1/4"	32,0	1 1/4"	32,0
2303299	1 1/2"	38,0	1 1/2"	38,0
2303300	2"	51,0	2"	51,0
2303302	3"	76,0	3"	76,0

// CAM & GROOVE MIL A-A-59326A / MIL C-27487 - TYPE F

// I5A9C507

CAM & GROOVE MIL A-A-59326A / MIL C-27487

Type F - Adapter, BSPT Male - Aluminium



Item Code	DN Head 1 (in)	DN Head 1 (mm)	Thread Type 2	Thread 2
2301951	1 1/2"	38	BSPT	1"1/2
2301950	1 1/4"	32	BSPT	1"1/4
2301949	1"	25	BSPT	1"
2303251	1/2"	13	BSPT	1/2"
2301953	2 1/2"	63	BSPT	2"1/2
2301952	2"	51	BSPT	2"
2301954	3"	76	BSPT	3"
2301948	3/4"	19	BSPT	3/4"
2301955	4"	102	BSPT	4"
2302704	6"	152	BSPT	6"

// I8A9C507

CAM & GROOVE MIL A-A-59326A / MIL C-27487

Type F - Adapter, BSPT Male - Brass



Item Code	DN Head 1 (in)	DN Head 1 (mm)	Thread Type 2	Thread 2
2301962	1 1/2"	38	BSPT	1"1/2
2302787	1 1/4"	32	BSPT	1"1/4
2302786	1"	25	BSPT	1"
2301963	2"	51	BSPT	2"
2301965	3"	76	BSPT	3"

// I3A9C507

CAM & GROOVE MIL A-A-59326A / MIL C-27487

Type F - Adapter, BSPT Male - Stainless steel 316



Item Code	DN Head 1 (in)	DN Head 1 (mm)	Thread Type 2	Thread 2
2302598	1 1/2"	38	BSPT	1"1/2
2301958	1 1/4"	32	BSPT	1"1/4
2301957	1"	25	BSPT	1"
2303253	1/2"	13	BSPT	1/2"
2301960	2"	51	BSPT	2"
2302599	3"	76	BSPT	3"
2301956	3/4"	19	BSPT	3/4"
2302600	4"	102	BSPT	4"

// IPA9C507

CAM & GROOVE MIL A-A-59326A / MIL C-27487

Type F - Adapter, BSPT Male - PP



Item Code	DN Head 1 (in)	Thread 2
2303308	1 1/2"	1"1/2
2303307	1 1/4"	1"1/4
2303306	1"	1"
2303309	2"	2"
2303311	3"	3"

// CAM & GROOVE MIL A-A-59326A / MIL C-27487 - TYPE DC

// I5A9C900

CAM & GROOVE MIL A-A-59326A / MIL C-27487

Type DC - Female dust cap for adapter - Aluminium



Item Code	Thread Type 1	DN Head 1 (in)	DN Head 1 (mm)
2303254	C&G	1/2"	13
2301967	C&G	3/4"	19
2300200	C&G	1"	25
2300201	C&G	1 1/4"	32
2301968	C&G	1 1/2"	38
2301969	C&G	2"	51
2301970	C&G	2 1/2"	63
2301971	C&G	3"	76
2301972	C&G	4"	102
2302712	C&G	5"	127
2302713	C&G	6"	152

// I8A9C900

CAM & GROOVE MIL A-A-59326A / MIL C-27487

Type DC - Female dust cap for adapter - Brass



Item Code	Thread Type 1	DN Head 1 (in)	DN Head 1 (mm)
2302797	C&G	3/4"	19
2302798	C&G	1"	25
2302799	C&G	1 1/4"	32
2302800	C&G	1 1/2"	38
2302226	C&G	2"	51
2302801	C&G	2 1/2"	63
2302227	C&G	3"	76
2302802	C&G	4"	102

// I3A9C900

CAM & GROOVE MIL A-A-59326A / MIL C-27487

Type DC - Female dust cap for adapter - Stainless steel 316



Item Code	Thread Type 1	DN Head 1 (in)	DN Head 1 (mm)
2303256	C&G	1/2"	13
2301973	C&G	3/4"	19
2301546	C&G	1"	25
2302612	C&G	1 1/4"	32
2302613	C&G	1 1/2"	38
2302225	C&G	2"	51
2302614	C&G	2 1/2"	63
2302615	C&G	3"	76
2302616	C&G	4"	102
2303761	C&G	5"	127
2302617	C&G	6"	152

// IPA9C900

CAM & GROOVE MIL A-A-59326A / MIL C-27487

Type DC - Female dust cap for adapter - PP



Item Code	Thread Type 1	DN Head 1 (in)	DN Head 1 (mm)
2303314	C&G	3/4"	19
2303315	C&G	1"	25
2303316	C&G	1 1/4"	32
2303317	C&G	1 1/2"	38
2303318	C&G	2"	51
2303320	C&G	3"	76
2303321	C&G	4"	102

// CAM & GROOVE MIL A-A-59326A / MIL C-27487 - TYPE DP

// I5A9C700

CAM & GROOVE MIL A-A-59326A / MIL C-27487

Type DP - Male dust plug for coupler - Aluminium



Item Code	Thread Type 1	DN Head 1 (in)	DN Head 1 (mm)
2301979	C&G	3/4"	19
2300967	C&G	1"	25
2302707	C&G	1 1/4"	32
2301982	C&G	1 1/2"	38
2301983	C&G	2"	51
2301985	C&G	2 1/2"	63
2301986	C&G	3"	76
2302708	C&G	4"	102

// I8A9C700

CAM & GROOVE MIL A-A-59326A / MIL C-27487

Type DP - Male dust plug for coupler - Brass



Item Code	Thread Type 1	DN Head 1 (in)	DN Head 1 (mm)
2302792	C&G	3/4"	19
2302793	C&G	1"	25
2302794	C&G	1 1/4"	32
2302795	C&G	1 1/2"	38
2302228	C&G	2"	51
2302229	C&G	2 1/2"	63
2302230	C&G	3"	76

// I3A9C700

CAM & GROOVE MIL A-A-59326A / MIL C-27487

Type DP - Male dust plug for coupler - Stainless steel 316



Item Code	Thread Type 1	DN Head 1 (in)	DN Head 1 (mm)
2302605	C&G	3/4"	19
2302606	C&G	1"	25
2302607	C&G	1 1/4"	32
2301746	C&G	1 1/2"	38
2305361	C&G	2"	51
2301989	C&G	2 1/2"	63
2301747	C&G	3"	76
2302609	C&G	4"	102

// IPA9C700

CAM & GROOVE MIL A-A-59326A / MIL C-27487

Type DP - Male dust plug for coupler - PP



Item Code	Thread Type 1	DN Head 1 (in)	DN Head 1 (mm)
2303323	C&G	3/4"	19
2303324	C&G	1"	25
2303326	C&G	1 1/2"	38
2303327	C&G	2"	51
2303329	C&G	3"	76
2303330	C&G	4"	102

// CAM & GROOVE EN 14 420-7 / DIN 2828 - TYPE A

// I3A9G606

CAM & GROOVE EN 14 420-7 / DIN 2828

Type AF - Adapter, BSPP Female - PTFE Seal - Stainless steel 316



Item Code	DN Head 1 (in)	DN Head 1 (mm)	Thread Type 2	Thread 2
2302621	1 1/2"	38	BSPP	1"1/2
2302620	1 1/4"	32	BSPP	1"1/4
2302619	1"	25	BSPP	1"
2306724	1/2"	13	BSPP	1/2"
2302623	2 1/2"	63	BSPP	2"1/2
2302622	2"	51	BSPP	2"
2302624	3"	76	BSPP	3"
2302618	3/4"	19	BSPP	3/4"
2302625	4"	102	BSPP	4"

// CAM & GROOVE EN 14 420-7 / DIN 2828 - TYPE C

// I349G200

CAM & GROOVE EN 14 420-7 / DIN 2828

Type CC - Coupler, EN 14 420-2 / DIN 2817 hose shank - Stainless steel 316



Item Code	ID (in)	Hose ID (mm)	Head DN (in)	Head DN (mm)
2302522	13/16"	20,0	3/4"	19,0
2302523	1"	25,0	1"	25,0
2302524	1 1/4"	32,0	1 1/4"	32,0
2302525	1 1/2"	38,0	1 1/2"	38,0
2302099	2"	50,0	2"	51,0
2302526	2 9/16"	65,0	2 1/2"	63,0
2302527	3"	75,0	3"	76,0
2302528	4"	100,0	4"	102,0

To assemble the insert, use "Safety clamps EN 14 420-3 / DIN 2817" and "Safety clamps Flexoline®": consult chapter "Clamps"

// CAM & GROOVE EN 14 420-7 / DIN 2828 - TYPE D

// I3A9G806

CAM & GROOVE EN 14 420-7 / DIN 2828

Type DF - Coupler, BSPP Female - PTFE Seal - Stainless steel 316



Item Code	DN Head 1 (in)	DN Head 1 (mm)	Thread Type 2	Thread 2
2302629	1 1/2"	38	BSPP	1"1/2
2302628	1 1/4"	32	BSPP	1"1/4
2302627	1"	25	BSPP	1"
2306723	1/2"	13	BSPP	1/2"
2302631	2 1/2"	63	BSPP	2"1/2
2302630	2"	51	BSPP	2"
2302632	3"	76	BSPP	3"
2302626	3/4"	19	BSPP	3/4"
2302633	4"	102	BSPP	4"

// CAM & GROOVE EN 14 420-7 / DIN 2828 - TYPE E

// I349G100

CAM & GROOVE EN 14 420-7 / DIN 2828

Type EE - Adapter, EN 14 420-2 / DIN 2817 hose shank - Stainless steel 316



Item Code	ID (in)	Hose ID (mm)	Head DN (in)	Head DN (mm)
2302515	1"	25,0	1"	25,0
2302516	1 1/4"	32,0	1 1/4"	32,0
2302517	1 1/2"	38,0	1 1/2"	38,0
2302518	2"	50,0	2"	51,0
2302519	2 9/16"	65,0	2 1/2"	63,0
2302520	3"	75,0	3"	76,0
2302521	4"	100,0	4"	102,0

To assemble the insert, use "Safety clamps EN 14 420-3 / DIN 2817" and "Safety clamps Flexoline®": consult chapter "Clamps"

// CAM & GROOVE - SEAL

// IEJ09C

CAM & GROOVE - SEAL

Seal - EPDM



Item Code	DN (mm)	DN (in)
2305622	13	1/2"
2304429	19	3/4"
2304430	25	1"
2304431	32	1 1/4"
2304432	38	1 1/2"
2304433	51	2"
2308682	63	2 1/2"
2305623	76	3"
2308683	102	4"

// INJ09C

CAM & GROOVE - SEAL

Seal - NBR



Item Code	DN (mm)	DN (in)
2303238	13	1/2"
2301991	19	3/4"
2300492	25	1"
2300493	32	1 1/4"
2302863	38	1 1/2"
2301993	51	2"
2302864	63	2 1/2"
2301995	76	3"
2301997	102	4"
2302865	125	5"
2301998	152	6"

// IJ09C

CAM & GROOVE - SEAL

Seal - FKM/FPM



Item Code	DN (mm)	DN (in)
2305621	19	3/4"
2300470	25	1"
2306105	32	1 1/4"
2303152	38	1 1/2"
2303153	51	2"
2303154	63	2 1/2"
2303155	76	3"
2303156	102	4"
2308684	152	6"

REV.1.1

// CAM & GROOVE - ACCESSORY

// I3Y9C-HRP

CAM & GROOVE - ACCESSORY

Handle, Ring & Pin - Stainless steel 316



Item Code	ID (in)
2301677	3" - 5"
2302232	1 1/4" - 2 1/2"
2302673	1"



// COMBINATION NIPPLE

// COMBINATION NIPPLE FOR CLAMPING 161

// COMBINATION NIPPLE FOR CLAMPING

// I1607100

COMBINATION NIPPLE FOR CLAMPING

BSPT Male - Hose shank for clamping - Plated steel



Item Code	ID (in)	Hose ID (mm)	Thread Type	Thread (in)
2303820	1/2"	13,0	BSPT	1/2"
2303821	3/4"	19,0	BSPT	3/4"
2303822	1"	25,0	BSPT	1"
2303823	1 1/4"	32,0	BSPT	1"1/4
2303824	1 1/2"	38,0	BSPT	1"1/2
2300601	1 1/2"	38,0	BSPT	1"1/2
2303825	2"	51,0	BSPT	2"
2303826	2 1/2"	63,0	BSPT	2"1/2
2303827	3"	76,0	BSPT	3"
2303828	4"	102,0	BSPT	4"
2306051	5"	127,0	BSPT	5"
2303829	6"	152,0	BSPT	6"

Combination nipple in S/S available on request

// I3607100

COMBINATION NIPPLE FOR CLAMPING

BSPT Male - Hose shank for clamping - Stainless steel 316



Item Code	ID (in)	Hose ID (mm)	Thread Type	Thread (in)
2306470	1/2"	13,0	BSPT	1/2"
2306305	3/4"	19,0	BSPT	3/4"
2306306	1"	25,0	BSPT	1"
2306176	1 1/4"	32,0	BSPT	1"1/4
2306307	1 1/2"	38,0	BSPT	1"1/2
2306050	2"	51,0	BSPT	2"
2308544	2 1/2"	63,0	BSPT	2"1/2
2306309	3"	76,0	BSPT	3"
2306310	4"	102,0	BSPT	4"

// I1628100

COMBINATION NIPPLE FOR CLAMPING

NPT Male - Hose shank for clamping - Plated steel



Item Code	ID (in)	Hose ID (mm)	Thread Type	Thread (in)
2303830	1/2"	13,0	NPT	1/2"
2303831	3/4"	19,0	NPT	3/4"
2303832	1"	25,0	NPT	1"
2303833	1 1/4"	32,0	NPT	1 1/4"
2303834	1 1/2"	38,0	NPT	1 1/2"
2303835	2"	51,0	NPT	2"
2303836	2 1/2"	63,0	NPT	2 1/2"
2303837	3"	76,0	NPT	3"
2303838	4"	102,0	NPT	4"
2303839	5"	127,0	NPT	5"
2303840	6"	152,0	NPT	6"

Combination nipple in S/S available on request

// I3628100

COMBINATION NIPPLE FOR CLAMPING

NPT Male - Hose shank for clamping - Stainless steel 316



Item Code	ID (in)	Hose ID (mm)	Thread Type	Thread (in)
2306177	1"	25,0	NPT	1"
2306178	1 1/2"	38,0	NPT	1 1/2"
2306179	2"	51,0	NPT	2"

REV.1.1

// I36071HX

COMBINATION NIPPLE FOR CLAMPING

BSPT Male - Hexagone - Hose shank for clamping - Stainless steel 316



Item Code	ID (in)	Hose ID (mm)	Thread Type	Thread (in)
2305076	1/8"	3,2	BSPT	1/8"
2305075	1/4"	6,0	BSPT	1/4"
2305081	3/8"	10,0	BSPT	3/8"
2305080	3/4"	19,0	BSPT	3/4"
2305073	1"	25,0	BSPT	1"
2305072	1 1/4"	32,0	BSPT	1 1/4"
2305071	1 1/2"	38,0	BSPT	1 1/2"
2305078	2"	51,0	BSPT	2"
2305079	3"	76,0	BSPT	3"

// I37Q1500

COMBINATION NIPPLE FOR SERRATED FERRULE

Butt weld end - Serrated hose shank with collar - Stainless steel 316



Item Code	ID (in)	Hose ID (mm)	Head DN (in)	Head DN (mm)
2308636	1/2"	13,0	1/2"	13,0
2308637	3/4"	19,0	3/4"	19,0
2308638	1"	25,0	1"	25,0
2307782	2"	51,0	2"	51,0
2308641	2 1/2"	63,0	2 1/2"	63,0
2302214	3"	76,0	3"	75,0
2306404	4"	102,0	4"	102,0
2306405	5"	127,0	5"	127,0
2308635	6"	152,0	6"	152,0

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FITTINGS

// I1656100

HOSE MENDER

Hose shank for clamping - Plated steel



Item Code	ID (in)	Hose ID (mm)
2303880	1"	25,0
2303881	1 1/4"	32,0
2303882	1 1/2"	38,0
2303883	2"	51,0
2303884	2 1/2"	63,0
2303885	3"	76,0
2303886	4"	102,0
2303887	5"	127,0
2303888	6"	152,0

// I165610D

HOSE MENDER DIN 20038

Hose shank without safety collar - Plated steel



Item Code	ID (in)	Hose ID (mm)
2305004	3/8"	10,0
2305001	1/2"	13,0
2305005	5/8"	16,0
2305003	3/4"	19,0
2305000	1"	25,0
2304999	1 1/4"	32,0
2304998	1 1/2"	38,0
2305002	2"	51,0

// I1707M00

ALFACRIMP COMBINATION NIPPLE

BSPT Male complete with pre-crimped ferrule - Plated steel

Cover: Description cover



Item Code	ID (in)	Hose ID (mm)	Thread Type	Thread (in)	Hose OD Range (mm)
2302324	3"	76,0	BSPT	3"	88 - 102
2302325	4"	102,0	BSPT	4"	114 - 128
2302324	3"	76,0	BSPT	3"	88 - 102
2302325	4"	102,0	BSPT	4"	114 - 128

For BSPT male with serrated hose shank for crimping ferrule and DN < 76 mm. Consult ALFAGOMMA hydraulic catalogue



// EN 14 420-5 / DIN 2817

// EN 14 420-5 / DIN 2817 - HOSE SHANK

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// EN 14 420-5 / DIN 2817 - HOSE SHANK

// I840610S

EN 14 420-5 / DIN 2817

BSPP Male - Serrated hose shank with EN 14 420-2/DIN 2817 collar - Brass



Item Code	ID (in)	Hose ID (mm)	Thread Type	Thread (in)
2308781	1/2"	13,0	BSPP	1/2"
2308782	3/4"	19,0	BSPP	3/4"
2308783	1"	25,0	BSPP	1"
2308784	1 1/4"	32,0	BSPP	1"1/4
2308785	1 1/2"	38,0	BSPP	1"1/2
2307884	2"	51,0	BSPP	2"
2307885	2 1/2"	63,0	BSPP	2"1/2
2307886	3"	76,0	BSPP	3"
2308786	4"	102,0	BSPP	4"

// I840620S

EN 14 420-5 / DIN 2817

BSPP Female with swivel nut - Serrated hose shank with EN 14 420-2/DIN 2817 collar - Brass



Item Code	ID (in)	Hose ID (mm)	Thread Type	Thread (in)
2307946	1/2"	13,0	BSPP	1/2"
2308182	1/2"	13,0	BSPP	3/4"
2308787	3/4"	19,0	BSPP	3/4"
2307947	1"	25,0	BSPP	1"
2308788	1 1/4"	32,0	BSPP	1"1/4
2308789	1 1/2"	38,0	BSPP	1"1/2
2308790	2"	51,0	BSPP	2"
2307949	2 1/2"	63,0	BSPP	2"1/2
2308791	3"	76,0	BSPP	3"
2308792	4"	102,0	BSPP	4"

REV.1.1

// I340610S

EN 14 420-5 / DIN 2817

BSPP Male - Serrated hose shank with EN 14 420-2/DIN 2817 collar - Stainless steel 316



Item Code	ID (in)	Hose ID (mm)	Thread Type	Thread (in)
2308793	1/2"	13,0	BSPP	1/2"
2308794	3/4"	19,0	BSPP	3/4"
2308795	1"	25,0	BSPP	1"
2308796	1 1/4"	32,0	BSPP	1"1/4"
2308797	1 1/2"	38,0	BSPP	1"1/2"
2307950	2"	51,0	BSPP	2"
2308798	2 1/2"	63,0	BSPP	2"1/2"
2308799	3"	76,0	BSPP	3"
2308800	4"	102,0	BSPP	4"

// I340620S

EN 14 420-5 / DIN 2817

BSPP Female with swivel nut - Serrated hose shank with EN 14 420-2/DIN 2817 collar - Stainless steel 316



Item Code	ID (in)	Hose ID (mm)	Thread Type	Thread (in)
2308801	1/2"	13,0	BSPP	1/2"
2308802	3/4"	19,0	BSPP	3/4"
2307951	1"	25,0	BSPP	1"
2308803	1 1/4"	32,0	BSPP	1"1/4"
2308804	1 1/2"	38,0	BSPP	1"1/2"
2308805	2"	51,0	BSPP	2"
2308806	2 1/2"	63,0	BSPP	2"1/2"
2308807	3"	76,0	BSPP	3"
2308808	4"	102,0	BSPP	4"

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FITTINGS



// SANBLAST

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// SANBLAST - NOZZLE HOLDER	170
// SANBLAST - ADAPTER	171

// SANDBLAST - QUICK COUPLING

// I9C9I300

SANDBLAST

Quick coupling complete with seal - Malleable iron



Item Code	ID (in)	Hose ID (mm)	Claw Dist. Internal (mm)	Hose OD Range (min) (mm)	Hose OD Range (max) (mm)
2305689	1"	25,0	58	39,0	39,0
2305690	1 1/4"	32,0	58	48,0	48,0

// IRC9I300

SANDBLAST

Quick coupling complete with seal - PA-Nylon



Item Code	ID (in)	Hose ID (mm)	Claw Dist. Internal (mm)	Hose OD Range (min) (mm)	Hose OD Range (max) (mm)
2304636	3/4"	19,0	58	33,0	33,0
2305641	1"	25,0	58	39,0	39,0
2304637	1 1/4"	32,0	58	48,0	48,0
2305642	1 1/2"	38,0	58	56,0	56,0

// SANDBLAST - NOZZLE HOLDER

// IRC50200

SANDBLAST

Nozzle holder - Female coarse thread - PA-Nylon



Item Code	ID (in)	Hose ID (mm)	Head DN (mm)	Hose OD Range (min) (mm)	Hose OD Range (max) (mm)
2303917	3/4"	19,0	50,0	33,0	33,0
2303918	1"	25,0	50,0	39,0	39,0
2303919	1 1/4"	32,0	50,0	48,0	48,0
2303920	1 1/2"	38,0	50,0	56,0	56,0

// SANDBLAST - ADAPTER

// I9A9I306

SANDBLAST

Sandblast complete with seal - BSPP Female - Malleable iron



Item Code	Claw Dist. Int. 1 (mm)	Thread Type 2	Thread 2
2304638	58	BSPP	1"1/2



// MORTAR

// MORTAR - HOSE SHANK.....	173
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// MORTAR - ADAPTER.....	177

// MORTAR - HOSE SHANK

// I978C1IP

MORTAR

System 22 - Male adapter - Serrated hose shank with collar - full flow bore - Malleable iron



Item Code	ID (in)	Hose ID (mm)	Head DN (mm)
2305260	1"	25,0	41,0
2305706	1 3/8"	35,0	49,5
2305147	1 1/2"	38,0	49,5
2304631	2"	50,0	63,0

// I978C1IP1

MORTAR

System 23.5 - Male adapter - Serrated hose shank with collar - full flow bore - Malleable iron



Item Code	ID (in)	Hose ID (mm)	Head DN (mm)
2307841	1"	25,0	63,0
2307842	1 3/8"	35,0	63,0
2307843	1 5/8"	42,0	63,0
2308170	2"	50,0	63,0

// I978C2IP

MORTAR

System 22 - Female coupler complete with seal - Serrated hose shank with collar - full flow bore - Malleable iron



Item Code	ID (in)	Hose ID (mm)	Head DN (mm)
2305261	1"	25,0	42,0
2305149	1 3/8"	35,0	51,0
2305150	1 1/2"	38,0	51,0
2304634	2"	50,0	64,0

// I970618C

MORTAR

BSPP Male - Serrated hose shank with collar - full flow bore -
Malleable iron



Item Code	ID (in)	Hose ID (mm)	Thread Type	Thread (in)
2305262	1"	25,0	BSPP	1"
2305152	1 3/8"	35,0	BSPP	1" 1/4
2305153	1 3/8"	35,0	BSPP	2"
2305677	1 1/2"	38,0	BSPP	1" 1/4
2305678	1 5/8"	42,0	BSPP	1" 1/2
2305154	1 5/8"	42,0	BSPP	2"
2304635	2"	50,0	BSPP	2"

// I938C100

MORTAR

System 22 - Male adapter - Hose shank - Malleable iron



Item Code	ID (in)	Hose ID (mm)	Head DN (mm)
2302084	1"	25,0	35,0
2301758	1"	25,0	41,0
2302086	1 3/8"	35,0	49,5
2302087	1 3/8"	35,0	63,0
2302088	2"	51,0	63,0

// I938C200

MORTAR

System 22 - Female coupler complete with seal - Hose shank -
Malleable iron



Item Code	ID (in)	Hose ID (mm)	Head DN (mm)
2302092	1"	25,0	35,5
2302093	1"	25,0	42,0
2302094	1 3/8"	35,0	51,0
2302819	1 3/8"	35,0	64,0
2302095	2"	51,0	64,0

REV.1.1

// I1306100
MORTAR
BSPP Male - Hose shank - Plated steel



Item Code	ID (in)	Hose ID (mm)	Thread Type	Thread (in)
2302310	1"	25,0	BSPP	1"
2302311	1 3/8"	35,0	BSPP	1" 1/4
2302083	2"	51,0	BSPP	2"

// MORTAR - FERRULE & CRIMPING RING

// I107U-PH

I107U-PH

Serrated ferrule - Plated steel



Item Code	ID (in)	Hose ID (mm)	Hose OD Range (max) (mm)
2304505	1"	25,0	39,0
2304501	1 3/8"	35,0	49,0
2304502	1 1/2"	38,0	52,0
2305894	1 5/8"	42,0	56,0
2304542	2"	50,0	68,0

REV.1.1

// MORTAR - ADAPTER

// I9A8C606

MORTAR

System 22 - Male adapter - BSPP Female - Malleable iron



Item Code	Thread Type 1	DN Head 1 (mm)	Thread Type 2	Thread 2
2305699	MORTAR	35	BSPP	1"
2305701	MORTAR	41	BSPP	1"
2305702	MORTAR	49,5	BSPP	1"1/2
2305704	MORTAR	49,5	BSPP	1"1/4
2305700	MORTAR	49,5	BSPP	1"
2305703	MORTAR	63	BSPP	2"

// I9A8C6061

MORTAR

System 23.5 - Male adapter - BSPP Female - Malleable iron



Item Code	Thread Type 1	DN Head 1 (mm)	Thread Type 2	Thread 2
2301553	MORTAR	49,5	BSPP	1"1/4
2300345	MORTAR	63	BSPP	2"

// I9A8C806

MORTAR

System 22 - Female coupler complete with seal - BSPP Female - Malleable iron



Item Code	Thread Type 1	DN Head 1 (mm)	Thread Type 2	Thread 2
2305668	MORTAR	35,5	BSPP	1"
2305670	MORTAR	42	BSPP	1"
2304633	MORTAR	51	BSPP	1"1/2
2305672	MORTAR	51	BSPP	1"1/4
2305669	MORTAR	51	BSPP	1"
2305671	MORTAR	64	BSPP	2"

// I9A8C8061

MORTAR

System 23.5 - Female coupler complete with seal - BSPP Female - Malleable iron



Item Code	Thread Type 1	DN Head 1 (mm)	Thread Type 2	Thread 2
2301405	MORTAR	51	BSPP	1"1/4
2300346	MORTAR	64	BSPP	2"

// I9A8C58C

MORTAR

System 22 - Reducing Male adapter - Male adapter - Malleable iron



Item Code	Thread Type 1	DN Head 1 (mm)	Thread Type 2	DN Head 2 (mm)
2305892	MORTAR	49,5	MORTAR	35
2305893	MORTAR	49,5	MORTAR	41



// CONCRETE

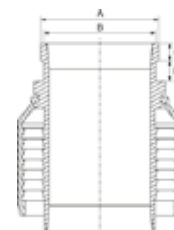
// CONCRETE COUPLING - VICTAULIC COMPATIBLE STYLE.....	180
// CONCRETE COUPLING - CALIFORNIA STYLE.....	181
// CONCRETE COUPLING - SHOULDERED STYLE.....	182
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// CONCRETE COUPLING - VICTAULIC COMPATIBLE STYLE

// IV39VL00

VICTAULIC COMPATIBLE STYLE

Hardened steel hose shank complete with pre-crimped ferrule



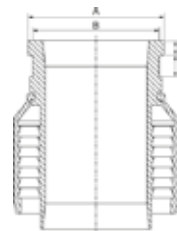
Item Code	ID (in)	Hose ID (mm)	Head DN (in)	Head DN (mm)	A (mm)	B (mm)	C (mm)	D (mm)	Hose OD Range (mm)
2307707	2"	51,0	3"	88,9	88,9	84,9	16	20	66 - 69
2307873	2 9/16"	65,0	3"	88,9	88,9	84,9	16	20	82 - 86
2301754	3"	76,0	3"	88,9	88,9	84,9	16	20	97 - 103
2302216	4"	102,0	4 1/2"	127,0	127	115	17	20	125 - 130
2302220	5"	127,0	5 1/2"	148,0	148	139	17	20	154 - 157

// CONCRETE COUPLING - CALIFORNIA STYLE

// IV39JL00

CALIFORNIA STYLE - HEAVY DUTY RAISED END

Hardened steel hose shank complete with pre-crimped ferrule



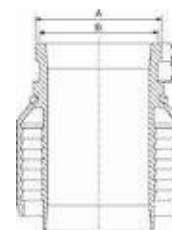
Item Code	ID (in)	Hose ID (mm)	Head DN (in)	Head DN (mm)	A (mm)	B (mm)	C (mm)	D (mm)	Hose OD Range (mm)
2303026	2"	51,0	2"	77,7	77,7	69,9	12,7	20	66 - 69

// CONCRETE COUPLING - SHOULDERED STYLE

// IV39RL00

SHOULDERED STYLE

Hardened steel hose shank complete with pre-crimped ferrule



Item Code	ID (in)	Hose ID (mm)	Head DN (in)	Head DN (mm)	A (mm)	B (mm)	C (mm)	D (mm)	Hose OD Range (mm)
2306505	3 1/2"	90,0	4 1/2"	127,0	127	115	17	20	113 - 116

// CONCRETE COUPLING - ACCESSORY

// IAY-BALL-S

CONCRETE COUPLING - ACCESSORY

Cleaning soft ball - Sponge



Item Code	ID (mm)
2305551	60
2305552	80
2305553	100
2305554	125
2305555	150
2305556	200

// IAY-BALL-M

CONCRETE COUPLING - ACCESSORY

Cleaning ball - medium - Sponge



Item Code	ID (mm)
2308442	60

// I1Y9V-COAS

VICTAULIC COMPATIBLE STYLE

Connection Clamp - Adjustable snap lever type - Painted Steel



Item Code	ID (mm)	ID (in)
2305541	89	3"
2305543	114	4"
2305544	127	4"1/2
2305545	142	5"

// I1Y9V-C0FX

VICTAULIC COMPATIBLE STYLE

Connection Clamp - Fixed lever type - Painted Steel



Item Code	ID (mm)	ID (in)
2307587	89	3"
2307588	127	4"1/2
2307589	148	5"1/2

// ISJM9V

VICTAULIC COMPATIBLE STYLE

Connection Clamp - Seal - SBR



Item Code	DN (mm)	Technical Note
2307373	89	DN3" SOFT
2305547	114	DN4" SOFT
2305548	127	DN4"1/2 SOFT
2305550	148	DN5"1/2 SOFT

// I1Y9J-C0FX

CALIFORNIA STYLE - HEAVY DUTY RAISED END

Connection clamp - Fixed lever type - Painted Steel



Item Code	ID (mm)	ID (in)
2307702	78	2"

REV.1.1

// ISJM9J

CALIFORNIA STYLE - HEAVY DUTY RAISED END

Connection Clamp - Seal - SBR



Item Code	DN (mm)
2307703	78

// I1A9V19V

VICTAULIC COMPATIBLE STYLE

Reducer pipe - Painted steel



Item Code	Thread Type 1	DN Head 1 (in)	DN Head 1 (mm)	Thread Type 2	DN Head 2 (in)	DN Head 2 (mm)	Technical Note
2307596	VICT	3"	89	VICT	3"	89	0,5M 75/65
2307595	VICT	3"	89	VICT	3"	89	0,5M 75/50
2307594	VICT	4 1/2"	127	VICT	3"	89	0,5M 100/65
2307593	VICT	4 1/2"	127	VICT	3"	89	0,5M 100/75
2307592	VICT	5 1/2"	148	VICT	3"	89	1M 125/75
2307591	VICT	5 1/2"	148	VICT	4 1/2"	127	2M 125/100
2307590	VICT	5 1/2"	148	VICT	4 1/2"	127	0,5M 125/100



// FLANGE FITTING

// SWIVEL FLANGE - EN 1092-1 PN 10/16.....187

// SWIVEL FLANGE - EN 1092-1 PN 10/16

// I17BD74A

SWIVEL FLANGE - WELDING NECK COLLAR - FF - PN 10/16

Serrated hose shank with collar - Plated steel



Item Code	ID (in)	Hose ID (mm)	Thread Type	Head DN (mm)
2301291	1 1/2"	38,0	PN16	40,0
2302014	2"	51,0	PN16	50,0
2301135	2 1/2"	63,0	PN16	65,0
2301136	3"	76,0	PN16	80,0
2301137	4"	102,0	PN16	100,0
2303011	5"	127,0	PN16	125,0
2301138	6"	152,0	PN16	150,0

// I37BD74A

SWIVEL FLANGE - WELDING NECK COLLAR - FF - PN 10/16

Serrated hose shank with collar - Stainless steel 316



Item Code	ID (in)	Hose ID (mm)	Thread Type	Head DN (mm)
2306694	1 1/2"	38,0	PN16	40,0
2302549	2"	51,0	PN16	50,0
2303010	2 1/2"	63,0	PN16	65,0
2303012	3"	76,0	PN16	80,0
2303013	4"	102,0	PN16	100,0
2306495	6"	152,0	PN16	150,0

// I5MFU61AAC

FIXED SPLIT FLANGE - PN 10 / ASA150 / TABLE D-E

ALFATRACTO 719 - Muff coupling - Designed for 719AA corrugated cover hose - Aluminium



Flange: elliptical drilling pattern compatible with

- EN 1092-1 PN10
- ANSI ASME B16.5 ASA150
- AS 2129 TABLE D-E

Exception for:

- DN 63mm (2½"): compatible with EN 1092-1 PN10 / ANSI ASME B16.5 ASA150
- DN 254mm (10"): compatible with EN 1092-1 PN10 / ANSI ASME B16.5 ASA150 / AS 2129 TABLE E

Item Code	ID (in)	Hose ID (mm)	Thread Type	Head DN (in)	Head DN (mm)
2307877	3"	76,0	UNIV	3"	76,0
2307878	4"	102,0	UNIV	4"	102,0
2307879	5"	127,0	UNIV	5"	127,0
2307880	6"	152,0	UNIV	6"	152,0
2307881	8"	203,0	UNIV	8"	203,0

Coupling complete with bolts, nuts and washers.



// CLAMPS

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// PW-CLAMP	193
// SUPERCLAMP	196
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// SAFETY CLAMPS FLEXOLINE®	198
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// BAND-IT SYSTEM	204
// RUBBER LINED PIPE CLIP	205

// WORM GEAR CLAMP

// I1LP1ASBW1

WORM GEAR CLAMP

Clamp - 1 bolt - SMS - blue housing - W1 (Plated steel)



Item Code	Width (mm)	Hose OD Range (mm)
2306729	9	8 - 14
2306730	9	11 - 17
2304158	9	13 - 20
2306731	12	15 - 24
2304160	12	19 - 28
2306732	12	22 - 32
2306733	12	26 - 38
2306734	12	32 - 44
2306736	12	44 - 56
2305949	12	50 - 65
2304346	12	58 - 75
2306739	12	68 - 85
2306740	12	77 - 95
2306741	12	87 - 112
2306742	12	104 - 138
2306743	12	132 - 165
2306744	12	150 - 180
2306745	12	175 - 205
2306746	12	200 - 231
2306747	12	226 - 256
2304179	12	251 - 282
2304180	12	277 - 307

REV.1.1

// I1LP1AD-W1

WORM GEAR CLAMP

Clamp - 1 bolt - DIN 3017 - W1 (Plated steel)



Item Code	Width (mm)	Hose OD Range (min) (mm)	Hose OD Range (max) (mm)
2304156	9	8,0	16,0
2304157	9	12,0	22,0
2304159	12	16,0	27,0
2304162	12	20,0	32,0
2304163	12	25,0	40,0
2304164	12	30,0	45,0
2304165	12	32,0	50,0
2304166	12	40,0	60,0
2304167	12	50,0	70,0
2304168	12	60,0	80,0
2304169	12	70,0	90,0
2304170	12	80,0	100,0
2304172	12	90,0	110,0
2304173	12	110,0	130,0
2304174	12	130,0	150,0
2306217	12	140,0	160,0
2304175	12	160,0	180,0
2304176	12	180,0	200,0
2304177	12	200,0	220,0
2304178	12	220,0	240,0

// I3LP1AS-W5

WORM GEAR CLAMP

Clamp - 1 bolt - SMS - W5 (Stainless steel 316)



Item Code	Width (mm)	Hose OD Range (min) (mm)	Hose OD Range (max) (mm)
2306846	12	15,0	24,0
2304031	12	19,0	28,0
2306847	12	22,0	32,0
2306848	12	26,0	38,0
2306849	12	32,0	44,0
2306850	12	38,0	50,0
2306851	12	44,0	56,0
2306852	12	50,0	65,0
2306853	12	58,0	75,0
2306854	12	68,0	85,0
2306855	12	77,0	95,0
2306856	12	87,0	112,0
2306857	12	104,0	138,0
2306858	12	130,0	165,0
2306859	12	150,0	180,0
2306860	12	175,0	205,0
2306861	12	200,0	231,0
2306862	12	226,0	256,0
2304048	12	251,0	282,0

// I3LP1AD-W5

WORM GEAR CLAMP

Clamp - 1 bolt - DIN 3017 - W5 (Stainless steel 316)



Item Code	Width (mm)	Hose OD Range (mm)
2304181	9	8 - 16
2304182	9	12 - 22
2304030	12	16 - 27
2304032	12	20 - 32
2304033	12	25 - 40
2304034	12	30 - 45
2304035	12	32 - 50
2304036	12	40 - 60
2304037	12	50 - 70
2304038	12	60 - 80
2304042	12	110 - 130
2304039	12	70 - 90
2304040	12	80 - 100
2304041	12	90 - 110
2306228	12	130 - 150
2304043	12	140 - 160
2304044	12	160 - 180
2304045	12	180 - 200
2304046	12	200 - 220
2304047	12	220 - 240

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// PW-CLAMP

// I1LP1PW-W1

PW-CLAMP

Clamp - 1 bolt - W1 (Plated steel)



Item Code	Width (mm)	Hose OD Range (mm)
2304220	20	31 - 35
2304221	20	34 - 38
2304223	20	38 - 43
2304224	20	40 - 45
2304225	20	44 - 50
2304226	20	49 - 55
2304227	20	54 - 60
2304229	20	59 - 65
2304230	20	64 - 70
2304231	20	69 - 75
2304232	20	75 - 80
2304233	20	80 - 85
2304234	20	85 - 90
2304235	20	90 - 95
2304762	20	95 - 100

// I3LP1PW-W5

PW-CLAMP

Clamp - 1 bolt - W5 (Stainless steel 316)



Item Code	Width (mm)	Hose OD Range (mm)
2304098	20	31 - 35
2304099	20	35 - 40
2304100	20	40 - 45
2304101	20	44 - 50
2304102	20	49 - 55
2304767	20	55 - 60
2304768	20	60 - 65
2304103	20	64 - 70
2304104	20	69 - 75
2304769	20	75 - 80
2304105	20	79 - 85
2304770	20	85 - 90
2304106	20	89 - 95

// I1LP2PW-W1

PW-CLAMP

Clamp - 2 bolts - W1 (Plated steel)



Item Code	Width (mm)	Hose OD Range (mm)
2304239	20	35 - 40
2304240	20	40 - 50
2304241	20	45 - 55
2304242	20	50 - 60
2304243	20	55 - 65
2304244	20	60 - 70
2304245	20	65 - 75
2304247	20	75 - 85
2304248	20	80 - 90
2304250	20	85 - 95
2304759	25	60 - 70
2305977	25	65 - 75
2305978	25	70 - 80
2305979	25	75 - 85
2305980	25	80 - 90
2305981	25	85 - 95
2304251	25	90 - 100
2305982	25	90 - 100
2304252	25	95 - 105
2304253	25	100 - 110
2304254	25	105 - 115
2304255	25	110 - 120
2304256	25	115 - 125
2304257	25	120 - 130
2304258	25	125 - 135
2304259	25	130 - 140
2304260	25	140 - 150
2305984	25	146 - 155
2304261	25	150 - 160
2305985	25	155 - 165
2304262	25	160 - 170
2304263	25	170 - 180
2304264	25	180 - 190
2304265	25	190 - 200
2304266	25	200 - 210
2304267	25	210 - 220
2305986	25	240 - 250
2304271	25	250 - 260
2304272	25	265 - 275
2304273	25	295 - 305

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// I3LP2PW-W5

PW-CLAMP

Clamp - 2 bolts - W5 (Stainless steel 316)



Item Code	Width (mm)	Hose OD Range (mm)
2307077	20	32 - 40
2307371	20	36 - 45
2304107	20	40 - 50
2304108	20	45 - 55
2304109	20	50 - 60
2304110	20	55 - 65
2304111	20	60 - 70
2304112	20	65 - 75
2304113	20	70 - 80
2304114	20	75 - 85
2304115	20	80 - 90
2304116	20	85 - 95
2306693	20	160 - 170
2304117	25	90 - 100
2304118	25	95 - 105
2304119	25	100 - 110
2304120	25	105 - 115
2304121	25	110 - 120
2304122	25	115 - 125
2304123	25	120 - 130
2304124	25	125 - 135
2304125	25	130 - 140
2304126	25	140 - 150
2304127	25	145 - 155
2304128	25	150 - 160
2304129	25	155 - 165
2304130	25	160 - 170
2304131	25	170 - 180
2304772	25	180 - 190
2304344	25	190 - 200
2304132	25	200 - 210
2304133	25	210 - 220
2304134	25	220 - 230
2304135	25	245 - 255
2304760	25	250 - 260
2304773	25	270 - 280
2304774	25	290 - 300
2305810	25	310 - 320

// SUPERCLAMP

// I1LP10-W1

SUPERCLAMP

Clamp - 1 bolt - W1 (Plated steel)



Item Code	Width (mm)	Hose OD Range (mm)
2303162	18	20 - 22
2303163	18	23 - 25
2303164	18	26 - 28
2302041	21	29 - 31
2302042	21	32 - 35
2302043	21	36 - 39
2302044	21	40 - 43
2302045	21	44 - 47
2302047	21	52 - 55
2302048	21	56 - 59
2302026	21	60 - 63
2302027	21	64 - 67
2302028	24	68 - 73
2302029	24	74 - 79
2302030	24	80 - 85
2302031	24	86 - 91
2302032	24	92 - 97
2302033	24	98 - 103
2302034	24	104 - 112
2302035	24	113 - 121

// SAFETY CLAMP EN 14 420-3 / DIN 2817

// I5LG4D

SAFETY CLAMPS EN 14 420-3 / DIN 2817

Safety clamps - Aluminium



Item Code	ID (in)	ID (mm)	Hose OD Range (mm)
2302729	1/2"	13,0	22 - 24
2302730	3/4"	19,0	30 - 33
2302731	1"	25,0	36 - 39
2302015	1 1/4"	32,0	43 - 46
2302016	1 1/2"	38,0	50 - 52
2304095	2"	50,0	69 - 71
2302017	2"	51,0	64 - 67
2301675	2 1/2"	63,0	78 - 82
2302018	3"	76,0	89 - 93
2302732	3"	76,0	94 - 97
2302019	4"	102,0	114 - 119
2302233	5"	127,0	143 - 148
2304821	6"	152,0	168 - 174

// I3LG4D

SAFETY CLAMPS EN 14 420-3 / DIN 2817

Safety clamps - Stainless steel 316



Item Code	ID (in)	ID (mm)	Hose OD Range (mm)
2304094	3/4"	19,0	30 - 33
2302660	1"	25,0	36 - 39
2302022	1 1/4"	32,0	43 - 46
2302023	1 1/2"	38,0	50 - 52
2302024	2"	51,0	64 - 67
2301676	2 1/2"	63,0	78 - 82
2301759	3"	76,0	89 - 93
2302025	4"	102,0	114 - 119

// SAFETY CLAMPS FLEXOLINE®

// I5LG4N

SAFETY CLAMPS FLEXOLINE

Safety clamps - Aluminium



Item Code	ID (in)	ID (mm)	Hose OD Range (mm)
2306570	1"	25,0	34 - 36
2307051	1 1/4"	32,0	41 - 43
2307052	1 1/2"	38,0	47 - 49
2304822	2"	51,0	59 - 61
2304823	2 1/2"	63,0	74 - 76
2304824	3"	76,0	86 - 88
2305871	4"	102,0	112 - 114

// I3LG4N

SAFETY CLAMPS FLEXOLINE®

Safety clamps - Stainless steel 316



Item Code	ID (in)	ID (mm)	Hose OD Range (mm)
2308612	2"	51,0	60 - 62
2308613	3"	76,0	87 - 89

// DOUBLE BOLT CLAMP WITH SADDLES

// I9LP20

DOUBLE BOLT CLAMP WITH TWO SADDLES

Clamp - Malleable iron



Item Code	ID (in)	ID (mm)	Hose OD Range (mm)
2303169	1/2"	13,0	17 - 22
2302152	2"	51,0	56 - 72
2303178	3"	76,0	95.2 - 114.3
2303180	3 1/2"	90,0	114 - 128

// I9LP20-D

DOUBLE BOLT CLAMP WITH TWO SADDLES

Clamp - DIN 20039 A - Malleable iron



Item Code	ID (in)	ID (mm)	Hose OD Range (mm)
2303170	1/2"	13,0	22.3 - 28.9
2303171	3/4"	19,0	29.4 - 34.1
2303172	1"	25,0	32 - 40
2303173	1 1/4"	32,0	39 - 49
2303174	1 1/2"	38,0	47.6 - 60.3
2303175	2"	51,0	60 - 76
2303176	2 1/2"	63,0	77 - 94

// EAR PINCH CLAMP

// I1LP1ER-W1

EAR PINCH ON CLAMP

Clamp - 1-ear with inner ring - W1 (Plated steel)



Item Code	Width (mm)	Hose OD Range (mm)
2306009	7,4	7.5 - 9
2306011	7,4	8.5 - 10
2306012	7,4	9.1 - 10.8
2306014	7,4	10.3 - 12.3
2306019	8,2	13.1 - 15.3
2306021	8,2	15.6 - 17.8
2304309	8,2	13.9 - 16.1
2306017	8,2	12.3 - 14.3

// I2LP1ER-W4

EAR PINCH ON CLAMP

Clamp - 1-ear with inner ring - W4 (Stainless steel 304)



Item Code	Width (mm)	Hose OD Range (mm)
2306022	6,4	5.9 - 7
2304303	6,4	6.3 - 7.5
2304304	6,4	7 - 8.2
2304911	7,4	7 - 8.5
2304306	7,4	8 - 9.5
2304305	7,4	7.5 - 9
2306024	7,4	8.5 - 10
2306026	7,4	9.1 - 10.8
2306028	7,4	10.3 - 12.3
2304919	8,2	13.1 - 15.3
2304311	8,2	14.6 - 16.8
2305292	8,2	15.6 - 17.8
2306212	8,2	16.5 - 18.8
2304918	8,2	12.3 - 14.3
2304917	8,2	11.8 - 13.8
2306031	8,2	12.8 - 14.8
2304307	8,2	11.3 - 13.3
2306030	8,2	11.1 - 13.1
2306033	9,2	17.1 - 20

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// I1LP2E-W1

EAR PINCH ON CLAMP

Clamp - 2-ears - W1 (Plated steel)



Item Code	Width (mm)	Hose OD Range (mm)
2304285	6	5 - 7
2304286	7	7 - 9
2304287	7	9 - 11
2304289	7	11 - 13
2304290	7,5	13 - 15
2304293	8	15 - 18
2304294	8,5	17 - 20
2304296	9	20 - 23
2304298	10	23 - 27
2304297	10	22 - 25
2304300	10	27 - 31
2304302	10	34 - 37

// I2LP2E-W4

EAR PINCH ON CLAMP

Clamp - 2-ears - W4 (Stainless steel 304)



Item Code	Width (mm)	Hose OD Range (mm)
2305996	5	3 - 5
2305997	6	5 - 7
2304924	7	7 - 9
2304288	7	9 - 11
2304908	7	11 - 13
2304291	7,5	13 - 15
2305998	8	15 - 18
2305999	8,5	17 - 20
2306001	9	20 - 23
2306003	10	23 - 27
2306002	10	22 - 25
2304922	10	27 - 31
2306005	10	31 - 34
2306006	10	34 - 37

// I2LP1ES-W4

EAR PINCH ON CLAMP

Clamp - 1-ear stepless type - W4 (Stainless steel 304)



Item Code	Width (mm)	Hose OD Range (mm)	Hose OD Range (min) (mm)	Hose OD Range (max) (mm)
2306213	5	5.8 - 7	5,8	7,0
2306037	5	8.8 - 10.5	8,8	10,5
2306038	5	9.6 - 11.3	9,6	11,3
2306039	7	9.8 - 12.3	9,8	12,3
2306040	7	10.8 - 13.3	10,8	13,3
2306041	7	11.5 - 14	11,5	14,0
2306042	7	12.3 - 14.8	12,3	14,8
2306043	7	13.2 - 15.7	13,2	15,7
2306044	7	13.7 - 16.2	13,7	16,2
2306045	7	14.5 - 17	14,5	17,0
2306214	7	16.6 - 19.8	16,6	19,8
2306047	7	64.8 - 68	64,8	68,0
2306048	7	66.3 - 69.5	66,3	69,5

// I1Y-PNC-EF

EAR PINCH ON CLAMP

Pincers - frontal ear clamp - Plated steel



Item Code	Tech. Note
2305913	

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// MINICLAMP

// I1LP1M-W1

MINICLAMP

Miniclamp - 1 bolt - W1 (Plated steel)



Item Code	Width (mm)	Hose OD Range (min) (mm)	Hose OD Range (max) (mm)
2304140	9	8,0	8,0
2304145	9	10,5	12,5
2304152	9	14,0	16,5
2304142	10	9,0	9,0
2304143	10	9,5	10,0
2304144	10	10,0	11,0
2304147	10	12,0	13,0
2304148	10	13,0	14,0
2304150	10	14,0	15,0
2304154	10	15,0	17,0

// BAND-IT SYSTEM

// I2LLF0

BAND-IT SYSTEM

Banding bands - Stainless steel 304



Item Code	Width (mm)	Band Length (m)
2302154	12,7	30
2302155	19	30

// I2LLB0

BAND-IT SYSTEM

Banding buckles - Stainless steel 304



Item Code	Width (mm)
2302157	12,7
2302156	19

// I0LLT0

BAND-IT SYSTEM

Banding tool - Plated steel



Item Code	Tech. Note
2300912	

// RUBBER LINED PIPE CLIP

// IALP1S-W1

RUBBER LINED PIPE CLIP

Clip - SMS - EPDM/W1 (Plated steel)



Item Code	Width (mm)	Hose OD Range (mm)
2304707	12,7	11,1
2304708	12,7	12,7
2304049	12,7	14,3
2304050	12,7	15,9
2304712	12,7	17,5
2304051	12,7	19
2305951	12,7	20,6
2304713	12,7	22,2
2304716	12,7	25,4
2304721	12,7	31,8
2304723	12,7	34,9
2304725	12,7	38,1
2304729	12,7	51
2304702	12,7	6,4
2304730	12,7	65
2304703	12,7	7,9
2305954	12,7	74
2304704	12,7	9,5

// IALP1D-W1

RUBBER LINED PIPE CLIP

Clip - DIN 3016 - EPDM/W1 (Plated steel)



Item Code	Width (mm)	Hose OD Range (min) (mm)
2304066	12	12,0
2305178	12	15,0
2304068	15	6,0
2304069	15	8,0
2304070	15	10,0
2304071	15	13,0
2304072	15	16,0
2304073	15	18,0
2304074	15	20,0
2304718	15	27,0
2304078	20	22,0
2304079	20	25,0
2304080	20	30,0
2304726	20	42,0
2304728	20	45,0
2304083	25	35,0
2304086	25	50,0
2304087	25	58,0

// IALP1D-W4

RUBBER LINED PIPE CLIP

Clip - DIN 3016 - EPDM/W4 (Stainless steel 304)



Item Code	Width (mm)	Hose OD Range (max) (mm)
2304054	15	8,0
2304055	15	10,0
2304056	15	13,0
2304710	15	16,0
2304059	20	13,0
2304060	20	20,0



// FERRULE & CRIMPING RING

// SMOOTH FERRULE.....	208
// CRIMPING RING.....	209

// SMOOTH FERRULE

// I101E-LP

I101E-LP

Smooth ferrule - Plated steel



Item Code	ID (in)	Hose ID (mm)	Ferrule ID (mm)	Hose OD Range (max) (mm)
2304470	1/4"	6,0	12,5	11,0
2304473	1/4"	6,0	13,5	12,0
2304477	1/4"	6,0	14,5	13,0
2304481	5/16"	8,0	16,0	14,0
2304485	23/64"	9,0	18,0	16,0
2304487	15/32"	12,0	19,0	18,0
2304489	15/32"	12,0	19,5	18,5
2304492	1/2"	13,0	23,0	19,0
2304494	1/2"	13,0	25,0	23,0
2304495	19/32"	15,0	28,0	27,0
2304496	3/4"	19,0	30,5	27,0
2304498	3/4"	19,0	33,0	31,0
2304499	1"	25,0	38,0	36,0
2304758	1"	25,0	41,0	39,0

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// CRIMPING RING

// R5YBFF0

R5YBFF0

Crimping ring - Aluminium



Item Code	Hose ID (mm)	Ferrule ID (mm)	Ferrule OD (mm)	L (mm)
2303033	13,0	24,0	28,0	20,0
2303034	19,0	31,0	35,0	20,0
2303035	25,0	40,0	45,0	20,0
2306680	45,0	55,0	60,0	30,0
2304550	45,0	60,0	65,0	35,0

For crimping rings in different dimensions, see "R5YBFF0-M": consult chapter "Mortar"



// THREADED ADAPTER

// DOUBLE NIPPLE: MALE / MALE.....	211
// DOUBLE NIPPLE: FEMALE / FEMALE.....	213
// DOUBLE NIPPLE: MALE / FEMALE.....	215
// ELBOW: MALE / FEMALE.....	217
// ELBOW: FEMALE / FEMALE.....	218
// TEE.....	219
// MALE PLUG.....	220

// DOUBLE NIPPLE: MALE / MALE

// I8A06506HX

THREADED ADAPTER - DOUBLE NIPPLE: MALE / MALE

Hexagonal Nipple: BSPP Male - BSPP Male - Brass



Item Code	Thread Type 1	Thread 1	Thread Type 2	Thread 2
2304624	BSPP	1/8"	BSPP	1/8"
2304623	BSPP	1/4"	BSPP	1/4"
2304603	BSPP	3/8"	BSPP	3/8"
2304601	BSPP	1/2"	BSPP	1/2"
2304602	BSPP	3/4"	BSPP	3/4"
2304598	BSPP	1"	BSPP	1"
2304605	BSPP	1"1/4	BSPP	1"1/4
2304604	BSPP	1"1/2	BSPP	1"1/2
2304599	BSPP	2"	BSPP	2"
2302059	BSPP	3"	BSPP	3"
2305917	BSPP	4"	BSPP	4"

// I8A06506HR

THREADED ADAPTER - DOUBLE NIPPLE: MALE / MALE

Reducing hexagonal nipple: BSPP Male - BSPP Male - Brass



Item Code	Thread Type 1	Thread 1	Thread Type 2	Thread 2
2304615	BSPP	1/4"	BSPP	1/8"
2304611	BSPP	3/8"	BSPP	1/4"
2304607	BSPP	1/2"	BSPP	1/4"
2304608	BSPP	1/2"	BSPP	3/8"
2305429	BSPP	3/4"	BSPP	3/8"
2304610	BSPP	3/4"	BSPP	1/2"
2304609	BSPP	3/4"	BSPP	1"
2304613	BSPP	1"1/4	BSPP	3/4"
2304612	BSPP	1"1/4	BSPP	1"
2305430	BSPP	1"1/2	BSPP	3/4"
2304616	BSPP	1"1/2	BSPP	1"1/4
2304619	BSPP	2"	BSPP	1"1/4
2304618	BSPP	2"	BSPP	1"1/2
2304617	BSPP	2"1/2	BSPP	2"
2304606	BSPP	3"	BSPP	2"
2304620	BSPP	3"	BSPP	2"1/2
2305721	BSPP	3"	BSPP	4"

// I3A07507HX

THREADED ADAPTER - DOUBLE NIPPLE: MALE / MALE

Hexagonal Nipple: BSPT Male - BSPT Male - Stainless steel 316



Item Code	Thread Type 1	Thread 1	Thread Type 2	Thread 2
2304694	BSPT	1/8"	BSPT	1/8"
2304693	BSPT	1/4"	BSPT	1/4"
2304698	BSPT	3/8"	BSPT	3/8"
2304692	BSPT	1/2"	BSPT	1/2"
2304697	BSPT	3/4"	BSPT	3/4"
2304691	BSPT	1"	BSPT	1"
2304690	BSPT	1"1/4	BSPT	1"1/4
2304689	BSPT	1"1/2	BSPT	1"1/2
2304695	BSPT	2"	BSPT	2"
2304696	BSPT	3"	BSPT	3"

// I3A07507HR

THREADED ADAPTER - DOUBLE NIPPLE: MALE / MALE

Reducing hexagonal nipple: BSPT Male - BSPT Male - Stainless steel 316



Item Code	Thread Type 1	Thread 1	Thread Type 2	Thread 2
2304949	BSPT	1/4"	BSPT	1/8"
2304953	BSPT	3/8"	BSPT	1/4"
2304947	BSPT	1/2"	BSPT	1/8"
2304946	BSPT	1/2"	BSPT	1/4"
2304948	BSPT	1/2"	BSPT	3/8"
2304952	BSPT	3/4"	BSPT	1/2"
2304944	BSPT	1"	BSPT	1/2"
2304945	BSPT	1"	BSPT	3/4"
2304950	BSPT	1"1/4	BSPT	1"
2305473	BSPT	1"1/2	BSPT	1"
2305475	BSPT	2"	BSPT	1"
2304951	BSPT	2"	BSPT	1"1/2

// DOUBLE NIPPLE: FEMALE / FEMALE

// I8A06806

THREADED ADAPTER - DOUBLE NIPPLE: FEMALE / FEMALE

Socket without hexagone: BSPP Female - BSPP Female - Brass



Item Code	Thread Type 1	Thread 1	Thread Type 2	Thread 2
2304879	BSPP	1/8"	BSPP	1/8"
2304882	BSPP	1/4"	BSPP	1/4"
2304883	BSPP	3/8"	BSPP	3/8"
2304881	BSPP	1/2"	BSPP	1/2"
2304878	BSPP	3/4"	BSPP	3/4"
2304875	BSPP	1"	BSPP	1"
2305442	BSPP	1"1/4	BSPP	1"1/4
2304880	BSPP	1"1/2	BSPP	1"1/2

// I8A06806HX

THREADED ADAPTER - DOUBLE NIPPLE: FEMALE / FEMALE

Hexagonal Nipple: BSPP Female - BSPP Female complete with seal - Brass



Item Code	Thread Type 1	Thread 1	Thread Type 2	Thread 2
2306380	BSPP	2"	BSPP	2"
2306382	BSPP	3"	BSPP	3"

// I3A06806

THREADED ADAPTER - DOUBLE NIPPLE: FEMALE / FEMALE

Socket without hexagone: BSPP Female - BSPP Female - Stainless steel 316



Item Code	Thread Type 1	Thread 1	Thread Type 2	Thread 2
2304975	BSPP	1/8"	BSPP	1/8"
2304974	BSPP	1/4"	BSPP	1/4"
2304980	BSPP	3/8"	BSPP	3/8"
2304973	BSPP	1/2"	BSPP	1/2"
2304979	BSPP	3/4"	BSPP	3/4"
2304972	BSPP	1"	BSPP	1"
2304971	BSPP	1"1/4	BSPP	1"1/4
2304970	BSPP	1"1/2	BSPP	1"1/2
2304977	BSPP	2"	BSPP	2"
2304978	BSPP	3"	BSPP	3"
2305461	BSPP	4"	BSPP	4"

// I3A06806R

THREADED ADAPTER - DOUBLE NIPPLE: FEMALE / FEMALE

Reducing socket without hexagone: BSPP Female - BSPP Female - Stainless steel 316



Item Code	Thread Type 1	Thread 1	Thread Type 2	Thread 2
2305267	BSPP	1/2"	BSPP	1/4"
2305268	BSPP	1/2"	BSPP	3/8"
2305270	BSPP	3/4"	BSPP	3/8"
2305269	BSPP	3/4"	BSPP	1/2"
2305265	BSPP	1"	BSPP	1/2"
2305266	BSPP	1"	BSPP	3/4"
2304645	BSPP	1"1/4	BSPP	1"
2304655	BSPP	2"	BSPP	1"1/2
2305503	BSPP	3"	BSPP	2"

// DOUBLE NIPPLE: MALE / FEMALE

// I8A06606HR

THREADED ADAPTER - DOUBLE NIPPLE: MALE / FEMALE

Reducing hexagonal nipple: BSPP Male - BSPP Female complete with seal - Brass



Item Code	Thread Type 1	Thread 1	Thread Type 2	Thread 2
2304675	BSPP	1/4"	BSPP	1/8"
2304687	BSPP	3/8"	BSPP	1/8"
2304688	BSPP	3/8"	BSPP	1/4"
2304597	BSPP	3/8"	BSPP	3/4"
2305440	BSPP	3/8"	BSPP	1"
2304672	BSPP	1/2"	BSPP	1/8"
2304674	BSPP	1/2"	BSPP	1/4"
2304596	BSPP	1/2"	BSPP	3/4"
2304593	BSPP	1/2"	BSPP	1"
2304686	BSPP	3/4"	BSPP	1/4"
2304685	BSPP	3/4"	BSPP	3/8"
2304684	BSPP	3/4"	BSPP	1/2"
2304594	BSPP	3/4"	BSPP	1"
2304642	BSPP	1"1/4	BSPP	1/2"
2304643	BSPP	1"1/4	BSPP	3/4"
2304667	BSPP	1"1/4	BSPP	1"
2307453	BSPP	1"1/2	BSPP	1/2"
2304641	BSPP	1"1/2	BSPP	3/4"
2304666	BSPP	1"1/2	BSPP	1"
2304644	BSPP	1"1/2	BSPP	1"1/4
2304678	BSPP	2"	BSPP	3/4"
2304677	BSPP	2"	BSPP	1"
2304680	BSPP	2"	BSPP	1"1/4
2304679	BSPP	2"	BSPP	1"1/2
2304676	BSPP	2"1/2	BSPP	2"
2304683	BSPP	3"	BSPP	2"1/2

// I3A07606HR

THREADED ADAPTER - DOUBLE NIPPLE: MALE / FEMALE

Reducing hexagonal nipple: BSPT Male - BSPP Female - Stainless steel 316



Item Code	Thread Type 1	Thread 1	Thread Type 2	Thread 2	L (mm)
2304652	BSPT	1/4"	BSPP	1/8"	15,2
2304664	BSPT	3/8"	BSPP	1/4"	16,5
2304650	BSPT	1/2"	BSPP	1/8"	21,0
2304649	BSPT	1/2"	BSPP	1/4"	21,0
2304651	BSPT	1/2"	BSPP	3/8"	21,0
2304662	BSPT	3/4"	BSPP	1/4"	24,0
2304663	BSPT	3/4"	BSPP	3/8"	24,0
2304661	BSPT	3/4"	BSPP	1/2"	24,0
2304648	BSPT	1"	BSPP	3/8"	27,0
2304646	BSPT	1"	BSPP	1/2"	27,0
2304647	BSPT	1"	BSPP	3/4"	27,0
2304654	BSPT	1"1/4	BSPP	1"	30,0
2305483	BSPT	1"1/2	BSPP	1"	38,0
2304653	BSPT	1"1/2	BSPP	1"1/4	38,0
2304656	BSPT	2"	BSPP	1"	36,0
2304657	BSPT	2"	BSPP	1"1/2	36,0

REV.1.1

// ELBOW: MALE / FEMALE

// I8A06G06

THREADED ADAPTER - ELBOW: MALE / FEMALE

90° Elbow: BSPP Male - BSPP Female - Brass



Item Code	Thread Type 1	Thread 1	Thread Type 2	Thread 2
2305144	BSPP	1"1/2	BSPP	1"1/2
2305136	BSPP	1"	BSPP	1"
2305145	BSPP	1/2"	BSPP	1/2"
2305437	BSPP	1/4"	BSPP	1/4"
2306389	BSPP	2"	BSPP	2"
2305146	BSPP	3/4"	BSPP	3/4"
2306388	BSPP	3/8"	BSPP	3/8"

// I3A07G06

THREADED ADAPTER - ELBOW: MALE / FEMALE

90° Elbow: BSPT Male - BSPP Female - Stainless steel 316



Item Code	Thread Type 1	Thread 1	Thread Type 2	Thread 2
2304990	BSPT	1"1/2	BSPP	1"1/2
2304984	BSPT	1"	BSPP	1"
2304993	BSPT	2"	BSPP	2"
2304995	BSPT	3/4"	BSPP	3/4"

// ELBOW: FEMALE / FEMALE

// I8A06H06

THREADED ADAPTER - ELBOW: FEMALE / FEMALE

90° Elbow: BSPP Female - BSPP Female - Brass



Item Code	Thread Type 1	Thread 1	Thread Type 2	Thread 2
2305141	BSPP	1"1/2	BSPP	1"1/2
2305142	BSPP	1"1/4	BSPP	1"1/4
2305137	BSPP	1"	BSPP	1"
2305138	BSPP	1/2"	BSPP	1/2"
2305143	BSPP	2"	BSPP	1"1/2
2305139	BSPP	3/4"	BSPP	3/4"

// I3A06H06

THREADED ADAPTER - ELBOW: FEMALE / FEMALE

90° Elbow: BSPP Female - BSPP Female - Stainless steel 316



Item Code	Thread Type 1	Thread 1	Thread Type 2	Thread 2
2304987	BSPP	1/4"	BSPP	1/4"
2304996	BSPP	3/8"	BSPP	3/8"
2304985	BSPP	1/2"	BSPP	1/2"
2304994	BSPP	3/4"	BSPP	3/4"
2304983	BSPP	1"	BSPP	1"
2304982	BSPP	1"1/4	BSPP	1"1/4
2305509	BSPP	1"1/2	BSPP	1"1/2
2304992	BSPP	2"	BSPP	2"
2305510	BSPP	3"	BSPP	3"

REV.1.1

// TEE

// I8A06T06

THREADED ADAPTER - TEE

Equal Tee: BSPP Female - Brass



Item Code	Thread Type 1	Thread 1
2305109	BSPP	1/4"
2305108	BSPP	3/8"
2305106	BSPP	1/2"
2305107	BSPP	3/4"
2305105	BSPP	1"
2305112	BSPP	1"1/4"
2305111	BSPP	1"1/2"
2305113	BSPP	2"

// I3A06T063F

THREADED ADAPTER - TEE

Equal Tee: BSPP Female - Stainless steel 316



Item Code	Thread Type 1	Thread 1	Thread Type 2	Thread 2	Thread Type 3	Thread 3
2305118	BSPP	1/8"	BSPP	1/8"	BSPP	1/8"
2305117	BSPP	1/4"	BSPP	1/4"	BSPP	1/4"
2305122	BSPP	3/8"	BSPP	3/8"	BSPP	3/8"
2305116	BSPP	1/2"	BSPP	1/2"	BSPP	1/2"
2305121	BSPP	3/4"	BSPP	3/4"	BSPP	3/4"
2305115	BSPP	1"	BSPP	1"	BSPP	1"
2305516	BSPP	1"1/4"	BSPP	1"1/4"	BSPP	1"1/4"
2305114	BSPP	1"1/2"	BSPP	1"1/2"	BSPP	1"1/2"
2305119	BSPP	2"	BSPP	2"	BSPP	2"

// MALE PLUG

// I8A0770S

THREADED ADAPTER - MALE PLUG

Square head plug - BSPT Male - Brass



Item Code	Thread Type 1	Thread 1
2304954	BSPT	1"1/2
2304955	BSPT	1"1/4
2304956	BSPT	1"
2304957	BSPT	1/2"
2304960	BSPT	3/4"
2304961	BSPT	3/8"

// I3A077SQ

THREADED ADAPTER - MALE PLUG

Square head plug - BSPT Male - Stainless steel 316



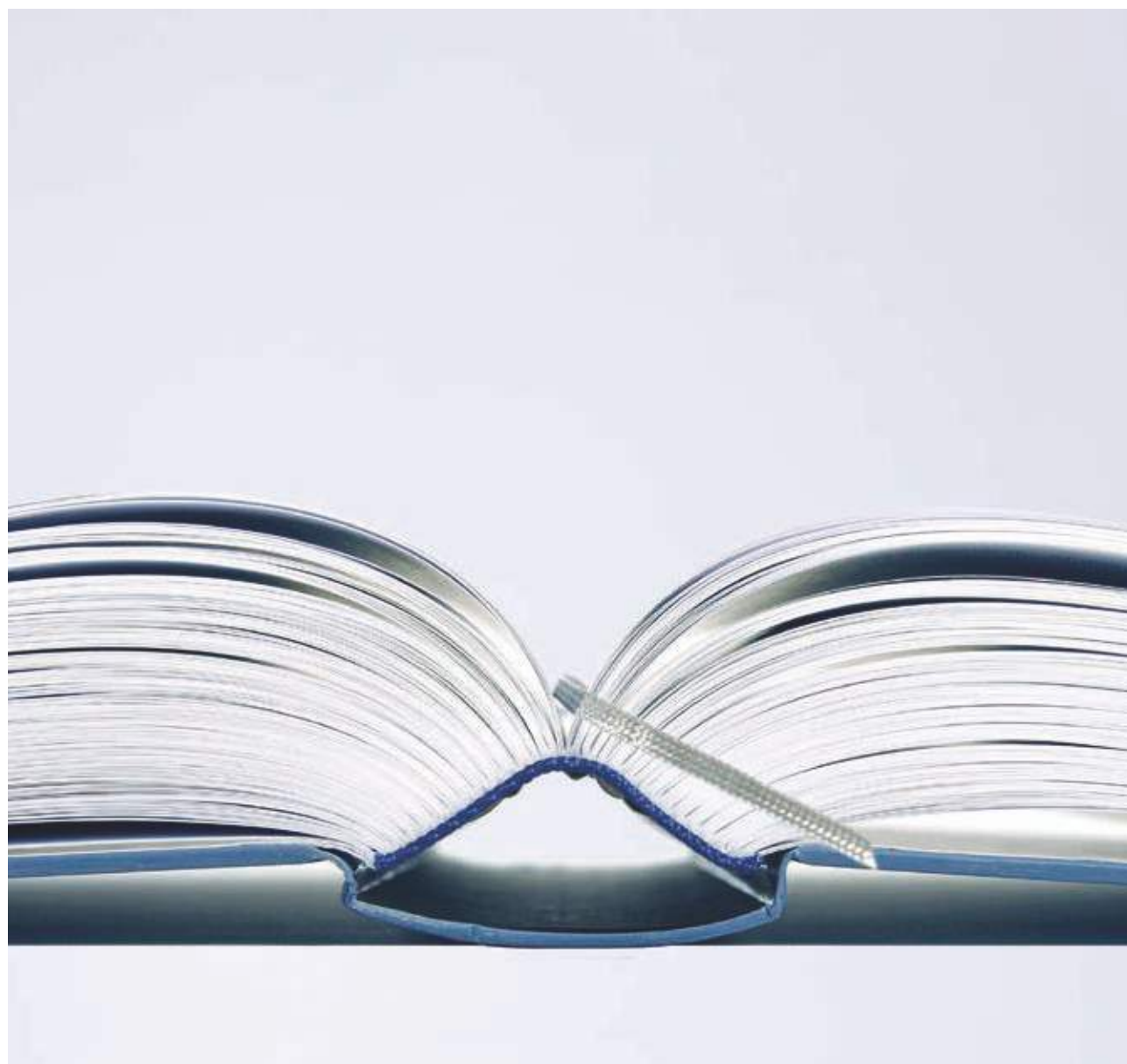
Item Code	Thread Type 1	Thread 1
2305487	BSPT	1"1/2
2304930	BSPT	1"1/4
2304931	BSPT	1"
2304933	BSPT	1/2"
2304940	BSPT	3/4"
2304942	BSPT	3/8"

REV.1.1

// I3A077HX
THREADED ADAPTER - MALE PLUG
Hexagone head plug - BSPT Male - Stainless steel 316



Item Code	Thread Type 1	Thread 1
2305486	BSPT	1"1/2
2305485	BSPT	1"1/4
2304932	BSPT	1"
2304934	BSPT	1/2"
2304936	BSPT	1/4"
2304941	BSPT	3/4"
2304943	BSPT	3/8"



// APPENDIX

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// CHOICE, STORAGE, USE & MAINTENANCE

(Reprinted from Assogomma "Recommendation regarding choice, storing, use and maintenance of rubber hoses" June 2004.)

1. CHOICE CRITERIA

In order to choose a hose suitable for a specific use it is necessary to determine at least the following basic points.

1.1 Pressure - suction

It is necessary to determine the maximum working pressure or suction values. It should be taken into consideration that the normal life of the hose will be prejudiced in the case of a sudden pressure variation or pressure peaks exceeding the maximum allowed.

1.2 Compatibility of conveyed substances

The nature, designation, concentration, temperature and state (liquid, solid, gaseous) must be determined. In the case of solid substances conveyed, it is necessary to indicate granulometry, density, quantity of the solid substance conveyed as well as the nature, speed and flow of the fluid carrying it.

1.3 Environment

It is necessary to know the place of usage, ambient temperature, hygrometric conditions and exposure to atmospheric agents. Specific environment conditions such as ultraviolet rays, ozone, sea water, chemical agents and other aggressive elements could cause early degeneration of the hose.

1.4 Mechanical stress

The minimum bend radius* must be established as well as any stress related to traction, torsion, bending, vibration, compression, deflection and longitudinal or transversal loads.

1.5 Cover abrasion

Even though the hoses are manufactured to guarantee good resistance to abrasion, it is advisable to use further protection when damage to the hose may be caused by shock, corrosion and/or dragging.

1.6 Working position

Indicate if the hose is either placed on the ground, suspended or immersed.

1.7 Used or foreseen couplings

This must be selected according to:

- couplings and flanges: type, dimension, type of thread, standard references and kind of application;
- hose shank: internal and external diameter and length;
- ferrules/clumps: type and dimension.

In order to guarantee good performance the compatibility between the hose and type of coupling must be ensured. The assembly must guarantee the working pressure suggested by the manufacturer.

1.8 Technical standards

National, European and International technical standards and rules must always be adhered to. In the case of hoses for peculiar purposes it is advisable to establish proper specification with the manufacturer.

1.9 Marking

Manufacturers must mark hoses at regular intervals with the information necessary for the proper use of the product.

When interpretation is not clear or information is insufficient, user should apply to the manufacturer.

* The **minimum bend radius** is the radius to which the hose can be bent in service without damage or appreciably shortening its life. The radius is measured to the inside of the curvature. **Formula to determine minimum hose length given bend radius and degree of bend required:**

$$L = \frac{A}{360^\circ} \times 2 \pi B$$

Where:

- L = Minimum length of hose to make bend (Bend must be made equally along this portion of hose length).
- A = Angle of bend
- B = Given bend radius of hose
- π = 3.14

Example: To make a 60° bend at the hose's rated minimum bend radius of 15 cm

$$L = \frac{60}{360^\circ} \times 2 \times 3.14 \times 15 = 15.7 \text{ cm} \approx 16 \text{ cm}$$

Thus, the bend must be made over approximately 16 cm of hose length. The bend radius used must be equal to or greater than the rated minimum bend radius.

Bending the hose to a smaller bend radius than minimum may kink the hose and result in damage and early failure.

2. RECOMMENDATION FOR CORRECT STORAGE

Rubber is subject, by nature, to changes in physical properties. These changes, which normally occur over the course of time, according to the kind of rubber used, can be accelerated by one particular factor or by a combination of these. Reinforcement materials are also adversely affected by unsuitable conditions of storage. The following recommendations give some precautions to be taken to ensure the minimum deterioration to stored articles.

2.1 Storage life

Storage time should be reduced to the minimum through programme rotation.

When it is not possible to avoid long term storage, it is necessary that the user, as indicated in ISO 8331, carries out a complete check of the hose before its use according to the following criteria:

- maximum two years storage for assembly;
- maximum four years storage for hoses.

2.2 Temperature and humidity

The best temperature for the storage of rubber hoses varies from 10 to 25 degrees centigrade. Hoses should not be stored at temperature above 40 °C or below 0 °C. When the temperature is below -15 °C it is necessary to take precautions when handling.

Hoses should not be stored near sources of heat nor in conditions of high or low humidity. A humidity level of a maximum of 65% is recommended.

2.3 Light

Hoses must be stored in dark places, avoiding direct sun light or strong artificial light. Should store rooms have windows or glass openings, these must be screened.

2.4 Oxygen and ozone

Hoses should be protected from circulating air by suitable packing or by storage in air-tight containers. As ozone has a particularly aggressive action on all rubber products, the store house must not contain material producing ozone like devices under high electrical tension, electric engines or other materials provoking sparks or electric arcs.

2.5 Contact with other materials

Hoses should not come into contact with solvents, fuels, oils, greases, volatile chemical mixtures, acids, disinfectants and other organic liquids in general.

Furthermore direct contact with some metals (for example manganese, iron, copper and its alloys) and relative mixture exercise harmful effects on some types of rubber.

Contact with PVC and creosote impregnated timber or fabrics should be avoided.

2.6 Heat sources

The temperature limits given in point 2.2 must be respected. When this is impossible, it is necessary to use a thermic shield at a distance not less than one meter.

2.7 Electric or magnetic field

Variation in electric or magnetic fields must be eliminated in store houses as these could provoke currents in metal coupling, heating them. Similar fields could be caused by high-tension cables or high frequency generators.

2.8 Storage conditions

Hoses must be stored in a relaxed condition free from tension, compression or other deformation and contact with objects that could pierce or cut must be avoided. It is preferable to store hoses on special shelves or on dry surfaces.

Coiled hoses must be stored horizontally avoiding piling. When this is not possible the height of the piles must be such to avoid permanent deformation of hoses stored underneath. The inside diameter of the coil, during the storage, must be such as to not compromise the performances of the products. In particular, this diameter must not have value less than those indicated by the manufacturers.

It is advisable to avoid storing coiled hoses on poles or hooks. Furthermore it is advisable to store hoses to be delivered straight, horizontally, without bending.

2.9 Rodents and insects

Hoses must be protected from rodents and insects. When such a risk is probable adequate precautions must be taken.

2.10 Marking or packaged items

It is advisable that hoses are always easy to identify even if packaged.

2.11 Exit from storage

Prior to delivery hoses must be checked for integrity and must correspond to the required use. After long storage if couplings are not clipped, swaged or built-in, it is necessary to check that locking collars are tight.

2.12 Return to storage

Hoses that have been used must be free from all substances prior to storage. Particular attention must be paid when chemical, explosive, inflammable, abrasive and corrosive substances have been conveyed. After cleaning, check whether the hose is suitable to use again.

3. NORMS AND METHOD OF USE

After having chosen the type of hose, the users must keep in mind the following hose installation criteria:

3.1 Preassembly checks

Prior to installation it is necessary to check the characteristics of the hose carefully to verify that type, diameter and length conform with the required specifications. Moreover a visual check must be effected to make sure that there are no obstructions, cuts, damaged cover or any other evident imperfections.

3.2 Handling

Hoses must be moved with care avoiding knocks, dragging over abrasive surfaces and compression. Hoses must not be pulled violently when twisted or knotted. Heavy hoses, normally delivered in a straight line, must be laid on special supports for transport (see attachment). Should wood supports be used these must not be treated with creosote or painted with substances which could damage the rubber.

3.3 Pressure and seal test

The working pressure generally indicated by manufacturer must be respected. Following installation, when air bubbles have been eliminated, increase the pressure to test the assembly and check possible leaks. This test must be carried out in a place free from danger.

3.4 Temperature

Hoses must always be used within the temperature limits generally indicated. In case of doubt apply to manufacturers.

3.5 Conveyed products

Hoses must be used exclusively to convey substances for which they were manufactured. In case of doubt it is always advisable to contact manufacturer. As far as possible, hoses must be empty after usage. Where any risks are involved special precautions must be taken to avoid bursts.

3.6 Environment

Hoses must be used exclusively in the environment conditions for which they were manufactured.

3.7 Bending radius

Installation underneath the minimum bending radius reduces the life of the hose considerably. Moreover it is necessary to avoid bending at fitting ends.

* See attached 1.

3.8 Torsion

Hoses are not manufactured to work in torsion, except for specific purposes.

3.9 Traction

Traction must be within limits specified by manufacturer. In case of doubts it's advisable to get in touch with manufacturers.

3.10 Vibration

Vibrations subject hoses to stress from heat and fatigue above all near couplings and premature bursting may occur. It is therefore advisable to check that hoses have been manufactured to resist such stress.

3.11 Kinking

Some users tend to obstruct the flow of liquids by kinking the hose. This system is not advised by manufacturers because the reinforcement is subjected to excessive stress and could lead to bursting.

3.12 Choice and application of couplings

Provided that the manufacturers instructions are met it is always necessary to check the compatibility between the working pressure of couplings and hoses. Couplings with too large diameters cause abnormal stress which can split the hose reinforcement, whilst too small dimensions can create clumping difficulties and leakage.

Furthermore couplings must be free from sharp and cutting edges which could damage the hose.

Water or soap and water can be used to fit couplings. Do not use products containing oils or solvents except for the kind of hoses destined to be used with the latter.

Softening hoses with mallet or similar tools is forbidden.

Take care to avoid external collars or other tightening tools. The use of makeshift collars (for example wire) with sharp edges or too tight clumping leads to damage of cover and reinforcement.

3.13 Electrical properties

According to ISO 8031: 2009 "Rubber and plastics hoses and hose assemblies – Determination of electrical resistance and conductivity" hoses and hose assemblies are classified in three types depending on their property to conduct electricity:

a) INSULATING

Not incorporating conductive elements and not capable of dissipating electrostatic charges. The electrical resistance is more than $10^8 \Omega$ per length.

b) CONDUCTIVE (Ω grade)

Incorporating electrically conducting materials in the hose construction. The resistance along the conductive layer, in case of hoses, or the resistance between fittings, in case of hose assemblies, shall not exceed $10^6 \Omega$ per length.

c) ELECTRICALLY BONDED (grade M)

Incorporating at least two metallic bonding wires into the hose construction. The resistance along the bonding wires, in case of hoses, or the resistance between fittings, in case of hose assemblies, shall not exceed $10^2 \Omega$ per length.

According to EN 12115: 2011 "Rubber and thermoplastics hoses and hose assemblies for liquid or gaseous chemicals – specification", when there is a need for hose assemblies of type b) or c) with an electrical resistance through the hose wall of not more than 10^9 , these hoses shall be marked with the additional symbol "/T", e.g. "Ω/T" or "M/T".

Such hose assemblies are required in situations where dissipation of electrostatic charges are a safety requirement (i.e. in explosive environments).

3.14 Installation between two points

The hoses must be supported in a suitable way, so as the normal movement when the hose is under pressure (variations in length, diameter, twisting, etc.) are allowed.

3.15 Mobile pieces

When hoses link mobile pieces, it is necessary to check that the length of the hose is suitable and that the movement does not subject the hose to shock or chafing and that abnormal stress, bending, traction or torsion do not occur.

3.16 Identification

If further marking is necessary, self-adhesive tape may be used. When the use of paint is unavoidable check compatibility of cover with manufacturer.

4. MAINTENANCE

Even though choice, storage and installation have been carried out correctly regular maintenance is necessary.

Frequency of the latter is determined according to use involved. During regular check special attention must be paid to couplings and to the appearance of the following irregularities which show deterioration of hose:

- Cracks, cuts, abrasions, unsticking, tears in cover revealing reinforcement;
- Deformity, bubbles, local swelling under pressure;
- Sticky or soft areas;
- Leaks.

Such irregularities justify hose substitutions. When cover bears date of expiry this must be kept to even if the hose shows no apparent signs of wear.

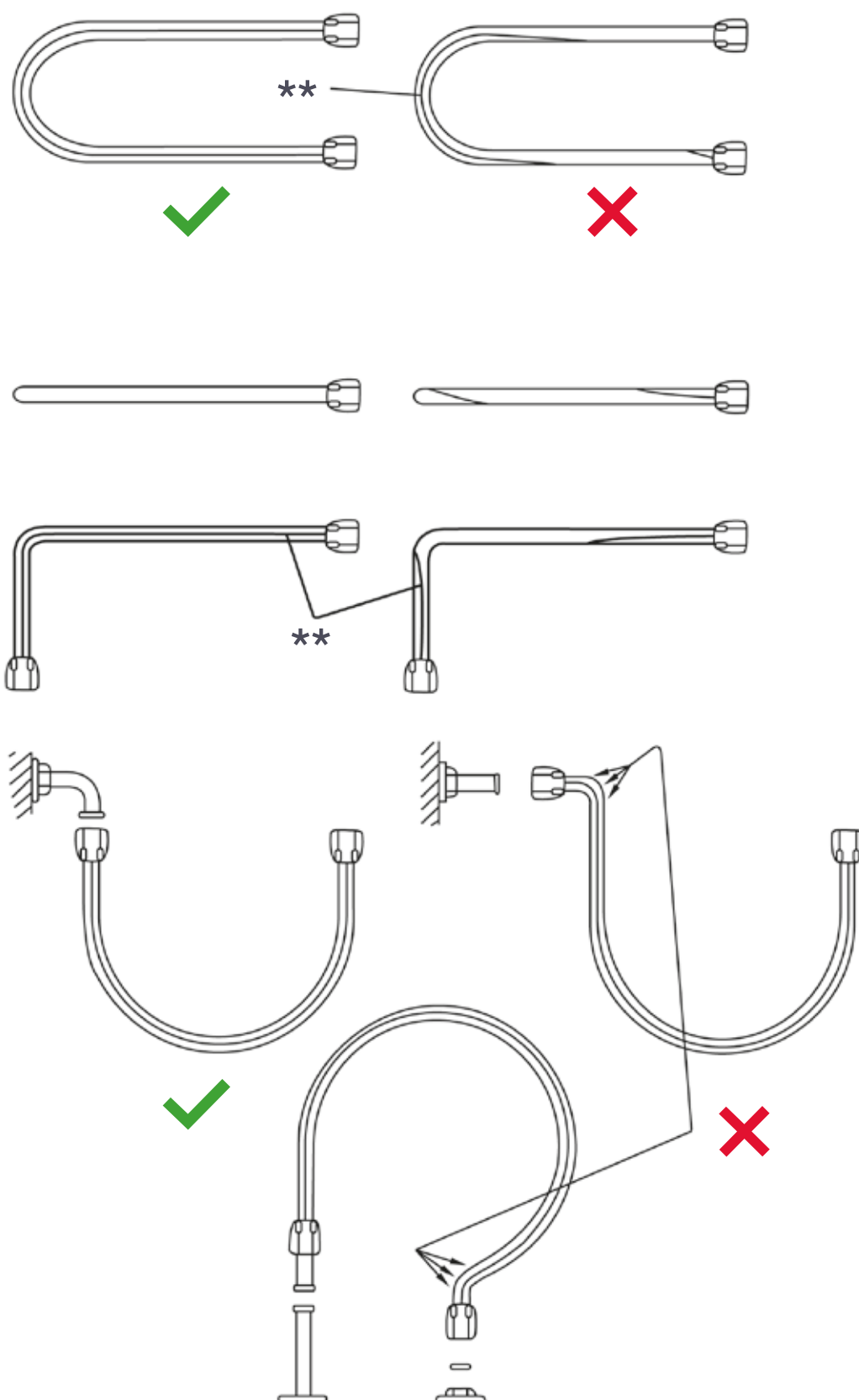
4.1 Repairs

Hose repairs are not advisable. However when deterioration occurs at an end section, and if the full length allows for such, the worn section may be eliminated.

4.2 Cleaning

If cleaning instructions are not supplied by the manufacturer clean, if necessary, with soap and water avoiding use of solvents (petrol, paraffin, etc) or detergents. Never use abrasive, pointed or cutting tools (wire brushes).

* attached 1



This drawings refer to assemble installed in real conditions. Some of these may request layouts violating such recommendations. It is necessary to point out that such cases are only applicable in test conditions and cannot be used for general use.

** Lay line

// CHEMICAL GUIDE

The chemical guide in this section is offered as a general indication of the compatibility of the various materials used in ALFAGOM-MA hose with the chemicals and fluids listed. The basis for the ratings in this guide include actual service experience, the advice of various polymer suppliers, and the considered opinion of our rubber chemists. When in doubt, a sample of the compound should always be tested with the particular chemical it is to handle. Some of the variables that come into play in the resistance of a compound to chemical attack are:

1. Temperature of the Material Transmitted

Higher temperatures increase the effect of chemicals on rubber compounds. The increase varies with the polymer and the chemical. A compound quite suitable at room temperature might fail very quickly at higher temperatures.

2. Service Conditions

A rubber compound usually swells when exposed to a chemical. With a given percent of swell, a hose tube may function satisfactorily if the hose is in a static condition, but fail quickly if the hose is subject to flexing.

3. The Grade or Blend of the Rubber Compound

Basic rubber polymers are sometimes mixed or blended together to enhance a particular property for a specific service. The reaction to a particular chemical blend of polymers may, therefore, be somewhat different from the reaction to the single ones. When in doubt, a sample of the compound should always be tested with the particular chemical it is to handle.

// GENERAL CHEMICAL RESISTANCE OF ALFAGOMMA HOSE COMPOUNDS

Common name	ASTM designation D1418-93	Composition	General properties
Natural rubber	NR	Isoprene rubber	Excellent physical properties, including abrasion resistance. Not oil resistant.
SBR	SBR	Styrene-butadiene rubber	Good physical properties, including abrasion resistance. Not oil resistant.
Butyl rubber	IIR	Isobutene-isoprene rubber	Very good weathering resistance. Low permeability to air. Good physical properties. Poor resistance to petroleum based fluids.
EPDM	EPDM	Ethylene-propylene-diene-terpolymer	Good general purpose polymer. Excellent heat, ozone and weathering resistance. Not oil resistant.
Cross linked polyethylene	XLPE	Cross linked polyethylene	Excellent resistance to most solvents, oils and chemicals. Do not confuse with chemical properties of standard polyethylene.
Ultra high molecular weight polyethylene	UPE	Ultra high molecular weight polyethylene	Excellent resistance to most solvents, chemicals and hydrocarbons. Excellent abrasion and wear resistance. Inert and suitable for food contact. Do not confuse with chemical properties of standard polyethylene.
Teflon/Fluorocarbon resin	PTFE	Polytetra-fluoroethylene	Excellent chemical and solvent resistance. Inert to most materials. Smooth anti-adhesive surface, easy to clean.
Nitrile rubber	NBR	Acrylonitrile-butadiene rubber	Excellent oil resistance. Good physical properties.
Neoprene	CR	Chloroprene rubber	Excellent weathering resistance. Flame retardant. Good oil resistance. Good physical properties.
Hypalon®	CSM	Chloro-sulfonated polyethylene	Excellent ozone, weathering and acid resistance. Good abrasion and heat resistance. Can be compounded for good oil resistance.
Polyurethane	AU	Polyester urethane	Excellent abrasion and wear resistance. Not resistant to hydrolysis.
Viton	FKM	Fluorocarbon rubber	Excellent high temperature resistance, particularly in air or oil. Very good resistance to chemicals.

// CHEMICAL RESISTANCE CHART

The following data is based on tests and believed to be reliable; however, we emphasise that the tabulation should be used as a guide only, since it does not take into consideration all variables such as elevated temperatures, fluid contamination, concentration, etc. that may be encountered in actual use. All critical applications should be tested.

Contact ALFAGOMMA for recommendation and assistance. **Note:** All data based on 20 °C (68 °F) unless otherwise noted.

Chemical or material conveyed	Compound											
	NR	SBR	IIR	EPDM	PE-X	UPE	PTFE	NBR	CR	CSM	AU	FKM
ACETALDEHYDE	F	X	E	E	E	E	C	X	C	F	X	X
ACETIC ACID, GLACIAL	C	X	G	G	E	E	C	X	F	C	C	X
ACETIC ACID, 10%	G	F	G	E	E	E	C	E	E	E	X	G
ACETIC ACID, 50%	X	F	G	E	E	E	C	F	F	E	X	F
ACETIC ANHYDRIDE	F	X	C	G	E	E	F	X	G	E	F	X
ACETIC OXIDE	F	X	G	G	E	E	F	X	G	E	F	X
ACETONE	C	C	E	E	E	E	X	X	C	X	X	X
ACETONE CYANOHYDRIN	F		E	E				X	G	F	X	X
ACETONITRILE	G		E	E			E	X	E	G		X
ACETOPHENONE	C	X	G	E	E	E	X	X	X	X	X	X
ACETYL ACETONE	X	X	E	E			X	X	X	X	C	X
ACETYL CHLORIDE	X	X	X	X			E	X	X	C	X	G
ACETYL OXIDE	F		G	G	E	E	F	X	G	E	F	X
ACETYLENE	C	F	E	E	E	E	E	E	E	C	C	E
ACETYLENE DICHLORIDE	X	X	F	C			E	X	X	X		G
ACETYLENE TERACHLORIDE	X		X	C			X	X	C	X	X	
ACROLEIN	G	F	E	E				F	G	G	X	C
ACRYLONITRILE	C	F	X	E	E	E	G	X	X	C	X	X
ACRYLIC ACID	X			X			X	X	X	G	C	
ADIPIC ACID	E		X	C	E	E	G	E	E	G	E	E
AIR, +300°F	X	X	G	G			E	G	G	G	C	E
ALK-TRI	X		X	X			X	X	X	X	X	E
ALLYL ALCOHOL	E		E	E	E	E		E	E	E		E
ALLYL BROMIDE	X		X	X				X	X	X		G
ALLYL CHLORIDE	X	E	C	X	E	F	G	G	X	X		E
ALUM	E		E	G	E	E	C	C	E	E	G	E
ALUMINIUM ACETATE	E	X	G	E			E	C	C	F	X	C
ALUMINIUM CHLORIDE	E	E	E	E	E	E	E	E	E	E	C	E
ALUMINIUM FLUORIDE	E	E	E	E	E	E	E	E	E	E	C	E
ALUMINIUM FORMATE	X		G	E				X	E	X	X	X
ALUMINIUM HYDROXIDE	E	G	E	E	E	E	E	E	E	E	G	E
ALUMINIUM NITRATE	E	E	E	E			E	E	E	E	C	E
ALUMINIUM SULFATE	E	G	A	E	E	E	C	E	G	E	C	E
AMINES-MIXED	C	G		G			G	X	C	X	X	X
AMINO BENZENE	X	X	E	C	E	E	E	X	X	C	X	E
AMINODIMETHILBENZENE	X		G	C				C	X	F		X
AMINOETHANE	C	X	G	E	E	E	E	C	C	F	X	X
AMINOXYLENE	X		G	E			G	C	X	X	X	F
AMMONIUM CARBONATE	E	E	E	E			C	C	E	C	C	E
AMMONIUM CHLORIDE	E	E	E	E	E	E	E	G	E	E	G	E
AMMONIUM HYDROXIDE	G	X	G	E	E	E	E	C	E	E	C	G
AMMONIUM NITRATE	E	E	E	E	E	E	C	E	E	E	C	E
AMMONIUM PHOSPHATE, DIBASIC	E	E	E	E	E	E	C	E	E	E		E
AMMONIUM SULFATE	E	G	E	E	E	E	C	E	E	E	E	E
AMMONIUM SULFIDE	E	G	E	E	E	E	C	C	E	E		X
AMMONIUM THIOSULFATE	E		E	E				C	E	E	X	E
AMYL ACETATE	C	X	G	C	E	E	X	X	X	X	X	X
AMYL ACETONE	X		G	G				X	X	X		X
AMYL ALCOHOL	C	G	E	E	E	E	E	C	C	E	X	E
AMYL BROMIDE	X		X	C				X	X	X		G
AMYL CHLORIDE	X	X	X	X	E	E	E	X	X	X	F	E
AMYL ETHER	X		X	X				C	X	F		
AMYLAMINE	F		G	X				F	C	F		C
ANETHOLE	X		X	X				X	X	X		G

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Chemical or material conveyed	Compound											
	NR	SBR	IIR	EPDM	PE-X	UPE	PTFE	NBR	CR	CSM	AU	FKM
ANILINE	X	X	E	C	E	E	E	X	X	C	X	E
ANILINE DYES	C	G	G	C	E	E	C	X	C	G	X	G
ANILINE OIL	X	X	G	C	E	E	G	X	X	C	X	F
ANIMAL FATS	X	X	C	C	E	E	E	E	C	F	F	E
ANTIMONY PENTACHLORIDE	X			C	E	E		X	C	X	E	
AQUA REGIA	X	X	C	C	X	X	C	X	X	C	X	E
ARGON	X	C	G	E			E	E	G	X	C	E
ARSENIC ACID	E	E	E	E	E	E	E	E	E	E	C	E
ASPHALT	X	X	X	X	E	E	E	C	C	F	C	E
ASTM FUEL A	X	X	X	X			F	E	C	C	E	E
ASTM FUEL B	X	X	X	X			X	C	X	X	C	E
ASTM FUEL C	X	X	X	X			X	C	X	X	X	E
ASTM OIL NO.1	X	X	X	X	E	E	E	E	E	C	E	E
ASTM OIL NO.2	X	X	X	X	E	E	G	E	C	X	C	E
ASTM OIL NO.3	X	X	X	X	E	E	G	E	C	C	C	E
ASTM OIL NO.4	X	X	X	X			G	C	X	X	X	E
AUTOMATIC TRANSMISSION FLUID	X	X	X	X			C	E	C	C	C	E
BANANA OIL	X		C	C			X	X	X	C	X	X
BARIUM CHLORIDE	E	E	E	E	E	E	E	E	E	E	E	E
BARIUM HYDROXIDE	E	E	E	E	E	E	E	E	E	E	E	E
BARIUM SULPHIDE	E	G	E	E	E	E	E	E	E	E	E	E
BEER	E	E	E	E	E	E	E	E	E	E	C	E
BEET SUGAR LIQUORS	E	E	E	E	E	E	E	E	C	E	X	E
BENZAL CHLORIDE			G					X				
BENZALDEHYDE	X	X	G	E	E	E	C	X	X	X	X	X
BENZENE	X	X	X	C	E	F	C	X	C	C	X	E
BENZENE CARBOXYLIC ACID	X		E	C			E	X	E	C	X	E
BENZINE		X	X	X	E	E	F	E	C	C	F	E
BENZOIC ACID	X	X	C	C			C	X	E	C	X	E
BENZOL	X	X	X	C	E	F	C	X	C	C	X	E
BENZOTRICHLORIDE	X			E			E	X	X	X		
BENZYL ACETATE	X		E	E				X	E	G	X	X
BENZYL ALCOHOL	X	X	E	C			E	X	C	C	X	E
BENZYL CHLORIDE	X	X	X	X			E	X	X	X	X	C
BENZYL ETHER	X	X	G	C			F	X	X	X	C	X
BLACK SULFATE LIQUOR	G	G	G	G	E	E		G	G	G	X	E
BLEACH	C	X	E	E	G	F	E	X	C	E	C	G
BORAX SOLUTION	C	G	E	E	E	E	E	C	E	E	E	E
BORIC ACID	E	E	E	E	E	E	E	E	E	E	E	E
BRAKE FLUID (HD-557)12 DAYS	X	E	E	E			E	C	C	C	X	X
BRINE	E		E	E	E	E	E	E	E	E	G	E
BROMACIL												
BROMOBENZENE	X	X	X	X			X	X	X	X	X	E
BROMOCHLOROMETANE	X		C	G	F	F		X	X	X		F
BROMOETHANE	C	X	C	X	E	E	E	C	X	X	X	E
BROMOTOLUENE	X		X					X		X		G
BUNKER OIL	X	X	X	X			E	E	G	C	C	E
BUTADIENE	X	X	X	X	E	E	C	X	X	G	X	E
BUTANE	X	X	X	X	E	E	C	E	E	C	E	E
BUTANOIC ACID	C		X	C			E	C	X	C	C	E
BUTANOL	E	E	C	C	E	E	E	E	E	E	X	E
BUTANONE	X	X	E	E	E	E	X	X	X	X	X	X
BUTOXYETHANOL	X		C	E			F	C	X	G	X	X
BUTYL ACETATE	X	X	C	C	E	E	X	X	X	X	X	X
BUTYL ACRYLATE	X	X	X	C	E	E	X	X	X	X		X
BUTYL ALCOHOL	E	E	C	C	E	E	E	E	E	E	X	E
BUTYL ALDEHYDE	X	X	C	C	E	E	X	X	X	X	C	X
BUTYL BENZYL PHTHALATE	X		E	E	E	E		X	E	X	X	F
BUTYL CARBITOL	X	X	E	E			C	X	X	C	X	F
BUTYL CELLOSOLVE	X	X	C	C	E	E	F	C	X	G	X	X
BUTYL CHLORIDE	X		F	X				X	X	X	E	E
BUTYL ETHER	X	X	C	C	E	E	X	X	C	X	C	X
BUTYL ETHER ACETALDEHYDE	X		G	X				X	X	X		X
BUTYL ETHYL ETHER	X		X	F				G	X	C		
BUTYL OLEATE	X	X	C	C			C	X	X	X		E
BUTYL PHTHALATE	X	X	G	E	E	E	C	X	X	X	X	F
BUTYL STEARATE	X	X	C	X	E	E	C	C	X	X	G	E

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Chemical or material conveyed	Compound											
	NR	SBR	IIR	EPDM	PE-X	UPE	PTFE	NBR	CR	CSM	AU	FKM
BUTYLENE	X	X	X	X			C	C	C	C	C	E
BUTYRALDEHYDE	X	X	C	C	E	E	X	X	X	X	C	X
BUTYRIC ACID	C	X	X	C	E	E	E	C	X	C	C	G
BUTYRIC ANHYDRIDE	F		F	E				C	G	G	X	
CADMIUM ACETATE	X		E					X		E		X
CALCIUM ALUMINATE	E		E					E		E		E
CALCIUM BICHROMATE			E	E				C	E	F		
CALCIUM BISULFIDE	X	G	X	E			E	C	E	F	C	E
CALCIUM CHLORIDE	E	E	E	E	E	E	E	E	E	E	E	E
CALCIUM HYDROXIDE	E	E	E	E	E	E	E	E	E	E	C	E
CALCIUM HYPOCHLORITE	C	X	E	E	E	E	E	C	C	E	C	E
CALCIUM NITRATE	E	E	E	E			E	E	E	E	E	E
CALCIUM SULFIDE	C	X	E	E			E	E	E	E	C	E
CALCIUM ACETATE	E	X	E	E			C	C	C	C	X	E
CAPRYLIC ACID	C		F					F		G		
CARBAMIDE	E		E	E	E	E	F	G	G	E	G	E
CARBITOL	C	E	C	C	E	E	E	C	C	C	X	E
CARBOLIC ACID PHENOL	C		C				E			C	C	
CARBON DIOXIDE	G	G	E	G	E	E	E	E	G	E	E	E
CARBON DISULFIDE	X		X	X	C	C	C	X	X	X	C	E
CARBON MONOXIDE	C	G	E	E	E	E	E	E	C	C	E	E
CARBON TETRACHLORIDE	X		X	X	E	E	X	X	X	X	C	E
CARBONIC ACID	E	G	E	E	E	E	E	C	E	E	E	E
CASTOR OIL	E	E	C	C	E	E	E	E	E	E	E	E
CAUSTIC SODA	E	E	E	G	E	E	E	C	G	E	C	E
CELLOSOLVE ACETATE	C	X	C	G	E	E	C	X	X	X	C	X
CELLUGUARD	E	E	E	E			E	E	E	E	X	E
CETYLIC ACID	C	G	C	C	E	E	E	E	G	C	C	E
CHINA WOOD OIL	X	X	C	X	E	E	E	E	C	C	C	E
CHLORINATED SOLVENTS	X	X	X	X	E	E	C	X	X	X	X	E
CHLORO-2-PROPANONE	X		C				C			X	X	
CHLOROACETIC ACID	X	X	C	C	E	E	C	X	X	G	X	G
CHLOROACETONE	X	X	C	E	E	E	C	X	X	X	X	X
CHLOROBENZENE	X	X	X	X	E	E	C	X	X	X	X	E
CHLOROBUTANE	X		F	X				X	X	X	E	E
CHLORODANE	X	X	X	X			C	C	C	C	C	E
CHLOROETHYL BENZENE	X		X	X				C	X	X	C	
CHLOROFORM	X	X	X	X	F	F	E	X	X	X	X	E
CHLOROPENTANE	X		X	X			C	X	X	X	F	E
CHLOROSULFONIC ACID	X	X	X	X	F	X	C	X	X	X	X	X
CHLOROTOLUENE	X	X	X	X			C	X	X	X	X	E
CHLOROX	X	X	C	G			E	C	C	C	X	E
CHROME PLATING SOLUTIONS	X	X	C	C			E	X	X	X	X	E
CHROMIC ACID	C	X	C	C	E	E	E	X	X	E	C	E
CHROMIUM TRIOXIDE	X	X	G	C			E	X	X	E	X	C
CINNAMENE	X	X	X	X			X	C	X	X	C	G
CIS-9-OCTADECENOIC ACID	X	X	X	C	E	E	E	G	C	C	C	E
CITRIC ACID	E	E	E	E	E	E	E	E	E	E	E	E
COAL TAR OIL	X	X	X	X	E	E	E	E	G	F	F	E
COAL TAR	X	X	X	X	E	E	C	C	C	C	C	E
COAL TAR NAPHTHA	X		X	X	E	E	E	X	X	X	G	E
COCONUT OIL	X	X	C	C	E	E	C	E	C	C	C	E
COKE OVEN GAS	C	X	C	X	E	E	C	X	X	C	X	E
COOLANOL	X	X	X	X			E	E	C	C	X	E
COPPER CHLORIDE	E	E	E	E	E	E	E	E	C	C	E	E
COPPER CYANIDE	E	E	E	E	E	E	G	E	E	E	E	E
COPPER HYDRATE	F		E					G		G		F
COPPER HYDROXIDE	F		E					G		G		F
COPPER SULFATE	C	G	C	E	E	E	E	E	E	E	C	E
CORN OIL	X	X	C	C	E	E	E	E	C	C	E	E
COTTONSEED OIL	X	X	C	C	E	E	C	E	C	C	E	E
CREOSOTE	X	X	X	X	E	E	C	C	C	X	C	E
CRESOLS	X	X	X	X	E	E	E	X	X	X	X	E
CRESYLIC ACID	X	X	X	X	E	E	C	X	X	X	X	E
CROTONALDEHYDE	X	F	E	E	E	E		X	X	X	X	X
CRUDE OIL	X	X	X	X	E	E	C	C	C	C	E	E
CUMENE	X	X	X	X			C	X	X	X	X	E

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Chemical or material conveyed	Compound											
	NR	SBR	IIR	EPDM	PE-X	UPE	PTFE	NBR	CR	CSM	AU	FKM
CUPRIC CARBONATE												E
CUPRIC HYDROXIDE	F		E					G		G		F
CUPRIC NITRATE	G		E	C	E	E	G	C	E	E	G	E
CUPRIC SULFATE	C	G	C	E	E	E	E	E	E	E	C	E
CUTTING OIL	C	X	X	X			C	E	C	C	E	E
CYCLOHEXANE	X	X	X	X	E	E	C	E	X	C	C	E
CYCLOHEXANOL	C	X	X	X	E	E	C	G	C	C	F	E
CYCLOHEXANONE	X	X	C	C	E	E	C	X	X	X	X	X
CYCLOPENTANE	X		X	X			C	G	C	X	E	E
CYCLOPENTANOL												G
CYCLOPENTANONE	X		X					X		X		X
CYCLOPENTIL ALCOHOL				C				X	F			
D-FURALDEHYDE	X		C	E			C	G	F	C	C	
DDT IN KEROSENE	X	X	X	X			X	E	C	C	G	E
DECAHYDRONAPHTHALENE	X	E	X	X	E	E	C	X	X	X	X	X
DECALIN	X	E	X	X	E	E	C	X	X	X	X	X
DECYL ALCOHOL	X		X	X				E	X	C	E	G
DECYL ALDEHYDE	X		F	X				X		X		X
DECYL BUTYL PHTHALATE	X		E					X		X		F
DETERGENT, WATER SOLUTION	E	G	E	E	E	E	E	E	C	C	G	E
DEVELOPING FLUID	E	G	C	C			E	E	E	E	E	E
DEXTRON	X	X	X	X			E	E	C	X	C	E
DI (2ETHYLHEXYL) ADIPATE	X		E	G	G	G		X	X	X		F
DI (2ETHYLHEXYL) PHTHALATE	X	X	C	C	E	E	C	X	X	X	C	G
DI-ISO-BUTYLENE	X	X	X	X	E		C	C	C	X	X	E
DI-ISO-DECYL PHTHALATE	X		E	E				X	X	X		F
DI-ISO-PROPANOLAMINE	G		E	E				G	G	F		
DI-ISO-PROPYL ETHER	X		X	X	E	E	X	G	C	C	G	X
DI-ISO-PROPYL KETONE	X	X	E	E	E		C	X	X	X	X	X
DI-P-MENTHA-1,8-DIENE	X		X	X				C	X	X		E
DIACETONE ALCOHOL	X	X	E	E	E	E	X	X	F	C	X	X
DIACETYLMETHANE		X	E	E			X	X	X	X	F	X
DIAMMONIUM ORTHOPHOSPHATE				E				E	E			
DIAMYL NAPHTHALENE	X		E		E	E				X		
DIAMYLAMINE	G	X	E	E			E	G	C	C	E	X
DIAMYLENE	X		X	X					X	X		E
DIAMYLPHENOL	X		X		E	E		X		X		E
DIBENZYL ETHER	X	X	C	C			C	X	X	X	C	X
DIBROMOBENZENE	X		X	X				X	X	X		E
DIBROMOMETHANE	X		X	C			G	X	X	X	C	E
DIBUTYL ETHER	X	X	C	C	E	E	X	X	C	X	C	X
DIBUTYL PHTHALATE	X	X	C	C	E	E	C	X	X	X	C	C
DIBUTYL SEBACATE	X	X	C	C	E	E	C	X	X	X	X	E
DIBUTYLAMINE	X	X	X	F			C	X	C	C	X	X
DICALCIUM PHOSPHATE	E		E	E				E	E	E		E
DICHLOROETHYLENE	X		C	C	F	F	C	X	X	X	X	E
DICHLOROACETIC ACID	X	X	C	X	E	E		X	X	X	C	X
DICHLOROBENZENE	X	X	X	X			X	X	X	X	X	E
DICHLOROBUTANE	X	X	X	X			C	C	X	X	X	E
DICHLORODIFLUOROMETHANE	C	E	C	C	E	G	X	C	C	C	C	G
DICHLOROETHANE	X	X	C	X	E	E	C	X	X	X	X	E
DICHLOROETHYL ETHER	X		X	X			E	X	X	X		
DICHLOROHEXANE	X		X	X				X	X	X		E
DICHLOROMETHANE	X	X	X	X			C	X	X	X	X	G
DICHLOROPENTANE	X	X	X	X				X	X	X	X	E
DICHLOROPROPANE	X		X	X	G	G		F	X	X	C	E
DICHLOROPROPENE	X		X	X	G	G		C	X	X	C	
DIESEL OIL	X	X	X	X	E	E	E	E	C	C	C	E
DIETHANOL AMINE	G	X	E	G			E	C	G	F	C	X
DIETHYLBENZENE	X	X	X				C			X	X	E
DIETHYL ETHER	X	X	X	X	E	E	X	X	X	X	C	X
DIETHYL KETONE	X		G	G	E	E		X	X	X		X
DIETHYL OXALATE	F		X	X				X	X	X		
DIETHYL PHTHALATE	X		X	F	E	E		X	X	X	C	F
DIETHYL SEBACATE	X	X	G	F			C	C	X	F	X	G
DIETHYL SULFATE	X	E	C	E			C	X	E	X	X	X
DIETHYL AMINE	C	G	C	C	E	E	C	C	C	C	C	X

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Chemical or material conveyed	Compound											
	NR	SBR	IIR	EPDM	PE-X	UPE	PTFE	NBR	CR	CSM	AU	FKM
DIETHYLENE GLYCOL	E	E	E	E	E	E	E	E	E	E	X	E
DIETHYLENE OXIDE	X		X	E			X	X	X	X	C	X
DIETHYLENTRIAMINE	G	X	E	E			E	G	X	F		X
DIHYDROXY SUCCINIC ACID	E		G	G			E	G	G	E	E	E
DIHYDROXYDIETHYL ETHER	E		E	E	E	E	E	E	E	E	X	E
DIISOBUTYL KETONE	X	X	G	E	E	E	C	X	X	X	X	E
DIISODECYL PHTHALATE	X		E	E	E	E		X	X	X		F
DIISOOCTYL ADIPATE	X		E	E				X	X	X		F
DIISOOCTYL PHTHALATE	X		E	G	E	E		X	X	X		F
DIMETHYL CARBINOL	E		E	E	E	E	E	C	G	E	X	E
DIMETHYL KETONE	C	F	E	E	E	E	X	X	C	X	C	X
DIMETHYL PHTHALATE	X	X	C	C	E	E	C	X	X	X	X	E
DIMETHYL SULFATE	X		G	X	E	E		X	X	X	G	X
DIMETHYL SULFIDE	X		F	X				X	X	X		
DIMETHYLAMINE	G	X	G	E	E	E		F	X	X	X	X
DIMETHYLANILINE	X	X	G	E			G	X	X	X	X	X
DIMETHYLBENZENE	X	X	X	X			X	X	X	X	C	E
DIMETHYLBUTANE	X		X				X			X	G	
DIOXANE	X	X	C	C	E	E	X	X	X	X	X	X
DIPENTENE	X	X	X	X			C	C	X	X	X	E
DIPENTYLAMINE	G	X	E	E			E	G	C	C	E	X
DIPROPYLAMINEOLAMINE												
DIPROPYLENE GLYCOL	E		E	E				E	E	E		E
DISODIUM PHOSPHATE	E		E	E				E	E	E	E	E
DIVINYL BENZENE	X	X	X	X				X	X	X	X	E
DOWTHERMN, A AND E	X	X	X	X			C	X	X	C	X	E
DRY CLEANING FLUIDS	X	X	X	X			G	C	X	X	X	E
ETHANOIC ACID		G		C	E	E		C	C			X
ETHANOL	E	E	E	E	E	E	E	C	E	E	C	E
ETHANOLAMINE	C	X	C	E			E	C	C	C	C	X
ETHERS	X	X	X	X	E	E	X	F	X	X	C	X
ETHYL ACETATE	X	X	C	C	E	E	X	X	X	X	C	X
ETHYL ACETOACETATE	C	F	C	C			X	X	X	X	C	X
ETHYL ACETONE	X		G	G				X	X	X		X
ETHYL ACRYLATE	X	X	C	C			C	X	X	X	X	X
ETHYL ALCOHOL	E	E	E	E	E	E	E	C	E	E	C	E
ETHYL ALDEHYDE	C		E	E	E	E	C	X	X	F	F	X
ETHYL ALUMINIUM DICHLORIDE	X		X					X		X		G
ETHYL BENZENE	X	X	X	X	E	E	F	X	X	X	X	E
ETHYL BROMIDE	C	X	X	X	E	E	E	C	X	X	X	E
ETHYL BUTYL ACETATE	X		E					X		G		X
ETHYL BUTYL ALCOHOL	E		E							E		G
ETHYL CELLULOSE	C	G	C	C	E	E	E	C	C	C	C	X
ETHYL CHLORIDE	C	G	E	C	E	E	G	E	X	C	C	E
ETHYL DICHLORIDE	X	X	F	X	E	E	E	X	X	X	X	G
ETHYL ETHER	X	X	X	X	E	E	X	X	X	X	C	X
ETHYL FORMATE	X	X	C	C			E	X	C	C		E
ETHYL IODIDE	X		F	F	E	E		X	X	X		G
ETHYL OXALATE	E	X	X	E			E	X	X	X	E	E
ETHYL PHTHALATE	X		X	F	E	E		X	X	X	C	F
ETHYL SILICATE	C	G	E	E			E	E	E	C	X	E
ETHYL-N-BUTYL KETONE	X		G	G				X	X	X		X
ETHYL-1-BUTANOL	E		E	E				E	E	E		
ETHYLAMINE	C	X	C	E			E	C	C	F	X	X
ETHYLENE CHLOROXYDRIN	C	G	C	C			E	X	C	C	X	E
ETHYLENE DIAMINE	C	G	E	E	E	E	G	C	E	C	X	X
ETHYLENE DIBROMIDE	X	X	C	C	F	F	G	X	X	X	X	G
ETHYLENE DICHLORIDE	X	X	C	X	F	F	C	X	X	X	X	E
ETHYLENE GLYCOL MONOETHYL ACETATE												E
ETHYLENE GLYCOL MONOBUTYL ETHER	X	X	E	E	E	E	G	F	X	C	X	X
ETHYLENE GLYCOL MONOETHYL ETHER	X		C	C	E	E	C	C	X	X	X	X
ETHYLENE GLYCOL	E	E	E	E	E	E	E	E	E	E	C	E
ETHYLENE OXIDE	X	X	C	C	E	E	X	X	X	X	X	X
FATTY ACIDS	X	X	C	X	E	G	E	C	C	C	G	E
FERRIC BROMIDE	E		E					E		E		E
FERRIC CHLORIDE	E	E	E	E		E	E	E	C	C	E	E
FERRIC NITRATE	E	E	E	E		E	E	E	E	E	E	E

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Chemical or material conveyed	Compound											
	NR	SBR	IIR	EPDM	PE-X	UPE	PTFE	NBR	CR	CSM	AU	FKM
FERRIC SULFATE	E	E	E	E		E	E	E	E	E	E	E
FERROUS ACETATE	X		E	G				X	X	E		X
FERROUS CHLORIDE	E		E	E		E	E	E	E	E	E	E
FERROUS SULFATE	E	E	E	E		E	E	E	E	E	E	E
FLUOROBORIC ACID	E	E	C	E	E	E		E	E	E	X	E
FLUORINE	X		X	E	G	G		X	X	X	X	E
FLUROSILICIC ACID	E	G	E	E	E	E	E	E	E	E	C	E
FORMALDEHYDE	C	G	C	C	E	E	C	C	C	C	C	E
FORMALIN	C	G	C	E	E	E	C	G	G	C	C	E
FORMIC ACID	C	E	E	E	E	E	C	C	C	E	X	C
FREON 113	C	G	X	X			X	E	E	C	C	E
FREON 12	X	E	X	C	F	G	X	C	C	E	E	E
FREON 22	C	E	C	C	F	E	X	X	E	E	X	X
FUEL A	X		X	X			F	E	C	C	E	
FUEL B	X		X	X			X	C	X	X	C	
FUEL OIL	X	X	X	X	E	E	C	E	C	C	C	E
FURAN	X	X	X	X	E	E	C	X	X	X	X	X
FURFURAL	X	X	C	C	E	E	C	X	X	C	C	X
FUEL A (ASTM)	X	X	X	X				E	C	X		E
FUEL B (ASTM)	X	X	X	X				C	X	X		E
FUEL OIL	X	X	X	X	E	E	E	E	C	C	X	E
FURAN	X	X	X	X	E	E		X	X	X		
FURFURAL	X	X	E	C	E	E	E	X	X	X		X
FURFURAN	X	X	X	X	E	E	C	X	X	X	X	X
FURFURYL ALCOHOL	X	X	C	C	E	E	G	X	X	X	X	X
GALLIC ACID	E	G	C	C	E	E	E	C	C	C	X	E
GALLOTANNIC ACID	E		G	E			E		E	E	E	E
GAS, COAL											G	
GASOLINE	C	X	C	X	E	E	C	E	X	C	C	E
GLACIAL ACRYLIC ACID	X		X	X			X	X	X	G	C	
GLUCONIC ACID	X		F	E				C	E	G		
GLUCOSE	E	E	E	E	E	E	E	E	C	E	E	E
GLYCERINE	E	E	E	E	E	E	E	E	E	E	G	E
GLYCEROL	E	E	E	E	E	E	E	E	E	E	G	E
GLYCOGENIC ACID	X		F	E				F	E	G		
GLYCOLS	E	E	E	E	E	E	E	E	E	E	C	E
GLYCONIC ACID	X		F	E				F	E	G		
GLYCLYL ALCOHOL												
GREASE	X	X	X	X			G	E	F	C	E	E
GREEN SULPHATE LIQUOR	C	G	E	E			E	C	C	G	E	E
HELIUM	E	E	E	E			E	E	E	E	E	E
HEPTALDEHYDE	X	X	C	C			C	E	C	X	C	
HEPTANAL	X	X	C	C			C	E	C	X	C	
HEPTANE	X	X	X	X		E	C	E	C	C	C	E
HEPTANOIC ACID	X		X	X				E	C	C	E	
HEXADECANOIC ACID	E	G	G	G	E	E		E	X	X	E	E
HEXALDEHYDE	X	X	C	C	E	E	C	X	C	C	C	X
HEXANE	X	X	X	X	E	E	C	E	C	C	C	E
HEXANOL	E	E	C	C	E	E	E	C	C	C	C	E
HEXENE	X	X	X	X			X	C	C	C	C	E
HEXYL ALCOHOL	E	E	C	C	E	E	E	C	C	C	C	E
HEXYL METHYL KETONE	X		G	G				X	C	X	X	X
HEXYLAMINE	F		G	G				F	G	F		X
HEXYLENE GLYCOL	E		E	F				C	E	E	X	E
HISTOWAX	X		X							C	E	
HYDRAULIC & MOTOR OIL	X	X	C	C	E	E	E	C	C	C	C	E
HYDRAZINE	C	G	C	E			E	C	C	C	X	X
HYDROBROMIC ACID	E	X	E	E	E	E	E	X	C	E	X	E
HYDROCHLORIC ACID	C	X	C	C	C	C	E	C	C	C	C	E
HYDROCYANIC ACID	C	G	C	E			E	C	C	E	C	E
HYDROFLUORIC ACID	C	X	C	C	E	E	E	C	C	E	C	G
HYDROFLUOSILICIC ACID	E	G	E	E	E	E	E	X	C	E	F	E
HYDROGEN CHLORIDE ANHYDROUS	X	X	E	E			E	X	C	E		E
HYDROGEN DIOXIDE	G		G	G			E	F	F	C	G	E
HYDROGEN GAS	C	G	E	E	E	E	E	E	E	E	E	E
HYDROGEN PEROXIDE OVER 10%	C	X	C	C	C	F	C	X	X	C	C	E
HYDROGEN PEROXIDE 10%	G	X	G	G	E	E	E	F	F	C	G	E

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Chemical or material conveyed	Compound											
	NR	SBR	IIR	EPDM	PE-X	UPE	PTFE	NBR	CR	CSM	AU	FKM
HYDROGEN SULFIDE	X	X	E	E	E	E	E	X	E	G	C	X
HYDROXY BENZENE	C		C	C			E	X	X	C	X	E
HYDROXYISOBUTYRONIRILE	C		E	E				C	G	F	X	
HYDROXYTOLUENE	X	X	C	C			E	X	C	C	X	E
IMINODI-2-PROPANOL	G		E	E				G	G	F		
IMINODIETHANOL	C	X	C	G			E	C	G	F	C	X
IODINE	X	G	C	C	E	E	E	C	C	C	C	E
IODINE PENTAFLUORIDE	X	X	X	X			X	X	X	X	X	X
ODOFORM	X		X	E			X	E	X	X	C	
ISO-BUTANAL	X	G		G	E	E	X	X	F		X	X
ISO-BUTYLAMINE	F		E	G				X	X	F		X
ISO-BUTYLBROMIDE	X		X	X				X	X	X		G
ISO-BUTYLCARBINOL	X		E	E			E	E	E	E	F	E
ISOCYANATES	F		G	G	E	E	F	C	X	F	G	G
ISOCTANE	X	X	X	X	E	E	F	E	C	C	C	E
ISOPROPYL ACETATE	X	X	C	C	E	E	X	X	X	X	X	X
ISOPROPYL ALCOHOL	E	E	E	E	E	E	E	C	C	E	X	E
ISOPROPYL ETHER	X	X	X	X	E	E	X	G	X	C	G	X
JET FUELS	X	X	X	X	E	E	C	C	C	X	C	E
JP-4 OIL	X	X	X	X			C	E	X	X	C	E
KEROSENE	X	X	X	X	E	E	C	E	C	C	E	E
KETONES	C	E	G	E	E	E	X	C	C	C	C	X
LACQUER SOLVENTS	X		X	X	E	E	X	X	X	X	X	X
LACTIC ACID - COLD	E	G	E	C	G	G	E	C	C	E	C	E
LACTIC ACID - HOT	E	X	E	C	G	G	E	C	C	E	C	E
LARD	X	X	C	C	E	E	E	E	C	C	E	E
LAVENDER OIL	X	X	X	X			E	C	X	X	X	E
LEAD ACETATE	E	X	E	E	E	E	X	C	C	X	C	E
LEAD NITRATE	E	E	E	E			G	E	E	E		E
LEAD SULFATE	E		E	E	E	E		E	E	E	G	E
LIME	E		E	E	E	E		G	G	G	E	E
LIME BLEACH	C	E	E	E			E	C	C	E	C	E
LIME SULFUR	C	X	E	E	E	E	E	E	E	E	C	E
LIMONENE	X		X	X			C	C	X	X	X	E
LINOLEIC ACID	X	X	X	X			E	C	C	X	F	G
LINSEED OIL	X	X	C	C	E	E	E	E	C	C	E	E
LIQUID PETROLEUM GAS	X	X	X	X	E	E	G	E	G	C	E	E
LUBRICATING OIL	X	X	X	X	E	E	E	C	C	C	C	E
LYE SOLUTIONS	E	G	E	G			E	C	G	E	C	G
MEK	X	X	E	E	E	E	X	X	X	X	X	X
MAGNESIUM ACETATE	X	X	E	G				X	X	E	X	X
MAGNESIUM CHLORIDE	E	E	E	E	E	E	E	E	E	E	E	E
MAGNESIUM HYDRATE	C	G	E	E	E	E	G	C	C	E	C	G
MAGNESIUM HYDROXYDE	C	G	E	E	E	E	G	C	C	E	C	G
MAGNESIUM SULFATE	C	G	E	E	E	E	E	E	E	E	G	E
MALEIC ACID	X	X	X	C	E	E	E	X	X	X	C	E
MALEIC ANHYDRIDE	X	X	C	C			E	X	X	X		G
MALIC ACID	E	G	X	C	C	C	E	E	C	C	C	E
MANGANOUS SULFATE	G		G	E			E	E	E	E	X	
MERCURY	E	E	E	E	E	E	E	E	E	E	E	E
MERCURY VAPORS	G	E	E	E			E	E	G	E		E
MESITYL OXIDE	X	X	F	C			X	X	X	X	X	X
METHALLYL ALCOHOL	E		E	E				E	E	E		G
METHALLYL CHLORIDE	X		X						X	X	C	
METHANE CARBOXYLIC ACID see Acetic Acid					E	E						
METHANOIC ACID	C	E	E	E	E	E	C	G	E	E	X	C
METHANOL	E	E	C	E	E	E	E	C	E	E	C	F
METHOXY ETHANOL	E		E	E	E	E		C	E	E	X	
METHYL ACETATE	C	X	C	C			X	X	C	X	X	X
METHYL ACETOACETATE	X	X	C	C			X	X	X	X	X	
METHYL ACETONE	X	X	E	E	E	E	X	X	X	X	X	
METHYL ALLYL CHLORIDE	X		X						X	X	C	F
METHYL AMYL CARBINOL	G		G	E			C	E	G	E	X	G
METHYL BENZENE	X	X	X	X	F	F	X	X	X	X	X	E
METHYL BROMIDE	X	X	C	X	F	F	G	C	X	X	X	E
METHYL BUTANE	X		X	X			X	E	X	X	G	
METHYL BUTYL KETONE	X	X	E	E	E	E	X	X	X	X	X	X

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Chemical or material conveyed	Compound											
	NR	SBR	IIR	EPDM	PE-X	UPE	PTFE	NBR	CR	CSM	AU	FKM
METHYL CARBITOL				G			E	F	F			
METHYL CELLOSOLVE	X	X	C	C	E	E	E	C	C	C	X	X
METHYL CHLORIDE	X	X	C	C	F	F	X	X	X	X	X	E
METHYL CYANIDE	G		E	E			E	C	E	G	X	X
METHYL ETHYL KETONE	X	X	E	E	E	E	X	X	X	X	X	X
METHYL HEXANOL	E		E	E				E	E	E		G
METHYL METHACRYLATE	X	X	X	X	E	E	X	X	X	X	X	X
METHYL NORMAL AMYL KETONE	X			E				C	E	X		X
METHYL PROPYL ETHER	X		X	X				X	X	C	X	
METHYL SALICYLATE	X		C	C	E	E	F	X	X	X		
METHYL STYRENE	X		X	X				X	X	X		
METHYL SULFIDE	X		F	X				X	X	X		
METHYL-ISO-AMYL-KETONE	X		G							X		
METHYL-2-BUTANONE	X	X	C	C			X	X	X	X	X	X
METHYL-2-HEXANONE	X		G							X		
METHYL-2-PENTANOL	G		E	E				G	G	E		C
METHYL-2-PENTANONE	X		C	C			X	X	X	X	X	
METHYL-4-ISOPROPYL BENZENE	X		X	X			F	X	X	X	X	E
METHYL AMYL ACETATE	X									X		X
METHYL AMYL ALCOHOL	G		E	E				G	G	E		C
METHYLCYCLOHEXANE	X		X	X				X	X	C		G
METHYLENE BROMIDE	X		X	X	E	E	G	C	X	X	C	G
METHYLENE CHLORIDE	X	X	X	C	F	F	C	X	X	X	X	G
METHYLETHYL KETONE	X	X	E	E			X	X	X	X	X	X
METHYL HEXYL KETONE	X		G	G	E			X	C	X	X	X
METHYL ISOBUTYL CARBINOL	G		E	C				X	X	E		C
METHYLISOBUTYL KETONE	X	X	C	C	E	E	X	X	X	X	X	X
METHYLISOPROPYL KETONE	X	X	C	C			X	X	X	X	X	X
METHYLLACTONITRILE	F		E	E				X	G	F	X	
METHYLPROPYL CARBINOL	E		E					E		E		G
METHYLPROPYL KETONE	X		G	G	E	E		X	X	X		X
MIL-A-6091	E		E	E				C	E	E	X	
MIL-C-4339	X		X	X				E	X	X	E	
MIL-C-7024	X		X	X				E	C	X	E	
MIL-E-9500	E	E	E	E				E	E	E	X	E
MIL-F-16884	X	X	X	X				E	C	C	C	E
MIL-F-17111	X	X	X	X				E	C	X	C	E
MIL-F-25558	X	X	X	X			E	E	C	C	G	
MIL-G-10924	X	X	X	X				E	C	C	G	E
MIL-G-25013	C	X	X	E				E	C	C	C	
MIL-G-25537	X	X	X	X				E	C	C	G	
MIL-G-3545	X		X	X				E	C	C	E	
MIL-G-5572	X	X	X	X				E	X	X	C	E
MIL-G-7711	X	X	X	X				E	X	X	E	E
MIL-H-05606	X		X	C				E	C	C	C	E
MIL-H-13910	E	E	G	E				E	E	G	X	E
MIL-H-19457	X	X	E	C				X	X	X	X	C
MIL-H-22251		G	E	E				C	C	C		
MIL-H-27601	X		X	X				G	C	C	C	X
MIL-H-5606	X		X	C			E	E	C	C	C	E
MIL-H-6083	C	X	X	X				E	E	C	G	E
MIL-H-8446	X	X	X	X			E	G	E	C	C	E
MIL-J-5161	X	X	X	X				C	X	X	C	E
MIL-J-5624	X	X	X	X			C	E	X	X	C	E
MIL-L-15016	X	X	X							C	E	E
MIL-L-17331	X	X	X							G	E	E
MIL-L-2104	X		X	X				E	C	C	E	
MIL-L-21260	X	X	X	X				E	C	C	E	
MIL-L-23699	X	X	X	X			E	C	C	C	C	
MIL-L-25681	C	G	E	E				C	C	C	C	
MIL-L-3150	X	X	X	X				E	C	C	C	E
MIL-L-4343		X										E
MIL-L-6082		X										E
MIL-L-6085	X	X	X	X				C	X	X	C	E
MIL-L-7808	X	X	X	X			E	G	X	X	X	E
MIL-L-7870	X	X	X	X				E	C	X	C	E
MIL-L-9000	X	X	X	X				E	C	C	C	E

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	NR	SBR	IIR	EPDM	PE-X	UPE	PTFE	NBR	CR	CSM	AU	FKM
MIL-L-9236	X	X	X	X				C	X	X	X	E
MIL-P-27402		G	E	E				C	C	C		
MIL-R-25576	X		X				E			C	E	
MIL-S-3136 TYPE 1 FUEL	X	X	X	X				E	C	C	G	E
MIL-S-3136 TYPE 2 FUEL	X	X	X	X				C	X	X	C	E
MIL-S-3136 TYPE 3 FUEL	X	X	X	X				G	X	X	C	E
MIL-S-3136 TYPE 4 OIL, LOWSWELL	X	X	X	X				E	X	C	E	E
MIL-S-3136 TYPE 5 OIL, MEDSWELL	X	X	X	X				E	G	G	E	E
MIL-S-3136 TYPE 6 OIL, HI SWELL	X	X	X	X			E	E	X	C	E	E
MIL-S-81087	E	E	E	E				E	E	E	E	
MINERAL OIL	X	X	C	X	E	E	E	E	C	C	E	E
MINERAL SPIRITS	X	X	X	X				C	C	G	C	E
MOBILE HF A	X	X	X	X			E	E	C	X	G	E
MOLTEN SULFUR	G		G	E				G	E	E	G	E
MONO-CHLOROACETIC ACID	C	X	G	G	E	E	X	X	C	G	X	C
MONOBUTYL ETHER	X	X	C	C				G	C	C	C	X
MONOCHLOROBENZENE	X	X	X	X	F	F	C	X	X	X	X	E
MONOCHLORODIFLUOROMETHANE	C	E	C	C	E	E	X	X	C	E	X	C
MONOETHANOL AMINE	C	G	C	C			E	G	G	C	C	X
MONOETHYL AMINE	C	F	C	E			E	C	C	F	X	X
MORPHOLINE	X		C	C				X	X	X	C	
MOTOR OIL, 40W	X		X	X				E	C	C	G	E
MTBE			G				G	X	X			
MURIATIC ACID	C	X	C	F				C	C	C	C	E
N-BUTANAL	X	X	C	C	E	E	X	X	X	X	C	X
N-BUTYLAMINE	X	X	C	C			C	C	X	X	X	X
N-BUTYLBENZENE	X		X	X				X	X	X		E
N-BUTYLBROMIDE	X		X	X				X	X	X		G
N-BUTYLBUTYRATE	X	X	E	E			E	X	X	X		E
N-BUTYLCARBINOL	E		E	E	E	E	E	E	E	E	X	G
N-NONYL ALCOHOL	E		E	E				E	E	E		G
N-OCTANE	X	X	X	X	E	E	C	C	G	X	X	E
NAPHTHA	X	X	X	X	E	E	E	C	X	C	F	E
NAPHTHALENE	X	X	X	X	E	E	F	X	X	X	C	E
NAPHTHENIC ACID	X	X	X	X			E	C	X	X		E
NATURAL GAS	C	F	X	X	E	E	E	E	E	E	F	E
NEOHXANE	X		X	X				E	G	X	X	E
NEON GAS	E	E	E	E			E	E	E	E	E	E
NEU-TRI	X		X					X		X		E
NICKEL ACETATE	E	X	E	E			X	C	G	X	X	X
NICKEL CHLORIDE	E	E	E	E	E	E	E	E	C	E	C	E
NICKEL NITRATE	E		E	E	E	E		E	E	E	C	E
NICKEL SULFATE	C	G	E	E	E	E	E	E	E	E	E	E
NITRIC ACID, CONC	X		X	X			C	X	X	X	X	
NITRIC ACID, RED FUMING	X	X	X	X	X	X	F	X	X	X	X	E
NITRIC ACID, 10%	X	X	E	E	E	E	E	X	G	E	X	E
NITRIC ACID, 13N	X						C	X	X		X	
NITRIC ACID, 13N +5%	X						C	X	X		X	
NITRIC ACID, 20%	X	X	G	E	E	E	E	X	X	E	X	E
NITRIC ACID, 30%	X	X	F	F	G	G	E	X	X	E	X	E
NITRIC ACID, 30% - 70%	X	X	F	X	F	F	G	X	X	C	X	E
NITRILOTRIETHANOL	C	G	E	E	E	E	E	F	C	C	X	X
NITROBENZENE	X	X	F	C	E	E	E	X	X	X	X	G
NITROETHANE	G	G	G	C			C	X	C	G	X	X
NITROGEN	E	E	E	E	E	E	E	E	E	E	E	E
NITROMETHANE	G	C	G	C			C	X	C	C	X	X
NITROUS OXIDE GAS				E			F	E	G			E
NONANOIC ACID	X		E		E	E		E		X		
NONANOL	E		E	E				E	E	E		
OCTANOIC ACID	F		F				G	F		G		
OCTANOL	C	E	C	C			E	C	C	C	X	E
OCTYL ACETATE	C	X	E	G	E	E		C	C	E	X	
OCTYL ALCOHOL	C	E	C	C			E	C	C	C	X	G
OCTYL ALDEHYDE	X		F		E	E		X		X		X
OCTYL AMINE	F		E	G				F	G	F		X
OCTYL CARBINOL	E		E	E				E	E	E		G
OCTYLENE GLYCOL	E		E	E				E	E	E		E

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Chemical or material conveyed	Compound											
	NR	SBR	IIR	EPDM	PE-X	UPE	PTFE	NBR	CR	CSM	AU	FKM
OIL-PETROLEUM		X			G	G						E
OLEIC ACID	X	X	X	X	E	E	E	G	F	C	C	E
OLEUM	X	X	X	X	X	X	E	X	X	X	X	G
OLIVE OIL	X	X	C	G			E	E	G	C	E	E
ORTHO-DICHLOROBENZENE	X	X	X	X			X	X	X	X	X	E
ORTHO-DICHLOROBENZOL	X	X	X	X			X	X	X	X	X	E
ORTHOXYLENE	X	X	X	X			X	X	X	X	C	E
OXALIC ACID	C	G	E	E	E	E	E	G	G	E	C	E
OXYDIETHANOL												
OZONE	X	X	G	E	E	E	E	X	F	G	G	E
P-CYMELE	X		X	X			F	X	X	X	X	E
PAINT THINNER	X	X	X	X			F	X	X	X	C	E
PALMITIC ACID	C	G	C	C	E	E	E	E	G	C	C	E
PAPERMAKERS ALUM												E
PARA-DICHLOROBENZENE	X	X	X	X			C	X	X	X	X	E
PARAFFIN WAX	X		X	X				E	G	E	E	E
PARALDEHYDE	F		E	E				C	G	X	X	X
PARAXYLENE	X		X	X			X	X	X	X	C	E
PELARGONIC ALCOHOL	E		E	E	E	E		E	E	E		G
PENTACHLOROETHANE	X		X					X	X	X	C	E
PENTADIONE												
PENTAMETHYLENE	X		X	X			C	G	C	X	E	E
PENTANE	X	X	X	X	E	E	E	E	E	C	X	E
PENTANOL	E		E		E	E	E			E	X	G
PENTANONE	X		G	G				X	X	X		X
PENTASOL	X	G	E	G	E	E	E	C	G	E	X	G
PENTYL ACETATE	C	X	X	C	E	E	X	X	X	X	X	X
PENTYL ALCOHOL	C	G	C	E	E	E	E	C	C	E	X	E
PENTYL BROMIDE	X		X	C				X	X	X		G
PENTYL CHLORIDE	X	X	X	X	E	E	E	X	X	X	F	E
PENTYL ETHER	X		X	X				C	X	F		
PENTYLAMINE	F		G	X				F	F	F		X
PERCHLORIC ACID	C	X	C	G	E	E	E	X	E	C	C	E
PERCHLOROETHYLENE	X	X	X	X	E	E	X	F	X	X	X	E
PERCHLOROMETHANE	X		X	X			X	X	X	X	X	
PETROLEUM CRUDE	X	X	X	X	E	E	E	G	G	E	G	E
PETROLEUM ETHER	X	X	X	X			G	E	X	C	G	E
PETROLEUM OILS	X	X	X	X	E	E		X	G	G	G	E
PHENBO												
PHENOL	C	X	C	X	E	E	E	X	X	C	X	E
PHENOLSULFONIC ACID	C	X	G	E				C	C	C	X	C
PHENYLAMINE	X		E	C	E	E		X	X	C	X	E
PHENYLBROMIDE	X		X				X			X	X	G
PHENYLMETHANE	X		X	X	E	E	X	X	X	X	X	E
PHENYLMETHANOL	X		E	C			E	X	C	C	X	E
PHENYLMETHYL ACETATE												X
PHOSPHATE ESTERS	X	X	E	E			E	X	X	X	X	C
PHOSPHORIC ACID 10%	E	E	E	E	E	E	E	E	E	E	E	E
PHOSFORIC ACID 10% - 85%	G	G	E	E	E	E	E	G	G	E	G	E
PHOSPHORUS TRICHLORIDE	X	X	E	E	E	E	E	X	X	X		E
PICRIC ACID, H2O SOLUTION	C	G	G	E			G	E	E	E	G	E
PINE OIL	X	X	X	X	E	E	E	E	X	X	E	E
PINENE	X	X	X	X			E	C	C	X	C	E
POLYETHYLENE GLYCOL E-400	E		E	E			E	C	G	E		E
POLYOL ESTER				X				G	X			
POLYPROPYLENE GLYCOL	E		E		E	E	E	E	E	E		E
POTASSIUM ACETATE	E	X	E	E			E	C	E	E	X	C
POTASSIUM BISULFATE	E	G	E	E				E	E	E	X	E
POTASSIUM BISULFITE	E	G	E	E				E	E	E	E	E
POTASSIUM CARBONATE	E	E	E	E	E	E	E	E	E	E	X	E
POTASSIUM CHLORIDE	E	E	E	E	E	E	E	E	E	G	E	E
POTASSIUM CHROMATE	G	G	E	E				G	E	F	C	E
POTASSIUM CYANIDE	E	E	E	E	E	E	E	E	E	E	E	E
POTASSIUM DICHROMATE	C	G	E	E	E	E	E	E	E	G	G	E
POTASSIUM HYDRATE	C	G	E		E	E	E			E	C	F
POTASSIUM HYDROXYDE	C	G	E	E	E	E	E	G	G	E	C	F
POTASSIUM NITRATE	E	E	E	E	E	E	E	E	E	E	E	E

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Chemical or material conveyed	Compound											
	NR	SBR	IIR	EPDM	PE-X	UPE	PTFE	NBR	CR	CSM	AU	FKM
POTASSIUM PERMANGANATE, 5%	E	G	E	E	E	E	E	F	E	G	X	E
POTASSIUM SILICATE	E	E	E	E				E	E	E	E	E
POTASSIUM SULFATE	C	G	E	E	E	E	E	E	E	E	E	E
POTASSIUM SULFIDE	G	G	E	E				C	E	E	C	E
POTASSIUM SULFITE	C	G	E	E	E	E		E	E	C	E	E
PRESTONE ANTIFREEZE	E	E	E	E			G	E	E	E	X	E
PRODUCER GAS	X	X	X	X			E	E	G	C	E	E
PROPANE	X	X	X	X	E	E	E	E	E	C	G	E
PROPANEDIOL	E	E	E	E	E	E	E	E	G	E	G	E
PROPANETRIOL	E	E	E	E	E	E	E	E	E	E	C	E
PROPANOL	E	E	E	E	E	E	E	E	E	E	X	E
PROPANOLAMINE												
PROPANONE	C	G	E	E	E	E	X	X	X	C	X	X
PROPENOL	E		E							E		E
PROPANEDIAMINE	G		E					G		F		
PROPENE NITRILE	G		X		E	E		X	X			
PROPENYL ALCOHOL	E		E	E	E	E		E	E	E		E
PROPENYL ANISOLE	X		X		E	E		X		X		G
PROPIONIC ACID	E	X	E	E			E	C	C	G	X	X
PROPIONITRILE	E		E	C			E	E	C			X
PROPYL ACETATE	X	X	C	C	E	E	X	X	X	X	X	X
PROPYL ALCOHOL	E	E	E	E	E	E	E	E	E	E	X	E
PROPYL ALDEHYDE	F		G	G				X	X	X		X
PROPYL BENZENE	X		X						X	X	C	
PROPYL CHLORIDE	X		F	F				X	F	X		G
PROPYL NITRATE	X	X	C	C			F	X	X	X	X	X
PROPYLENE	X	X	X	X			E	X	X	X	X	E
PROPYLENE DIAMINE	G		E					G		F		
PROPYLENE GLYCOL	E	E	E	E	E	E	E	E	E	E	G	E
PYDRAUL, 'E' SERIES	X	X	C	C			E	X	X	X	X	X
PYDRAULIC 'C'	X	X	X	X			E	X	X	X	X	E
RED OIL	X	X	X	F	E	E	E	E	F	C	C	E
REFRIGERANT 11	X	X	X		E	E	X			E	X	C
REFRIGERANT 12	X	E	X		E	E	X			E	E	G
REFRIGERANT 22	C	E	X		E	E	X			E	X	C
RESORCINOL	E	G	E	G			E	C	A	G	X	E
SAE NO. 10 OIL	X	X	X	X			E	E	C	X	E	E
SAL AMMONIAC	E	E	E	E	E	E	E	E	E	E	G	E
SEA WATER	E	E	E	E	E	E	E	E	E	E	G	E
SEWAGE	G	G	G	G	E	E	E	E	C	E	X	E
SILICATE ESTERS	X	C	X	X			E	G	E	G	E	E
SILICATE OF SODA	E	E	E	E			E	E	E	E	G	E
SILICONE GREASE	E	E	E	E	E	E	E	E	E	E	E	E
SILICONE OIL	E	E	E	E	E	E	E	E	E	E	E	E
SILVER NITRATE	E	G	E	E	E	E	E	C	E	E	E	E
SKYDROL 500 TYPE 2	X	X	G	E			X	X	X	X	X	G
SKYDROL 500B	X	X	G	E			X	X	X	X	X	G
SKYDROL 500C	X	X	G	E			X	X	X	X	X	G
SKYDROL 7000 TYPE 2	E	X	E	E			E	X	X	X	X	F
SOAP SOLUTIONS	F	X	E	E	E	E	E	E	G	E	G	E
SODA ASH	E	X	E	E	E	E	E	E	E	E	G	E
SODA LIME	E		E	E			G	G	G	G	F	G
SODA NITER	G	G	E	E	E	E	E	E	G	E	E	E
SODIUM ACETATE	F	X	F	E	E	E	C	G	C	G	C	X
SODIUM ALUMINATE	E	G	E	E			E	E	E	E	X	E
SODIUM BICARBONATE	E	E	E	E	E	E	E	E	E	E	E	E
SODIUM BISULFATE	E	G	E	E	E	E	E	E	E	E	E	E
SODIUM BISULFITE	E	G	E	E	E	E	E	E	E	E	G	E
SODIUM BORATE	E	E	E	E	E	E	E	E	E	E	E	E
SODIUM CARBONATE	E	E	E	E	E	E	E	E	E	E	C	E
SODIUM CHLORIDE	E	E	E	E	E	E	E	E	E	E	E	E
SODIUM CYANIDE	E	E	E	E	E	E	E	E	E	E	E	E
SODIUM DICHROMATE	X	G	E	E			E	E	F	G	G	E
SODIUM HYDRATE	E	G	E	E	E	E	E	X	G	C	C	G
SODIUM HYDROCHLORITE	F	G	G	G			E	F	F	E	C	E
SODIUM HYDROXIDE	E	G	E	E	E	E	E	X	G	C	C	G
SODIUM HYPOCHLORITE	X	F	C	E	E	E	E	C	C	G	X	E

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Chemical or material conveyed	Compound											
	NR	SBR	IIR	EPDM	PE-X	UPE	PTFE	NBR	CR	CSM	AU	FKM
SODIUM METAPHOSPHATE	E	E	G	E	E	E	E	E	E	C	C	E
SODIUM NITRATE	G	G	E	E	E	E	C	C	G	E	E	E
SODIUM PERBORATE	G	G	E	E			E	C	G	E	G	E
SODIUM PEROXIDE	C	G	E	E	E	E	E	C	G	G	X	E
SODIUM PHOSPHATE	E	E	E	E	E	E	E	E	G	E	E	E
SODIUM SILICATE	E	E	E	E	E	E	E	E	E	E	G	E
SODIUM SULFATE	C	G	E	E	E	E	E	E	E	E	E	E
SODIUM SULFIDE	G	G	E	E	E	E	E	E	E	E	E	E
SODIUM SULFITE	G	G	E	E	E	E	E	E	E	E	E	E
SODIUM THIOSULFATE	G		E	E	E	E	E	C	E	E	E	
SOYBEAN OIL	X	X	G	C			E	E	E	G	C	E
STANNIC CHLORIDE	E	E	E	E	E	E	E	E	G	E	E	E
STANNIC SULFIDE	E		E	E				E	E	E		
STANNOUS CHLORIDE	E	E	E	G	E	E	E	E	E	E	G	E
STANNOUS SULFIDE	E		E	E				E	E	E		
STEAM, BELOW 350 DEG F	C	X	G	E	X	X	E	X	X	C	X	C
STEARIC ACID	C	G	C	G	E	E	E	G	G	G	E	E
STODDARD SOLVENT	X	X	X	X	E	E	G	E	G	X	E	E
STYRENE	X	X	X	X	F	F	X	X	X	X	X	E
SULFAMIC ACID	G		E	E				C	G	E	X	E
SULFUR	X	X	E	E	E	E	E	X	E	E	X	E
SULFUR CHLORIDE	X	X	X	E			E	C	E		C	E
SULFUR DIOXIDE	C	G	C	E		G	G	X	C	C	C	E
SULFUR TRIOXIDE, DRY	C	X	G	E	X	X	G	X	X	X	X	E
SULFURIC ACID, CONC.	X	X	X	X	F	F	E	X	X	X	X	E
SULFURIC ACID, FUMING	X	X	X	X	X	X	E	X	X	X	X	E
SULFURIC ACID, 25%	E	F	G	E	E	E	E	C	C	E	X	E
SULFURIC ACID, 25%-50%	G	F	G	E	E	E	E	C	X	G	X	E
SULFURIC ACID, 50%-96%	X	X	X	X	G	G	E	X	X	X	X	E
SULFUROUS ACID, 10%	G	G	E	E	E	E	E	E	C	E	X	E
SULFUROUS ACID, 10%-75%	G	G	E	E	E	E	E	F	C	E	X	E
T-BUTYL AMINE	X		C	C			G	C	X	X	X	
TALL OIL	X	X	X	X			E	E	C	F	E	E
TALLOW	X	X	X	E	E	E	E	E	G	F	E	E
TANNIC ACID	E	G	E	E	E	E	E	E	E	E	E	E
TAR	X	X	X	X	X	F	E	X	X		G	E
TAR BITUMINOUS	X	X	X	X			E	G	C	X	G	E
TARTARIC ACID	E	G	G	G	E	E	E	E	E	E	E	E
TELLONE 2	C											
TERTIARY BUTYL ALCOHOL	C	G	C	C			E	C	C	C	X	E
TERPINEOL	X	X	C				E			X	C	E
TERTIARY BUTYL AMINE	X		C	C			G	C	X	X	X	
TERTIARY BUTYL MERCAPTAN	X	X	X	X			E	X	X	X	X	E
TETRACHLOROBENZENE	X		X	X				X	X	X		G
TETRACHLOROETHANE	X	X	X	X	F	F	X	X	X	X	X	E
TETRACHLOROETHYLENE	X	X	X	X	F	F	X	C	X	X	X	E
TETRACHLOROMETHANE	X		X	X	E	E	E	X	X	X	F	E
TETRACHLORONAPHTHALENE	X		X	X	E	E		X	X	X		G
TETRAETHYLENE GLYCOL	E		E	E				E	E	E		E
TETRAETHYLORTHOSILICATE	X		E	E				E	E			
TETRAHYDROFURAN	X	X	C	X			X	X	X	X	X	X
TIN CHLORIDE	E		E	E	E	E	E	E	C	C	G	E
TITANIUM TETRACHLORIDE	X	X	X	X			G	C	C	X	X	E
TOLUENE	X	X	X	X	E	E	X	X	X	X	X	E
TOLUIDINE	X		X	X	E	F		C	X	X	C	G
TOLUOL	X	X	X	X	E	E	X	X	X	X	X	E
TRANSFORMER OIL	X	X	X	X	E	E	E	C	C	C	C	E
TRANSMISSION 'A' OIL	X		X	X			E	E	C	C	E	
TRI-AMINE	C		E	E			E	G	C	C	X	
TRIBUTYL PHOSPHATE	C	X	G	G			G	F		X	X	X
TRIBUTYLAMINE	G		E					G		F		
TRICHLOROACETIC ACID	C	X	C	C			F	C	C	X	X	X
TRICHLOROBENZENE	X	X	X	X	F	F	C	C	X	X	C	G
TRICHLOROETHANE	X	X	X	X			X	X	X	X	X	E
TRICHLOROETHYLENE	X	X	X	X	F	F	X	X	X	X	X	E
TRICHLOROMETHANE	X	X	X	X	F	F	X	X	X	X	X	E
TRICHLOROTOLUENE	X			E			E	X	X	X		

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Chemical or material conveyed	Compound											
	NR	SBR	IIR	EPDM	PE-X	UPE	PTFE	NBR	CR	CSM	AU	FKM
TRICRESYL PHOSPHATE	X	X	E	E			E	X	X	X	X	E
TRIETHANOLAMINE	C	G	E	E	E	E	E	C	C	C	X	X
TRIETHYLAMINE	G	X	G	E			E	E	G	E	X	E
TRIETHYLENE GLYCOL	E		E	E	E	E		C	E	E	X	E
TRIHIDROXYBENZOIC ACID	E		C	C			E	C	C	G	X	
TRIMETHYL PENTANE	X	X	X	X			F	E	G	C	G	E
TRIMETHYLAMINE	E		E	C				C	E	E	X	
TRISODIUM PHOSPHATE	E	E	E	E	E	E	E	E	E	E	E	E
TRITOYL PHOSPHATE	X	X	E	E			E	X	C	C	C	E
TUNG OIL	X	X	C	X	E	E	E	E	C	C	F	E
TUNG OIL	X	X	C	X	E	E	E	E	C	C	F	E
TURPENTINE	X	X	X	X	E	E	E	E	X	X	G	E
UNSYMETRICAL DIMETHYL HYDRAZINE	E	X	E	E			F	C	C	E	X	X
UNDECYL ALCOHOL	E		E	E				E	E	E		G
UREA	E		E	E	E	E	F	G	G	E	G	E
URIC ACID	E		E	E				C	E	E	X	
VARNISH	X	X	X	X	E	E	C	G	X	X	G	E
VEGETABLE OILS	X	X	C	F	E	E	E	E	C	G	E	E
VERSILUBE F44	E	E	E	E			E	E	E	E	E	E
VERSILUBE F65	E	E	E	X			E	E	E	E	E	E
VINEGAR	G	G	E	E	E	E	E	G	G	E	C	E
VINEGAR ACID	G		E		E	E	E			E	C	
VINYL ACETATE	X	X	E	G	E	E	X	C	C	F	X	E
VINYL BENZENE	X	X	X	X	F	F	X	C	X	X	C	G
VINYL CHLORIDE	X		X	C	E	E	E	X	X	X	C	E
VINYL CYANIDE	G	F	X	X	E	E	G	X	X	G	X	X
VINYL ETHER	X		X				X	G		G		X
VINYL STYRENE												
VINYL TOLUENE	X		X	X				X	X	X		E
VINYL TRICHLORIDE	X		X	X			X	X	X	X	X	E
VM & NAPHTHA	X	X	X	X				G	F	X		E
WATER	E	C	E	E	E	E	E	E	G	E	E	E
WATER, BOILING	E		E	E			E	G	G	E	E	
WATER, SODA					E	E						
WEMCO C	X	X	X	X			E	E	C	X	E	E
WHISKEY	E	E	E	E	E	E	E	E	E	E	X	E
WHITE OIL	X	X	X	X	E	E	E	E	G	C	E	E
WHITE PINE OIL	X	X	X	X			E	C	X	X		E
WINES	E	E	E	E	E	E	E	E	E	E	X	E
WOOD ALCOHOL	E	E	C	E	E	E	E	C	E	E	C	F
WOOD OIL	X	X	C	X	E	E	E	E	C	C	C	E
XENON	E	E	E	E			E	E	E	E	E	E
XYLENE, XYLON	X	X	X	X	F	F	X	X	X	X	X	E
XYLIDINE	X	X	G	G			G	C	X	X	X	X
ZEOLITES	E	E	E	E			E	E	E	E	E	E
ZINC ACETATE	E	X	E	E			F	G	C		X	C
ZINC CARBONATE	E		E	E				E	E	E	E	E
ZINC CHLORIDE	E	E	E	E	E	E	E	E	E	E	E	E
ZINC CHROMATE	E		E	E				C	E	G	X	
ZINC SULFATE	E	G	E	E	E	E	E	E	E	E	X	E
O-AMINOTOLUENE	X		C	C			C	X	X	X	X	
1 UNDECANOL	E	E	E	E	E	G		E	E	E		G
1-AMINO-2-PROPANOL	G		E	E				C	E	F		X
1-AMINOBUTANE	X	X	C	C			G	C	X	X	X	X
1-AMINOPENTANE	F		G	X				F	C	F		X
1-BROMO-2-METHYL PROPANE	X		X	X				X	X	X		G
1-BROMO-3-METHYL BUTANE	X		X	X				X	X	X		G
1-BROMOBUTANE	X		X	X				X	X	X		
1-CHLORO-2-METHYL PROPANE	X		X	X				X	X	X		G
1-CHLORO-3-METHYL BUTANE	X		X	X			X	X	X	X	X	E
1-DECANOL	X		X	X	E	E		E	X	C	E	G
1-HENDECANOL	E		E	E				E	E	E		
1,4-DIOXANE	X		C	C	E		X	X	X	X	X	
2(2AMINOETHYLAMINO) ETHANOL	G		E							G		
2(2ETHOXYETHOXY) ETHANOL	C	G	C	C			E	C	C	C	X	G
2(2ETHOXYETHOXY) ETHYL ACETATE	X	X	G	X			E	X	X	G	X	G
2-AMINOETHANOL	C	F	C	E			E	C	C	C	X	X

Legend: Blank = No data E = Excellent G = Good F = Fair C = Conditional X = Unsatisfactory

Chemical or material conveyed	Compound											
	NR	SBR	IIR	EPDM	PE-X	UPE	PTFE	NBR	CR	CSM	AU	FKM
2-CHLORO-1-HYDROXY-BENZENE	X		X	X			E	X	X	X	X	
2-CHLOROPHENOL	X	X	X	X			E	X	X	X	X	G
2-CHLOROPROPANE	X	X	X	X			X	X	X	X	X	E
2-ETHOXYETHANOL	X	X	C	C	E	E	C	C	X	X	X	X
2-ETHOXYETHYL ACETATE	C		C	G	E	E	C	X	X	X	C	
2-ETHYL	X		G					X		X		X
2-ETHYL-1-HEXANOL	G	G	C	C	E	E	E	C	C	C	X	G
2-ETHYLHEXANOIC ACID	F		F					F		G		
2-ETHYLHEXYL ACETATE	X		E		C	C		X		G		
2-OCTANONE	X		G	G				X	C		X	X
3-BROMOPROPENE	X		X	X				X	X	X		G
3-CHLOROPROPENE	X	E	C	X	E	G	G	C	X	X		E
3-COAL OIL	X		X	X			E	E	G	F	F	
4-HYDROXY-4-METHYL-2-PENTANONE	X	X	E	E	E	E	X	X	F	C	X	X

Legend: Blank = No data E = Excellent G = Good F = Fair C = Conditional X = Unsatisfactory

// PVC CHEMICAL RESISTANCE CHART

Chemical	Concentration	Temperature 20 °C 60 °C 68 °F 140 °F	
Acetate Solvents		U	U
Acetic Acid	10%	A	C
Acetic Acid	Glacial	C	U
Acetone		U	U
Acrylonitrile		A	C
Adipic Acid		A	C
Alcohol Butyl		A	C
Alcohol Ethyl		A	C
Alcohol Isopropyl		A	C
Alcohol Methyl		A	C
Aluminum Acetate		A	
Aluminum Chloride		A	A
Aluminum Hydroxide		A	
Aluminum Sulfate		A	A
Allyl Chloride			
Ammonia	0.88 S.G. (Aqueous)	A	A
Ammonia	Dry Gas	A	
Ammonia	Liquid	U	U
Ammonium Chloride		A	A
Ammonium Hydroxide		A	
Animal Oils			
Amyl Acetate		U	U
Aniline Oils			
Aromatic Hydrocarbons		U	U
Asphalt		U	U
ASTM Fuel A		A	A
ASTM Fuel B		U	U
ASTM 1 Oil			
ASTM 3 Oil			
Barium Chloride		A	A
Barium Hydroxide		A	A
Barium Sulfide		A	A
Benzene		U	U
Benzine		C	C
Bordeaux Mixture		A	A
Borax		A	A
Boric Acid		A	A
Brine		A	A
Bromine Traces		U	U
Butyl Acetate		U	U
Calcium Hydroxide		A	A
Calcium Hypochlorite		A	A
Carbonic Acid		C	U
Carbon Dioxide		A	A
Carbon Disulphite		U	U
Carbon Monoxide		A	A
Carbon Tetrachloride		U	U
Casein		A	C
Chlorine	Dry gas	A	A
Chlorine	Wet Gas	C	U
Chlorine	Water	U	U
Chlorobenzene		U	U
Chlorinated Hydrocarbons		U	U
Chloroform		U	U
Chromic Acid	10%	A	C
Citric Acid		A	A
Coal Tar		U	U
Copper Chloride		A	A
Copper Nitrate		A	A
Copper Sulphate		A	A
Cottonseed Oil			

Chemical	Concentration	Temperature 20 °C 60 °C 68 °F 140 °F	
Creosote		U	U
Cresol		A	C
Cresylic Acid		U	U
Cyclohexane		A	C
Cyclohexanone		U	U
DDT Weed Killer		A	C
Detergent Synthetic		A	A
Developers Photographic		A	A
Dextrin		A	A
Dextrose		A	A
Dibutyl Phthalate		U	U
Dichlorobenzene		U	U
Diesel Oil			
Diethylene Glycol		A	A
Diethyl Ether		U	U
Di-isodecyl Phthalate		U	U
Dicotyl Phthalate		U	U
Emulsifiers		A	A
Emulsions Photographic		A	A
Ethyl Acetate		U	U
Ethylene Dichloride		U	U
Ethylene Glycol		A	A
Fatty Acid		A	A
Ferric Chloride		A	A
Ferric Sulphate		A	A
Ferrous Chloride		A	A
Ferrous Sulphate		A	A
Fixing Solution Photographic	A	A	
Fluorine		U	U
Formaldehyde	40%	U	U
Formic Acid	40%	A	A
Formic Acid	50%	C	U
Formic Acid	100%	U	U
Fuel Oil			
Glacial Acetic Acid		C	U
Glucose		A	A
Glycerine		A	A
Grape Sugar		A	A
Grease			
Heptane		C	U
Hexane		C	U
Hydrobromic Acid		A	A
Hydrochloric Acid	10%	A	A
Hydrochloric Acid	40%	A	U
Hydrofluoric Acid	10%	A	C
Hydrofluoric Acid	40%	A	U
Hydrofluoboric Acid		A	A
Hydrofluosilicic Acid		A	A
Hydrogen Peroxide		A	
Hydrogen Sulphide		A	
Iso-octan		A	C
Isopropyl Acetate		U	U
Kerosene		C	C
Ketones		U	U
Lactic Acid	10%	A	
Lactic Acid	100%	U	U
Lacquer Solvents		C	U
Linseed Oil			
Lubricating Oils			
Magnesium Chloride		A	A
Magnesium Hydroxide		A	A

Legend:

A = Satisfactory

C = Questionable - Suggest testing

U = Unsatisfactory

Blank = No data available

Chemical	Concentration	Temperature 20 °C 60 °C 68 °F 140 °F	
Magnesium Sulphate		A	A
Malic Acid		A	A
Methyl Acetate		U	U
Methyl Bromide		U	U
Methyl Ethyl Ketone		U	U
Methylene Chloride		U	U
Mineral Oils			
Monochlorobenzene		U	U
Naphtha		C	U
Napthalene		C	U
Nitric Acid	10%	A	A
Nitric Acid	40%	A	C
Nitric Acid	70%	U	U
Nitrobenzene		U	U
Nitrogen Fertilizers		A	
Oleic Acid		A	C
Oxalic Acid		A	A
Palmitic Acid		A	A
Paraffin		A	A
Pentane		C	U
Perchloroethylene		U	U
Phenol		C	U
Phosphoric Acid		A	A
Pitch		A	C
Potassium Hydroxide		A	A
Propane		A	A
Sea Water		A	A
Sodium Hydroxide (caustic soda)	10%	A	A

Chemical	Concentration	Temperature 20 °C 60 °C 68 °F 140 °F	
Sodium Hydroxide (caustic soda)	50%	A	U
Sodium Cyanide		A	A
Soybean Oil			
Stearic Acid		A	A
Styrene		U	U
Sulphur Dioxide	Dry	A	A
Sulphur Dioxide	Moist	C	U
Sulphur Dioxide	Liquid	U	U
Sulphuric Acid	45%	A	A
Sulphuric Acid	60%	C	C
Sulphuric Acid	98%	U	U
Sulphurous Acid	30%	A	
Tannic Acid		A	A
Tartaric Acid		A	A
Tetrahydrofuran		U	U
Toluene		U	U
Trichlorethylene		U	U
Triethanolamine		A	A
Tricresyl Phosphate		U	U
Turpentine		C	U
Urea		A	A
Vinegar		A	A
Vinyl Acetate		U	U
Vinyl Chloride		U	U
Water		A	A
Xylene		U	U
Zinc Chloride		A	A
Zinc Sulphate		A	A

Legend:**A** = Satisfactory**C** = Questionable - Suggest testing**U** = Unsatisfactory**Blank** = No data available

// FORMULAS AND CONVERSION FACTORS

LENGTH	mm	in	mm x 0,03937 = in
	in	mm	in x 25,4001 = mm
	m	ft	m x 3,2808 = ft
	ft	m	ft x 0,3048 = m
WEIGHT	kg	lb	kg x 2,20462 = lb
	lb	kg	lb x 0,45359 = kg
	kg/m	lb/ft	kg/m x 0,672 = lb/ft
	lb/ft	kg/m	lb/ft x 1,488 = kg/m
PRESSURE	bar	MPa	bar x 10 ⁻¹ = MPa
	MPa	bar	MPa x 10 = bar
	bar	psi	bar x 14,504 = psi
	psi	bar	psi x 0,068948 = bar
	mm Hg	bar	mm Hg x 1,33322 x 10 ⁻³ = bar
TEMPERATURE	°C	°F	9/5 °C + 32 = °F
	°F	°C	5/9 x (°F - 32) = °C

// CONCRETE

// CONCRETE & PLASTER

740AA	Concrete pumping 85 bar (1275 psi) - Heavy duty - Steel reinforced	11
741AA	Concrete pumping 100 bar (1500 psi) - Extra service - Steel reinforced	11
74SAA	Concrete pumping 85 bar (1275 psi) - Heavy duty - Textile Reinforced	12
757AA	Plaster 40 bar (600 psi)	12
755AA	Sandblast 12 bar (180 psi) - Top quality	12
753AA	Sandblast 12 bar (180 psi) - Premium quality	13

// BULK FOOD & MATERIAL

// BULK FOOD & MATERIAL

703AA	Material handling 5 bar (75 psi) - Corrugated - Light duty	15
700AA	Material handling - Corrugated - Medium duty	15
714HA	Drill cutting suction 5 bar (75 psi) - Corrugated	16
704HA	Industrial vacuum 10 bar (150 psi) - Corrugated	16
720AA	Bulk material S&D 10 bar (150 psi)	17
722AA	Sewage suction 5 bar (75 psi)	17
760AA	Bulk material delivery 5 bar (75 psi)	17
720LA	Bulk food S&D 10 bar (150 psi)	18
719AA	Abrasive slurry S&D 10 bar (150 psi) - Corrugated ALFATRACTO muff couplings	18
SWD01C	Stripwound metal flexible hose AISI 304	18
SWD02C	Stripwound metal flexible hose Zinc plated steel	19
902AA	Hot air blower 10 bar (150 psi) - Hard wall	19

// GAS & WELDING

// GAS & WELDING

078AI	Propane-butane 10 bar (150 psi)	21
076AE	Oxygen welding 20 bar (300 psi)	21
076AH	Acetylene welding 20 bar (300 psi)	21
076EH	Oxygen/acetylene twin welding 20 bar (300 psi)	22
076AA	Argon welding 20 bar (300 psi)	22
076AI	LPG welding 20 bar (300 psi)	22

// HOT WATER & STEAM

// HOT WATER & STEAM

340AH	Steam 18 bar (270 psi) - Steel braided	24
350AA	Steam 6 bar (90 psi) - Hot water 15 bar (225 psi)	24
957LL	Cable cooling 20 bar (300 psi) - Non conductive	25
315EE	Radiator - Silicone	25
318EE	Radiator - Silicone - 90° Elbow	26
352AA	Radiator 5 bar (75 psi)	27
328AA	Radiator S&D 6 bar (90 psi)	27
3SCIG	Hot water-car heater - Silicone	28
375AA	Hot water-car heater 10 bar (150 psi)	28
375AH	Hot water 10 bar (150 psi)	28
395BT	Hot water wash down 40 bar (600 psi)	29

// CHEMICAL

// CHEMICAL

503AA	Acid-chemical S&D 16 bar (240 psi) - EPDM	31
529AA	Acid-chemical S&D 16 bar (240 psi) - UPE	31
5090E	Acid-chemical S&D 16 bar (240 psi) - UPE	32
99HLA	Multipurpose 20 bar (300 psi) - Polyester	32
9TS OM	Smooth PTFE Stainless Steel braid - Standard duty	33
9TC OM	Convuluted PTFE Stainless Steel braid	33
99DMM	Stainless steel hose - Parallel corrugation - AISI 316L with 1 braid AISI 304	34

// FOOD

// FOOD

400LE EVOLUTION	Multi food S&D 10 bar (150 psi)	36
418LE	Milk tanker 10 bar (150 psi) - Hard wall - Crush resistant	36
422LH	Brewery S&D 10 bar (150 psi)	37
455LE	Fat food delivery 10 bar (150 psi)	37
350LE	Steam 6 bar (90 psi) - Hot water 15 bar (225 psi)	38
49200	General purpose food quality - PVC	38
48000	General purpose tubing - Silicone	39
949AA	Fish pump 3 bar (45 psi)	39

// MARINE

// MARINE

654AA BOAT	Marine fuel 20 bar (300 psi) - Soft wall - Fire resistant	43
616AA BOAT	Marine fuel 10 bar (150 psi) - Hard wall - Fire resistant	43
6E1AA	Marine exhaust - Hard wall	44
202LL	Marine sanitary hose 7 bar (100 psi)	44
266LL	Marine sanitary hose - PVC	45

// OIL & FUEL

// OIL & FUEL

6P2AA	Fuel-oil S&D - Square corrugated - Extra flexible	47
605AA	Fuel-oil S&D 10 bar (150 psi)	47
619AA	Fuel-oil S&D 16 bar (240 psi)	48
FLEXOR R4 634	Extra flexible	48
FLEXOR R4 644 HT	Extra flexible - High temperature	49
614AA	Hot tar 10 bar (150 psi)	49
650AA	Fuel-oil delivery 10 bar (150 psi)	49
655AA	Fuel-oil delivery 16 bar (240 psi)	50
654AA	Multi-fuel 20 bar (300 psi)	50
671AA	Fuel-oil delivery 16 bar (240 psi)	51
687AA	Automotive fuel 10 bar (150 psi)	51
689AA	Automotive fuel 10 bar (150 psi) - External textile braid	52
688AA	Diesel oil delivery 15 bar (225 psi) - External steel braid	52
668EL	Fuel-oil S&D - PVC - Heavy duty	53

// WATER

// WATER

49200	General purpose food quality - PVC	56
49000	General purpose tubing - PVC	56
293AK	Antitorsion garden irrigation - PVC	57
976AB	General purpose 20 bar (300 psi) - EPDM	57
202AA	General purpose S&D 10 bar (150 psi) - EPDM	57
22AAA	Sewage suction - Square corrugated	58
253AA	Water discharge 10 bar (150 psi) - Lay flat	58
254AH	Air-water delivery 10 bar (150 psi)	58
956AB	General purpose 20 bar (300 psi) - EPDM	59
265TA	Water-slurry S&D - Standard duty - Superior flexibility	59
265TH	Water-slurry S&D - PVC - Standard duty - Super elastic	59
267BE	Water-slurry S&D - PVC - Medium duty - Super elastic	60
269BA	Water-slurry S&D - PVC/NBR - Medium duty - Superior flexibility	60
266OL	Water S&D - PVC - Standard duty - Super elastic	60
466OL	General purpose S&D - PVC - Standard duty	61
27EAA	Fire reel - Light weight	61
98NAA	Air-water delivery - Lay flat	61
27DAL	Fire fighting - Lay flat	62
28ULI	Snow maker 25 bar (375 psi) - Polyurethane - Lay flat	62
286EE	Water discharge - PVC - Lay flat - Standard duty	62
288HH	Water discharge - PVC - Lay flat - Heavy duty	63

// COMPRESSED AIR

// COMPRESSED AIR

155AA	Compressed air 20 bar (300 psi) - Heavy duty	65
155AK Ω-L	Compressed air 20 bar (300 psi) - Heavy duty - Conductive tube	65
155AK	Compressed air 20 bar (300 psi) - Heavy duty	66
175AA	Compressed air 20 bar (300 psi) - Standard duty	66
977AK	General purpose 20 bar (300 psi) - EPDM	67
195AT	Compressed air 20 bar (300 psi) - Polyurethane - Pneumatic tools	67
165AA	Air brake 10 bar (150 psi)	67
166AA	Air brake 20 bar (300 psi)	68
97FAA	Air-water delivery - 12 bar (180 psi)	68
28ULI	Snow maker 25 bar (375 psi) - Polyurethane - Lay flat	68
49HAG	Breathing air - PVC	69
19BAA	Breathing air	69

// VENTILATION

// VENTILATION

161BL	Air ducting	71
17FAA	Air ducting - PVC - Steel helix	71
178AA	Air ducting - High temperature +120 °C (+248 °F)	72
17100	Air ducting - Polyurethane - Gauge 0,4 mm	72
17200	Air ducting - Polyurethane - Gauge 0,8 mm	73
17300	Air ducting - Polyurethane - Gauge 1,2 mm	73
17700	Air ducting - Polyurethane - Gauge 1,7 mm	74
16UOL	Air ducting - Polyurethane - PVC helix	74
17CAA	Air ducting - Extra flexible	75
17GBB	Air ducting - High temperature +140 °C (284 °F)	75
17DBB	Air ducting - EVA	76
17DAA	Air ducting - EVA - Conductive	76
17EAA	Air ducting - EVA - Antistatic	76
DR02	Air ducting - High temperature +170 °C - Crush resistant	77

// COMPRESSED AIR

// TYPE A CLAW COUPLING (EUROPEAN TYPE)

I919L3-NC	DIN 3489 - Hose shank without safety collar complete with seal - Malleable iron	81
I919L30S	Hose shank with safety collar - complete with hot temperature seal - Malleable iron	81
I9A9L306	DIN 3489 - BSPP Female complete with seal - Malleable iron	81
I9A9L206	DIN 3489 - BSPT Male complete with seal - Malleable iron	82
I9A9L400	DIN 3489 - Blank cap complete with seal - Malleable iron	82
I91C4300	WITH SAFETY PIN HOLES - Hose shank with safety collar complete with seal - Plated steel	82
I9LG2A	Claw clamp (A-Europe) - DIN 20 039 B - Malleable iron	83
I9AC4306	WITH SAFETY PIN HOLES - BSPP Female complete with seal - Plated steel	83
I9AC4206	WITH SAFETY PIN HOLES - BSPT Male complete with seal - Plated steel	83
I9Y9L-3W	DIN 3489 - Three way connector complete with seal - Malleable iron	84
I319L3-NC	DIN 3489 - Hose shank without safety collar complete with seal - Stainless steel 316	84
I3A9L306	DIN 3489 - BSPP Female complete with seal - Stainless steel 316	84
I3A9L206	DIN 3489 - BSPP Male complete with seal - Stainless steel 316	85
I3A9L4CH	DIN 3489 - Blank cap with chain complete with seal - Stainless steel 316	85

// MODY-SAFETY-SCREWING CLAW COUPLING - DIN 3238

I91F1300	Hose shank without safety collar complete with seal - Malleable iron	86
I9AF1206	BSPP Male complete with seal - Malleable iron	86
I9AF1306	BSPP Female complete with seal - Malleable iron	86

// TYPE B CLAW COUPLING (U.S. TYPE)

I919K300	WITH SAFETY PIN HOLES - Hose shank with safety collar complete with seal - Malleable iron	87
I919K34L	WITH SAFETY PIN HOLES - Hose shank with safety collar - 4 Lug type - complete with seal - Malleable iron	87
I919KL00	WITH SAFETY PIN HOLES - Hose shank with pre-crimped ferrule - complete with seal - Malleable iron	87
I9A9K228	WITH SAFETY PIN HOLES - NPT Male complete with seal - Malleable iron	88
I9A9K328	WITH SAFETY PIN HOLES - NPT Female complete with seal - Malleable iron	88
I9A9K3284L	WITH SAFETY PIN HOLES - NPT Female - 4 Lugs - complete with seal - Malleable iron	88

// CLAW COUPLING - ACCESSORY

R1YCCA3	SAFETY CABLE - Safety cable - Hose to Hose - Plated steel	89
IJMJ9L	TYPE A CLAW COUPLING (EUROPEAN TYPE) - DIN 3489 - Seal - FKM/FPM	89
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I2LP2E-W4	EAR PINCH ON CLAMP - Clamp - 2-ears - W4 (Stainless steel 304).....	201
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I1LP1M-W1	MINICLAMP - Miniclamp - 1 bolt - W1 (Plated steel).....	203
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I2LLB0	BAND-IT SYSTEM - Banding buckles - Stainless steel 304.....	204
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IALP1S-W1	RUBBER LINED PIPE CLIP - Clip - SMS - EPDM/W1 (Plated steel).....	205
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// FERRULE & CRIMPING RING**// SMOOTH FERRULE**

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// CRIMPING RING

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// THREADED ADAPTER**// DOUBLE NIPPLE: MALE / MALE**

I8A06506HX	Hexagonal Nipple: BSPP Male - BSPP Male - Brass.....	211
I8A06506HR	Reducing hexagonal nipple: BSPP Male - BSPP Male - Brass.....	211
I3A07507HX	Hexagonal Nipple: BSPT Male - BSPT Male - Stainless steel 316.....	212
I3A07507HR	Reducing hexagonal nipple: BSPT Male - BSPT Male - Stainless steel 316.....	212

// DOUBLE NIPPLE: FEMALE / FEMALE

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I8A06806HX	Hexagonal Nipple: BSPP Female - BSPP Female complete with seal - Brass.....	213
I3A06806	Socket without hexagone: BSPP Female - BSPP Female - Stainless steel 316.....	214
I3A06806R	Reducing socket without hexagone: BSPP Female - BSPP Female - Stainless steel 316.....	214

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I8A0606HR	Reducing hexagonal nipple: BSPP Male - BSPP Female complete with seal - Brass.....	215
I3A07606HR	Reducing hexagonal nipple: BSPT Male - BSPP Female - Stainless steel 316.....	216

// ELBOW: MALE / FEMALE

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I3A07G06	90° Elbow: BSPT Male - BSPP Female - Stainless steel 316.....	217

// ELBOW: FEMALE / FEMALE

I8A06H06	90° Elbow: BSPP Female - BSPP Female - Brass.....	218
I3A06H06	90° Elbow: BSPP Female - BSPP Female - Stainless steel 316.....	218

// TEE

I8A06T06	THREADED ADAPTER - TEE - Equal Tee: BSPP Female - Brass.....	219
I3A06T063F	THREADED ADAPTER - TEE - Equal Tee: BSPP Female - Stainless steel 316.....	219

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I8A0770S	THREADED ADAPTER - MALE PLUG - Square head plug - BSPT Male - Brass.....	220
I3A077SQ	THREADED ADAPTER - MALE PLUG - Square head plug - BSPT Male - Stainless steel 316.....	220
I3A077HX	THREADED ADAPTER - MALE PLUG - Hexagone head plug - BSPT Male - Stainless steel 316.....	221

// NOTES

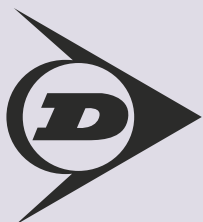
Handwriting practice lines consisting of 20 horizontal dotted lines.

// NOTES

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// NOTES

Handwriting practice lines consisting of 20 horizontal dotted lines.



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