

Multi-Bio Green

Multi-Bio Green hoses are designed specially for conveying continuous Bio-Diesel Products. The hose is lined with material which will not be effected by the Esterified Vegetable Oils, which are an ingredient of Bio-Diesel Products. There are two different types of hoses depending on application: Multi-Bio Green lined with nylon for intermittent service only. Nylon is porous and product can not be left in the hose while not in service. Multi-Bio Green lined with P.T.F.E for an indefinite service life. The P.T.F.E. liner prevents the hose against any absorption of the product. The hose is easy to flush and to clean and therefore quickly reusable for other applications.



Multi-Bio Green	P.T.F.E. lining	Nylon	Application
Light duty	Code nr. 310713100	Code nr. 310719100	Tank truck and railcar
Standard duty	Code nr. 311013100	Code nr. 311019100	Tank truck, railcar and in plant transfer
Heavy duty	Code nr. 311413100	Code nr. 311419100	Heavy duty marine operations and ship and barge loading and unloading

Certifications

Multi-Bio Green hoses are produced and tested according international standards like EN 13765. The lining material has been tested on there resistance against Biofuel.

Construction

Inner wire:	Galvanized steel
Lining:	Nylon or P.T.F.E.
Outer cover:	Polyester PVC coated green with yellow stripe
Outer wire:	Galvanized steel

Physical properties

Maximum elongation:	10% on proof pressure	Max. flowrate:	on request
Electrical resistance:	max. 100 Ohm per length	Max. tensile strength:	on request
Maximum twist:	10° p/m	Pressure losses:	on request
Vacuum range:	0,9 bar	Temperature range:	-30°C upto +80°C
Min. burst pressure:	5x working pressure (safety fact 5:1)		

Multi-Bio Green

Multi-Bio Green Light Duty, Code 310713100 / 310719100

Bore diameter		Max. work. pressure		Bend radius		Weight		Maximum length	
inches	mm	PSI	bar	inches	mm	lbs/Ft	Kg/m	Ft	m
1	28	100	7	4,9	125	0,55	0,85	100	30
1,5	40	100	7	5,9	150	0,75	1,15	100	30
2	50	100	7	7,9	200	0,85	1,3	100	30
2,5	65	100	7	8,3	210	1,45	2,2	100	30
3	80	100	7	11,8	300	1,8	2,7	100	30
4	100	100	7	15,7	400	2,95	4,4	100	30

Multi-Bio Green Standard Duty, Code 311013100 / 311019100

Bore diameter		Max. work. pressure		Bend radius		Weight		Maximum length	
inches	mm	PSI	bar	inches	mm	lbs/Ft	Kg/m	Ft	m
1	28	150	10,5	4,9	125	0,65	0,95	100	30
1,5	40	150	10,5	5,9	150	1,15	1,7	100	30
2	50	150	10,5	7,9	200	1,2	1,8	100	30
2,5	65	150	10,5	7,9	200	1,95	2,9	100	30
3	80	150	10,5	11,8	300	2,35	3,5	100	30
4	100	150	10,5	15,7	400	3,65	5,5	100	30

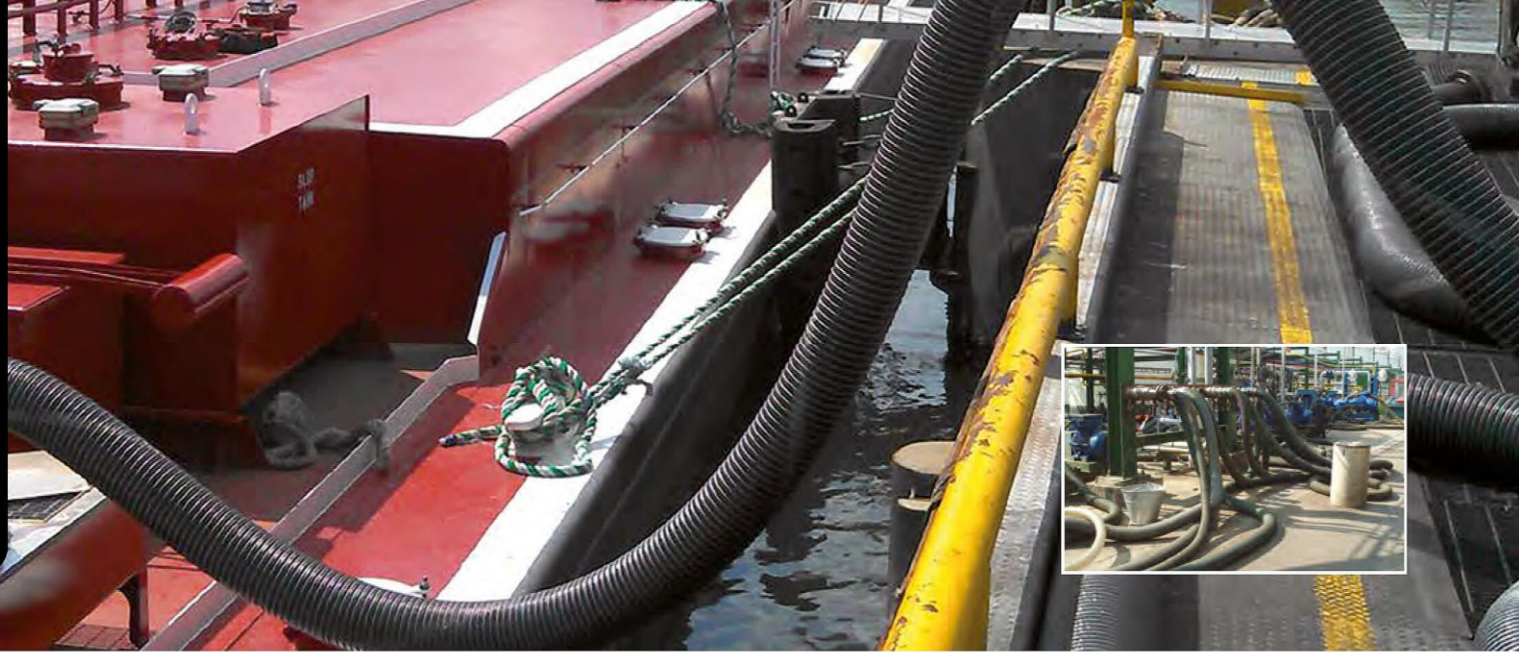
Multi-Bio Green Heavy Duty, Code 311413100 / 311419100

Bore diameter		Max. work. pressure		Bend radius		Weight		Maximum length	
inches	mm	PSI	bar	inches	mm	lbs/Ft	Kg/m	Ft	m
3	80	200	14	13,8	350	3	4,5	100	30
4	100	200	14	15,7	400	5,25	7,9	100	30
5	125	200	14	20,1	510	6,45	9,7	100	30
6	150	200	14	22,6	575	8,25	12,4	100	30
8	200	200	14	31,5	800	14,55	21,8	100	30
10	250	200	14	39,37	1000	17,8	26,7	100	30
12	300	150	10,5	47,24	1200	21,1	32	59	18

This information is for guidance only, dimensions and weights shown are approximate.

We reserve the right to alter or amend specifications as deemed necessary.





Multi-Chem Black

Multi-Chem Black hoses are designed for those chemicals which do not affect the polypropylene lining and the polypropylene coated steel inner wire.



There are three different types, depending on pressure and application, namely:

Multi-Chem Black	Code number	Application
Light duty	230742100	Tank truck and railcar
Standard duty	231041100	Tank truck, railcar and in plant transfer
Heavy duty	231441100	Heavy duty marine operations and ship and barge loading and unloading

Certifications

Multi-Chem Black hoses are produced and tested according international standards like EN 13765 & IMO IBC code.

Construction

Inner wire:	Polypropylene coated steel
Lining:	Polypropylene
Outer cover:	Polyester PVC coated black
Outer wire:	Galvanized- or Stainless steel 316

Physical properties

Maximum elongation:	10% on proof pressure
Electrical resistance:	max. 100 Ohm per length
Maximum twist:	10° p/m
Vacuum range:	0,9 bar
Min. burst pressure:	5x working pressure (safety fact 5:1)

Max. flowrate:	on request
Max. tensile strength:	on request
Pressure losses:	on request
Temperature range:	-30°C upto +80°C

Multi-Chem Black

Multi-Chem Black Light Duty, Code 230742100

Bore diameter		Max. work. pressure		Bend radius		Weight		Maximum length	
inches	mm	PSI	bar	inches	mm	lbs/Ft	Kg/m	Ft	m
1	28	100	7	4,9	125	0,55	0,85	100	30
1,5	40	100	7	5,9	150	0,75	1,15	100	30
2	50	100	7	7,9	200	0,85	1,3	100	30
2,5	65	100	7	8,3	210	1,45	2,2	100	30
3	80	100	7	11,8	300	1,8	2,7	100	30
4	100	100	7	15,7	400	2,95	4,4	100	30

Multi-Chem Black Standard Duty, Code 231041100 type 2

Bore diameter		Max. work. pressure		Bend radius		Weight		Maximum length	
inches	mm	PSI	bar	inches	mm	lbs/Ft	Kg/m	Ft	m
1	28	150	10,5	4,9	125	0,65	0,95	100	30
1,5	40	150	10,5	5,9	150	1,15	1,7	100	30
2	50	150	10,5	7,9	200	1,2	1,8	100	30
2,5	65	150	10,5	7,9	200	1,95	2,9	100	30
3	80	150	10,5	11,8	300	2,35	3,5	100	30
4	100	150	10,5	15,7	400	3,65	5,5	100	30

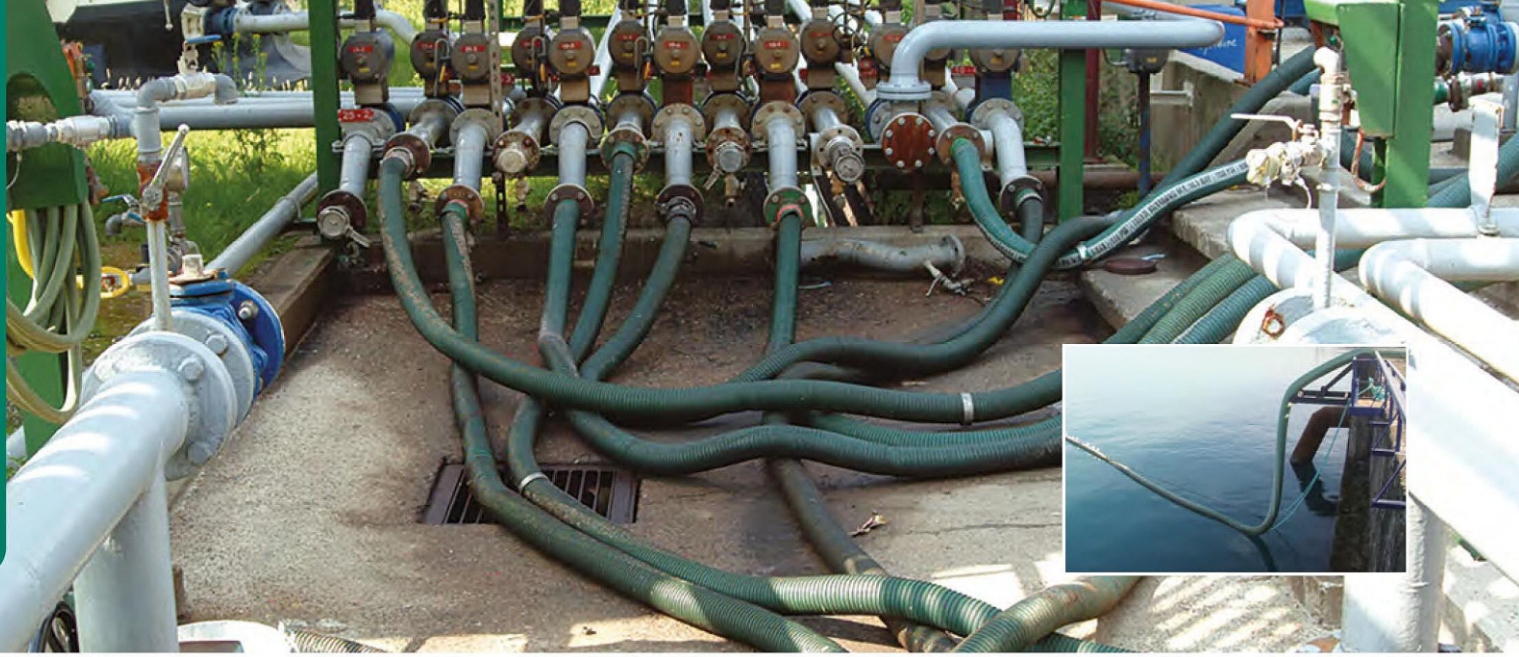
Multi-Chem Black Heavy Duty, Code 231441100 type 3

Bore diameter		Max. work. pressure		Bend radius		Weight		Maximum length	
inches	mm	PSI	bar	inches	mm	lbs/Ft	Kg/m	Ft	m
3	80	200	14	13,8	350	3	4,5	100	30
4	100	200	14	15,7	400	5,25	7,9	100	30
5	125	200	14	20,1	510	6,45	9,7	100	30
6	150	200	14	22,6	575	8,25	12,4	100	30
8	200	200	14	31,5	800	14,55	21,8	100	30

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Multi-Chem Green

Multi-Chem Green hoses are designed for those chemicals which do not affect the polypropylene lining and the stainless steel inner wire.



There are three different types, depending on pressure and application, namely:

Multi-Chem Green	Code number	Application
Light duty	240732300	Tank truck and railcar
Standard duty	241031300	Tank truck, railcar and in plant transfer
Heavy duty	241431300	Heavy duty marine operations and ship and barge loading and unloading

Certifications

Multi-Chem Green hoses are produced and tested according international standards like EN 13765 & IMO IBC code.

Construction

Inner wire:	Stainless steel 316
Lining:	Polypropylene
Outer cover:	Polyester PVC coated green
Outer wire:	Galvanized- or Stainless steel 316

Physical properties

Maximum elongation:	10% on proof pressure
Electrical resistance:	max. 100 Ohm per length
Maximum twist:	10° p/m
Vacuum range:	0,9 bar
Min. burst pressure:	5x working pressure (safety fact 5:1)

Max. flowrate:	on request
Max. tensile strength:	on request
Pressure losses:	on request
Temperature range:	-30°C upto +80°C

Multi-Chem Green

Multi-Chem Green Light Duty, Code 240732300

Bore diameter		Max. work. pressure		Bend radius		Weight		Maximum length	
inches	mm	PSI	bar	inches	mm	lbs/Ft	Kg/m	Ft	m
1	28	100	7	4,9	125	0,55	0,85	100	30
1,5	40	100	7	5,9	150	0,75	1,15	100	30
2	50	100	7	7,9	200	0,85	1,3	100	30
2,5	65	100	7	8,3	210	1,45	2,2	100	30
3	80	100	7	11,8	300	1,8	2,7	100	30
4	100	100	7	15,7	400	2,95	4,4	100	30

Multi-Chem Green Standard Duty, Code 241031300 type 2

Bore diameter		Max. work. pressure		Bend radius		Weight		Maximum length	
inches	mm	PSI	bar	inches	mm	lbs/Ft	Kg/m	Ft	m
1	28	150	10,5	4,9	125	0,65	0,95	100	30
1,5	40	150	10,5	5,9	150	1,15	1,7	100	30
2	50	150	10,5	7,9	200	1,2	1,8	100	30
2,5	65	150	10,5	7,9	200	1,95	2,9	100	30
3	80	150	10,5	11,8	300	2,35	3,5	100	30
4	100	150	10,5	15,7	400	3,65	5,5	100	30

Multi-Chem Green Heavy Duty, Code 241431300 type 3

Bore diameter		Max. work. pressure		Bend radius		Weight		Maximum length	
inches	mm	PSI	bar	inches	mm	lbs/Ft	Kg/m	Ft	m
3	80	200	14	13,8	350	3	4,5	100	30
4	100	200	14	15,7	400	5,25	7,9	100	30
5	125	200	14	20,1	510	6,45	9,7	100	30
6	150	200	14	22,6	575	8,25	12,4	100	30
8	200	200	14	31,5	800	14,55	21,8	100	30
10	250	200	14	39,37	1000	17,8	26,7	100	30
12	300	150	10,5	47,24	1200	21,1	32	59	18

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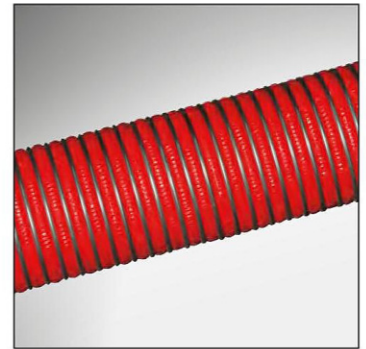
We reserve the right to alter or amend specifications as deemed necessary.





Multi-Chem Red

Multi-Chem Red hoses are designed for those chemicals and acids which do not affect the lining and the stainless steel inner wire.



There are three different types, depending on pressure and application, namely:

Multi-Chem Red	Code number	Application
Light duty	250733300	Tank truck and railcar
Standard duty	251033300	Tank truck, railcar and in plant transfer
Heavy duty	251433300	Heavy duty marine operations and ship and barge loading and unloading

Certifications

Multi-Chem Red hoses are produced and tested according international standards like EN 13765 & IMO IBC code.

Construction

Inner wire:	Stainless steel 316
Lining:	PTFE, Fep or ECTFE (hostaflon)
Outer cover:	Polyester PVC coated red
Outer wire:	Galvanized- or Stainless steel 316

Physical properties

Maximum elongation:	10% on proof pressure
Electrical resistance:	max. 100 Ohm per length
Maximum twist:	10° p/m
Vacuum range:	0,9 bar
Min. burst pressure:	5x working pressure (safety fact 5:1)

Max. flowrate:	on request
Max. tensile strength:	on request
Pressure losses:	on request
Temperature range:	-30°C upto +100°C

Multi-Chem Red

Multi-Chem Red Light Duty, Code 250733300

Bore diameter		Max. work. pressure		Bend radius		Weight		Maximum length	
inches	mm	PSI	bar	inches	mm	lbs/Ft	Kg/m	Ft	m
1	28	100	7	4,9	125	0,55	0,85	100	30
1,5	40	100	7	5,9	150	0,75	1,15	100	30
2	50	100	7	7,9	200	0,85	1,3	100	30
2,5	65	100	7	8,3	210	1,45	2,2	100	30
3	80	100	7	11,8	300	1,8	2,7	100	30
4	100	100	7	15,7	400	2,95	4,4	100	30

Multi-Chem Red Standard Duty, Code 251033300 type 2

Bore diameter		Max. work. pressure		Bend radius		Weight		Maximum length	
inches	mm	PSI	bar	inches	mm	lbs/Ft	Kg/m	Ft	m
1	28	150	10,5	4,9	125	0,65	0,95	100	30
1,5	40	150	10,5	5,9	150	1,15	1,7	100	30
2	50	150	10,5	7,9	200	1,2	1,8	100	30
2,5	65	150	10,5	7,9	200	1,95	2,9	100	30
3	80	150	10,5	11,8	300	2,35	3,5	100	30
4	100	150	10,5	15,7	400	3,65	5,5	100	30

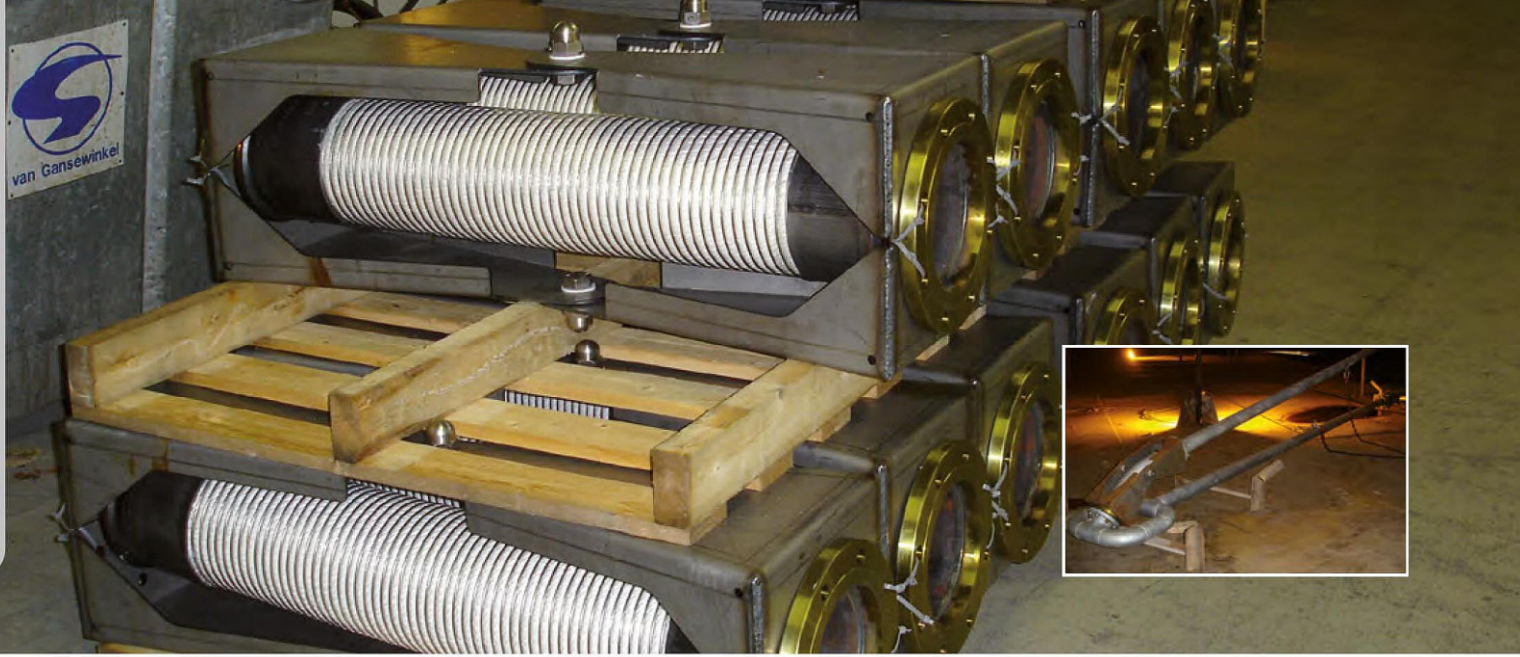
Multi-Chem Red Heavy Duty, Code 251433300 type 3

Bore diameter		Max. work. pressure		Bend radius		Weight		Maximum length	
inches	mm	PSI	bar	inches	mm	lbs/Ft	Kg/m	Ft	m
3	80	200	14	13,8	350	3	4,5	100	30
4	100	200	14	15,7	400	5,25	7,9	100	30
5	125	200	14	20,1	510	6,45	9,7	100	30
6	150	200	14	22,6	575	8,25	12,4	100	30
8	200	200	14	31,5	800	14,55	21,8	100	30
10	250	200	14	39,37	1000	17,8	26,7	100	30
12	300	150	10,5	47,24	1200	21,1	32	59	18

This information is for guidance only, dimensions and weights shown are approximate.

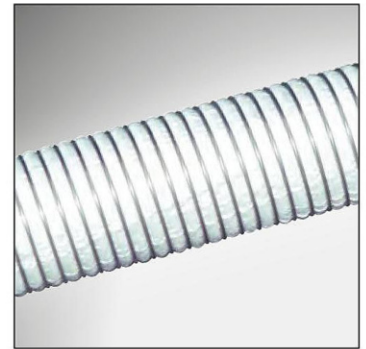
We reserve the right to alter or amend specifications as deemed necessary.





Multi-Chem White

Multi-Chem White hoses are designed for Submersible use in chemicals which do not affect the lining and cover and the stainless steel inner and outer wire.



There are three different types, depending on pressure and application, namely:

Multi-Chem White	Code number	Application
Light duty	240732379	Tank truck and railcar
Standard duty	241031379	Tank truck, railcar and in plant transfer
Heavy duty	241431379	Heavy duty marine operations and ship and barge loading and unloading

Certifications

Multi-Chem White hoses are produced and tested according international standards like EN 13765 & IMO IBC code.

Construction

- Inner wire:** Stainless steel 316
- Lining:** Polypropylene / PTFE / ECTFE
- Outer cover:** Polypropylene white / ECTFE
- Outer wire:** Galvanized- or Stainless steel 316

Physical properties

- Maximum elongation:** 10% on proof pressure
- Electrical resistance:** max. 100 Ohm per length
- Maximum twist:** 10° p/m
- Vacuum range:** 0,9 bar
- Min. burst pressure:** 5x working pressure (safety fact 5:1)
- Max. flowrate:** on request
- Max. tensile strength:** on request
- Pressure losses:** on request
- Temperature range:** Polypropylene lined -30°C upto +80°C
PTFE / ECTFE lined -30°C upto +100°C

Multi-Chem White

Multi-Chem White Light Duty, Code 240732379

Bore diameter		Max. work. pressure		Bend radius		Weight		Maximum length	
inches	mm	PSI	bar	inches	mm	lbs/Ft	Kg/m	Ft	m
1	28	100	7	4,9	125	0,55	0,85	100	30
1,5	40	100	7	5,9	150	0,75	1,15	100	30
2	50	100	7	7,9	200	0,85	1,3	100	30
2,5	65	100	7	8,3	210	1,45	2,2	100	30
3	80	100	7	11,8	300	1,8	2,7	100	30
4	100	100	7	15,7	400	2,95	4,4	100	30

Multi-Chem White Standard Duty, Code 241031379

Bore diameter		Max. work. pressure		Bend radius		Weight		Maximum length	
inches	mm	PSI	bar	inches	mm	lbs/Ft	Kg/m	Ft	m
1	28	150	10,5	5,1	130	0,65	0,95	100	30
1,5	40	150	10,5	6,3	160	1,15	1,7	100	30
2	50	150	10,5	8,3	210	1,25	1,8	100	30
2,5	65	150	10,5	8,7	220	1,95	2,9	100	30
3	80	150	10,5	12,6	320	2,35	3,5	100	30
4	100	150	10,5	16,9	430	3,65	5,5	100	30

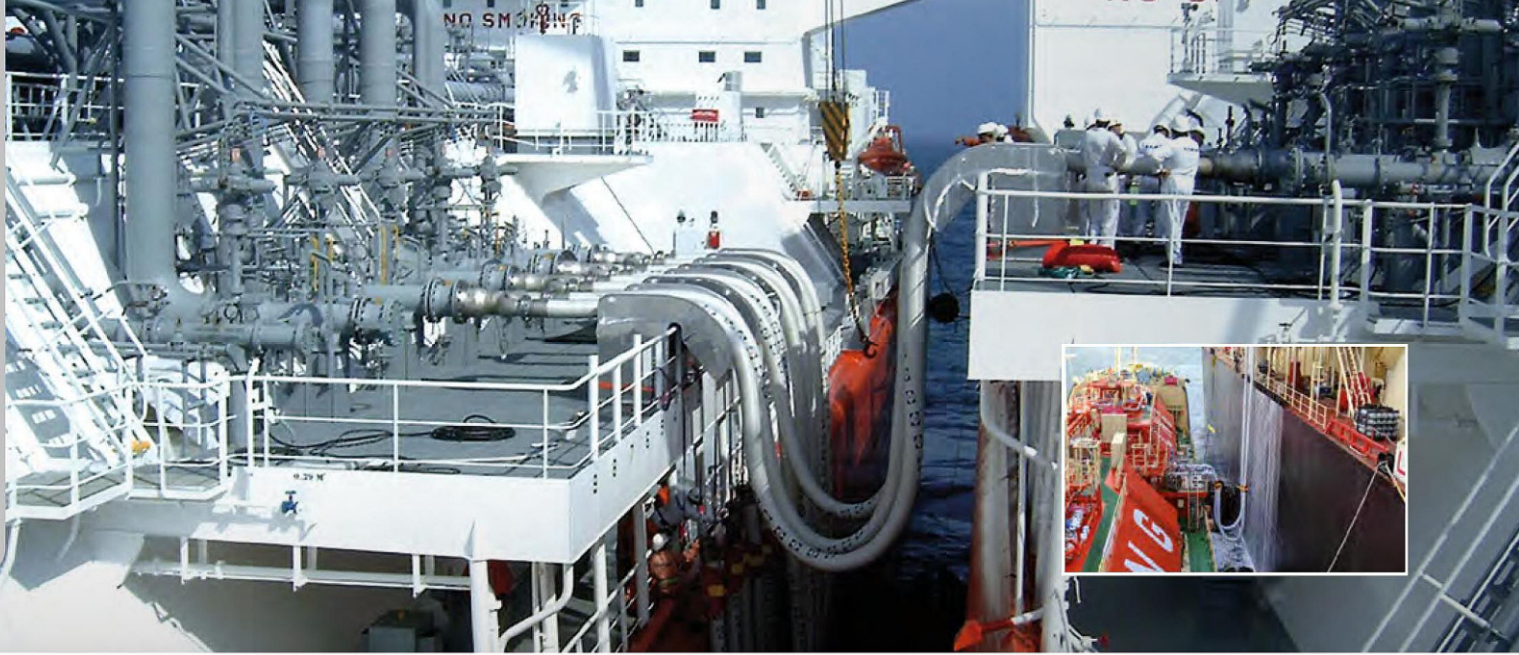
Multi-Chem White Heavy Duty, Code 241431379

Bore diameter		Max. work. pressure		Bend radius		Weight		Maximum length	
inches	mm	PSI	bar	inches	mm	lbs/Ft	Kg/m	Ft	m
3	80	200	14	13,8	350	3	4,5	100	30
4	100	200	14	17,7	450	5,25	7,9	100	30
5	125	200	14	20,1	510	6,45	9,7	100	30
6	150	200	14	26,6	675	8,25	12,4	100	30
8	200	200	14	35,4	900	14,55	21,8	100	30
10	250	200	14	43,3	1100	17,8	26,7	100	30
12	300	150	10,5	51,2	1300	21,1	32	59	18

This information is for guidance only, dimensions and weights shown are approximate.

We reserve the right to alter or amend specifications as deemed necessary.





Multi-LNG White STS Composite Hose

Multi-LNG White STS is especially designed for Offshore use in rough conditions, such as ship to ship operations where fully refrigerated conveyants like LNG will be offloaded. Multi-LNG White STS hoses can be used in different operations such as side by side and tandem offloading. Multi-LNG White STS hoses are also suitable as Vapor Return line in combination with other transfer systems, like loading arms and flexible pipelines.

Reliable

Reliable An extended test program has proven that Multi-LNG White STS hoses are reliable and safe to use in rough offshore conditions. Multi-LNG White STS hoses have a high resistance against any damage.

Certifications

Multi-LNG White STS hoses have been tested and approved according EN 13766, IMO IGC Code and EN 1474-II by several classification societies, such as DNV, ABS, Bureau Veritas and Class NK.

Lengths and sizes

Multi-LNG White STS hoses are available in sizes from 4" up to 10" in lengths up to 30,00 meter. Multi-LNG White STS in size 12" and 16" only on customer request.

End connections

Multi-LNG White STS hoses are equipped with end fittings to customer requests. All types of ERC, QCDC and other special requirements can be connected directly to the hose fitting. The fittings have been swaged to Gutteling BV's special mounting procedure and have been fully tested on their resistance against low temperature and high external loads.

Test / qualification program

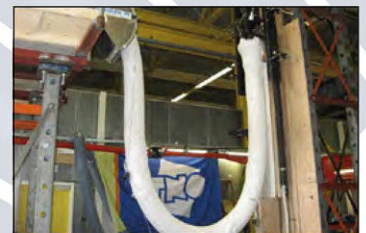
The qualification program essentially covers, strength and stiffness of the Multi-LNG White STS hoses, fatigue due to bending and thermal cycles and flow and damage tolerance. Tests are performed at both ambient and cryogenic conditions.



8" Multi-LNG White STS crushed with external loads up to 160 kN. Internal hose pressure of 6 bar. Done both ambient and cryogenic without any leakage.



Hose filled with LIN during 9 weeks.



Multi-LNG White STS Composite Hose

Multi-LNG White STS 8"

Bore diameter		Max. work. pressure		Weight		Available lengths	
inches	mm	PSI	bar	lbs/Ft	Kg/m	Ft	m
8	200	150	10,5	13,5	20,1	100	30

Min. Bendradius*		Burstpressure*		Pressure losses**		Elongation	Twist
inches	mm	PSI	bar	PSI/m	bar/m	%	%
35,8	910	2580	178	< 1,4	< 0,1	6	< 1

* Performed at cryogenic conditions

** Performed at cryogenic conditions and at maximum allowable flow speed of 14 m/s

Multi-LNG White STS 10"

Bore diameter		Max. work. pressure		Weight		Available lengths	
inches	mm	PSI	bar	lbs/Ft	Kg/m	Ft	m
10	250	150	10,5	16	23,9	100	30

Min. Bendradius*		Burstpressure*		Pressure losses**		Elongation	Twist
inches	mm	PSI	bar	PSI/m	bar/m	%	%
59	1500	1810	125	< 1,4	< 0,1	5	< 1

* Performed at cryogenic conditions

** Performed at cryogenic conditions and at maximum allowable flow speed of 14 m/s



Ambient burst test on prototype Multi-LNG White 16"



Bending of a Multi-LNG White 16"

This information is for guidance only, dimensions and weights shown are approximate.

We reserve the right to alter or amend specifications as deemed necessary.





Multi-LNG White

Multi-LNG White is especially designed for use with fully refrigerated conveyants down to -196°C such as LNG in rail, railcars, inplant, ship to shore and LNG bunker operation.

Certifications

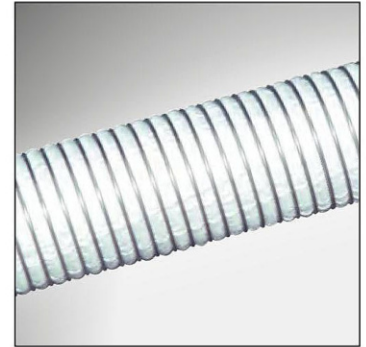
Multi-LNG White hoses are produced and tested according international standards like EN 13766, IMO IGC and EN 12434.

Construction

Inner wire:	Stainless steel 316
Lining:	Polyester fabrics and films
Outer cover:	Polyamide
Outer wire:	Stainless steel 316

Physical properties

Maximum elongation:	10% on proof pressure
Electrical resistance:	2,5 Ohm p/mtr < 2"
	1,0 Ohm p/mtr \geq 2"
Maximum twist:	10° p/m
Min. burst pressure:	5x working pressure (safety fact 5:1)
Max. flowrate:	on request
Max. tensile strength:	on request
Pressure losses:	on request
Temperature range:	-196°C upto $+50^{\circ}\text{C}$



Multi-LNG White

Multi-LNG White, Code 281039300

Bore diameter		Max. work. pressure		Bend radius		Weight		Maximum length	
inches	mm	PSI	bar	inches	mm	lbs/Ft	Kg/m	Ft	m
1	28	150	10,5	5,9	150	0,6	0,9	100	30
1,5	40	150	10,5	7,9	200	1,1	1,6	100	30
2	50	150	10,5	7,9	200	1,6	2,4	100	30
2,5	65	150	10,5	7,9	200	2,1	3,2	100	30
3	80	150	10,5	9,8	250	3,3	4,9	100	30
4	100	150	10,5	19,6	500	6	9	100	30
6	150	150	10,5	25,9	660	8,4	12,6	100	30
8	200	150	10,5	35,8	910	13,5	20,1	100	30
10	250	150	10,5	59,1	1500	16	23,9	100	30
12	300	150	10,5	70,9	1800	24,1	36	59	18

Multi-LNG White, Code 282139300

Bore diameter		Max. work. pressure		Bend radius		Weight		Maximum length	
inches	mm	PSI	bar	inches	mm	lbs/Ft	Kg/m	Ft	m
1	28	300	21	6,5	165	0,7	1,1	65	20
1,5	40	300	21	8,3	210	1,3	1,9	100	30
2	50	300	21	8,5	215	1,7	2,5	100	30
2,5	65	300	21	9,4	240	2,2	3,3	100	30
3	80	300	21	11,6	295	3,6	5,3	100	30
4	100	300	21	21,3	540	6,4	9,4	100	30
6	150	300	21	29,5	750	8,9	13,1	100	30
8	200	300	21	39,3	1000	14,1	21,2	100	30
10	250	300	21	59,1	1500	24,7	36,5	100	30

This information is for guidance only, dimensions and weights shown are approximate.

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Multi-LPG White

Multi-LPG White is especially designed for use with fully refrigerated conveyants down to -50°C on ship, barges and in marine terminals. This application is including the following mediums: Ammonia, Acetaldehyde, Butadiene, Butane, Propane, Butylene, Dimethylamide, Ethylamine, Ethyl Chloride, Methyl Acetylene, Methyl Bromide Propane, Propadiene, Propylene, Vinyl Chloride, Refrigerant Gases.

Multi-LPG White is also suitable for:

Liquid Ethylene at -105°C , Liquid Ethane at -88°C .



Multi-LPG White	Code number	Application
Medium duty	271439374	Onshore applications
Heavy duty	272139374	Onshore & offshore applications
Heavy duty	272539374	Offshore applications

Certifications

Multi-LPG White hoses are produced and tested according international standards like EN 13766 & IMO IGC code.

Construction

Inner wire:	Stainless steel 316
Lining:	Polyamide fabrics and BOPP films
Outer cover:	Polyamide
Outer wire:	Stainless steel 316

Physical properties

Maximum elongation:	10% on proof pressure
Electrical resistance:	2,5 Ohm p/mtr < 2"
	1,0 Ohm p/mtr \geq 2"
Maximum twist:	10° p/m
Min. burst pressure:	5x working pressure (safety fact 5:1)

Max. flowrate:	on request
Max. tensile strength:	on request
Pressure losses:	on request
Temperature range:	-50°C upto $+50^{\circ}\text{C}$ -105°C upto $+50^{\circ}\text{C}$ (for liquid ethylene)

Multi-LPG White

Multi-LPG White, Code 271439374

Bore diameter		Max. work. pressure		Bend radius		Weight		Maximum length	
inches	mm	PSI	bar	inches	mm	lbs/Ft	Kg/m	Ft	m
1	28	200	14	5,9	150	0,6	0,9	100	30
1,5	40	200	14	7,9	200	1,1	1,6	100	30
2	50	200	14	7,9	200	1,6	2,4	100	30
2,5	65	200	14	7,9	200	2,1	3,2	100	30
3	80	200	14	9,8	250	3,3	4,9	100	30
4	100	200	14	19,6	500	6	9	100	30
6	150	200	14	25,9	660	8,4	12,6	100	30
8	200	200	14	35,8	910	13,5	20,1	100	30
10	250	200	14	59,1	1500	16	23,9	100	30
12	300	150	10,5	70,9	1800	24,1	36	59	18

Multi-LPG White, Code 272139374

Bore diameter		Max. work. pressure		Bend radius		Weight		Maximum length	
inches	mm	PSI	bar	inches	mm	lbs/Ft	Kg/m	Ft	m
1	28	300	21	6,5	165	0,7	1,1	100	30
1,5	40	300	21	8,3	210	1,3	1,9	100	30
2	50	300	21	8,5	215	1,7	2,5	100	30
2,5	65	300	21	9,4	240	2,2	3,3	100	30
3	80	300	21	11,6	295	3,6	5,3	100	30
4	100	300	21	21,3	540	6,4	9,4	100	30
6	150	300	21	29,5	750	8,9	13,1	100	30
8	200	300	21	39,3	1000	14,1	21,2	100	30
10	250	300	21	59,1	1500	16,5	24,5	100	30

Multi-LPG White, Code 272539374

Bore diameter		Max. work. pressure		Bend radius		Weight		Maximum length	
inches	mm	PSI	bar	inches	mm	lbs/Ft	Kg/m	Ft	m
1	28	360	25	6,5	165	1,0	1,4	65	20
1,5	40	360	25	8,3	210	1,6	2,2	100	30
2	50	360	25	8,5	215	2,0	2,8	100	30
2,5	65	360	25	9,4	240	2,6	3,6	100	30
3	80	360	25	11,6	295	3,9	5,6	100	30
4	100	360	25	21,3	540	6,7	9,7	100	30
6	150	360	25	29,5	750	9,7	13,8	100	30
8	200	360	25	39,3	1000	14,9	22,2	100	30
10	250	360	25	59,1	1500	16,7	24,9	100	30

This information is for guidance only, dimensions and weights shown are approximate.

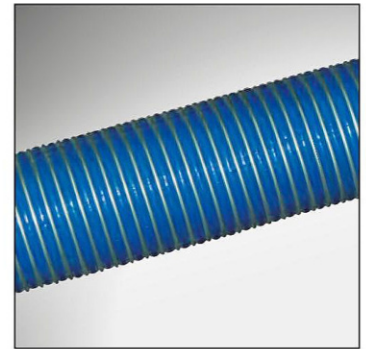
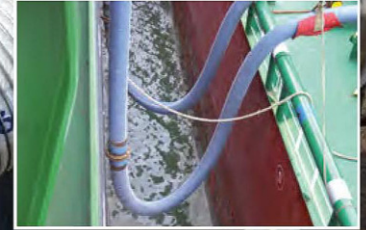
We reserve the right to alter or amend specifications as deemed necessary.





Multi-Oil Blue

Multi-Oil Blue Hoses are designed for conveying hydrocarbons, solvents, 100% aromatics, etc. Multi-Oil Blue hoses are highly flexible and reliable in all kind of transfer operations.



There are three different types, depending on pressure and application, namely:

Multi-Oil Blue	Code number	Application
Light duty	220712100	Tank truck and railcar
Standard duty	221011100	Tank truck, railcar and in plant transfer
Heavy duty	221411100	Heavy duty marine operations and ship and barge loading and unloading

Certifications

Multi-Oil Blue hoses are produced and tested according international standards like EN 13765 & IMO IBC code.

Construction

Inner wire:	Galvanized steel
Lining:	Polypropylene
Outer cover:	Polyester PVC coated blue
Outer wire:	Galvanized steel

Physical properties

Maximum elongation:	10% on proof pressure
Electrical resistance:	max. 100 Ohm per length
Maximum twist:	10° p/m
Vacuum range:	0,9 bar
Min. burst pressure:	5x working pressure (safety fact 5:1)

Max. flowrate:	on request
Max. tensile strength:	on request
Pressure losses:	on request
Temperature range:	-30°C upto +80°C

Multi-Oil Blue

Multi-Oil Blue Light Duty, Code 220712100

Bore diameter		Max. work. pressure		Bend radius		Weight		Maximum length	
inches	mm	PSI	bar	inches	mm	lbs/Ft	Kg/m	Ft	m
1	28	100	7	4,9	125	0,55	0,85	100	30
1,5	40	100	7	5,9	150	0,75	1,15	100	30
2	50	100	7	7,9	200	0,85	1,3	100	30
2,5	65	100	7	8,3	210	1,45	2,2	100	30
3	80	100	7	11,8	300	1,8	2,7	100	30
4	100	100	7	15,7	400	2,95	4,4	100	30

Multi-Oil Blue Standard Duty, Code 221011100 type 2

Bore diameter		Max. work. pressure		Bend radius		Weight		Maximum length	
inches	mm	PSI	bar	inches	mm	lbs/Ft	Kg/m	Ft	m
1	28	150	10,5	4,9	125	0,65	0,95	100	30
1,5	40	150	10,5	5,9	150	1,15	1,7	100	30
2	50	150	10,5	7,9	200	1,2	1,8	100	30
2,5	65	150	10,5	7,9	200	1,95	2,9	100	30
3	80	150	10,5	11,8	300	2,35	3,5	100	30
4	100	150	10,5	15,7	400	3,65	5,5	100	30

Multi-Oil Blue Heavy Duty, Code 221411100 type 3

Bore diameter		Max. work. pressure		Bend radius		Weight		Maximum length	
inches	mm	PSI	bar	inches	mm	lbs/Ft	Kg/m	Ft	m
3	80	200	14	13,8	350	3	4,5	100	30
4	100	200	14	15,7	400	5,25	7,9	100	30
5	125	200	14	20,1	510	6,45	9,7	100	30
6	150	200	14	22,6	575	8,25	12,4	100	30
8	200	200	14	31,5	800	14,55	21,8	100	30
10	250	200	14	39,37	1000	17,8	26,7	100	30
12	300	150	10,5	47,24	1200	21,1	32	59	18

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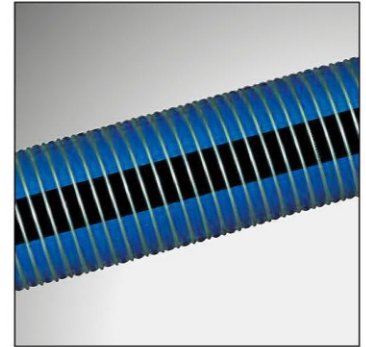




Multi-TankTruck Blue

Multi-TankTruck Blue hoses are specially designed for conveying hydrocarbons and aromatics, for tanktruck applications. The hoses are light weighted and have a high flexibility, therefore the Multi-TankTruck hoses are easy to handle by operators and truck drivers.

Multi-TankTruck Blue hoses are obtainable in two types, with galvanized steel inner wire and with aluminium inner wire to obtain a lower weight.



Certifications

Multi-TankTruck Blue hoses are produced and tested according international standards like EN 13765, AS 2683 & BS 3492.

Construction

Inner wire:	Galvanized steel or aluminium
Lining:	Polypropylene
Outer cover:	Polyester PVC coated blue with black stripe or orange stripe
Outer wire:	Galvanized steel or aluminium

Physical properties

Maximum elongation:	10% on proof pressure
Electrical resistance:	max. 100 Ohm per length
Maximum twist:	< 10° p/m
Vacuum range:	0,9 bar
Min. burst pressure:	4x working pressure (safety fact 4:1)
Max. flowrate:	on request
Temperature range:	-30°C upto +80°C

Multi-TankTruck Blue

Multi-TankTruck Blue GG Standard Duty, Code 221012100 with black stripe

Bore diameter		Max. work. pressure		Bend radius		Weight		Maximum length	
inches	mm	PSI	bar	inches	mm	lbs/Ft	Kg/m	Ft	m
1	28	150	10,5	4,9	125	0,5	0,75	100	30
1,5	40	150	10,5	5,9	150	0,65	0,95	100	30
2	50	150	10,5	7,9	200	0,7	1,1	100	30
2,5	65	150	10,5	8,3	210	1,2	1,8	100	30
3	80	150	10,5	11,8	300	1,4	2,1	100	30
4	100	150	10,5	15,7	400	2,0	3,1	100	30

Multi-TankTruck Blue AA Standard Duty, Code 221052500 with orange stripe

Bore diameter		Max. work. pressure		Bend radius		Weight		Maximum length	
inches	mm	PSI	bar	inches	mm	lbs/Ft	Kg/m	Ft	m
1	28	150	10,5	4,9	125	0,3	0,4	100	30
1,5	40	150	10,5	5,9	150	0,4	0,6	100	30
2	50	150	10,5	7,9	200	0,6	0,9	100	30
2,5	65	150	10,5	8,3	210	0,8	1,2	100	30
3	80	150	10,5	11,8	300	1,0	1,5	100	30
4	100	150	10,5	15,7	400	1,3	1,9	100	30

This information is for guidance only, dimensions and weights shown are approximate.

We reserve the right to alter or amend specifications as deemed necessary.





Multi-Vapor Yellow

Multi-Vapor Yellow is designed specifically for chemicals as well as for hydrocarbon vapor recovery service on ship, barges and in marine terminals. It can also be used to recover vapors in tank and railcar applications.

Certifications

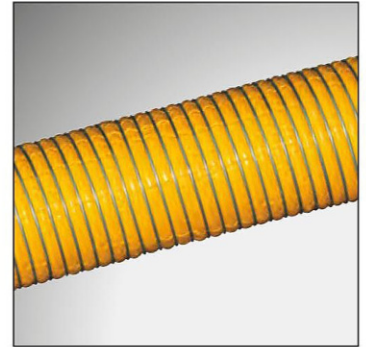
Multi-Vapor Yellow hoses are produced and tested according international standards like EN 13765 & IMO IBC code.

Construction

Inner wire:	Stainless steel 316 or PP coated
Lining:	Polypropylene / PTFE
Outer cover:	Polyester PVC coated yellow
Outer wire:	Galvanized- or Stainless steel 316

Physical properties

Maximum elongation:	10% on proof pressure
Electrical resistance:	max. 100 Ohm per length
Maximum twist:	10° p/m
Vacuum range:	0,5 bar
Min. burst pressure:	5x working pressure (safety fact 5:1)
Max. flowrate:	on request
Max. tensile strength:	on request
Pressure losses:	on request
Temperature range:	-30°C upto +80°C with PP lining -30°C upto +100°C with PTFE lining



Multi-Vapor Yellow

Multi-Vapor Yellow Vapor Recovery Service, Code 210542100 type 1

Bore diameter		Max. work. pressure		Bend radius		Weight		Maximum length	
inches	mm	PSI	bar	inches	mm	lbs/Ft	Kg/m	Ft	m
2	50	75	5	7,9	200	0,8	1,2	100	30
3	80	75	5	11,8	300	1,45	2,2	100	30
4	100	75	5	15,7	400	2,55	3,8	100	30
6	150	75	5	22,6	575	4,7	7	100	30
8	200	75	5	31,5	800	8	12	100	30

Multi-Vapor Yellow Vapor Recovery Service, Code 210532300 type 1

Bore diameter		Max. work. pressure		Bend radius		Weight		Maximum length	
inches	mm	PSI	bar	inches	mm	lbs/Ft	Kg/m	Ft	m
2	50	75	5	7,9	200	0,8	1,2	100	30
3	80	75	5	11,8	300	1,45	2,2	100	30
4	100	75	5	15,7	400	2,55	3,8	100	30
6	150	75	5	22,6	575	4,7	7	100	30
8	200	75	5	31,5	800	8	12	100	30
10	250	75	5	39,8	1000	10,7	16	65	20
12	300	75	5	47,2	1200	17,3	26	59	18

This information is for guidance only, dimensions and weights shown are approximate.

We reserve the right to alter or amend specifications as deemed necessary.

