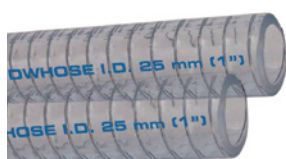




HOSES



WATER HOSES



Suitable for transportation of drinking and grey water on board, both suction and pressure. Made of transparent PVC with spiralled steel inlay. Available in coils of:
 Ø 10 mm - Ø 38 mm - 30 m
 Ø 40 mm - Ø 50 mm - 10 m

Code	Internal. dia	External dia	Weight	Pressure in bar			Bending radius
				20°C	40°C	65°C	
MM VET DWHOSE10A	10 mm $\frac{3}{8}$ "	16 mm	0,16 kg/m	7	5	3	20 mm
MM VET DWHOSE12A	12 mm $\frac{1}{2}$ "	18 mm	0,18 kg/m	7	5	3	25 mm
MM VET DWHOSE16A	16 mm $\frac{5}{8}$ "	22 mm	0,23 kg/m	6	4	2,5	35 mm
MM VET DWHOSE19A	19 mm $\frac{3}{4}$ "	26 mm	0,32 kg/m	5	3	2	50 mm
MM VET DWHOSE25A	25 mm 1"	33 mm	0,53 kg/m	5	3	2	60 mm
MM VET DWHOSE28A	28 mm $1\frac{1}{8}$ "	36 mm	0,57 kg/m	4,5	3	1,5	66 mm
MM VET DWHOSE30A	30 mm $1\frac{1}{16}$ "	38 mm	0,60 kg/m	4,5	3	1,5	70 mm
MM VET DWHOSE32A	32 mm $1\frac{1}{4}$ "	40 mm	0,65 kg/m	4,5	3	1,5	75 mm
MM VET DWHOSE35A	35 mm $1\frac{3}{8}$ "	44 mm	0,73 kg/m	4	2	1	80 mm
MM VET DWHOSE38A	38 mm $1\frac{1}{2}$ "	47 mm	0,80 kg/m	4	2	1	90 mm
MM VET DWHOSE40A	40 mm $1\frac{9}{16}$ "	49 mm	0,87 kg/m	3	1	0,7	95 mm
MM VET DWHOSE45A	45 mm $1\frac{3}{4}$ "	55 mm	1,10 kg/m	3	1	0,7	105 mm
MM VET DWHOSE50A	50 mm 2"	60 mm	1,20 kg/m	3	1	0,7	125 mm



FUEL HOSES



Code	Internal. dia	External dia	Weight	Max Pressure	Bending radius
MM VET FUHOSE06A	6 mm $\frac{1}{4}$ "	13 mm	0,16 kg/m	10 bar	25 mm
MM VET FUHOSE08A	8 mm $\frac{5}{16}$ "	16 mm	0,24 kg/m	10 bar	30 mm
MM VET FUHOSE10A	10 mm $\frac{3}{8}$ "	18 mm	0,28 kg/m	10 bar	35 mm
MM VET FUHOSE13A	13 mm $\frac{1}{2}$ "	22 mm	0,39 kg/m	10 bar	50 mm
MM VET FUHOSE16A	16 mm $\frac{5}{8}$ "	25 mm	0,45 kg/m	10 bar	60 mm
MM VET FUHOSE19A	19 mm $\frac{3}{4}$ "	28 mm	0,52 kg/m	10 bar	80 mm
MM VET FUHOSE25A	25 mm 1"	35 mm	0,73 kg/m	10 bar	110 mm

For transportation of fuel, from tank to e.g. fuel filter, or to serve as ventilation line. Available as quality type A1, suitable for both petrol and diesel. Inside made of NBR rubber, outside of CR rubber.

Fuel hoses which fulfil the requirements of Marine Fuel A1 have been successfully subjected to a fire test for 2.5 minutes and have a maximum permeability of 4 grams/m²/hour. Fuel hoses which fulfil the requirements of Marine Fuel A2 have been successfully subjected to a fire test for 2.5 minutes and have a maximum permeability of 12 grams/m²/hour.

Available in coils of 30 m.

**WASTE WATER HOSE**

Code	Internal. dia	External dia	Weight	Max Pressure	Bending radius
MM VET WWHOSE16A	16 mm 5/8"	22 mm	0,23 kg/m	6 bar	35 mm
MM VET WWHOSE19A	19 mm 3/4 "	26 mm	0,32 kg/m	5 bar	50 mm
MM VET WWHOSE25A	25 mm 1"	33 mm	0,53 kg/m	5 bar	60 mm
MM VET WWHOSE38A	38 mm 1 1/2 "	47 mm	0,80 kg/m	4 bar	90 mm
MM VET WWHOSE45A	45 mm 1 3/4 "	55 mm	1,10 kg/m	3 bar	105 mm

Made of PVC, coloured white, with steel spiral inlay. Suitable for temperatures of between - 5° C and + 65° C.

Available in coils of:

30 m – ø 8 mm to ø 38 mm

10 m – ø 45 mm

**IMPERMEABLE SANITARY HOSES "NO-SMELL"**

Code	Internal. dia	External dia	Weight	Max Pressure	Bending radius
MM VET SAHOSE16	16 mm 5/8"	26 mm	0,45 kg/m	3 bar	50 mm
MM VET SAHOSE19	19 mm 3/4"	29 mm	0,55 kg/m	3 bar	65 mm
MM VET SAHOSE25	25 mm 1"	36 mm	0,72 kg/m	3 bar	75 mm
MM VET SAHOSE38	38 mm 1 1/2 "	48 mm	1,15 kg/m	3 bar	100 mm
MM VET SAHOSE102	102 mm 4"	115 mm	3,86 kg/m	3 bar	250 mm

Especially recommended for transportation of biological waste, e.g. in combination with (marine) toilet installations. Made of SBR rubber with inlays of woven synthetic fabric and steel spiral. Withstands temperatures of between - 40° C and + 70° C.

Available in coils of 20 m.

**HOSE FOR BLOWERS (VENTILATORS)**

Code	Internal. dia	Length
MM VET BLHOSE310	76 mm 3"	10 m
MM VET BLHOSE410	103 mm 4"	10 m

This type of hose is made of a woven glass fibre fabric, impregnated with PVC. Suitable for VETUS shell ventilators and extraction ventilators. Withstands temperatures of between - 20° C and + 100° C.

Available in coils of 10 m.

Bending radius: 0.6 x internal diameter

**HOSE FOR AIR CONDITIONING, HEATING AND COMBINED COOLING/ HEATING UNITS**

Code	Internal. dia	External dia	Weight	Max Pressure	Bending radius
MM VET CCHOSE16	16 mm 5/8"	30 mm	0,6 kg/m	1,5 bar	112 mm
MM VET CCHOSE25	25 mm 1"	39 mm	0,8 kg/m	1,5 bar	175 mm

Suitable for fluids in closed heating and/or cooling systems, such as air conditioning, central heating or combined cooling/heating systems.

Temperature resistant between +3° C and + 80° C.

For transportation of water and cooling fluids. Available in coils of 20 m. Made of EPDM rubber with inlay of woven reinforcement material. When used with air conditioning units, an insulating sleeve is required in order to avoid condensation on the outer surface of the hose. This is made of a combination of polythene and rubber, with a closed cell structure, and is available in 2 metre lengths.



COOLING WATER HOSE



Code	Internal. dia	External dia	Weight	Max Pressure	Bending radius
MM VET MWHOSE19	19 mm 3/4"	28 mm	0,39 kg/m	2,5 bar	29 mm
MM VET MWHOSE25	25 mm 1"	34 mm	0,51 kg/m	2,5 bar	38 mm
MM VET MWHOSE32	32 mm 1 1/4"	41 mm	0,71 kg/m	2,5 bar	48 mm
MM VET MWHOSE38	38 mm 1 1/2"	47 mm	0,88 kg/m	2,5 bar	57 mm
MM VET MWHOSE51	51 mm 2"	60 mm	1,15 kg/m	2,5 bar	77 mm

Applications:

- Suction and transportation of cooling water from outside (such as, connection skin fitting - cooling water strainer - cooling water pump)
- Transportation of warm cooling water (e.g. between engine and keel cooler)

Cooling water hose

- Suitable for suction and pressure
- Suitable for salt and fresh water
- Suitable for all cooling fluids
- Temperature resistant between -30° C and +120°C
- Made of EPDM-rubber, with synthetic fabric and spiralled steel reinforcement
- Operating pressure: 2,5 bar maximum
- Suitable for use as exhaust hose

Available in coils of 20 m.



HOSE FOR CALORIFIERS AND HOT WATER TRANSPORT



Code	Internal. dia	External dia	Weight	Max Pressure 100°C	Bending radius
MM VET HWHOSE13	13 mm 1/2"	23 mm	0,36 kg/m	8 bar	95 mm
MM VET HWHOSE16	16 mm 5/8"	26 mm	0,40 kg/m	8 bar	110 mm

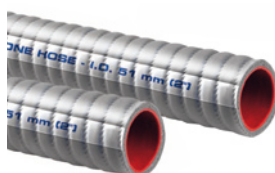
Suitable for drinking water and temperature resistant between -30°C and +160°C.

Therefore most suited for use with calorifier and hot water systems.

Available in coils of 10 m. Made of EPDM rubber with an inlay of woven synthetic fabric.



SILICONE HOSE



Code	Internal. dia	External dia	Weight	Max Pressure	Bending radius
MM VET SIHOSE25	25 mm 1"	35 mm	0,60 kg/m	5 bar	62 mm
MM VET SIHOSE32	32 mm 1 1/4"	41 mm	0,73 kg/m	4,5 bar	80 mm
MM VET SIHOSE38	38 mm 1 1/2"	47 mm	0,85 kg/m	4 bar	95 mm
MM VET SIHOSE51	51 mm 2"	61 mm	1,31 kg/m	4 bar	150 mm
MM VET SIHOSE63	63 mm 2 1/2"	74 mm	1,60 kg/m	3,5 bar	190 mm
MM VET SIHOSE76	76 mm 3"	87 mm	2,06 kg/m	3,5 bar	225 mm
MM VET SIHOSE102	102 mm 4"	113 mm	2,70 kg/m	2 bar	360 mm

VETUS Silicone hose is made from high grade silicone rubber with woven synthetic and spiraled steel wire inlays. It is suitable for a wide range of applications such as exhaust hose, cooling water hose or waste water hose.

Due to the smooth gloss external finish, this type of hose is ideal for use in areas where appearance and cleanliness is important. The hose is extremely flexible, facilitating installation and is highly resistant against aging.

It has a tremendous temperature range and can be used continuously from - 54° to + 177° C (intermittently up to 250° C). VETUS silicone hose fulfills all requirements of the ISO13363 type Class B and SAE J 2006 R1 standards.



FUEL FILLING HOSE (EXTREMELY FLEXIBLE)



Code	Internal. dia	External dia	Weight	Max Pressure	Bending radius
MM VET FFHOSE38	38 mm 1 1/2"	50 mm	1,1 kg/m	4 bar	76 mm
MM VET FFHOSE51	51 mm 2"	63 mm	1,5 kg/m	4 bar	102 mm

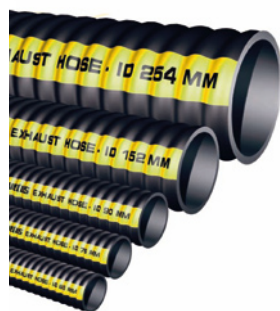
This type of hose is made of NBR rubber with spiralled steel inlay. Suitable for both petrol and diesel fuels. Temperature resistant between -30°C and + 100°C.

Meets the requirements of SAE J 1527 and ISO 7840-MARINE FUEL A2.

Extremely flexible. Available in coils of 20 m.

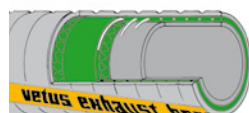


RUBBER EXHAUST HOSE



They are temperature resistant between -30° and + 100° C, with brief peak temperatures of 115° C. VETUS exhaust hoses approved by R.I.N.A and which meet the ISO 13363 standard are available as an option.

Code	Internal. dia	External dia	Weight	Max Pressure	Bending radius
MM VET SLANG30	30 mm 1 1/16"	38 mm	0,55 kg/m	4 bar	45 mm
MM VET SLANG40	40 mm 1 9/16"	48 mm	0,79 kg/m	4 bar	60 mm
MM VET SLANG45	45 mm 1 3/4"	53 mm	0,88 kg/m	4 bar	68 mm
MM VET SLANG50	51 mm 2"	59 mm	1,1 kg/m	4 bar	77 mm
MM VET SLANG57	57 mm 2 1/4"	65 mm	1,1 kg/m	3,3 bar	86 mm
MM VET SLANG60	60 mm 2 3/8"	68 mm	1,2 kg/m	3,3 bar	90 mm
MM VET SLANG65	65 mm 2 9/16"	73 mm	1,3 kg/m	3,3 bar	98 mm
MM VET SLANG75	76 mm 3"	84 mm	1,4 kg/m	3,3 bar	114 mm
MM VET SLANG90	90 mm 3 1/2"	98 mm	1,9 kg/m	2 bar	135 mm
MM VET SLANG100	102 mm 4"	110 mm	2,3 kg/m	2 bar	153 mm
MM VET SLANG110	110 mm 4 1/16"	119 mm	2,8 kg/m	2 bar	165 mm
MM VET SLANG125	127 mm 5"	137 mm	3,3 kg/m	2 bar	191 mm
MM VET SLANG150	152 mm 6"	163 mm	4,4 kg/m	2 bar	228 mm
MM VET SLANG200	203 mm 8"	218 mm	6,8 kg/m	2 bar	406 mm
MM VET SLANG250	254 mm 10"	270 mm	8,5 kg/m	2 bar	508 mm
MM VET SLANG300	305 mm 12"	323 mm	10,8 kg/m	2 bar	606 mm



In order to reduce back pressure in the engine, the inside of all VETUS exhaust hoses is completely **flush and smooth**.

Available with internal diameters of 30 - 40 - 45 - 51 - 57 - 60 - 65 - 76 - 90 - 102 - 110 - 127 - 152 - 203 - 254 or 305 mm.



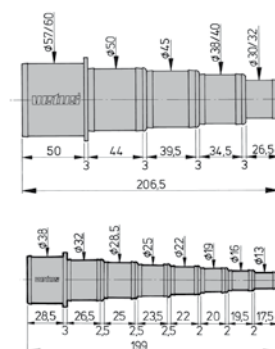
HOSE PILLARS (SYNTHETIC) TO BE CUT TO SIZE



MM VET HA1338

MM VET HA3060

The larger one is ideal for interconnection of exhaust hoses



**STAINLESS STEEL HOSE CLAMPS HEAVY DUTY**

Suitable for hoses between Ø 34 and Ø 329 mm.

MM VET HCHDS

**STAINLESS STEEL HOSE CLAMPS**

Suitable for hoses between Ø 8 and Ø 170 mm.

MM VET HCS

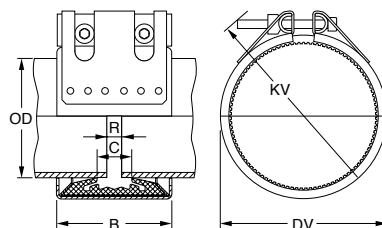


PIPE COUPLINGS

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STRAUB-GRIP-L COUPLING

Axial-Restraint Pipe Coupling
For IPS Outside Diameter Pipe



Code Gasket Material		Nominal IPS Inches	Pipe Outside Diameter		Working Pressure psi/bar	Agency Approved Pressure* psi/bar	Coupling Dimensions		Assembled Dimensions		Maximum Distance Between Pipe Ends (Rmax.)		Torque Rate Ft.lbs./ Nm	Approx. Weight Each Lbs./kg
			Actual In./mm	OD Range In./mm			B In./mm	C In./mm	DV In./mm	KV In./mm	Without Strip insert In./mm	With Strip insert In./mm		
EPDM	NBR													
MM STU S20000	MM STU S20001	3/4	1.050 26.9	1.04 - 1.08 26.4 - 27.4	670 46	232 16.0	1.8 46	0.7 18	1.7 43	2.8 71	0.2 5	0.4 10	5.5 7.5	0.4 0.2
MM STU S20100	MM STU S20101	1	1.315 33.7	1.31 - 1.35 33.2 - 34.2	550 38	232 16.0	1.8 46	0.7 18	2 51	3 76	0.2 5	0.4 10	5.5 7.5	0.4 0.2
MM STU S20200	MM STU S20201	1 1/4	1.660 42.4	1.65 - 1.69 41.9 - 42.9	400 30	232 16.0	2.4 61	1 25	2.4 61	3.7 94	0.2 5	0.4 10	11 15	0.8 0.4
MM STU S20300	MM STU S20301	1 1/2	1.900 48.3	1.88 - 1.92 47.7 - 48.7	440 30	232 16.0	2.4 61	1 25	2.6 66	3.9 99	0.2 5	0.4 10	11 15	0.9 0.4
MM STU S20450	MM STU S20451	2	2.375 60.3	2.35 - 2.40 59.6 - 60.9	320 22	232 16.0	3 76	1.5 38	3.1 79	4.3 109	0.4 10	0.6 15	11 15	1.2 0.5
MM STU S20500	MM STU S20501	2 1/2	2.875 73.0	2.85 - 2.90 72.3 - 73.6	450 31	232 16.0	3.7 94	1.6 41	3.9 99	5.3 135	0.4 10	0.6 15	15 20	2.7 1.2
MM STU S20650	MM STU S20651	3	3.500 88.9	2.96 - 3.03 75.1 - 76.9	450 31	232 16.0	3.7 94	1.6 41	4.4 112	5.9 150	0.4 10	1.0 25	15 20	2.6 1.2
MM STU S20750	MM STU S20751	3 1/2	4.000 101.6	3.96 - 4.04 100.5 - 102.6	320 22	232 16.0	3.7 94	1.4 36	5.1 130	6.3 160	0.6 15	0.6 15	18 25	3.3 1.5
MM STU S20900	MM STU S20901	4	4.500 114.3	4.46 - 4.54 113.2 - 115.3	232 16	232 16.0	3.7 94	1.6 41	5.4 137	6.7 170	0.4 10	1 25	18 25	3.2 1.5
MM STU S21150	MM STU S21151	5	5.500 139.7	5.51 - 5.62 139.9 - 142.7	232 16	232 16.0	4.3 109	2.1 53	6.5 165	8.3 211	0.4 10	1.4 36	30 40	5.7 2.6
MM STU S21350	MM STU S21351	6	6.625 168.3	6.56 - 6.69 166.6 - 169.9	232 16	188 13.0	4.3 109	2.1 53	7.6 193	9.1 231	0.4 10	1.4 36	30 40	6.4 2.9
MM STU S21400	MM STU S21401	8	8.625 219.1	8.54 - 8.71 216.9 - 221.2	232 16	145 10.0	5.6 142	3.1 79	9.8 249	11.6 295	0.4 10	1.4 36	45 60	13.0 5.9
MM STU S25201	MM STU S25203	10	10.750 273.0	10.65 - 10.85 270.5 - 275.5	100 7	67 4.6	5.5 140	3.1 79	11.9 302	13 330	0.4 10	1.4 36	37 50	12.7 5.8
MM STU S25301	MM STU S25303	12	12.750 323.9	12.62 - 12.87 320.5 - 326.8	70 5	52 3.6	5.5 140	3.1 79	13.9 353	15 381	0.4 10	1.4 36	52 70	14.3 6.5
MM STU S25355	MM STU S25357	14	14.000 355.6	13.86 - 14.13 352.0 - 358.9	60 4	45 3.1	5.5 140	3.1 79	15.2 386	16.3 414	0.4 10	1.4 36	52 70	15.4 7.0
MM STU S25405	MM STU S25408	16	16.000 406.4	15.85 - 16.16 402.5 - 410.4	45 3	35 2.4	5.5 140	3.1 79	17.1 434	18.3 465	0.4 10	1.4 36	52 70	16.9 7.7
MM STU S25430	MM STU S25432	18	18.00 457.2	17.81 - 18.17 452.3 - 461.5	30 2.0		5.5 140	3.1 79	19.2 488	20.5 521	0.4 10	1.4 36	52 70	18.5 8.4
MM STU S25455	MM STU S25457	20	20.00 508.0	19.82 - 20.18 503.4 - 512.5	30 2.0		5.5 140	3.1 79	21.2 538	22.4 569	0.4 10	1.4 36	52 70	20.2 9.2
MM STU S25480	MM STU S25482	22	22.00 558.8	21.83 - 22.19 554.4 - 563.6	30 2.0		5.5 140	3.1 79	23.2 589	24.4 620	0.4 10	1.4 36	52 70	21.8 9.9
MM STU S25505	MM STU S25507	24	24.00 609.6	23.82 - 24.17 605.0 - 613.9	15 1.0		5.5 140	3.1 79	25.2 640	26.4 671	0.4 10	1.4 36	52 70	23.3 10.6

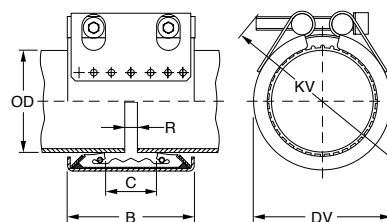
*Agency approved pressures are for applications that require authorization of Classification Societies, such as Marine Approval Bodies.

3/4" - 8": W5 only
10" - 24": W2 or W5

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STRAUB-METAL GRIP COUPLING

Axial-Restraint Pipe Coupling
For IPS Outside Diameter Pipe



Code		Nominal IPS Inches	Pipe Outside Diameter		Working Pressure psi/bar	Agency Approved Pressure* psi/bar	Coupling Dimensions		Assembled Dimensions		Maximum Distance Between Pipe Ends (Rmax.)		Torque Rate	Approx. Weight Each
			Actual In./mm	OD Range +/- In./mm			B In./mm	C In./mm	DV In./mm	KV In./mm	Without Strip insert In./mm	With Strip insert In./mm		
EPDM	NBR												Ft.lbs./ Nm	
MM STU S124	MM STU S125	1	1.315 33.7	1.31 - 1.35 33.2 - 34.2	900 32.1	232 16.0	2.6 66	0.7 18	1.7 43	2.6 66	0.2 5	0.6 15	7.5 10	0.7 0.3
MM STU S11041	MM STU S11046	1 1/4	1.660 42.4	1.65 - 1.69 41.9 - 42.9	770 53.1	232 16.0	2.4 61	0.8 20	2.4 61	3.5 89	0.2 5	0.6 15	11 15	1.1 0.5
MM STU S11042	MM STU S11049	1 1/2	1.900 48.3	1.88 - 1.92 47.7 - 48.7	640 44.1	232 16.0	2.4 61	0.8 20	2.7 69	3.7 94	0.2 5	0.6 15	11 15	1.1 0.5
MM STU S11044	MM STU S11055	2	2.375 60.3	2.35 - 2.40 59.6 - 60.9	540 37.2	232 16.0	3 76	1.5 38	3.2 81	4.3 109	0.4 10	1.0 25	15 20	1.7 0.8
MM STU S118	MM STU S195	3	3.500 88.9	3.46 - 3.54 87.8 - 89.9	540 37.2	232 16.0	3.7 94	1.5 38	4.6 117	5.7 145	0.4 10	1.0 25	26 35	3.2 1.5
MM STU S177	MM STU S199	4	4.500 114.3	4.46 - 4.54 113.2 - 115.3	490 33.8	232 16.0	3.7 94	1.5 38	5.5 140	6.5 165	0.4 10	1.0 25	26 35	3.8 1.7
MM STU S180	MM STU S202	5	5.500 139.7	5.44 - 5.56 138.7 - 141.2	470 32.4	232 16.0	4.3 109	1.7 43	6.6 168	7.9 201	0.6 15	1.4 36	45 60	7.8 3.5
MM STU S183	MM STU S205	6	6.625 168.3	6.56 - 6.69 166.6 - 169.9	420 28.8	232 16.0	4.3 109	1.7 43	7.9 201	9.1 231	0.6 15	1.4 36	45 60	8.8 4.0
MM STU S184	MM STU S206	8	8.625 219.1	8.54 - 8.71 216.9 - 221.2	380 26.2	232 16.0	5.9 150	2.4 61	10.2 259	11.6 295	0.6 15	1.4 36	75 100	20.6 9.4

*Agency approved pressures are for applications that require authorization of Classification Societies, such as Marine Approval Bodies.

1" - 8": W2 or W4
10" - 24": W1 only

Bigger sizes available on request.

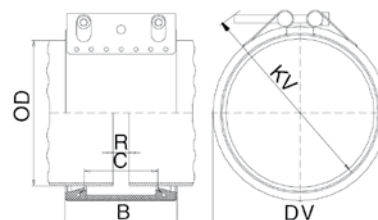
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FLESTRAUX CB-OUPLIFLEX 1L & STRAUNGB-OPEN-FLEX 1L

Axial-Restraint Pipe Coupling
For IPS Outside Diameter Pipe

Pipes must be properly anchored and supported.

STRAUB-FLEX & STRAUB-OPEN-FLEX Couplings are **NOT**
pull-out resistant.

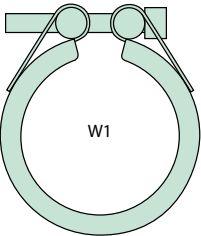
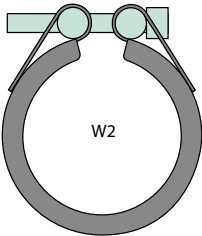
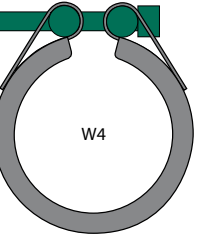
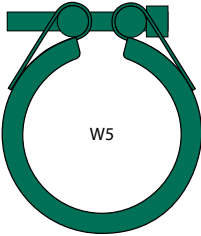


FLEX 1L Code		OPEN FLEX 1L Code		Nominal IPS Inches	Pipe Outside Diameter		Working Pressure psi/bar	Coupling Dimensions		Assembled Dimensions		Maximum Distance Between Pipe Ends (Rmax.)		Approx Weight Each Lbs./kg
Gasket Material		Gasket Material			Actual In./mm	OD Range +/- In./mm		B In. mm	C In. mm	DV In. mm	KV In. mm	Without Strip insert In./mm	With Strip insert In./mm	
EPDM	NBR	EPDM	NBR											
MM STU S30000	MM STU S30002	MM STU S35000	MM STU S35002	1½	1.900 48.3	1.85 - 1.95 46.9 - 49.5	363 25	3.0 76	1.4 35	2.8 71	3.3 85	0.2 5	0.6 15	1.1 0.5
MM STU S30150	MM STU S30152	MM STU S35150	MM STU S35152	2	2.375 60.3	2.32 - 2.42 58.9 - 61.4	232 16.0	3.0 76	1.4 35	3.2 81	3.7 95	0.2 5	0.6 15	1.3 0.6
MM STU S30200	MM STU S30202	MM STU S35200	MM STU S35202	2½	2.875 73.0	2.81 - 2.93 71.3 - 74.4	232 16.0	3.0 76	1.4 35	3.2 81	3.7 95	0.2 5	0.6 15	1.76 .8
MM STU S30350	MM STU S30352	MM STU S35350	MM STU S35352	3	3.500 88.9	3.44 - 3.56 87.3 - 90.4	232 16.0	3.7 94	2.0 51	4.4 112	4.9 125	0.2 5	1.0 25	2.1 1.0
MM STU S30650	MM STU S30652	MM STU S35650	MM STU S35652	4	4.500 114.3	4.43 - 4.57 112.5 - 116.0	232 16.0	3.7 94	2.0 51	5.4 137	5.9 150	0.2 5	1.0 25	2.3 1.1
MM STU S30850	MM STU S30852	MM STU S35850	MM STU S35852	5	5.500 139.7	5.49 - 5.36 139.4 - 136.1	232 16.0	4.2 107	2.4 61	6.4 163	3.9 100	0.2 5	1.4 35	3.1 1.4
MM STU S31050	MM STU S31052	MM STU S36050	MM STU S36052	6	6.625 168.3	6.54 - 6.71 166.1 - 170.4	232 16.0	4.2 107	2.4 61	7.5 191	8.3 210	0.2 5	1.4 35	3.7 1.7

* W2 or W5

OPEN-FLEX 1L in hinged style only

MATERIAL SPECIFICATIONS

Components	COUPLING TYPES							
								
	W1		W2		W4		W5	
	DIN	AISI	DIN	AISI	DIN	AISI	DIN	AISI
Casing	1.0570, galvanized	1024	1.4301	304	1.4301	304	1.4571	316 TI
Bolts	1.7220	4135	1.7220	4135	1.4404/1.4435	316L	1.4404/1.4435	316L
Bars	1.0737 galvanized	12L14	1.0737, galvanized	12L14	1.4404/1.4435	316L	1.4404/1.4435	316L
Anchoring ring	1.43110	301	1.4310/1.4301	301	1.4310/1.4301	301	1.4310	301
Strip insert (option)	1.44350	316L	1.4435	316L	1.4435	316L	1.4435	316L

Optional strip insert - AISI Type 316L Stainless Steel, HDPE or PVDF.

For casing designations refer to the size and pressure indicated in the STRAUB-FLEX and STRAUB-OPEN-FLEX selection chart. All materials meets ANSI / AISI standards.

GASKET SPECIFICATIONS

GASKET MATERIAL:

EPDM -4° to +180°F
(-4° to +212°F*)

Nitrile -4° to +180°F

Viton®
-4° to +302°F

GENERAL SERVICE APPLICATION:

Water, dilute acids, alkalis, salts, and many chemical services not involving hydrocarbons, oils or gases. Excellent oxidation resistance.
NOT FOR USE WITH HYDROCARBONS.

Petroleum products, vegetable oils, mineral oils and air contaminated with petroleum oils.
H-NBR available for higher temperature applications.

High temperature resistance to oxidizing acids, petroleum oils, hydraulic fluids, halogenated hydrocarbons and lubricants. (Not available in all sizes/types).

* Maximum temperature limit is 212°F (100°C) with EPDM gasket material and strip insert.

Higher temperature limits may be allowed subject to specific factory approval.

For specific chemical recommendations, please consult your Straub Professional.

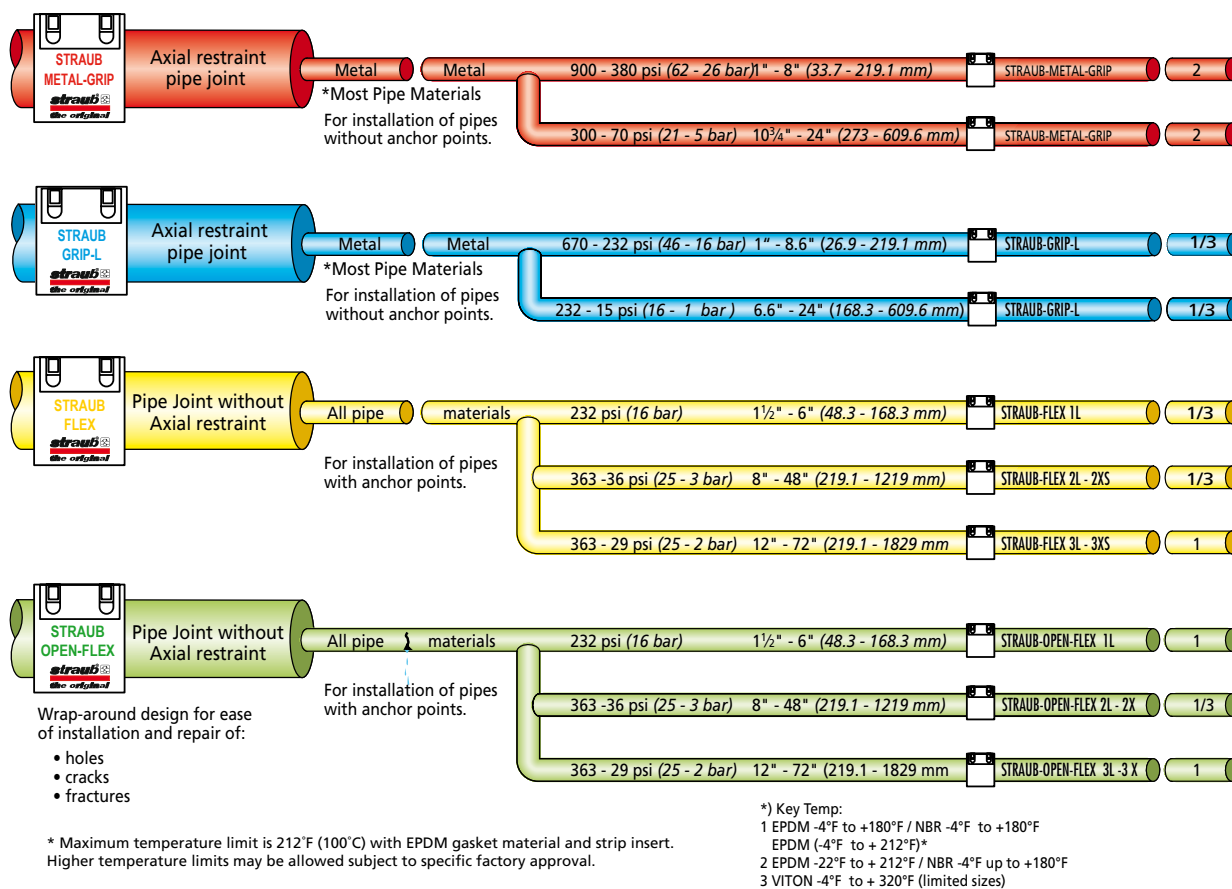
HOW TO ORDER (Example)

PRODUCT DESIGNATION	NOMINAL PIPE SIZE OR PIPE O.D.	PIPE DESIGNATION	LOCK PARTS	GASKET MATERIAL	OPTIONAL STRIP INSERT
STRAUB-GRIP-L	10"	IPS	Stainless Steel "SS"	E - EPDM	SI
STRAUB-METAL -GRIP		CTS	Galvanized "G"	N - Nitrile	PVDF
STRAUB-FLEX (casing type)		AWWA		V - Viton®	T
STRAUB-OPEN-FLEX (casing type)		Other (Supply actual Pipe OD)			

Example: STRAUB-GRIP-L - 10 - IPS - SS- E - SI

Represents STRAUB-GRIP-L style coupling for 10" IPS pipe with stainless steel lock parts, an EPDM gasket and the optional stainless strip insert.

COUPLING SELECTION CHART



HIGH TEMP HOSES & ELBOWS



TRIDENT

TRIDENT PLY MARINE WET EXHAUST & WATER (SAE J2006 & LLOYD'S)



HEAVY WALL

Code	Warranty	I.D. Size		Colors	Packaging
		In	mm.		
MM TRI 200 MM TRI 110	5 years	1/2" to 12"	13mm to 305mm	Black w/Blue Stripe	I.D. ALL Lengths 6.25'-12.5' (1.9-3.8m) 1/2"- 2-1/2" (13-63.5mm) Coils 50' (15m)

Trident Ply marine wet exhaust hose for short, straight connections. In smaller I.D.'s for critical engine coolant & circulation, heat exchanger and discharge uses. Extra heavy tube and cover with 2 to 6 ply reinforcement resists heat, aging, ozone, exhaust and sani chemicals. Exceeds (SAE J2006-R1, and ABYC & NMMA P-1 exhaust standards). Lloyd's Registry Type Approved Cert. 02/00029. Black High Temp EDPM Rubber 280°F (138°C) Max.**



TRIDENT

TRIDENT FLEX MARINE WET EXHAUST & WATER (SAE J2006 & LLOYD'S)



HEAVY WALL

Code	Warranty	I.D. Size		Colors	Packaging
		In	mm.		
MM TRI 250 MM TRI 100	5 years	1/2" to 12"	13mm to 305mm	Black w/Blue Stripe	I.D. ALL Lengths 6.25'-12.5' (1.9-3.8m) 1/2"- 4" (13-102mm) Coils 50' (15m)

Trident Flex wet exhaust hose for longer bent connections. In smaller I.D.'s for engine intake, critical water, drain, scupper bilge & sanitation uses. Extra heavy tube and cover with wire helix between 2 ply reinforcement provides excellent flexibility and bend radius. Resists heat, ozone, exhaust, sani chemicals, panting and collapse. Exceeds (SAE J2006-R2, and ABYC & NMMA P-1 exhaust standards). Lloyd's Registry Type Approved Cert. 02/00029. Black High Temp EDPM Rubber 280°F (138°C) Max.**



TRIDENT

TRIDENT CORR MARINE WET EXHAUST HOSE (SAE J2006 & LLOYD'S)



HEAVY WALL

Code	Warranty	I.D. Size		Colors	Packaging
		In	mm.		
MM TRI 252	5 years	1-1/2" to 12"	38mm to 305mm	Black w/Blue Stripe	I.D. ALL Lengths 6.25'-12.5' (1.9-3.8m) 1"- 6" (25.4-152mm) Coils 50' (15m)

Trident corrugated marine wet exhaust hose for longer connections with substantial bends. Thick tube and cover with wire helix between 2 ply reinforcement. Exceptional flexibility and bend radius. Resists heat, ozone, exhaust fumes, panting and collapse. Exceeds (SAE J2006-R2, and ABYC & NMMA P-1 exhaust standards). Lloyd's Registry Type Approved Cert. 02/00029. Black High Temp EDPM Rubber 280°F (138°C) Max.**


TRIDENT SILICONE MARINE WET EXHAUST & WATER - SAE • ISO • LLOYD'S

**HEAVY WALL
NEW**

Code	Warranty	I.D. Size		Colors	Packaging
		In	mm.		
MM TRI 202V MM TRI 202X	10 years	1" to 18"	25.4mm to 457mm	Glossy Blue with Red Tube or Brick Red	I.D. ALL Lengths 3'-6'-12' (0.9-1.8-3.7m) 1-5" (25.4-127mm) 25' (7.6m)

Trident Silicone Marine Wet Exhaust & Water-Coolant Hose is the ultimate in extra thick soft wall silicone quality with very high temp. performance and extra long service life. Exceeds SAE J2006-R1, ISO 13363-1B, Lloyd' Registry Type Approved, and ABYC & NMMA P-1 exhaust standards and is Lloyd's Approved. #202V Glossy Blue "Very Hi Temp" has 4-6 ply polyester reinforcement and 350°F (177°C) Max. #202X Glossy Red "Xtra Hi Temp" has 4 ply Nomex® reinforcement, and 500°F (260°C) Max. Used world wide on premium boats, yachts and special service vessels. It has become the super yacht standard. See Trident Marine Wet Exhaust System Catalog.**


TRIDENT BLUE CORRA-SIL MARINE WET EXHAUST & WATER - SAE • ISO • LLOYD'S

**HEAVY WALL
NEW**

Code	Warranty	I.D. Size		Colors	Packaging
		In	mm.		
MM TRI 252V	10 years	3/4" to 18"	19mm to 457mm	Glossy Blue w/Red Tube	I.D. ALL Lengths 3'-6'-12' (0.9-1.8-3.7m) 3/4"-5" (19-127mm) 25' (7.6m)

Trident Blue Corra-sil Corrugated Silicone Marine Wet Exhaust & Water Coolant Hose is the ultimate in flexible exhaust quality with "Real Hot" VHT performance, extra long service life and excellent long length bendability. Exceeds SAE J2006-R2, ISO 13363-2B, and ABYC, & NMMA P-1 exhaust standards and black rubber exhaust features and is Lloyd's Approved. Built with extra thick wall, glossy blue corrugated cover, smooth red tube, wire helix between 2 ply polyester reinforcement and 350°F (177°C) Max. Perfect for long, bent wet exhaust (genset and engine) runs and premium raw water and coolant hose runs. See Marine Wet Exhaust Systems Catalog.**


TRIDENT SILICONE & RUBBER WET EXHAUST ELBOWS & BELLWS (SAE J2006)

HEAVY WALL

Code	Warranty	I.D. Size		Colors	Packaging
		In	mm.		
MM TRI	5-10 years	1-1/2" to 18"	38mm to 457mm	Black Blue Brick Red	Bulk or boxed with 4 Stainless Steel T-bolt Clamps

Trident Silicone & Rubber Elbows & Hump Hose Bellows provide the ultimate flexible connectors for Marine Wet Exhaust Systems. They offer much greater tolerance to heat, misalignment, engine movement & vibration, with significant savings in cost, parts, labor and space. Highest max. continuous operating temps - Molded Black Hi Temp EPDM Rubber 280°F (138°C), Blue Very Hi Temp. Silicone 350°F (177°C), Red Xtra Hi Temp. Silicone 500°F (260°C). Silicone (Blue and Red), also available w/ 4 to 6 ply reinforcement. All exceed (SAE J2006-R3, and ABYC & NMMA P1) Std. See Marine Wet Exhaust Systems Catalog.**

SEALS & FENDERS

MANSUETO SEALS

ADHESIVE BACKED EXPANDED NEOPRENE



Code	Size	Code	Size
MM SLS AEN 1	12 x 3mm	MM SLS AEN 8	19 x 12mm
MM SLS AEN 2	12 x 5mm	MM SLS AEN 9	25 x 3mm
MM SLS AEN 3	12 x 6mm	MM SLS AEN 10	25 x 5mm
MM SLS AEN 4	19 x 3mm	MM SLS AEN 11	25 x 6mm
MM SLS AEN 5	19 x 5mm	MM SLS AEN 12	25 x 10mm
MM SLS AEN 6	19 x 6mm	MM SLS AEN 13	25 x 12mm
MM SLS AEN 7	19 x 10mm	MM SLS AEN 14	25 x 19mm

Other widths and thicknesses available.

Due to the nature of this material, sizes can be approx +/- 1mm.

This sticky backed closed cell material is suitable for making a watertight seal on boat hatches, lockers, car boots, enclosures, cabinets, etc. Just peel off the backing paper and stick in place.

The adhesive backing tape used is not fully resistant to water, therefore where there is a large amount of moisture or water present it is advisable to use plain expanded neoprene and a good contact adhesive, such as our order code A262.

Sizes stated are width by thickness.

MANSUETO SEALS

PLAIN EXPANDED NEOPRENE



Code	Size	Code	Size
MM SLS PEN 15	12 x 3mm	MM SLS PEN 22	19 x 12mm
MM SLS PEN 16	12 x 5mm	MM SLS PEN 23	25 x 3mm
MM SLS PEN 17	12 x 6mm	MM SLS PEN 24	25 x 5mm
MM SLS PEN 18	19 x 3mm	MM SLS PEN 25	25 x 6mm
MM SLS PEN 19	19 x 5mm	MM SLS PEN 26	25 x 10mm
MM SLS PEN 20	19 x 6mm	MM SLS PEN 27	25 x 12mm
MM SLS PEN 21	19 x 10mm	MM SLS PEN 28	25 x 19mm

Other widths and thicknesses available.

Due to the nature of this material, sizes can be approx +/- 1mm.

This closed cell material is suitable for making a watertight seal on boat hatches, lockers, car boots, enclosures, cabinets, etc.

To bond into place use a good contact adhesive such as our order code A139, or A262 if there is a large amount of moisture or water present.

Sizes stated are width by thickness.

MANSUETO SEALS

EXPANDED NEOPRENE (SKINNED ON 4 SIDES)



Code	Size	Code	Size
MM SLS SEN 196	9 x 6mm	MM SLS SEN 151	12 x 7mm
MM SLS SEN 197	10 x 10mm	MM SLS SEN 152	13 x 10mm

Other sizes available.

This closed cell material which is skinned on all 4 sides is suitable for making a watertight seal on boat hatches, car boots, enclosures, cabinets, etc. To bond into place use a good contact adhesive such as our order code A139, or A262 if there is a large amount of moisture or water present.

MANSUETO SEALS

SOLID NEOPRENE RUBBER STRIP



Code	Size	Code	Size
MM SLS SN 29	25 x 1.5mm	MM SLS SN 35	50 x 5mm
MM SLS SN 30	50 x 1.5mm	MM SLS SN 36	75 x 5mm
MM SLS SN 31	25 x 3mm	MM SLS SN 37	50 x 6mm
MM SLS SN 32	50 x 3mm	MM SLS SN 38	75 x 6mm
MM SLS SN33	75 x 3mm	MM SLS SN 39	50 x 10mm
MM SLS SN 34	25 x 5mm	MM SLS SN 40	75 x 10mm

Other widths and thicknesses available.

This flexible rubber is an ideal material for sealing and edging applications. It is easily cut with a knife and will stick to most surfaces using contact adhesive A139 or A262. Sizes stated are width by thickness.

MANSUETO SEALS

PORTHOLE RUBBER STRIP



Code	Size	Code	Size
MM SLS PHR 140	25 x 3mm	MM SLS PHR 144	25 x 6mm
MM SLS PHR 141	38 x 3mm	MM SLS PHR 145	10 x 10mm
MM SLS PHR 142	6 x 6mm	MM SLS PHR 146	12 x 10mm
MM SLS PHR 143	10 x 6mm	MM SLS PHR 147	25 x 10mm

Other widths and thicknesses available.

This semi soft rubber (45°sh) is flexible and semi compressible. It is used for sealing Brass port lights and vents. For plastic and Aluminium port lights it is recommended to use an expanded neoprene seal. Size stated are width by thickness.

MANSUETO SEALS

RUBBER 'P' SECTION



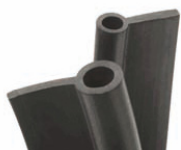
Ideal for hatch seals, door seals, piping between panels on cars etc. The flange length can be extended or thickened by sticking some solid neoprene strip onto it with adhesive no A139 or A262.

	Code	Bead Ø	Flange Length	Wall Thickness
	MM SLS P 41	6mm	9mm	2mm
	MM SLS P 42	10.5mm	15mm	1.6mm
	MM SLS P 43	12.5mm	15mm	2.6mm

Other sizes available.

MANSUETO SEALS

RUBBER TADPOLE SECTION



Ideal for hatch seals, door seals, piping between panels on cars etc. The flange length can be extended or thickened by sticking some solid neoprene strip onto it with adhesive no A139 or A262.

	Code	Bead Ø	Flange Length	Wall Thickness
	MM SLS TP 44	8mm	13mm	2.8mm
	MM SLS TP 45	12.5mm	19mm	2.5mm

Other sizes available.

MANSUETO SEALS

RUBBER 'U' CHANNEL SECTION



For protecting edges on panels, doors, glass, etc. It is also suitable for making a seal around glass in Aluminium window channels. It can be bonded in place using either S136, S137, S138, A139 or A262. The width of the section can be increased by bonding neoprene strip along side it, or the panel thickness can be reduced by bonding a strip into it.

	Code	Panel Thk	Height	Wall Thk
	MM SLS U 46	1 - 2mm	10mm	1.2mm
	MM SLS U 47	1 - 2mm	15mm	2.8mm
	MM SLS U 48	1.5 - 2.5mm	17mm	1.6mm
	MM SLS U 154	2mm	23mm	4.2mm
	MM SLS U 49	2.5 - 4.5mm	8mm	1.4mm
	MM SLS U 155	3 - 3.5mm	21mm	2.4mm
	MM SLS U 50	3 - 6.5mm	19mm	2.5 - 4mm

Other sizes available.

MANSUETO SEALS

RUBBER SQUARE 'U' CHANNEL SECTION



For protecting edges on panels, doors, glass, etc. It is also suitable for making a seal around glass in Aluminium window channels. It can be bonded in place using either S136, S137, S138, A139 or A262. The width of the section can be increased by bonding neoprene strip along side it, or the panel thickness can be reduced by bonding a strip into it.

	Code	Panel Thk	Height	Wall Thk
	MM SLS US 51	3mm	8mm	1.6mm
	MM SLS US 156	3mm	10mm	3.3mm
	MM SLS US 52	3mm	15mm	1.5mm
	MM SLS US 157	3mm	25mm	3.3mm
	MM SLS US 53	4.5mm	8mm	1.6mm
	MM SLS US 158	4.5mm	10mm	2.5mm

Other sizes available.

	Code	Panel Thk	Height	Wall Thk
	MM SLS US 159	4.5mm	15mm	1.5mm
	MM SLS US 54	6mm	8mm	1.6mm
	MM SLS US 160	6mm	10mm	1.8mm
	MM SLS US 161	6mm	15mm	1.6mm
	MM SLS US 162	6mm	16mm	3.5mm

	Code	Panel Thk	Height	Wall Thk
	MM SLS US 163	6mm	25mm	2.3mm
	MM SLS US 166 White	8mm	16mm	4mm
	MM SLS US 55	9mm	13mm	1.6mm
	MM SLS US 164	9mm	27mm	3mm
	MM SLS US 56	13mm	16mm	2.4mm

Notes

Wish List

Drawings / Sketches

Memo .