



Applications

These hoses are specially recommended in gas conduction at medium temperatures, engine exhaust fume extraction, electronic units cooling and welding gas aspiration

Properties

- Excellent flexibility and aging resistance
- This reference could be manufacture with cuffed ends.
- Operational temperature ranges from -55°C (-67 F) to +125°C (257 F), it may reach up to 150°C (302 F) during short periods of time.
- The standard manufacturing length is 4 meters long (13.12 ft.), but in specific diameters a length of 6 meters (19.69 ft) can be manufactured.

Construction

The Vena® MTD ECO is manufactured with two fiber glass textile reinforcements covered with Neoprene rubber compound in pink colour (RAL 3018) and coated with steel wire sandwiched between the two Neoprene layers.

The Vena® MT ECO is manufactured with one fiber glass textile reinforcement covered with Neoprene rubber compound in pink colour (RAL 3018) and coated with steel wire that can be seen inside the hose.

Limitations

Respect the bending radius and work pressure established values.

Regulations

According to the EN-45545-2 the hoses with the construction MTD with two layers are HL1, HL2 and HL3 for R22 and R23.

The fiber glass covered with neoprene used to manufacture this reference:

- It complies with the with the requirements for the materials belonging to the position 23 Chapter 6 Prospect 1, according to UNI CEI 11170-3 Ed.2005 +FA 2007.
- It is classified how VO according to UL 94

The fiber glass covered with neoprene used to manufacture this product is in accordance with EU Directive 2002/95/ECC for Restriction of the use of hazardous substances (RoHS).

Technical Specifications

The MTD reference:

Inner Diameter		Wall thickness		Working Pressure ISO 1402/2009		Bursting Pressure ISO 1402/2009		Vacuum Resistance ISO 7233/2006		Bending Radius ISO 1746/2000	
<i>mm</i>	<i>inch</i>	<i>+0.04/ -0.02 mm</i>	<i>+1.57x10⁻³/ -7.87x10⁻⁴ inch</i>	<i>Bar at 20°C</i>	<i>Psi at 68 F</i>	<i>Bar at 20°C</i>	<i>Psi at 68 F</i>	<i>Bar at 20°C</i>	<i>Psi at 68 F</i>	<i>mm</i>	<i>inch</i>
25	1	2.36	0.091	2.27	32.92	6.81	98.75	0.66	9.57	38.00	1.50
26	1 1/64	2.36	0.091	2.25	32.63	6.75	97.88	0.66	9.57	39.00	1.54
27	1 1/16	2.36	0.091	2.22	32.19	6.66	96.57	0.65	9.43	41.00	1.61
28	1 7/64	2.36	0.091	2.20	31.90	6.60	95.70	0.64	9.28	42.00	1.65
29	1 1/8	2.36	0.091	2.19	31.76	6.57	95.27	0.64	9.28	43.00	1.69
30	1 3/16	2.36	0.091	2.16	31.32	6.48	93.96	0.63	9.14	45.00	1.77
32	1 17/64	2.36	0.091	2.12	30.74	6.36	92.22	0.62	8.99	48.00	1.89
34	1 11/32	2.36	0.091	2.08	30.16	6.24	90.48	0.61	8.85	51.00	2.01
35	1 3/8	2.36	0.091	2.07	30.02	6.21	90.05	0.60	8.70	53.00	2.09
38	1 1/2	2.36	0.091	2.01	29.15	6.03	87.44	0.58	8.41	57.00	2.24
39	1 35/64	2.36	0.091	1.99	28.86	5.97	86.57	0.58	8.41	59.00	2.32
40	1 37/64	2.36	0.091	1.97	28.57	5.91	85.70	0.57	8.27	60.00	2.36
42	1 21/32	2.36	0.091	1.94	28.13	5.82	84.39	0.56	8.12	63.00	2.48
43	1 11/16	2.36	0.091	1.92	27.84	5.76	83.52	0.55	7.98	65.00	2.56
44	1 47/64	2.36	0.091	1.90	27.55	5.70	82.65	0.55	7.98	66.00	2.60
45	1 49/64	2.36	0.091	1.88	27.26	5.64	81.78	0.54	7.83	68.00	2.68
46	1 13/16	2.36	0.091	1.86	26.97	5.58	80.91	0.54	7.83	69.00	2.72
47	1 55/64	2.36	0.091	1.85	26.83	5.55	80.48	0.53	7.69	71.00	2.80
48	1 57/64	2.36	0.091	1.83	26.54	5.49	79.61	0.53	7.69	72.00	2.83
50	1 31/32	2.36	0.091	1.80	26.10	5.40	78.30	0.52	7.54	75.00	2.95
51	2 1/64	2.36	0.091	1.78	25.81	5.34	77.43	0.51	7.40	77.00	3.03
52	2 3/64	2.36	0.091	1.76	25.52	5.28	76.56	0.51	7.40	79.00	3.11
53	2 3/32	2.36	0.091	1.75	25.38	5.25	76.13	0.50	7.25	80.00	3.15
54	2 1/8	2.36	0.091	1.73	25.09	5.19	75.26	0.50	7.25	82.00	3.23
55	2 11/64	2.36	0.091	1.71	24.80	5.13	74.39	0.49	7.11	83.00	3.27
56	2 13/64	2.36	0.091	1.70	24.65	5.10	73.95	0.49	7.11	85.00	3.35
57	2 15/64	2.36	0.091	1.68	24.36	5.04	73.08	0.48	6.96	86.00	3.39
59	2 21/64	2.36	0.091	1.65	23.93	4.95	71.78	0.47	6.82	89.00	3.50
60	2 23/64	2.36	0.091	1.64	23.78	4.92	71.34	0.47	6.82	91.00	3.58
62	2 7/16	2.36	0.091	1.61	23.35	4.83	70.04	0.46	6.67	94.00	3.70
63	2 31/64	2.70	0.106	1.59	23.06	4.77	69.17	0.45	6.53	95.00	3.74
64	2 1/2	2.70	0.106	1.58	22.91	4.74	68.73	0.45	6.53	96.00	3.78
65	2 9/16	2.70	0.106	1.56	22.62	4.68	67.86	0.44	6.38	98.00	3.86
69	2 23/32	2.70	0.106	1.51	21.90	4.53	65.69	0.43	6.24	104.00	4.09
70	2 49/64	2.70	0.106	1.49	21.61	4.47	64.82	0.42	6.09	106.00	4.17
73	2 7/8	2.70	0.106	1.45	21.03	4.35	63.08	0.41	5.95	110.00	4.33
75	2 61/64	2.70	0.106	1.42	20.59	4.26	61.77	0.40	5.80	113.00	4.45

Inner Diameter		Wall thickness		Working Pressure ISO 1402/2009		Bursting Pressure ISO 1402/2009		Vacuum Resistance ISO 7233/2006		Bending Radius ISO 1746/2000	
<i>mm</i>	<i>inch</i>	<i>+0.04/ -0.02 mm</i>	<i>+1.57x10⁻³/ -7.87x10⁻⁴ inch</i>	<i>Bar at 20°C</i>	<i>Psi at 68 F</i>	<i>Bar at 20°C</i>	<i>Psi at 68 F</i>	<i>Bar at 20°C</i>	<i>Psi at 68 F</i>	<i>mm</i>	<i>inch</i>
76	3	2.70	0.106	1.41	20.45	4.23	61.34	0.40	5.80	115.00	4.53
80	3 5/32	3.00	0.118	1.36	19.72	4.08	59.16	0.38	5.51	121.00	4.76
83	3 17/64	3.00	0.118	1.32	19.14	3.96	57.42	0.37	5.37	125.00	4.92
85	3 23/64	3.00	0.118	1.30	18.85	3.90	56.55	0.36	5.22	128.00	5.04
87	3 7/16	3.00	0.118	1.27	18.42	3.81	55.25	0.36	5.22	131.00	5.16
90	3 35/64	3.00	0.118	1.24	17.98	3.72	53.94	0.35	5.08	136.00	5.35
95	3 47/64	3.00	0.118	1.18	17.11	3.54	51.33	0.33	4.79	143.00	5.63
100	3 15/16	3.00	0.118	1.13	16.39	3.39	49.16	0.31	4.50	151.00	5.94
101	4	3.00	0.118	1.12	16.24	3.36	48.72	0.31	4.50	152.00	5.98
102	4 1/64	3.00	0.118	1.11	16.10	3.33	48.29	0.31	4.50	154.00	6.06
105	4 1/8	3.00	0.118	1.08	15.66	3.24	46.98	0.30	4.35	158.00	6.22
110	4 21/64	3.00	0.118	1.03	14.94	3.09	44.81	0.28	4.06	166.00	6.54
114	4 1/2	3.00	0.118	0.99	14.36	2.97	43.07	0.27	3.92	172.00	6.77
115	4 17/32	3.00	0.118	0.98	14.21	2.94	42.63	0.27	3.92	173.00	6.81
120	4 23/32	3.00	0.118	0.94	13.63	2.82	40.89	0.26	3.77	181.00	7.13
127	5	3.00	0.118	0.88	12.76	2.64	38.28	0.24	3.48	192.00	7.56
130	5 1/8	3.00	0.118	0.85	12.33	2.55	36.98	0.23	3.34	196.00	7.72
134	5 9/32	3.00	0.118	0.82	11.89	2.46	35.67	0.22	3.19	202.00	7.95
140	5 1/2	3.00	0.118	0.78	11.31	2.34	33.93	0.21	3.05	211.00	8.31
150	5 29/32	3.00	0.118	0.71	10.30	2.13	30.89	0.19	2.76	226.00	8.90
152	6	3.00	0.118	0.69	10.01	2.07	30.02	0.19	2.76	230.00	9.06
160	6 19/64	3.20	0.126	0.65	9.43	1.95	28.28	0.17	2.47	241.00	9.49
170	6 11/16	3.20	0.126	0.59	8.56	1.77	25.67	0.16	2.32	256.00	10.08
180	7 3/32	3.20	0.126	0.54	7.83	1.62	23.49	0.14	2.03	271.00	10.67
200	7 7/8	3.20	0.126	0.45	6.53	1.35	19.58	0.12	1.74	302.00	11.89
203	8	3.20	0.126	0.43	6.24	1.29	18.71	0.11	1.60	306.00	12.05
220	8 21/32	3.20	0.126	0.37	5.37	1.11	16.10	0.09	1.31	332.00	13.07
250	9 27/32	3.20	0.126	0.28	4.06	0.84	12.18	0.07	1.02	377.00	14.84
254	10	3.20	0.126	0.27	3.92	0.81	11.75	0.07	1.02	383.00	15.08
300	11 13/16	3.20	0.126	0.18	2.61	0.54	7.83	0.04	0.58	452.00	17.80

The MT reference:

Inner Diameter		Wall thickness		Working Pressure ISO 1402/2009		Bursting Pressure ISO 1402/2009		Vacuum Resistance ISO 7233/2006		Bending Radius ISO 1746/2000	
<i>mm</i>	<i>inch</i>	<i>+0.04/ -0.02 mm</i>	<i>+1.57x10⁻³/ -7.87x10⁻⁴ inch</i>	<i>Bar at 20°C</i>	<i>Psi at 68 F</i>	<i>Bar at 20°C</i>	<i>Psi at 68 F</i>	<i>Bar at 20°C</i>	<i>Psi at 68 F</i>	<i>mm</i>	<i>inch</i>
25	1	2.50	0.098	1,76	25,53	5,28	76,59	0,54	7,77	34,47	1,36
26	1 1/64	2.50	0.098	1,75	25,31	5,24	75,94	0,53	7,69	35,81	1,41
27	1 1/16	2.50	0.098	1,73	25,10	5,19	75,31	0,52	7,60	37,14	1,46
28	1 7/64	2.50	0.098	1,72	24,89	5,15	74,68	0,52	7,52	38,48	1,51
29	1 1/8	2.50	0.098	1,71	24,77	5,12	74,30	0,52	7,47	39,28	1,55
30	1 3/16	2.50	0.098	1,69	24,48	5,06	73,44	0,51	7,36	41,15	1,62
32	1 17/64	2.50	0.098	1,66	24,07	4,98	72,21	0,50	7,21	43,82	1,73
34	1 11/32	2.50	0.098	1,63	23,67	4,90	71,01	0,49	7,05	46,49	1,83
35	1 3/8	2.50	0.098	1,62	23,47	4,86	70,42	0,48	6,98	47,83	1,88
38	1 1/2	2.50	0.098	1,58	22,89	4,74	68,66	0,47	6,76	51,84	2,04
39	1 35/64	2.50	0.098	1,57	22,70	4,70	68,09	0,46	6,69	53,17	2,09
40	1 37/64	2.50	0.098	1,55	22,51	4,66	67,52	0,46	6,62	54,51	2,15
42	1 21/32	2.50	0.098	1,53	22,13	4,58	66,39	0,45	6,48	57,18	2,25
43	1 11/16	2.50	0.098	1,51	21,95	4,54	65,84	0,44	6,41	58,52	2,30
44	1 47/64	2.50	0.098	1,50	21,76	4,50	65,29	0,44	6,34	59,85	2,36
45	1 49/64	2.50	0.098	1,49	21,58	4,46	64,74	0,43	6,27	61,19	2,41
46	1 13/16	2.50	0.098	1,48	21,40	4,43	64,20	0,43	6,20	62,53	2,46
47	1 55/64	2.50	0.098	1,46	21,22	4,39	63,66	0,42	6,14	63,86	2,51
48	1 57/64	2.50	0.098	1,45	21,04	4,35	63,13	0,42	6,07	65,20	2,57
50	1 31/32	2.50	0.098	1,43	20,69	4,28	62,08	0,41	5,94	67,87	2,67
51	2 1/64	2.50	0.098	1,42	20,52	4,25	61,56	0,41	5,88	69,21	2,72
52	2 3/64	2.50	0.098	1,40	20,35	4,21	61,04	0,40	5,82	70,54	2,78
53	2 3/32	2.50	0.098	1,39	20,18	4,17	60,53	0,40	5,76	71,88	2,83
54	2 1/8	2.50	0.098	1,38	20,01	4,14	60,03	0,39	5,70	73,21	2,88
55	2 11/64	2.50	0.098	1,37	19,84	4,11	59,53	0,39	5,63	74,55	2,94
56	2 13/64	2.50	0.098	1,36	19,68	4,07	59,03	0,38	5,57	75,89	2,99
57	2 15/64	2.50	0.098	1,35	19,51	4,04	58,53	0,38	5,52	77,22	3,04
59	2 21/64	2.50	0.098	1,32	19,19	3,97	57,56	0,37	5,40	79,89	3,15
60	2 23/64	2.50	0.098	1,31	19,03	3,94	57,08	0,37	5,34	81,23	3,20
62	2 7/16	2.50	0.098	1,29	18,71	3,87	56,13	0,36	5,23	83,90	3,30
63	2 31/64	2.50	0.098	1,28	18,55	3,84	55,66	0,36	5,17	85,24	3,36
64	2 1/2	2.50	0.098	1,27	18,47	3,82	55,42	0,35	5,14	85,91	3,38
65	2 9/16	2.50	0.098	1,26	18,24	3,77	54,73	0,35	5,06	87,91	3,46
69	2 23/32	2.50	0.098	1,22	17,64	3,65	52,92	0,33	4,85	93,25	3,67
70	2 49/64	2.50	0.098	1,21	17,49	3,62	52,48	0,33	4,80	94,59	3,72
73	2 7/8	2.50	0.098	1,18	17,06	3,53	51,17	0,32	4,65	98,60	3,88
75	2 61/64	2.50	0.098	1,16	16,77	3,47	50,32	0,31	4,55	101,27	3,99

Inner Diameter		Wall thickness		Working Pressure ISO 1402/2009		Bursting Pressure ISO 1402/2009		Vacuum Resistance ISO 7233/2006		Bending Radius ISO 1746/2000	
<i>mm</i>	<i>inch</i>	<i>+0.04/ -0.02 mm</i>	<i>+1.57x10⁻³/ -7.87x10⁻⁴ inch</i>	<i>Bar at 20°C</i>	<i>Psi at 68 F</i>	<i>Bar at 20°C</i>	<i>Psi at 68 F</i>	<i>Bar at 20°C</i>	<i>Psi at 68 F</i>	<i>mm</i>	<i>inch</i>
76	3	2.00	0.079	1,15	16,63	3,44	49,90	0,31	4,50	102,61	4,04
80	3 5/32	2.00	0.079	1,11	16,08	3,33	48,25	0,30	4,31	107,95	4,25
83	3 17/64	2.00	0.079	1,08	15,68	3,24	47,05	0,29	4,18	111,96	4,41
85	3 23/64	2.50	0.098	1,06	15,42	3,19	46,27	0,28	4,09	114,63	4,51
87	3 7/16	2.50	0.098	1,05	15,17	3,14	45,50	0,28	4,00	117,30	4,62
90	3 35/64	2.50	0.098	1,02	14,79	3,06	44,36	0,27	3,87	121,31	4,78
95	3 47/64	2.50	0.098	0,98	14,18	2,93	42,54	0,25	3,67	127,99	5,04
100	3 15/16	2.50	0.098	0,94	13,60	2,81	40,79	0,24	3,48	134,67	5,30
101	4	2.50	0.098	0,93	13,48	2,79	40,45	0,24	3,44	136,01	5,35
102	4 1/64	2.50	0.098	0,92	13,37	2,77	40,11	0,24	3,41	137,34	5,41
105	4 1/8	2.50	0.098	0,90	13,04	2,70	39,11	0,23	3,30	141,35	5,56
110	4 21/64	2.50	0.098	0,86	12,50	2,59	37,50	0,22	3,13	148,03	5,83
114	4 1/2	2.50	0.098	0,83	12,06	2,49	36,17	0,21	2,99	153,77	6,05
115	4 17/32	2.50	0.098	0,83	11,99	2,48	35,96	0,20	2,97	154,71	6,09
120	4 23/32	2.50	0.098	0,79	11,49	2,38	34,48	0,19	2,81	161,39	6,35
127	5	2.50	0.098	0,75	10,84	2,24	32,51	0,18	2,61	170,74	6,72
130	5 1/8	2.50	0.098	0,73	10,57	2,19	31,70	0,17	2,53	174,75	6,88
134	5 9/32	2.50	0.098	0,70	10,22	2,11	30,66	0,17	2,42	180,09	7,09
140	5 1/2	2.50	0.098	0,67	9,72	2,01	29,15	0,16	2,27	188,11	7,41
150	5 29/32	2.50	0.098	0,62	8,93	1,85	26,80	0,14	2,04	201,47	7,93
152	6	2.50	0.098	0,60	8,76	1,81	26,27	0,14	1,99	204,68	8,06
160	6 19/64	2.50	0.098	0,57	8,21	1,70	24,64	0,13	1,83	214,83	8,46
170	6 11/16	2.50	0.098	0,52	7,55	1,56	22,66	0,11	1,65	228,19	8,98
180	7 3/32	2.50	0.098	0,48	6,94	1,44	20,83	0,10	1,48	241,55	9,51
200	7 7/8	2.50	0.098	0,40	5,87	1,21	17,61	0,08	1,19	268,27	10,56
203	8	2.50	0.098	0,39	5,72	1,18	17,17	0,08	1,16	272,28	10,72
220	8 21/32	2.50	0.098	0,34	4,96	1,03	14,89	0,07	0,96	294,99	11,61
250	9 27/32	2.50	0.098	0,27	3,86	0,80	11,57	0,05	0,70	335,07	13,19
254	10	2.50	0.098	0,26	3,73	0,77	11,19	0,05	0,67	340,41	13,40
300	11 13/16	2.50	0.098	0,17	2,53	0,52	7,60	0,03	0,41	401,87	15,82