

1. Scope

Technical delivery conditions **TDS-GE-04-17** specify requirements for EN 10217-1 tubes with grooved ends VICTAULIC. Groove-dimensions meet requirements for Standard Roll Groove (Spec. 25.01) according to "G-103 VICTAULIC General Catalogue".

TDS-GE-04-17 specifies the range of tube-sizes suitable for grooving, available lengths and length-tolerances, possibilities for tube-surface protection (painting) and the methods for groove measuring.

TDS-GE-04-17 presents general technical delivery conditions - they became valid for producer and customer as long as they are ratified by customer and if they are confirmed in the order.

2. Technical specification for tubes

2.1 Specification for tubes

Basic tubes are produced and tested according to requirements of **EN 10217-1** standard. Tubes are cold formed and longitudinally welded (EW-type of tube). The inside weld bead is removed.

2.2 Tube size

Preferred outside diameters (D) and wall thicknesses (T) are given in Table 1.

The diameter and the wall thickness of the tubes shall be within the tolerance limits given EN10217-1

Table 1

D [mm]	Range of sizes for Standard Roll Grooved ends										
	Wall thickness [mm]										
	2,6	2,9	3	3,2	3,6	4	4,5	5	5,6	6	6,3
48,3											
60,3											
76,1											
88,9											
101,6											
108											
114,3											
127											
133											
139,7											
152,4											
159											
168,3											
177,8											
193,7											
219,1											

Upon request:

D [mm]	Range of sizes for Standard Roll Grooved ends										
	Wall thickness [mm]										
	2,6	2,9	3	3,2	3,6	4	4,5	5	5,6	6	6,3
33,7											
42,4											

2.3 Tube length

Unless otherwise specified in the order, the tubes will be delivered in lengths of **6,0 m** with **+100/-0 mm** length tolerance. If the customer asks for another length or length-tolerance, it should request in the order and approved.

2.4 Steel

P195TR1; P235TR1; P265TR1 - for all dimensions

P195TR2; P235TR2; P265TR2 - for 168.3; 219.1 mm

2.5 Surface protection

Outside tube-surface is protected by water-based paint.

Surface preparation: Shot-blasted, Sa2÷2.5

Number of coat-layers: 1

Nominal dry film thickness: 25µm

Color

RAL 3011 Brown red	RGB color (121, 36, 35)
RAL 3009 Oxide red	RGB color (109, 52, 45)
RAL3000 Flame red	RGB color (167, 41, 32)
RAL5005 Signal blue	RGB color (0, 83, 135)
RAL 6005 Moss green	RGB color (17, 66, 50)
RAL 7001 Silver grey	RGB color (140, 150, 157)
RAL 7012 Basalt grey	RGB color (87, 93, 94)
RAL 9002 Grey white	RGB color (215, 213, 203)

Other colors are possible only after previous agreement.

2.6 Tube marking

Tube-marking is made in accordance to the requirements of EN 10217-1.

Ink-Jet marking Printed text is in white color;

Labels Marking is applied on labels attached to the bundle;

Die stamping Text length is limited to heat and lot number;

3. Technical specification for groove

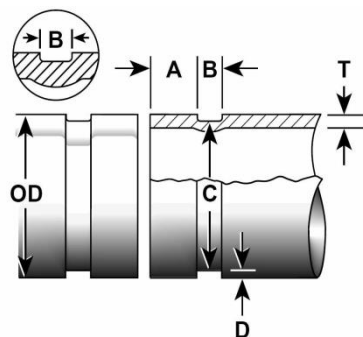
Tube ends are grooved with VICTAULIC Standard Roll Groove (Spec. 25.01):

Table2 – Preferred dimensions and tolerances for VICTAULIC Standard Roll Groove (Spec. 25.01):

Dimension [mm]										
Pipe Outside Diameter OD		A		B		C		D	Max. Allow. Flare Diameter	
OD	Tolerance		Gasket Seat		Groove Width		Groove Diameter		D	F
	+	-	A	±	B	±	C _{max}	-		
48,3	0,48	0,48	15,88	0,76	7,14	0,76	45,09	-0,38	1,6	51,1
60,3	0,61	0,61	15,88	0,76	8,74	0,76	57,15	-0,38	1,6	63
73	0,74	0,74	15,88	0,76	8,74	0,76	69,09	-0,46	1,98	75,7
76,1	0,76	0,76	15,88	0,76	8,74	0,76	72,26	-0,46	1,98	78,7
88,9	0,89	0,79	15,88	0,76	8,74	0,76	84,94	-0,46	1,98	91,4
101,6	1,02	0,79	15,88	0,76	8,74	0,76	97,38	-0,51	2,11	104,1
108	1,09	0,79	15,88	0,76	8,74	0,76	103,73	-0,51	2,11	110,5
114,3	1,14	0,79	15,88	0,76	8,74	0,76	110,08	-0,51	2,11	116,8
127	1,27	0,79	15,88	0,76	8,74	0,76	122,78	-0,51	2,11	129,5
133	1,35	0,79	15,88	0,76	8,74	0,76	129,13	-0,51	2,11	135,9
139,7	1,42	0,79	15,88	0,76	8,74	0,76	135,48	-0,51	2,11	142,2
141,3	1,42	0,79	15,88	0,76	8,74	0,76	137,03	-0,56	2,13	143,8
152,4	1,42	0,79	15,88	0,76	8,74	0,76	148,08	-0,56	2,16	154,9
159	1,6	0,79	15,88	0,76	8,74	0,76	153,21	-0,56	2,16	161,3
165,1	1,6	0,79	15,88	0,76	8,74	0,76	160,78	-0,56	2,16	167,6
168,3	1,6	0,79	15,88	0,76	8,74	0,76	163,96	-0,56	2,16	170,9
219,1	1,6	0,79	19,05	0,76	11,91	0,76	214,4	-0,64	2,34	223,5

Upon request:

Dimension [mm]										
Pipe Outside Diameter OD		A		B		C		D	Max. Allow. Flare Diameter	
OD	Tolerance		Gasket Seat		Groove Width		Groove Diameter		D	F
	+	-	A	±	B	±	C _{max}	-		
33,7	0,33	0,33	15,88	0,76	7,14	0,76	30,23	-0,38	1,6	36,3
42,4	0,41	0,41	15,88	0,76	7,14	0,76	38,99	-0,38	1,6	45



Note1:

Gasket seat A: The pipe outer surface between the pipe end and groove shall be free from indentations, roll marks and projections in order to provide a leak tight seal for the gasket. Any areas of loose paint, loose scale, loose rust and grease, dirt etc. must also be removed for this reason.

Groove width B: The bottom of the groove shall be free from loose dirt, chips, rust and scale that would otherwise interfere with proper coupling assembly.

Groove diameter C: The groove shall be of uniform depth around the entire pipe circumference and dimensions shall be maintained within the limits shown above.

Groove depth D: Details provided for reference purposes only.

Maximum allowable pipe end flare diameter: Measured at the extreme pipe end.

Note 2:

- Groove diameter (C) should be measured using a 'Diameter Tape' (available from coupling manufacturers)
- The groove diameter (C) must be within the max and min tolerance shown in the table below, measured at the weld area and at 90 degrees to the weld

4. Inspection and testing

Pipes shall be inspected and tested using the methods and frequencies stated in the EN 10217-1 standard and the groove dimensions shall be in accordance with requirements of the VICTAULIC-system documentation.

5. Inspection documents

For pipes manufactured as per EN 10217-1 TR1, either a test report 2.2 is provided, or, upon request, an optional inspection certificate 3.1.

For pipes manufactured as per EN 10217-1 TR2, an inspection certificate 3.1 is mandatorily provided, in accordance with the EN 10204 standard.

Iasi, 15th November 2019

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