

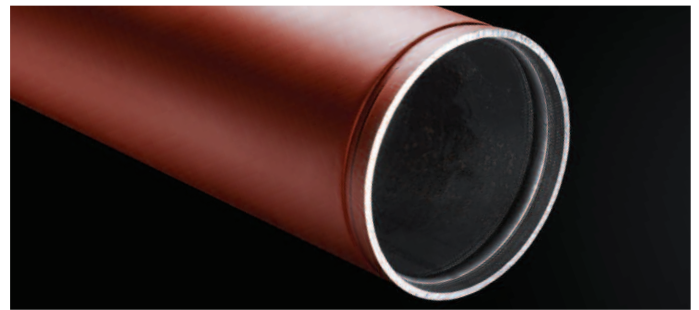
Install® Plus: Grooved products

A robust and cost-effective jointing solution for pipework systems

Tata Steel manufactures a range of premium quality steel tubular products suitable for use as pipework in building, engineering and industrial service applications.

Install® Plus is available with grooved ends, and is compatible with all leading couplings.

Install® Plus grooved tube delivers a convenient joining method, which saves you time and money.



Installation benefits

The benefits of using Install® Plus grooved tube are:

- Simple and quick to install.
- Provides a reliable and robust joint that offers consistent performance without reliance on the skill of the installer.
- Cleaner installation means reduced flushing & commissioning time.
- Complements modular construction and prefabrication techniques.
- Simple accommodation of thermal movement and curved runs.
- Suitable for use with chilled water, cooling, heating, compressed air and fire protection systems.
- Improved pressure integrity when compared with screwed and socketed joints.

Product options

Install® Plus is available in a choice of sizes, and weights:

- Grooved sizes 25mm to 150mm (nominal bore).
- Medium & heavy weights.
- Red-painted or galvanised.
- Exact length cutting option available.

For Install® Plus tube, the permissible tube working pressures shown are valid.

However, the type of grooved coupling used and its installation will also determine the maximum operating pressure and temperature of the system.

The achievable pressures may be noticeably less than the tube can withstand.

Therefore, please consult the relevant couplings manufacturer's technical data.

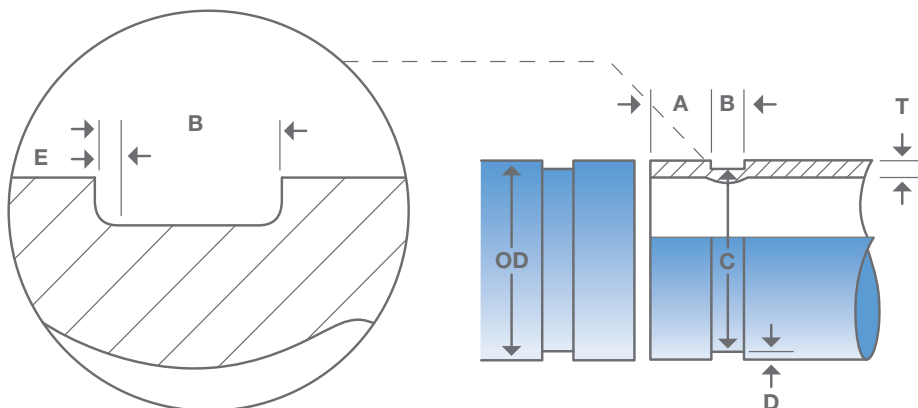
Table 1

Tube size		(A) Suggested maximum operating pressure (bar) for tube, or full penetration butt-welded joints								
		Butt-welded joints prepared in accordance with current best-practice (based on S235GT/P235GH mechanical properties)								
		-20 to 60°C		100°C max		150°C max		300°C max		
OD	Nominal Bore NB	Tube weight (M = Medium, H = Heavy)								
mm	mm	inch	M	H	M	H	M	H	M	H
21.3*	15*	½*	233	270	190	234	182	225	128	158
26.9*	20*	¾*	186	215	152	187	146	179	103	126
33.7	25	1	172	215	149	186	143	179	101	126
42.4	32	1¼	137	171	119	148	114	143	80	100
48.3	40	1½	120	150	104	130	100	125	71	88
60.3	50	2	109	136	94	118	91	113	64	80
76.1	65	2½	86	108	75	93	72	90	51	63
88.9	80	3	82	103	71	89	68	85	48	60
114.3	100	4	72	86	62	75	60	72	42	51
139.7	125	5	65	70	57	61	54	59	38	41
165.1	150	6	55	60	48	52	46	50	32	35

*Guidance only, we do not groove ½" or ¾".

Dimensions

- 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.



Primary standard

The primary standard for Install® Plus is EN10255.

Therefore for 6", 150nb material the OD is 165.1mm, and not OD168.3mm as per EN10217.

Care is required to ensure that the correct tooling is used and grooved profile obtained if material is cut back and re-grooved.

Technical support

Our Customer Technical Services (CTS) experts are on hand to answer any product enquiries.

Please contact us via the Tubes Technical Helpline: +44 (0) 1536 404561.

Install® Plus tube data

Basic Dimensions (mm)

Nominal bore NB		Outside diameter OD		Gasket seat A	Groove width B	Groove diameter C		Groove depth D	Groove corner E	Flare diameter
(mm)	(inch)	(max)	(min)	(±0.76)	(±0.76)	(max)	(min)	(ref)	(max)	(max)
25	1	34.2	33.2	15.9	7.1	30.2	29.8	1.6	2.0	36.3
32	1¼	42.9	42.0	15.9	7.1	39.0	38.6	1.6	2.0	45.0
40	1½	48.8	47.9	15.9	7.1	45.1	44.7	1.6	2.0	51.1
50	2	60.8	59.7	15.9	8.7	57.2	56.8	1.6	2.0	63.0
65	2½	76.6	75.3	15.9	8.7	72.3	71.8	2.0	2.0	78.7
80	3	89.5	88.0	15.9	8.7	85.0	84.5	2.0	2.0	91.4
100	4	115.0	113.1	15.9	8.7	110.1	109.6	2.1	2.0	116.8
125	5	140.8	138.5	15.9	8.7	135.5	135.0	2.1	2.0	142.2
150	6	166.5	163.9	15.9	8.7	160.8	160.2	2.2	2.0	167.6

Notes

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. It is recommended that only pipe with square cut ends be roll grooved as processing of pipe with bevelled ends may result in unacceptable levels of pipe end flare.

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Language English TST65:PDF:ENG:0914