

Butt Weld Tube Ends

SED offers tube end outside diameter and wall thickness dimensions in accordance to the several international standards. These standards and dimensions are listed in the below table.

In order to install a proper aseptic process piping system, it is important that the correct and consistent international tube end standards be followed throughout the aseptic process piping system. If the connecting tube ends are not identical and of the same diameter standard, there may

result a reduction or step in the process piping system or the ability of self draining ends is not guaranteed. The most common standard connection is the butt-welding of the tube endings without any additional material. Examples of butt welding include automatic and orbital welding. Besides the standard any customer-specified connection type is possible. Some examples are displayed on the following pages.

Butt weld Tube End Standard							ISO 1127	DIN 11850			DIN	ASTM 269	BS O.D.	SMS	JIS G	
								Series 1	Series 2	Series 3	Selection Series	ASME BPE	4825	3008	3447	
Code							40	41	42	43	39	45 94		49	97	
DN	NPS	MA	L (min)	L ₁	h ₁	h ₂	ød x s	ød x s	ød x s	ød x s	ød x s	ød	s	s	ød x s	ød x s
Valve Type Manually Operated 985 / 995 / 997																
Valve Type Pneumatically Operated 385 / 402 / 495																
15	1/2"	25	25	120	13	16	21,3x1,6	18x1,0	19x1,5	20x2,0	18x1,5	12,70	-	1,20	-	-
20	3/4"	25	25	120	16	16	26,9x1,6	22x1,0	23x1,5	24x2,0	22x1,5	19,05	1,65	1,20	-	-
25	1"	25	25	120	19	19	33,7x2,0	28x1,0	29x1,5	30x2,0	28x1,5	25,40	1,65	1,60	25,0x1,2	25,4x1,2
32	1 1/4"	40	25	153	24	26	42,4x2,0	34x1,0	35x1,5	36x2,0	34x1,5	31,75	1,65	1,60	33,7x1,2	31,8x1,2
40	1 1/2"	40	25	153	24	26	48,3x2,0	40x1,0	41x1,5	42x2,0	40x1,5	38,10	1,65	1,60	38,0x1,2	38,1x1,2
50	2"	50	30	173	32	32	60,3x2,0	52x1,0	53x1,5	54x2,0	52x1,5	50,80	1,65	1,60	51,0x1,2	50,8x1,5
65	2 1/2"	80	30	216	47	47	76,1x2,0	-	²⁾ 70x2,0	-	-	²⁾ 63,50	1,65	1,60	²⁾ 63,5x1,6	63,5x2,0
80	3"	80	30	254	47	47	88,9x2,3	-	85x2,0	-	-	76,20	1,65	1,60	76,1x1,6	76,3x2,0
100	4"	100	30	305	61	58	114,3x2,3	-	104x2,0	-	-	101,60	2,11	2,00	101,6x2,0	101,6x2,0

Sizes in mm; MA = Diaphragm size

¹⁾Investment cast body only

²⁾Forged body only

Aseptic Connections

Clamps

The clamp connection is the most popular connection for easy assembly and breakdown of process lines and valves. The clamp end connection is designed for a face-to-face joint that is leak proof and free of crevices.

The clamp end has a machined beveled seat and is used with specifically formed sealing gaskets made of EPDM or PTFE.

The gasket is inserted between the opposing clamp ends and is compressed tight with a wing nut quick disconnect clamp.

In general, the valve clamps ends are welded to the valve butt weld ends and polished according to the specified interior valve body surface finish.

Dimensions mm

Clamp End Ident.			Similar ISO 2852			DIN 32676			ASME BPE			ASME BPE			SMS 3017		
Tube End Ident.			ISO 1127			DIN 11850			ASME BPE			ASME BPE			SMS 3008		
			Code 640			Code 642			Code 645			Code 545			Code 649		
Design			DIN EN 558-1			DIN EN 558-1			DIN EN 558-1			short design			DIN EN 558-1		
DN	NPS	MA	L ₃	b ₂	b ₁	L ₃	b ₂	b ₁	L ₃	b ₂	b ₁	L ₃	b ₂	b ₁	L ₃	b ₂	b ₁
15	1/2"	25	108	18,1	50,5	108,0	16,0	34,0	108,0	9,40	25,0	101,6	9,40	25,0	-	-	-
20	3/4"	25	117	23,7	50,5	117,0	20,0	34,0	117,0	15,75	25,0	101,6	15,75	25,0	-	-	-
25	1"	25	127	29,7	50,5	127,0	26,0	50,5	127,0	22,10	50,5	114,3	22,10	50,5	127,0	22,6	50,5
32	1 1/4"	40	146	38,4	64,0	146,0	32,0	50,5	-	-	-	-	-	-	146,0	31,3	50,5
40	1 1/2"	40	159	44,3	64,0	159,0	38,0	50,5	159,0	34,80	50,5	139,7	34,80	50,5	159,0	35,6	50,5
50	2"	50	190	56,3	77,5	190,0	50,0	64,0	190,0	47,50	64,0	158,75	47,50	64,0	190,0	48,6	64,0
65	2 1/2"	80	216	72,1	91,0	216,0	66,0	91,0	216,0	60,20	77,5	193,68	60,20	77,5	216,0	60,3	77,5
80	3"	80	254	84,3	106,0	254,0	81,0	106,0	254,0	72,90	91,0	222,25	72,90	91,0	254,0	72,9	91,0
100	4"	100	305	109,7	130,0	305,0	100,0	119,0	305,0	97,38	119,0	292,1	97,38	119,0	305,0	97,6	119,0

*Length differing from standard; other lengths on request