

annule
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ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISO RECOMMENDATION R 285

STEEL TUBES
BUTT WELDING BENDS
(90° and 180°)

1st EDITION
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BRIEF HISTORY

This ISO Recommendation R 285, *Steel Tubes. Butt Welding Bends (90° and 180°)* was drawn up by Technical Committee ISO/TC 5, *Pipes and Fittings*, the Secretariat of which is held by the Association Suisse de Normalisation (SNV).

Work on this question by the Technical Committee began in 1958 and led, in 1960, to the adoption of a Draft ISO Recommendation.

In October 1960, this Draft ISO Recommendation (No. 406) was circulated to all the ISO Member Bodies for enquiry. It was approved by the following Member Bodies:

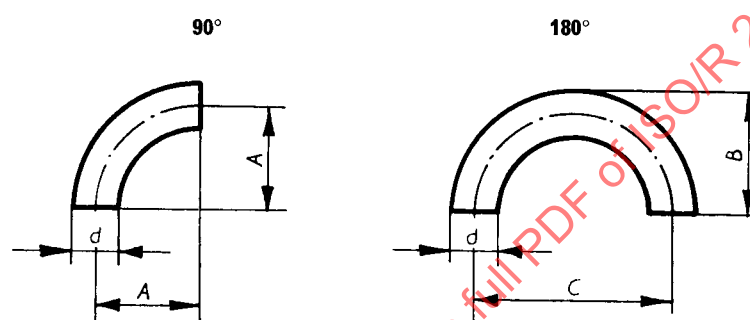
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One Member Body opposed the approval of the Draft: U.S.S.R.

The Draft ISO Recommendation was then submitted by correspondence to the ISO Council, which decided, in December 1962, to accept it as an ISO RECOMMENDATION.

STEEL TUBES **BUTT WELDING BENDS** **(90° and 180°)**

This ISO Recommendation lays down the dimensions of steel butt welding bends (90° and 180°).



$$C = 2A \quad \text{and} \quad B = A + \frac{d}{2}$$

The ratio between the radius of the bend and the outside diameter of the tube is approximately 1.5.

TABLE

The millimetre values have been converted into inches and rounded off in fractions of inches, except for the diameters corresponding to those of the ASA B16.9-1958 Standard,* where the values of that standard have been adopted.

Outside diameters <i>d</i>		<i>A</i>		Tolerances		<i>B</i> **		Tolerances		<i>C</i>		Tolerances	
mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
26.9	1 ¹ / ₁₆	28.5	1 ¹ / ₈			42	1 ⁵ / ₈			57	2 ¹ / ₄		
30	1 ³ / ₁₆	33.5	1 ⁵ / ₁₆			48	1 ⁷ / ₈			67	2 ⁵ / ₈		
31.8	1 ¹ / ₄	35	1 ³ / ₈			51	2			70	2 ³ / ₄		
33.7	1 ¹¹ / ₃₂	38	1 ¹ / ₂	±2,5	± ³ / ₃₂	55	2 ³ / ₁₆			76	3	±5	± ³ / ₁₆
38	1 ¹ / ₂	45	1 ³ / ₄			64	2 ¹ / ₂	±6	± ¹ / ₄	90	3 ¹ / ₂		
42.4	1 ¹¹ / ₁₆	47.5	1 ⁷ / ₈			69	2 ³ / ₄			95	3 ³ / ₄		
44.5	1 ³ / ₄	51	2			73	2 ⁷ / ₈			102	4		
48.3	1 ²⁹ / ₃₂	57	2 ¹ / ₄			82	3 ¹ / ₄			114	4 ¹ / ₂		
51.0	2	63.5	2 ¹ / ₂	±3	± ¹ / ₈	89	3 ¹ / ₂			127	5	±6	± ¹ / ₄
54.0	2 ¹ / ₈	68.5	2 ¹¹ / ₁₆			95	3 ³ / ₄			137	5 ³ / ₈		
57.0	2 ¹ / ₄	72	2 ¹³ / ₁₆			100	3 ¹⁵ / ₁₆			144	5 ⁵ / ₈		

(Continued overleaf)

* American Standards Association, Inc., B16.9-1958, *Steel Butt-Welding Fittings*.

** Dimension *B* is not adhered to except by special request.