SMS

Steel butt-welding pipe fittings

Caps

DIN 2617

Formstücke zum Einschweißen; Kappen; Maße

Supersedes June 1964 edition.

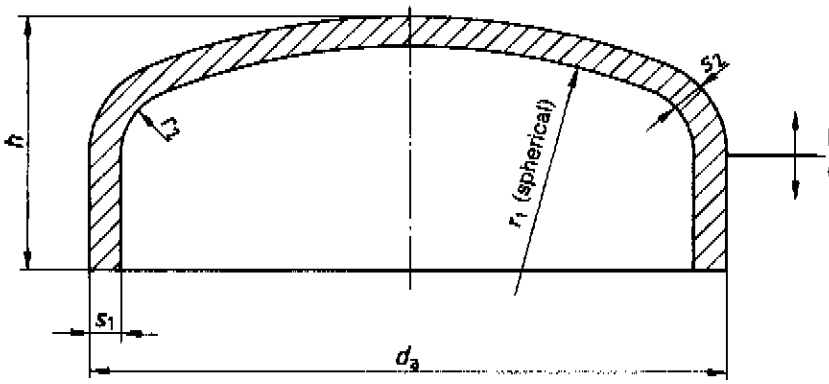
In keeping with current practice in standards published by the International Organization for Standardization (ISO), a comma has been used throughout as the decimal marker.

Dimensions in mm

1 Field of application

This standard specifies steel caps that are intended to be butt welded to pipes and that are rated for the same internal pressure as pipes having a wall thickness as specified in table 1 (cf. clause 4).

2 Dimensions and designation



Designation of a cap in accordance with this standard, having an outside diameter, d_a, equal to 88,9 mm and a wall thickness, s_1, equal to 2,3 mm, made from material belonging to material group C as in DIN 2609 (C):

Cap DIN 2617 – 88,9 × 2,3 – C

Continued on pages 2 and 3

18.3.07

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Table 1. **Cap dimensions**

Nominal size DN	Outside diameter, d_a	Wall thicknesses, s_1 and s_2, for series 1		2	3	4	5	Height, h, where		Limiting wall thickness
		s_1 [1]	s_2 [2]	s_1 [1]	s_1 [1]	s_1 [1]	s_1 [1]	$s_1 \leq$ limiting wall thickness	$s_1 >$ limiting wall thickness	
15	21,3	1,6	–	–	2	3,2	4	25		
20	26,9	1,6	–	–	2,3	3,2	4	25		–
25	33,7	2	–	–	2,6	3,2	4	38		
32	42,4	2	–	–	2,6	3,6	4	38		
40	48,3	2	–	–	2,6	4	5	38		–
50	60,3	2	–	–	2,9	4,5	5,6	38		
65	76,1	2,3	–	–	2,9	5	7,1	38		
80	88,9	2,3	–	–	3,2	5,6	8	51		–
100	114,3	2,6	–	–	3,6	6,3	8,8	64		
125	139,7	2,6	–	–	4	6,3	10	76		
150	168,3	2,6	–	4	4,5	7,1	11	89		–
200	219,1	2,9	–	4,5	6,3	8	12,5	102		
250	273	2,9	–	5	6,3	8,8	14,2	127		
300	323,9	2,9	3	5,6	7,1	10	16	152		–
350	355,6	3,2	3,3	5,6	8	11	17,5	165		
400	406,4	3,2	3,4	6,3	8,8	12,5	20	178		
450	457	4	4,1	6,3	10	14,2	22,2	203		–
500	508	4	4,2	6,3	11	16	25	229		
600	610	5	5,1	6,3	12,5	17,5	30	267		
700	711	5	5,3	7,1	12,5	20	32	267	290	25
800	813	5,6	5,9	8	12,5	22,5	36	267	330	17,5
900	914	6,3	6,7	10	12,5	25	40	267	370	10
1000	1016	6,3	7	10	12,5	28	45	305	420	14,2
1200	1220	6,3	7,2	12,5	–	–	–	343	360	10

A dash in a box indicates a size that has not been standardized.

[1]) s_2 shall be greater than or equal to s_1 (cf. footnote 2).

[2]) In the case of wall thickness series 1, for nominal sizes from DN 300 to DN 1200, the values specified for s_2 are minimum values.

3 Tolerances

Table 2. **Lower limit deviations for wall thickness**
(See DIN 2609 for upper limit deviations.)

Nominal size DN	Wall thickness	Lower limit deviation
Up to **600**	All sizes	– 12,5 %
Above **600**	Up to 10	– 0,35 mm
	Above 10	– 0,50 mm

Table 3. **Limit deviations for dimension h**

Nominal size DN	Limit deviations for dimension h
15 to **100**	± 4
125 to **600**	± 7
700 to **1000**	± 10

4 Design assumptions

The wall thickness of caps has been designed so that the caps are capable of accommodating the same pressure as the connecting pipe having a wall thickness, s_1, as in table 2, in accordance with the *AD-Merkblatt* (AD Instruction sheet) B 3. The values specified for h include the height of a cylindrical portion equal to at least $3 \times s_1$. Design has also been based on the following assumptions:

a) lower limit deviations for pipe and cap dimensions, as given in table 2;

b) identical material;

c) identical outside diameter;

d) no allowance for corrosion;

e) the cap is used at full service pressure.

5 Other wall thicknesses

Caps with wall thicknesses other than those specified in table 1, which lie between two sizes specified, may also be ordered in accordance with this standard.

6 Welding end preparation

Where required, the inside of welding ends may be bevelled to an angle of 15° to 18°, or the outside to an angle of 27° to 30°, relative to the fitting axis.

7 Technical delivery conditions

See DIN 2609 for technical delivery conditions for caps as covered here.

Standards and other documents referred to

DIN 2609	Steel butt-welding fittings; technical delivery conditions
AD-Merkblatt B 3*)	*Gewölbte Böden unter innerem und äußerem Überdruck* (Dished ends subject to internal or external pressure)

Previous edition

DIN 2617: 06.64.

Amendments

In comparison with the June 1964 edition, the standard has been editorially revised.

Explanatory notes

The cap dimensions specified here are based on pipe outside diameters as given in ISO 4200 (series 1), with which the values specified here for the wall thicknesses also comply.

International Patent Classification

B 23 K
F 16 L 55/115
F 16 S 1/100

*) Obtainable from *Beuth Verlag GmbH*, Burggrafenstraße 6, D-1000 Berlin 30.