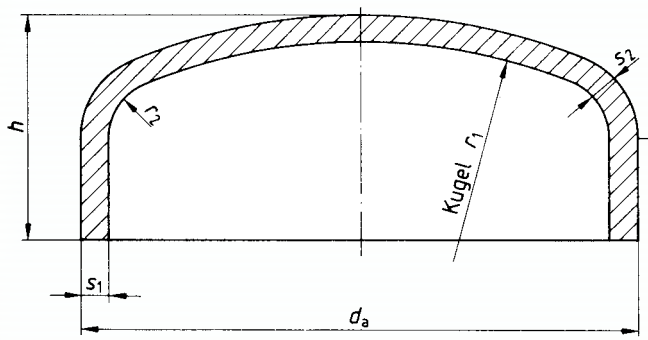
Caps DIN 2617

measures in mm

1 Coverage

This norm consider for caps of steel which resist to the same internal pressure like the welded tube with a wall thickness s1 according to table 1 (see chapter 5 – basics of the calculation). The caps will be used as fittings to weld in.

2 Type of design, description



$r_1 \approx 0{,}8\ d_a$
$r_2 \approx 0{,}154\ d_a$
$s_2 \geq s_1$ 2)

Denotation of a cap according to this norm of a external diameter da = 88,9 mm and a wall thickness s1 = 2,3 mm, at a material of the material group C according to DIN 2609:

Cap DIN 2617 – 88,9 x 2,3 – C

Caps DIN 2617

3 dimensions Table 1.

nom.-width DN	external diameter d_a	wall thickness s_1, s_2 line 1		2	3	4	5	height h		limited wall thickness for height h
		s_1 [1]	s_2 [2]	s_1 [1]	s_1 [1]	s_1 [1]	s_1 [1]	$s_1 \leq$ limited wall thickn.	$s_1 >$ limited wall thickn.	
15	21,3	1,6	–	–	2,0	3,2	4,0	25	25	–
20	26,9	1,6	–	–	2,3	3,2	4,0	25	25	–
25	33,7	2,0	–	–	2,6	3,2	4,0	38	38	–
32	42,4	2,0	–	–	2,6	3,6	4,0	38	38	–
40	48,3	2,0	–	–	2,6	4,0	5,0	38	38	–
50	60,3	2,0	–	–	2,9	4,5	5,6	38	38	–
65	76,1	2,3	–	–	2,9	5,0	7,1	38	38	–
80	88,9	2,3	–	–	3,2	5,6	8,0	51	51	–
100	114,3	2,6	–	–	3,6	6,3	8,8	64	64	–
125	139,7	2,6	–	–	4,0	6,3	10,0	76	76	–
150	168,3	2,6	–	4,0	4,5	7,1	11,0	89	89	–
200	219,1	2,9	–	4,5	6,3	8,0	12,5	102	102	–
250	273,0	2,9	–	5,0	6,3	8,8	14,2	127	127	–
300	323,9	2,9	3,0	5,6	7,1	10,0	16,0	152	152	–
350	355,6	3,2	3,3	5,6	8,0	11,0	17,5	165	165	–
400	406,4	3,2	3,4	6,3	8,8	12,5	20,0	178	178	–
450	457,0	4,0	4,1	6,3	10,0	14,2	22,2	203	203	–
500	508,0	4,0	4,2	6,3	11,0	16,0	25,0	229	229	–
600	610,0	5,0	5,1	6,3	12,5	17,5	30,0	267	267	–
700	711,0	5,0	5,3	7,1	12,5	20,0	32,0	267	290	25,0
800	813,0	5,6	5,9	8,0	12,5	22,5	36,0	267	330	17,5
900	914,0	6,3	6,7	10,0	12,5	25,0	40,0	267	370	10,0
1000	1016,0	6,3	7,0	10,0	12,5	28,0	45,0	305	420	14,2
1200	1220,0	6,3	7,2	12,5	–	–	–	343	360	10,0

A line in the column s1 means that this wall thickness is not normed.

1) $s_2 \geq s_1$ (see gloss 2)

2) In rank 1 of the wall thickness the nominal width DN 300 till DN 1200 the wall thickness s2 have to comply minimal at the in the column s2 named values.

4 Acceptable dimension variations

Table 2. lower limiting-sizes of the wall thickness
(upper limiting-size see DIN 2609)

nominal width DN	wall thickness	lower limiting-size
≤ 600	all	-12,5 %
> 600	≤ 10,0	-0,35 mm
	> 10,0	-0,50 mm

Table 3. limiting-sizes of the dimensions l_1

nominal width DN	limiting-size h
15 to 100	± 4
125 to 600	± 7
700 to 1000	± 10

5 Backgrounds of the calculation

The wall thickness s2 is according to AD-leaflet B3 so calculated that the caps resist to the same internal pressure like the to welding tube with a wall thickness s1 according to table 1. The headroom h contains a cylindrical accretion of minimal 3 x s1. The calculation results towards the internal pressure with following assumptions:

- lower limiting-size for tubes and caps according to table 2
- same material
- same longitudinal seam welding factor
- same external diameter
- without corrosion allowance
- Utilisation of the tube = 100%

6 Differing wall thickness

Caps with a wall thickness which are between the wall thickness of table 1 can also be order to the agreement of this norm.