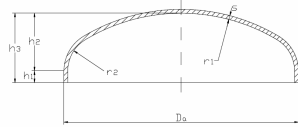


Heads

Shapes

Semi ellipsoidal head DIN 28013

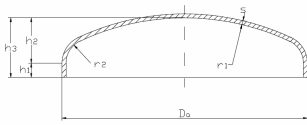


$$r_1 = 0,8 \times D_a \quad h_1 \geq 3 \times s$$

$$r_2 = 0,154 \times D_a \quad h_2 = 0,255 \times D_a - 0,635 \times s$$

$$h_3 = h_1 + h_2$$

Torispherical head DIN 28011

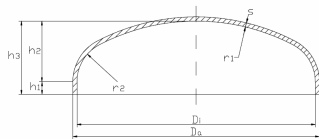


$$r_1 = D_a \quad h_1 = 3,5 \times s$$

$$r_2 = 0,1 \times D_a \quad h_2 = 0,1935 \times D_a - 0,455 \times s$$

$$h_3 = h_1 + h_2$$

Ellipsoidal head



Form 2:1

$$D_i = D_a - 2 \times s$$

$$r_1 = 0,9 \times D_i$$

$$r_2 = 0,17 \times D_i$$

$$h_1 = \text{gem. Angabe}$$

$$h_2 = 0,25 \times D_i$$

$$h_3 = h_1 + h_2$$

Form 1,9:1

$$D_i = D_a - 2 \times s$$

$$r_1 = D_i / 1,16$$

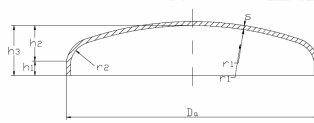
$$r_2 = D_i / 5,39$$

$$h_1 = \text{gem. NF E81-103}$$

$$h_2 = D_i / 3,8$$

$$h_3 = h_1 + h_2$$

Standard-type / flat dished head



$$r_1 = D_a \text{ (standard-type head)}$$

$$r_1 = 1,3 \times D_a \text{ (flat dished head)}$$

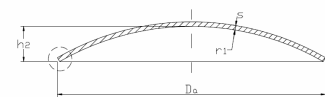
$$r_2 = \text{depending on size (15 - 50 mm)}$$

$$h_1 \geq 3,5 \times s$$

$$h_2 = \text{dished height}$$

$$h_3 = h_1 + h_2$$

Convex disc



Shape $r_1 = D_a$

$$h_2 = 0,134 \times D_a$$

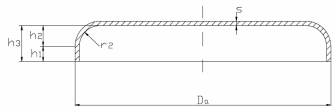
Shape $r_1 = 0,8 \times D_a$

$$h_2 = 0,176 \times D_a$$

Shape r_1 acc. to cust. requirements

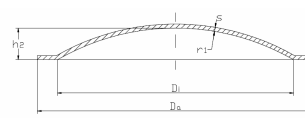
$$h_2 = r_1 - \sqrt{r_1^2 - (D_a/2)^2}$$

Flat head



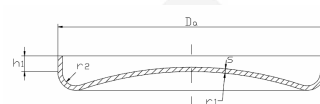
$$h_1 \geq 3,5 \times s \quad h_2 = r_2 \quad h_3 = h_1 + h_2$$

Plate-type head



$$r_1 = D_i \quad h_2 = 0,134 \times D_i$$

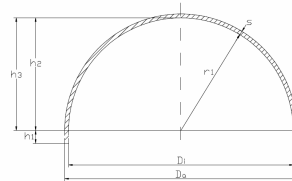
Diffuser head



$$r_1 \geq 1,3 \times D_a \quad h_1 \geq 3,5 \times s$$

$$r_2 = 15 - 50 \text{ mm depending on size}$$

Hemispherical head



$$D_i = D_a - 2 \times s$$

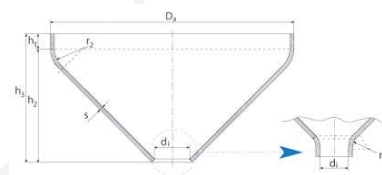
$$r_1 = 0,5 \times D_i$$

$$h_1 = \text{acc. to customers requirements}$$

$$h_2 = r_1$$

$$h_3 = h_1 + h_2$$

Cone



$$h_3 = h_1 + h_2$$

Neck at the narrow end is also possible

Special pressed parts



Dimensions and forms acc. to customers requirements

Legend:

D_a = outside diameter
 D_i = inside diameter
 s = wall thickness
 h_1 = straight flange height
 h_2 = dished height
 h_3 = total height inside
 r_1 = crown radius
 r_2 = knuckle radius