With the following calculation-bases applied to the adaptation of the shower-addition to given spatial conditions:

Given: Height-difference h = 1380 mm
Gap d = 920 mm
Foot b = 700 mm

Applied Measures:
Height-difference h = 1380 mm
Gap d = 920 mm
Angle of the thigh of the two-leg rack to the vertical

1. Calculation oft the angle of the thigh of the two-leg rack to the vertical:

$$\alpha = \arctan(\frac{b}{2 \times h}) \quad (1)$$

for h = 1380 mm und b = 700 mm gets:

$$\alpha = \arctan(\frac{700}{2 \times 1380}) = \arctan(0{,}2536..) = 14.23..^{\circ}$$

An angle of 15º is selected by what the feet of the shower-addition will be increased a bit.

2. Calculation of the lenght of the tight of the two-leg rack:

$$l_s = \frac{h}{\cos \alpha} \quad (2)$$

With the given values the lenght of the two-leg rack must be

$$l_s = \frac{1380mm}{\cos(15^{\circ})} = 1428mm$$

The height of the rubber-feet (height 25 mm) is from it to be withdrawn; in the final result, the thigh of the two-leg has a length of 1400 mm.

3. Calculation of the lenght of the upper beam

The length of the upper beam consists from:

Gap d = 920 mm
Thickness of the upper beam of the lifting and storage equipment ($d_h$ = 54 mm)
Security-surcharge ($s_{min}$ = 50 mm)

$$l_b = d + d_h + s_z \quad (3)$$

With this values ther is a minimal lenght of the upper beam of

$$l_b = 920 + 54 + 50 = 1024\,\text{mm}$$

The selected implementation of the upper beam became 1050 mm long.