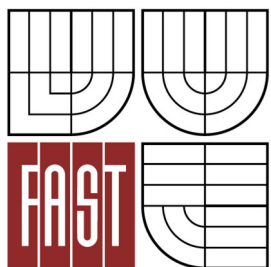




VYSOKÉ UČENÍ TECHNICKÉ V BRNĚ
BRNO UNIVERSITY OF TECHNOLOGY



FAKULTA STAVEBNÍ
ÚSTAV POZEMNÍHO STAVITELSTVÍ

FACULTY OF CIVIL ENGINEERING
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VÝPOČET SCHODIŠTĚ

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VÝPOČET SCHODIŠTĚ

a) Vnitřní schodiště – tříramenné

$$KV = 4025 \text{ mm}$$

$$n = \frac{KV}{h'} = \frac{4025}{160} = 25,16 = > 25 \text{ stupňů (10, 5, 10)}$$

$$h = \frac{KV}{n} = \frac{4025}{25} = 161 \text{ mm}$$

$$b = 630 - 2 \cdot h = 630 - 2 \cdot 161 = 308 \text{ mm} = > b = 310 \text{ mm}$$

$$\operatorname{tg} \alpha = \frac{h}{b} = \frac{161}{310} = 0,519 = > \alpha = 27,45^\circ$$

$$l = (n - 1) \cdot b \quad l_1 = (10 - 1) \cdot 310 = 2790 \text{ mm}$$

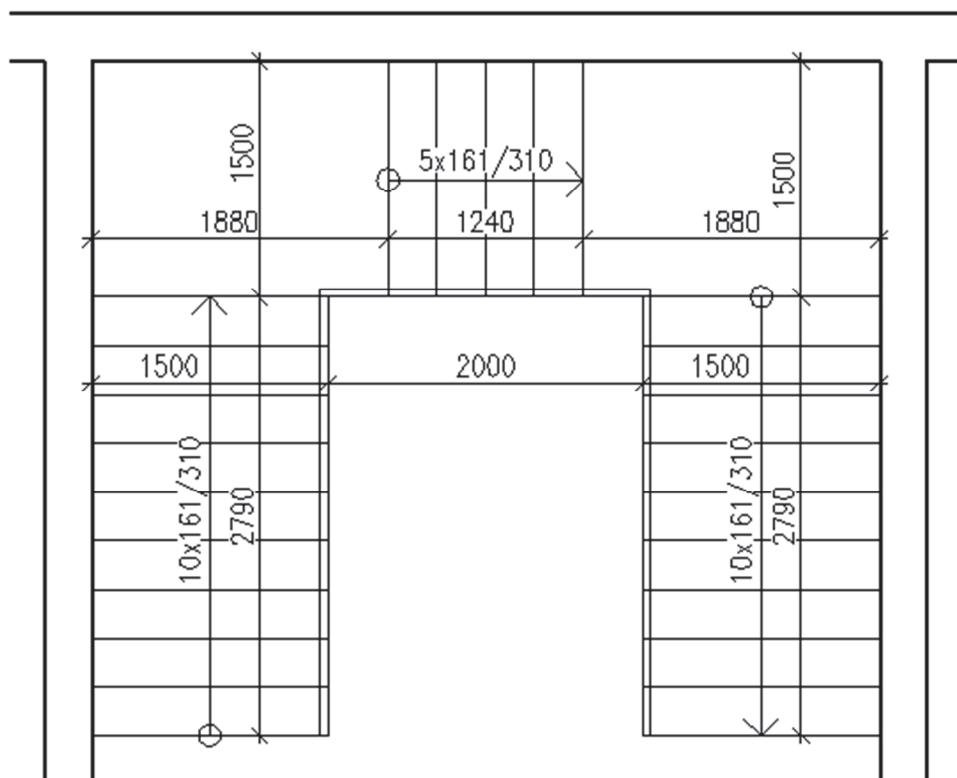
$$l_2 = (5 - 1) \cdot 310 = 1240 \text{ mm}$$

$$zr = 2000 \text{ mm}$$

$$\check{sp} = \check{sr} = 1500 \text{ mm}$$

$$L_1 = l + \check{sp} \quad L_1 = 2790 + 1500 = 4290 \text{ mm}$$

$$B = 2 \cdot \check{sp} + zr \quad B = 2 \cdot 1500 + 2000 = 5000 \text{ mm}$$



b) Vnější schodiště – dvouramenné

$$KV = 4025 \text{ mm}$$

$$n = \frac{KV}{h'} = \frac{4025}{160} = 25,16 = > 25 \text{ stupňů (12, 13)}$$

$$h = \frac{KV}{n} = \frac{4025}{25} = 161 \text{ mm}$$

$$b = 630 - 2 \cdot h = 630 - 2 \cdot 161 = 308 \text{ mm} = > b = 310 \text{ mm}$$

$$\operatorname{tg} \alpha = \frac{h}{b} = \frac{161}{310} = 0,519 = > \alpha = 27,45^\circ$$

$$l = (n - 1) \cdot b \quad l_1 = (13 - 1) \cdot 310 = 3720 \text{ mm}$$

$$l_2 = (12 - 1) \cdot 310 = 3410 \text{ mm}$$

$$z_r = 230 \text{ mm}$$

$$\check{S}_p = \check{S}_r = 1500 \text{ mm}$$

$$L = l + \check{S}_p \quad L_1 = 3720 + 1500 = 5220 \text{ mm}$$

$$L_2 = 3410 + 1500 = 4910 \text{ mm}$$

$$B = 2 \cdot \check{S}_p + z_r \quad B = 2 \cdot 1500 + 230 = 3230 \text{ mm}$$

