

ESSVE
GET IT DONE

The diagram illustrates three cross-sectional views of a reinforced concrete beam, detailing its geometry and reinforcement configuration.

- Section 1 (Left):** A rectangular cross-section with a width of 37 units and a height of 40 units. It features a top flange with a thickness of 17 units. The reinforcement includes three yellow circles representing longitudinal bars with a diameter of $\phi 11$, surrounded by blue and green dots representing other reinforcement elements.
- Section 2 (Middle):** A rectangular cross-section with a width of 37 units and a height of 40 units. It has a top flange with a thickness of 10.5 units. The reinforcement includes three yellow circles representing longitudinal bars with a diameter of $\phi 5$, surrounded by blue and green dots.
- Section 3 (Right):** A rectangular cross-section with a width of 42 units and a height of 8 units. It has a top flange with a thickness of 32 units. The reinforcement includes three yellow circles representing longitudinal bars with a diameter of $\phi 5$, surrounded by blue and green dots.

The overall width of the beam is denoted as B , and the overall height is denoted as H . The distance between the centers of the reinforcement bars in the middle section is specified as 10.5, 18.5, and 8 units. The distance between the centers of the reinforcement bars in the right section is specified as 2, 32, and 8 units. The bottom flange of the beam has a width of 75 units.

Load direction	28 anchor screws	52 anchor screws
F_{down}	Holes: Blue	Holes: Green + Blue
Characteristic value [kN]	27,7	33,9
Design value [kN]	12,8	15,7
Allowable value [kN]	930	1135