

# LOADS

## High performance anchor FH II - S

Highest permissible loads for a single anchor<sup>1)</sup> in concrete C20/25<sup>4)</sup>

For the design the complete approval ETA - 07/0025 has to be considered.

Type	Effective anchorage depth $h_{ef}$ [mm]	Min. member thickness $h_{min}$ [mm]	Installation torque $T_{inst}$ [Nm]	Cracked concrete				Non-cracked concrete			
				Permissible tensile load $N_{perm}^{3)}$ [kN]	Permissible shear load $V_{perm}^{3)}$ [kN]	Min. spacing $s_{min}^{2)}$ [mm]	Min. edge distance $c_{min}^{2)}$ [mm]	Permissible tensile load $N_{perm}^{3)}$ [kN]	Permissible shear load $V_{perm}^{3)}$ [kN]	Min. spacing $s_{min}^{2)}$ [mm]	Min. edge distance $c_{min}^{2)}$ [mm]
<b>FH II 10 S</b>	40	80	10,0	3,6	4,3	40	40	6,1	6,1	40	40
<b>FH II 12 S</b>	60	120	22,5	5,7	15,9	50	50	11,2	18,9	60	60
<b>FH II 15 S</b>	70	140	40,0	7,6	20,1	60	60	14,1	28,2	70	70
<b>FH II 18 S</b>	80	160	80,0	11,9	24,5	70	70	17,2	34,4	80	80
<b>FH II 24 S</b>	100	200	160,0	17,1	34,3	80	80	24,0	48,1	100	100
<b>FH II 28 S</b>	125	250	180,0	24,0	47,9	100	100	33,6	67,2	120	120
<b>FH II 32 S</b>	150	300	200,0	31,5	63,0	120	120	44,2	88,4	160	180

<sup>1)</sup> The partial safety factors for material resistance as regulated in the approval as well as a partial safety factor for load actions of  $\gamma_L = 1,4$  are considered. As an single anchor counts e.g. an anchor with a spacing  $s \geq 3 \times h_{ef}$  and an edge distance  $c \geq 1,5 \times h_{ef}$ . Accurate data see approval.

<sup>2)</sup> Minimum possible axial spacings resp. edge distance while reducing the permissible load.

<sup>3)</sup> For combinations of tensile loads, shear loads, bending moments as well as reduced edge distances or spacings (anchor groups) see approval.

<sup>4)</sup> For higher concrete strength classes up to C50/60 higher permissible loads may be possible.

# LOADS

## High performance anchor FH II - S A4

**Highest permissible loads for a single anchor<sup>1)</sup>** in concrete C20/25<sup>4)</sup>

For the design the complete approval ETA - 07/0025 has to be considered.

Type	Effective anchorage depth $h_{ef}$ [mm]	Min. member thickness $h_{min}$ [mm]	Installation torque $T_{inst}$ [Nm]	Cracked concrete				Non-cracked concrete			
				permissible tensile load $N_{perm}^{3)}$ [kN]	permissible shear load $V_{perm}^{3)}$ [kN]	min. spacing $s_{min}^{2)}$ [mm]	min. edge distance $c_{min}^{2)}$ [mm]	permissible tensile load $N_{perm}^{3)}$ [kN]	permissible shear load $V_{perm}^{3)}$ [kN]	min. spacing $s_{min}^{2)}$ [mm]	min. edge distance $c_{min}^{2)}$ [mm]
<b>FH II 10 S A4</b>	40	80	15,0	3,6	4,3	40	40	6,1	6,1	40	40
<b>FH II 12 S A4</b>	60	120	25,0	5,7	15,9	50	50	9,5	16,0	60	60
<b>FH II 15 S A4</b>	70	140	40,0	7,6	20,1	60	60	14,1	24,6	70	70
<b>FH II 18 S A4</b>	80	160	100,0	11,9	24,5	70	70	17,2	34,4	80	80
<b>FH II 24 S A4</b>	100	200	160,0	17,1	34,3	80	80	24,0	48,1	100	100

<sup>1)</sup> The partial safety factors for material resistance as regulated in the approval as well as a partial safety factor for load actions of  $\gamma_L = 1,4$  are considered. As an single anchor counts e.g. an anchor with a spacing  $s \geq 3 \times h_{ef}$  and an edge distance  $c \geq 1,5 \times h_{ef}$ . Accurate data see approval.

<sup>2)</sup> Minimum possible axial spacings resp. edge distance while reducing the permissible load.

<sup>3)</sup> For combinations of tensile loads, shear loads, bending moments as well as reduced edge distances or spacings (anchor groups) see approval.

<sup>4)</sup> For higher concrete strength classes up to C50/60 higher permissible loads may be possible.