

Concrete screw UltraCut FBS II US/SK

Permissible loads¹⁾²⁾ for a single anchor in masonry for Push-through installation.
For the design the complete current assessment ETA-20/0134 of 14.07.2022 has to be considered.

Type	Min. compressive brick strength f _b [N/mm ²]	Brick raw density ρ [kg/dm ³]	Minimum brick dimensions (L x W x H) [mm]	Nominal anchorage depth h _{nom} [mm]	Minimum member thickness h _{min} [mm]	Maximum installation torque T _{imp. max} ³⁾ [Nm]	Permissible tensile load ⁴⁾ N _{perm} [kN]	Permissible shear load ⁴⁾ parallel ⁵⁾ V _{perm} [kN]	Minimum spacing ⁵⁾ s _{min} / s _{min-⊥} [mm]	Minimum edge distance ⁵⁾ c _{min} [mm]
Solid brick Mz, acc. to EN 771-1										
FBS II 6	≥ 12.0	≥ 1.8	240 x 115 x 71	≥ 40	≥ 115	80	0.54	0.34	80	50
FBS II 6	≥ 16.0	≥ 1.8	240 x 115 x 71	≥ 40	≥ 115	80	0.60	0.40	80	50
FBS II 6	≥ 17.5	≥ 1.8	240 x 115 x 71	≥ 40	≥ 115	80	0.66	0.40	80	50
FBS II 8	≥ 12.0	≥ 1.8	240 x 115 x 71	≥ 50	≥ 115	80	0.46	1.37	80	60
FBS II 8	≥ 16.0	≥ 1.8	240 x 115 x 71	≥ 50	≥ 115	80	0.54	1.60	80	60
FBS II 8	≥ 17.5	≥ 1.8	240 x 115 x 71	≥ 50	≥ 115	80	0.57	1.66	80	60
FBS II 10	≥ 12.0	≥ 1.8	240 x 115 x 71	≥ 55	≥ 115	80	0.40	1.26	80	70
FBS II 10	≥ 16.0	≥ 1.8	240 x 115 x 71	≥ 55	≥ 115	80	0.46	1.46	80	70
FBS II 10	≥ 17.5	≥ 1.8	240 x 115 x 71	≥ 55	≥ 115	80	0.49	1.51	80	70
Solid brick Mz, nordic, acc. to EN 771-1										
FBS II 6	≥ 16.0	≥ 1.8	228 x 108 x 54	≥ 40	≥ 108	80	0.34	0.31	80	50
FBS II 6	≥ 20.0	≥ 1.8	228 x 108 x 54	≥ 40	≥ 108	80	0.40	0.37	80	50
FBS II 8	≥ 16.0	≥ 1.8	228 x 108 x 54	≥ 50	≥ 108	80	0.46	1.34	80	60
FBS II 8	≥ 20.0	≥ 1.8	228 x 108 x 54	≥ 50	≥ 108	80	0.51	1.49	80	60
FBS II 10	≥ 16.0	≥ 1.8	228 x 108 x 54	≥ 55	≥ 108	80	0.37	1.23	80	70
FBS II 10	≥ 20.0	≥ 1.8	228 x 108 x 54	≥ 55	≥ 108	80	0.43	1.37	80	70
Solid sand-lime brick KS, acc. to EN 771-2										
FBS II 6	≥ 12.0	≥ 1.8	240 x 115 x 71	≥ 40	≥ 115	80	0.43	0.51	80	50
FBS II 6	≥ 16.0	≥ 1.8	240 x 115 x 71	≥ 40	≥ 115	80	0.49	0.60	80	50
FBS II 6	≥ 20.0	≥ 1.8	240 x 115 x 71	≥ 40	≥ 115	80	0.54	0.66	80	50
FBS II 8	≥ 12.0	≥ 1.8	240 x 115 x 71	≥ 50	≥ 115	80	0.54	0.66	80	60
FBS II 8	≥ 16.0	≥ 1.8	240 x 115 x 71	≥ 50	≥ 115	80	0.60	0.74	80	60
FBS II 8	≥ 20.0	≥ 1.8	240 x 115 x 71	≥ 50	≥ 115	80	0.69	0.83	80	60
FBS II 10	≥ 12.0	≥ 1.8	240 x 115 x 71	≥ 55	≥ 115	80	0.54	0.89	80	70
FBS II 10	≥ 16.0	≥ 1.8	240 x 115 x 71	≥ 55	≥ 115	80	0.63	1.00	80	70
FBS II 10	≥ 20.0	≥ 1.8	240 x 115 x 71	≥ 55	≥ 115	80	0.69	1.11	80	70
Perforated sand-lime brick KSL, acc. to EN 771-2										
FBS II 6	≥ 10.0	≥ 1.4	240 x 175 x 113	≥ 40	≥ 175	65	0.09	0.80	80	50
FBS II 6	≥ 12.0	≥ 1.4	240 x 175 x 113	≥ 40	≥ 175	65	0.11	0.94	80	50
FBS II 6	≥ 16.0	≥ 1.4	240 x 175 x 113	≥ 40	≥ 175	65	0.14	1.17	80	50
FBS II 6	≥ 17.5	≥ 1.4	240 x 175 x 113	≥ 40	≥ 175	65	0.17	1.26	80	50
FBS II 8	≥ 10.0	≥ 1.4	240 x 175 x 113	≥ 50	≥ 175	65	0.26	0.66	80	60
FBS II 8	≥ 12.0	≥ 1.4	240 x 175 x 113	≥ 50	≥ 175	65	0.29	1.03	80	60
FBS II 8	≥ 16.0	≥ 1.4	240 x 175 x 113	≥ 50	≥ 175	65	0.37	1.40	80	60
FBS II 8	≥ 17.5	≥ 1.4	240 x 175 x 113	≥ 50	≥ 175	65	0.40	1.49	80	60
FBS II 10	≥ 10.0	≥ 1.4	240 x 175 x 113	≥ 55	≥ 175	65	0.23	0.77	80	70
FBS II 10	≥ 12.0	≥ 1.4	240 x 175 x 113	≥ 55	≥ 175	65	0.26	1.23	80	70
FBS II 10	≥ 16.0	≥ 1.4	240 x 175 x 113	≥ 55	≥ 175	65	0.34	1.66	80	70
FBS II 10	≥ 17.5	≥ 1.4	240 x 175 x 113	≥ 55	≥ 175	65	0.37	1.77	80	70

¹⁾ The partial safety factors for material resistance as regulated in assessment as well as a partial safety factor for load actions of γ_l = 1.4 are considered. Load values are valid for zinc-plated steel all sizes and head shapes, for stainless steel R for the sizes 8 and 10. Exakt values see ETA.

²⁾ The given loads are valid for installation and use of fixations in dry masonry, use category d/d, width of the joints w_j ≤ 3 mm and general purpose mortar with strength class M2.5 -M9. Further information and details on drill hole preparation, etc., see ETA.

³⁾ Maximum allowable device torque for installation with any tangential impact screw driver. Further technical data see ETA.

⁴⁾ In the case of combinations of tensile and shear loads, bending moments and reduced edge and axial spacings (anchor groups), the design must be carried out in accordance with the provisions of the complete assessment.

⁵⁾ Minimum feasible spacing resp. edge distance. Details as well as to the distances to joints see assessment.

⁶⁾ Shear load parallel to the vertical joint. Load reduction for shear load perpendicular to the vertical joint see ETA.