

W-BS CONCRETE SCREW

01.3

Impact screwdriver recommendation for installation			
Size	Power tool	Max. torque [Nm]	Art. No.
5	ASS 10-A Battery-Powered Tangential Impact Screwdriver	105	0700 622 3
6	ASS 14 1/4" Battery-Powered Tangential Impact Screwdriver	150	0700 624 4
8 and 10	ASS 18 1/2" Battery-Powered Tangential Impact Screwdriver	180	0700 625 4
	ESS 1/2" Electric Tangential Impact Screwdriver	250	0702 317 0
12 and 14	ASS 18 1/2" HT Battery-Powered Tangential Impact Screwdriver	610	0700 725 4
	ESS 1/2" Electric Tangential Impact Screwdriver	250	0702 317 0

Performance data in concrete – Individual attachment																		
Anchor size [mm]		6			8			10			12		14					
Length of the anchor in the drilled hole		h _{nom} [mm]																
Permissible central tensile load ¹⁾ of one individual anchor with no edge influence	Tensile zone (cracked concrete C20/25) ²⁾ , s ≥ 3 h _{ef} , c ≥ 1.5 h _{ef}	N _{perm} [kN] = C20/25 ²⁾			40	55	45	55	65	55	75	85	65	85	100	75	100	115
	Pressure zone (uncracked concrete C20/25) ²⁾ , s ≥ 3 h _{ef} , c ≥ 1.5 h _{ef}	1.0	1.9	2.4	4.3	5.7	4.3	8.0	9.6	5.7	9.4	12.3	7.6	12.0	15.1			
Perm. transverse load ¹⁾ of one individual anchor with no edge influence	Tensile zone (cracked concrete C20/25) ²⁾ , c ≥ 10 h _{ef}	V _{perm} [kN] = C20/25 ²⁾			40	55	45	55	65	55	75	85	65	85	100	75	100	115
	Pressure zone (uncracked concrete C20/25) ²⁾ , c ≥ 10 h _{ef}	1.9	4.3	3.6	5.7	7.6	5.7	9.5	11.9	7.6	13.2	17.2	10.6	16.9	21.2			
Permissible bending torque		M _{perm} [Nm]			4.8	12.4	26.7	53.8	88.1									
Permissible load under fire load (R30, R60, R90, R120) see European Technical Approval ETA-06/0043																		

Performance data in concrete – Multiple attachment						
Anchor size [mm]		5		6		
Length of the anchor in the drilled hole		h _{nom} [mm]				
Multiple attachment of non-load-bearing systems in concrete ³⁾		N _{perm} [kN] ≥ C20/25		0.6	0.6	3.6 ⁴⁾
Perm. transverse load ¹⁾ of one individual anchor with no edge influence	Tensile zone (cracked concrete C20/25) ²⁾ , c ≥ 10 h _{ef}	V _{perm} [kN] = C20/25 ²⁾		2.0	2.0	3.3
	Pressure zone (uncracked concrete C20/25) ²⁾ , c ≥ 10 h _{ef}	2.1	2.8	3.3		
Permissible bending torque		M _{perm} [Nm]		2.5	4.8	
Permissible load under fire load (R30, R60, R90, R120) see European Technical Approval ETA-06/0128						

Performance data in pre-stressed concrete hollow slab ceiling – Multiple attachment						
Anchor size [mm]		6				
Mirror thickness [in mm]		≥ 25	≥ 30	≥ 35		
Multiple attachment of non-load-bearing systems in pre-stressed concrete hollow slab ceiling ⁵⁾		F _{perm} [kN]		0.4	0.8	1.2

¹⁾ The part safety coefficients of the resistances regulated in the approval and a part safety coefficient of the effects of γ_F = 1.4 have been taken into account. For the combination of tensile and transverse loads, for edge influence and anchor groups, please refer to the Guideline for European Technical Approval (ETAG), Appendix C.

²⁾ The concrete has normal reinforcement. Higher values are possible for higher concrete strengths.

³⁾ The permissible loads were determined without axial and edge influence.

⁴⁾ Number of attachment points ≥ 3 and at least 1 anchor per attachment point yields the load for each attachment point F_{perm} ≤ 1.4 kN or the number of attachment points ≥ 4 and at least 1 anchor per attachment point yields the load per attachment point F_{perm} ≤ 2.1 kN. The permissible loads can be increased if it can be shown in the measurement that the requirements on the strength and rigidity of the component to be attached are fulfilled in the limit condition of serviceability and the load-bearing capacity even after failure of an anchor.

⁵⁾ The installation data must be observed.