

W-HAZ/A4 HIGH-PERFORMANCE ANCHOR

03.2

Performance data			M8	M10	M12	M16
Anchor diameter [mm]						
Permiss. centric ten- sile load ¹⁾ on a single anchor without edge influence	Tensile zone (cracked concrete C20/25 ²⁾ , $s \geq 3 h_{ef}$, $c \geq 15 h_{ef}$)	N_{perm} [kN] = C20/25 ²⁾	4.3	7.6	12.3	17.1
	Pressure zone (uncracked concrete C20/25 ²⁾) Minimum axial and edge spacing ($s_{cr,sp} \geq 3 h_{ef}$, $c_{cr,sp} \geq 1.5 h_{ef}$)		7.6	11.9	16.7	24.0
Permiss. transverse load ¹⁾ on a single anchor without edge influence	Tensile zone (cracked concrete C20/25 ²⁾ , $c \geq 10 h_{ef}$) W-HAZ-B/A4/ W-HAZ-S/A4 and W-HAZ-SK/A4	V_{perm} [kN] = C20/25 ²⁾	13.7/12.6	20.5/19.4	24.5/24.5	34.3/34.3
	Pressure zone (uncracked concrete C20/25 ²⁾ , $c \geq 10 h_{ef}$) W-HAZ-B/A4/ W-HAZ-S/A4 and W-HAZ-SK/A4		13.7/12.6	21.1/19.4	34.4/32.6	48.0/48.0
Permissible bending torque W-HAZ-B/A4/ W-HAZ-S/A4 and W-HAZ-SK/A4		M_{perm} [Nm]	14.9/11.9	29.7/23.8	52.6/42.1	132.6/106.2
Permissible loading under fire load (R30, R60, R90, R120) see European Technical Approval ETA-06/0031						

Characteristic values			M8	M10	M12	M16
Minimum axial spacing	$s_{min} \geq$ [mm]	60	70	80	100	
	for $c \geq$ [mm]	100	120	160	180	
Axial spacing	$s_{cr,N}$ [mm]	180	213	240	300	
Minimum edge spacing	$c_{min} \geq$ [mm]	60	70	80	100	
	for $s \geq$ [mm]	120	175	200	220	
Edge spacing	$c_{cr,N}$ [mm]	90	106.5	120	150	
Minimum component thickness	h_{min} [mm]	120	140	160	200	
Effective anchoring depth	h_{ef} [mm]	60	71	80	100	
Nom. drill dia.	d_0 [mm]	12	15	18	24	
Drill cutting dia.	$d_{cut} \leq$ [mm]	12.5	15.5	18.5	24.55	
Drill hole depth	$h_1 \geq$ [mm]	80	95	105	130	
Through-hole in the component being connected	$d_f \leq$ [mm]	14	17	20	26	
Torque while installing anchor	W-HAZ-B/A4	T_{inst} = [Nm]	35	55	90	170
	W-HAZ-S/A4		30	50	80	170
	W-HAZ-SK/A4		17.5	42.5	50	-

Würth System Components



¹⁾ The part safety coefficients of the resistances regulated in the approval and a part safety coefficient of the effects of $\gamma_f = 1.4$ 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.