

# FIXING ANCHOR WITH FEMALE THREAD W-FAZ-IG/A4, W-FAZ-IG/HCR

02.3

Performance data										
Anchor diameter [mm]			M6	M6	M8	M8	M10	M10	M12	M12
Perm. centered tensile load <sup>3)</sup> on a single anchor without edge influence	Tensile zone (cracked concrete C20/25 <sup>4)</sup> , $s \geq 3 h_{ef}$ , $c \geq 1.5 h_{ef}$	$N_{perm}$ [kN] = C20/25 <sup>4)</sup>	2.0	2.0	3.6	3.6	4.8	4.8	7.9	7.9
	Pressure zone (uncracked concrete C20/25 <sup>4)</sup> , $s \geq 5 h_{ef}$ , $c \geq 2.5 h_{ef}$	$N_{perm}$ [kN] = C20/25 <sup>4)</sup>	4.8	4.8	6.3	6.3	7.9	7.9	11.9	11.9
Perm. central transverse load <sup>3)</sup> on a single anchor without edge influence	Tensile zone and pressure zone (cracked and uncracked concrete C20/25 <sup>4)</sup>	$V_{perm.}$ [kN] = C20/25 <sup>4)</sup>	3.3	4.2	5.3	4.3	6.1	5.5	13.5	16.9
	Cotter-pin mounting Through-bolt mounting									
Permissible bending torque Cotter-pin mounting Through-bolt mounting		$M_{perm.}$ [Nm]	4.9	16.1	12.0	25.3	23.9	39.9	41.9	109.3
Fire-resistance duration Permissible load under fire load (R30, R60, R90, R120) see European Technical Approval ETA-99/0011										
Fire-resistance duration	$F30 \leq$ [kN]		8.0	8.0	10.0	10.0	16.0	16.0	22.0	22.0
	$F60 \leq$ [kN]		2.5	2.5	3.5	3.5	8.0	8.0	11.0	11.0
	$F90 \leq$ [kN]		1.3	1.3	1.8	1.8	5.3	5.3	7.3	7.3
	$F120 \leq$ [kN]		0.8	0.8	1.2	1.2	4.0	4.0	5.5	5.5

Characteristic values										
Minimum component thickness	$d \geq$ [mm]		100	100	120	120	130	130	160	160
Minimum axial spacing Cracked concrete Uncracked concrete	$s_{min} \geq$ [mm]		50	50	60	60	70	65	80	80
	for $c \geq$ [mm]		60	80	80	100	100	120	120	160
Minimum edge spacing Cracked concrete Uncracked concrete	$c_{min} \geq$ [mm]		50	50	60	60	70	70	80	100
	for $s \geq$ [mm]		75	115	100	155	100	170	120	210
Effective anchoring depth	$h_{ef}$ [mm]		45	45	58	58	65	65	80	80
Nom. drill dia.	$d_0$ [mm]		8	8	10	10	12	12	16	16
Drill cutting dia.	$d_{cut} \leq$ [mm]		8.45	8.45	10.45	10.45	12.5	12.5	16.5	16.5
Drill hole depth	$h_1 \geq$ [mm]		60	60	75	75	90	90	105	105
Min. screw-in depth threaded rod	$L_{sd} \geq$ [mm]		9	9	12	12	15	15	18	18
Torque while installing anchor	$T_{inst}$ [Nm]	Type S	15	15	40	40	50	50	100	100
		Type SK	12	12	25	25	45	45	60	60
		Type B	8	8	25	25	40	40	80	80
Through-hole in attachment part Cotter-pin mounting Through-bolt mounting	$d_f \leq$ [mm]		7	9	9	12	12	14	14	18

## Würth System Components



- 1) Please order the bolts and nuts listed separately - they will be delivered with the related washers and counter-sunk washers.
- 2) Threaded rods with acceptance test certificate 3.1 as per Approval ETA-99/0011 in acc. with DIN 976-1 - Mechanical properties in acc. with DIN EN ISO 3506-1. Please order separately.
- 3) 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.
- 4) The concrete has normal reinforcement. Higher values are possible for higher concrete strengths.