

W-VIZ-IG/S INJECTION SYSTEM, M12 TO M20

23.3

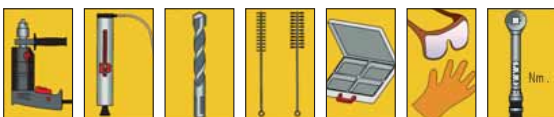
Performance data				M12	M12	M12	M16	M16	M20
Female thread [mm]				$h_{ef} 90$	$h_{ef} 105$	$h_{ef} 125$	$h_{ef} 115$	$h_{ef} 170$	$h_{ef} 170$
Permissible centric tensile load ¹⁾ on a single anchor without edge influence	Tensile zone (cracked concrete C20/25 ²⁾ , $s \geq 3 h_{ef}$, $c \geq 1.5 h_{ef}$)	$N_{perm.} [kN] = C20/25^2$	50 ° C ³⁾ / 80 ° C ⁴⁾	14.6	18.4	24.0	21.1	38.0	38.0
			72 ° C ³⁾ / 120 ° C ⁴⁾	9.5	14.3	23.8	14.3	28.6	35.7
	Pressure zone (uncracked concrete C20/25 ²⁾) Minimum axial and edge spacing ($s \geq 3 h_{ef}$, $c \geq 1.5 h_{ef}$)	50 ° C ³⁾ / 80 ° C ⁴⁾	20.5	25.8	31.9	24.8	53.2	51.4	
		72 ° C ³⁾ / 120 ° C ⁴⁾	11.9	16.7	23.8	19.1	35.7	45.2	
Permissible transverse load ¹⁾ on a single anchor without edge influence	Tensile zone (cracked concrete C20/25 ²⁾ , $c \geq 10 h_{ef}$)	$V_{perm.} [kN] = C20/25^2$		19.4	19.4	19.4	14.9	36.0	30.9
	Pressure zone (uncracked concrete C20/25 ²⁾ , $c \geq 10 h_{ef}$)			19.4	19.4	19.4	14.9	36.0	30.9
Permissible bending torque			$M_{perm.} [Nm]$	60.0	60.0	60.0	121.1	152.0	296.6

Characteristic values													
Minimum component thickness	$h_{min} \geq [mm]$	130	150	170	160	230	230	230	230	230	230	230	230
Minimum axial spacing	$s_{min} \geq [mm]$	50	50	50	60	60	60	80	80	80	80	80	80
Cracked concrete		Uncr. concrete	50	50	50	60	60	60	80	80	80	80	80
Minimum edge spacing	$c_{min} \geq [mm]$	50	50	50	60	60	60	80	80	80	80	80	80
Cracked concrete		Uncr. concrete	50	50	50	60	60	60	80	80	80	80	80
Axial spacing	$s_{cr,N} [mm]$	270	315	375	345	510	510	510	510	510	510	510	510
Edge spacing	$c_{cr,N} [mm]$	135	157.5	187.5	172.5	255	255	255	255	255	255	255	255
Effective anchoring depth	$h_{ef} [mm]$	90	105	125	115	170	170	170	170	170	170	170	170
Nom. drill dia.	$d_0 [mm]$	18	18	18	22	24	24	24	24	24	24	24	24
Drill hole depth	$h_0 \geq [mm]$	98	113	133	120	180	180	180	180	180	180	180	180
Through-hole in the component being connected	$d_f \leq [mm]$	14	14	14	18	18	18	18	18	18	18	18	18
Torque while installing anchor	$T_{inst} \leq [Nm]$	25	25	25	50	50	50	50	50	50	50	50	50
Cleaning brush dia.	$D \geq [mm]$	19	19	19	23	25	25	25	25	25	25	25	25

Drill hole cleaning		M12: Blow out 2x, brush out mechanically 2x, blow out 2x / M16 – M20: Blow out with compressed air (6 bar) 2x, brush out mechanically 2x, blow out with compressed air (6 bar) 2x				
Cleaning Brush (Steel)	Art. No. P.Qty = 1	0905 499 004	0905 499 007	0905 499 005	0905 499 006	
Machine Mount	Art. No. P.Qty = 1	Hexagon: Art. No. 0905 499 101/SDS-plus Mount: Art. No. 0905 499 102				
Extension	Art. No. P.Qty = 1	0905 499 111				
Brush Template	Art. No. P.Qty = 1	0905 499 099				
Blow-Out Pump/Compressed-Air Nozzle designed for Art. No. 0714 92 13	Art. No. P.Qty = 1	Blow-Out Pump: Art. No. 0903 990 001		Compressed-Air Nozzle ⁶⁾ : Art. No. 0905 499 201		

Anchor dimensions							
W-VIZ-IG/S	Dia.	M12			M16		M20
Effective anchoring depth	$h_{ef} [mm]$	90	105	125	115	170	170
Total length	$l [mm]$	94	109	130	120	180	182
Thread length	$l_{th} [mm]$	24	24	24	32	32	40
Minimum screw-in depth	$l_{smin} [mm]$	14	14	14	18	18	22
Designation	W-VIZ-IG/S	90 M12 x 94	105 M12 x 109	125 M12 x 130	115 M16 x 120	170 M16 x 180	170 M20 x 182
W-VIZ-IG/S Female-Thread Anchor Galvanized steel	Art. No.	5916 112 094	5916 112 109	5916 112 130	5916 116 120	5916 116 180	5916 120 182
Packing unit	P.Qty.	10	10	10	5	5	5
WIT-VM 100 Mortar Cartridge		Mortar Cartridge, 330 ml (incl. 1 static mixer) Art. No. 0905 440 003				P.Qty. = 1/12	
Number of attachment points/cartridges	Approx. qty.	18	16	14	10	6	6
Static Mixer	Art. No. P.Qty = 10	0903 420 001					
Extension for static mixer	Art. No. P.Qty = 10	0903 420 004					

Würth system components



¹⁾ The part safety coefficients of the resistances regulated in the approval and a part safety coefficient of the effects of $\gamma_T = 1.4$ 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⁾ Maximum long-term temperature.

⁴⁾ Maximum short-term temperature.

⁵⁾ The back of the concrete component must be checked to ensure that no chipping has occurred during drilling (see ETA-04/0094).

⁶⁾ Compressed-air nozzle designed for Blow-Out Gun Art. No. 0714 92 13