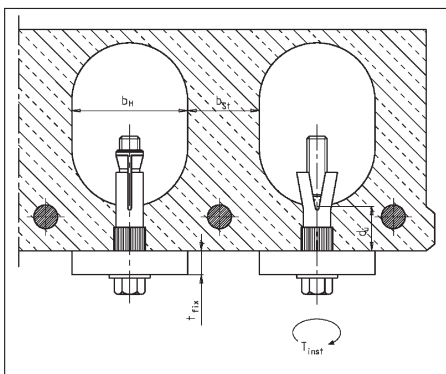
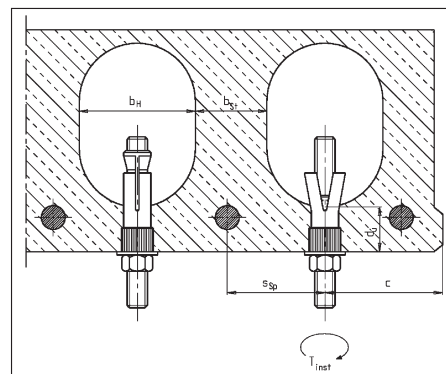


Performance data (fire resistance R30, R60, R90, R120 see Fire Prot. Test Report No. 3526/3426) and universal building inspection accreditation No. Z-21.1-1832																		
Anchor diameter [mm]		M 6				M 8				M 10				M 12				
Mirror thickness	$d_u \geq$ [mm]	25	30	40	50	25	30	40	50	25	30	40	50	25	30	40	50	
Axial spacing between individual anchors or anchor pairs	$s_{cr} \geq$ [mm]	300																
Individual anchors																		
Permissible load Tensile, transverse and oblique pull at every angle	Permissible load ¹⁾²⁾ Hollow prestr. concrete plates Edge spacing $c_{cr} \geq 150$ mm Axial spacing $s_{cr} \geq 300$ mm	F_{perm} [kN] \geq C45/55 ¹⁾²⁾	0.7	0.9	2.0	2.9	0.7	0.9	2.0	3.6	0.9	1.2	3.0	3.6	1.0	1.2	3.0	4.3
		$c_{cr} \geq$ [mm]	150															
	Permissible load ¹⁾²⁾ Hollow prestr. concrete plates Min. edge spacing $c_{min} \geq 100$ mm Axial spacing $s_{cr} \geq 300$ mm	F_{perm} [kN] \geq C45/55 ¹⁾²⁾	0.35	0.8	1.8	2.4	0.35	0.8	1.8	3.0	0.8	1.0	2.7	3.0	0.8	1.0	2.7	3.6
	$c_{min} \geq$ [mm]	100																
Anchor pair³⁾																		
Permissible load Tensile, transverse and oblique pull at every angle	Permissible load ¹⁾²⁾ Hollow prestr. concrete plates Edge spacing $c_{cr} \geq 150$ mm Min. axial spacing s_{min}	$F_{perm}/\text{anchor pair}$ [kN] \geq C45/55 ¹⁾²⁾	0.7	1.4	2.6	3.9	0.7	1.4	2.6	4.8	1.1	2.0	4.8	4.8	1.2	2.0	4.8	5.7
		$s_{min} \geq$ [mm]	70	80	100	100	70	80	100	100	70	80	100	100	70	80	100	100
		$c_{cr} \geq$ [mm]	150															
	Permissible load ¹⁾²⁾ Hollow prestr. concrete plates Min. edge spacing $c_{min} \geq 100$ mm Min. axial spacing s_{min}	$F_{perm}/\text{anchor pair}$ [kN] \geq C45/55 ¹⁾²⁾	0.35	1.25	2.35	3.2	0.35	1.25	2.35	4	0.9	1.8	4.3	4.3	1	1.8	4.3	4.8
	$s_{min} \geq$ [mm]	70	80	100	100	70	80	100	100	70	80	100	100	70	80	100	100	
	$c_{min} \geq$ [mm]	100																
Perm. bending torque Str. class 5.8	M_{perm} [Nm]	– 10.7 21.4 37.4																
Perm. bending torque Str. class 8.8	M_{perm} [Nm]	4.4 17.1 34.2 59.8																

Characteristic Values		M 6				M 8				M 10				M 12			
Nom. drill dia.⁴⁾	d_o [mm]	10				12				16				18			
Drill cutting dia.⁴⁾	$d_{cut} \leq$ [mm]	10.45				12.5				16.5				18.5			
Drilling hole depth	h_o [mm]	50				55				60				70			
Length of anchor in concrete	h_{nom} [mm]	40				45				53				58			
Through-hole in component to be connected	$d_f \leq$ [mm]	7				9				12				14			
Installation torque	$T_{inst} =$ [Nm]	10				20				30				40			

Anchor dimensions		M 6				M 8				M 10				M 12			
W-HD																	
Sleeve length	l [mm]	30				35				40				45			
Screw length	$min l_s$ [mm]	$42 + t_{fix}$				$47 + t_{fix}$				$55 + t_{fix}$				$61 + t_{fix}$			
Threaded bolt length	$min l_b$ [mm]	$47 + t_{fix}$				$53 + t_{fix}$				$63 + t_{fix}$				$71 + t_{fix}$			
Designation		W-HD M6				W-HD M8				W-HD M10				W-HD M12			
W-HD Hollow-Ceiling Anchor galvanised steel	Art. No.	0905 120 601				0905 120 801				0905 121 001				0905 121 201			
Packing unit	P. Qty.	50				50				50				25			

Use with screw

Use with threaded rod

Legend:

- t_{fix} = thickness of the add-on part
- d_u = mirror thickness
- b_H = hollow-space width
- b_{St} = web width
- s_{Sp} = axial spacing to prestressed strand
- c = edge spacing
- T_{inst} = installation torque

¹⁾ When introducing external loads via anchors in the hollow prestressed concrete plate ceiling, the shear carrying capacity must be reduced. When fastening light ceiling coverings and joist constructions pursuant to DIN 18168-1:1981-10, this reduction is not necessary.

²⁾ For an edge spacing $c_{min} \leq c \leq c_{cr}$, the permissible loads may be determined via linear interpolation.

³⁾ The permissible loads apply for the anchor pair. The permissible load for the anchor with the greatest load may not exceed the values specified for the individual anchors. For anchors of an anchor pair with axial spacing of $s_{min} \leq s \leq s_{cr}$, the permissible load may be linearly interpolated, whereby twice the permissible load for individual anchors may be applied for the anchor pair with centric load introduction for the limit value when $s = s_{cr}$.

⁴⁾ The carbide masonry drills must comply with the specifications of the information leaflet of the "Deutsches Institut für Bautechnik" (German Institute for Building Technology) and the "Fachverband Werkzeugindustrie e.V." (Professional Association of the Tool Industry) on the "Characteristics, requirements and tests of masonry drills with carbide cutting bodies used for producing drilled holes of dowel anchorings". Würth hammer drills meet the stipulations of the code of practice.

Würth System Components
