HUS3 (H,C,A,I,I-Flex,HF) Screw anchor

Static and quasi-static loading data (for a single anchor in permanent application)

All data in this section applies to:

- Correct setting (See setting instruction)
- No edge distance and spacing influence
- *Steel* failure
- Minimum base material thickness
- Concrete C 20/25, $f_{ck,cube}$ = 25 N/mm²

Anchorage depth

Anchor size		6		8			10			14		
Type	HUS3-	H,C,A,	P,PS	H,C,HF			H,C,HF			H,HF		H
Nominal embedmenth depth	h_{nom} [mm]	h_{nom1}	h_{nom2}	h_{nom1}	h_{nom2}	h_{nom3}	h_{nom1}	h_{nom2}	h_{nom3}	h_{nom1}	h_{nom2}	h_{nom3}
		55	55	50	60	70	55	75	85	65	85	115

Recommended Loads: (1)

Anchor size		6		8			10			14		
Type	HUS3-	H,C,A,	P,PS, PL	H,C,HF			H,C,HF			H,HF		H
Non-cracked concrete												
Tension N_{Rd}	[kN]	3,6	3,0	4,3	5,7	7,6	5,7	9,5	13,2	8,3	13,0	21,2
Shear V_{Rd}	[kN]	*6,0*	*6,0*	6,1	*9,0*	*10,5*	6,5	*14,3*	*16,2*	16,6	*26,0*	*29,5*
Cracked concrete												
Tension N_{Rd}	[kN]	2,4	2,4	2,9	4,3	5,7	4,6	7,7	9,4	5,9	9,3	15,1
Shear V_{Rd}	[kN]	*6,0*	*6,0*	4,3	*9,0*	*10,5*	4,6	*14,3*	*16,2*	11,9	*18,5*	*29,5*

(1) *With overall partial safety factor for action = 1,4. The partial safety factors for action depend on the type of loading and shall be taken from national regulations.*

Basic loading data for temporary application in standard and fresh concrete <28 days old, $f_{ck,cube} \geq 10$ N/mm²

All data in this section applies to the following conditions:

- Strength class, $f_{ck,cube} \geq 10$ N/mm²
- Only temporary use
- Screw is reusable, before each usage it must be checked according to Hilti instruction for use with the suited tube Hilti HRG
- Design resistance and recommended loads are valid for single anchor only
- Design resistence as well as recommended loads are valid for all load directions and valid for both cracked and non-cracked concrete
- Minimum base material thickness
- No edge distance and spacing influence
- Valid for HUS3-H only

Recommended Loads: (1)

			Hilti Tech. Data			DIBt approval Z-21.8-2018					
Anchor size		HUS3-H	8			10			14		
Nominal embedment depth	h_{nom}	[mm]	50	60	70	55	75	85	65	85	115
Cracked and non-cracked concrete											
Tensile N_{rd} = Shear V_{rd}	$f_{ck,cube} \geq 10$ N/mm²	[kN]	1,8	2,3	3,4	2,4	3,8	4,5	3,1	5,0	8,8
	$f_{ck,cube} \geq 15$ N/mm²	[kN]	2,2	2,9	4,1	2,9	4,6	5,5	3,8	6,1	10,7
	$f_{ck,cube} \geq 20$ N/mm²	[kN]	2,6	3,3	4,7	3,3	5,3	6,4	4,4	7,1	12,4