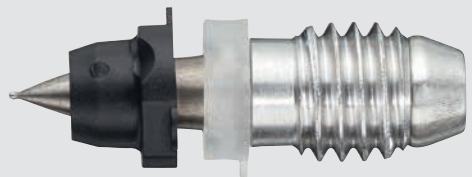




X-ST-GR DATA SHEET

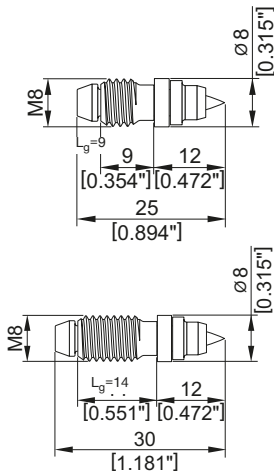
**Stainless steel threaded stud
for fastening to steel**



X-ST-GR Stainless steel threaded stud for fastening to steel

Product data

Dimensions



Material specifications

Shank: P558 (CrMnMo alloy)
 $f_u \geq 2000 \text{ N/mm}^2$

Threaded sleeve: A4 (AISI 316)

Washers: polyethylene

Recommended fastening tools

DX 6 F8, DX 5 F8, DX 460 F8, DX 76 PTR



• See fastener program in the next pages.

Approvals

ICC ESR-2347

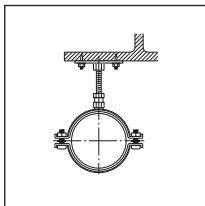
ABS



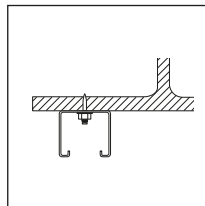
• Not all information presented in this product data sheet might be subject to approval/certificate content. Please refer to approval/certificate for further information.

Applications

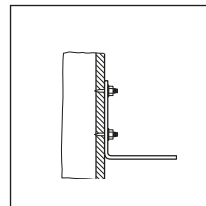
Examples



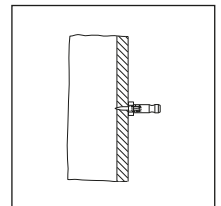
Base plates for pipe rings



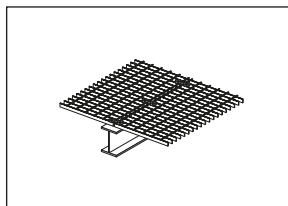
Installation rails



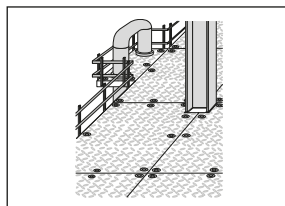
Facade brackets



Special purpose connections



Grating



Checker plate

Performance data

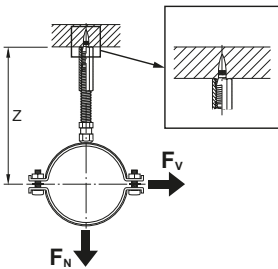
Recommended resistance under tension load, shear load and bending moment

N_{rec}	V_{rec}	M_{rec}
1.8 kN	1.8 kN	5.5 Nm

Condition:

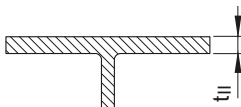
- For safety-relevant fastenings sufficient redundancy of the entire system is required.

Arrangements to reduce or prevent moment on shank



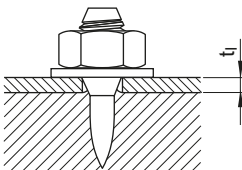
Application recommendation

Base material thickness



$$t_{II} \geq 6 \text{ mm}$$

Fastened material thickness

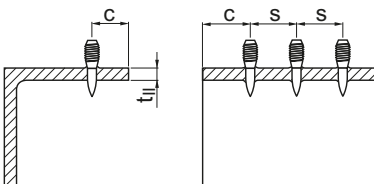


$$t_I \leq L_g - t_{\text{washer}} - t_{\text{nut}}$$

$$t_I \leq 10 \text{ mm for X-ST-GR M8/10 P8}$$

$$t_I \leq 5 \text{ mm for X-ST-GR M8/5 P8}$$

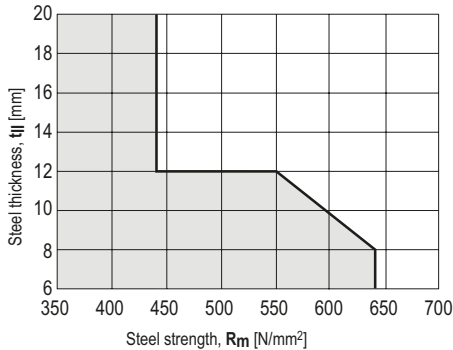
Fastener positioning in base material



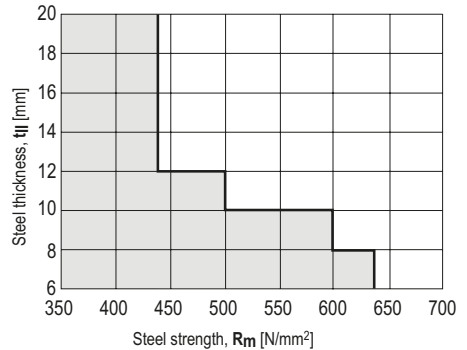
Edge distance: $c \geq 15 \text{ mm}$
 Spacing: $s \geq 15 \text{ mm}$

Application limit

Tool type: DX 6 F8, DX 5 F8, DX 460 F8



Tool type: DX 76 PTR



Corrosion information

- For fastenings exposed to outdoor environments in mildly corrosive conditions where HDG coated parts are commonly specified or used.
- Not for use in atmospheres with chlorides (marine atmospheres) or in heavily polluted environments (e.g. sulphur dioxide).
- For more details, please refer to following technical document: Hilti Corrosion Handbook.

System recommendation

- For more details, please refer to the chapter **Accessories and consumables compatibility** in the Direct Fastening Technology Manual (DFTM).

Cartridge recommendation

Base material		Cartridge color (tool power level)	
		Tool type: DX 6 F8	Tool type: DX 5 F8, DX 460 F8
		Cartridge type: 6.8/11 M	Cartridge type: 6.8/11 M
S235	$6 \leq t_{II} \leq 8$ mm	titanium ■ (4-6)	red ■ (1-3)
	$8 < t_{II} \leq 20$ mm	titanium ■ (5-8), black ■ (6-7)	black ■ (1-3)
S275	$6 \leq t_{II} \leq 12$ mm	titanium ■ (5-8), black ■ (6-7)	black ■ (1-3)
S355	$6 \leq t_{II} \leq 8$ mm	titanium ■ (5-8), black ■ (6-7)	black ■ (1-3)

Cartridge recommendation

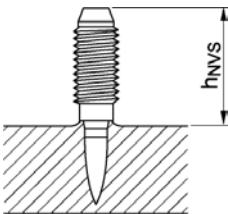
Base material		Cartridge color (tool power level)	
		Tool type: DX 76 PTR	
		Cartridge type: 6.8/18 M	
S235	$6 \leq t_{ } \leq 8 \text{ mm}$	yellow ■ (1-4)	
	$8 < t_{ } \leq 20 \text{ mm}$	yellow ■ (1-4)	
S275	$6 \leq t_{ } \leq 12 \text{ mm}$	yellow ■ (1-4), red ■ (1-2)	
S355	$6 \leq t_{ } \leq 8 \text{ mm}$	red ■ (1)	
	$8 < t_{ } \leq 10 \text{ mm}$	red ■ (1-2)	



- Tool power level adjustment by setting tests on site.
- Start tool energy selection with lowest recommended tool power level.
- Correct according requirement from chapter quality assurance.

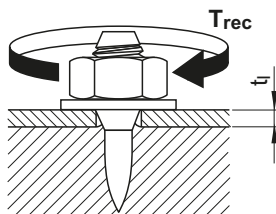
Quality assurance

Setting depth control



Designation	h_{NVS}
X-ST-GR M8/5 P8	12.0–15.0 mm
X-ST-GR M8/10 P8	17.0–20.0 mm

Installation information



Tightening torque:

$T_{rec} = 8.5 \text{ Nm}$

Fastener program

Item no. and description

Designation	Item no.	L_g
X-ST-GR M8/5 P8	2122209	9 mm
X-ST-GR M8/10 P8	2122460	14 mm