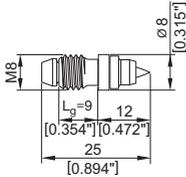


# X-ST-GR Stainless Steel Threaded Studs for Fastening to Steel

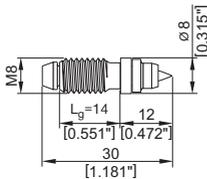
## Product data

### Dimensions

a) X-ST-GR M8/5 P8



b) X-ST-GR M8/10 P8



### General information

#### 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 460 with fastener guide X-5-460-F8N15

For co-acting use a ramrod with DX 460 (#6211)

DX 76 PTR with fastener guide X-76-F-8-GR-PTR

See **X-ST-GR fastener program** in the next pages and **Tools and equipment** chapter for more details.

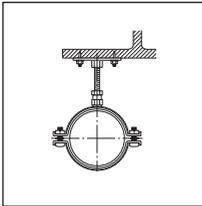
#### Approvals

ICC ESR-2347

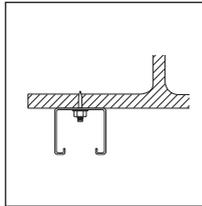
ABS

## Applications

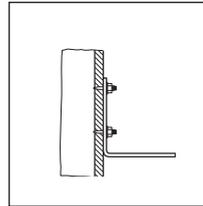
### Examples



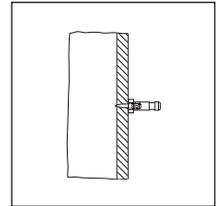
Base plates for pipe rings



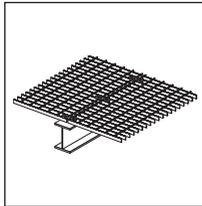
Installation rails



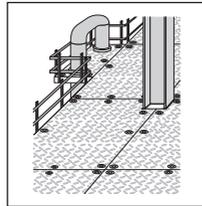
Facade brackets



Special purpose connections



Grating



Checker plate

## Load data

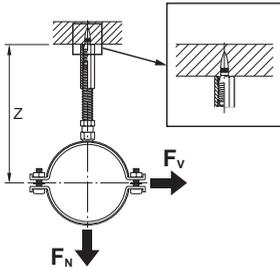
### Recommended loads

$N_{rec}$ [kN]	$V_{rec}$ [kN]	$M_{rec}$ [Nm]
1.8	1.8	5.5

### Condition:

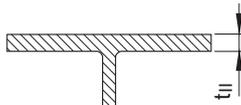
- For safety-relevant fastenings sufficient redundancy of the entire system is required.

Arrangements to reduce or prevent moment on shank:



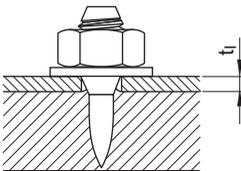
## Application requirements

### Thickness of base material



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

### Thickness of fastened material

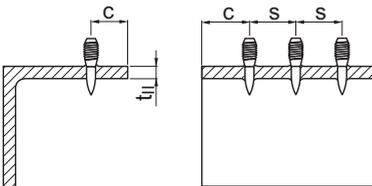


$$t_I \leq L_g - t_{\text{washer}} - t_{\text{nut}}$$

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

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

### Spacing and edge distances (mm)



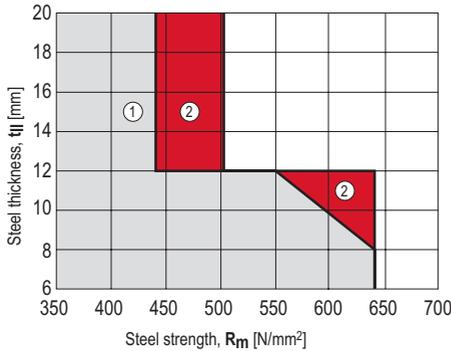
$$c, s \geq 15 \text{ mm}$$

**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).

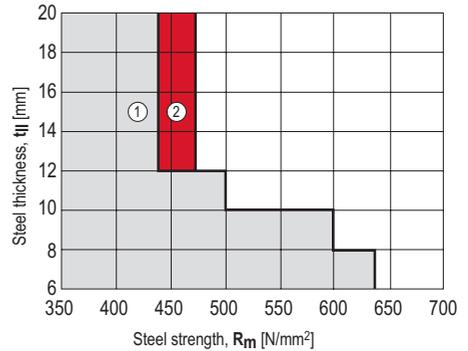
**Application limit**

**Steel: DX 460**



- ① **X-ST-GR / DX 460 (impact)**
- ①+② **X-ST-GR / DX 460 (co-acting)**

**Steel: DX 76 PTR**



- ① **X-ST-GR / DX 76 PTR (impact)**
- ①+② **X-ST-GR / DX 76 PTR (co-acting)**

**Fastener selection and system recommendation**

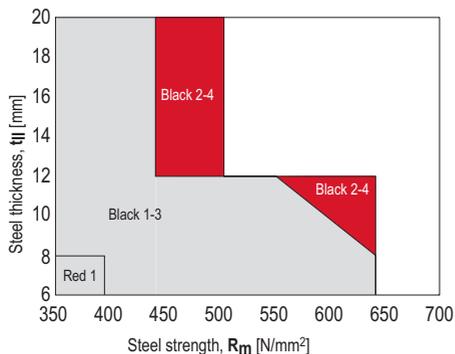
**Fastener program**

Designation	Item no.	L <sub>g</sub> [mm]
<b>X-ST-GR M8/5 P8</b>	2122209	9
<b>X-ST-GR M8/10 P8</b>	2122460	14

## Cartridge selection

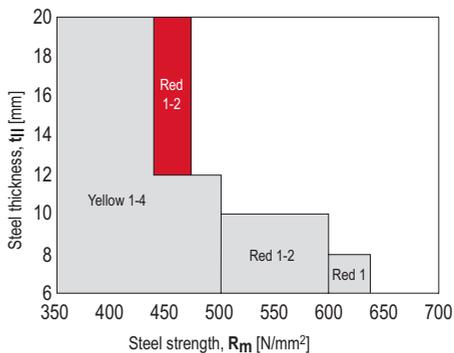
### DX 460

6.8/11M black or red cartridge



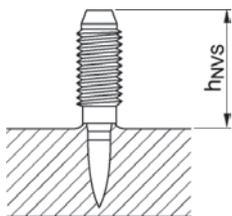
### DX 76 PTR

6.8/18M yellow or red cartridge



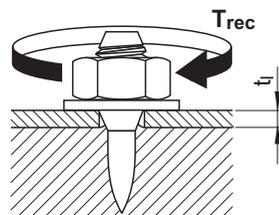
## Fastening quality assurance

### Fastening inspection



Fastener	$h_{NVS}$ [mm]
X-ST-GR M8/5 P8	12.0 – 15.0
X-ST-GR M8/10 P8	17.0 – 20.0

## Installation



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