

# HILTI

Hilti X-GR,  
X-GR RU, X-FCM  
grating fasteners



**Securely fastened.  
In seconds!**

**Hilti. Outperform. Outlast.**



## Applications

Fastening grating on steel structures for all types of facilities: refineries, chemical plants, offshore platforms, civil and industrial

## Advantages

- Convenient powder-actuated system for total mobility and independence from electric power supplies
- Full range of grating fasteners
  - Applications in all environments, from offshore platforms to factory floors
  - For permanent and/or removable grating
- Easy to install by a single user, from the top of the grating. No scaffold needed!
- Highly productive fasteners help reduce installation time and cost
- Durable and reliable
  - Available in various materials to meet your corrosion-resistance needs
  - Direct fastening solutions with proven vibration resistance

## Highlights

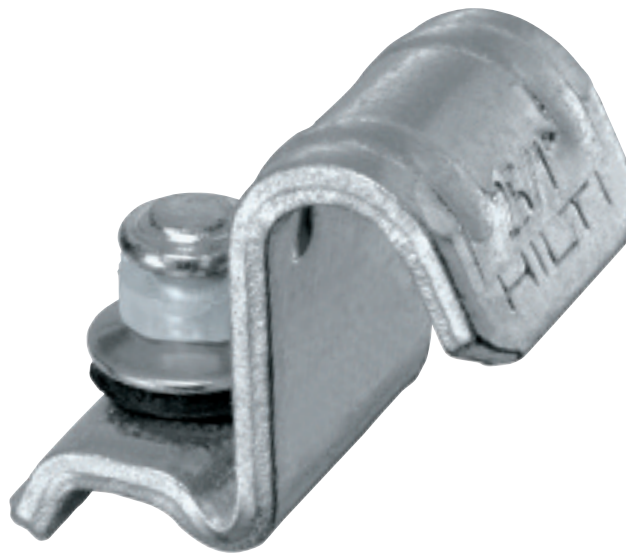
- Simple and efficient powder-actuated fastening systems for highly-productive and cost-competitive grating solutions
- Fasten grating plates with maximum reliability and safety

## Quick and secure. Anywhere. Fastening grating has never been easier.

A consistently high-performing Hilti solution, adapted to your project requirements.

Hilti's innovative and superior grating fastening systems help save time and cut costs.

Get the job done more quickly, more easily and more safely than ever before!



Independent of electric power supplies and heavy equipment, the Hilti X-GR RU grating fastener is fast, convenient and can be easily removed if required.

## X-GR RU

**Fast:** The pre-assembled saddle increases productivity while the fully automatic DX-460 GR drives up to 240 fasteners per hour!

**Convenient:** The grating height is indicated on the saddle wing of this removable and reusable fastener.

**Fastening quality:** Two support legs provide 90° fastening.



## X-GR

**Extremely fast:** In a one-step fastening process, a worker can achieve a rate of up to 600 permanent fastenings per hour, making welding a thing of the past.

**Convenient:** To help avoid incorrect use, the grating height is indicated on the top part of the fastener.

**Fastening quality:** The integrated washer helps eliminate any rattling while the newly designed A4 X-CR pin provides high load values and setting range.



## X-BT stud and X-FCM-R disc

**Durable and reliable:** The X-BT sealing washer helps prevent corrosion on the structure while the anti-rotation ribs allow the FCM disc to resist vibration.

**Efficient:** X-BT can be fastened to steel as thin as 8mm (5/16"), without through penetration, avoiding any need for repairs to coatings on the structure.



Welding is a thing of the past: the Hilti X-GR securely fastens grating in seconds!

**HILTI**

**2 Years**

**LIFETIME SERVICE**

**NO COSTS**

**Lifetime**

**Lifetime**

**REPAIR COST LIMIT**

**MANUFACTURERS WARRANTY**

Everything but business as usual: First-class service for all Hilti tools – for the entire life of the product!



## Downstream, civil and industrial facilities

These facilities are usually exposed to mildly corrosive atmospheres. The standard corrosion resistance of the grating fasteners is achieved by hot-dip galvanizing.

The new X-GR and X-GR RU fasteners were developed by Hilti especially for use in these environments. With newly designed pins made of A4 stainless steel (AISI 316) and duplex coated fastening components, they meet your individual needs perfectly.



## Offshore and highly corrosive industrial environments

In highly corrosive atmospheres such as in offshore facilities, safety is paramount, and corrosion resistance is an extremely important issue. Steel structures erected in these environments are coated, and A4 stainless steel material is very often required for fasteners.

Hilti X-BT is an innovative means of fastening on pre-painted steel without damaging the surface. The stainless steel X-BT is designed to work on construction steel as thin as 8 mm (5/16") without through penetration. In combination with X-FCM-R stainless steel disc, it's the perfect solution for fastening grating in these environments!



### Performance data

	X-GR RU	X-GR	X-BT and X-FCM-R disc
Material specification	A4 nail, other components are duplex coated		A4 stud and disc
Application environment	Outdoor, mildly corrosive, not for off-shore use		Off-shore use
Recommended tensile loads ( $N_{rec}$ )	0.8 kN	0.6 kN	1.0 kN
Grating heights	25 – 40 mm	25 – 40 mm	25 – 50 mm
Tightening torque	$T_{rec} = 3 - 5 \text{ Nm}$		$T_{rec} = 5 - 8 \text{ Nm}$
Recommended DX tool	DX 460-GR	DX 460-GR	DX 351-BTG
Recommended cartridge	black	black	brown high precision

# Hilti X-GR, X-GR RU, X-FCM grating fasteners

## Tool

Ordering designation	For use with	Quantity	Item no.
<b>X-BTG Set</b>	<b>M8</b>	<b>1</b>	<b>00305932</b>

Comprises: 1 DX 351 BT or BTG powder actuated tool, 1 BT cleaning kit, 1 X-BT 4000-A cordless drill, 1 charger, 2 batteries, 1 information sheet, 1 spray lube, 3 operating instructions, packed complete in a Hilti toolbox.



## Fasteners

### X-FCM-M retaining flange, duplex coated (Hot dip galvanised equivalent)

Fastener: X-CRM8-15-12 threaded stud, **stainless steel**

Application area: Indoors, mildly corrosive environment, or for limited lifetime use.  
Not for use in marine atmosphere or in heavily polluted environment.

Fastenable thickness	Ordering designation	Package contents	Item no.
25–30	<b>X-FCM-M 25/30</b>	100	<b>378683</b>
35–40	<b>X-FCM-M 35/40</b>	100	<b>378684</b>
45–50	<b>X-FCM-M 45/50</b>	100	<b>378685</b>

### X-FCM-R retaining flange, **stainless steel**

Fastener: X-CRM8-15-12 threaded stud, **stainless steel**

Application area: Marine, offshore, petrochemical, caloric (coal, oil) power plants, incineration plants, etc.  
Not for use in Automobile tunnels, swimming pools or similar environments.

Fastenable thickness	Ordering designation	Package contents	Item no.
25–30	<b>X-FCM-R 25/30</b>	100	<b>247181</b>
35–40	<b>X-FCM-R 35/40</b>	100	<b>247182</b>
45–50	<b>X-FCM-R 45/50</b>	100	<b>247183</b>

X-FCM-M

X-FCM-R



## Studs

### X-CRM8 threaded studs for fastening gratings

**Stainless steel**, 4 mm shank dia.

Fastenable thickness	Ordering designation	Thread length (mm)	Package contents	Item no.
DX460-GR DX76-F10				
●	<b>X-CRM8-15-12 P8</b>	15	100	<b>372033</b>

### X-BT Stainless Steel Threaded Studs

Ordering designation	Thread diameter	Thread length	Quantity	Item no.
<b>X-BT M8-15-6 SN12-R</b>	<b>M8</b>	<b>15</b>	<b>100</b>	<b>00377074</b>

Box comprises: 100 studs, 1 power regulation guide, 1 coating protector, 1 TX-BT step drill bit  
X-BT stainless steel threaded studs, also available without sealing washer



**A4  
316**

**A4  
316**

## Cartridges

Ordering designation	Quantity	Item no.
<b>6.8/11M "high precision*" brown cartridge</b>	<b>100</b>	<b>00377204</b>

\* "high precision" is a narrow energy band at a specific energy level



## Bits

### TX-BT Step Drill Bits

4 mm drill bit diameter, 7.2 mm drilling depth

Overall length (mm)	Package contents	Ordering designation	Item no.
<b>80</b>	10	<b>TX-BT 4/7 - 80 drill bit</b>	<b>00377079</b>
<b>110</b>	10	<b>TX-BT 4/7 - 110 drill bit</b>	<b>00377080</b>

150 mm length bits available upon request by special order



### Fastening tool

Ordering designation	Quantity	Item no.
DX-460 GR powder-actuated fastening tool	1	3043891

### X-GR fasteners

Ordering designation	Grating height (mm)	Height tolerances max. and min. (mm)	Quantity	Item no.
X-GR 25 CR16P8	25	23.6 - 26.8	100	384235
X-GR 30 CR16P8	30	28.6 - 31.4	100	384236
X-GR 35 CR16P8	35	33.6 - 36.4	100	384237
X-GR 40 CR16P8	40	38.6 - 41.4	100	384238
X-GR 1¼ CR16P8	32	30.4 - 33.1	100	385930
X-GR 1½ CR16P8	38	36.7 - 39.5	100	385931

### X-GR RU fasteners

Ordering designation	Grating height (mm)	Height tolerances max. and min. (mm)	Quantity	Item no.
X-GR RU 25-30 CR20P8	25-30	23.6 - 32.4	100	384239
X-GR RU 35-40 CR20P8	35-40	33.6 - 42.4	100	384240
X-GR RU 1¼ CR20P8	27-32	25.6 - 34.0	100	385932

### Cartridges

6.8/11M calibre, Red	100	050353
6.8/11M calibre, Black	100	050354

### Accessories

Ordering designation	Quantity	Item no.
X-460-F8GR grating baseplate	1	386012
X-460-TGR grating fastener guide	1	386124
X-460-PGR grating piston	1	305448
S-B HEX6 bit	10	385928
Centering Device 25 mm x 25 mm, X-460F8 GR-CD 25		386010
Centering Device 30 mm x 30 mm, X-460F8 GR-CD 30		386011



## Hilti. Outperform. Outlast.

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