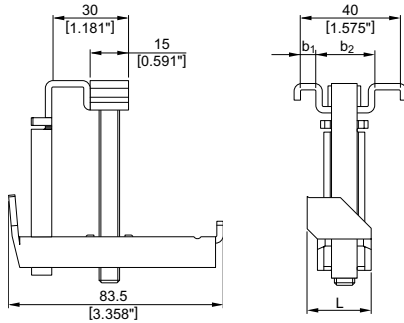


X-MGR Grating Fastening System

Product data

Dimensions



General information

Material specifications

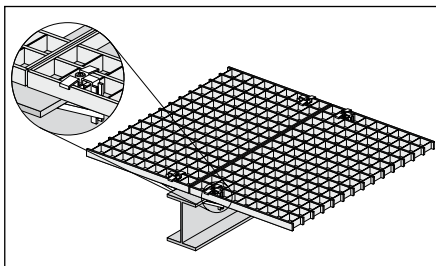
- Screw:
- Carbon steel
 - Zinc coating: 60 µm HDG
- Upper part:
- Carbon steel: SPCC-S
 - Zinc coating: 65 µm HDG
- Bottom part:
- Carbon steel: SPCC-S
 - Zinc coating: 65 µm HDG
- Nut:
- Carbon steel
 - Zinc coating: 45 µm HDG
- Nut-holder:
- Stainless steel: SS304

Recommended fastening tools

SF 121-A, SF150-A, SF 14, SFC 14-A , SF 18-A, SFC 18-A, SF 22-A

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

Application



Fixing of grating

For fastenings exposed to weather and mildly corrosive conditions.

Not for use in marine atmospheres (upstream)!

Load data

Recommended tensile loads N_{rec} [kN]

$N_{rec} = 0.6 \text{ kN (135 lb)}$

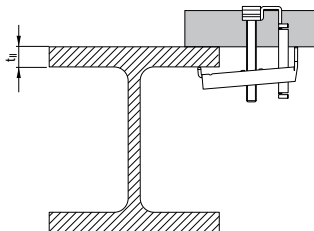
Notes/Conditions:

- Tensile loading is limited by plastic deformation of the saddle clip
- X-MGR resists shear by friction and is not suitable for explicit shear load designs

Application requirements

Thickness of base material

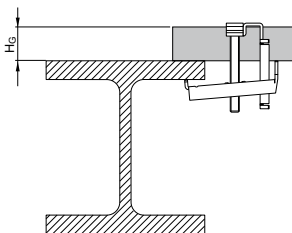
$t_{II} = 3 - 25 \text{ mm (0.118 - 0.984")}$



Thickness of fastened material

Grating height:

$H_G = 25 - 40 \text{ mm (0.98" - 1.57")}$

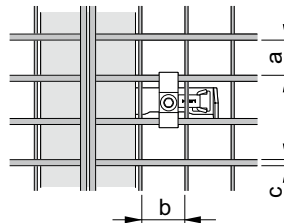


Total fastening height

$H_G + t_{II} \leq 65 \text{ mm (2.56")}$

Grating opening types

Fastener	a mm (inch)	b mm (inch)	c mm (inch)
X-MGR M60	30 (1.18")	≥ 30 (1.18")	≤ 3 (0.118")
X-MGR W60	25 (0.98")	≥ 30 (1.18")	≤ 4.8 ($\frac{3}{16}$ ")



Spacing and edge distances

No general restriction exists.

Corrosion information

For fastenings exposed to weather and mildly corrosive conditions. **Not for use in marine atmosphere (Upstream)** or in heavily polluted environment.

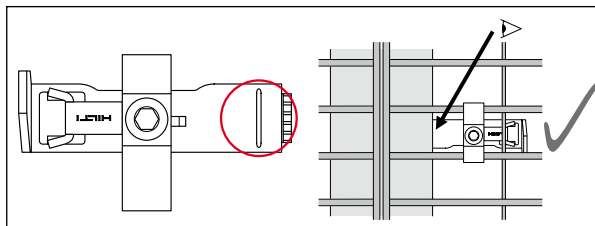
Fastener selection and system recommendation

Fastener program

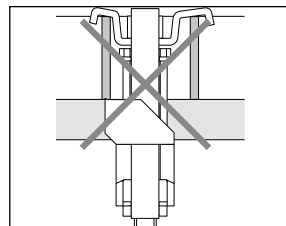
Fastener	Item-no.	b ¹	b ²	L	Steel flange thickness	Grating height	Fastening tool
		mm (inch)	mm (inch)	mm (inch)	t _{fl} mm (inch)		
X-MRG-M60	384233	4 (0.16")	20 (0.79")	29 (1.14")	3–25 (0.12"–0.98")	25–40 (0.98"–1.57")	SF 121-A, SF 150-A
X-MRG-W60	384234	6 (0.24")	24 (0.94")	25 (0.98")	3–25 (0.12"–0.98")	25–40 (0.98"–1.57")	SF 121-A, SF 150-A

Fastening quality assurance

Fastening inspection



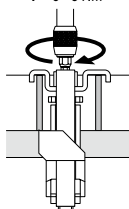
The sign on the clip has to be positioned under the steel flange



The saddle of the fastener should not be bent, see installation instructions below.

Tighten the screw

T = 5 - 8 Nm



T_{rec} = 5–8 Nm (3.7–5.9 ft-lb)

Hilti screwdriver

Torque setting

SF 121-A	6–10
SF 150-A	5–8
SF 14	5–8
SFC 14-A	6–10
SF 18-A	5–8
SFC 18-A	5–8
SF 22-A	5–8