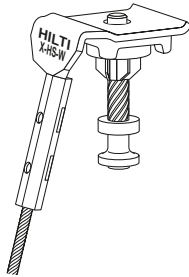


X-HS-W Wire hanging system

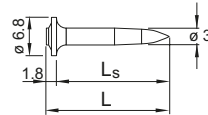
Product data

Fasteners/Components Overview

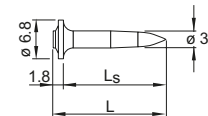
Pre assembled



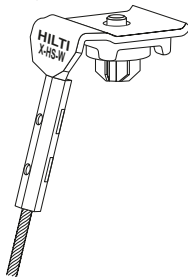
X-GHP 20/24



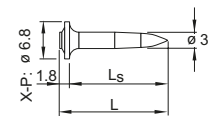
X-P 20/24 G3 MX



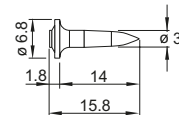
Magazined



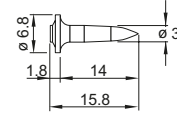
X-P 20/24 B3 MX



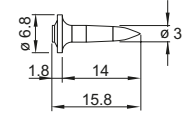
X-EGN 14



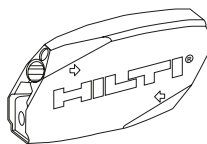
X-S 14 G3 MX



X-S 14 B3 MX



Locking Mechanism



General information

Material specifications

X-HS-W:
Zinc coating $\geq 2.5 \mu\text{m}$

Recommended fastening tools

DX 460F8, DX 5 F8, DX 351 F8, GX 120 ME,
GX 3 ME, BX 3 ME

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

Approvals

CSTB AT 3/09-639 X-HS-W

Applications

Examples



Round Air Ducts



Square Air Ducts



Light weight Cable Trays / Lights

Load data
Recommended loads
DX Standard for concrete

Fastener designation	N_{rec} [kN]	V_{rec} [kN]	h_{ET} [mm]
X-HS-W U27	0.20	0.3	22
X-HS-W U22	0.15	0.2	18
X-HS-W MX with X-P 20/24 G3 MX, X-P 20/24 B3 MX, X-GHP 20/24 MX	0.05	0.1	14

Conditions:

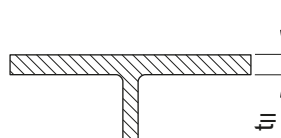
- Minimum 5 fastenings per fastened unit (normal weight concrete).
- All visible failures must be replaced.
- Predominantly static loading.
- Observance of all application limitations and recommendations.

DX Standard for steel

Fastener designation	N_{rec}	V_{rec}
X-HS-W U16	0.90	0.90
X-HS-W MX with X-S 14 G3 MX, X-S 14 B3 MX, X-EGN 14 MX	0.45	0.45

Conditions:

- Predominantly static loading.
- Observance of all application limitations and recommendations.

Application requirements
Thickness of base material
Concrete
X-U: $h_{min} = 80 \text{ mm}$
X-P G3 MX, X-P B3 MX
X-GHP MX $h_{min} = 60 \text{ mm}$
Steel
 $t_{II} \geq 4 \text{ mm}$


Spacing and edge distances

Spacing and edge distances depending on job site requirements.

Corrosion information

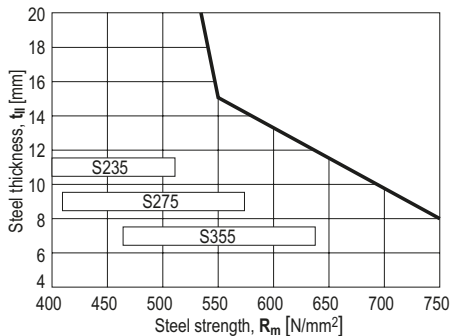
These zinc-coated fasteners are not suitable for long-term service outdoors or in otherwise corrosive environments.

For further detailed information on corrosion see relevant chapter in **Direct Fastening Principles and Technique** section.

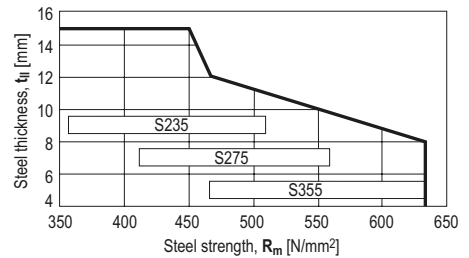
Application limits

Steel

X-HS-W MX with X-S 14 G3 MX, X-S 14 B3 MX, X-EGN 14 MX



X-HS-W U16 P8



Fastener selection: Order information

Fastener		Designation	Item no.
X-HS-W	For DX tools	X-HS-W U16 P8 1m/3ft	387430
		X-HS-W U22 P8 1m/3ft	387431
		X-HS-W U27 P8 1m/3ft	387432
		X-HS-W U16 P8 2m/7ft	387919
		X-HS-W U22 P8 2m/7ft	387920
		X-HS-W U27 P8 2m/7ft	387921
		X-HS-W U16 P8 3m/10ft	387433
		X-HS-W U22 P8 3m/10ft	387434
		X-HS-W U27 P8 3m/10ft	387435
X-HS-W	For GX tools and BX tools	X-HS-W MX 1m/3ft	387436
		X-HS-W MX 2m/7ft	387922
		X-HS-W MX 3m/10ft	387437

System recommendation

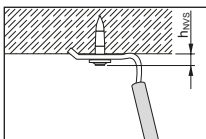
DX tools: Steel: **6.8/11M red cartridge** for $t_{ij} \geq 6$
6.8/11M green cartridge for $t_{ij} < 6$
Concrete: **6.8/11M green or yellow cartridge** on soft and tough concrete
6.8/11M red cartridge on very tough concrete

GX 120-ME tool: **gas can GC 20, GC21 and GC22**

GX 3 ME tool: **gas can GC 40, GC 41 and GC 42**

BX 3-ME tool: **no gas can required**

Tool energy adjustment by setting tests on site.

Fastening quality assurance
X-HS-W


$h_{NVS} = 5.5-8.5 \text{ mm}$

NO LIFTING

Do not use for lifting, such as in a crane or pulley situation.

NO MOVEMENT

Hilti hangers are to be used to suspend stationary loads only. Do not use to suspend moving services, or services likely to be subject to movement.

NO JOINING

Hilti hangers must not be used as an in-line joint using a Hilti fastener, or any other joining device. A Hilti hanger assembly must comprise one length of cable and one Hilti fastener only. If a longer length is needed, do not join two assemblies together.