



# Hilti X-U Nails

## Submission Folder

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## Universal nail X-U

### APPLICATIONS

- All fastenings on concrete (soft / medium / hard) or steel
- Setting up forming boards and safety barriers

### ADVANTAGES

- One nail for almost any application
- Fully-knurled point for higher application limits on steel and suitability for use on hard concrete

### Technical data

<b>Point type</b>	Ballistic, Entirely knurled
<b>For use with</b>	DX 2, DX 351, DX 5

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## Universal nail for steel X-U P8

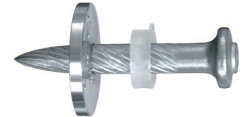


Ordering designation	Fastener shank length	Fastener shank diameter	Sales pack quantity	Item number
X-U 15 P8 TH	15 mm	4 mm	100 pc	237328 <sup>1)</sup>
X-U 16 P8	16 mm	4 mm	100 pc	237330

<sup>1)</sup> For detailed stock availability and lead time information please contact your Hilti representative.

Please visit Hilti website for the latest item numbers and related products

## Universal nail with steel washer X-U P8 S



Ordering designation	Shank length	Shank diameter	Washer diameter	Sales pack quantity	Item number
X-U 16 P8 S23	16 mm	4 mm	23 mm	500 pc	3450949

Please visit Hilti website for the latest item numbers and related products

## Powder-actuated tool DX 5 **NEW**



### APPLICATIONS

- Fastening wood to concrete, sand-lime block or steel
- Fastening sheet metal to concrete, sand-lime block or steel
- Attaching drainage foils and membranes to concrete or CMU block
- Installing wall or brick ties
- Fastening various items such as cable conduits and cable ties to steel and concrete in electrical installation work

### ADVANTAGES

- Easy to use and maintain
- Compact, sleek design allows access in narrow spaces
- Ergonomically designed grip and tool nose
- Maximum nail length 62 mm, or 72 mm for wood-to-concrete applications

### Technical data

<b>Power (max.)</b>	325 J
<b>Weight</b>	3.37 kg
<b>Base materials</b>	Concrete, Steel
<b>Automatic piston return</b>	Yes
<b>Noise (pressure) level at work station: LpA, 1s<sup>1)</sup></b>	101 dB (A)
<b>Dimensions (LxWxH)</b>	478 x 72 x 180 mm
<b>Max. fastener driving rate</b>	450 / h
<b>Cartridge type</b>	6.8/11 M10
<b>Fastener intake</b>	Single
<b>Fastener length range</b>	12 - 72 mm

<sup>1)</sup> Declared measured values of noise characteristics according to 2006/42/EC Machinery Directive in conjunction with E DIN EN 15895



Fleet Management



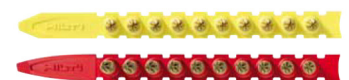
Ordering designation	Package contents	Sales pack quantity	Item number
DX 5 F8	1x Basic unit DX 5_01, 1x Fastener guide X-5-460-F8 assy, 1x Piston X-5-460-P8, 1x Cleaning kit X-5-460-Clean, 1x Case	1 pc	3612972

Please visit Hilti website for the latest item numbers and related products

## DX cartridge 6.8/11 M10

### APPLICATIONS

- For use with DX 2, DX 5, DX 460, DX 351, DX 450, DX 36, DX A40, DX A41








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Ordering designation	Cartridge type	Cartridge power level	Sales pack quantity	Item number
6.8/11 M10 red	.27 calibre short	Heavy	100 pc	416474
6.8/11 M10 yellow	.27 calibre short	Medium-light	100 pc	416473

Please visit Hilti website for the latest item numbers and related products

## Accessories for DX 460 &amp; DX 5

Ordering designation		Sales pack quantity	Item number
Buffer X-5-460-B		1 pc	373330 <sup>1)</sup>
Fastener guide X-5-460-F10		1 pc	373319 <sup>1)</sup>
Fastener guide X-5-460-F8		1 pc	304529
Fastener guide X-5-460 F8GR		1 pc	386012 <sup>1)</sup>
Fastener guide X-5-460 F8N15		1 pc	304530 <sup>1)</sup>
Fastener guide X-5-460-F8S12		1 pc	373317 <sup>1)</sup>
Fastener guide X-5-460-F8SS		1 pc	373318 <sup>1)</sup>
Piston X-5-460-P10		1 pc	373300 <sup>1)</sup>
Piston X-5-460-P8		1 pc	373297
Piston X-5-460-P8W		1 pc	373298 <sup>1)</sup>
Piston X-5-460-PGR		1 pc	305448 <sup>1)</sup>
Protective cap X-SGF		1 pc	304416
Washer holder X-5-460-WH23/36 packed		1 pc	373331 <sup>1)</sup>
Pole Tool X-PT 7ft for DX 5		1 pc	3579594
Receptacle X-PT 5 assy		1 pc	2150263
Cleaning kit DX-5-460		1 pc	372810

<sup>1)</sup> For detailed stock availability and lead time information please contact your Hilti representative.

Please visit Hilti website for the latest item numbers and related products

## Powder-actuated tool DX 351



### APPLICATIONS

- Quick and convenient for fastening applications such as drywall track attachment, electrical, plumbing and HVAC installation work
- Installing threaded studs to concrete or steel
- Fastening suspended ceilings

### ADVANTAGES

- Automatic piston return and cartridge advance
- Very user-friendly: light, low recoil, low noise
- Pole tool available for overhead applications



Fleet Management

### Technical data

<b>Power (max.)</b>	245 J
<b>Weight</b>	2.2 kg
<b>Base materials</b>	Concrete, Steel
<b>Automatic piston return</b>	Yes
<b>Noise (pressure) level at work station: LpA, 1s<sup>1)</sup></b>	99 dB (A)
<b>Dimensions (LxWxH)</b>	404 x 56 x 164 mm
<b>Max. fastener driving rate</b>	700 / h
<b>Cartridge type</b>	6.8/11 M10
<b>Fastener intake</b>	Single
<b>Fastener length range</b>	12 - 47 mm

<sup>1)</sup> Declared measured values of noise characteristics according to 2006/42/EC Machinery Directive in conjunction with E DIN EN 15895



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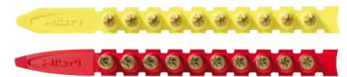
Ordering designation	Package contents	Sales pack quantity	Item number
DX 351 M+E	1x Powder-actuated tool DX 351 M+E, 1x Piston X-P8S-351, 1x Fastener guide X-FG8ME351 assy, 1x Cleaning kit DX 351, 1x Case	1 pc	373182

Please visit Hilti website for the latest item numbers and related products

## DX cartridge 6.8/11 M10

### APPLICATIONS

- For use with DX 2, DX 5, DX 460, DX 351, DX 450, DX 36, DX A40, DX A41









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Ordering designation	Cartridge type	Cartridge power level	Sales pack quantity	Item number
6.8/11 M10 red	.27 calibre short	Heavy	100 pc	416474
6.8/11 M10 yellow	.27 calibre short	Medium-light	100 pc	416473

Please visit Hilti website for the latest item numbers and related products

## Accessories for DX 351

Ordering designation		Sales pack quantity	Item number
Fastener guide X-FG8ME351		1 pc	362174 <sup>1)</sup>
Piston X-P8S-351 packed		1 pc	406929
Protective cap X-SGF		1 pc	304416
Pole Tool X-PT 7ft for DX 351		1 pc	3579452
Receptable X-PT351		1 pc	333312
Cleaning kit DX 351		1 pc	2003832

<sup>1)</sup> For detailed stock availability and lead time information please contact your Hilti representative.

Please visit Hilti website for the latest item numbers and related products

## Semi-automatic powder-actuated tool DX 2 **NEW**



### APPLICATIONS

- Attaching drywall framing to concrete
- Fastening wood to concrete and steel
- Attaching kicker plates to concrete

### ADVANTAGES

- Easy to use and maintain
- Compact, sleek design allows access in narrow spaces
- Ergonomically designed grip and tool nose
- Maximum nail length 62 mm, or 72 mm for wood-to-concrete applications



Fleet Management



### Technical data

Power (max.)	245 J
Weight	2.4 kg
Base materials	Concrete, Steel
Automatic piston return	No
Noise (pressure) level at work station: LpA, 1s <sup>1)</sup>	104 dB (A)
Dimensions (LxWxH)	345 x 50 x 157 mm
Max. fastener driving rate	450 / h
Cartridge type	6.8/11 .27 calibre short, 6.8/11 M10
Fastener intake	Single
Fastener length range	14 - 62 mm

<sup>1)</sup> Declared measured values of noise characteristics according to 2006/42/EC Machinery Directive in conjunction with E DIN EN 15895



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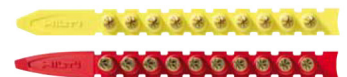
Ordering designation	Package contents	Sales pack quantity	Item number
DX 2	1x Powder-actuated tool DX 2, 1x Round brush 5/8, 1x Round brush, 1x Spares pack DX 2 packed, 1x Case	1 pc	2084169

Please visit Hilti website for the latest item numbers and related products

## DX cartridge 6.8/11 M10

### APPLICATIONS

- For use with DX 2, DX 5, DX 460, DX 351, DX 450, DX 36, DX A40, DX A41












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Ordering designation	Cartridge type	Cartridge power level	Sales pack quantity	Item number
6.8/11 M10 red	.27 calibre short	Heavy	100 pc	416474
6.8/11 M10 yellow	.27 calibre short	Medium-light	100 pc	416473

Please visit Hilti website for the latest item numbers and related products







## Accessories for DX 2

Ordering designation		Sales pack quantity	Item number
<b>Piston DX 2 kit</b> 1 x piston 2/DNI, 1 x spring clip DX 2		1 pc	2103082
<b>Spares pack DX 2 packed</b> 2x spring clip, 2x ball, 1x piston lock		1 pc	2094647
<b>Fastener guide X-2-F8 packed</b>		1 pc	2094644 <sup>1)</sup>
<b>Baseplate X-2-S packed</b>		1 pc	2094645 <sup>1)</sup>
<b>Piston guide DX 2 packed</b>		1 pc	2094646 <sup>1)</sup>
<b>Stabilizer plate X-2-STAB packed</b>		1 pc	2094648 <sup>1)</sup>
<b>Pole Tool X-PT 7ft for DX 2</b>		1 pc	3579451
<b>Receptacle X-PT 2</b>		1 pc	2094657
<b>Cleaning kit DX 2</b> 3x metal cleaning brush, 1x black cleaning cloth		1 pc	2097040

<sup>1)</sup> For detailed stock availability and lead time information please contact your Hilti representative.

Please visit Hilti website for the latest item numbers and related products

## Other Accessories for DX tools

Ordering designation		Sales pack quantity	Item number
<b>Pipe X-PT 1ft</b>		1 pc	254685
<b>Pipe X-PT 3ft</b>		1 pc	254684
<b>Grip section X-PT assy</b>		1 pc	254687
<b>Tool bag X-PT CT</b>		1 pc	388152
<b>Spray 66ml</b>		1 pc	308976
<b>Safety glasses PP EY-CA NCH clear</b>		1 pc	2065449 <sup>1)</sup>

<sup>1)</sup> For detailed stock availability and lead time information please contact your Hilti representative.

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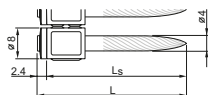


# X-U Nail for fastening to concrete and steel

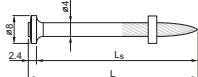
## Product data

### Dimensions

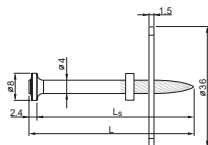
X-U \_\_MX



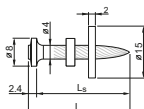
X-U \_\_ P8



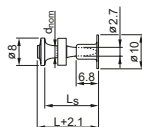
X-U \_\_ P8 S36



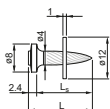
X-U \_\_ P8 S15



X-U 15 P8TH



X-U \_\_ S12



### Material specifications

Carbon steel shank: HRC 58  
HRC 59 (X-U 15)  
Zinc coating: 5–20 µm

### Recommended fastening tools

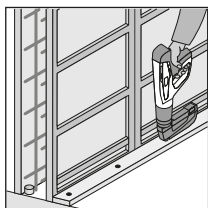
**i** • See fastener program in the next pages.

### Approvals

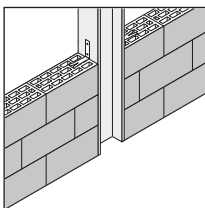
ICC ESR-2269 (USA)  
DIBt Z-14.4-517 (Germany), DNV-GL  
ABS, LR 97/00077, IBMB 4927/2020

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

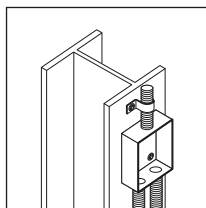
## Applications



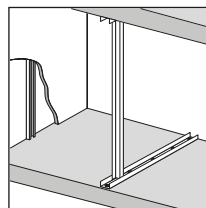
System formwork



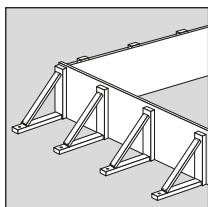
Wall-tie to steel and concrete



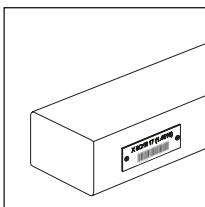
Mechanical and electrical fixtures



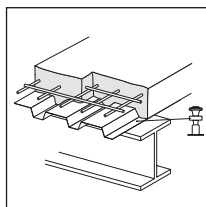
Drywall track to concrete and steel



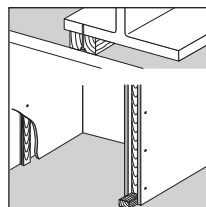
Conventional formwork



Tagging labels



Tacking of metal decks



Sill plates / 2x4 wood to concrete and steel

The intended use for safety relevant and permanent applications only comprises fastenings which are not directly exposed to external weather conditions or moist atmospheres.

# X-U Nail for fastening to concrete

## Application recommendation

Base material thickness

Concrete:

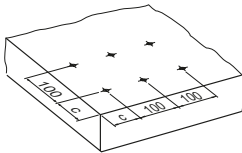
$h_{min} = 80 \text{ mm}$

Fastened material thickness

Wood:

$t_f = 15\text{--}57 \text{ mm}$

## Fastener positioning in base material



Edge distance:

$c \geq 70 \text{ mm}$

Spacing:

$s \geq 100 \text{ mm}$

## Fastener shank length recommendation

Required nail shank length:

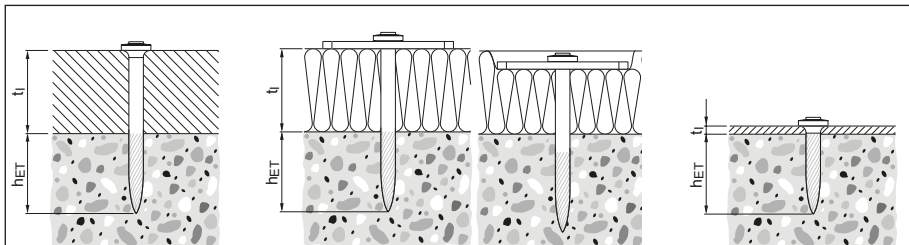
$$L_S = h_{ET} + t_f \text{ [mm]}$$

In case flush fastenings are required:

$$L_S = h_{ET} + t_f - 5 \text{ [mm]}$$

Recommendation:

$$h_{ET} = 22 \text{ mm}$$



## Performance data

### Recommended resistance under tension and shear load

Embedment depth $h_{ET}$	Tension load $N_{rec}$		Shear load $V_{rec}$	
	Soft/medium concrete	Tough concrete	Soft/medium concrete	Tough concrete
$\geq 14 \text{ mm}$	0.1 kN	–	0.1 kN	–
$\geq 18 \text{ mm}$	0.2 kN	–	0.2 kN	–
$\geq 22 \text{ mm}$	0.3 kN	–	0.3 kN	–
$\geq 27 \text{ mm}$	0.4 kN	–	0.4 kN	–

- For safety relevant fastenings sufficient redundancy of the entire system is required: Minimum 5 fastenings per fastened unit.
- All visible failures must be replaced.
- Valid for concrete with strength of  $f_{cc} \leq 45 \text{ N/mm}^2$ .
- Valid for predominantly static loading.
- Failure of the fastened material is not considered in recommended loads.
- To limit penetration of nail and to increase pull-over load, use nails with washers.
- For more details in relation to base material properties, please refer to the chapter **Fastener selection guide** in the Direct Fastening Manual (DFTM).

### System recommendation

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

#### Cartridge recommendation for fastening wood to concrete

Base material	Cartridge color (tool power level)	
	Tool type: DX 6 MX DX 6 F8  Cartridge type: 6.8/11 M	Tool type: DX 5 MX, DX 460 MX DX 5 F8, DX 460 F8, DX 2  Cartridge type: 6.8/11 M
Soft concrete/medium	titanium ■ (1-5)	green ■, yellow ■
Tough concrete	titanium ■ (4-8)	yellow ■, red ■

#### Cartridge recommendation for fastening steel to concrete

Base material	Cartridge color (tool power level)	
	Tool type: DX 6 MX  DX 6 F8  Cartridge type: 6.8/11 M	Tool type: DX 5 MX, DX 460 MX, DX 351 MX DX 5 F8, DX 460 F8, DX 2, DX 351 F8  Cartridge type: 6.8/11 M
Soft/medium concrete	titanium ■ (1-5)	green ■, yellow ■
Tough concrete	titanium ■ (4-8)	yellow ■, red ■

- 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.

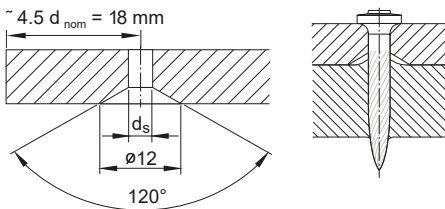
# X-U Nail for fastening steel to steel

## Application recommendation

Fastened material properties

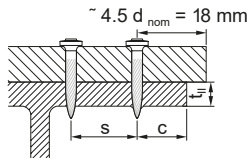
Fastened material thickness:  $t_f \leq 3$  mm (not pre-drilled)  
 $3$  mm  $< t_f \leq 6$  mm (pre-drilled)

Condition for fastened material thickness:  $3$  mm  $< t_f \leq 6$  mm



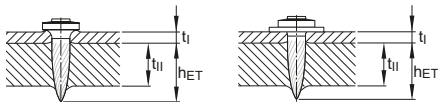
If a gap between the fastened part and the base material is unacceptable, the fastened part needs to be prepared with drilled holes.

## Base material properties and fastener positioning in base material



Base material thickness:  $t_{f1} \geq 6.0$  mm  
 Edge distance:  $c \geq 15$  mm  
 Spacing:  $s \geq 20$  mm  
 Rolled shapes

## Fastener shanks length recommendation

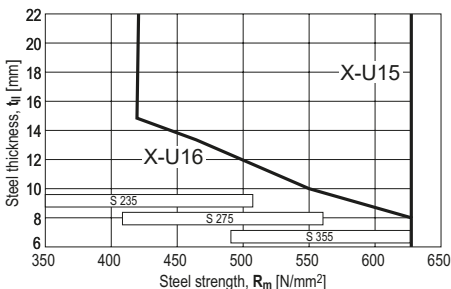


$$L_S = h_{ET} + t_f \text{ [mm]}$$

$$h_{ET} = 12 \pm 2 \text{ mm}$$

## Application limitation

X-U 16 P8, X-U 16 P8TH, X-U 15 P8TH



- Steel sheeting with  $0.75$  mm  $\leq t_f \leq 1.25$  mm
- On higher steel grades, fastening with single nails (P8 or P8TH) may yield better results (e.g. less shear brakes) than fastening with collated nails (MX or MXSP) due to better nail guidance.

## Performance data

Recommended resistance under tension and shear load

Fastening of steel sheets and other steel parts with X-U 16 and X-U 19

$t_f$	X-U _ P8/MX $N_{rec}$	X-U _ S12 $N_{rec}$	$V_{rec}$
0.75 mm	1.0 kN	1.4 kN	1.2 kN
1.00 mm	1.2 kN	1.8 kN	1.8 kN
1.25 mm	1.5 kN	2.2 kN	2.6 kN
$\geq 2.00$ mm	2.0 kN	2.2 kN	2.6 kN

Tacking of steel sheets with X-U 15

according to ECCS-recommendation N73, „Good Construction Practice for Composite Slabs”

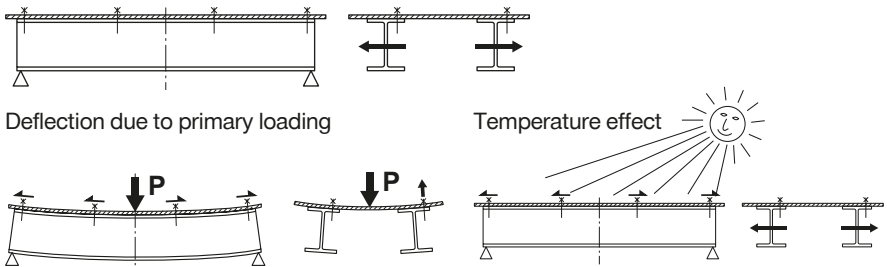
$t_f$	$N_{rec}$	$V_{rec}$
0.75–1.25 mm	0.6 kN	0.8kN

### Conditions

- Valid for steel sheet with minimum tensile strength  $\geq 360$  N/mm<sup>2</sup>.
- For intermediate sheet thicknesses, use recommended load for next smaller thickness.
- In case of a design based on the characteristic resistance, recommended values have to be multiplied by two:  $N_{Rk} = N_{rec} \cdot 2.0$ ,  $V_{Rk} = V_{rec} \cdot 2.0$
- For X-U 16 S12:
  - Base material thickness  $t_{II,min} = 8$  mm for  $t_f \geq 1.50$  mm
  - Base material thickness  $t_{II,min} = 6$  mm for  $t_f \leq 1.25$  mm
- Other fastened parts: clips, brackets, etc.
- Redundancy (multiple fastening) must be provided.
- Valid for predominantly static loading

### Forces of constraint

When fastening large pieces of steel, the possibility of shear loadings from forces of constraint should be considered. Avoid exceeding  $V_{rec}$  for the fastener shank!



### System recommendation

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

#### Cartridge recommendation for X-U 16 P8, X-U 16 P8 TH, X-U 16 MX

Base material		Cartridge color (tool power level)	
		Tool type: DX 6 MX	Tool type: DX 5 MX, DX 460 MX, DX 351 MX <sup>1)</sup>
		DX 6 F8	DX 5 F8, DX 460 F8, DX 351 F8 <sup>1)</sup> , DX 2 <sup>1)</sup>
		Cartridge type: 6.8/11 M	Cartridge type: 6.8/11 M
S235 to S275	$6 \leq t_{\parallel} < 10$ mm	titanium ■ (4-8)	red ■
	$10 \leq t_{\parallel} \leq 20$ mm	titanium ■ (6-8), black ■ (7-8)	red ■, black ■
S355	$6 \leq t_{\parallel} \leq 8$ mm	titanium ■ (6-8), black ■ (7-8)	red ■, black ■

<sup>1)</sup> Black cartridges do not apply for this tool.

#### Cartridge recommendation for X-U 15 P8TH

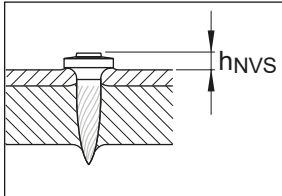
Base material		Cartridge color (tool power level)	
		Tool type: DX 6 F8	Tool type: DX 5 F8, DX 460 F8, DX 351 F8 <sup>1)</sup>
		Cartridge type: 6.8/11 M	Cartridge type: 6.8/11 M
S235 to S355	$6 \leq t_{\parallel} < 12$ mm	titanium ■ (2-5)	yellow ■
	$12 \leq t_{\parallel} \leq 20$ mm	titanium ■ (4-8)	red ■

- 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.

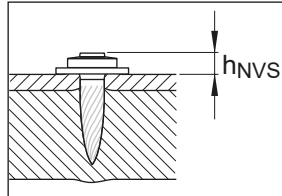
**Quality assurance**

## Setting depth control

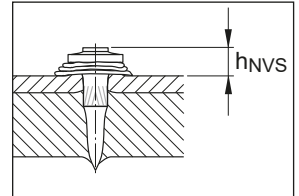
X-U \_\_ P8/MX

 $h_{NVS} = 2.5-4.5 \text{ mm}$ 

X-U \_\_ S12

 $h_{NVS} = 4.0-5.5 \text{ mm}$ 

X-U \_ P8TH / MXSP

 $h_{NVS} = 4.0-6.0 \text{ mm}$

# X-U Nail for fastening wood to steel

## Application recommendation

Fastened material properties

Fastened material thickness:  $t_f$  15–57 mm

Base material properties

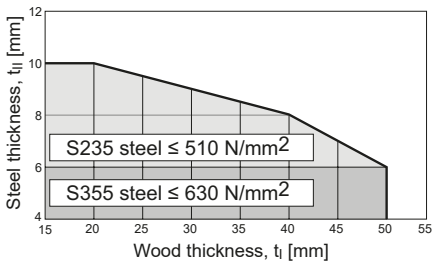
Base material thickness:  $t_{II} \geq 4.0$  mm

## Fastener shank length recommendation

	For standard fastening:	$L_s = h_{ET} + t_f$ $h_{ET} \geq 8$ mm
	For flush fastening:	$L_s = h_{ET} + t_f$ $h_{ET} \geq 5$ mm

## Application limitation

For X-U 22 P8 to X-U 62 P8



- On higher steel grades, fastening with single nails may yield better results (e.g. less shear brakes) than fastening with collated nails due to better nail guidance.



## Performance data

### Recommended resistance under tension and shear load

Designation	Tension load $N_{rec}$		Shear load $V_{rec}$	
X-U	0.3 kN		0.60 kN	

#### Conditions:

- For safety-relevant fastenings sufficient redundancy of the entire system is required.
- In case soft material is fastened, its strength determines the loads.
- To limit penetration of nail and to increase pull-over load, use nails with washers.
- Observance of edge distance and fastener spacing in compliance with recognized standards EN 1995 (see approval).
- With respect to details of fastening wood, chipboard or OSB members to steel base material, it is referred to the German approval DIBt Z-14.4-517.

## System recommendation

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

### Cartridge recommendation for X-U 22 P8 to X-U 62 P8

Base material		Cartridge color (tool power level)	
		Tool type: DX 6 MX DX 6 F8	Tool type: DX 5 MX, DX 460 MX DX 5 F8, DX 460 F8, DX 2 <sup>1)</sup>
		Cartridge type: 6.8/11 M	Cartridge type: 6.8/11 M
S235 to S355	$4 \leq t_{II} < 6 \text{ mm}$	titanium ■ (1-5)	green ■, yellow ■
	$6 \leq t_{II} \leq 10 \text{ mm}$	titanium ■ (4-8), black ■ (7-8)	yellow ■, red ■, black ■

<sup>1)</sup> Black cartridges do not apply for this tool.

- 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.

**Fastener program**

Fastener	Item no.	L <sub>s</sub>	Powder-actuated tools					Description
			DX 6 MX, DX 5 MX, DX 460 MX	DX 6 F8, DX 5 F8, DX 460 F8	DX 2	DX 351 MX	DX 351 F8	
X-U 16 MX	237344	16 mm	■			■		Sheet metal on steel
X-U 19 MX	237345	19 mm	■			■		Sheet metal on steel
X-U 22 MX	237346	22 mm	■			■		Wood on concrete/steel
X-U 27 MX	237347	27 mm	■			■		Wood on concrete/steel
X-U 32 MX	237348	32 mm	■					Wood on concrete/steel
X-U 37 MX	237349	37 mm	■					Wood on concrete/steel
X-U 42 MX	237350	42 mm	■					Wood on concrete/steel
X-U 47 MX	237351	47 mm	■					Wood on concrete/steel
X-U 52 MX	237352	52 mm	■					Wood on concrete/steel
X-U 57 MX	237353	57 mm	■					Wood on concrete/steel
X-U 62 MX	237354	62 mm	■					Wood on concrete/steel
X-U 72 MX	237356	72 mm	■					Wood on concrete/steel
X-U 16 P8	237330	16 mm		■	■		■	Sheet metal on steel
X-U 19 P8	237331	19 mm		■	■		■	Sheet metal on steel
X-U 22 P8	237332	22 mm		■	■		■	Wood on concrete/steel
X-U 27 P8	237333	27 mm		■	■		□	Wood on concrete/steel
X-U 32 P8	237334	32 mm		■	■		□	Wood on concrete/steel
X-U 37 P8	237335	37 mm		■	■		□	Wood on concrete/steel
X-U 42 P8	237336	42 mm		■	■		□	Wood on concrete/steel
X-U 47 P8	237337	47 mm		■	■		□	Wood on concrete/steel
X-U 52 P8	237338	52 mm		■	■			Wood on concrete/steel
X-U 57 P8	237339	57 mm		■	■			Wood on concrete/steel
X-U 62 P8	237340	62 mm		■	■			Wood on concrete/steel
X-U 72 P8	237342	72 mm		■	■			Wood on concrete/steel
X-U 16 P8TH	237329	16 mm		■	■		■	Sheet metal on steel, *)
X-U 19 P8TH	385781	19 mm		■	■		■	Sheet metal on steel, *)
X-U 27 P8TH	385782	27 mm		■	■		□	Sheet metal on concrete, *)
X-U 15 MXSP	383466	16 mm	■			□		Sheet metal on steel
X-U 15 P8TH	237328	16 mm		■	□		□	Sheet metal on steel
X-U 27 P8S15	237371	27mm		■	■		□	High pull-over strength
X-U 32 P8S15	237372	32 mm		■	■		□	High pull-over strength

Fastener	Item no.	L <sub>S</sub>	Powder-actuated tools					Description
			DX 6 MX, DX 5 MX, DX 460 MX	DX 6 F8, DX 5 F8, DX 460 F8	DX 2	DX 351 MX	DX 351 F8	
X-U 32 P8S36	237374	32 mm		■	■		<input type="checkbox"/>	Soft material on concr./steel
X-U 52 P8S36	237376	52 mm		■	■		<input type="checkbox"/>	Soft material on concr./steel
X-U 72 P8S36	237379	72 mm		■	■			Soft material on concr./steel

■ = recommended, □ = feasible

\*) firm hold down

Fastener	Item no.	L <sub>S</sub>	Powder-actuated tools					Description
			DX 460 F8S12	DX 5 F8S12	DX 462 F8S12			
X-U 16 S12	237357	16 mm	■	■	■			High pull-over strength
X-U 19 S12	237358	19 mm	■	■	■			High pull-over strength
X-U 22 S12	237359	22 mm	■	■	■			High pull-over strength
X-U 27 S12	237360	27 mm	■	■	■			High pull-over strength
X-U 32 S12	237361	32 mm	■	■	■			High pull-over strength

■ = recommended, □ = feasible

\*) firm hold down



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**TEST REPORT**

**Hilti (Hong Kong) Ltd**

17/F, Tower 6, China Hong Kong City,  
33 Canton Road, Tsim Sha Tsui, Kowloon, Hong Kong

**Tensile and Shear Load Test of X- U Pin**

**[Embedment Depth= 25mm]**


**[Edge Distance= 140mm]**

**Ref.: In-house Method Based on ASTM E1190**

**Date Tested: 17-May-2008**

**ETL Ref. No.: 526/2008**

Reported By:

  
TSANG, Kin On  
Assistant Engineer

Approved By:

  
MONG, Seng Ming  
Assistant Technical Manager



東業德勤測試顧問有限公司  
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**TEST REPORT**

**Tensile Load Test on X - U Pin**

Customer : Hilti (Hong Kong) Ltd  
Address : 17/F, Tower 6, China Hong Kong City,  
33 Canton Road, Tsim Sha Tsui,  
Kowloon, Hong Kong  
Project : Direct Fastening Nail Testing  
Test Location : ETL's Laboratory

Report No. : FDA80647  
Test Date : 17-May-08  
Report Date : 19-May-08  
Page No. : 4 of 5  
Test Method : In- house method based  
on ASTM E1190

Test Ref. No.	Failure Load (kN)	Failure Modes (see Note E)	* Type	Remarks
T1	5.90	F3 And F4	X-U Pin (Spacing Distance= 80mm)	-
T2	5.40	F3 And F4		-
T3	6.90	F3 And F4		-
T4	6.30	F3 And F4		-
T5	6.80	F3 And F4		-
T6	6.20	F3 And F4		-
T7	6.00	F3 And F4		-
T8	6.40	F3 And F4		-
T9	5.80	F3 And F4		-
T10	8.30	F3 And F4		-
T11	6.50	F3 And F4		-
T12	5.80	F3 And F4		-
T13	6.20	F3 And F4		-
T14	6.80	F3 And F4		-
T15	5.90	F3 And F4		-
T16	6.50	F3 And F4		-
T17	5.60	F3 And F4		-
T18	5.40	F3 And F4		-
T19	6.20	F3 And F4		-
T20	6.70	F3 And F4		-
Maximum	(kN) :	8.30		
Minimum	(kN) :	5.40		
Average Failure Load	(kN) :	6.28		
Standard Diviation	(kN) :	0.66		

**Notes:**

**A) Test Apparatus**  
Load Cell : Compression Load Cell, 50kN (ET/930/02/01) S/N : 175530  
Calibration Due Date : 25-Mar-09 Range: 0.1-50kN  
Load Cell Indicator : XT1500 (ET/930/02/02) S/N : 1000070260  
Cylinder : Enerpac Hydraulic RCH121 (ET/903/05) S/N : B3695C

**B) Concrete Strength** 30 ± 3 MPa

**C) Embedment Depth** 25mm

**D) Fixture Thickness** 7mm

**E) Edge Distance** 140mm

**F) Failure Modes**  
P = No sign of failure in pin and/or structural member F1 = Failure of pin or its accessories  
F2 = Failure in structural member F3 = Pull out of pin  
F4 = Failure of structural member in a shear cone F5 = Failure by continuous displacement or decreasing load  
F6 = Failure in structural member with crack radiates outward from pin  
F7 = Other failure mode(s) : -

**G) Loading Rate** Uniform rate with ultimate strength of the fastener is reached in no less than 30s.

**H) Remarks:** Ambient Temperature:21.5°C

\* Information provided by customer

Tested By: WONG, Ka Lok / YU, Shui Ming

Approved By:   
MONG, Seng Ming  
Assistant Technical Manager

Checked By: PANG, Ting Pong / TSANG, Kin On



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**TEST REPORT**

**Shear Load Test on X - U Pin**

Customer : Hilti (Hong Kong) Ltd  
Address : 17/F, Tower 6, China Hong Kong City,  
33 Canton Road, Tsim Sha Tsui,  
Kowloon, Hong Kong  
Project : Direct Fastening Nail Testing  
Test Location : ETL's Laboratory

Report No. : FDA80647  
Test Date : 17-May-08  
Report Date : 19-May-08  
Page No. : 5 of 5  
Test Method : In- house method based  
on ASTM E1190

Test Ref. No.	Failure Load (kN)	Failure Modes (see Note E)	* Type	Remarks
S1	10.80	F3 And F4	X-U Pin (Spacing Distance= 80mm)	-
S2	11.00	F3 And F4		-
S3	12.00	F3 And F4		-
S4	11.20	F3 And F4		-
S5	12.20	F3 And F4		-
S6	11.80	F3 And F4		-
S7	10.60	F3 And F4		-
S8	10.40	F3 And F4		-
S9	10.60	F3 And F4		-
S10	11.80	F3 And F4		-
S11	12.10	F3 And F4		-
S12	11.10	F3 And F4		-
S13	10.80	F3 And F4		-
S14	11.60	F3 And F4		-
S15	10.90	F3 And F4		-
S16	11.40	F3 And F4		-
S17	12.10	F3 And F4		-
S18	12.40	F3 And F4		-
S19	10.60	F3 And F4		-
S20	11.20	F3 And F4		-
Maximum	(kN) :	12.40		
Minimum	(kN) :	10.40		
Average Failure Load	(kN) :	11.33		
Standard Deviation	(kN) :	0.63		

<b>Notes:</b>	<b>A) Test Apparatus</b>	Load Cell : Comp. Load Cell CWH-T020, 200kN (ET/930/08/01)	S/N : 056004
		Calibration Due Date : 26-Jun-08	Range: 0.1-200kN
		Load Cell Indicator : AD813 (ET/930/08/02)	S/N :-
		Cylinder : Enerpac Hydraulic RCH121 (ET/903/08)	S/N : B0498C
	<b>B) Concrete Strength</b>	30 ± 3 MPa	
	<b>C) Embedment Depth</b>	25mm	
	<b>D) Fixture Thickness</b>	7mm	
	<b>E) Edge Distance</b>	140mm	
	<b>F) Failure Modes</b>	P = No sign of failure in pin and/or structural member F2 = Failure in structural member F4 = Failure of structural member in a shear cone F6 = Failure in structural member with crack radiates outward from pin F7 = Other failure mode(s) :-	F1 = Failure of pin or its accessories F3 = Pull out of pin F5 = Failure by continuous displacement or decreasing load
	<b>G) Loading Rate</b>	Uniform rate with ultimate strength of the fastener is reached in no less than 30s.	
	<b>H) Remarks:</b>	Ambient Temperature:21.5°C	
* Information provided by customer			

Tested By: WONG, Ka Lok / YU, Shui Ming

Approved By:   
MONG, Seng Ming  
Assistant Technical Manager

Checked By: PANG, Ting Pong / TSANG, Kin On



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**TEST REPORT**

**Hilti (Hong Kong) Ltd**

17/F, Tower 6, China Hong Kong City,  
33 Canton Road, Tsim Sha Tsui, Kowloon, Hong Kong

**Tensile and Shear Load Test of X- U Pin**

**[Embedment Depth= 25mm]**

**[Edge Distance= 60mm]**

**Ref.: In-house Method Based on ASTM E1190**

**Date Tested: 17-May-2008**

**ETL Ref. No.: 526/2008**

Reported By:

  
\_\_\_\_\_  
TSANG, Kin On  
Assistant Engineer

Approved By:

  
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MONG, Seng Ming  
Assistant Technical Manager



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**TEST REPORT**

**Tensile Load Test on X - U Pin**

Customer : Hilti (Hong Kong) Ltd  
 Address : 17/F, Tower 6, China Hong Kong City,  
 33 Canton Road, Tsim Sha Tsui,  
 Kowloon, Hong Kong  
 Project : Direct Fastening Nail Testing  
 Test Location : ETL's Laboratory

Report No. : FDA80646  
 Test Date : 17-May-08  
 Report Date : 19-May-08  
 Page No. : 4 of 5  
 Test Method : In- house method based  
 on ASTM E1190

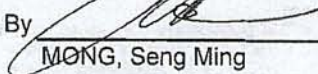
Test Ref. No.	Failure Load (kN)	Failure Modes (see Note E)	* Type	Remarks
T1	5.50	F3 And F4	X-U Pin (Spacing Distance= 80mm)	-
T2	5.50	F3 And F4		-
T3	5.60	F3 And F4		-
T4	5.50	F3 And F4		-
T5	7.00	F3 And F4		-
T6	5.20	F3 And F4		-
T7	5.00	F3 And F4		-
T8	6.70	F3 And F4		-
T9	5.10	F3 And F4		-
T10	5.30	F3 And F4		-
T11	5.70	F3 And F4		-
T12	5.00	F3 And F4		-
T13	5.10	F3 And F4		-
T14	5.70	F3 And F4		-
T15	5.40	F3 And F4		-
T16	5.80	F3 And F4		-
T17	5.40	F3 And F4		-
T18	5.30	F3 And F4		-
T19	5.90	F3 And F4		-
T20	5.30	F3 And F4		-

Maximum	(kN)	:	7.00
Minimum	(kN)	:	5.00
Average Failure Load	(kN)	:	5.55
Standard Deviation	(kN)	:	0.51

<b>Notes:</b>	<b>A) Test Apparatus</b>	Load Cell : Compression Load Cell, 50kN (ET/930/02/01)	S/N : 175530
		Calibration Due Date : 25-Mar-09	Range: 0.1-50kN
		Load Cell Indicator : XT1500 (ET/930/02/02)	S/N :1000070260
		Cylinder : Enerpac Hydraulic RCH121 (ET/903/05)	S/N : B3695C
	<b>B) Concrete Strength</b>	30 ± 3 MPa	
	<b>C) Embedment Depth</b>	25mm	
	<b>D) Fixture Thickness</b>	7mm	
	<b>E) Edge Distance</b>	60mm	
	<b>F) Failure Modes</b>	P = No sign of failure in pin and/or structural member	F1 = Failure of pin or its accessories
		F2 = Failure in structural member	F3 = Pull out of pin
		F4 = Failure of structural member in a shear cone	F5 = Failure by continuous displacement or decreasing load
		F6 = Failure in structural member with crack radiates outward from pin	
		F7 = Other failure mode(s) :-	
	<b>G) Loading Rate</b>	Uniform rate with ultimate strength of the fastener is reached in no less than 30s.	
	<b>H) Remarks:</b>	Ambient Temperature:21.5°C	

\* Information provided by customer

Tested By: WONG, Ka Lok / YU, Shui Ming

Approved By:   
MONG, Seng Ming  
 Assistant Technical Manager

Checked By: PANG, Ting Pong / TSANG, Kin On





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**TEST REPORT**

**Shear Load Test on X - U Pin**

Customer : Hilti (Hong Kong) Ltd  
Address : 17/F, Tower 6, China Hong Kong City,  
33 Canton Road, Tsim Sha Tsui,  
Kowloon, Hong Kong  
Project : Direct Fastening Nail Testing  
Test Location : ETL's Laboratory

Report No. : FDA80646  
Test Date : 17-May-08  
Report Date : 19-May-08  
Page No. : 5 of 5  
Test Method : In-house method based  
on ASTM E1190

Test Ref. No.	Failure Load (kN)	Failure Modes (see Note E)	* Type	Remarks
S1	7.20	F3 And F4	X-U Pin (Spacing Distance= 80mm)	-
S2	6.80	F3 And F4		-
S3	6.50	F3 And F4		-
S4	6.50	F3 And F4		-
S5	6.70	F3 And F4		-
S6	6.70	F3 And F4		-
S7	7.20	F3 And F4		-
S8	7.50	F3 And F4		-
S9	7.80	F3 And F4		-
S10	6.80	F3 And F4		-
S11	8.40	F3 And F4		-
S12	6.40	F3 And F4		-
S13	8.10	F3 And F4		-
S14	8.20	F3 And F4		-
S15	8.40	F3 And F4		-
S16	8.60	F3 And F4		-
S17	8.40	F3 And F4		-
S18	8.10	F3 And F4		-
S19	8.20	F3 And F4		-
S20	6.80	F3 And F4		-

Maximum	(kN)	:	8.60
Minimum	(kN)	:	6.40
Average Failure Load	(kN)	:	7.47
Standard Deviation	(kN)	:	0.78

**Notes:**

**A) Test Apparatus**  
Load Cell : Comp. Load Cell CWH-T020, 200kN (ET/930/08/01) S/N : 056004  
Calibration Due Date : 26-Jun-08 Range: 0.1-200kN  
Load Cell Indicator : AD813 (ET/930/08/02) S/N :-  
Cylinder : Enerpac Hydraulic RCH121 (ET/903/08) S/N : B0498C

**B) Concrete Strength** 30 ± 3 MPa

**C) Embedment Depth** 25mm

**D) Fixture Thickness** 7mm

**E) Edge Distance** 60mm

**F) Failure Modes**  
P = No sign of failure in pin and/or structural member F1 = Failure of pin or its accessories  
F2 = Failure in structural member F3 = Pull out of pin  
F4 = Failure of structural member in a shear cone F5 = Failure by continuous displacement or decreasing load  
F6 = Failure in structural member with crack radiates outward from pin.  
F7 = Other failure mode(s) :-

**G) Loading Rate** Uniform rate with ultimate strength of the fastener is reached in no less than 30s.

**H) Remarks:** Ambient Temperature:21.5°C

\* Information provided by customer

Tested By: WONG, Ka Lok / YU, Shui Ming

Approved By:   
MONG, Seng Ming  
Assistant Technical Manager

Checked By: PANG, Ting Pong / TSANG, Kin On



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**TEST REPORT**

**Hilti (Hong Kong) Ltd**

17/F, Tower 6, China Hong Kong City,  
33 Canton Road, Tsim Sha Tsui, Kowloon, Hong Kong

**Tensile and Shear Load Test of X- U Pin**

**[Embedment Depth= 25mm]**

**[Edge Distance= 50mm]**

**Ref.: In-house Method Based on ASTM E1190**

**Date Tested: 17-May-2008**

**ETL Ref. No.: 526/2008**

Reported By:

  
\_\_\_\_\_  
TSANG, Kin On  
Assistant Engineer

Approved By:

  
\_\_\_\_\_  
MONG, Seng Ming  
Assistant Technical Manager



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**TEST REPORT**

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Customer : Hilti (Hong Kong) Ltd  
Address : 17/F, Tower 6, China Hong Kong City,  
33 Canton Road, Tsim Sha Tsui,  
Kowloon, Hong Kong  
Project : Direct Fastening Nail Testing  
Test Location : ETL's Laboratory

Report No. : FDA80645  
Test Date : 17-May-08  
Report Date : 19-May-08  
Page No. : 4 of 5  
Test Method : In- house method based  
on ASTM E1190

Test Ref. No.	Failure Load (kN)	Failure Modes (see Note E)	* Type	Remarks
T1	5.20	F3 And F4	X-U Pin (Spacing Distance= 80mm)	-
T2	5.50	F3 And F4		-
T3	5.00	F3 And F4		-
T4	5.00	F3 And F4		-
T5	4.90	F3 And F4		-
T6	5.20	F3 And F4		-
T7	4.90	F3 And F4		-
T8	5.40	F3 And F4		-
T9	5.60	F3 And F4		-
T10	5.30	F3 And F4		-
T11	5.20	F3 And F4		-
T12	5.30	F3 And F4		-
T13	5.00	F3 And F4		-
T14	5.10	F3 And F4		-
T15	5.20	F3 And F4		-
T16	4.80	F3 And F4		-
T17	5.50	F3 And F4		-
T18	5.00	F3 And F4		-
T19	5.30	F3 And F4		-
T20	5.50	F3 And F4		-

Maximum	(kN)	:	5.60
Minimum	(kN)	:	4.80
Average Failure Load	(kN)	:	5.20
Standard Diviation	(kN)	:	0.23

**Notes:**

**A) Test Apparatus**  
Load Cell : Compression Load Cell, 50kN (ET/930/02/01) S/N : 175530  
Calibration Due Date : 25-Mar-09 Range: 0.1-50kN  
Load Cell Indicator : XT1500 (ET/930/02/02) S/N : 1000070260  
Cylinder : Enerpac Hydraulic RCH121 (ET/903/05) S/N : B3695C

**B) Concrete Strength** 30 ± 3 MPa

**C) Embedment Depth** 25mm

**D) Fixture Thickness** 7mm

**E) Edge Distance** 50mm

**F) Failure Modes**  
P = No sign of failure in pin and/or structural member F1 = Failure of pin or its accessories  
F2 = Failure in structural member F3 = Pull out of pin  
F4 = Failure of structural member in a shear cone F5 = Failure by continuous displacement or decreasing load  
F6 = Failure in structural member with crack radiates outward from pin  
F7 = Other failure mode(s) :-

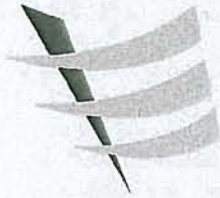
**G) Loading Rate** Uniform rate with ultimate strength of the fastener is reached in no less than 30s.

**H) Remarks:** Ambient Temperature:21.5°C

\* Information provided by customer

Tested By: WONG, Ka Lok / YU, Shui Ming  
Checked By: PANG, Ting Pong / TSANG, Kin On

Approved By:   
MONG, Seng Ming  
Assistant Technical Manager



東業德勤測試顧問有限公司  
ETS-TESTCONSULT LIMITED

8/F., Block B, Veristrong Industrial Centre, 34-36 Au Pui Wan Street, Fotan, Hong Kong  
Tel : 2695 8318 E-mail : etl@ets-testconsult.com  
Fax : 2695 3944 Web site : www.ets-testconsult.com

**TEST REPORT**

**Shear Load Test on X - U Pin**

Customer : Hilti (Hong Kong) Ltd  
Address : 17/F, Tower 6, China Hong Kong City,  
33 Canton Road, Tsim Sha Tsui,  
Kowloon, Hong Kong  
Project : Direct Fastening Nail Testing  
Test Location : ETL's Laboratory

Report No. : FDA80645  
Test Date : 17-May-08  
Report Date : 19-May-08  
Page No. : 5 of 5  
Test Method : In-house method based  
on ASTM E1190

Test Ref. No.	Failure Load (kN)	Failure Modes (see Note E)	* Type	Remarks
S1	7.80	F3 And F4	X-U Pin (Spacing Distance= 80mm)	-
S2	7.50	F3 And F4		-
S3	7.20	F3 And F4		-
S4	7.20	F3 And F6		-
S5	7.00	F3 And F4		-
S6	6.80	F3 And F6		-
S7	5.50	F3 And F6		-
S8	6.30	F3 And F6		-
S9	6.60	F3 And F4		-
S10	5.90	F3 And F4		-
S11	6.40	F3 And F6		-
S12	6.80	F3 And F6		-
S13	6.00	F3 And F4		-
S14	5.70	F3 And F4		-
S15	8.00	F3 And F4		-
S16	7.40	F3 And F4		-
S17	8.30	F3 And F4		-
S18	7.10	F3 And F4		-
S19	6.90	F3 And F4		-
S20	6.80	F3 And F4		-
Maximum	(kN) :	8.30		
Minimum	(kN) :	5.50		
Average Failure Load	(kN) :	6.86		
Standard Deviation	(kN) :	0.75		

**Notes:**

**A) Test Apparatus**  
Load Cell : Comp. Load Cell CWH-T020, 200kN (ET/930/08/01) S/N : 056004  
Calibration Due Date : 26-Jun-08 Range: 0.1-200kN  
Load Cell Indicator : AD813 (ET/930/08/02) S/N :-  
Cylinder : Enerpac Hydraulic RCH121 (ET/903/08) S/N : B0498C

**B) Concrete Strength** 30 ± 3 MPa

**C) Embedment Depth** 25mm

**D) Fixture Thickness** 7mm

**E) Edge Distance** 50mm

**F) Failure Modes**  
P = No sign of failure in pin and/or structural member  
F1 = Failure of pin or its accessories  
F2 = Failure in structural member  
F3 = Pull out of pin  
F4 = Failure of structural member in a shear cone  
F5 = Failure by continuous displacement or decreasing load  
F6 = Failure in structural member with crack radiates outward from pin  
F7 = Other failure mode(s) :-

**G) Loading Rate** Uniform rate with ultimate strength of the fastener is reached in no less than 30s.

**H) Remarks:** Ambient Temperature:21.5°C

\* Information provided by customer

Tested By: WONG, Ka Lok / YU, Shui Ming

Approved By:   
MONG, Seng Ming  
Assistant Technical Manager

Checked By: PANG, Ting Pong / TSANG, Kin On



Labour Department  
Occupational Safety and Health Branch  
Occupational Safety and Health Training Centre

勞工處  
職業安全及健康部  
職業安全及健康訓練中心

Your reference 來函編號:  
Our reference 本處檔案編號: (31) in OSTC/EQP/COFT/4A  
Tel. number 電話號碼: 2940 7067  
Fax number 傳真機號碼: 2940 6251

Mr Jackie SIU, Marketing Manager  
Hilti (Hong Kong) Limited  
17/F, Tower 6  
China Hong Kong City  
33 Canton Road  
Tsim Sha Tsui  
Kowloon

20 JUN 2005

Dear Mr SIU,

**Approval of Cartridge-Operated Fixing Tool,  
Hilti Model DX 460**

I refer to your application of 25 February 2004 for approval of a cartridge-operated fixing tool, namely Hilti Model DX 460 ("the tool").

I am pleased to inform you that the Commissioner for Labour has approved the tool. A copy of the Government Notice G.N. 2705 in the Gazette published on 10 June 2005 No. 23 Vol. 9 is enclosed for your reference.

Should you have any question, please contact our Occupational Safety Officer (Training) Mr. LING Kin-chiu at 2940 7054.

Yours sincerely,

(WONG Che Keung)  
for Permanent Secretary for Economic  
Development and Labour (Labour)/  
Commissioner for Labour

Encl.

第 2705 號公告

工廠及工業經營條例 (第 59 章)

工廠及工業經營 (槍彈推動打釘工具) 規例

現公布根據《工廠及工業經營 (槍彈推動打釘工具) 規例》第 19 條的規定，下列槍彈推動打釘工具已獲認可：

喜利得 DX 460 型

2005 年 6 月 10 日

勞工處處長  
(何鐵英代行)

G.N. 2705

FACTORIES AND INDUSTRIAL UNDERTAKINGS ORDINANCE (Chapter 59)

FACTORIES AND INDUSTRIAL UNDERTAKINGS  
(CARTRIDGE-OPERATED FIXING TOOLS) REGULATIONS

It is hereby notified that, under regulation 19 of the Factories and Industrial Undertakings (Cartridge-Operated Fixing Tools) Regulations, the following cartridge-operated fixing tool has been approved:—

Hilti Model DX 460

10 June 2005

HO Tit-ying for *Commissioner for Labour*



## Labour Department

勞工處

### Occupational Safety and Health Training Centre

職業安全及健康訓練中心

Your reference 來函編號 : NIL

Our reference 本處檔案編號 : (20) in OSTC/EQP/COFT/3

Tel. number 電話號碼 : 2940 7076

Fax number 傳真機號碼 : 2940 6251

**By Fax (2764 3234) and By Post**

Mr. Leo LEUNG,  
Marketing Manager,  
Hilti (Hong Kong) Limited,  
17/F., Tower 6,  
China Hong Kong City,  
33 Canton Road,  
Tsimshatsui,  
Kowloon.

12 APR 2001

Dear Sir,

### Approval of Cartridge-Operated Fixing Tool namely Hilti Model DX 351

I refer to your application on 28.3.2000 for approval of a cartridge-operated fixing tools, namely Hilti Model DX351.

I am pleased to inform you that the Commissioner for Labour has approved the tools. A copy of the Government notice G.N. 5104 published in the Gazette No. 31 Vol. 4 on 4.8.2000 is enclosed for your reference.

Should you have any question, please contact me on 2940 7076.

Yours faithfully,

(MAN Chi-tak)

for Commissioner for Labour

第 5104 號公告

工廠及工業經營條例 (第 59 章)

工廠及工業經營 (槍彈推動打釘工具) 規例

現公布根據《工廠及工業經營 (槍彈推動打釘工具) 規例》第 19 條的規定，下列槍彈推動打釘工具已獲認可：

喜利得 DX 351 型

2000 年 8 月 4 日

勞工處處長  
(曾健和代行)



L. S. NO. 2 TO GAZETTE NO. 3/1987

L.N. 14/87

B47

L.N. 14 of 1987

FACTORIES AND INDUSTRIAL UNDERTAKINGS  
(CARTRIDGE-OPERATED FIXING TOOLS) REGULATIONS  
(Chapter 59)

FACTORIES AND INDUSTRIAL UNDERTAKINGS (CARTRIDGE-  
OPERATED FIXING TOOLS) (AMENDMENT OF SCHEDULE)  
NOTICE 1987

Made under regulation 19

1. This notice may be cited as the Factories and Industrial Under- Citation.  
takings (Cartridge-Operated Fixing Tools) (Amendment of Schedule)  
Notice 1987.

2. The Schedule to the principal regulations is amended by inserting Amendment of  
after item 27 the following— Schedule.  
"28. Hilti Model DX 36M". (Cap. 59, sub.  
leg.)

Made this 7th day of January 1987.

J. C. A. HAMMOND,  
Commissioner for Labour.

*Explanatory Note*

This notice adds Hilti Model DX 36M to the list of approved  
cartridge-operated fixing tools for use in construction work or other  
industrial undertakings.

工廠暨工業經營(彈藥推動打釘工具)規例  
(香港法例第五十九章)

一九八七年工廠暨工業經營(彈藥推動打釘工具)  
(修訂附表)公告

## 註 釋

本公告規定在核准彈藥推動打釘工具名單內加列「Hilti Model DX 36M」一  
項。這類工具用於建築工程或其他工業經營。

## 1. Importance messages: "Cartridge-operated Fixing Tools" (COFT) regulations from Labour Department

### 第59R章

#### 工廠及工業經營(槍彈推動打釘工具)規例 - 摘要

##### 釋義

"槍彈"(cartridge)指設計供工具用的能產生推進氣體的槍彈；

"間接推動工具"(indirect-acting tool)

指推動力通過有限軸向運行的居間活塞始傳達至釘上的工具；

"認可工具"(approved tool)

指處長根據第19條認可的任何工具，包括該工具的任何部分；(1988年第329號法律公告)

只可使用認可工具

承建商、東主及操作員的責任

除認可工具外，不得在工業經營中使用其他工具

##### 槍彈

任何槍彈，除符合製造商就個別類型及個別式樣的工具而定的規格者外，均不得在該工具的操作中使用。

##### 釘

(1)任何的釘，除符合製造商就個別類型及個別式樣的工具而定的規格者外，均不得在該工具的操作中使用。

(2)任何的釘，包括其帽及環，其尺寸須與工具的身管口徑配合。

##### 操作員須持有合資格證明書

(1)除持有合資格證明書的人外，其他人不得使用工具。

(2)合資格證明書的格式須經處長批准。

##### 罪行及罰則

(1) 在任何建築地盤或任何其他工業經營內，如有違反第4、5、6、7、8、9、10、11、12、13、14或16條的任何條文之事，或就該建築地盤或工業經營有違反上述各條的任何條文之事，則在該建築地盤從事建築工程的承建商，或該工業經營的東主，即屬犯罪，可處罰款\$50000。

(2)任何操作員違反第6、7、9(2)或(3)、11、13、14(2)或15條的任何條文，即屬犯罪，可處罰款\$10000。

(3)任何人違反第17條的任何條文，即屬犯罪，可處罰款\$50000。

### Chapter 59 FACTORIES AND INDUSTRIAL UNDERTAKINGS ORDINANCE – ABSTRACT

#### Interpretation

"cartridge" (槍彈) means a propellant gas producing cartridge designed for use in a tool;

"indirect-acting tool" (間接推動工具) means a tool in which the driving force is transmitted to the pin by means of an intervening piston with limited axial movement;

"approved tool" (認可工具) means a tool, including any part thereof, approved by the Commissioner under regulation 19; (L.N. 329 of 1988)

#### Only approved tools to be used

DUTIES OF CONTRACTORS, PROPRIETORS AND OPERATORS

No tool other than an approved tool shall be used in an industrial undertaking

#### Cartridges

No cartridges other than those which correspond to the manufacturer's specifications for the particular type and make of tool shall be used in the operation of that tool.

#### Pins

(1) No pins other than those which correspond to the manufacturer's specifications for the particular type and make of tool shall be used in the operation of that tool.

(2) Pins, including their caps or rings, shall be of a size in conformity with the bore of the barrel of the tool.

#### Operators to hold certificates of competency

(1) A tool shall not be used other than by a person who holds a certificate of competency.

(2) A certificate of competency shall be in a form approved by the Commissioner

#### Offences and penalties

9 The contractor engaged in construction work on a construction site or the proprietor of any other industrial undertaking in or in respect of which any of the provisions of regulation 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14 or 16 is contravened commits an offence and is liable to a fine of \$50000. (2) An operator who contravenes any of the provisions of regulation 6, 7, 9(2) or (3), 11, 13, 14(2) or 15 commits an offence and is liable to a fine of \$10000.

(3) Any person who contravenes any of the provisions of regulation 17 commits an offence and is liable to a fine of \$50000.

Hilti (Hong Kong) Limited  
17/F, Tower 6,  
China Hong Kong City,  
33 Canton Road,  
Tsimshatsui,  
Kowloon.

4 June, 1997

Attention: Mr. Denny Wu

Dear Sir,

**Procedures for building materials submission**

I refer to your letter dated 19 May, 1997 concerning the above.

2. Please be advised that there is no provision under the Buildings Ordinance for the Building Authority to approve any proprietary building products. Under the Buildings Ordinance, authorized persons and/or registered structural engineers are required to supervise building works including the selection and installation of proprietary building products and to certify compliance with the Buildings Ordinance upon completion of works. They are therefore responsible for ensuring the health and structural safety requirements, inter alia, of these building products in the building projects which they have been appointed by the developer to co-ordinate and supervise. It is also their responsibility to ensure these products have been installed in accordance with the manufacturers' specifications and complied with the Buildings Ordinance and Regulations.
3. In establishing the acceptability of the proprietary products in building works, reference may be made to the performance standards laid down in Building (Construction) Regulations 1990 and the current Practice Note for Authorized Persons and Registered Structural Engineers 140 in which performance requirements for compliance are given. Reliance may also be placed on the test/assessment report prepared by a recognized laboratory or an equivalent establishment.
4. Before the proprietary products are installed in a building project, the authorized person and/or registered structural engineer appointed for the project should be approached by the manufacturers or their agents for advice and guidance. **Prior approval/acceptance from the Buildings Department is not required.**
5. Generally, all relevant information supporting the use of the proprietary products in building works under the Buildings Ordinance should be submitted associated with the prescribed plans for approval on project basis.

/ Notwithstanding....


- 2 -

6. Notwithstanding the above, the proprietary building products to which 'No objection' letters have been given are still recognized as accepted constructional materials to be used in building works under the Buildings Ordinance provided that all conditions specified in the letters are satisfied. You are informed that the procedures currently adopted by the Building Authority for processing statutory approval of plans which involve the use of these proprietary building products remain unchanged.

7. It is a fact that the 'No objection' letter giving general acceptance to a proprietary building product is based on the technical information submitted to this Department at the time of its application. Should there be any significant modification to these technical information, the product will certainly be considered as 'new' product. The acceptability of such proprietary product in building works should be evaluated by the authorized person and/or registered structural engineer appointed for the project as mentioned above.

8. Should you have any further queries to the above, please feel free to contact the undersigned or Mr. T.C. Kan of this office at phone no. 2626 1583.

Yours faithfully,

  
(K.S. Chang)

Technical Secretary/Structural  
for Building Authority

tck/

Attn. : To whom it may concern

Date : 26 September 2023  
Ref. : 142/DF/DY/23

Subject : Country of Origin- Hilti X-U Nails

Dear Sir / Madam,

Enclosed please find the information of Hilti X-U Nails.

Brand Name : Hilti

Model Name : Hilti X-U Nails

Manufacturer : Hilti Corporation

Address of Manufacturer : FL-9494, Principality of Liechtenstein.

Manufacturer Contact Person : Dennis Yeung

Supplier : Hilti (Hong Kong) Ltd

Address of Supplier : 701-704, 7/F, Tower A, Manulife Financial Centre,  
223 Wai Yip Street, Kwun Tong, Kowloon, Hong Kong

Supplier Contact Person : Dennis Yeung (+852 9723 4621)

Country of Origin : Liechtenstein

Should you have further questions, please do not hesitate to contact our Technical Representatives, Customer Service Hotline at 8228-8118, or email us at [hksales@hilti.com](mailto:hksales@hilti.com).

Yours faithfully,



Dennis Yeung  
Head of Product Leadership Strategy, F&P



## Hilti X-U P8 Steel/Concrete Nails Job Reference

Year	Project Name	Customer Name	Project type
2020	LAI PING RD, KAU TO (614)	DELTA CONSTRUCTION ENGINEERING	Residential
2020	EAST KOWLOON CULTURAL CENTRE	HOI HING BUILDING MATERIALS CO LTD	Community & Cultural
2020	YUEN LONG STATION YLTL 510	KAM KEE STEEL'S WORKS LIMITED	Residential
2020	74, 74A-C WATERLOO RD	SI-O ENGINEERING COMPANY LIMITED	Residential
2020	Refurbishment - Residential - 1-11A, 13-23A & 25-39 Tit Shu	WINDWARD METALLIC ENGINEERING	Residential
2021	HUNG SHUI KIU, LOT 4312 DD 124	DELTA CONSTRUCTION ENGINEERING	Residential
2021	YAU TONG LOT 44	MINMETALS CONDO (HONG KONG)	Residential
2021	YUEN LONG STATION YLTL 510	KAM KEE STEEL'S WORKS LIMITED	Residential
2022	YUEN LONG STATION YLTL 510	KAM KEE STEEL'S WORKS LIMITED	Residential
2022	TAIKOO PLACE PH 2B	SUN HING ELECTRIC ENGINEERING	Office
2023	KAI TAK SPORTS PARK	WING YIP BUILDING MATERIALS	Sport & Recreation