Hilti X-C P8 Concrete Nails

Submission Folder

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Standard nail X-C

APPLICATIONS

- Drywall track to concrete
- Window frame metal sheet to concrete

ADVANTAGES

- Buckle-proof, high-strength hardened steel nail for demanding applications
- Rugged head resists pull-over forces and holds material down securely

Technical data	
Point type	Cut point
For use with	DX 2, DX 5, DX 351

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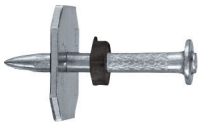
Standard nail for concrete X-C P8

Ordering designation	Fastener shank length	Fastener shank diameter	Sales pack quantity	Item number
X-C 22 P8	22 mm	3.5 mm	100 pc	**2091377**
X-C 27 P8	27 mm	3.5 mm	100 pc	**2091379**
X-C 27 P8 BULK	27 mm	3.5 mm	1000 pc	**2091380**
X-C 32 P8	32 mm	3.5 mm	100 pc	**2091381**
X-C 37 P8	37 mm	3.5 mm	100 pc	**2091383**[1)]
X-C 42 P8	42 mm	3.5 mm	100 pc	**2091385**
X-C 47 P8	47 mm	3.5 mm	100 pc	**2091387**[1)]

[1)] 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

Standard nail with steel washer X-C P8 S



Ordering designation	Fastener shank length	Fastener shank diameter	Washer diameter	Sales pack quantity	Item number
X-C 27 P8S23	27 mm	3.5 mm	23 mm	1000 pc	**2091396**
X-C 32 P8S23	32 mm	3.5 mm	23 mm	1000 pc	**2091399**

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

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

Fleet Management

Bluetooth™

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**

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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 & DX 5

Ordering designation	Sales pack quantity	Item number
Buffer X-5-460-B 	1 pc	**373330**[1]
Fastener guide X-5-460-F10 	1 pc	**373319**[1]
Fastener guide X-5-460-F8 	1 pc	**304529**
Fastener guide X-5-460 F8GR 	1 pc	**386012**[1]
Fastener guide X-5-460 F8N15 	1 pc	**304530**[1]
Fastener guide X-5-460-F8S12 	1 pc	**373317**[1]
Fastener guide X-5-460-F8SS 	1 pc	**373318**[1]
Piston X-5-460-P10	1 pc	**373300**[1]
Piston X-5-460-P8	1 pc	**373297**
Piston X-5-460-P8W	1 pc	**373298**[1]
Piston X-5-460-PGR	1 pc	**305448**[1]
Protective cap X-SGF 	1 pc	**304416**
Washer holder X-5-460-WH23/36 packed 	1 pc	**373331**[1]
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**

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

[1)] 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**[1)]
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**

[1)] 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

DESIGN AWARD 2015

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[1)]	104 dB (A)
Dimensions (LxWxH)	345 x 50 x 157 mm
Max. fastener driving rate	450 / h
Cartridge type	6.8/11 .27 caliber short, 6.8/11 M10
Fastener intake	Single
Fastener length range	14 - 62 mm

[1)] 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

Order Now

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

[1)] 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
Pipe X-PT 1ft		1 pc	**254685**
Pipe X-PT 3ft		1 pc	**254684**
Grip section X-PT assy		1 pc	**254687**
Tool bag X-PT CT		1 pc	**388152**
Spray 66ml		1 pc	**308976**
Safety glasses PP EY-CA NCH clear		1 pc	**2065449**[1)]

[1)] For detailed stock availability and lead time information please contact your Hilti representative.

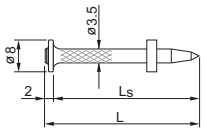
Please visit Hilti website for the latest item numbers and related products

X-C Nail for fastening to concrete and sand lime masonry

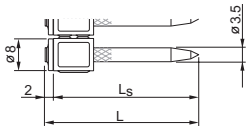
Product data

Dimensions

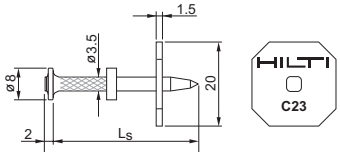
X-C __ P8



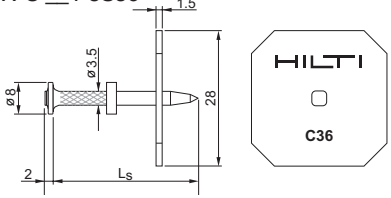
X-C __ MX



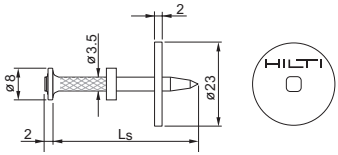
X-C __ P8S23



X-C __ P8S36



X-C __ P8S23T (for tunneling applications)



Material specifications

Carbon steel shank:	HRC 56.5 HRC 58 *)
Zinc coating:	5–20 µm

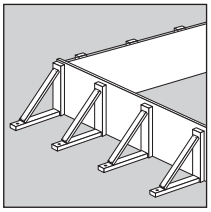
*) X-C 82, 97 and 117 P8 (d_{nom} = 3.7 mm)

Recommended fastening tools

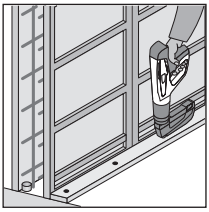
- See fastener program in the next pages.

Applications

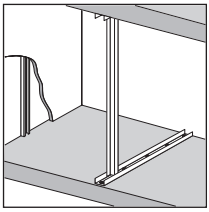
Examples



Conventional formwork



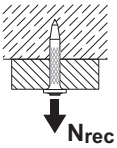
System formwork

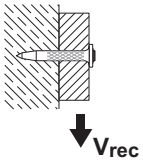


Drywall track to concrete

Performance data

Recommended resistance under tension and shear load





Fastening wood to concrete:		
N_{rec}	V_{rec}	h_{ET}
0.4 kN	0.4 kN	≥ 27 mm
0.3 kN	0.3 kN	≥ 22 mm
0.2 kN	0.2 kN	≥ 18 mm
0.1 kN	0.1 kN	≥ 14 mm

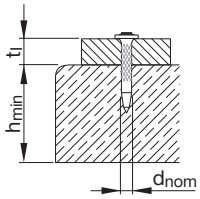
Fastenings to sandlime masonry:
$N_{rec} = V_{rec} =$ 0.4 kN for $h_{ET} \geq 27$ mm

Conditions:

- 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 $f_{cc} < 45$ N/mm².
- Valid for predominantly static loading.
- Failure of the fastened material is not considered in recommended loads.
- To limit penetration of nail in soft material and to increase pullover 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).

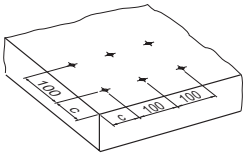
Application recommendation

Base material and fastened material thickness



Concrete
h_{min} = 80 mm
$t_I \leq$ 50.0 mm

Fastener positioning in base material



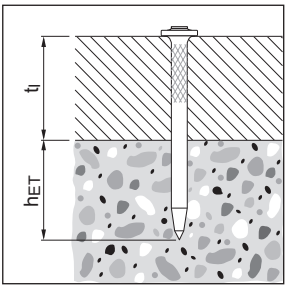
Edge distance: c ≥ 70 mm
Spacing: s ≥ 100 mm

Fastener shank length recommendation

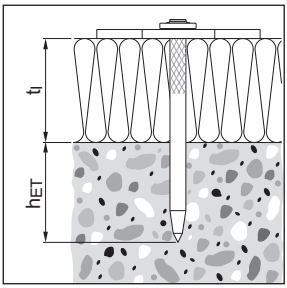
For standard fastening: $L_S = h_{ET} + t_I$ [mm]
For flush fastening: $L_S = h_{ET} + t_I - 5$ [mm]

Concrete: $h_{ET} = 22$ mm
Sandlime masonry: $h_{ET} = 27$ mm

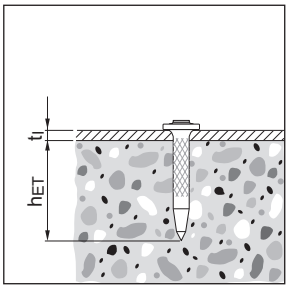
Fastening
wood to concrete
$t_I = 15 – 40$ mm



Fastening
insulation to concrete
$t_I = 15 – 40$ mm



Fastening
steel to concrete
$t_I = 0.6 – 2$ mm



Corrosion information

- The intended use for safety relevant and permanent applications only comprises fastenings which are not directly exposed to external weather conditions or moist atmospheres.
- For more details, please refer to following technical document: Hilti Corrosion Handbook.

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 masonry and concrete

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
	Cartridge type: 6.8/11 M	Cartridge type: 6.8/11 M
Sand lime masonry	titanium ■ (1-3)	green ■
Soft/medium concrete	titanium ■ (1-5)	green ■, yellow ■
Tough concrete	titanium ■ (4-8)	yellow ■, red ■

Cartridge recommendation for fastening steel to masonry and concrete

Base material	Cartridge color (tool power level)	
	Tool type: DX 6 MX DX 6 F8	Tool type: DX 5 MX, DX 460 MX, DX 351 MX DX 5 F8, DX 460 F8, DX 351 F8, DX 2
	Cartridge type: 6.8/11 M	Cartridge type: 6.8/11 M
Sand lime masonry	titanium ■ (1-3)	green ■
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.

Fastener program

Nails					Tools							
	Item no.		Specification		DX 6 MX, DX 5 MX, DX 460 MX	DX 6 F8, DX 5 F8, DX 460 F8	DX 2, DX 36	DX E72	DX 351 MX	DX 351 F8	DX 35	
Designation	Packs of 1000 pcs	Packs of 100 pcs	L_S (mm)	d_{nom} (mm)								Description
X-C 22 P8	2091378	2091377	22	3.5		■	■	■		■	■	Thin metal part to concrete
X-C 27 P8	2091380	2091379	27	3.5		■	■	■		■	■	Thin metal part to concrete
X-C 32 P8	2091382	2091381	32	3.5		■	■	■		■	▪	Thin metal part to concrete
X-C 37 P8	2091384	2091383	37	3.5		■	■	■		■	▪	Thin metal part to concrete
X-C 42 P8	2091386	2091385	42	3.5		■	■	■		■		Soft mat / Wood on concrete
X-C 47 P8	2091388	2091387	47	3.5		■	■	■		▪		Soft mat / Wood on concrete
X-C 52 P8	2091390	2091389	52	3.5		■	■	■				Wood on concrete
X-C 62 P8	2091392	2091391	62	3.5		■	■	■				Wood on concrete
X-C 72 P8		2091393	72	3.5		■	■	■				Wood on concrete
X-C 82 P8		360930	82	3.7		■	▪	■				Wood on concrete (with pre-hammering)
X-C 97 P8		360931	97	3.7		■	▪	■				Wood on concrete (with pre-hammering)
X-C 117 P8		360933	117	3.7		■	▪	■				Wood on concrete (with pre-hammering)
X-C 20 THP	2091373	2091372	20	3.5		■	■	■		■	■	Thin metal part to concrete
X-C 22 P8 S15TH		2091410	22	3.5		■	■	■				Thin metal part to concrete
X-C 22 P8TH	2091374	2091375	22	3.5		■	■	■		■	■	Thin metal part to concrete
X-C 27 P8TH		2091376	27	3.5		■	■	■		■	■	Thin metal part to concrete
X-C 27 P8S23	2091396	2091395	27	3.5		■	■	■		■	■	High pull-over strength on concrete
X-C 32 P8S23	2091399	2091397	32	3.5		■	■	■		■	▪	High pull-over strength on concrete
X-C 37 P8S23	2091401	2091400	37	3.5		■	■	■		■	▪	High pull-over strength on concrete
X-C 42 P8S23	2091404	2091403	42	3.5		■	■	■		■		High pull-over strength on concrete
X-C 47 P8S23	2091406	2091405	47	3.5		■	■	■		■		High pull-over strength on concrete
X-C 37 P8S36	2091407		37	3.5		■	■	■		■	▪	High pull-over strength on concrete
X-C 52 P8S36	2091408		52	3.5		■	■	■		■		High pull-over strength on concrete
X-C 62 P8S36	2091409		62	3.5		■	■	■				High pull-over strength on concrete
X-C 32 P8S23T	2091398		32	3.5		■	■	■				Tunneling applications
X-C 37 P8S23T	2091402		37	3.5		■	■	■				Tunneling applications
X-C 20 MX	2091264	2091265	20	3.5	■				■			Thin metal part to concrete
X-C 27 MX	2091266	2091267	27	3.5	■				■			Thin metal part to concrete
X-C 32 MX	2091268	2091269	32	3.5	■							Thin metal part to concrete
X-C 37 MX	2091360	2091361	37	3.5	■							Thin metal part to concrete
X-C 42 MX	2091362	2091363	42	3.5	■							Soft material / Wood on concrete
X-C 47 MX	2091364	2091365	47	3.5	■							Soft material / Wood on concrete
X-C 52 MX	2091366	2091367	52	3.5	■							Wood on Concrete
X-C 62 MX	2091368	2091369	62	3.5	■							Wood on Concrete
X-C 72 MX	2091370	2091371	72	3.5	■							Wood on Concrete

■ recommended, ▪ feasible

東業德勤測試顧問有限公司
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TEST REPORT

Hilti (Hong Kong) Ltd

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33 Canton Road, Tsim Sha Tsui, Kowloon, Hong Kong

Tensile and Shear Load Test of X- C Pin

[Embedment Depth= 25mm]

[Edge Distance= 140mm]

Ref.: In-house Method Based on ASTM E1190

Date Tested: 10-Nov-2008

ETL Ref. No.: 996/2008

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
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

Tensile Load Test on X - C 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 Laborartory

Report No. : FDA81369A
Test Date : 10-Nov-08
Report Date : 14-Feb-09
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	5.60	F4	X-C Pin (Spacing Distance= 80mm)	-
T2	5.20	F4		-
T3	5.50	F4		-
T4	5.60	F4		-
T5	5.70	F4		-
T6	5.20	F4		-
T7	5.20	F4		-
T8	5.30	F4		-
T9	5.30	F4		-
T10	5.40	F4		-
T11	5.30	F4		-
T12	5.70	F4		-
T13	5.40	F4		-
T14	5.50	F4		-
T15	5.60	F4		-
T16	5.60	F4		-
T17	5.40	F4		-
T18	5.70	F4		-
T19	5.60	F4		-
T20	5.70	F4		-

Maximum	(kN)	:	5.70
Minimum	(kN)	:	5.20
Average Failure Load	(kN)	:	5.48
Standard Diviation	(kN)	:	0.18

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 : Load Indicator,XT1500 (ET/930/02/02) S/N : 1000070260
- Load Cell : Comp. Load cell Thames, 50 kN (ET/930/11/01) S/N : BS4607/0227183
- Calibration Due Date : 07-Nov-09 Range: 0.1-50kN
- Load Cell Indicator : Load indicator AD813 (ET/930/11/02) S/N : -
- Cylinder : Enerpac Hydraulic RCH121 (ET/903/19) S/N : B1901C

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, Tsz San

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 - C 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 Laborartory

Report No. : FDA81369A
Test Date : 10-Nov-08
Report Date : 14-Feb-09
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	9.00	F4	X-C Pin (Spacing Distance= 80mm)	-
S2	9.20	F4		-
S3	9.40	F4		-
S4	8.80	F4		-
S5	8.70	F4		-
S6	9.10	F4		-
S7	9.30	F4		-
S8	9.40	F4		-
S9	9.00	F4		-
S10	8.90	F4		-
S11	8.60	F4		-
S12	9.10	F4		-
S13	8.90	F4		-
S14	9.20	F4		-
S15	9.00	F4		-
S16	8.80	F4		-
S17	8.70	F4		-
S18	9.30	F4		-
S19	9.40	F4		-
S20	8.80	F4		-

Maximum	(kN)	:	9.40
Minimum	(kN)	:	8.60
Average Failure Load	(kN)	:	9.03
Standard Diviation	(kN)	:	0.25

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 : Load Indicator,XT1500 (ET/930/02/02) S/N : 1000070260
Cylinder : Enerpac Hydraulic RCH121 (ET/903/19) S/N : B1901C

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:21.9°C

* Information provided by customer

Tested By: WONG, Tsz San

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

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- C Pin

[Embedment Depth= 25mm]

[Edge Distance= 60mm]

Ref.: In-house Method Based on ASTM E1190

Date Tested: 10-Nov-2008

ETL Ref. No.: 996/2008

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
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

Tensile Load Test on X - C 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 Laborartory

Report No. : FDA81368A
Test Date : 10-Nov-08
Report Date : 14-Feb-09
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	4.90	F4	X-C Pin (Spacing Distance= 80mm)	-
T2	4.80	F4		-
T3	5.00	F4		-
T4	5.10	F4		-
T5	4.70	F4		-
T6	5.00	F4		-
T7	4.80	F4		-
T8	5.00	F4		-
T9	4.90	F4		-
T10	4.70	F4		-
T11	5.00	F4		-
T12	4.80	F4		-
T13	5.00	F4		-
T14	5.20	F4		-
T15	5.00	F4		-
T16	4.80	F4		-
T17	5.00	F4		-
T18	4.70	F4		-
T19	5.00	F4		-
T20	4.90	F4		-

Maximum	(kN)	:	5.20
Minimum	(kN)	:	4.70
Average Failure Load	(kN)	:	4.92
Standard Diviation	(kN)	:	0.14

Notes:

A) Test Apparatus
Load Cell : Comp. Load cell YZC-219, 100kN (ET/930/10/01) S/N : 50603015
Calibration Due Date : 25-Mar-09 Range: 0.1-100kN
Load Cell Indicator : Load Indicator,XT1500 (ET/930/03/02) S/N : 1000090910
Cylinder : Enerpac Hydraulic RCH121 (ET/903/19) S/N : B1901C

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:21.7°C

* Information provided by customer

Tested By: CHUI, Chi To

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 - C 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 Laborartory

Report No. : FDA81368A
Test Date : 10-Nov-08
Report Date : 14-Feb-09
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	7.60	F4	X-C Pin (Spacing Distance= 80mm)	-
S2	7.30	F4		-
S3	7.40	F4		-
S4	7.80	F4		-
S5	7.60	F4		-
S6	7.60	F4		-
S7	7.20	F4		-
S8	7.70	F4		-
S9	7.50	F4		-
S10	7.60	F4		-
S11	7.70	F4		-
S12	7.40	F4		-
S13	7.50	F4		-
S14	7.30	F4		-
S15	7.50	F4		-
S16	7.20	F4		-
S17	7.30	F4		-
S18	7.40	F4		-
S19	7.10	F4		-
S20	7.20	F4		-

Maximum	(kN)	:	7.80
Minimum	(kN)	:	7.10
Average Failure Load	(kN)	:	7.45
Standard Diviation	(kN)	:	0.20

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 :	Load Indicator,XT1500 (ET/930/02/02)	S/N : 1000070260
Load Cell :	Comp. Load cell Thames, 50 kN (ET/930/11/01)	S/N : BS4607/0227183
Calibration Due Date :	07-Nov-09	Range: 0.1-50kN
Load Cell Indicator :	Load indicator AD813 (ET/930/11/02)	S/N : -
Cylinder :	Enerpac Hydraulic RCH121 (ET/903/19)	S/N : B1901C

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:21.7°C

* Information provided by customer

Tested By: CHUI, Chi To

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

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- C Pin

[Embedment Depth= 25mm]

[Edge Distance= 50mm]

Ref.: In-house Method Based on ASTM E1190

Date Tested: 11-Nov-2008

ETL Ref. No.: 996/2008

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
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

Tensile Load Test on X - C 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 Laborartory

Report No. : FDA81371A
Test Date : 11-Nov-08
Report Date : 14-Feb-09
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	4.70	F4	X-C Pin (Spacing Distance= 80mm)	-
T2	4.60	F4		-
T3	4.50	F4		-
T4	4.40	F4		-
T5	4.30	F4		-
T6	4.50	F4		-
T7	4.30	F4		-
T8	4.60	F4		-
T9	4.40	F4		-
T10	4.40	F4		-
T11	4.70	F4		-
T12	4.50	F4		-
T13	4.60	F4		-
T14	4.30	F4		-
T15	4.70	F4		-
T16	4.80	F4		-
T17	4.60	F4		-
T18	4.40	F4		-
T19	4.50	F4		-
T20	4.60	F4		-

Maximum	(kN)	:	4.80
Minimum	(kN)	:	4.30
Average Failure Load	(kN)	:	4.52
Standard Diviation	(kN)	:	0.15

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 : Load Indicator,XT1500 (ET/930/02/02) S/N : 1000070260
Cylinder : Enerpac Hydraulic RCH121 (ET/903/19) S/N : B1901C

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: CHOI, Chung Lung

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 - C 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 Laborartory

Report No. : FDA81371A
Test Date : 11-Nov-08
Report Date : 14-Feb-09
Page No. : 5 of 5
Test Method : In- house method based on ASTM E1190

Test Ref. No.	Failure Load (kN)	Failure Modes (see Ncte E)	* Type	Remarks
S1	5.50	F4	X-C Pin (Spacing Distance= 80mm)	-
S2	5.40	F4		-
S3	5.80	F4		-
S4	5.20	F4		-
S5	6.00	F4		-
S6	6.10	F4		-
S7	5.80	F4		-
S8	5.70	F4		-
S9	5.50	F4		-
S10	5.30	F4		-
S11	5.60	F4		-
S12	5.40	F4		-
S13	5.40	F4		-
S14	5.20	F4		-
S15	5.80	F4		-
S16	5.00	F4		-
S17	5.60	F4		-
S18	5.70	F4		-
S19	5.50	F4		-
S20	6.00	F4		-

Maximum	(kN)	:	6.10
Minimum	(kN)	:	5.00
Average Failure Load	(kN)	:	5.58
Standard Diviation	(kN)	:	0.29

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 : Load Indicator,XT1500 (ET/930/02/02) S/N : 1000070260
- Load Cell : Comp. Load cell Thames, 50 kN (ET/930/11/01) S/N : BS4607/0227183
- Calibration Due Date : 07-Nov-09 Range: 0.1-50kN
- Load Cell Indicator : Load indicator AD813 (ET/930/11/02) S/N : -
- Cylinder : Enerpac Hydraulic RCH121 (ET/903/19) S/N : B1901C

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 conc
- 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: CHOI, Chung Lung

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.

68 Chung On Street
13/F, City Landmark I
Tsuen Wan, NT

新界荃灣眾安街 68 號
荃灣城市中心一期 13 樓

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

13/F., City Landmark I,
68 Chung On Street,
Tsuen Wan, N.T.

新界荃灣眾安街六十八號
荃灣城市中心一期13字樓

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.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 Undertakings (Cartridge-Operated Fixing Tools) (Amendment of Schedule) Notice 1987. Citation.

2. The Schedule to the principal regulations is amended by inserting after item 27 the following— Amendment of Schedule. (Cap. 59, sub. leg.)

"28. Hilti Model DX 36M".

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.

Buildings Department
屋宇署

YOUR REF 來函檔號: 729-519
OUR REF 本署檔號: (3) in BD/GR/SEG/PPA(G)
FAX 圖文傳真: 2626 1762
TEL 電話: 2626 1583

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....

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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/

12/F, 18/F Pioneer Centre, 750 Nathan Road, Mongkok, Kowloon, Hong Kong. 香港九龍旺角彌敦道七五〇號拔萃中心十二樓至十八樓

Attn. : To whom it may concern

Date : 1 April 2025
Ref. : 093/DF/SC/25

Subject : Country of Origin- Hilti X-C Nails

Dear Sir / Madam,

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

Brand Name : Hilti

Model Name : Hilti X-C Nails

Manufacturer : Hilti Corporation

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

Manufacturer Contact Person : Spencer Cheung

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 : Spencer Cheung (+852 9732 1231)

Country of Origin : China

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.

Yours faithfully,

Spencer Cheung
Head of Product Leadership Strategy

Hilti (Hong Kong) Ltd.
701-704 | Tower A | Manulife Financial Centre
223 Wai Yip Street | Kwun Tong
Kowloon | Hong Kong
P +852-8228 8118 I **F** +852-2954 1751
www.hilti.com.hk

Hilti X-C P8 Concrete Nails Job Reference

Year	Project Name	Customer Name	Project type
2023	11 MIDDLE RD - KIMPTON HONG KONG	CR CONSTRUCTION COMPANY LIMITED	Hospitality
2023	11 MIDDLE RD - KIMPTON HONG KONG	CR CONSTRUCTION COMPANY LIMITED	Hospitality
2023	HKIA 3508 TERMINAL 2	SUMMAN ENGINEERING LIMITED	Transport
2024	11 MIDDLE RD - KIMPTON HONG KONG	CR CONSTRUCTION COMPANY LIMITED	Hospitality
2024	11 MIDDLE RD - KIMPTON HONG KONG	CR CONSTRUCTION COMPANY LIMITED	Hospitality
2024	391 CHAI WAN RD	GOLDENWALL ENGINEERING LIMITED	Residential
2024	391 CHAI WAN RD	GOLDENWALL ENGINEERING LIMITED	Residential
2024	391 CHAI WAN RD	GOLDENWALL ENGINEERING LIMITED	Residential
2024	FORMER EXCELSIOR REDEVELOP - PROJECT BLUE	GAMMON ENGINEERING & CONSTRUCTION	Office
2024	POLICE SCHOOL RD HKU DORM (459)	GOLDENWALL ENGINEERING LIMITED	Residential
2025	New - Office - 71 How Ming Street, Kwun Tong	GAMMON ENGINEERING & CONSTRUCTION	Office
2025	TUNG CHUNG EAST STATION & ASSOC. TRACKS (CONTRACT N	LUEN YAU CONSTRUCTION COMPANY	Transport
2024	HO MAN TIN STATION RES PACKAGE 1	MILLION HOPE INDUSTRIES LIMITED	Residential
2024	R6 CTL KLN ROUTE-CENTRAL TUNNEL HY/2018/08	BOUYGUES TRAVAUX PUBLICS	Infrastructure
2024	121-131 SHAU KEI WAN MAIN ST	SI-O ENGINEERING COMPANY LIMITED	Residential
2024	HKU, HIGH WEST - STUDENT HOSTEL	FORERUNNER SPECIALIST LIMITED	Residential
2024	NKIL 6593 (OPPOSITE TO KO CHIU RD /KO CHEUNG RD)	FORERUNNER SPECIALIST LIMITED	Residential
2024	456-466 SAI YEUNG CHOI ST NORTH, 50-56 WONG CHUK ST	UNIVERSAL ALUMINIUM ENGINEERING	Residential
2024	KAI TAK AREA 2B, SITE 2 - HOUSING & SHOPPING CENTRE	TAI WAH ALUMINIUM ENGINEERING	Residential
2024	11 CHUEN ON RD - ALICE HO MIU LING NETHERSOLE HOSPITAL	FORERUNNER SPECIALIST LIMITED	Health
2025	YING TUNG RD, AREA 99 - PUBLIC HOUSING	YAU LEE CONSTRUCTION MATERIALS LTD	Residential
2025	135 TAI HANG RD, INLAND LOT 9076	FORERUNNER SPECIALIST LIMITED	Residential