INDEX A PERFECT FIXING

FP08GUN

FP12GUN

FP-CG 08

FP-CL 08

FP-CG12

FP-CL12

FP-AP 08

FP-C30

FP-CGD12

FP-CLD12

FP-AM 08

FP-CR 08

FP-CR 08 M8

FP-CT12

AB-PID

FP-PI 08

FP-CR

FP-IP

FP-PISPL08

FP-PISCL12

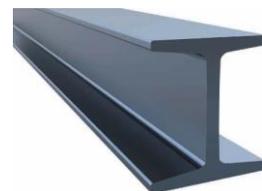**FP-PISCL08**

FP-PICM12

FP-PISCT12

CHARACTERISTICS

- **Semi-automatic gun with piston.**
- **Indirect fixation at low speed.**
- **Built-in security systems that guarantee good quality and performance.**
- **Power regulator.**
- **Low recoil.**
- **Silencer incorporated.**

BASE MATERIAL

APPLICATION EXAMPLES

• **Fixing of steel to concrete, between plates, hangers and threaded nails, etc.**

KIT CASES

1. RANGE

GUNS

ITEM	CODE	PHOTO	CANYON DIAMETER	DESCRIPTION
1	FP08GUN		Ø8 mm	Semiautomatic gun with powder cartridges and power regulator.
2	FP12GUN		Ø12 mm	Semiautomatic gun with powder cartridges and power regulator.

NAILS

ITEM	CODE	PHOTO	SIZE	COATING	DESCRIPTION
1	FP-CG 08		From 3,8 x 16 mm to 3,8 x 19 mm	ZINC	Knurled nail with plastic washer
2	FP-CL 08		From 3,8 x 16 mm to 3,8 x 70 mm	ZINC	Standard nail with plastic washer
3	FP-AP 08		3,8 x 51 mm	ZINC	Standard nail with plastic washer
4	FP-C30		From 3,8 x 37 mm to 3,8 x 47 mm	ZINC	Standard nail with plastic washer
5	FP-AM 08		From 3,8 x 37 mm to 3,8 x 51 mm	ZINC	Standard nail with metal washer
6	FP-CR 08		3,8 x 12 mm 3,8 x 22 mm 3,8 x 27 mm	ZINC	Threaded standard nails for clamps installation
7	FP-CR 08 M8		3,8 x 12 mm 3,8 x 27 mm	ZINC	Threaded standard nails for clamps installation
8	FP-PI 08		3,8 x 16 mm	ZINC	Clamp clip with nail and red rubber
9	FP-CG12		From 3,8 x 16 mm to 3,8 x 19 mm	ZINC	Knurled nail with metal washer
10	FP-CL12		From 3,8 x 22 mm to 3,8 x 47 mm	ZINC	Standard nail with metal washer
11	FP-CGD12		From 3,8 x 16 mm to 3,8 x 19 mm	ZINC	Knurled nails with double washer, metal and plastic
12	FP-CLD12		From 3,8 x 22 mm to 3,8 x 47 mm	ZINC	Knurled nails with double washer, metal and plastic
13	FP-CT12		3,8 x 16 mm	ZINC	Nails for ceiling installation
14	AB-PID		From 16 x 1 mm to 32 x 1,2 mm	ZINC	Clamp clip

CARTRIDGES

ITEM	CODE	PHOTO	POWER	TYPE OF CARTRIDGE	UNITS PER CARTRIDGE
1	FP-IP		Red: 6 Yellow: 4 Green: 3	6,8 x 11 mm	10
2	FP-CR		Red: 6 Yellow: 4	6,3 x 10 mm	10

PISTONS

ITEM	CODE	PHOTO	DETAIL	DESCRIPTION
1	FP-PISCL08			FP08GUN Piston. Valid for concave head nails: FP-AP
2	FP-PISPL08			FP08GUN Piston. Valid for flat head nails: FP-CG/FP-CL/FP-AM/FP-CR/FP-PI
3	FP-PISCL12			FP12GUN Piston. Valid for concave head nails: FP-CG/FP-CGD/FP-CLD/FP-CLD
4	FP-PISCM12			FP12GUN Piston. Valid for metric threaded nails for clamps installation.
5	FP-PISCT12			FP12GUN Piston. Valid for ceiling installation nails: FP-CT

2. INSTALLATION DATA

2.1 FP-CG 08 — Knurled nail with plastic washer

Characteristics	Coating	Base Material	
- Red rubber incorporated. - Knurled for metal fixings. (Beams, sheets, etc.) - Use piston FPPISPL08	Zinc-plated	IPN beam	Sheet

Installation data

Code	Ø d (mm)	Ø D (mm)	L (mm)	DRAWING
FPCG0816	3,8	10	16	Ød ØD L
FPCG0819	3,8	10	19	

Compatible with **8mm caliber guns** (*Hilti:* DX 6, DX 5, DX 351, DX 2; *Desa:* PRO-08, PRO-08 PLUS) and **9mm caliber guns** (*Spit:* P370, P390, P60; *Desa* PRO- 09).

2.2 FP-CL 08 — Standard nail with plastic washer

Characteristics	Coating	Base Material	
- Red rubber incorporated. - Length variety - Use piston FPPISPL08	Zinc-plated	Reinforced concrete	Concrete

Installation data

Code	Ø d (mm)	Ø D (mm)	L (mm)	DRAWING
FPCL0816	3,8	10	16	Ød ØD L
FPCL0819	3,8	10	19	
FPCL0825	3,8	10	25	
FPCL0827	3,8	10	27	
FPCL0832	3,8	10	32	
FPCL0838	3,8	10	38	
FPCL0844	3,8	10	44	
FPCL0851	3,8	10	51	
FPCL0857	3,8	10	57	
FPCL0864	3,8	10	64	
FPCL0870	3,8	10	70	

Compatible with **8mm caliber guns** (*Hilti:* DX 6, DX 5, DX 351, DX 2; *Desa:* PRO-08, PRO-08 PLUS) and **9mm caliber guns** (*Spit:* P370, P390, P60; *Desa* PRO- 09).

2.3 FP-AP 08 — Standard nail with plastic washer

Characteristics	Coating	Base Material	
- Plastic washer of 66 mm - Use piston FPPISCL08	Zinc-plated	Reinforced concrete	Concrete

Installation data

CODE	Ø d (mm)	L (mm)	Ø A (mm)	DRAWING
FPAP085166	3,8	51	66	

Compatible with **8mm caliber guns** (*Hilti:* DX 6, DX 5, DX 351, DX 2; *Desa:* PRO-08, PRO-08 PLUS)

2.4 FP-AM 08 — Standard nail with metal washer

Characteristics	Coating	Base Material	
- Red rubber incorporated. - Metal washer of 36 mm - Use piston FPPISCL08	Zinc-plated	Reinforced concrete	Concrete

Installation data

Code	Ø d (mm)	Ø D (mm)	L (mm)	Ø A (mm)	DRAWING
FPC303708	3,7	37	35	FPC303708	
FPC304708	3,7	47	35	FPC304708	

Compatible with **8mm caliber guns** (*Hilti:* DX 6, DX 5, DX 351, DX 2; *Desa:* PRO-08, PRO-08 PLUS)

2.5 FP-AM 08 — Standard nail with metal washer

Characteristics	Coating	Base Material	
- Red rubber incorporated. - Metal washer of 36 mm - Use piston FPPISPL08	Zinc-plated	Reinforced concrete	Concrete

Installation data

Code	Ø d (mm)	Ø D (mm)	L (mm)	Ø A (mm)	DRAWING
FPAM0837	3,8	10	37	36	
FPAM0851	3,8	10	51	36	

Compatible with **8mm caliber guns** (_Hilti:_ DX 6, DX 5, DX 351, DX 2; _Desa:_ PRO-08, PRO-08 PLUS) and **9mm caliber nailers** (_Spit:_ P370, P390, P60; _Desa_ PRO- 09).
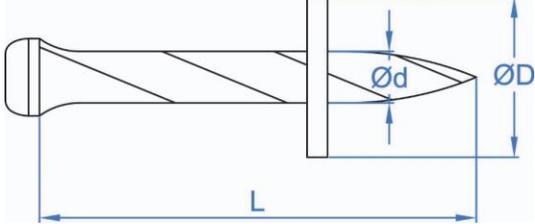
2.6 FP-CR 08 — Threaded nail with plastic washer

Characteristics	Coating	Base Material	
- Red rubber incorporated. - Metric thread - Use piston FPPISPL08	Zinc-plated	Reinforced concrete	Concrete

Installation data

Code	Ø d (mm)	Ø D (mm)	L (mm)	M	DRAWING
FPCR0812*	3,8	10	12	M6	
FPCR0822	3,8	10	22	M6	
FPCR0827	3,8	10	27	M6	

* Use material: Steel.

Compatible with **8mm caliber guns** (_Hilti:_ DX 6, DX 5, DX 351, DX 2; _Desa:_ PRO-08, PRO-08 PLUS) and **9mm caliber guns** (_Spit:_ P370, P390, P60; _Desa_ PRO- 09).
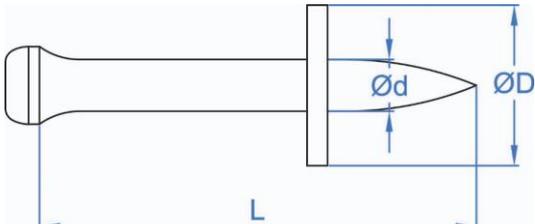
2.7 FP-CR 08 M8 — Threaded nail with plastic washer

	Características	Characteristics	Characteristics
	- Red rubber incorporated. - Metric thread - Use piston FPPISPL08	Zinc-plated	Reinforced concrete / Concrete

Installation data

Code	L (mm)	M	DRAWING
FPCRM80812	12	M8	
FPCRM80827*	27	M8	

* Use material: Steel.

Compatible with **8mm caliber guns** (*Hilti:* DX 6, DX 5, DX 351, DX 2; *Desa:* PRO-08, PRO-08 PLUS) and **9mm caliber guns** (*Spit:* P370, P390, P60; *Desa* PRO- 09).

2.8 FP-PI 08 — Clamp clip with nail and red rubber

	Characteristics	Coating	Base Material
	- Red rubber incorporated. - Clamp clip of 13 mm - Use piston FPPISPL08	Zinc-plated	Reinforced concrete / Concrete

Installation data

Code	Ø d (mm)	Ø D (mm)	L (mm)	C (mm)	DRAWING
FPPI081613	3,8	10	16	13	

Compatible with **8mm caliber guns** (*Hilti:* DX 6, DX 5, DX 351, DX 2; *Desa:* PRO-08, PRO-08 PLUS) and **9mm caliber guns** (*Spit:* P370, P390, P60; *Desa* PRO- 09).

2.9 FP-CG 12 — Knurled nail with metal washer

Characteristics	Coating	Base Material	
- Metal washer. - Knurled nailfor metal fixings. (Beams, sheets, etc.) - Use piston FPPISCL12	Zinc-plated	IPN Beam	Sheet

Installation data

Code	Ø d (mm)	Ø D (mm)	L (mm)	DRAWING
FPCG1612	3,8	12	16	
FPCG1912	3,8	12	19	

Compatible with **12mm caliber guns** (*Hilti:* DX 450; *Desa:* PRO-12).

2.10 FP-CL 12 — Standard nail with metal washer

Characteristics	Coating	Base Material	
- Metal washer. - Length variety - Use piston FPPISCL12	Zinc-plated	Reinforced concrete	Concrete

Installation data

Code	Ø d (mm)	Ø D (mm)	L (mm)	DRAWING
FPCL2212	3,8	12	22	
FPCL2712	3,8	12	27	
FPCL3212	3,8	12	32	
FPCL3712	3,8	12	37	
FPCL4212	3,8	12	42	
FPCL4712	3,8	12	47	

Compatible with **12mm caliber guns** (*Hilti:* DX 450; *Desa:* PRO-12).

2.11 FP-CGD 12 — Knurled nail with double washer, metal and plastic

Characteristics	Coating	Base Material	
- Metal and plastic washer. - Knurled nail for metal fixings. (Beams, sheets, etc.) - Use piston FPPISCL12	Zinc-plated	IPN Beam	Sheet

Installation data

Code	Ø d (mm)	Ø D (mm)	L (mm)	DRAWING
FPCGD1612	3,8	12	16	
FPCGD1912	3,8	12	19	

Compatible with **12mm caliber guns** (*Hilti:* DX 450; *Desa:* PRO-12).

2.12 FP-CLD 12 — Standard nail with double washer, metal and plastic

Characteristics	Coating	Base Material	
- Metal and plastic washer. - Length variety - Use piston FPPISCL12	Zinc-plated	Reinforced concrete	Concrete

Installation data

Code	Ø d (mm)	Ø D (mm)	L (mm)	DRAWING
FPCLD2212	3,8	12	22	
FPCLD2712	3,8	12	27	
FPCLD3212	3,8	12	32	
FPCLD3712	3,8	12	37	
FPCLD4212	3,8	12	42	
FPCLD4712	3,8	12	47	

Compatible with **12mm caliber guns** (*Hilti:* DX 450; *Desa:* PRO-12).

2.13   FP-CT 12 — Nail for ceilings installation

	Characteristics	Coating	Base Material	
	- Plastic washer. - Extension for fixing false ceilings. - Use piston FPPISCT12.	Zinc-plated	IPN Beam	Sheet

Installation data

Code	Ø d (mm)	Ø D (mm)	L1 (mm)	L2 (mm)	DRAWING
FPCT3212	3,8	12	32	22	
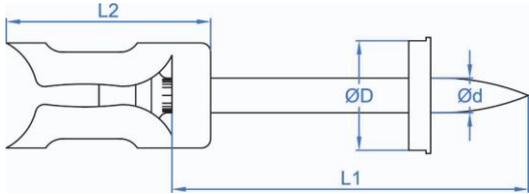
Compatible with **12mm caliber guns** (*Hilti:* DX 450; *Desa:* PRO-12).

2.14   AB-PID — Conduit clip for gun

	Characteristics	Coating	Base Material	
	- Available for both guns - From Ø16 to Ø32	Zinc-plated	IPN Beam	Sheet

Installation data

Code	A (mm)	B (mm)	C (mm)	G (mm)	DRAWING
ABPID16	16	15	12	1	
ABPID20	20	19	12	1,2	
ABPID25	25	23,8	15	1,2	
ABPID32	32	30,8	15	1,2	
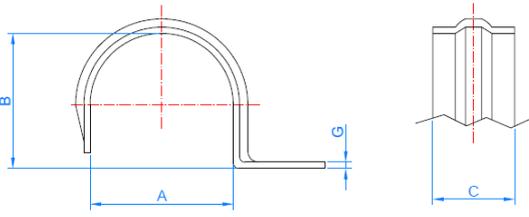
Compatible with all guns on the market.

3. OPERATING INSTRUCTIONS

3.1 FP08GUN

1. After checking that the gun is not loaded, point it in a safe direction and check that the barrel is completely extended. This will ensure that the piston is in the correct position for the next fastening.

2. Quickly and firmly pull the nail cartridge holder outwards [A]. Insert a nail in the nail cartridge holder with the point facing outwards until its point is firmly inside. Push the nail cartridge holder firmly back inside the gun until it is fixed in place [B].

3. Insert a strip of 10 charges in the bottom of the handle until the end of the strip is flat with the bottom of the handle.

4. Hold the gun perpendicularly (90°) with both hands against the work surface, and firmly press down to keep it in place. Keep a firm downward pressure on the gun with both hands and pull the trigger so that a charge is detonated and the nail is applied to the fastening element.

5. Gently and gradually ease the pressure on the gun once the nail is applied, and make sure the gun comes away from the surface. In order to apply another nail, repeat steps 2, 3 and 4.
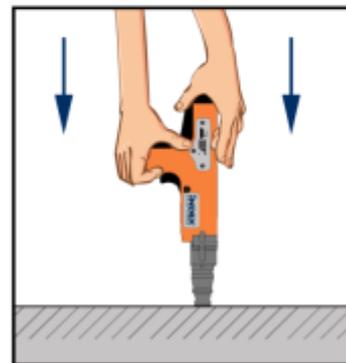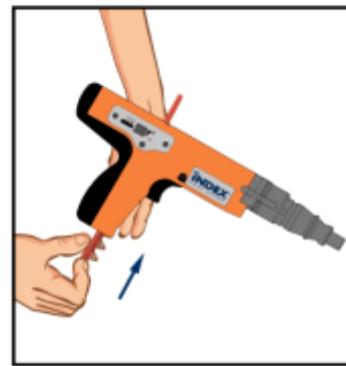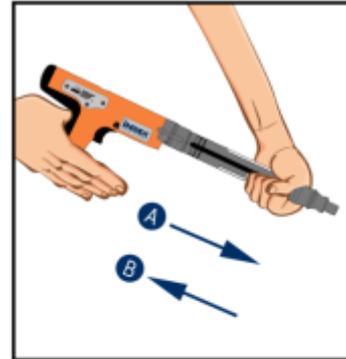
3.1 FP12GUN

6. Hold tool with muzzle upwards. Insert fastener point first in cocking lever and let it slide down.

7. Pull firmly to release and swing over cocking lever till aligned with muzzle.

8. Pull back cocking grip on cocking lever as far as it goes. This positions fastener correctly in guide. Return grip and pivot cocking lever back to its original position.

9. Insert a load strip into the tool from the bottom of the feed track housing until the bottom edge is flush with the bottom of the housing.

10. Check power regulation. Indicator in rear position (3) means the max. power.

11. Hold tool perpendicular to work surface. Depress tool completely and squeeze trigger.

12. Repeat step 1 to 6 until all ten loads in the strip have been fired.

13. Pull the fired load strip from the top of the tool, and repeat the entire sequence until all desired fastenings are made.
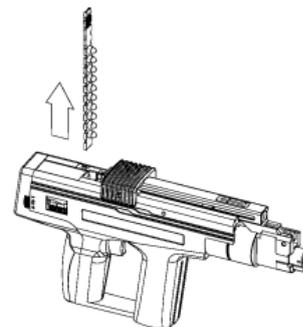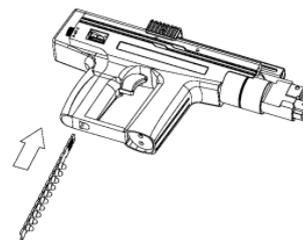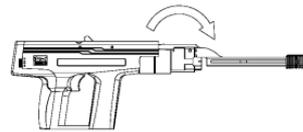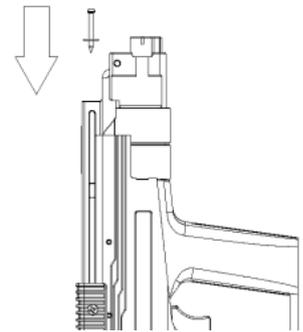
4. MAXIMUM RECOMMENDED LOAD

4.1 CONCRETE

Code	Tipe of concrete	Min. Installation Depth h_{nom} (mm)	Nrec (kN)	Vrec (kN)
FP-CL 08	C16/20	30	0,43	-*
	C20/25	25		
	C25/30	25		
FP-AP 08	C16/20	30	0,43	-*
	C20/25	25		
	C25/30	25		
FP-C30	C16/20	30	0,43	-*
	C20/25	25		
	C25/30	25		
FP-AM 08	C16/20	30	0,43	-*
	C20/25	25		
	C25/30	25		
FP-CR 08	C16/20	30	0,43	-*
	C20/25	25		
	C25/30	25		

4.1 STEEL

| Code	Min. Installation Depth - h_{nom} (mm)	Nrec (kN)	Vrec (kN)
FPCR0812	8	2,43	-*
FPCG0816	8		
FPCG0819	8		

* For shear values (Vrec), a maximum load value equal to 50% of the tensile value (Nrec) is recommended, as long as it is guaranteed that the element to be fixed will be made with a group of nails (a group of nails is considered from 5 or more). This same criterion of the group of nails is applicable to those that work in traction.

4. POWER SELECTION

The power level of a charge is indicated by its number and the color of the strip:

POWER SELECTION				
Reference	Number	Color	Power	Application
FPP4AM	2	Yellow	Medium	Concrete < 350 kg/cm^2 Solid Masonry
FPP5RO	3	Red	High	Concrete > 350 kg/cm^2 Steel
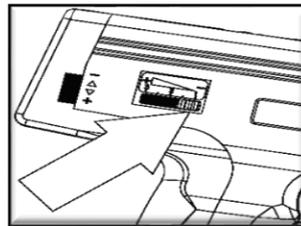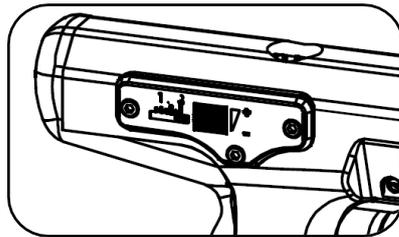
Always perform a test fastening by first using a charge with the lowest power level (yellow).
The power can be adjusted using the dial located at the rear of the gun, where 1 is the lowest power.
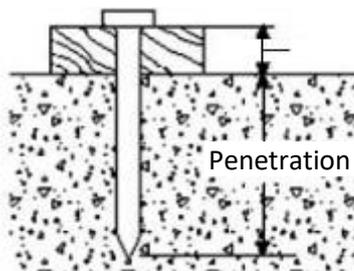
5. NAIL LENGTH SELECTION

5.1 STEEL

Fixture thickness
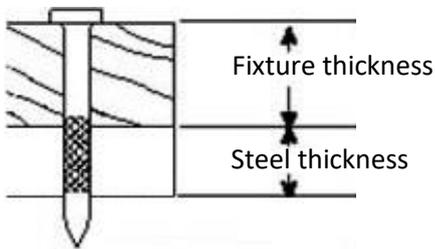
Steel thickness

Nail length = Fixture thickness + Steel thickness

5.1 CONCRETE

Penetration

Total nail length = Fixture thickness + Penetration