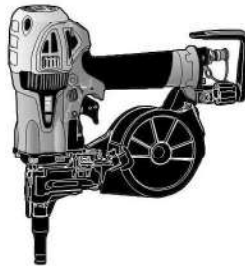


# ***PowerLite***

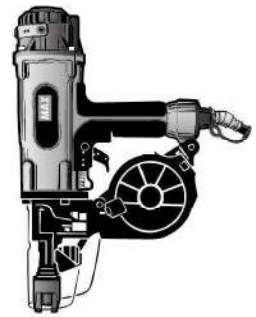
# **MAX**

## **OPERATING INSTRUCTIONS MANUAL**

**HIGH PRESSURE CONCRETE &  
STEEL PINNER**



**HN25C2**



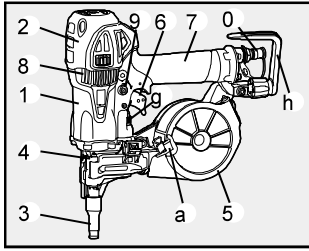
**HN120**

Original Language: English

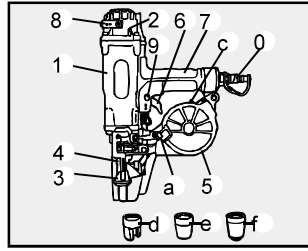
**▲WARNING**

Please read instructions and warnings for this tool carefully before use. Failure to do so could lead to serious injury. See MAX Safety Instructions Manual. Keep these instructions with the tool for future reference.

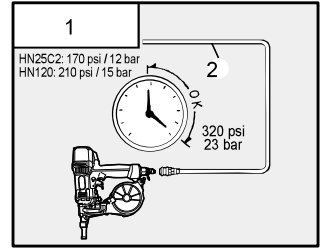
**Fig.1** HN25C2



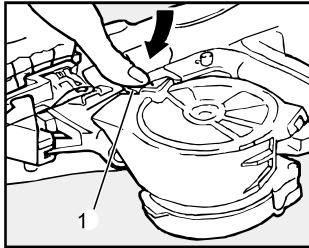
**Fig.2** HN120



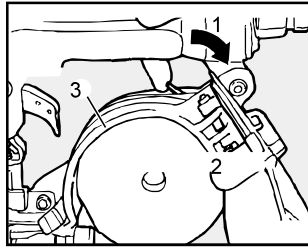
**Fig.3**



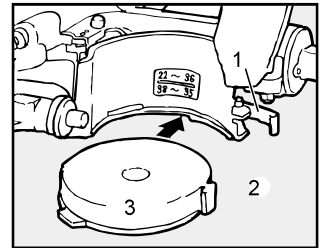
**Fig.4**



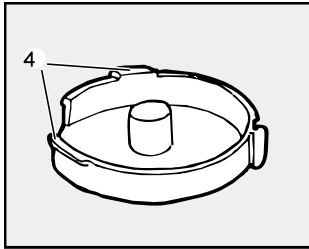
**Fig.5**



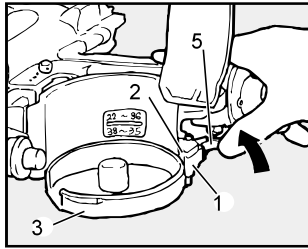
**Fig.6**



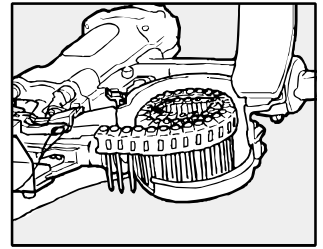
**Fig.7**



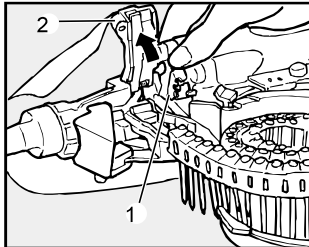
**Fig.8**



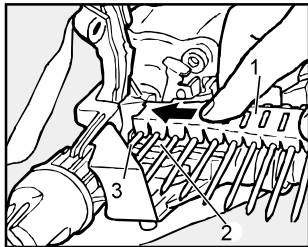
**Fig.9**



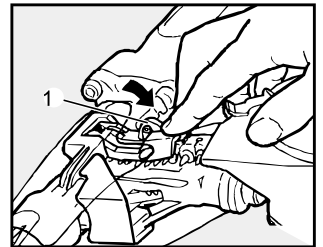
**Fig.10**



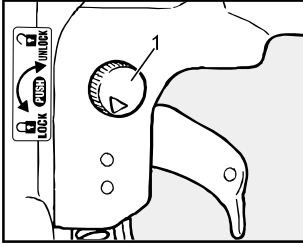
**Fig.11**



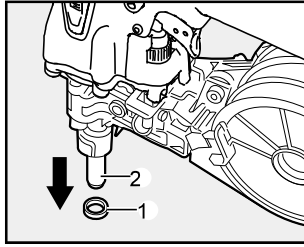
**Fig.12**



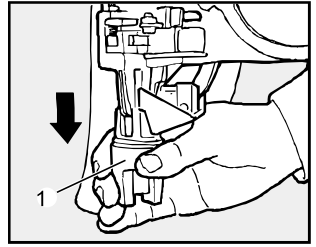
**Fig.13**



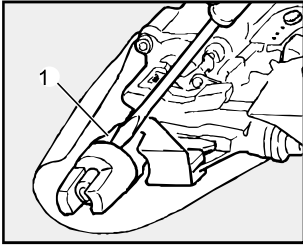
**Fig.14** HN25C2



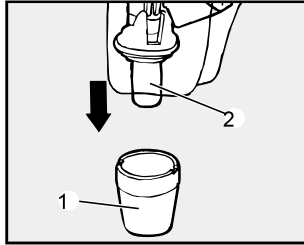
**Fig.15**



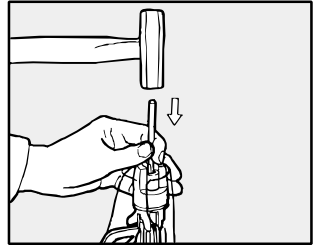
**Fig.16**



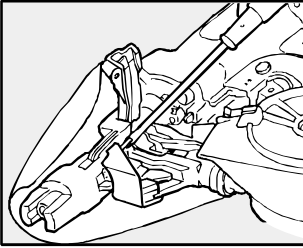
**Fig.17**



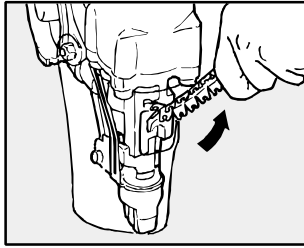
**Fig.18**



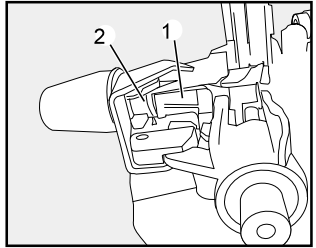
**Fig.19**



**Fig.20**



**Fig.21**



# ENGLISH

## OPERATING INSTRUCTIONS MANUAL

### 1. SPECIFICATIONS AND TECHNICAL DATA

#### 1. NAME OF PARTS (SEE Fig.1, 2)

- |                   |   |                  |
|-------------------|---|------------------|
| (1) Frame         | (9) Trigger Lock Dial                                   | (17) Adjust Dial |
| (2) Cylinder Cap  | (10) Plug   | (18) Belt Hook   |
| (3) Contact Arm   | (11) Magazine Cap Lever                                 |                  |
| (4) Nose          | (12) Adjust Dial  |                  |
| (5) Magazine      | (13) Magazine Lock Lever                                |                  |
| (6) Trigger       | (14) Attachment-A (For thin steel to concrete)          |                  |
| (7) Grip          | (15) Attachment-B (For wood to concrete or thick steel) |                  |
| (8) Exhaust Cover | (16) Attachment-C (For light gauge track to concrete)   |                  |

#### 2. TOOL SPECIFICATIONS

| PRODUCT NO.                    | HN25C2  | HN120  |
|--------------------------------|---|--|
| HEIGHT                         | 302 mm (12")                                    | 400 mm (15-3/4")                               |
| WIDTH                          | 81 mm (3-1/4")                                  | 85 mm (3-3/8")                                 |
| LENGTH                         | 300 mm (11-3/4")                                | 315 mm (12-3/8")                               |
| WEIGHT                         | 2.0 kg (4 lbs.)                                 | 2.9 kg (6.4 lbs.)                              |
| RECOMMENDED OPERATING PRESSURE | 12 to 23 bar (170 to 320 p.s.i.)                | 15 to 23 bar (210 to 320 p.s.i.)               |
| LOADING CAPACITY               | 100 Nails                                       | 50 Nails                                       |
| AIR CONSUMPTION                | 1.6 L at 18 bar / 257 p.s.i. operating pressure | 4.7L at 23 bar / 322 p.s.i. operating pressure |

#### 3. FASTENER SPECIFICATIONS

| PRODUCT NO.        | HN25C2                            | HN120                             |                                   |
|--------------------|-----------------------------------|-----------------------------------|-----------------------------------|
|                    |                                   | PLASTIC SHEET COLLATED NAILS      | PLASTIC SHEET COLLATED PINS       |
| TYPE OF COLLATION  | PLASTIC SHEET COLLATED PINS       | PLASTIC SHEET COLLATED NAILS      | PLASTIC SHEET COLLATED PINS       |
| NAIL LENGTH        | 16 to 25 mm<br>(5/8" to 1")       | 32 to 65 mm<br>(.113" to .148")   | 22 to 52 mm<br>(7/8" to 2")       |
| SHANK DIAMETER     | 2.5 to 3.0 mm<br>(.102" to .118") | 2.9 to 3.8 mm<br>(.099" to .113") | 3.8 mm<br>(.148")                 |
| HEAD DIAMETER      | 6.3 mm<br>(.248")                 | 6.5 to 7.7 mm<br>(.256" to .303") | 7.2 to 8.0 mm<br>(.283" to .315") |
| HEAD THICKNESS     | 1.3 mm<br>(.051")                 | 1.0 to 1.5 mm<br>(.039" to .059") | 2.0 mm<br>(.079")                 |
| SHANK TYPE         | Smooth, Step                      | Smooth, Screw                     | Smooth                            |
| SHAPE OF THE POINT | BALLISTIC POINT                   | DIAMOND POINT                     | BALLISTIC POINT                   |

#### 4. TECHNICAL DATA

##### NOISE

|  | HN25C2  | HN120   |
|--|---------|---------|
| A-weighted single-event sound power level --- LWA, 1s, d                             | 91.6 dB | 99.8 dB |
| A-weighted single-event emission sound pressure level at work station---- LpA, 1s, d | 84.1 dB | 94.0 dB |
| Uncertainty  | 3 dB    |         |

These values are determined and documented in accordance to EN12549:1999+A1:2008.

NOTE: These values are tool-related characteristic values and do not represent the noise generation at the point of use. Noise at the point of use will for example depend on the working environment, the workpiece, the workpiece support, and the number of driving operations. In addition, reference should be made to noise reduction measures.

NOTE: Workplace design can also serve to reduce noise levels, for example placing workpieces on sound-damping supports (see also ISO 11690-1).

#### VIBRATION

|                                | HN25C2                | HN120                 |
|--------------------------------|-----------------------|-----------------------|
| Vibration characteristic value | 3,97 m/s <sup>2</sup> | 5,44 m/s <sup>2</sup> |
| Uncertainty                    | 1,5 m/s <sup>2</sup>  |                       |

These values are determined and documented in accordance to ISO 28927-13

NOTE: The vibration emission value above is a tool-related characteristic value and does not represent the influence to the hand-arm-system when using the tool. Any influence to the hand-arm-system when using the tool will for example depend on the gripping force, the contact pressure force, the working direction, the adjustment of energy supply, the workpiece, the workpiece support.

## 5. APPLICATIONS

| HN25C2  | HN120   |
|---|---|
| <ul style="list-style-type: none"> <li>* A thin steel plate to concrete</li> <li>* A thin steel plate to a thick steel plate</li> </ul> | <ul style="list-style-type: none"> <li>* A thin steel plate to concrete</li> <li>* A wooden material to concrete</li> <li>* A wooden material to a thick steel plate</li> </ul> |

## 6. ABOUT PRODUCTION YEAR

This product bears production number at the lower part of the grip of the main body. The two digits of the number from left indicates the production year.

(Example)

1 9 8 2 6 0 3 5 D

┆  
Year 2019

## 2. AIR SUPPLY AND CONNECTIONS (Fig.3)

### A. HOSES AND SUPPLY SOURCE

WHEN USING THE TOOL, BE SURE TO USE A SPECIAL AIR COMPRESSOR AND AIR HOSE.

In order to improve its performance, it has set its working pressure higher than the conventional nailers. To use the tool, you always need the special air compressor 1 and the air hose 2 (MAX PowerLite Compressor and MAX PowerLite Hose). Use of high pressure gas (for example, oxygen, acetylene, etc.) causes abnormal combustion, possibly resulting in explosion. Use only the special air compressor and air hose.

### B. OPERATING PRESSURE:

HN25C2: 12 to 23 bar / 170 to 320 p.s.i. HN120: 15 to 23 bar / 210 to 320 p.s.i.

Select the operating air pressure within this range for best performance based upon the fastener application and work surface. Using the lowest acceptable to minimize noise, vibration and wear.

**▲ DO NOT EXCEED 23 bar / 320 p.s.i.**

### NOTICE:

Frequent, but not excessive, lubrication is required for the best performance. Upon completion of operations, place 2 or 3 drops of oil into the air plug inlet with the jet oiler.

## 3. INSTRUCTIONS FOR OPERATION

### 1. BEFORE OPERATION

- 1) Wear Safety Glasses or Goggles.
- 2) Do not connect the air supply.
- 3) Inspect screw tightness.
- 4) Check operation of the contact arm & the trigger if moving smoothly.
- 5) Connect the air supply.
- 6) Check the air leakage. (The Tool must not have the air leakage.)
- 7) Hold the Tool with finger-off the trigger, then push the contact arm against the work-piece. (The tool must not operate.)
- 8) Hold the Tool with contact arm free from work-piece and pull the trigger. (The Tool must not operate.)
- 9) Disconnect the air supply.

### 2. OPERATION

#### PIN / NAIL LOADING

- 1) Lock the trigger and disconnect the air hose.
- 2) (Fig.4) First, push the magazine cap lever (1) to open the magazine cap.
  - HN120
 (Fig.5) Check adjustment:  
Release the magazine lock lever (1) to detach the magazine from the magazine hook, and remove the magazine (2) from the magazine holder (3).
- 4)
  - HN120
 (Fig.6 to 8) Determine the magazine direction in tune with the length of pins (or nails) used, fit the magazine collar (4) into the groove in the magazine holder, set the magazine hook (1) onto its mating part (2), and push the magazine lock lever (5) to secure the magazine (3).  
At shipment, the magazine has been set in the direction for the pin/nail length of 22 to 32 mm. When using 38 mm or longer pins/nails, set the magazine reversely. Be sure to set the magazine direction in tune with the length of pins (or nails) used. If used in the inadequate direction, the pins (or nails) are not fed properly.
  - (Fig.6) For 22 to 32 mm, (Fig.7) For 38 to 65 mm
- 5) (Fig.9) Set the pins (or nails) and pull out the front end of the pin (or nail) coil.

- 6) (Fig.10) Push the door lever (1) to open the door (2).
- 7) (Fig.11) Push in the pin (or nail) coil (1) along the bridge (2) until it has reached the end. Pushing it in causes a feed pawl (3) to swing away in between the first and second pins (or nails). Stop pushing it there.  
Confirm that the first pin (or nail) has been entirely set before the feed pawl (into the nose).
- 8) (Fig.12) Push the door to close it.  
Push the door firmly until the door lever has clicked.
- 9) Close the magazine cap.
- 10) Connect the air chuck to the air plug. You are now ready to drive the pins (or nails).

### TEST OPERATION

- 1) Adjust the air pressure at 12 bar (170 p.s.i.) for HN25C2 and 15 bar (210 p.s.i.) for HN120 and connect the air supply.
- 2) Without touching the trigger, depress the contact arm against the work-piece.  
Pull the trigger. (The tool should fire the fastener.)
- 3) With the tool off the work-piece, pull the trigger.  
Then depress the contact arm against the work-piece. (The tool should not fire the fastener.)
- 4) Adjust the air pressure as lowest as possible according to the diameters and length of the fastener and the hardness of work-piece.

### DRIVING FASTENERS

This tool is assembled with FULL SEQUENTIAL ACTUATION.

### FULL SEQUENTIAL ACTUATION OPERATION

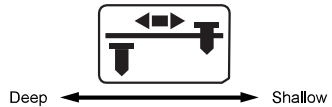
For full sequential actuation operation, depress the contact arm against work surface and pull trigger. A fastener will be driven. Release both trigger and Contact Arm. Begin again.

|                           | PROCEDURE   |
|---------------------------|---|
|                           | 1) Pulling the trigger and keeping it pulled.<br>2) Depressing the contact arm. |
| FULL SEQUENTIAL ACTUATION | The tool cannot fire a nail.  |

|                           | PROCEDURE  |
|---------------------------|--|
|                           | 1) Depressing the contact arm.<br>2) Pulling the trigger and keeping it pulled.  |
| FULL SEQUENTIAL ACTUATION | The tool fires a nail.<br>In order to fire a second nail, you should both release the Trigger and remove the Contact arm from the surface. |

### DRIVING DEPTH ADJUSTMENT DIAL (HN25C2)

Adjust the driving depth by twisting the adjustment dial as indicated below.



### TRIGGER LOCK MECHANISM (Fig.13)

This tool has a Trigger Lock. The trigger should be locked at all times until you intend to drive nail into the work surface. Push and rotate the trigger lock dial (1) clockwise from LOCK to UNLOCK position immediately before driving nails. When fastening is complete, push and rotate switch counterclockwise to LOCK position.

CONTACT TIP (HN25C2) (Fig.14)

### **▲WARNING**

- **ALWAYS lock the trigger and disconnect air supply before replacing the contact tip.**

Attach the contact tip (1) on the tip of contact arm (2), when driving nails to a soft material.

### REPLACING THE ATTACHMENT (HN120)

The machine comes with the attachments B and C as accessories. See the following for the replacement method.

### **▲WARNING**

- **ALWAYS lock the trigger and disconnect air supply before replacing the attachment.**
- 1) (Fig.15) Remove the attachment A (1) which has been attached at shipment; hold and draw it out with your hand, while holding it.  
(Fig.16) If it is not smoothly drawn out, insert a regular screwdriver, etc., into the clearance Regular screwdriver between a contact arm (1) and it, and squeeze it to remove.
  - 2) (Fig.17) Put down the attachment B or C (1), insert the contact arm (2) of the machine, and push it against to attach.

### REMOVING JAMMED NAILS

### **▲WARNING**

- **ALWAYS disconnect the air supply.**
- **Wear gloves when removing jams; do not use bare hands**
- **Confirm that you have removed all nails from nose of tool before reconnecting to air supply.**

- 1) Disconnect the air supply.
- 2) Open the tool door and remove nails from inside of the magazine.
- 3) (Fig.18) Open the door, put a punch through the ejection port and hit it with a hammer.
- 4) (Fig.19) Remove the pins (or nails) jamming inside the nose, using the punch or a regular screwdriver.

### HOW TO REMOVE USED PLASTIC SHEET COLLATION (Fig.20)

As nails are driven the plastic sheet will feed out of the tool. When 2" (50 mm) or more has been fed out it can be torn away by pulling against the tear edge in the nose.

### TROUBLESHOOTING

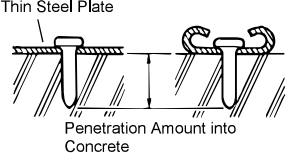
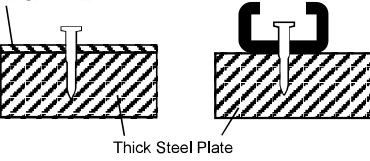
#### HN120

- The Machine is not activated even if it is operated correctly. (Fig.21)  
When the pins (or nails) are not fed properly, a locking mechanism works to deactivate the Machine. (Unless the feed pawl is completely OUT, it comes into contact with a feed pawl (1) retainer (2), disabling pin/nail driving work.)  
If the feed pawl is not located appropriately, remove the pins (or nails) and set them again.
- No pin (or nail) is driven even if the Machine is operated correctly.
  - 1) If the Machine is activated, but no pin (or nail) is actually driven, check the following:
  - 2) Check whether or not the pins (or nails) have been set properly onto the feed pawl.
  - 3) Check whether or not the pins (or nails) have come off the Plastic sheet.
    - \* If this is the case, cut off the empty Plastic sheet and set the pins (or nails) again.
  - 4) Check whether or not the feed pawl and feed piston are being activated.
    - \* If not activated, apply 5 to 6 oil drips from the air plug.

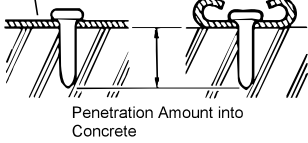
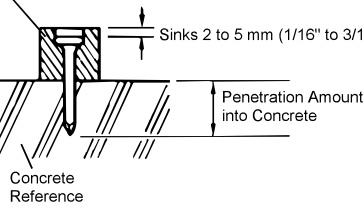
**APPLICATIONS AND PINS/NAILS SELECTION CRITERIA**

The Machine is applicable to the following purposes. When using it, select the pins/nails and leg length suitable for the driving object.

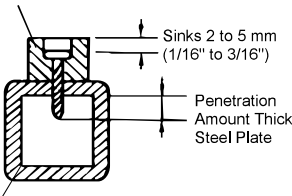
●HN25C2

| Application  | Type              | Size (Leg Length)  | Attachment Used  |
|--|-------------------|--|--|
| <p>A thin steel plate to the concrete<br/>Ex.: Drywall tracks</p> <p><b>When using, allow for the nature of the work piece and the conditions at the job site to comply with the Construction Standards.</b></p> | Plastic Coil Pins | <p>Thin Steel Plate</p>  <p>Penetration Amount into Concrete</p> <p>Select the pins so that a penetration amount into the concrete will be enough. Approx. 15 to 25 mm (approx. 5/8" to 1")</p> | <p>Use of nails to secure the thin steel plate to the concrete causes them to recoil or bend, endangering you. Be sure to use pins to secure it to the concrete.</p> |
| A thin steel plate to a thick steel plate  | Plastic Coil Pins | <p>Thin Steel Plate</p>  <p>Thick Steel Plate</p> <p>Thickness of a thick steel plate will be approx. 5 to 10 mm (3/16" to 3/8")</p>  |  |

●HN120

| Application   | Type                 | Size (Leg Length)   | Attachment Used  |                      |                                  |                |                |                                    |                 |                |                                    |                |                |                                    |  |
|---|----------------------|---|--|----------------------|----------------------------------|----------------|----------------|------------------------------------|-----------------|----------------|------------------------------------|----------------|----------------|------------------------------------|--|
| <p>Securing a thin steel plate to the concrete<br/>Ex.: Securing drywall tracks</p> | Plastic Coil Pins    | <p>Thin Steel Plate</p>  <p>Penetration Amount into Concrete</p> <p>Select the pins so that a penetration amount into the concrete will be 20 to 25 mm (7/8" to 1").</p>   | <p>Use of nails to secure the thin steel plate to the concrete causes them to recoil or bend, endangering you. Be sure to use pins to secure it to the concrete.</p> <p>Attachment-A, Attachment-C</p> |                      |                                  |                |                |                                    |                 |                |                                    |                |                |                                    |  |
| <p>Securing a wooden material to the concrete<br/>Ex.: Securing sill plates</p>     | Plastic Coil Nails   | <p>Wooden Material</p>  <p>Sinks 2 to 5 mm (1/16" to 3/16")</p> <p>Penetration Amount into Concrete</p> <p>Concrete Reference</p> <table border="1" data-bbox="308 1197 828 1300"> <thead> <tr> <th>Wooden Material Thickness</th> <th>Nail Length Selected</th> <th>Penetration Amount into Concrete</th> </tr> </thead> <tbody> <tr> <td>27 mm (1-1/8")</td> <td>38 mm (1-1/2")</td> <td>Approx. 13 to 16 mm (1/2" to 5/8")</td> </tr> <tr> <td>30 mm (1-3/16")</td> <td>45 mm (1-3/4")</td> <td>Approx. 17 to 20 mm (5/8" to 7/8")</td> </tr> <tr> <td>45 mm (1-3/4")</td> <td>60 mm (2-3/8")</td> <td>Approx. 17 to 20 mm (5/8" to 7/8")</td> </tr> </tbody> </table> | Wooden Material Thickness  | Nail Length Selected | Penetration Amount into Concrete | 27 mm (1-1/8") | 38 mm (1-1/2") | Approx. 13 to 16 mm (1/2" to 5/8") | 30 mm (1-3/16") | 45 mm (1-3/4") | Approx. 17 to 20 mm (5/8" to 7/8") | 45 mm (1-3/4") | 60 mm (2-3/8") | Approx. 17 to 20 mm (5/8" to 7/8") | <p>Select the nails so that a penetration amount into the concrete will be 15 to 25 mm (5/8" to 1").</p> <p>Attachment-B</p> <p>Use of the attachment-A causes a nail sticking out to the wooden material.</p> |
| Wooden Material Thickness   | Nail Length Selected | Penetration Amount into Concrete  |  |                      |                                  |                |                |                                    |                 |                |                                    |                |                |                                    |  |
| 27 mm (1-1/8")  | 38 mm (1-1/2")       | Approx. 13 to 16 mm (1/2" to 5/8")  |  |                      |                                  |                |                |                                    |                 |                |                                    |                |                |                                    |  |
| 30 mm (1-3/16")   | 45 mm (1-3/4")       | Approx. 17 to 20 mm (5/8" to 7/8")  |  |                      |                                  |                |                |                                    |                 |                |                                    |                |                |                                    |  |
| 45 mm (1-3/4")  | 60 mm (2-3/8")       | Approx. 17 to 20 mm (5/8" to 7/8")  |  |                      |                                  |                |                |                                    |                 |                |                                    |                |                |                                    |  |



| Application  | Type  | Size (Leg Length)   | Attachment Used   |
|--|---|---|---|
| <p>Securing a wooden material to a thick steel plate</p> <p><b>When using, allow for the nature of the driving object and the conditions at the work site to comply with the Work Standards.</b></p> | <p>Plastic Coil Nails (For Steel Plate)</p> | <p>Wooden Material</p>  <p>Thick Steel Plate</p> <p>Select the nails so that a penetration amount into the thick steel plate will be 10 mm (3/8") or more.</p> | <p>Attachment-B</p> <p><b>Use of the attachment-A causes a nail sticking out to the wooden material.</b></p> <ul style="list-style-type: none"> <li>• <b>Drivable steel plate thickness is 3.2 to 4.5 mm (1/8" to 3/16"). Use the Machine only within these limits.</b></li> <li>• <b>Overdriving into the steel plate reduces a holding force extremely and deteriorates durability of the Machine. When working, check the driving condition fully to adjust the pressure.</b></li> <li>• <b>Never drive the nails directly into the thick steel plate, because they may recoil or bend, endangering you.</b></li> <li>• <b>Be sure to apply the nose of the ejection port to the object at a right angle.</b></li> <li>• <b>Do not use the Machine for the roof or ceiling.</b></li> </ul> |

- The content of this manual might be changed without notice for improvement.



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