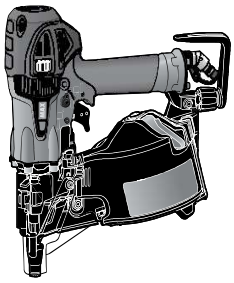
PowerLite

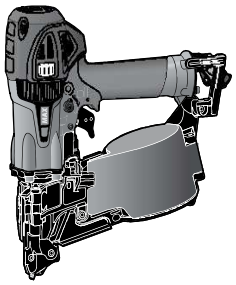
MAX

OPERATING INSTRUCTIONS MANUAL
MANUEL D'INSTRUCTIONS D'UTILISATION
MANUAL DE INSTRUCCIONES DE FUNCIONAMIENTO
BETRIEBSANLEITUNG
ISTRUZIONI PER L'USO

HIGH PRESSURE COIL NAILER
CLOUEUSE À BOBINE HAUTE PRESSION
CLAVADORA DE ALTA PRESIÓN PARA CLAVOS EN BOBINA
HOCHDRUCK-COILNAGLER
CHIODATRICE A BOBINA AD ALTA PRESSIONE



HN65S



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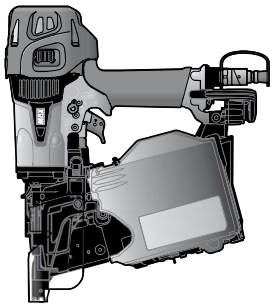


HN90F

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.

⚠ AVERTISSEMENT Lisez soigneusement les instructions et les avertissements pour cet outil avant utilisation. Tout manquement à cette consigne pourrait entraîner des blessures graves. Consultez le manuel des consignes de sécurité MAX.
Conservez ces instructions avec l'outil pour toute consultation ultérieure.

⚠ ADVERTENCIA Lea detenidamente las instrucciones y advertencias de esta herramienta antes de usarla. De lo contrario, pueden producirse lesiones corporales graves. Consulte el manual de instrucciones de seguridad de MAX.
Conserve estas instrucciones junto con la herramienta para futuras consultas.

⚠ WARNUNG Bitte lesen Sie sich die Anweisungen und Warnungen für dieses Werkzeug vor der Verwendung sorgfältig durch. Anderenfalls könnte dies zu schweren Verletzungen führen. Siehe MAX Sicherheitsanleitung.
Bewahren Sie diese Anweisungen zum späteren Nachschlagen mit dem Werkzeug zusammen auf.

⚠ AVVERTENZA Prima dell'uso, leggere con cura le istruzioni e le avvertenze relative a questo utensile. La mancata osservanza di questa indicazione potrebbe portare a gravi lesioni personali. Consultare il manuale Istruzioni di sicurezza MAX.
Conservare queste istruzioni insieme all'utensile per consultazioni future.

⚠WARNING

Before using the tool, read and understand following instructions. Failure to so could result in DEATH or SERIOUS INJURY.

Explanations of symbols marked on the tool.

Before using the tool, read and understand tool labels, Safety instructions manual and Operating instructions manual. Failure to follow warnings could result in serious injury.

Keep these instructions with the tool for future reference.
Additional copies of this manual, operating instructions manual and tool labels are available online. For further information, contact us at our web page or phone number indicates in the last page of this manual.

Operators and others in work area shall wear impact-resistant eye protection with side shields. Danger to the eyes always exists due to the possibility of dust being blown up by the exhausted air or of a fastener flying up due to the improper handling of the tool.

Eye protection equipment must conform to the requirements of the American National Standards Institute, ANSI Z87.1 (Council Directive 89/686/EEC of 21 DEC. 1989).
The employer is responsible to enforce the use of eye protection equipment by the tool operator and all other personnel in the work area.

This tool has either selective actuation for contact actuation or continuous contact actuations by actuation mode selectors or is a contact actuation or continuous contact actuation tool and has been marked with the symbol above. Its intended uses are for production applications such as pallets, furniture, manufactured housing, upholstery and sheathing.

As the working condition may include exposure to high noise levels which can lead to hearing damage, the employer and user should ensure that any necessary hearing protection is provided and used by the operator and others in the work area.

EMPLOYERS, TOOL OWNERS AND TOOL OPERATORS ARE RESPONSIBLE FOR THE SAFE USE OF THIS TOOL AND COMPLIANCE WITH ALL WARNINGS AND INSTRUCTIONS.

At a Minimum, Employers, Tool Owners and Tool Operators Must:

1. ensure that the manufacturer's tool operating/safety instructions, warnings and labels are available to all tool operators and users. Do not use tool with missing or damaged safety warning label(s.);
2. select an appropriate tool actuation (trigger) system from the options available, taking into consideration the work applications for which the tool is being used. Contact MAX CO., LTD. authorized distributors for information on actuation systems options;
3. train tool operators and users in the safe use of the tool as described in the tool operating/safety instructions, warnings and labels;
4. allow only persons who have read and understood the tool operating/safety instructions, warning and labels to operate the tool.
5. allow tool use only when tool operator and all other personnel in work area are wearing appropriate eye protection equipment, and when required, other appropriate personal protective equipment, such as, head, hearing and foot protection equipment. Provide information about the safe duration of use and appropriate working positions.

STATEMENT OF USE

Tools with this symbol shall only be used for production applications such as pallets, furniture, manufactured housing, upholstery and sheathing. Any other use is forbidden.

- If using the tool in selective actuation mode, always ensure it is in the correct actuation setting.
- Do not use the tool in contact actuation for applications such as closing boxes or crates and fitting transportation safety systems on trailers and lorries.
- Be careful when changing from one driving location to another.

AVOID EXPLOSION HAZARD

① Only use approved power source. Never use reactive high pressure or combustible gases (e.g., oxygen, carbon dioxide, acetylene, flammable gases etc.) as a power source for pneumatic tool. Use only compressed air with pressure regulated not to exceed maximum air pressure marked on tool. If regulator fails, maximum air pressure delivered to tool shall not exceed 1.5 times maximum air pressure.
② Do not exceed proper air pressure range. Only operate tool within an air pressure marked on tool. Pressure may be adjusted depending on specific application but shall not exceeds maximum air pressure marked on tool. Use only compressed air hoses with working pressure rating equal to or greater than maximum air pressure if regulator fails.
③ Do not operate the tool in explosive atmospheres, such as in the presence of flammable liquids, gases or combustible dust.

General safety rules

① Keep fingers away from trigger when not operating this tool and when moving from one operating position to another.
② Keep all body parts such as hands and legs etc. away from firing direction and ensure fastener cannot penetrate workpiece into parts of the body.
③ Read and understand the safety instructions before connecting, disconnecting, loading, operating, maintaining, changing accessories on, or working near the tool. Failure to do so can result in serious bodily injury.
④ Place the nail discharge outlet of the tool on the work surface properly when operating. Failure to place the discharge outlet in a proper manner can result in fasteners shooting away from the work surface and is extremely dangerous.
⑤ Hold the tool with a firm grasp and be prepared to manage recoil.
⑥ Only technically skilled operators should use tool.
⑦ Do not modify tool. Modifications may reduce the effectiveness of safety measures and increase the risks to the operator and/or bystander.
⑧ When operating a tool intended to be used on hard surfaces such as steel and concrete, put additional down force required to operate the tool and prevent slipping.
⑨ Do not use a tool if the tool has been damaged or is not in proper working order. Tag and physically segregate tool to prevent use.
⑩ Be careful when handling fasteners, especially when loading and unloading, as the fasteners have sharp points which could cause injury.
⑪ Always check the tool before use for broken, misconnected or worn parts.
⑫ Do not overreach. Only use in a safe working place. Keep proper footing and balance at all times.

⑬ Keep bystanders and children away (when working in an area where there is a likelihood of through traffic of people). Clearly mark off your operating area.

⑭ Never point the tool at yourself or others. Serious accidents may be caused when misfiring. Be sure the discharge outlet is not pointed toward people when connecting and disconnecting the hose, loading and unloading the fasteners or similar operations.

⑮ Do not rest your finger on the trigger when picking up the tool, moving between operating areas and positions or walking, as resting finger on trigger can lead to inadvertent operation. For tools with selective actuation, always check the tool before use to ascertain the correct mode is selected.

⑯ Only wear gloves that provide adequate feel and safe control of triggers and any adjusting devices.

⑰ Always use the second handle (if supplied).

⑱ When not in use, disconnect tool from power supply, remove fasteners and lay it on its side in a safe location.

⑲ Always refer to tool maintenance instructions for detailed information on proper maintenance of the tool. Only qualified personnel shall repair the tool using parts supplied or recommended by MAX CO., LTD or parts that perform equivalently.

⑳ Before operating, inspect tool to confirm
- use of proper power source - see MAX Operating Instructions Manual
- that tool is in proper working order
- what actuation system is on tool and how it operates
- no misalignment or binding of moving parts
- all conditions necessary for proper and safe tool operation
- all screws and bolts are tight and properly installed prior to operating the tool. Loose or improperly installed screws or bolts cause accidents and tool damage when the tool is put into operation.
- check the operation of the contact arm frequently. Do not use the tool not working correctly as accidental driving of a fastener may result. Do not interfere with the proper operation of the contact arm.

㉑ Do not remove, tamper with, or otherwise cause tool operating controls to become inoperable (e.g., trigger, contact arm)

㉒ Do not operate tool if any portion that related to the tool operating controls (e.g., trigger, contact arm) is inoperable, disconnected, altered or not working properly.

㉓ Always assume that the tool contains fasteners. Do not actuate tool unless tool is placed firmly against the workpiece.

㉔ Respect the tool as a working implement.

㉕ Do not engage in horseplay.

㉖ Stay alert, focus on your work and use common sense when working with tools.

㉗ Do not use tool while tired, after having consumed drugs or alcohol, or while under the influence of medication.

㉘ Do not drive fasteners on top of other fasteners. It may cause deflection of fasteners which could cause injury.

㉙ After driving a fastener, tool may spring back ("recoil") causing it to move away from the work surface. To reduce risk of injury always manage recoil by:
- always maintaining control of tool.
- allowing recoil to move tool away from work surface.
- not resisting recoil such that tool will be forced back into the work surface. In standard "Contact Actuation Mode," if contact arm is allowed to re-contact work surface before the trigger is released, an unintended discharge of a fastener will occur. In that scenario, Max' s Contact Actuation with Anti-Double Fire Mechanism and Single Actuation is designed to prevent the release of an unintended discharge of a fastener.
- keeping face and body parts away from tool.

㉚ When working close to an edge of a work surface or at steep angles use care to minimize chipping, splitting or splintering, or free flight or ricochet of fasteners, which may cause injury.

㉛ Do not load the tool with fasteners when any one of the operating controls (e.g., trigger, contact arm) is activated.

㉜ Do not lift, pull or lower tool by the hose.

㉝ When fastening roofs or similar slanted surface, start fastening at the lower part and gradually work your way up. Fastening backward is dangerous as you may lose your foot place. In case of using pneumatic tool, secure the hose at a point close to the area you are going to drive fasteners. Accidents may be caused due to the hose being pulled inadvertently or getting caught.
Never actuate the tool into free space. This will avoid any hazard caused by free flying fasteners and excessive strain of the tool.

㉞ Do not use the tool as a hammer.

㉟ The tool must be used only for the purpose it was designed.

㊱ Keep the tool in a dry place out of reach of children when not in use.

Foreseeable hazards and warnings in the general use of the tool are described below. Assess the specific risks that may be presented as a result of each use.

Projectile hazards

① The tool shall be disconnected from the power source when:
- Not in use;
- Performing any maintenance or repairs;
- Clearing a jam;
- Elevating, lowering or otherwise moving the tool to a new location;
- Tool is outside of the operator' s supervision or control;
- Making adjustments;
- Removing fasteners from the magazine; or
- Changing / replacing accessories.

② During operation be careful that fasteners penetrate material correctly and cannot be deflected /misfired towards operator and /or any bystanders.

③ During operation, debris from workpiece and fastening/collation system may be discharged. Take cautions of these debris.

④ Always wear impact-resistant eye protection with side shields during operation of the tool.

⑤ The risks to others shall be assessed by the operator.

⑥ Be careful with tools without contact arm as they can be fired unintentionally and injure operator and/or bystander.

⑦ Ensure tool is always safely engaged on the workpiece and cannot slip.

Operating hazards

① Hold the tool correctly: be ready to counteract normal or sudden movements such as recoil.

② Maintain a balanced body position and secure footing.

③ Appropriate safety glasses shall be used and appropriate gloves and protective clothing are recommended.

④ Dust masks, hearing protection, hard hats, safety shoes or other personal protective equipment shall be required in some work environments. Employers, tool owners and operators must enforce use of appropriate personal protective equipment for all personnel in a specific work environment.
NOTE: All personal protective equipment shall conform to applicable standards such as ANSI A89.1 for head protection and 29 C.F.R. 1926.52 for hearing protection.

⑤ Only use the correct power supply for tool – see Max Operating Instructions Manual

⑥ If fasteners, see MAX Operating Instructions Manual

Repetitive motions hazards

① When using a tool for long periods, the operator may experience discomfort in the hands, arms, shoulders, neck, or other parts of the body.

② While using a tool, the operator should adopt a suitable but ergonomic posture. Maintain secure footing and avoid awkward or off-balanced postures.

③ If the operator experiences symptoms such as persistent or recurring discomfort, pain, throbbing, aching, tingling,

numbness, burning sensation, or stiffness, do not ignore these warning signs. The operator should consult a qualified health professional regarding overall activities.

④ Any risk assessment should focus on muscular–skeletal disorders and is preferentially based on the assumption that decreasing fatigue during work is effective in reducing disorders.

Accessory and consumable hazards

① Use only fasteners and accessories made or recommended by MAX CO., LTD., or fasteners and accessories that perform equivalently to those recommended by MAX CO., LTD.

② Fitting or coupling used to connect air hose to tool must not hold a pressurized air supply. An improper fitting or coupling will allow tool to remain charged with air after disconnecting air supply enabling it to discharge a fastener.

③ Use only lubricants recommended by MAX CO., LTD.

④ See MAX Operating Instructions Manual for detailed specification on fasteners and accessories.

Workplace hazards

① Slips, trips and falls are major causes of workplace injury. Be aware of slippery surfaces caused by use of the tool and also of trip hazards caused by tripping over the air hose.

② Proceed with additional care in unfamiliar surroundings. Hidden hazards may exist, such as electricity or other utility lines.

③ The tool is not intended for use in potentially explosive atmospheres and is not insulated from coming into contact with electric power.

④ Use extra caution when driving fasteners into existing walls or other blind areas to prevent contact with hidden objects or persons on other side (e.g., electrical cables, gas pipes.).

Dust and exhaust hazards

① If the tool is used in an area where there is static dust, it may disturb the dust and cause a hazard. Risk assessment should include dust created by the use of the tool and the potential for disturbing existing dust.

② Direct the exhaust so as to minimize disturbance of dust in a dust filled environment.

③ Where dust or exhaust hazards are created, the priority shall be to control them by changing the tool exhaust direction.

Noise hazards

① Unprotected exposure to high noise levels can cause permanent, disabling, hearing loss and other problems such as tinnitus (ringing, buzzing, whistling or humming in the ears); Risk assessment and implementation of appropriate controls for these hazards are essential.

② Appropriate controls to reduce the risk may include actions such as damping materials to prevent workpieces from “ringing”.

③ Use appropriate hearing protection.

④ Operate and maintain the tool as recommended in the Safety/Operating instructions manuals, to prevent an unnecessary increase in noise levels.

⑤ If the tool has a silencer, always ensure it is in place and in good working order when the tool is being operated.

Vibration hazards

① Information to conduct a risk assessment of these hazards and implementation of appropriate controls is essential.

② Exposure to vibration can cause disabling damage to the nerves and blood supply of the hands and arms.

③ Wear warm clothing when working in cold conditions, keep your hands warm and dry.

④ If you experience numbness, tingling, pain or whitening of the skin in your fingers or hands, seek medical advice from a qualified occupational health professional regarding overall activities.

⑤ Operate and maintain the tool as recommended in these instructions, to prevent an unnecessary increase in vibration levels.

⑥ Hold the tool with a light, but safe, grip because the risk from vibration is generally greater when the grip force is higher.

⑦ If an operator is exposed to tool vibration for a long period of time, they may be in danger of repetitive strain injuries.

Additional safety instructions for pneumatic tools

① Compressed air can cause severe injury.

② Never direct compressed air at yourself or anyone else.

③ Whipping hoses can cause severe injury. Always check for damaged or loose hoses or fittings.

④ Always carry the tool by the grip. Never carry the tool by its hose.

⑤ Pneumatic tools should only be powered by compressed air at the lowest pressure required for the work process to reduce noise and vibration, and minimize wear.

⑥ The tool is designed to operate on compressed air. Do not operate the tool on any other high-pressure gas, combustible gases (e.g., oxygen, acetylene, etc.) since there is the danger of an explosion.

⑦ Be careful when using pneumatic tools as the tool could become cold, affecting grip and control.

⑧ Do not operate the tool near a flammable substance (e.g., thinner, gasoline, etc.). Volatile fumes from these substances could be drawn into the compressor and compressed together with the air and this could result in an explosion.

⑨ Do not use a wrong fittings. The connector on the tool must not hold pressure when air supply is disconnected. If a wrong fitting is used, the tool can remain charged with air after disconnecting and thus will be able to drive a fastener even after the air hose is disconnected, possibly causing injury.

Additional safety instructions for gas tools

① Gas tools shall only be used with Fuel Cell which are listed in the Operating instructions manual of the tool.

② Be careful when using gas tools, as the tool can become hot, affecting grip and control.

③ Gas tools shall be used in ventilated spaces.

④ In the case that liquid combustible gas comes into contact with human skin, injuries may occur.

⑤ Ensure combustible materials are not exposed to hot exhaust gases.

⑥ Do not use gas tools in explosive areas as the sparks generated in the tool may cause fire or explosion.

⑦ For gas tools, a small release of gas might be generated by regular operations.

⑧ Cautions for Fuel Cell

1. Handle Fuel Cell carefully and check for damages. Damaged Fuel Cell can explode and cause injury.
2. Read and follow the instructions printed on the Fuel Cell.
3. Store Fuel Cell in well-ventilated area.
4. Do not expose the Fuel Cell to the direct sunshine.
5. Do not place the Fuel Cell in a vehicle or a trunk where the temperature could rise. It could explode. A used empty Fuel Cell still contains a combustible propellant gas, which could swell and explode a container into pieces.
6. Store the Fuel Cell at ambient temperature of 49°C (120°F) or lower.
7. The Fuel Cell contains the pressurized combustible gas. If it is exposed to the temperature higher than 49°C (120°F), the gas could leak from it or burst, resulting in a fire.
8. Do not breathe in the gas.
9. Do not incinerate or recycle the empty Fuel Cell.
10. Never jet the gas to the human body.
11. Do not remove the rubber plug from the bottom of the Fuel Cell except at disposal.
12. Do not make a hole in the Fuel Cell by driving a nail with a hammer.

⑨ Cautions for Charger and Battery

1. Use specified battery for the tool. Never connect the tool to a power source or other rechargeable battery, dry cells or storage battery for automobiles. Neglect of this could cause breakage, trouble, heat generation or combustion.

2. Charge with specified charger. If charged with other charger, it could fail to be properly charged as well as get broken, ignited or generate the heat.
3. Charge the Battery at the specified voltage. Never charge at other than the specified voltage. Neglect of this could cause combustion or heat generation.
4. Do not use transformer such as booster, engine generator or DC power source to charge the Battery. Neglect of this causes a trouble or burnout of the charger.
5. Do not charge the Battery in the rain or in the place exposed to water splash or moisture. If it is charged in the wet condition, it could cause an electric shock or short-circuiting, resulting in a fire due to burnout or combustion.
6. Do not touch a power plug with a wet hand. Holding it with a wet hand could cause an electric shock.
7. Do not cover the charger in use with a cloth, and so on. Putting a cover could generate the heat, resulting in a burnout or fire.
8. Do not put the charger close to a fire.
9. Do not charge the Battery near any combustible substance.
10. Charge the Battery in a well-ventilated area, protected against the direct sunshine. Charging in the direct sunshine could overheat the charger, resulting in a burnout or fire.
11. Charge the Battery at ambient temperature of 0°C (32°F) to 40°C (104°F). If the ambient temperature is less than 0°C (32°F) to 40°C (104°F), charging may not be allowed, could result in a fire.
12. Do not allow foreign objects into a ventilation hole or Battery plug socket in the charger. They cause an electric shock or trouble. Use in the place free of dust.
13. Handle a power cord with care. If you hold the power cord of the AC adapter to carry or pull it to disconnect from a plug socket, it will be damaged, resulting in snapping or short-circuiting. Also, take care that it will not come into contact with cutters, high-temperature substances, oil or grease. Replace the damaged power cord with a new one.
14. Once the Battery is disconnected from the tool body, be sure to cover it with a pack cap, unless it is used. In order to prevent short-circuiting, cover the terminal block (metal section) of the unused Battery with the pack cap.
15. Do not short-circuit the terminal block (metal section) of the Battery. If it is short-circuited, a large current will run to overheat the Battery, causing you a burn or damage on it.
16. Do not throw the Battery into a fire. Neglect of this could cause an explosion.

⑩ When connecting the Battery to the tool, be sure to observe the following in order to prevent malfunctioning.
- Do not put your finger on the trigger.
- Do not press the contact arm against the object.
- Do not put your finger or hand near the discharge outlet.
- Check whether or not operating sound is heard, by only connecting the Battery.

* If you connect the Battery and press the contact arm against the floor, and so on, the fan of the tool will run, but this is not abnormal.

- Check for heat generation or abnormal smell or sound. If the tool is activated, generates the heat or emits abnormal smell or sound, it is an indication of trouble. Using the tool in that condition results in an accident. If any abnormality is found, contact MAX CO., LTD. authorized distributor.

⑪ Unplug the charger when it is not used.

⑫ Avoid the direct sunshine. Do not place the tool in vehicle or trunk where the temperature could rise, because it could explode.

⑬ Keep tool away from fire.

⑭ Be sure to use the tool in the working environment of -10°C (14°F) to 40°C (104°F), because otherwise the tool body could be damaged, ignite or explode. -10°C (14°F) or lower: The tool body could be damaged. 40°C (104°F) or higher: The Fuel Cell could be damaged, resulting in ignition or explosion.

⑮ Do not use the tool in the rain or in a very humid place. Neglect of this causes a trouble.

⑯ Beware of the high temperature of the tool. If the tool is used for a long period of time, the nose and contact arm will become hot. Be careful not to get a burn.

⑰ Always remove the Fuel Cell and the Battery from the tool and empty the magazine when operation has been completed or suspended, when unattended, moving to a different work area, adjusting, disassembling, or repairing the tool, and when clearing a jammed fastener.

MODEL IDENTIFICATION FOR PNEUMATIC TOOL

⚠WARNING

UNDERSTAND OPERATION OF DIFFERENT ACTUATION (TRIGGER) SYSTEMS BEFORE OPERATING TOOL.

NOTE: Gas tool's trigger systems are only FULL SEQUENTIAL ACTUATION. Therefore, they are not identified by the color of the trigger.

CONTACT ACTUATION

The common operating procedure on Contact Actuation tools is for the operator to contact the work to actuate the actuation mechanism while keeping the trigger pulled, thus driving a fastener each time the work is contacted. This will allow rapid fastener placement on many jobs, such as sheathing, decking and pallet assembly. All pneumatic tools are subject to recoil when driving fasteners. The tool may bounce, releasing the actuation, and if unintentionally allowed to recontact the work surface with the trigger still actuated (finger still holding trigger pulled) an unwanted second fastener will be driven.

CONTACT ACTUATION
Identified by BLACK TRIGGER and the symbol above.

SEQUENTIAL ACTUATION
Sequential Actuation requires the operator to hold the tool against the work before pulling the Trigger. This makes accurate fastener placement easier, for instance on framing, toe nailing and crating applications. The Sequential Actuation allows exact fastener location without the possibility of driving a second fastener on recoil, as described under Contact Actuation.
Sequential Actuation has a positive safety advantage because it will not accidentally drive a fastener if the tool is contacted against the work-or anything else-while the operator is holding the Trigger pulled.
There are two types of Sequential Actuation; Full sequential and Single sequential.
Full Sequential Actuation requires both the trigger and the contact arm to be put back to the non-driving position for the next nails to be fired.
Single Sequential Actuation requires only the trigger to be put back to the non-driving position for the next nails to be fired (the contact arm does not need to be put back to the non-driving position).

SEQUENTIAL ACTUATION
Identified by ORANGE TRIGGER

CONTACT ACTUATION WITH ANTI-DOUBLE FIRE MECHANISM (US patent 5597106, UK patent 2286790)

The common operating procedure of Contact Actuation tools is for the operator to contact the work to actuate the actuation mechanism while keeping the trigger pulled, thus driving a fastener each time the work is contacted. This will allow rapid fastener placement on many jobs, such as sheathing, decking and pallet assembly. All pneumatic tools are subject to recoil when driving fasteners. The tool may bounce, releasing the actuation, and if unintentionally allowed to recontact the work surface with the trigger still actuated (finger still holding trigger pulled) an unwanted second fastener will be driven

CONTACT ACTUATION WITH ANTI-DOUBLE FIRE MECHANISM
Identified by RED TRIGGER and the symbol above.

MAINTENANCE INSTRUCTIONS FOR PNUEMATIC TOOL

⚠WARNING

⚠ Proper maintenance is required to keep tool operating safely.

⚠ EMPLOYERS, TOOL OWNERS AND TOOL OPERATORS ARE RESPONSIBLE FOR ENSURING THAT:

1. tool maintenance instructions are available to appropriate personnel;
2. ONLY QUALIFIED PERSONNEL shall repair the tool;
3. manufacturer's tool maintenance instructions are available to personnel performing maintenance;
4. tools that require repair are removed from service and that tags and physical segregation are used as a means of control.;
5. all tools in their possession are properly maintained.

A. INSPECT TOOL AND ALL PARTS DAILY

(1) Tighten all screws, caps and bolts, and check if they are properly installed
(2) Keep contact arm moving smoothly
(3) Check portions that related to the tool controls (e.g., trigger) are working properly and check for any air leaks.
(4) Drain air line filter and compressor
(5) Keep lubricator filled in air 3-pieces set
(6) Clean filter element of air 3-pieces set

Never use tool if it leaks air or parts are missing, worn, damaged or if it is otherwise not working properly. Do not use tool with missing or damaged safety warning labels.

B. REPAIR OR MAINTENANCE IS RECOMMENDED EVERY YEAR OR WHENEVER THE FOLLOWING OCCURS:

- portions that related to the tool operating controls (e.g., trigger, contact arm) works improperly
- leakage of air or gas
- frequent blank driving or nail jams

C. USE RECOMMENDED OIL

The velocity or turbine oil should be used to lubricate the tool. Upon completion of operations, place 2 or 3 drops of oil into the air plug inlet with the jet oiler. (Recommended Oil: ISO VG32)

D. USE A 3-PIECE AIRSET

Failure to use a 3-piece airset allows moisture and dirt inside compressor to pass directly to tool from compressor causing rust, premature wear, and poor operating performance. For proper lubrication, hose length should not exceed 17 ft. / 5 m.

NOTICE:
Do not fire tool without fasteners in it. If you repeatedly fire tool without fasteners, the durability of the tool will be reduced.

NOTE: For maintenance information on Gas tools, please check the Operating instructions manual for these tools.

STORAGE

① When not in use for an extended period, apply a thin coat of the lubricant to the steel parts to avoid rust.
② Do not store the tool in a cold weather environment. Keep the tool in a warm area.
③ When not in use, the tool should be stored in a warm and dry place.
④ Keep out of reach of children.
⑤ When not in use, lock trigger, disconnect from air, fuel cell and battery, unload fasteners, and store in a secure location.

TROUBLE SHOOTING/REPAIRS

The troubleshooting and/or repairs shall be carried out only by the MAX CO., LTD. authorized distributors or by other specialists. For the repair of the tools, only spare parts specified by MAX CO., LTD. shall be used.
When disposing the tool or its parts, follow the relevant national rules.

Fig.1

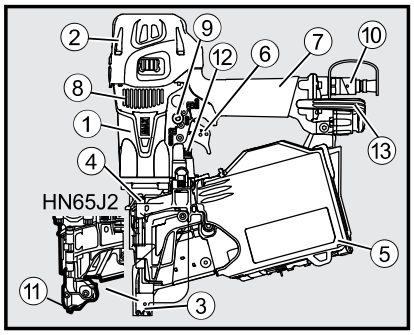


Fig.2

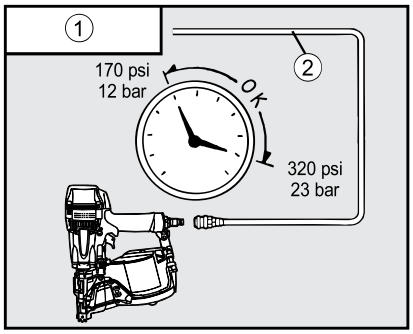


Fig.3 (HN65S)

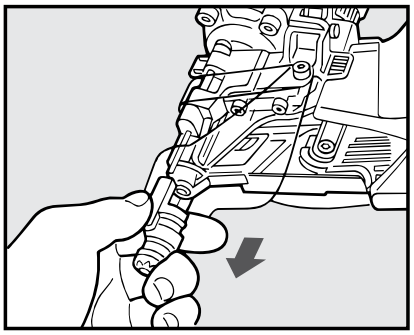


Fig.4 (HN65S)

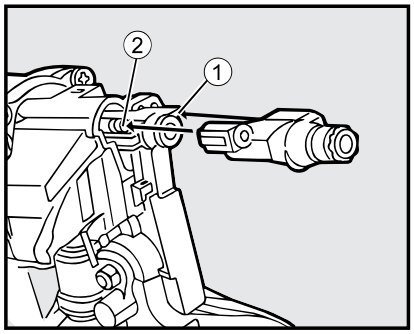


Fig.5 (HN65S)

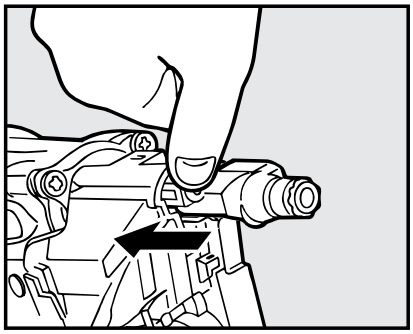


Fig.6

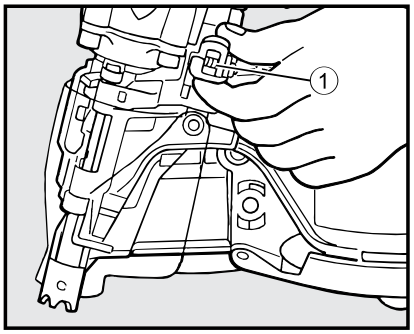


Fig.7 (HN90F, HN65S)

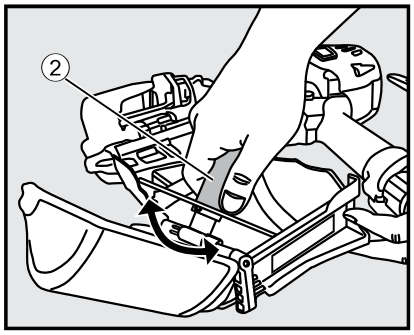


Fig.8 (HN65J2)

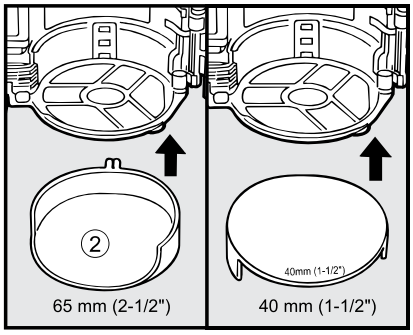


Fig.9 (HN65J2)

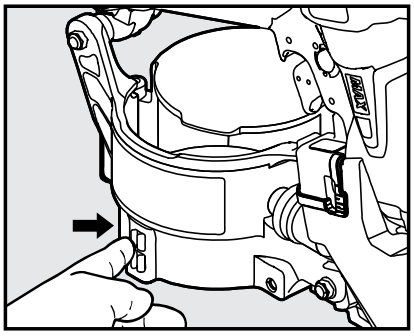


Fig.10

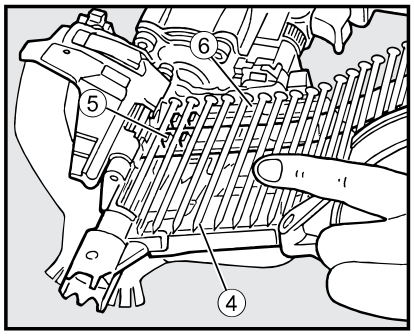


Fig.11

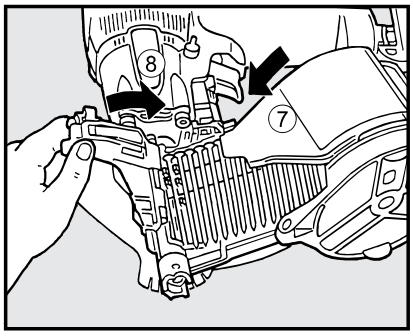


Fig.12

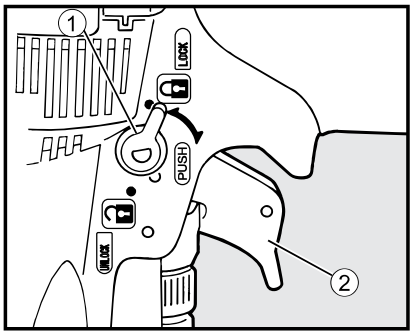


Fig.13 (HN65S, HN90F)

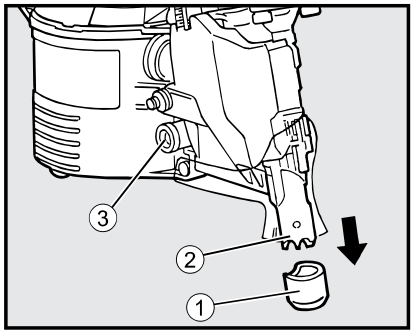


Fig.14 (HN90F)

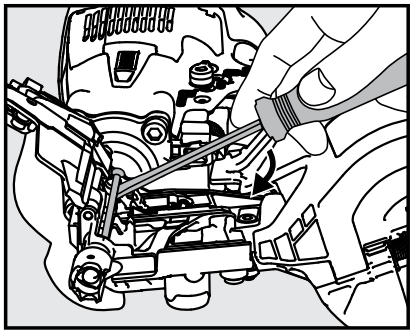


Fig.15 (HN65J2)

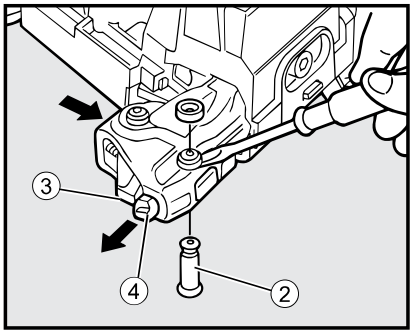


Fig.16 (HN65J2)

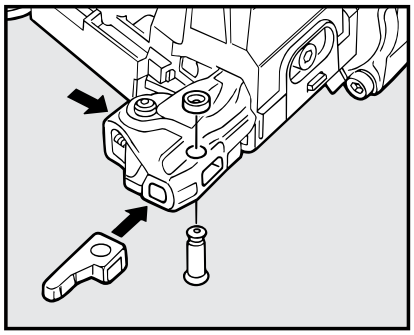
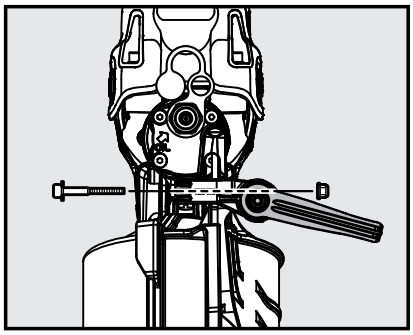


Fig.17 (HN90F)



ENGLISH

OPERATING INSTRUCTIONS MANUAL

1. SPECIFICATIONS AND TECHNICAL DATA

1. NAME OF PARTS (SEE Fig.1)

① **Frame**
② **Cylinder Cap**
③ **Contact Arm (HN90F)**
③ **Contact Nose (HN65S)**
④ **Nose**
⑤ **Magazine**
⑥ **Trigger**
⑦ **Grip**
⑧ **Exhaust Cover**
⑨ **Trigger Lock Dial**
⑩ **Plug**
⑪ **Aiming Guide Locator (HN65J2)**
⑫ **Adjust Dial**
⑬ **Rafter Hook (HN90F)**
⑬ **Belt Hook (HN65S, HN65J2)**

2. TOOL SPECIFICATIONS

PRODUCT NO.	**HN90F**	**HN65S**	**HN65J2**
HEIGHT	331mm (13")	304mm (12")	299mm (11-3/4")
WIDTH	126mm (5")	126mm (5")	109mm (4-1/4")
LENGTH	298mm (11-3/4")	298 mm (11-3/4")	298mm (11-3/4")
WEIGHT	2.6 kg (5.7 lbs.)	2.1 kg (4.61 lbs.)	2.1 kg (4.61 lbs.)
RECOMMENDED OPERATING PRESSURE	12 to 23 bar (170 to 320 p.s.i.)		
LOADING CAPACITY	300 Nails	400 Nails	100 Nails
AIR CONSUMPTION	3.4L at 18 bar / 257 p.s.i. operating pressure	1.7L at 18 bar / 257 p.s.i. operating pressure	1.4L at 18 bar / 257 p.s.i. operating pressure

3. FASTENER SPECIFICATIONS

PRODUCT NO.	**HN90F**		**HN65S**		**HN65J2**
TYPE OF COLLATION	PLASTIC SHEET COLLATED	WIRE WELDED	PLASTIC SHEET COLLATED	WIRE WELDED	PLASTIC SHEET COLLATED
NAIL LENGTH	45 to 75mm (1-3/4" to 3")	45 to 90mm (1-3/4" to 3-1/2")	32 to 65mm (1-1/4" to 2-1/2")	38 to 65mm (1-1/2" to 2-1/2")	40 to 65mm (1-1/2" to 2-1/2")
SHANK DIAMETER	2.5 to 2.9mm (.099" to .114")	2.5 to 3.8mm (.099" to .148")	2.1 to 3.3mm (.083" to .131")	2.1 to 3.3mm (.083" to .131")	3.3 to 4.1mm (.131" to .162")
SHANK TYPE	Smooth, Screw	Smooth, Ring, Screw	Smooth, Ring, Screw	Smooth, Ring, Screw	Smooth, Ring
HEAD DIAMETER	5.5 to 7.7mm (.217" to .303")	6.0 to 7.7mm (.236" to .303")	5.0 to 7.0mm (.197" to .275")		7.2 to 7.3mm (.283" to .287")

4. TECHNICAL DATA

NOISE

	HN90F	HN65S	HN65J2
A-weighted single-event sound power level ------ LWA, 1s, d	93.1dB	95.8dB	97.2dB
A-weighted single-event emission sound pressure level at work station------ LpA, 1s, d	81.7dB	85dB	85.2dB
Uncertainty	3dB		

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

	HN90F	HN65S	HN65J2
Vibration characteristic value	6.42 m/s^2	7.11 m/s^2	5.38 m/s^2
Uncertainty	1.5 m/s^2		

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

HN90F	HN65S	HN65J2
* Floor and wall framing * Subflooring * Roof and wall sheathing * Fencing	* Siding * Decking * Roof and wall sheathing * Fencing	* Fastening metal connectors for wood construction.

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)
2 0 8 2 6 0 3 5 D
Year 2020

2. AIR SUPPLY AND CONNECTIONS (Fig.2)

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:
12 to 23 bar / 170 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

❶ Wear Safety Glasses or Goggles.
❷ Do not connect the air supply.
❸ Inspect screw tightness.
❹ Check operation of the contact arm & trigger if moving smoothly.
❺ Connect the air supply.
❻ Check the air-leakage. (The Tool must not have the air-leakage.)
❼ Hold the Tool with finger-off the trigger, then push the contact arm against the work-piece. (The tool must not operate.)
❽ Hold the Tool with contact arm free from work-piece and pull the trigger. (The Tool must not operate.)
❾ Disconnect the air supply.

2. OPERATION

ATTACHING THE CONTACT NOSE (HN65S)
Attach the following contact noses depending on the nail head diameter used.

Head Diameter	Contact Nose	Color
5.0 to 6.0mm (.197" to .236")	Contact Nose S	Black
6.0 to 7.0mm (.236" to .275")	Contact Nose L	Silver

❶ (Fig.3) Pull the contact nose to remove it.
❷ (Fig.4,5) Aligning the rail with the contact arm, press the contact nose as shown in the figure to fit it until it clicks.

NAIL LOADING

❶ (Fig.6) Open the Magazine:
Pull up Door Latch ① and swing Door open. Swing Magazine Cap open.
❷ (Fig.7) (HN90F, HN65S)
The nail support ② can be moved up and down to four settings. The nail support moves down by turning it counterclockwise and moves up by turning it clockwise. The nail support should be adjusted correctly to the position indicated in inches and millimeters.
(Fig.8,9) (HN65J2) When using 40mm / 1-1/2" nails, attach the nail support ② in such a manner that a mark “40” can been seen. When using 65mm / 2-1/2" ones, attach the nail support ② upside down.
To detach, push the latch on the back of the magazine with a finger.
❸ (Fig.10) Nail loading:
Place a coil of nails ④ over the Nail Post in the Magazine. Uncoil enough nails to reach the Feed Pawl ⑤, and place the second nail between the teeth on the Feed Pawl. The nail heads fit in slot ⑥ on Nose.
❹ (Fig.11) Swing Magazine Cap ⑦ closed.
❺ (Fig.11) Close the Door ⑧.
Check that Door Latch ① engages. (If it does not engage, check that the nail heads are in the slot ⑥ on the Nose).

TEST OPERATION

❶ Adjust the air pressure at 12 bar (170 p.s.i.) and connect the air supply.
❷ Without touching the Trigger, depress the Contact Arm against the work-piece.
Pull the Trigger. (The tool should fire the fastener.)
❸ With the tool off the work-piece, pull the Trigger.
Then depress the Contact Arm or Contact Nose against the work-piece. (Tool with red triggers should fire the fastener, but tool with orange triggers should not.)
❹ Adjust the air pressure as much as the lowest possible according to the diameters and length of fastener and the hardness of work-piece.

DRIVING FASTENERS
HN65J2
This tool is assembled with FULL SEQUENTIAL ACTUATION.

HN65S, HN90F
This tool is shipped with ANTI-DOUBLE FIRE MECHANISM selected.
It is the responsibility of employer, tool owner or tool operator to select the appropriate actuation system for the fastener application and training of tool operator before changing the trigger setting.

SWITCHING ANTI-DOUBLE FIRE MECHANISM TO FULL SEQUENTIAL ACTUATION (Option) (HN90F, HN65S)
To change the trigger system, please contact MAX CO., LTD. authorized distributors and have them change the system.

SWITCHING FULL SEQUENTIAL ACTUATION (Option) TO ANTI-DOUBLE FIRE MECHANISM (HN90F, HN65S)
To change the trigger system, please contact MAX CO., LTD. authorized distributors and have them change the system.

CONTACT ACTUATION OPERATION (HN90F, HN65S)
For contact actuation operation, pull the Trigger and depress the Contact Arm or Contact Nose against the work surface.

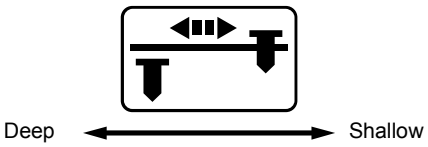
ANTI-DOUBLE FIRE MECHANISM OPERATION (HN90F, HN65S)
For anti-double fire mechanism operation, depress the Contact Arm against the work surface and pull the Trigger. A fastener will be driven. Release trigger. Begin again.

FULL SEQUENTIAL ACTUATION OPERATION (For tool with orange triggers)
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
	❶ Pulling the Trigger and keeping it pulled. ❷ Depressing the Contact Arm.
ANTI-DOUBLE FIRE MECHANISM	The tool fires a nail each time when the Contact Arm is depressed.
FULL SEQUENTIAL ACTUATION	The tool cannot fire a nail.

	PROCEDURE
	❶ Depressing the Contact Arm. ❷ Pulling the Trigger and keeping it pulled.
ANTI-DOUBLE FIRE MECHANISM	The tool fires a nail. The tool cannot fire a second nail until the Trigger is released.
FULL SEQUENTIAL ACTUATION	The tool fires a nail. 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
Adjust the driving depth by twisting the adjustment dial ⑫ as indicated below.



TRIGGER LOCK MECHANISM (Fig.12)
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 (Fig.13) (HN90F, HN65S)
Attach the Contact Tip ① on the tip of Contact Arm ②, when driving nails to a soft material.
The Contact Tip can be kept on the Arm Cover ③ when not using.

REMOVING JAMMED NAILS (Fig.14)

⚠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.**

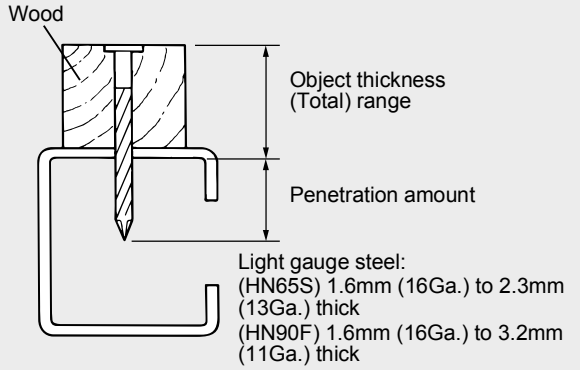
❶ Disconnect the air supply.
❷ Open the tool door and remove nails from inside of the magazine.
❸ Insert a thin metal stick in the tool nose and hit the metal stick with a hammer or remove the jam with a flathead screwdriver.
❹ Put back the nails on the feed pawl and close the tool door.

WHEN USING THE TOOL FOR STEEL PLATES
(HN90F, HN65S)
(HN65S) This tool is exclusively designed for 1.6mm / 16Ga. to 2.3mm / 13Ga. thick light gauge steel.
(HN90F) This tool is exclusively designed for 1.6mm / 16Ga. to 3.2mm / 11Ga. thick light gauge steel.
When using it, comply with the Work Standards, considering the object condition and work site environment.

❶ Select appropriate nails according to the object thickness, seeing the Nail Selection Criteria Chart.
* The nails may not be driven into the object depending on its hardness or thickness.
* If the object is thicker than an appropriate range of thickness, the nails may not be driven into it because of being bent.
❷ If the thickness of the light gauge steel foundations material used is 3.2mm / 11Ga., use the 2.9mm / .113" nails for steel plate. (HN90F)
❸ Never drive the nails directly into the light gauge steel because they will fly off, endangering you.
❹ Be sure to apply the discharge outlet to the object at a right angle. If applied obliquely, the nails will fly off, endangering you.
❺ Never use the nails for the roofs (roof foundations included) or ceilings (ceiling foundations included).
❻ If the nails are driven into the steel plate too deeply, their holding force will be extremely reduced. When working with the tool, fully check the driven conditions.

Nail Selection Criteria

Tool	Diameter	Length	Object thickness (Total) range	Light gauge steel thickness
HN65S	2.5mm (.098")	32mm	10 to 20mm	1.6 to 2.3mm (16Ga. to 13Ga.)
		28mm	15 to 25mm	
HN65S HN90F	2.5mm (.098")	45mm (1-3/4")	25 to 35mm (1" to 1-3/8")	1.6 to 2.3mm (16Ga. to 13Ga.)
		50mm (2")	30 to 40mm (1-1/8" to 1-1/2")	
		57mm (2-1/4")	35 to 45mm (1-3/8" to 1-3/4")	
		65mm (2-1/2")	45 to 55mm (1-1/2" to 1-1/8")	
HN90F	2.9mm (.113")	45mm (1-3/4")	25 to 35mm (1" to 1-3/8")	1.6 to 3.2mm (16Ga. to 11Ga.)
		50mm (2")	30 to 40mm (1-1/8" to 1-1/2")	
		57mm (2-1/4")	35 to 45mm (1-3/8" to 1-3/4")	
		65mm (2-1/2")	45 to 55mm (1-1/2" to 1-1/8")	



* For the 3.2mm (11Ga.) thick light gauge steel, use the 2.9mm (.113") nails for steel plates. (HN90F)

REPLACING THE AIMING GUIDE LOCATOR
(HN65J2)
The aiming guide locator is worn out depending on the frequency of use.
If the machine cannot be easily held vertically when setting the aiming guide locator in a hole in a metal fitting, it is about time to replace.
Replace it in the following procedure:

❶ (Fig.15) Remove a rubber washer ① with a regular screwdriver to pull out a pin ②. Push the nail leg guide ③ to remove the aiming guide locator ④.
❷ (Fig.16) Attach a new aiming guide locator, set the pin and put back the rubber washer.

When replacing the aiming guide locator, contact the nearest MAX CO., LTD. authorized distributor.

CHANGING THE HOOK DIRECTION
(Fig.17) The hook can be directed in the two direction. Remove the hexagon socket cap screw with hexagon wrench, change the direction, and then, put back the bolt to reassemble.

FRANÇAIS

MANUEL D'INSTRUCTIONS D'UTILISATION

1. CARACTÉRISTIQUES TECHNIQUES ET ACCESSOIRES

1. NOM DES PIÈCES (Voir Fig. 1)

① **Châssis**
② **Capuchon du cylindre**
③ **Bras de contact (HN90F)**
③ **Buse de contact (HN65S)**
④ **Nez**
⑤ **Magasin**
⑥ **Déclencheur**
⑦ **Poignée**
⑧ **Capot de l'échappement**
⑨ **Molette de blocage de la commande**
⑩ **Fiche**
⑪ **Positionneur du guide de pointage (HN65J2)**
⑫ **Molette de réglage**
⑬ **Crochet à chevrons (HN90F)**
⑬ **Crochet de ceinture (HN65S, HN65J2)**

2. SPÉCIFICATIONS DE L'OUTIL

NUMÉRO DU PRODUIT	**HN90F**	**HN65S**	**HN65J2**
Hauteur	331 mm (13")	304 mm (12")	299 mm (11-3/4")
Largeur	126 mm (5")	126 mm (5")	109 mm (4-1/4")
Longueur	298 mm (11-3/4")	298 mm (11-3/4")	298 mm (11-3/4")
POIDS	2,6 kg (5,7 lbs.)	2,1 kg (4,61 lbs.)	2,1 kg (4,61 lbs.)
PRESSION DE FONCTIONNEMENT RECOMMANDÉE	12 à 23 bar (170 à 320 p.s.i.)		
CAPACITÉ DE CHARGEMENT	300 clous	400 clous	100 clous
CONSOMMATION PNEUMATIQUE	3,4 L à 18 bar / 257 p.s.i. pression de fonctionnement	1,7 L à 18 bar / 257 p.s.i. pression de fonctionnement	1,4 L à 18 bar / 257 p.s.i. pression de fonctionnement

3. SPÉCIFICATIONS DES FIXATIONS

NUMÉRO DU PRODUIT	**HN90F**		**HN65S**		**HN65J2**
TYPE DE CONDITIONNEMENT	COLLÉS SUR FEUILLE DE PLASTIQUE	SOUDÉS SUR FIL	COLLÉS SUR FEUILLE DE PLASTIQUE	SOUDÉS SUR FIL	COLLÉS SUR FEUILLE DE PLASTIQUE
LONGUEUR DE CLOU	45 à 75 mm (1-3/4" à 3")	45 à 90 mm (1-3/4" à 3-1/2")	32 à 65 mm (1-1/4" à 2-1/2")	38 à 65 mm (1-1/2" à 2-1/2")	40 à 65 mm (1-1/2" à 2-1/2")
DIAMÈTRE DE LA TIGE	2,5 à 2,9 mm (0,099" à 0,114")	2,5 à 3,8 mm (0,099" à 0,148")	2,1 à 3,3 mm (0,083" à 0,131")	2,1 à 3,3 mm (0,083" à 0,131")	3,3 à 4,1 mm (0,131" à 0,162")
TYPE DE TIGE	Lisse, Vis	Lisse, Bague, Vis	Lisse, Bague, Vis	Lisse, Bague, Vis	Lisse, Bague
DIAMÈTRE DE LA TÊTE	5,5 à 7,7 mm (0,217" à 0,303")	6,0 à 7,7 mm (0,236" à 0,303")	5,0 à 7,0 mm (0,197" à 0,275")		7,2 à 7,3 mm (0,283" à 0,287")

4. DONNÉES TECHNIQUES

BRUIT

	HN90F	HN65S	HN65J2
Niveau de puissance acoustique pondérée A pour événement unique ------ LWA, 1s, d	93,1 dB	95,8 dB	97,2 dB
Niveau de pression acoustique émise pondérée A pour événement unique ------ LpA, 1s, d	81,7 dB	85 dB	85,2 dB
Incertitude	3 dB		

Ces valeurs sont déterminées et documentées de manière appropriée dans la norme EN12549:1999+A1:2008.
REMARQUE : ces valeurs sont des valeurs caractéristiques relatives à l'outil et ne représentent pas la génération du bruit au niveau du point d'utilisation. Le bruit au niveau du point d'utilisation dépend par exemple de l'environnement de travail, de la pièce usinée, du support de la pièce usinée et du nombre d'opérations effectuées. En outre, il convient de se rapporter aux mesures de réduction du bruit.
REMARQUE : la conception du lieu de travail peut également permettre de réduire les niveaux de bruit, par exemple en plaçant les pièces à usiner sur des supports atténuateurs de son (voir également la norme ISO 11690-1).

VIBRATIONS

	HN90F	HN65S	HN65J2
Valeur caractéristique des vibrations	6,42 m/s^2	7,11 m/s^2	5,38 m/s^2
Incertitude	1,5 m/s^2		

Ces valeurs sont déterminées et documentées de manière appropriée dans la norme ISO 28927-13.
REMARQUE : la valeur d'émission des vibrations indiquées ci-dessus est une valeur caractéristique relative à l'outil et ne représentent pas l'influence main-bras-système lors de l'utilisation de l'outil. Toute influence au niveau de l'ensemble main-bras-système lors de l'utilisation de l'outil dépend par exemple de la force de saisie, de la force de pression de contact, de la direction de travail, du réglage de l'alimentation, de la pièce à usiner et du support de la pièce à usiner.

5. APPLICATIONS

HN90F	HN65S	HN65J2
* Charpente de plancher et de cloison * Support de revêtement de sol * Sous-toiture et revêtement mural * Clôture	* Bardage * Platelage * Sous-toiture et revêtement mural * Clôture	* Fixation de connecteurs métalliques pour construction en bois

6. À PROPOS DE L'ANNÉE DE FABRICATION

Ce produit comporte un numéro de production sur la partie inférieure de la poignée du corps principal. Les deux chiffres les plus à gauche du numéro indiquent l'année de production.

(Exemple)
2 0 8 2 6 0 3 5 D
T
Année 2020

2. ALIMENTATION PNEUMATIQUE ET RACCORDS (Fig. 2)

A. TUYAUX ET SOURCE D'ALIMENTATION
LORS DE L'UTILISATION DE L'OUTIL, VEILLEZ À UTILISER UN COMPRESSEUR D'AIR ET UN TUYAU D'AIR SPÉCIAUX. Pour améliorer les performances, la pression de travail de cet outil est configurée à un niveau supérieur à celle des cloueuses conventionnelles. Pour utiliser l'outil, le compresseur d'air ① et le tuyau d'air spéciaux sont toujours nécessaires ② (compresseur MAX PowerLite et tuyau MAX PowerLite).
L'utilisation de gaz sous pression (par exemple, oxygène, acétylène, etc.) provoque une combustion anormale et peut entraîner une explosion. Utilisez uniquement le compresseur d'air et le tuyau spéciaux.

B. PRESSION DE FONCTIONNEMENT :
12 à 23 bar / 170 à 320 p.s.i. Sélectionnez la pression d'air de fonctionnement dans cette plage pour de meilleures performances en fonction de l'application de fixation et de la surface de travail. Utilisez la valeur minimale acceptable pour réduire le bruit, les vibrations et l'usure.
⚠ **NE PAS DÉPASSER 23 bar / 320 p.s.i.**

AVIS :
Une lubrification fréquente, mais pas excessive, est nécessaire pour de meilleures performances. À la fin des opérations, introduisez 2 ou 3 gouttes d'huile dans l'entrée de la prise d'air à l'aide d'une burette à spray.

3. CONSIGNES D'UTILISATION

1. AVANT UTILISATION

❶ Portez des lunettes de protection ou de sécurité.
❷ Ne raccordez pas l'alimentation en air.
❸ Inspectez le serrage des vis.
❹ Vérifiez le fonctionnement du bras de contact et du déclencheur pour voir s'ils se déplacent de manière fluide.
❺ Raccordez l'alimentation en air.
❻ Vérifiez la présence de fuites d'air. (L'outil ne doit pas avoir de fuites d'air.)
❼ Tenez l'outil avec le doigt à l'écart du déclencheur, puis poussez le bras de contact contre la pièce à usiner. (L'outil ne doit pas fonctionner.)
❽ Tenez l'outil avec le bras de contact à l'écart de la pièce à usiner et appuyez sur le déclencheur. (L'outil ne doit pas fonctionner.)
❾ Débranchez l'alimentation en air.

2. UTILISATION

FIXATION DE LA BUSE DE CONTACT (HN65S)
Fixez les buses de contact suivantes en fonction du diamètre de la tête des clous utilisés.

Diamètre de la tête	Buse de contact	Couleur
5,0 à 6,0 mm (0,197" à 0,236")	Buse de contact S	Noire
6,0 à 7,0 mm (0,236" à 0,275")	Buse de contact L	Argent

❶ (Fig. 3) Tirez la buse de contact pour l'ôter.
❷ (Fig. 4, 5) Appuyez sur la buse de contact en alignant le rail sur le bras de contact, comme illustré sur la figure, pour l'ajuster jusqu'à ce que vous entendiez un déclic.

CHARGEMENT DES CLOUS

❶ (Fig. 6) Ouvrez le magasin :
Tirez le verrou de la porte ① et faites pivoter la porte pour l'ouvrir. Faites pivoter le capuchon du magasin pour l'ouvrir.
❷ (Fig. 7) (HN90F, HN65S)
Vous pouvez déplacer le support à clous ② vers le haut et vers le bas selon quatre réglages. Le support à clous se déplace vers le bas en le tournant dans le sens inverse des aiguilles d'une montre et vers le haut en le tournant dans le sens des aiguilles d'une montre. Le support à clous doit être réglé correctement sur la position indiquée en pouces et en millimètres.
(Fig. 8,9) (HN65J2) Lorsque vous utilisez des clous de 40 mm/1-1/2", fixez le support à clous ② de telle manière que vous puissiez voir le repère « 40 ». Lorsque vous utilisez des clous de 65 mm/2-1/2", fixez le support à clous ② à l'envers.
Pour le démonter, poussez le verrou situé à l'arrière du magasin à l'aide du doigt.
❸ (Fig. 10) Chargement des clous :
Placez un rouleau de clous ④ sur le montant à clous, au centre du magasin. Déroulez suffisamment de clous pour atteindre le cliquet d'alimentation ⑤, et placez le second clou entre les dents du cliquet d'alimentation. La tête du clou s'adapte dans la fente ⑥ de la buse.
❹ (Fig. 11) Faites pivoter le capuchon du magasin ⑦ pour le fermer.
❺ (Fig. 11) Fermez la porte ⑧.
Vérifiez que le verrou de la porte ① est engagé. (Si tel n'est pas le cas, engagez-le,vérifiez que les têtes de clous sont dans la fente ⑥ de la buse).

ESSAI DE FONCTIONNEMENT

❶ Réglez la pression sur 12 bar (170 p.s.i.) et raccordez l'alimentation en air.
❷ Sans toucher le déclencheur, appuyez le bras de contact contre la pièce à usiner.
Appuyez sur le déclencheur. (L'outil doit éjecter la fixation.)
❸ Après avoir écarté l'outil de la pièce à usiner, appuyez sur le déclencheur.
Puis, appuyez le bras de contact ou la buse de contact contre la pièce à usiner. (Un outil avec un déclencheur rouge doit éjecter la fixation, mais pas ceux avec un déclencheur orange.)
❹ Réglez la pression pneumatique aussi faible que possible en fonction du diamètre et de la longueur des fixations et de la dureté de la pièce à usiner.

ENFONCEMENT DES FIXATIONS
HN65J2
Cet outil est assemblé avec un ACTIVATION SÉQUENTIELLE COMPLÈTE.

HN65S, HN90F
Cet outil est expédié avec un MÉCANISME ANTI-DOUBLE ÉJECTION sélectionnée.
Il relève de la responsabilité de l'employeur, du propriétaire de l'outil ou de son opérateur de sélectionner le système de d'activation approprié à l'application des fixations et de former l'opérateur de l'outil avant de modifier le réglage du déclencheur.

COMMUTATION DU MÉCANISME ANTI-DOUBLE ÉJECTION EN ACTIVATION SÉQUENTIELLE COMPLÈTE (Option) (HN90F, HN65S)
Pour modifier le système du déclencheur, contactez les distributeurs agréés MAX CO., LTD. et demandez-leur de modifier le système.

COMMUTATION DE L'ACTIVATION SÉQUENTIELLE COMPLÈTE (Option) EN MÉCANISME ANTI-DOUBLE ÉJECTION (HN90F, HN65S)
Pour modifier le système du déclencheur, contactez les distributeurs agréés MAX CO., LTD. et demandez-leur de modifier le système.

FONCTIONNEMENT DE L'ACTIVATION PAR CONTACT (HN90F, HN65S)
Pour le fonctionnement de l'activation par contact, appuyez sur le déclencheur et relâchez le bras de contact ou la buse de contact de la surface de travail.

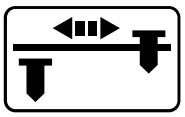
FONCTIONNEMENT DU MÉCANISME ANTI-DOUBLE ÉJECTION (HN90F, HN65S)
Pour l'utilisation du mécanisme anti-double éjection, appuyez le bras de contact sur la surface de travail, puis appuyez sur le déclencheur. Une fixation est enfoncée. Relâchez le déclencheur. Recommencez.

FONCTIONNEMENT DE L'ACTIVATION SÉQUENTIELLE COMPLÈTE (Pour outil avec déclencheur orange)
Pour l'utilisation de l'activation séquentielle complète, appuyez le bras de contact sur la surface de travail, puis appuyez sur le déclencheur. Une fixation est enfoncée. Relâchez le déclencheur et le bras de contact. Recommencez.

	PROCÉDURE
	❶ Appui sur le déclencheur et maintien. ❷ Relâchement du bras de contact.
MÉCANISME ANTI-DOUBLE ÉJECTION	L'outil éjecte un clou à chaque pression sur le bras de contact.
ACTIVATION SÉQUENTIELLE COMPLÈTE	L'outil ne peut pas éjecter de clou.

	PROCÉDURE
	❶ Relâchement du bras de contact. ❷ Appui sur le déclencheur et maintien.
MÉCANISME ANTI-DOUBLE ÉJECTION	L'outil éjecte un clou. L'outil ne peut pas éjecter de second clou tant que vous n'avez pas relâché le déclencheur.
ACTIVATION SÉQUENTIELLE COMPLÈTE	L'outil éjecte un clou. L'outil ne peut pas éjecter de second clou tant que le déclencheur est relâché et que le bras de contact demeure sur la surface de travail.

MOLETTE DE RÉGLAGE DE LA PROFONDEUR D'ENFONCEMENT
Réglez la profondeur d'enfoncement en tournant la molette de réglage ⑫, comme indiqué ci-dessous.



Profond ◄——► Peu profond

MÉCANISME DE VERROUILLAGE DU DÉCLENCHEUR (Fig. 12)
Cet outil dispose d'un verrouillage du déclencheur. Le déclencheur doit être verrouillé en permanence, jusqu'à ce que vous ayez l'intention d'enfoncer un clou dans la surface de travail. Poussez et tournez la molette VERROUILLAGE du déclencheur ① dans le sens des aiguilles d'une montre, de la position LOCK (VERROUILLAGE) à UNLOCK (DÉVERROUILLAGE) juste avant d'enfoncer des clous. Lorsque la fixation est terminée, poussez et tournez la molette dans le sens inverse des aiguilles d'une montre jusqu'à la position LOCK (VERROUILLAGE).

EXTRÉMITÉ DE CONTACT (Fig. 13) (HN90F, HN65S)
Fixez l'extrémité de contact ① sur l'extrémité du bras de contact ②, lorsque vous enfoncez des clous dans un matériau souple. L'extrémité de contact peut être maintenue sur le capot du bras ③ lorsque vous ne l'utilisez pas.

RETRAIT DES CLOUS COINCÉS (Fig.14)

⚠ AVERTISSEMENT

- **Débranchez TOUJOURS l'alimentation en air.**
- **Portez des gants lorsque vous enlevez des clous coincés ; ne le faites jamais à mains nues.**
- **Vérifiez que vous avez enlevé tout les clous de la buse de l'outil avant de rebrancher l'alimentation en air.**

❶ Débranchez l'alimentation en air.
❷ Ouvrez la porte de l'outil et ôtez les clous de l'intérieur du magasin.
❸ Insérez une fine tige métallique dans la buse de l'outil et frappez-la à l'aide d'un marteau ou enlevez les clous coincés à l'aide d'un tournevis plat.
❹ Remettez les clous dans le cliquet d'alimentation et refermez la porte de l'outil.

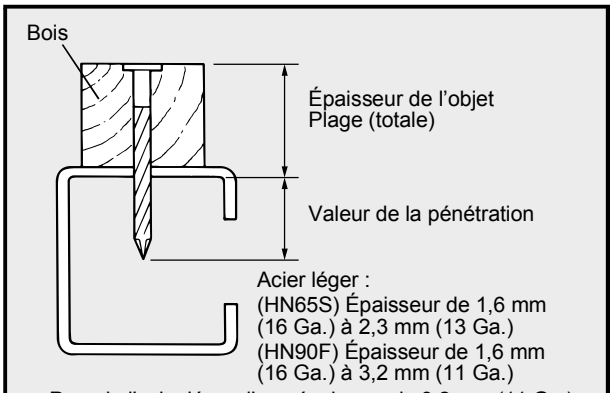
LORS DE L'UTILISATION DE L'OUTIL SUR DES PLAQUES D'ACIER
(HN90F, HN65S)
(HN65S) Cet outil est exclusivement conçu pour de l'acier d'une faible épaisseur de 1,6 mm/16Ga. à 2,3 mm/13Ga.
(HN90F) Cet outil est exclusivement conçu pour de l'acier d'une faible épaisseur de 1,6 mm/16Ga. à 3,2 mm/11Ga.
Lorsque vous l'utilisez, conformez-vous aux normes de travail en tenant compte de l'état de l'objet et de l'environnement du site de travail.

❶ Sélectionnez des clous appropriés à l'épaisseur de l'objet en consultant le Tableau des critères de sélection des clous.
* Il est possible que les clous ne pénètrent pas à l'intérieur de l'objet en fonction de sa dureté ou de son épaisseur.
* Si l'objet est plus épais que la plage d'épaisseur appropriée, il est possible que les clous n'y pénètrent pas en raison de leur courbure.
❷ Si le matériau de fondation en acier léger utilisé est d'une épaisseur de 3,2 mm/11Ga., utilisez des clous de 2,9 mm/ 0,113" pour la plaque d'acier. (HN90F)
❸ N'éjectez jamais de clous directement dans de l'acier léger, car ils risqueraient d'être projetés et de vous mettre en danger.
❹ Veillez à appliquer l'orifice de décharge à angle droit sur l'objet. S'il est appliqué obliquement, les clous seront projetés et vous mettront en danger.
❺ N'utilisez jamais les clous pour les toitures (sous-toitures incluses) ou des plafonds (sous-plafonds inclus).
❻ Si les clous sont enfoncés trop profondément dans la plaque d'acier, leur force de maintien s'en trouvera extrêmement réduite. Lorsque vous utilisez l'outil, vérifiez complètement les conditions d'introduction.

Critères de sélection des clous

Outil	Diamètre	Longueur	Plage d'épaisseur (totale) de l'objet	Acier léger
HN65S	2,5 mm (0,098")	32 mm	10 à 20 mm	1,6 à 2,3 mm (16 Ga, 13 Ga)
		28 mm	15 à 25 mm	
HN65S HN90F	2,5 mm (0,098")	45 mm (1-3/4")	25 à 35 mm (1" à 1-3/8")	1,6 à 2,3 mm (16 Ga, 13 Ga)
		50 mm (2")	30 à 40 mm (1-1/8" à 1-1/2")	
		57 mm (2-1/4")	35 à 45 mm (1-3/8" à 1-3/4")	
		65 mm (2-1/2")	45 à 55 mm (1-1/2" à 1-1/8")	

Outil	Diamètre	Longueur	Plage d'épaisseur (totale) de l'objet	Acier léger
HN90F	2,9 mm (0,113")	45 mm (1-3/4")	25 à 35 mm (1" à 1-3/8")	1,6 à 3,2 mm (16 Ga, 11 Ga)
		50 mm (2")	30 à 40 mm (1-1/8" à 1-1/2")	
		57 mm (2-1/4")	35 à 45 mm (1-3/8" à 1-3/4")	
		65 mm (2-1/2")	45 à 55 mm (1-1/2" à 1-1/8")	



* Pour de l'acier léger d'une épaisseur de 3,2 mm (11 Ga.), utilisez des clous de 2,9 mm (0,113") pour les plaques d'acier. (HN90F)

REMPLACEMENT DU POSITIONNEUR DU GUIDE DE POINTAGE
(HN65J2)
Le positionneur du guide de pointage s'use en fonction de la fréquence d'utilisation.
Si vous éprouvez des difficultés à tenir l'appareil verticalement lors du placement du positionneur du guide de pointage dans un orifice dans une fixation métallique, cela signifie qu'il est temps de le remplacer.
Remplacez-le selon la procédure suivante :

❶ (Fig. 15) Ôtez la rondelle de caoutchouc ① à l'aide d'un tournevis ordinaire pour sortir la goupille ②. Poussez le guide du berceau à clou ③ pour enlever le positionneur du guide de pointage ④.
❷ (Fig. 16) Montez un nouveau positionneur de guide de pointage, remettez la goupille et la rondelle de caoutchouc en place.

Lors du remplacement du positionneur du guide de pointage, contactez votre distributeur agréé MAX CO., LTD. le plus proche.

CHANGEMENT DE DIRECTION DU CROCHET
(Fig. 17) Le crochet peut être orienté dans deux directions. Enlevez la vis du capuchon du support hexagonal à l'aide d'une clé à 6 pans, modifiez la direction, puis remettez le boulon en place pour le remontage.

ESPAÑOL

MANUAL DE INSTRUCCIONES DE FUNCIONAMIENTO

1. ESPECIFICACIONES Y DATOS TÉCNICOS

1. NOMBRE DE LAS PIEZAS (VÉASE Fig.1)

① **Armazón**
② **Tapa del cilindro**
③ **Brazo de contacto (HN90F)**
③ **Nariz de contacto (HN65S)**
④ **Nariz**
⑤ **Cargador**
⑥ **Disparador**
⑦ **Empuñadura**
⑧ **Cubierta de escape**
⑨ **Disco de bloqueo del disparador**
⑩ **Toma**
⑪ **Localizador de guía de mira (HN65J2)**
⑫ **Disco de ajuste**
⑬ **Gancho para viga (HN90F)**
⑬ **Gancho para cinturón (HN65S, HN65J2)**

2. ESPECIFICACIONES DE LA HERRAMIENTA

N° DE PRODUCTO	**HN90F**	**HN65S**	**HN65J2**
ALTURA	331 mm (13")	304 mm (12")	299 mm (11-3/4")
ANCHURA	126 mm (5")	126 mm (5")	109 mm (4-1/4")
LONGITUD	298 mm (11-3/4")	298 mm (11-3/4")	298 mm (11-3/4")
PESO	2,6 kg (5,7 lbs)	2,1 kg (4,61 lbs)	2,1 kg (4,61 lbs)
PRESIÓN DE FUNCIONAMIENTO RECOMENDADA	12 a 23 bares (170 a 320 psi)		
CAPACIDAD DE CARGA	300 clavos	400 clavos	100 clavos
CONSUMO DE AIRE	3,4 l con una presión de funcionamiento de 18 bares / 257 psi	1,7 l con una presión de funcionamiento de 18 bares / 257 psi	1,4 l con una presión de funcionamiento de 18 bares / 257 psi

3. ESPECIFICACIONES DE LOS CLAVOS

N° DE PRODUCTO	**HN90F**		**HN65S**		**HN65J2**
TIPO DE UNIÓN	UNIDOS CON PLÁSTICO	ELECTROSOLDADOS	UNIDOS CON PLÁSTICO	ELECTROSOLDADOS	UNIDOS CON PLÁSTICO
LONGITUD DEL CLAVO	45 a 75 mm (1-3/4" a 3")	45 a 90 mm (1-3/4" a 3-1/2")	32 a 65 mm (1-1/4" a 2-1/2")	38 a 65 mm (1-1/2" a 2-1/2")	40 a 65 mm (1-1/2" a 2-1/2")
DIÁMETRO DEL VÁSTAGO	2,5 a 2,9 mm (0,099" a 0,114")	2,5 a 3,8 mm (0,099" a 0,148")	2,1 a 3,3 mm (0,083" a 0,131")	2,1 a 3,3 mm (0,083" a 0,131")	3,3 a 4,1 mm (0,131" a 0,162")
TIPO DE VÁSTAGO	Liso, roscado	Liso, anillado, roscado	Liso, anillado, roscado	Liso, anillado, roscado	Liso, anillado
DIÁMETRO DE LA CABEZA	5,5 a 7,7 mm (0,217" a 0,303")	6,0 a 7,7 mm (0,236" a 0,303")	5,0 a 7,0 mm (0,197" a 0,275")		7,2 a 7,3 mm (0,283" a 0,287")

4. DATOS TÉCNICOS

NIVEL DE RUIDO

	HN90F	HN65S	HN65J2
Nivel de potencia acústica ponderado A ------ LWA, 1s, d	93,1 dB	95,8 dB	97,2 dB
Nivel de presión acústica de emisión ponderado A en el puesto de trabajo------ LpA, 1s, d	81,7 dB	85 dB	85,2 dB
Incertidumbre	3 dB		

La determinación y documentación de estos valores se realiza según EN12549:1999 + A1:2008.
NOTA: Estos valores son los característicos de la herramienta y no representan la generación de ruido en el punto de utilización. El nivel de ruido en el punto de utilización dependerá, por ejemplo, del entorno de trabajo, la pieza de trabajo, el soporte de la pieza de trabajo y el número de operaciones de accionamiento. Asimismo, deben tenerse en cuenta las medidas de reducción del ruido.
NOTA: La disposición del lugar de trabajo también puede ayudar a reducir el nivel de ruido, por ejemplo colocando las piezas de trabajo sobre soportes amortiguadores del ruido (véase también ISO 11690-1).

VIBRACIÓN

	HN90F	HN65S	HN65J2
Valor de vibración característico	6,42 m/s^2	7,11 m/s^2	5,38 m/s^2
Incertidumbre	1,5 m/s^2		

La determinación y documentación de estos valores se realiza según ISO 28927-13.
NOTA: El valor de emisión de vibraciones anteriormente indicado es el característico de la herramienta y no representa la influencia en el sistema mano-brazo cuando se utiliza la herramienta. La influencia en el sistema mano-brazo cuando se utiliza la herramienta dependerá, por ejemplo, de la fuerza de agarre, la fuerza de presión de contacto, la dirección de trabajo, el ajuste del suministro de energía, la pieza de trabajo y el soporte de la pieza de trabajo.

5. APLICACIONES

HN90F	HN65S	HN65J2
* Encofrado de paredes y suelos * Instalación de subsuelos * Revestimiento de tejados y paredes * Vallado	* Revestimiento de paredes * Instalación de entarimados * Revestimiento de tejados y paredes * Vallado	* Fijación de conectores metálicos en construcciones de madera

6. INFORMACIÓN SOBRE EL AÑO DE PRODUCCIÓN

Este producto lleva indicado el número de producción en la parte inferior de la empuñadura del cuerpo principal. Los dos primeros dígitos de la izquierda indican el año de producción.

(Ejemplo)
2 0 8 2 6 0 3 5 D
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Año 2020

2. SUMINISTRO DE AIRE Y CONEXIONES (Fig.2)

A. MANGUERAS Y FUENTE DE SUMINISTRO
CUANDO UTILICE LA HERRAMIENTA, ASEGÚRESE DE USAR UN COMPRESOR DE AIRE Y UNA MANGUERA DE AIRE ESPECIALES.
A fin de mejorar su rendimiento, la herramienta tiene ajustada una presión de funcionamiento más alta que la de las clavadoras convencionales. Para usar la herramienta, necesitará emplear siempre el compresor de aire especial ① y la manguera de aire especial ② (compresor MAX PowerLite y manguera MAX PowerLite).
El uso de gas a alta presión (por ejemplo, oxígeno, acetileno, etc.) produce una combustión anómala que puede provocar una explosión. Utilice únicamente el compresor de aire y la manguera de aire especiales.

B. PRESIÓN DE FUNCIONAMIENTO:
De 12 a 23 bares / 170 a 320 psi. Seleccione una presión de aire de funcionamiento comprendida en este rango para obtener el mejor rendimiento posible en función de la aplicación y de la superficie de trabajo. Utilice el valor mínimo posible para minimizar el ruido, la vibración y el desgaste.
⚠ **NO SUPERE los 23 bares / 320 psi.**

AVISO:
La herramienta debe lubricarse con frecuencia, aunque no excesivamente, para obtener el mejor rendimiento posible Una vez finalizado el trabajo, deposite dos o tres gotas de aceite en la entrada de la toma de aire utilizando el lubricador.

3. INSTRUCCIONES DE FUNCIONAMIENTO

1. ANTES DEL FUNCIONAMIENTO

❶ Póngase gafas de seguridad o protectoras.
❷ No conecte el suministro de aire.
❸ Compruebe que los tornillos están bien apretados.
❹ Compruebe que el brazo de contacto funciona correctamente y que el disparador se mueve sin problemas.
❺ Conecte el suministro de aire.
❻ Compruebe si hay fugas de aire. (La herramienta no debe tener fugas de aire.)
❼ Sujete la herramienta sin colocar el dedo en el disparador y, a continuación, presione el brazo de contacto contra la pieza de trabajo. (La herramienta no debe ponerse en marcha.)
❽ Sujete la herramienta separándola de la pieza de trabajo y accione el disparador. (La herramienta no debe ponerse en marcha.)
❾ Desconecte el suministro de aire.

2. FUNCIONAMIENTO

INSTALACIÓN DE LA NARIZ DE CONTACTO (HN65S)
Instale las narices de contacto siguientes en función del diámetro de la cabeza del clavo utilizado.

Diámetro de la cabeza	Nariz de contacto	Color
5,0 a 6,0 mm (0,197" a 0,236")	Nariz de contacto S	Negro
6,0 a 7,0 mm (0,236" a 0,275")	Nariz de contacto L	Plateado

❶ (Fig.3) Tire de la nariz de contacto para extraerla.
❷ (Fig.4,5) Alinee el riel con el brazo de contacto y presione la nariz de contacto como se indica en la figura para encajarla hasta que haga "clic".

CÓMO CARGAR LOS CLAVOS

❶ (Fig.6) Abra el cargador:
Suelte el cierre ① y abra la puerta. Abra la tapa del cargador.
❷ (Fig.7) (HN90F, HN65S)
El soporte de clavos ② puede moverse hacia arriba y hacia abajo para colocarse en cuatro posiciones diferentes. El soporte baja si se gira hacia la izquierda, y sube si se gira hacia la derecha. El soporte de clavos debe ajustarse correctamente hasta colocarse en la posición indicada en pulgadas y milímetros.
(Fig.8,9) (HN65J2) Si se utilizan clavos de 40 mm/1-1/2", coloque el soporte de clavos ② de forma que pueda verse la marca "40". Si se utilizan clavos de 65 mm/2-1/2", coloque el soporte de clavos ② boca abajo.
Para soltarlo, presione con el dedo el cierre situado en la parte posterior del cargador.
❸ (Fig.10) Cómo cargar los clavos:
Coloque una bobina de clavos ④ sobre el poste de clavos en el cargador. Despliegue el número de clavos necesario para llegar al trinquete de avance ⑤ y coloque el segundo clavo entre los dientes de dicho trinquete. Las cabezas de los clavos encajan en la ranura ⑥ de la nariz.
❹ (Fig. 11) Cierre la tapa del cargador ⑦.
❺ (Fig. 11) Cierre la puerta ⑧.
Compruebe que el cierre de la puerta ① se acopla correctamente. (Si no se acopla, compruebe si las cabezas de los clavos están encajadas en la ranura ⑥ de la nariz.)

FUNCIONAMIENTO DE PRUEBA

❶ Ajuste la presión de aire en 12 bares (170 psi) y conecte el suministro de aire.
❷ Sin tocar el disparador, presione el brazo de contacto contra la pieza de trabajo.
Accione el disparador. (La herramienta disparará el clavo.)
❸ Separe la herramienta de la pieza de trabajo y accione el disparador.
A continuación, presione el brazo de contacto o la nariz de contacto contra la pieza de trabajo. (La herramienta con disparador rojo disparará el clavo, pero la herramienta con disparador naranja no.)
❹ Ajuste la presión de aire en el mínimo posible en función del diámetro y la longitud del clavo y de la dureza de la pieza de trabajo.

CÓMO DISPARAR CLAVOS
HN65J2
Esta herramienta está equipada con un sistema de ACTIVACIÓN SECUENCIAL CONTINUA.

HN65S, HN90F
Cuando se envía de fábrica, esta herramienta lleva activado el MECANISMO ANTI-DISPARO DOBLE.
Es responsabilidad del encargado, del propietario de la herramienta o del operario seleccionar el sistema de activación apropiado en función de la aplicación, así como instruir al operario antes de cambiar la configuración del disparador.

CÓMO CAMBIAR DE MECANISMO ANTI-DISPARO DOBLE A ACTIVACIÓN SECUENCIAL CONTINUA (opcional) (HN90F, HN65S)
Si desea cambiar el sistema de disparo, póngase en contacto con un distribuidor autorizado de MAX CO., LTD. para solicitar el cambio de sistema.

CÓMO CAMBIAR DE ACTIVACIÓN SECUENCIAL CONTINUA (opción) A MECANISMO ANTI-DISPARO DOBLE (HN90F, HN65S)
Si desea cambiar el sistema de disparo, póngase en contacto con un distribuidor autorizado de MAX CO., LTD. para solicitar el cambio de sistema.

FUNCIONAMIENTO DEL MODO DE ACTIVACIÓN POR CONTACTO (HN90F, HN65S)
Para utilizar el modo de activación por contacto, accione el disparador y presione el brazo de contacto o la nariz de contacto contra la superficie de trabajo.

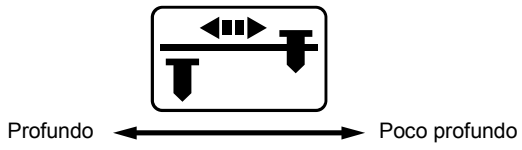
FUNCIONAMIENTO DEL MECANISMO ANTI-DISPARO DOBLE (HN90F, HN65S)
Para utilizar el mecanismo anti-disparo doble, presione el brazo de contacto contra la superficie de trabajo y accione el disparador. Se disparará un clavo. Suelte el disparador. Comience de nuevo.

FUNCIONAMIENTO DEL MODO DE ACTIVACIÓN SECUENCIAL CONTINUA (Para herramientas con disparador naranja)
Para utilizar el modo de activación secuencial continua, presione el brazo de contacto contra la superficie de trabajo y accione el disparador. Se disparará un clavo. Suelte el disparador y el brazo de contacto. Comience de nuevo.

	PROCEDIMIENTO
	❶ Accionar el disparador y mantenerlo accionado. ❷ Presionar el brazo de contacto.
MECANISMO ANTI-DISPARO DOBLE	La herramienta dispara un clavo cada vez que se presiona el brazo de contacto.
ACTIVACIÓN SECUENCIAL CONTINUA	La herramienta no puede disparar un clavo.

	PROCEDIMIENTO
	❶ Presionar el brazo de contacto. ❷ Accionar el disparador y mantenerlo accionado.
MECANISMO ANTI-DISPARO DOBLE	La herramienta dispara un clavo. La herramienta no puede disparar un segundo clavo hasta que el disparador se suelta.
ACTIVACIÓN SECUENCIAL CONTINUA	La herramienta dispara un clavo. La herramienta no puede disparar un segundo clavo hasta que el disparador se suelta y el brazo de contacto se separa de la superficie de trabajo.

DISCO DE AJUSTE DE LA PROFUNDIDAD DE PENETRACIÓN
Para ajustar la profundidad de penetración, gire el disco de ajuste ⑫ como se indica a continuación.



MECANISMO DE BLOQUEO DEL DISPARADOR (Fig.12)
Esta herramienta incorpora un mecanismo de bloqueo del disparador. El disparador debe estar bloqueado en todo momento hasta que se procede a disparar un clavo en la superficie de trabajo. Presione y gire hacia la derecha el disco de bloqueo del disparador ① para cambiar de la posición LOCK ("BLOQUEADO") a UNLOCK ("DESBLOQUEADO") justo antes de disparar clavos. Una vez haya terminado de disparar clavos, presione y gire el disco hacia la izquierda para ponerlo de nuevo en la posición LOCK ("BLOQUEADO").

PUNTA DE CONTACTO (Fig.13) (HN90F, HN65S)
Instale la punta de contacto ① en la punta del brazo de contacto ② cuando dispare clavos en un material blando.
La punta de contacto puede guardarse en la cubierta del brazo ③ cuando no se esté utilizando.

CÓMO EXTRAER CLAVOS ATASCADOS (Fig.14)

⚠ADVERTENCIA

- **Desconecte SIEMPRE el suministro de aire.**
- **Cuando se disponga a extraer clavos atascados, póngase guantes y no utilice las manos desnudas.**
- **Compruebe que ha extraído todos los clavos atascados de la nariz de la herramienta antes de volver a conectar el suministro de aire.**

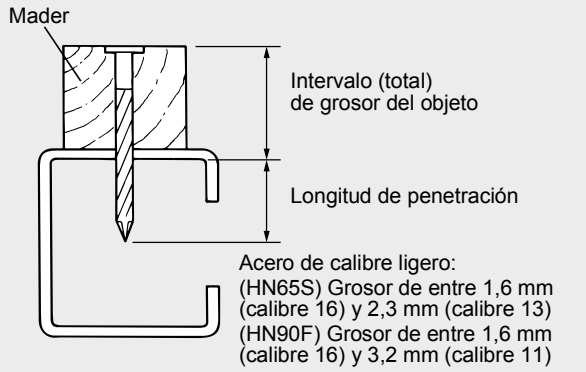
❶ Desconecte el suministro de aire.
❷ Abra la puerta de la herramienta y extraiga los clavos del interior del cargador.
❸ Introduzca una barra metálica fina en la nariz de la herramienta y golpee la barra con un martillo, o bien utilice un destornillador de cabeza plana.
❹ Vuelva a colocar los clavos en el trinquete de avance y cierre la puerta de la herramienta.

CUANDO LA HERRAMIENTA SE UTILIZA CON CHAPAS DE ACERO
(HN90F, HN65S)
(HN65S) Esta herramienta está exclusivamente diseñada para uso con acero de calibre ligero, con un espesor de entre 1,6 mm/calibre 16 y 2,3 mm/calibre 13.
(HN90F) Esta herramienta está exclusivamente diseñada para uso con acero de calibre ligero, con un espesor de entre 1,6 mm/calibre 16 y 3,2 mm/calibre 11.
Cuando la utilice, cumpla las normas laborales teniendo en cuenta el estado del objeto y el entorno del lugar de trabajo.

❶ Seleccione clavos apropiados en función del grosor del objeto, según lo indicado en la Tabla de criterios de selección de clavos.
* Es posible que los clavos no penetren en el objeto, dependiendo de la dureza o el grosor de éste.
* Si el objeto es más grueso de lo apropiado, es posible que los clavos se doblen y no penetren correctamente.
❷ Si el grosor del acero de calibre ligero es de 3,2 mm/calibre 11, utilice clavos de 2,9 mm/0,113" para planchas de acero. (HN90F)
❸ Nunca dispare los clavos de forma totalmente perpendicular en el acero de calibre ligero, ya que saldrán despedidos con el consiguiente riesgo de provocar lesiones.
❹ Asegúrese de aplicar la salida de descarga en el objeto con un ángulo adecuado. Si se disparan de forma oblicua, los clavos saldrán despedidos con el consiguiente riesgo de provocar lesiones.
❺ Nunca utilice los clavos en tejados (incluyendo bases de tejados) o techos (incluyendo bases de techos).
❻ Si los clavos se introducen con demasiada profundidad en la plancha de acero, su fuerza de sujeción se verá extremadamente reducida. Cuando trabaje con la herramienta, compruebe minuciosamente las condiciones de clavado.

Criterios de selección de clavos

Herramienta	Diámetro	Longitud	Intervalo (total) de grosor del objeto	Grosor del acero de calibre ligero
HN65S	2,5 mm (0,098")	32 mm	10 a 20 mm	1,6 a 2,3 mm (calibre 16 a 13)
		28 mm	15 a 25 mm	
HN65S HN90F	2,5 mm (0,098")	45 mm (1-3/4")	25 a 35 mm (1" a 1-3/8")	1,6 a 2,3 mm (calibre 16 a 13)
		50 mm (2")	30 a 40 mm (1-1/8" a 1-1/2")	
		57 mm (2-1/4")	35 a 45 mm (1-3/8" a 1-3/4")	
		65 mm (2-1/2")	45 a 55 mm (1-1/2" a 1-1/8")	
HN90F	2,9 mm (0,113")	45 mm (1-3/4")	25 a 35 mm (1" a 1-3/8")	1,6 a 3,2 mm (calibre 16 a 11)
		50 mm (2")	30 a 40 mm (1-1/8" a 1-1/2")	
		57 mm (2-1/4")	35 a 45 mm (1-3/8" a 1-3/4")	
		65 mm (2-1/2")	45 a 55 mm (1-1/2" a 1-1/8")	



* En acero de calibre ligero con un grosor de 3,2 mm (calibre 11) utilice clavos de 2,9 mm (0,113") para planchas de acero. (HN90F)

SUSTITUCIÓN DEL LOCALIZADOR DE GUÍA DE MIRA (HN65J2)

El localizador de guía de mira se desgasta en función de la frecuencia de uso.

Si la máquina no puede sujetarse verticalmente con facilidad cuando el localizador de guía de mira se sitúa en el orificio de un herraje metálico, el localizador debe reemplazarse.

Sustitúyalo siguiendo el procedimiento indicado a continuación:

❶ (Fig.15) Retire la arandela de caucho ① con un destornillador y extraiga el perno ②. Empuje la guía del clavo ③ para extraer el localizador de guía de mira ④.

❷ (Fig.16) Instale un nuevo localizador de guía de mira y vuelva a colocar el perno y la arandela de caucho.

Cuando necesite reemplazar el localizador de guía de mira, póngase en contacto con el distribuidor autorizado de MAX CO., LTD. más cercano.

CÓMO CAMBIAR LA DIRECCIÓN DEL GANCHO

(Fig.17) El gancho puede orientarse en dos direcciones. Retire el perno con cabeza de hexágono interior utilizando una llave hexagonal, cambie la dirección y, finalmente, vuelva a colocar el perno.