STANLEY
Engineered Fastening

INSTRUCTION MANUAL
ORIGINAL INSTRUCTION

(EN) Hydro-Pneumatic Riveting Tool
(FR) Riveteuse oléopneumatique
(DE) Hydropneumatisches Nietwerkzeug
(IT) Tirainserti oleopneumatica
(PL) Pneumatyczno-hydrauliczna nitownica
(ES) Remachadora hidro-neumática
(NL) Hydro-pneumatisch blindklinknagelgereedschap
(DA) Hydropneumatisk nitteværktøj
(FI) Hydropneumaattinen niittaustyökalu
(NO) Hydropneumatisk popnagleverktøy
(SV) Hydropneumatisk nitverktyg
(PT) Rebitadora hidropneumática

XGRIP N09QI
Hydro-pneumatic Blind Rivet Nut Tool

MASTERFIX

TABLE OF CONTENT

This instruction manual must be read by any person installing or operating this tool with particular attention to the following safety rules.

Always wear impact-resistant eye protection during operation of the tool. The grade of protection required should be assessed for each use.

Use hearing protection in accordance with employer's instructions and as required by occupational health and safety regulations.

Use of the tool can expose the operator's hands to hazards, including crushing, impacts, cuts and abrasions and heat. Wear suitable gloves to protect hands.

1. SAFETY DEFINITIONS

The definitions below describe the level of severity for each signal word. Please read the manual and pay attention to these symbols.

DANGER: Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

WARNING: Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION: Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.
CAUTION: Used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

Improper operation or maintenance of this product could result in serious injury and property damage. Read and understand all warnings and operating instructions before using this equipment. When using power tools, basic safety precautions must always be followed to reduce the risk of personal injury.

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

1.1. GENERAL SAFETY RULES

- For multiple hazards, read and understand the safety instructions before installing, operating, repairing, maintaining, changing accessories on, or working near the tool. Failure to do so can result in serious bodily injury.
- Only qualified and trained operators must install, adjust or use the tool.
- DO NOT use outside the design intent of placing STANLEY Engineered Fastening Blind Rivets.
- Use only parts, fasteners, and accessories recommended by the manufacturer.
- DO NOT modify the tool. Modifications can reduce the effectiveness of safety measures and increase the risks to the operator. Any modification to the tool undertaken by the customer will be the customer's entire responsibility and void any applicable warranties.
- Do not discard the safety instructions; give them to the operator.
- Do not use the tool if it has been damaged.
- Prior to use, check for misalignment or binding of moving parts, breakage of parts, and any other condition that affects the tool's operation. If damaged, have the tool serviced before using. Remove any adjusting key or wrench before use.
- Tools shall be inspected periodically to verify that the ratings and markings required by this part of ISO 11148 are legibly marked on the tool. The employer/user shall contact the manufacturer to obtain replacement marking labels when necessary.
- The tool must be maintained in a safe working condition at all times and examined at regular intervals for damage and function by trained personnel. Any dismantling procedure will be undertaken only by trained personnel. Do not dismantle this tool without prior reference to the maintenance instructions.

1.2. PROJECTILE HAZARDS

- Disconnect the air supply from the tool before performing any maintenance, attempting to adjust, fit or remove a nose assembly or accessories.
- Be aware that failure of the workpiece or accessories, or even of the inserted tool itself can generate high velocity projectiles.
- Always wear impact-resistant eye protection during operation of the tool. The grade of protection required should be assessed for each use.
- The risks to others should also be assessed at this time.
- Ensure that the workpiece is securely fixed.
- Check that the means of protection from ejection of fastener and/or mandrel is in place and is operative.
- DO NOT use the tool without mandrel collector installed.
- Warn against the possible forcible ejection of mandrels from the front of the tool.
- DO NOT operate a tool that is directed towards any person(s).

1.3. OPERATING HAZARDS

- Use of the tool can expose the operator's hands to hazards, including crushing, impacts, cuts and abrasions and heat. Wear suitable gloves to protect hands.
- Operators and maintenance personnel shall be physically able to handle the bulk, weight and power of the tool.
- Hold the tool correctly; be ready to counteract normal or sudden movements and have both hands available.
- Keep tool handles dry, clean, and free from oil and grease.
- Maintain a balanced body position and secure footing when operating the tool.
- Release the start-and-stop device in the case of an interruption of the air supply.
- Use only lubricants recommended by the manufacturer.
- Contact with hydraulic fluid should be avoided. To minimise the possibility of rashes, care should be taken to wash thoroughly if contact occurs.
- Material Safety Data Sheets for all hydraulic oils and lubricants is available on request from your tool supplier.
- Avoid unsuitable postures as it is likely for these positions not to allow counteracting of normal or unexpected movement of the tool.
- If the tool is fixed to a suspension device, make sure that the fixation is secure.
- Beware of the risk of crushing or pinching if nose equipment is not fitted.
- DO NOT operate tool with the nose casing removed.
- Adequate clearance is required for the tool operator's hands before proceeding.
- When carrying the tool from place to place keep hands away from the trigger to avoid inadvertent activation.
- DO NOT abuse the tool by dropping or using it as a hammer.
- Care should be taken to ensure that spent mandrels do not create a hazard.
- The mandrel collector must be emptied when approximately half full.

1.4. REPETITIVE MOTIONS HAZARDS

- When using the tool, the operator can experience discomfort in the hands, arms, shoulders, neck or other parts of the body.
- While using the tool, the operator should adopt a comfortable posture whilst maintaining a secure footing and avoiding awkward or off-balance postures. The operator should change posture during extended tasks; this can help avoid discomfort and fatigue.
- If the operator experiences symptoms such as persistent or recurring discomfort, pain, throbbing, aching, tingling, numbness, burning sensations or stiffness, these warning signs should not be ignored.

1.5. ACCESSORY HAZARDS

- Disconnect the tool from the air supply before fitting or removing the nose assembly or accessory.
- Use only sizes and types of accessories and consumables that are recommended by the manufacturer of the tool; do not use other types or sizes of accessories or consumables.

1.6. WORKPLACE HAZARDS

- 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 the air line or hydraulic hose.
- Proceed with care in unfamiliar surroundings. There can be hidden hazards, such as electricity or other utility lines.
- The tool is not intended for use in potentially explosive atmospheres and is not insulated against contact with electric power.
- Ensure that there are no electrical cables, gas pipes, etc., which can cause a hazard if damaged by use of the tool.
- Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewellery or long hair can be caught in moving parts.
- Care should be taken to ensure that spent mandrels do not create a hazard.

1.7. NOISE HAZARDS

- 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). Therefore, risk assessment and the implementation of appropriate controls for these hazards are essential.
- Appropriate controls to reduce the risk may include actions such as damping materials to prevent workpieces from "ringing".
- Use hearing protection in accordance with employer's instructions and as required by occupational health and safety regulations.
- Operate and maintain the tool as recommended in the instruction manual, to prevent an unnecessary increase in the noise level.
- Ensure that the silencer within the mandrel collector is in place and in good working order when the tool is being operated.

1.8. VIBRATION HAZARDS

- Exposure to vibration can cause disabling damage to the nerves and blood supply of the hands and arms.
- Wear warm clothing when working in cold conditions and keep your hands warm and dry.
- If you experience numbness, tingling, pain or whitening of the skin in your fingers or hands, stop using the tool, tell your employer and consult a physician.
- Where possible support the weight of the tool in a stand, tensioner or balancer, because a lighter grip can then be used to support the tool.

1.9. ADDITIONAL SAFETY INSTRUCTIONS FOR PNEUMATIC POWER TOOLS

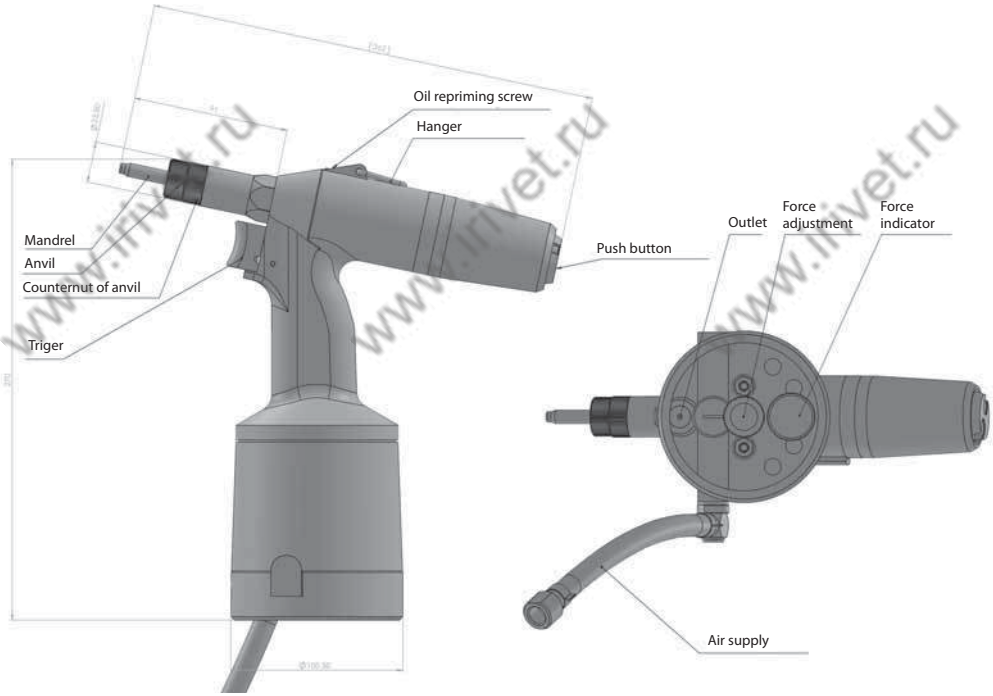
- The operating supply air must not exceed 7 bar (100 PSI).
- Air under pressure can cause severe injury.
- Never leave operating tool unattended. Disconnect air hose when tool is not in use, before changing accessories or when making repairs.
- DO NOT let air exhaust opening on the mandrel collector face in the direction of the operator or other persons. Never direct air at yourself or anyone else.
- Whipping hoses can cause severe injury. Always check for damaged or loose hoses and fittings.

- Prior to use, inspect airlines for damage, all connections must be secure. Do not drop heavy objects on hoses. A sharp impact may cause internal damage and lead to premature hose failure.
- Cold air shall be directed away from hands.
- Whenever universal twist couplings (claw couplings) are used, lock pins shall be installed and whip check safety cables shall be used to safeguard against possible hose-to-tool or hose-to-hose connection failure.
- DO NOT lift the placing tool by the hose. Always use the placing tool handle.
- Vent holes must not become blocked or covered.
- Keep dirt and foreign matter out of the hydraulic system of the tool as this will cause the tool to malfunction.

STANLEY Engineered Fastening policy is one of continuous product development and improvement and we reserve the right to change the specification of any product without prior notice.

2. DESCRIPTION OF THE TOOL

2.1. BASIC CHARACTERISTICS



2.2. TECHNICAL DATA

weight ..... 2,0 kg
working pressure ..... 0,5 - 0,7 MPa
stroke force at 0,6 Mpa ..... 23 kN
air consumption ..... 1,5 l / stroke
stroke ..... 8 mm
height ..... 270 mm
lenght ..... 262 mm
width (over the aircoupling) ..... 125 mm

2.3. RANGE OF USAGE

The pneumatic-hydraulic tool is designed for riveting with:
– rivet nuts M3 – M12 (aluminium, steel, stainless steel)
– rivet bolts M4 - M8 (aluminium, steel, stainless steel)

2.4. TOOL OPERATION

The manufacturer equipped the tool with a anvil and mandrel for rivet nuts M8. For riveting of rivets with a different dimension it is necessary to exchange the anvil and mandrel and change basic set up and regulation of the tool as following:

1) loosen the counternut of the anvil
2) screw out the anvil from the front nozzle
3) screw out the mandrel from the sleeve
4) choose appropriate anvil and mandrel, see the following chart:

Rivet nuts	Anvils and mandrels	Spare part Nr.
M4	Mandrel for rivet nuts M4	O900A00276
	Anvil for mandrel M4	O900A00283
M5	Mandrel for rivet nuts M5	O900A00277
	Anvil for mandrel M5	O900A00284
M6	Mandrel for rivet nuts M6	O900A00278
	Anvil for mandrel M6	O900A00285
M8	Mandrel for rivet nuts M8	O900A00279
	Anvil for mandrel M8	O900A00286
M10	Mandrel for rivet nuts M10	O900A00280
	Anvil for mandrel M10	O900A00287
M12	Mandrel for rivet nuts M12	O900A00281
	Anvil for mandrel M12	O900A00288

5) screw the mandrel on to the sleeve (to the backstop) and then turn it back, so that the flats of the hexagons of the screw-plug gauge and sleeve are matching.
6) slide on the anvil to the hexagons of the mandrel and sleeve.
7) screw on the anvil to the front nozzle.
8) set-up the anvil:
   - for rivet nuts - the rivet nut is screwed on the whole length of the thread on the mandrel and the front of the rivet nut leans on the anvil. Fasten the position of the anvil with a counternut.
   - for rivet bolts - set-up the anvil so that there is about 1 mm space between the outer side of the rivet bolt and inner side of the anvil. Do it as following: screw on the anvil to the backstop to the mandrel and then screw it back one or two turns. Fasten the position of the anvil with a counternut.
9) connect the tool to the source of the compressed air
10) press and hold the trigger, find out the currently set stroke force from the force indicator, and release the

trigger. By turning the control screw clockwise, the stroke force increases and decreases to the left. Check the set of stroke force and repeat the procedure until the recommended stroke force is set according to the following table (does not apply for all types of rivet nuts):

Stroke force F_t (kN)			
Rivet nut	**Al (aluminium)**	**St (steel)**	**Rv (stainless steel)**
M4	3	5	7
M5	5	9	9
M6	7	11	11
M8	11	13	13
M10	13	15	15
M12	15	19	21

11) Put the rivet on the mandrel and push towards the anvil, this will screw on the rivet.
12) Put the screwed rivet into the prepared hole.
13) Press the trigger and the rivet will be riveted in.
14) Relieve the trigger, the mandrel will screw out from the rivet (if it is not fully screwed out, use the unscrewing button).
15) Check the fastened rivet
    - if the rivet is not fully fastened it is necessary to increase the stroke.
    - if the rivet is too fastened, which results in deformation of the rivet and the mandrel is hard to unscrew out from the rivet, it is necessary to decrease the stroke.
16) Check the setting-up of the anvil according to the step 8).

The tool, which is set up and prepared this way is ready for riveting.

3. TOOL MAINTENANCE

During maintenance the tool must be disconnected from the source of compressed air !!!

3.1 DAILY MAINTENANCE

Before starting work, apply several drops of lubricating oil (we recommend hydraulic oil HYSPIN AWHM 32 CASTROL or hydraulic oils grade HLP ISO VG 32) into the air inlet of the tool, on condition there is no lubricating device connected in the air distribution.
Check the tool for air leakage, if necessary replace damaged hoses and clasps.
If the pressure regulator is not equipped with a filter, blow through the air hose before its connection to the tool in order to get rid of impurities and water. If the pressure regulator has a filter, dry it out.
Check whether the fixed nose-piece corresponds to the BR diameter and that all screw threads and joints are tightened properly. Check that the front nozzle is tightened properly into the hydraulic body of the tool.
Check whether the air outlets are really empty.

3.2. WEEKLY MAINTENANCE

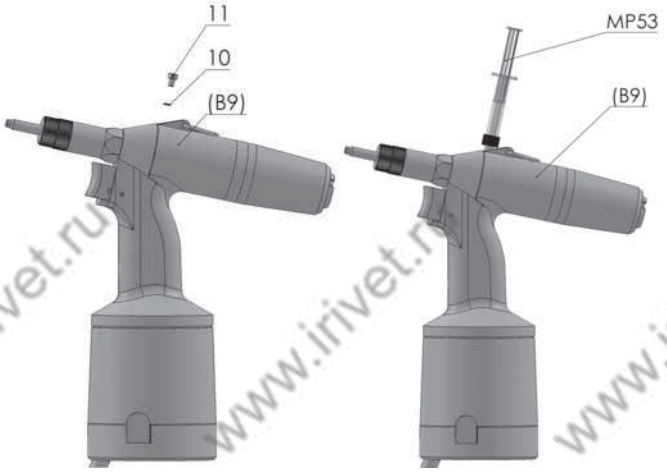
Cleaning of the tool and replacement of worn or non-functional parts and if necessary, refill the oil according to the chapter 3.4.
Unscrew the anvil and mandrel according to the chapter 2.4., point 1) to 3) and clean them thoroughly. Visually check - especially the mandrel, anvil and front nozzle - if worn or damaged, replace them. Dismounted parts should be reinstalled according to the chapter 2.4., points 5) to 7), including setting up point 8).

3.3. GENERAL MAINTENANCE

General maintenance should be performed after about 300 000 strokes or once every three years. The tool must be completely disassembled and all seals and worn parts must be replaced. This repair may be carried out by an authorized technician only or a person trained by the manufacturer or supplier.

3.4. OIL REPRIMING

Connect the tool to the source of compressed air! Press and release the trigger several times. Disconnect the tool from the source of compressed air! Unscrew pos. 11 with Hex Key no.3. Fill hydraulic oil (from the supplied bottle with hydraulic oil) into MP53, take extra care to avoid air sucking, air must not be present in the hydraulic oil. Screw the MP53 tool into pos. B9 and inject the hydraulic oil into the tool. When the moving part of MP53 tool is released, the redundant oil is returned back to the MP53 tool.



4. SPARE PARTS

4.1. ORDERING

Order the spare parts exlusively from the manufacturer or from your sales agents.
The order must contain tool serial number, part number and number of pieces, name of your company and precise address, your tax identification number and identification number.

4.2. LIST OF QUICKLY EXPENDABLE PARTS

All types and dimensions of mandrels and anvil.....see chart in paragraph 2.4.
Front nozzle complete D-08650600
Tensile screw O900P01202
Joint sleeve.....D-08650400

5. STORAGE

The pneumatic-hydraulic tool embedded in a shipping container must be stored in environment with relative humidity to 70% and temperature ranging from +5°C to +40°C, without aggressive evaporation of salts, acids and caustics.

6. COMPLETE TOOL EQUIPMENT

Replaceable anvils and mandrels located in a plastic bag, Operations manual, Certificate of warranty.

7. OPERATIONS AND WARRANTY CONDITIONS

7.1 OPERATION CONDITIONS

For reliable function of the tool we recommend to use treated compressed air. Treated compressed air means compressed atmospheric air bare of solid particles and water, reduced to required pressure and lubricated with anti-corrosive oil. Immediately before putting the tool into service, the regulator valve must not exceed the maximum outlet pressure of **0,7 MPa**. It is recommended to fit the air line with an air filter and lubricator. Equivalent sound-pressure level of noise A, $L_{pAeq,T}$ does not exceed 68,6 dB(A), still it is recommended to use ear protectors during continuous and long-term operation.
Aggregated weighted vibration acceleration level $L_{avw,T}$ = 113,8 dB re 10^{-6} m.s^{-2}. The cumulative weighted effective value of the vibration acceleration $a_{vw,T}$ = 0,49 m.s^{-2}.
The trigger enables safe control of the tool with a force max. 35 N < 50 N without releasing the grip-handle according to the health regulation.

7.2. WARRANTY CONDITIONS

For reliable and safe function of the tool it is necessary to adhere to instructions and principles stated above. For the warranty period the customer must not perform any alterations other than those permitted by the manufacturer, see paragraph 2.1, 3.1, 3.2. Other non-detachable parts are secured with paint. In case of neglecting this protection the manufacturer shall not admit possible warranty repairs. To admit warranty repair the customer must submit confirmed warranty certificate of the tool, Certificate of quality and completeness or proof of purchase. The warranty period is 24 months from the day of purchase confirmed in the Warranty certificate if the purchase contract does not state otherwise.

Warranty is valid provided that the following:

- General safety instruction and principles (paragraph 1)
- Tool operation (paragraph 2.4)
- Daily and weekly maintenance (paragraph 3.1 and 3.2)
- Storage (paragraph 5)
- Operations and waranty conditions (paragraph 7)

Warranty does not apply to quickly expendable parts (see paragraph 4.2.)

8. EC DECLARATION OF CONFORMITY

We,
Rivet Factory Group s. r. o., Lannova 2061/8, 110 00 Praha 1, Nové Město,
declare under our sole responsibility that the product:

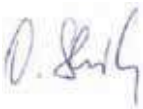
Description:	**Hydro-Pneumatic Riveting Tool**
Model:	**X-GRIP N09QI**

To which this declaration relates is in conformity with the following harmonized standards

Safety:
Machinery directive standard: ČSN EN ISO 11148-1:2015

Technical documentation is compiled in accordance with Annex 1, section 1.7.4.1, of the following Directive: 2006/42/EC The Machinery Directive (Statutory Instruments 2008 No 1597 - The Supply of Machinery (Safety) Regulations).

The undersigned makes this declaration on behalf of Rivet Factory Group



Bc. Ondřej Slezák, CEO
Rivet Factory Group s. r. o.
Lannova 2061/8
110 00 Praha 1, Nové Město

Place of Issue:	**Drtinovo náměstí 171, 547 01 Náchod, Czech republic**
Date of Issue:	**11. 6. 2021**

The undersigned is responsible for compilation of the technical file for products sold in the European Union and makes this declaration on behalf of STANLEY Engineered Fastening.

Matthias Appel
Team Leader Technical Documentation
Stanley Engineered Fastening, Tucker GmbH, Max-Eyth-Str.1,
35394 Gießen, Germany

CE **This machinery is in conformity with Machinery Directive 2006/42/EC**

Ostrava – Radvanice

STANLEY
Engineered Fastening

9. UK DECLARATION OF CONFORMITY

We,
Rivet Factory Group s. r. o., Lannova 2061/8, 110 00 Praha 1, Nové Město,
declare under our sole responsibility that the product:

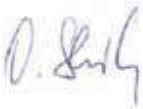
Description:	**Hydro-Pneumatic Riveting Tool**
Model:	**X-GRIP N09QI**

to which this declaration relates is in conformity with the following designated standards:

Safety:
The Supply of Machinery (Safety) Regulations 2008 S.I. 2008/1597 (as amended):
Designated Standards ČSN EN ISO 11148-1:2015

Technical documentation is compiled in accordance with the Supply of Machinery (Safety) Regulations 2008, S.I. 2008/1597 (as amended).

The undersigned makes this declaration on behalf of Rivet Factory Group



Bc. Ondřej Slezák, CEO
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Place of Issue:	**Drtinovo náměstí 171, 547 01 Náchod, Czech republic**
Date of Issue:	**11. 6. 2021**

The undersigned is responsible for compilation of the technical file for products sold in the United Kingdom and makes this declaration on behalf of Stanley Engineered Fastening.

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Director of Engineering, UK
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UK CA **The Supply of Machinery (Safety) Regulations 2008, S.I. 2008/1597 (as amended)**

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07900-09605	A2	21/100

Stanley Engineered Fastening — adivision of Stanley Back and Decker — is the global leader in precision fastening and assembly solutions. Our industry-leading brands, Avdel®, Integra ™, Nelson®, Optia™, POP®, Stanley® Assembly Technologies, and Tucker®, elevate what our customers create. Backed by a team of passionate and responsive problem-solvers, we empower engineers who are changing the world.

STANLEY ENGINEERED FASTENING FAMILY OF BRANDS

AVDEL INTEGRA NELSON OPTIA POP STANLEY Assembly Technologies TUCKER