



Operation Manual

Model# RK-55SPS



For sales, service or support call your local distributor or:

1800-BUY-RIVET or 1-800-289-7483

www.rivet.com

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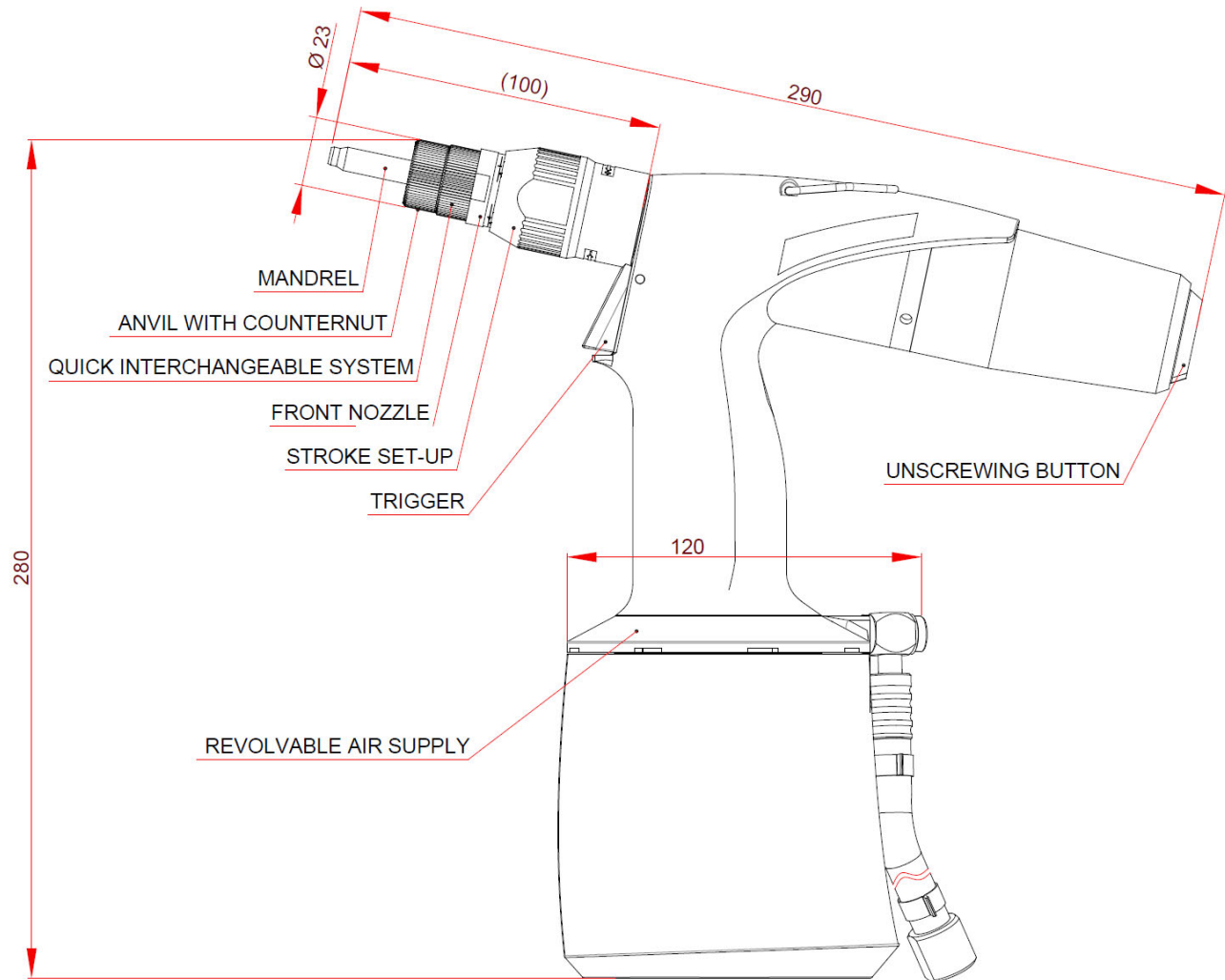
1. GENERAL SAFETY INSTRUCTIONS AND PRINCIPLES

ATTENTION! Read all instructions and principles carefully. Every person installing, operating or maintaining the tool must be first thoroughly acquainted with this operation manual and is obliged to adhere to the following safety instructions and principles:

- The tool must not be used for other purposes than those for which it was designed.
- The tool must not be used in a different manner than that recommended by the manufacturer
- Any alterations of the tool, its accessories or spare parts remain in sole responsibility of the customer. After agreement, the manufacturer provide technical support in designing and making additional alterations.
- The tool must be kept in top condition and regularly tested for damage and proper operation. The tool must be repaired only by an authorized technician or by a person trained by the manufacturer or supplier. Should you have any demand for training, please contact your sales agent.
- The tool must always be operated in accordance with respective sanitary and safety regulations.
- All queries regarding proper and safe operation of the tool should be addressed to your sales agent.
- Safety principles that must be adhered to in connection with operation of this tool must be known to all workers who operate the tool.
- When handling the tool take extra care to avoid unwanted activation and possible injury.
- The tool must be during any kind of maintenance or repair (does not apply to replacing nose-pieces and emptying the mandrel container) disconnected from the source of compressed air.
- Before operating the tool always take up firm posture and steady position.
- It is necessary to prevent break-away shanks endangering safe operation of the tool.
- Never aim with the tool at another person.
- Always check that the vent holes are not blocked or covered and that the supply hose are in good condition.
- Working pressure must not exceed 0,7 MPa.
- Oxygen or other flammable gasses from pressure cylinders must not serve as a driving agent.
- When operating the tool it is recommended to use safety glasses and utility gloves.
- If the continuous cycle of riveting exceeds 8 hours per day, it is recommended that the operators use ear protectors.
- When working with the tool the operator must not have loose parts of wear as e.g. a tie, long hair, jewelry etc. to avoid getting caught by the tool.
- Same safety instructions apply for persons standing close to the tool.
- Avoid unnecessary contact with the hydraulic fluid to prevent possible allergy reaction of the skin.
- The tool is equipped with permanent magnet; the magnetic pole may influence electronic and even some mechanic machines. So it is necessary to warn about the possibility of the influence on the operation of electronic implants (e.g. pacemakers, insulin pumps etc.) with potential fatal effect for the users of these implants. The magnetic pole may also damage information on magnetic appliances (audio and video cassettes, diskettes, credit cards etc.) and it can destroy the forever. While using (and storing) the tool, please, keep distance with these sensitive appliances, in this case 0,5 m is considered as the save distance.
- The tool is not designed for outdoor and explosive environment.
- After the service life, discard the tool according to the Disposal Act no. 185/01 Coll.

2. DESCRIPTION OF THE TOOL

2.1. Basic characteristics



2.2. Technical data

Weight:	3.63lbs / 1,65 kg
Working pressure:	72.5-100psi / 0,5-0,7 MPa
Force @ 90 psi:	4,158 lbs / 18.5 Kn
Air consumption:	2,5 l / stroke
Stroke:	.275" / 7 mm
Height:	270 mm
Length:	285 mm
Width (over the aircoupling):	99 mm

2.3 Range of usage

The pneumatic-hydraulic tool is designed for riveting with:
rivet nuts 6-32"~1/4-20" M3-M6
rivet bolts 1/4-20" / M6 (steel)

2.4. Tool operation

The manufacturer equipped the tool with a anvil and mandrel for rivet nuts ____. 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 counter-nut 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:
- 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 a cca 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) basic stroke set-up as following (does not apply for all types of rivet nuts):

Rivet nut	M3 (6-32)	M4 (8-32)	M5(10-32)	M6(1/4-20)	M8(5/16-18)	M10(3/8-16)	M12(1/2-
Basic stroke	1,5	2	2,5	3	4	5	6

10) Adjust revolvable air supply into any required position and connect the tool to the source of the compressed air.

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 a 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

Daily, before starting work, apply a drop of lubricating oil (we recommend hydraulic oil MOBIL DTE32) 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 whether the air outlets are really empty.

3.2. Weekly maintenance

Cleaning of the tool and replacement of worn or non-functional parts.

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 according to the point 8).

3.3. General maintenance

General maintenance should be performed after about 500 000 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.

4. SPARE PARTS

4.1. Ordering

Order the spare parts exclusively from the manufacturer or from your sales agents.

The order must contain:

- a) tool serial number
- b) number of ordered part
- c) number of pieces
- d) name of your company and precise address
- e) your tax identification number and identification number

4.2. List of quickly expendable parts

All types and dimensions of mandrels and anvils see char in para 2.4

Front nozzle complete RK55SPS-600

Joint sleeve..... RK55SPS-400

Rivet nuts	Anvils and mandrels	Spare part Nr.
M3	Mandrel for rivet nuts M3	RK55SPS-1-M3
	Anvil for mandrel M3	RK55SPS-2-M3
M4	Mandrel for rivet nuts M4	RK55SPS-1-M4
	Anvil for mandrel M4	RK55SPS-2-M4
M5	Mandrel for rivet nuts M5	RK55SPS-1-M5
	Anvil for mandrel M5	RK55SPS-2-M5
M6	Mandrel for rivet nuts M6	RK55SPS-1-M6
	Anvil for mandrel M6	RK55SPS-2-M6
M8	Mandrel for rivet nuts M8	RK55SPS-1-M8
	Anvil for mandrel M8	RK55SPS-2-M8
M10	Mandrel for rivet nuts M10	RK55SPS-1-M10
	Anvil for mandrel M10	RK55SPS-2-M10
M12	Mandrel for rivet nuts M12	RK55SPS-1-M12
	Anvil for mandrel M12	RK55SPS-2-M12

Rivet nuts	Anvils and mandrels	Spare part Nr.
6-32	Mandrel for rivet nuts 6-32	RK55SPS-1-632
	Anvil for mandrel 6-32	RK55SPS-2-632
8-32	Mandrel for rivet nuts 8-32	RK55SPS-1-832
	Anvil for mandrel 8-32	RK55SPS-2-832
10-32	Mandrel for rivet nuts 10-32	RK55SPS-1-1032
	Anvil for mandrel 10-32	RK55SPS-2-1032
¼-20	Mandrel for rivet nuts ¼-20	RK55SPS-1-1420
	Anvil for mandrel ¼-20	RK55SPS-2-1420
5/16-18	Mandrel for rivet nuts 5/16-18	RK55SPS-1-51618
	Anvil for mandrel 5/16-18	RK55SPS-2-51618
3/8-16	Mandrel for rivet nuts 3/8-16	RK55SPS-1-3816
	Anvil for mandrel 3/8-16	RK55SPS-2-3816
½-13	Mandrel for rivet nuts ½-13	RK55SPS-1-1213
	Anvil for mandrel ½-13	RK55SPS-2-1213

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 +5oc to +40oc, without aggressive evaporation of salts, acids and caustics.

6. COMPLETE TOOL EQUIPMENT

Replaceable anvils and mandrels located in a plastic bag, operations manual.

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 the tool there must be a regulation valve set to **maximum outlet pressure of 0,7 MPa**, air filter and lubrication in the circuit of compressed air.

Though sound-pressure level of impulse noise $L_{p,al}$ does not exceed db(a), still it is recommended to use ear protectors during continuous and long-term operation. average overall vibration total effective value $a_{hv,8h} = \dots$ m.s².

The trigger enables safe control of the tool with a force $max. 10\text{ n} < 50\text{ n}$ 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 proof of purchase (invoice). the warranty period is 12 months from the day of purchase 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 warranty conditions (paragraph 7)
- Subject to blanket warranty statement as indicated on following page:

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

Warranty Statement:

Industrial Rivet & Fastener Co. Inc. (hereinafter "IRF"), hereby warrants to the initial retail customer or original authorized distributor ("Warrantee") only that its products will be free from defects in material and workmanship for a period of 1 year from the purchase date provided that the products are used in accordance with "IRF's" instructions as to maintenance, operation and use.

The said warranty does not extend to goods subjected to misuse, neglect, accidental/improper installation, improper maintenance or which have been altered/repared by anyone other than the seller or its certifiably authorized agents. The said warranty does not extend to consumable components or wear components as listed in schedule A.

The warrantee's only remedy and IRF's only obligation in the event of a defect or failure in the products, is that IRF, at its sole option, repair, replace or re work the products, but in no case shall the cost of the foregoing exceed the invoice price of the products.

This warranty shall be void if any person seeking to make a claim for defective products fails to notify IRF within 30 days, or, if distributor fails to provide evidence that the product failed within 30 days of the failure. Proof and date of purchase, maintenance records as well as details regarding failure must be sent via e-mail, and a sample of the failed products sent via postal service is required for warranty evaluation.

This warranty is in lieu of all other warranties, expressed or implied, including merchantability, or fitness provided for herein. Under no circumstance shall IRF be liable for incidental or consequential damages arising from the defect or failure in its products.

Seller's sole obligation under the foregoing warranty will be limited to, at Seller's option, repair or replacement of the tool (and shipping to the buyer with transportation charges paid to any place within the contiguous 48 states). Returned goods will be evaluated by our warranty repair department and a conclusion will be determined and classified as:

- a) Warranty Repair (free of charge)
- b) Non-Warranty repair or Abuse/Neglect (Hourly rate, Schedule B)
- c) Maintenance (Flat Fee, Schedule B)

Schedule A - Limited Warranty

The following are considered consumable or wear parts and are not covered under the warranty.

Consumables: Jaws, Nosepieces, Jaw Pusher, Jaw Spring

Wear Parts: Mandrel Catcher, O-Rings, Pneumatic Seals, Hydraulic Seals*

*Hydraulic seals have a limited warranty (6 months) and the replacement is at the sole discretion of the manufacturer.

Schedule B - Maintenance/Repair

Price Schedule as of 1/1/2011

Bench Fee: \$ 60.00 (up to one hour)

Hourly Rate: \$ 60.00 per hour

Flat Fee:

Level 1 - Adjustments, cleaning and light repair \$45.00 + parts

Level 2 - Maintenance, Oil Change, plus Level 1 service \$65.00 + parts

Level 3 - Complete disassembly, change all seals, plus level 2 service \$120.00 + parts

If inspection by the seller of returned goods shows no breach of the forgoing warranty, Seller's regular conditioning charges (Schedule B) apply. Upon this conclusion we will either repair the tool at no cost to you and return it postage paid, or call you to inform you of the repair cost. The repair will need to be approved in writing before any work is performed.

A comprehensive tool service and repair program, for details contact your local area sales representative or call:

Industrial Rivet & Fastener Co.
200 Paris Ave
Northvale, NJ 07647
1-800-BUY-RIVET or info@rivet.com

MSDS

MSDS

Lubricant Details

MOLY GREASE (MSC P/N: 60002136)

Manufacturer:

T.S. Moly-Lubricants, Inc., Houston, TX
Emergency: (713)671-2676
MSDS Number: TS-122 Lithium EP-2 Moly Poly Grease

First Aid:**SKIN:**

Prolonged or repeated skin contact with this product tends to remove skin oils, possibly leading to irritation and dermatitis. No chronic health problems known.

INGESTION:

May cause irritation and gastrointestinal discomfort consisting of nausea, vomiting, lethargy and/or diarrhea.

EYES:

Flush eyes with plenty of water for several minutes. Get medical attention if eye irritation persists.

Fire:

FLASH POINT: 450°F/232°C

Use water to cool containers exposed to fire. For fires in enclosed areas, firefighters should use self-contained breathing apparatus. Avoid fumes or burning product.

Environment:**WASTE DISPOSAL:**

Because material uses, transformations, mixtures, processes, etc. may affect classification, it is the responsibility of the user to determine the method of disposal according to the latest EPA, state and local regulations

SPILLAGE:

Recover free product. Add sand, earth, or some other suitable adsorbent. Keep product out of sewers and watercourses by diking or impounding.

Handling/ Storage:

Store in cool dry area in original or equivalent container in accordance with all applicable regulations. Do not apply high heat or flame to container.

Emhart Approved Equivalents:

None

MOBIL DTE 32

Manufacturer:

EXXONMOBIL Oil Corp., Fairfax, VA
Emergency: (609)737-4411 (call collect)
MSDS Number: 600684-00

First Aid:**SKIN:**

Remove contaminated clothing and shoes and wipe excess from skin. Flush skin with water, and then wash with soap and water. If irritation occurs, get medical attention. Do not reuse clothing until cleaned.

INGESTION:

Do not induce vomiting. In general, no treatment is necessary unless large quantities of product are ingested. However, get medical attention.

EYES:

Flush with water. If irritation occurs, get medical attention.

Fire:

FLASH POINT: 345 °F/174 °C

Material will float and can be re-ignited on the surface of water. Use water fog, 'alcohol foam', dry chemical or carbon dioxide (CO₂) to extinguish flames. Do not use a direct stream of water.

Environment:**WASTE DISPOSAL:**

Because material uses, transformations, mixtures, processes, etc. may affect classification, it is the responsibility of the user to determine the method of disposal according to the latest EPA, state and local regulations.

SPILLAGE:

Soak up residue with an absorbent such as clay, sand or other suitable material. Place in a non-leaking container and seal tightly for proper disposal. Report spills/releases as required to appropriate authorities.

Handling:

Wash with soap and water before eating, drinking, smoking, applying cosmetics, or using toilet. Properly dispose of leather articles such as shoes or belts that cannot be decontaminated. Use in a well ventilated area. High pressure injection under the skin may occur due to the rupture of pressurized lines. Always seek medical attention.

Storage:

Keep containers closed when not in use. Do not store in open or unlabelled containers. Store away from strong oxidizing agents and combustible materials. Do not store near heat, sparks, flame or strong oxidants.

Emhart Approved Equivalents:

- Shell Spindle Oil #22
- Shell Tellus Oil #22