

industry acid

industry alka

OWNER MANUAL
BETRIEBSANLEITUNG

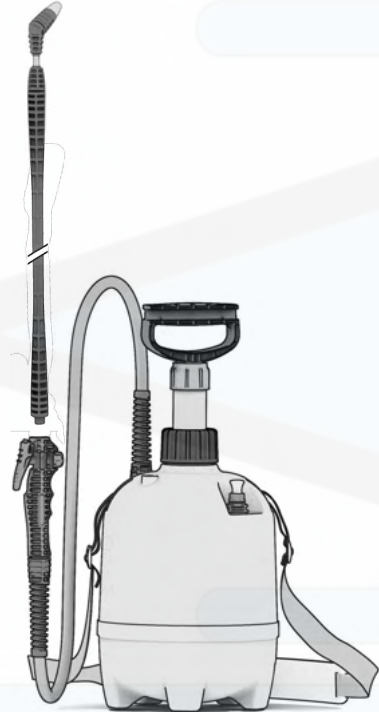
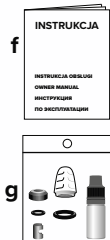
GB

DE

PRESSURISED HAND SPRAYER

MANUELLES
DRUCK-SPRÜHGERÄT

1



GUARANTEE CARD GARANTIESCHIEIN	STAMP OF THE RETAILER AND THE DATE STEMPEL DES HÄNDLERS UND DATUM
DATE OF THE REPAIR REPARATURDATUM	DESCRIPTION OF THE FAULT FEHLERBESCHREIBUNG

TECHNICAL DATA / TECHNISCHE DATEN

MODEL / MODELL	INDUSTRY 5 acid / alka	INDUSTRY 7 acid / alka	INDUSTRY 9 acid / alka	INDUSTRY 12 acid / alka
Code / Produktsymbol	S101.152/S111.153	S102.152/S112.153	S103.152/S113.153	S104.152/S114.153
Total container capacity / Gesamtkapazität	5750 ml	7830 ml	9500 ml	11600 ml
Working container capacity / Arbeitskapazität	5000 ml	7000 ml	9000 ml	11000 ml
Liquid output / Flüssigkeitsausbeute	0,6 ltr/min			
Maximum working pressure / max. Arbeitsdruck	0,4 MPa (4 bar) (60 PSI)			
Overpressure protection / Druckschutz	Safety valve / Sicherheitsventil			
Net weight / Nettogewicht	1,80 kg	1,90 kg	2,10 kg	2,20 kg
Container material / Werkstoff des Behälters	Polyethylene / Polyethylen			

SAFETY SIGNS / SICHERHEITSKENNZEICHEN

	SIGN ZEICHEN	MEANING / BEDEUTUNG	PLACE STELLE
1.	Plate Schild	Plate Typenschild	on container am Behälter
2.		Sign indicating possibility of unspecified danger Allgemeiner Warnhinweis, Warnung, Gefahr	on container am Behälter
3.		Sign indicating that a user's manual should be read before starting work Vor Arbeitsbeginn lesen Sie diese Betriebsanleitung genau durch	on container am Behälter
4.		Sign indicating danger of poisoning. Eating or drinking while using the device is forbidden Warnung vor Vergiftung durch toxische Stoffe	on container am Behälter

EU DECLARATION OF CONFORMITY / EU-KONFORMITÄTSERKLÄRUNG

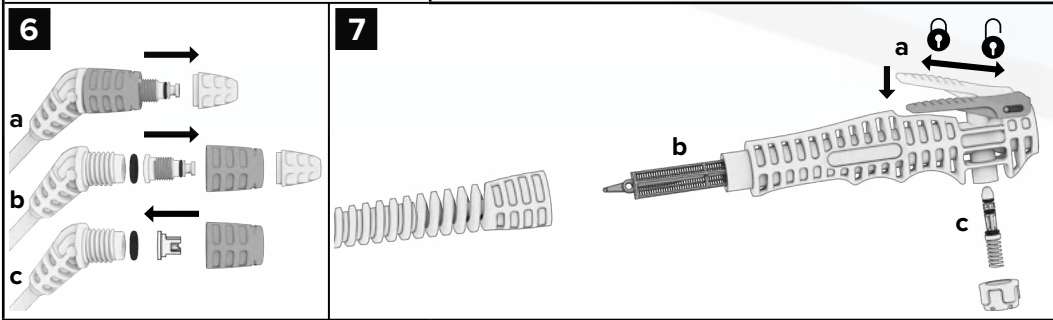
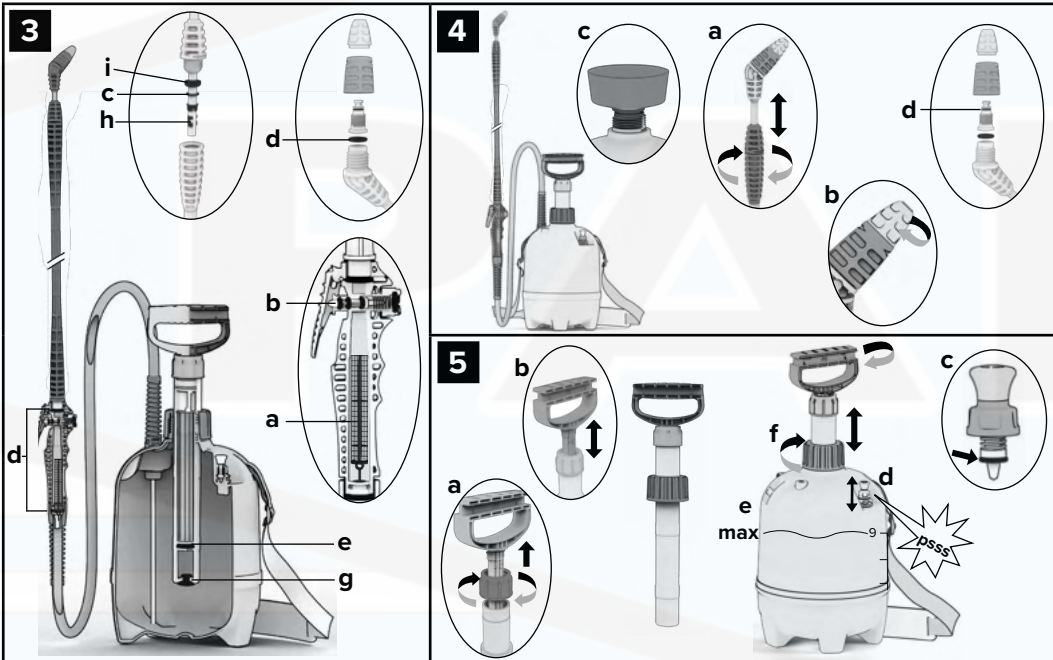
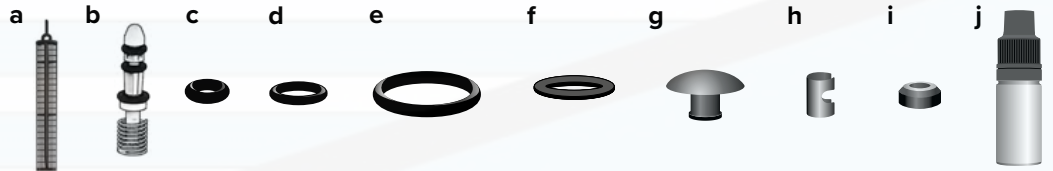
Marolex declares that the product is in conformity with the requirements of the Directive 2006/42/WE of the European Parliament and of the Council of 17 May 2006 on machinery.

Die Firma Marolex erklärt, dass das Produkt den Anforderungen der RICHTLINIE DES EUROPÄISCHEN PARLAMENTS UND DES RATES 2006/42/WE vom 17. Mai 2006 über Maschinen entspricht.



2

UNIVERSAL REPAIR KIT / UNIVERSAL-REPARATURSET INDUSTRY acid / alka



MAROLEX Sp. z o.o.
05-092 Dziekanów Leśny, ul. Reymonta 2, POLAND
www.marolex.pl www.forumogrodnicze.info

GB

USER'S MANUAL

Pressurised hand sprayer
Industry acid / Industry alka

1. APPLICATION AND USE

Industry sprayer acid version with VITON seals is for the application of inorganic acids, degreasing agents, oils and petroleum products. The sprayer is used in industry, workshops and car washes. It is also used for decontamination, disinfection and disinfection.

It is forbidden to use: bases, including sodium hydroxide, potassium hydroxide; hydrochloric acid; short-chain organic acids, including acetic acid, alcohols, ethers, aldehydes and ketones, and chlorine disinfectants, including sodium hypochlorite; organic solvents, including ethyl acetate and other flammable liquids; liquids in temperature above 40°C, viscous and thick liquids, and solutions that leave sediment.

CAUTION !!! It is permissible to use hydrofluoric and nitric acids and other inorganic acids in a concentration not exceeding 10%. In contrast, sulphuric and phosphoric acids in a concentration not exceeding 30%.

Industry sprayer alka version with EPDM seals is designed for the application of bases, alcohols, ketones, ethers and organic acids. The sprayer is used in car washes and workshops, in Auto-detailing, and in industry where it is necessary to remove dirt from greases and lubricants. It is irreplaceable when removing stone deposits. It is also used for decontamination, disinfection and disinfection.

It is forbidden to use: inorganic acids, including hydrochloric acid; chlorine disinfectants, including sodium hypochlorite; organic solvents, including ethyl acetate and other flammable liquids; liquids in temperature above 40°C, viscous and thick liquids, and solutions that leave sediment.

CAUTION !!! In case of potassium and sodium hydroxide it is acceptable to use them in concentration not higher than 20%.

In case of doubt about the application of chemical agent, please contact our service by e-mail: kontrola@marolex.pl

Failure to follow this instruction may result in damage to the sprayer or permanent harm to health.

2. EQUIPMENT OF THE INDUSTRY SPRAYER

Complete sprayer with pump, hose and feeding valve integrated with lance handle. Telescopic composite steel lance with regulated nozzle MR 1.5 mm, funnel with sieve. A packet of additional spare parts, seals and silicone smear. User's manual with the guarantee card **Fig. 1**. Company Marolex Sp. z o.o. reserves a right to make changes in the enclosed with the sprayer parts.

3. PREPARATION AND USAGE OF THE INDUSTRY SPRAYER

- Before working with the sprayer, refer to this owner manual.
- Before starting work, check the operation of the safety valve and the tightness of the sprayer using clean water. In order to do this, unscrew the pump's nut and pull out the pump from the tank, **Fig. 5f**, pour clean water using a funnel **Fig. 4c**. Put the pump back in, screw its nut, and then pump up the sprayer using the piston **Fig. 5b**, pull the safety valve handle up **Fig. 5d**. You should hear a clear sound of pressure discharged, it means the correct operation of the safety valve. Spread the lance **Fig. 4a** to the desired length, press the button of the feeding valve **Fig. 7a**, the air should first come out of the nozzle and then the water.
- In order to start work, you should: decompress a tank using the safety valve **Fig. 5d**, unscrew the nut and pull out the pump **Fig. 5f**, empty the tank out of the water, and then pour it using a funnel, **Fig. 4c** the chemical agent according to the recommendations on its packing, do not exceed the level indicated on the scale **Fig. 5e**. Put the pump back in, screw its nut and pressurize the tank through the piston of the pump **Fig. 5b**. The safety valve opens automatically when the pressure gets higher than the maximum recommended value **Fig. 5d**. Then, the lance should be directed toward the place of spraying and by pressing the button of the feeding valve **Fig. 7a**, start spraying. It is possible to adjust the angle of the liquid stream, for this purpose turn the white nozzle nut **Fig. 4b** until the desired angle is obtained. This operation should be carried out with the sprayer working. Continuous operation of the sprayer is possible after pressing the button of the feeding valve and moving it to the front **Fig. 7a**. When necessary, you can increase the pressure by further pumping up. After finishing work, you should release the lock of the feeding valve by moving the button back **Fig. 7a**.
- Nozzle replacement:
 - replacement of a cone 1.5 mm (white) nozzle with 1.0 mm (green) nozzle. To do this, unscrew the white nozzle cap and screw the green nozzle cap **Fig. 6a**.
 - replacement of the cone nozzle with a flat-stream nozzle. To do this, unscrew the nozzle cap **Fig. 6a**, then unscrew the black nut, take out the core and O-ring **Fig. 6b**, insert the flat-stream nozzle into the black nut **Fig. 6c**, then insert the O-ring and tighten.

It is recommended to use the Industry sprayer for one group of chemical substances. The sprayer once used for chemicals cannot be used for other purposes!!!

4. WORK SAFETY REGULATIONS

- Children, pregnant women, people taking medicines or other drugs restricting the concentration powers or drinking alcohol are forbidden to operate the sprayer.
- Before first spraying check the tightness of the sprayer using clean water.
- When working with chemicals (also during liquid preparation and destroying the packages) it is necessary to wear protective clothing (rubber boots, gloves, a coat, a cap and a mask).**
- It's forbidden to work with chemicals on an empty stomach and eat or drink during working. It's forbidden to drink alcohol one day before and one day after working with chemicals.
- It's forbidden to pour the liquid remains to the open water reservoirs or biological sewage

- treatment plants. These notes apply also to the water after cleansing the container and other parts of the sprayer.
- Expendable sprayer should be handed over for utilization.
- People working using the sprayer should strictly comply to all the recommendations on the package of the spraying agents. In case of poisoning the doctor must be contacted.
- It's forbidden to work using defective sprayer, with an inoperative safety valve or any leakage. After the compression the container must not be hit or dropped.
- All operations should be done after decompression of the sprayer.
- Thoroughly cleanse the sprayer after each using and before servicing.
- It's forbidden to use the sprayer for other purposes than stipulated in the owner manual.
- It's forbidden to store the sprayer filled with a liquid and under pressure.
- The only device for making the working pressure is a pump placed inside the tank – it's forbidden to use any other devices for this purpose!**
- It's forbidden to use: liquid warmer than +40°C, and with easy inflammable chemicals or substances which can cause an explosion e.g. petrol, solvents etc.
- Changes in the sprayer or using it not according to its allocation can result in poisoning people or animals, polluting the environment, damaging the sprayer or serious accidents.
- After finishing work, you should change your clothes (the protective clothes must be cleaned), wash your hands, face, mouth and throat, and clean your nose.
- After finishing work, rinse the sprayer with water several times.
- The user is fully responsible for the damages caused by not complying with these recommendations.
- It's forbidden to block the safety valve or make any unauthorized changes in the sprayer as it may result in permanent damage to health.
- Before commencing work the safety valve must be checked. In order to this, pump the sprayer up and pull the handle of the valve up **Fig.5d**. After that, you should hear a sound of pressure discharged.
- It's forbidden to point the lance of the sprayer and spraying the liquid in the direction of the face.
- The sprayer while working and storing should be secured from any unauthorized people, especially children.
- When using other agents, make sure that it can be used in the sprayer, and that they are not harmful to the sprayer, people and the environment.

5. GUARANTEE CONDITIONS AND REPAIRS

- The guarantee period is 24 months from the date of purchase.
- Sprayers with chemical remains will not be repaired.**
- Reclamation should be lodged to the seller of the sprayer.
- The claims will be accepted after showing the defected part or giving the full description of the fault.
- The guarantee repairs should be made using always the genuine Marolex parts.
- Number of repairs after which the seller cannot refuse to exchange the sprayer for a new one (in case there are still defects) is 3.
- Operations connected with exploitation of the sprayer and described in the manual are not treated as guarantee repairs.
- The producer will not accept the claim if there were changes in pressure regulation or the storing, operating, maintaining of the product were not according to the manual.
- Mechanical damages caused by the user cannot be the subject to reclamation. The damaged parts can be exchanged but the costs are charged.

6. STORAGE AND MAINTENANCE OF THE INDUSTRY SPRAYER

- Do not store the sprayer in sunlight or in temperatures below +4°C.
- After finishing work, thoroughly wash the sprayer using clean water and blow air through it. Perform maintenance periodically.**
- In order to perform maintenance, check that the sprayer is not pressurized. If it is, you should release the pressure by pulling the handle of the safety valve up. **Fig. 5d**. After washing the sprayer and blowing the air through it, you should:
 - Unscrew the hose from the handle, remove the filter **Fig. 7b** and clean it under running water using a soft brush. Unscrew the pump **Fig. 5f** and check that the piston is working smoothly without jams. If there is resistance, unscrew the pump nut **Fig. 5a** and pull the piston rod out **Fig. 5b**, lubricate O-ring **Fig. 3e** and the inner surface of the cylinder walls with silicone grease **Fig. 2j**, check if the pump bottom seal is clean **Fig. 3g**, and rinse it with water if it's dirty. Then put the piston rod back into the cylinder and tighten the nut of the piston rod **Fig. 5a**. Remove the nut from the feeding valve in the handle, take out the valve piston with a spring **Fig. 7c**, clean it, lubricate with silicone grease **Fig. 2j**, put back and tighten the nut. Unscrew the nozzle nut **Fig. 4b** and then the lance nut **Fig. 6b**. Remove the nozzle and the nozzle core and thoroughly rinse it with water and lubricate with silicone grease O-ring **Fig. 4d**. Check the correct operation of the safety valve **Fig. 5d**, after pulling up the handle it should smoothly return to its original position. If there is resistance, unscrew the nut of the safety valve, pull it out, clean, lightly grease with silicone grease **Fig. 5c**. Assemble again by tightening the safety valve nut till you feel resistance.
- Fig. 3** shows the diagram of the elements to be maintained or which are wasted and must be replaced by purchasing a repair kit **Fig. 2**.
- Instructional videos can be found on our website www.marolex.pl
- Maintenance and repairs should only be carried out with silicone grease. Using other lubricants will damage the sprayer.**

7. GENERAL REMARKS

In the lance handle integrated with the feeding valve is used filter **Fig. 7a**, which prevents clogging of nozzles. All lances produced by Marolex are mutually interchangeable. For Marolex sprayers fit cone, deflector, flat stream and adjustable nozzles. The construction of all Marolex lances allows the use of nozzles from other world nozzle producers.

8. TROUBLESHOOTING

Syptoms	Cause	Solution
pressure during pumping escapes / hard to reach right pressure	the feeding valve's trigger blocked in "off" position	unblock the feeding valve's trigger – (move it backward) Fig. 7a
	loose hose nuts or the pump nut	tighten the nuts connecting the hose with the handle and the tank tighten the pump nut Fig. 5f
	damaged or missing O-ring under the pump nut	replace or insert the new O-ring

leakage from the feeding valve integrated with the handle	cracked valve caused by frozen water	exchange for a new, complete valve with handle
	untightened lance or hose nut, missing or damaged O-rings Fig. 3d	tighten the hose nut or the lance; insert or exchange the O-rings
leakage from the feeding valve when the trigger button is pressed	damaged O-rings on the piston in the feeding valve Fig. 3b	exchange the piston with O-rings, lubricate with silicone grease
weak spraying action or lack of it despite pumping sprayer till the safety valve opens	clogged filter in the feeding valve Fig. 3a	unscrew the hose from the handle, remove the filter Fig. 7b and clean it under running water using a soft brush, possibly replace with a new one Fig. 2a
	clogged nozzle nut or nozzle core Fig. 4b	unscrew nozzle nut Fig. 4b , rinse nozzle core and nut and lubricate O-ring Fig. 4d
sealing elements lose their properties (swelling, crushing, stretching, cracking)	applied chemical agent was inappropriate for the used device	consult your salesman to select the appropriate device
liquid flows from the nozzle during pumping	damaged or clogged O-rings of the feeding valve's piston Fig. 3b	lubricate the O-rings on the feeding valve's piston Fig. 7c or if necessary, replace them with new ones and lubricate with silicone grease
	feeding valve's trigger moved forward in the „off“ position Fig. 7a	unblock the feeding valve's trigger – (move it backward) Fig. 7a
piston rod working with resistance or immobilized	faded piston's O-ring Fig. 3e	lubricate the O-ring of the piston rod or, if necessary, replace it, and lubricate with silicone grease
the piston rod after pump-ing moves up or liquid enters the pump cylinder	dirty or worn out bottom pump seal Fig. 3g	rinse the dirt, and if necessary, replace the bottom pumps seal with new ones

For other symptoms that prevent proper operation of the device - please contact MAROLEX. We offer technical support and online help: serwis@marolex.pl