



**CIŚNIENIOWY
OPRYSKIWACZ RĘCZNY**

**PRESSURISED
HAND SPRAYER**

**ПОМПОВЫЙ
ОПРЫСКИВАТЕЛЬ**

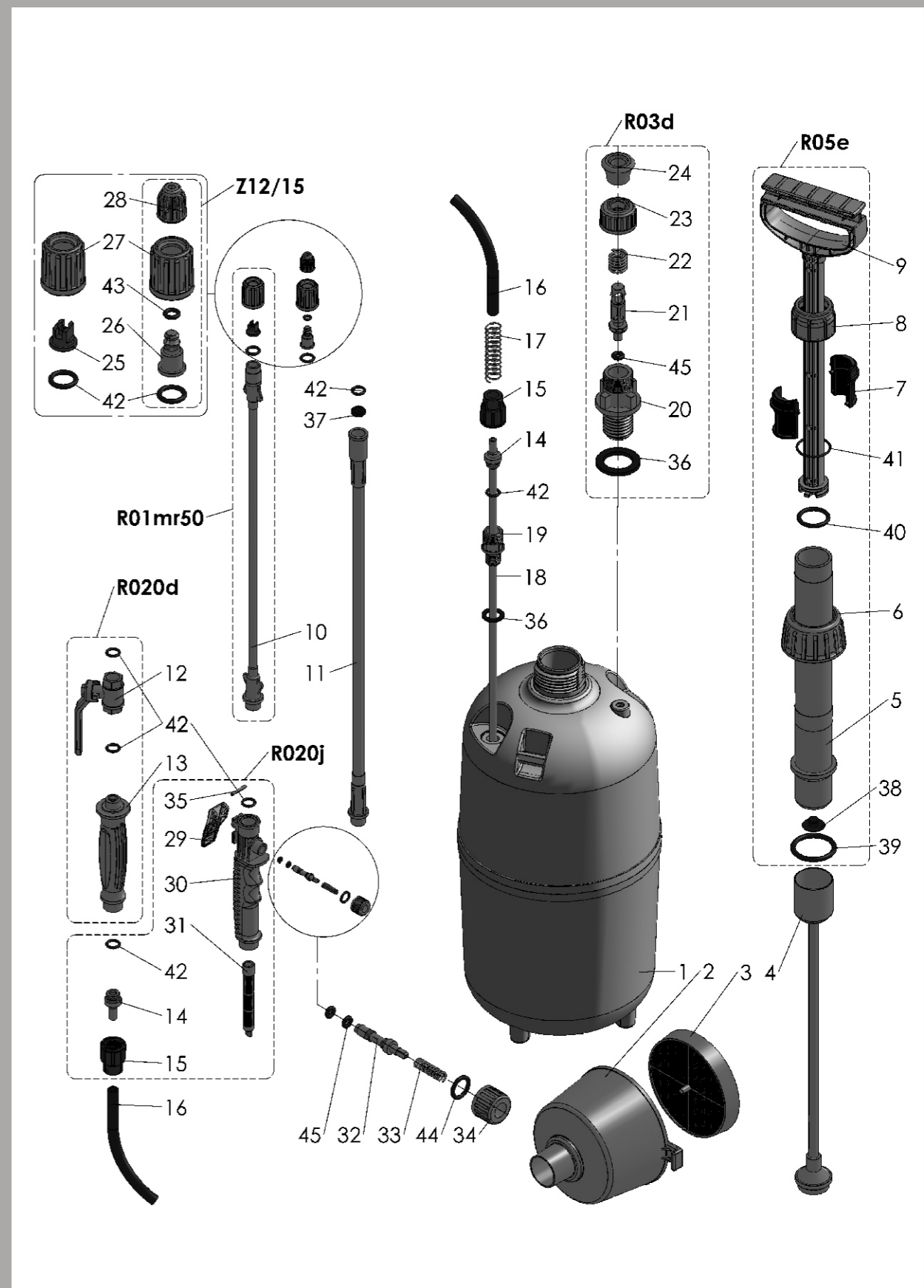
INSTRUKCJA OBSŁUGI

OWNER MANUAL • ИНСТРУКЦИЯ ПО ЭКСПЛУАТАЦИИ

PROFESSION PLUS

042/PL,GB,RUS/2010/A

	Zestaw końcówka lancy z MR1,5 <i>Lance tip with nozzle MR1.5 / Наконечник для штанги с MR1,5</i>	Z12/15
	Lanca modułowa bez rączki <i>Segment lance without handle / Модульная штанга без рукоятки</i>	R01mr50
	Zawór kulowy z rączką <i>Ball valve with handle / Шаровой клапан с рукояткой</i>	R20d
	Rączka lancy zintegrowana z zaworem dozującym kpl. <i>Feeding valve integrated with handle / Рукоятка с клапаном</i>	R020j
	Zawór bezpieczeństwa <i>Safety valve / Предохранительный клапан</i>	R03d
	Pompa kompletna <i>Complete pump / Комплектный насос</i>	R05e
1	Zbiornik 12 l / Container 12 l / Бачок 12 л	R60B
2	Lejek / Funnel / Воронка	R75
3	Sitko do lejka / Sieve / Ситечко к воронке	R75b
4	Bełkotka duża / Mixer / Смеситель раствора	R90c
5	Cylinder pompy do Plusa plast. / Pump cylinder / Цилиндр насоса для Plusa пласт.	R19e
6	Nakrętka zbiornika / Container cap / Гайка бачка	R15
7	Półtulejka tłoczyska / Piston half-case / Половинка втулки поршня	R147
8	Nakrętka tłoczyska plast. / Piston nut / Гайка plast. porшня	R12a
9	Tłoczek pompy plast. / Piston / Поршень насоса plast.	R02u
10	Lanca obtrysk., fi 8 mm / Lance pipe., fi 8 mm / Штанга, fi 8 mm	R73b_51
11	Lanca obtrysk., fi 12 mm / Lance pipe., fi 12 mm / Штанга, fi 12 mm	R73nx50
12	Zawór kulowy / Ball valve / Шаровой клапан	ZR38
13	Rączka lancy z tulejką / Lance handle / Рукоятка штанги в втулке	R88d
14	Końcówka węża - sztucerek / Hose end piston / Наконечник шланга	R81f
15	Nakrętka węża / Hose nut / Гайка шланга	R80f
16	Wąż / Hose / Шланг	R011f
17	Sprężyna wzmacniająca do wężyka / Spring reinforcing the hose / Укрепляющая пружина шланга	R13t
18	Rurka zasysająca / Sucking pipe / Трубка засасывающая жидкость	M08_12
19	Króciec przewodu / Hose stub pipe / Патрубок шланга	R82c
20	Korpus zaworu bezpieczeństwa / Safety valve body / Корпус предохранительного клапана	R82d
21	Zawór bezpieczeństwa – popychacz / Safety valve – shank / Стержень предохран. клапана	R98
22	Sprężynka / Spring / Пружинка	R13n
23	Nakrętka M-16 / Nut M-16 / Гайка M-16	R26
24	Zawór bezpieczeństwa – uchwyt / Safety valve – handle / Ручка предохран. клапана	R100
25	Dysza do bielienia / Nozzle for whitewashing / Сопло для побелки	MF...
26	Rdzeń dyszy / Nozzle nucleus / Стержень форсунки	R114
27	Nakrętka dyszy / Nozzle nut / Гайка форсунки	R64
28	Nakrętka dyszy 1.5 do MR / Nozzle 1.5 nut for MR / Гайка форсунки 1.5 для MR	R115_1,5
29	Przycisk zaworu dozującego / Feeding valve trigger / Кнопка дозирующего клапана	R44
30	Rączka lancy / Lance handle / Рукоятка штанги	R02j
31	Filterek / Filter / Фильтр	R40
32	Tłoczek / Piston / Поршень	R43
33	Sprężynka / Spring / Пружинка	R48a
34	Nakrętka bez otworu / Nut without hole / Гайка без отверстия	R50
35	Pręt mosiężny, fi 3 mm / Brass bar, fi 3 mm / Латунный прут, fi 3 mm	M11
36	Uszczelka 16x24 / Seal 16x24 / Прокладка 16x24	R17
37	Pierścień zaciskowy / Clasp ring / Зажимное кольцо	R106
38	Grzybek gumowy / Pump rubber valve-cap / Запорный клапан насоса	R24



39	O-ring 38x5	R14
40	O-ring 28x4	R22
41	O-ring 28x2	R22a
42	O-ring 11,3x2,4	R47c
43	O-ring 5,3x2	R116
44	O-ring 10x2	R41
45	O-ring 3x2	R42



**KARTA GWARANCYJNA
GUARANTEE CARD
ГАРАНТИЙНЫЙ ТАЛОН**

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AIR-COMPRESSED HAND SPRAYER WITH SEGMENT LANCE

PROFESSION PLUS

The sprayer is specially designed to whitewash trees and walls of greenhouses and utility rooms as well as to paint with water based paints. It can also be used for spraying pesticides, disinfecting and washing the machines.

I. TECHNICAL DATA

PROFESSION PLUS	
Total container capacity	11.60 l
Working container capacity	11.00 l
Average liquid output	0.3 - 1.5 litr/min
Maximum working pressure	0.4 MPa (4 bar) (60 PSI)
Overpressure protection	Safety valve R03d
Container diameter	220 mm
Sprayer height	835 mm
Net weight	2,50 kg
Container material	polypropylene

2. SPRAYER PROFESSION PLUS PARTS

In each packing of the sprayer Profession Plus can be found:

1. Complete container connected with hose and lance handle which has the ball valve for whitewashing.
2. Long external pump.
3. Segment lance with regulated nozzle MR 1,5 mm.
4. Extension 50 cm.
5. Handle integrated with the feeding valve for spraying.
6. Funnel with sieve.
7. Liquid mixer (R90c).
8. Additional nozzles for whitewashing and water-based painting, seals, filter and silicone smear.
9. User's manual with the guarantee card.

It is possible to install the manometer on the container (by Marolex).

Company Marolex Sp. z o.o. reserves a right to make changes in the enclosed with the sprayer parts.

3. PREPARATION AND OPERATION OF THE SPRAYER

1. In the first trial it is recommended to use the clean water. After filling the container in, put the pump in and screw it in properly. Pump the container up and check the safety valve by pulling its handle up (R100).
2. Spraying with pesticides:
 - prepare the spraying liquid according to the instructions given on the chemicals' packaging
 - exchange the handle with the ball valve (R020d) for the handle integrated with the feeding valve (R020j);
 - for spraying use the lance tip end with the nozzle MR1.5 (Z12/15).
3. Whitewashing/liming:
 - in a separate container prepare the water-lime suspension using 10 L water and 3-4kg of slaked lime. Mix it thoroughly and leave for several hours;
 - exchange the handle for the handle with the ball valve (R020d) if necessary;
 - install the mixer(R90c) on the pump according to the enclosed schema;
 - for whitewashing we suggest using the brown-gold flatstream nozzle MF.
4. Painting with water based paints:
 - in a separate container prepare the water-paint suspension in proportion 1:1. If the suspension is still too thick it is recommended to add some more water;
 - install the handle with the ball vale (R020d);
 - put on the pump the mixer(R90c) as shown in the drawing;
 - for painting it is recommended to use the flatstream nozzle MF in red colour ;
5. Unscrew the pump and pour the prepared liquid into the container through the enclosed funnel with sieve;
6. Put the pump back in, screw the pump nut in properly and pump up till reaching the maximum pressure. If the pressure is too high the safety valve will automatically open and release the excess air.
7. Block the pump handle in the transport position by pushing it down and turning it 90 degrees left – fig.3.

4. MAINTENANCE RECOMMENDATIONS

1. During the operation don't place the sprayer on its side, as the air, not liquid will be sucked in.
2. It is not recommended to fill the container in over the working capacity.
3. The sprayer should be stored in a shaded place, in temperature above +4 degrees.
4. The sprayer once used for spraying pesticides can not be used for any other purposes.
5. After finishing work, the sprayer must be emptied and thoroughly rinsed with water. If the sprayer was used for whitewashing or painting, remove the mixer (R90c), clean it and install again. When the sprayer is completely assembled, pump it up and blow the air through it.
6. After noticing any resistance in the pump piston, feeding valve trigger or safety valve, the seals in these parts must be lubricated using the silicone smear. Failing to do it can cause damage to the seals and result in loss of the guarantee. .
7. When using to spray plants with chemicals, you must comply with safety and hygiene regulations and strictly follow instructions given on the package of those chemicals.
8. If you leave some liquid in the lance during winter, expanding ice may damage the valve and the handle.

5. WORK SAFETY RECOMMENDATIONS

1. Children, pregnant women, people taking medicines or other drugs restricting the concentration powers or drinking alcohol are forbidden to operate the sprayer.
2. Before first spraying check the sprayer's action using clean water.
3. 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).
4. 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.
5. 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.
6. Expendable sprayer should be handed over for utilization.
7. In case of poisoning, immediately contact the doctor. In case of contaminating the eye with the lime, rinse it thoroughly under running water for at least 10 minutes and then immediately contact the doctor.
8. People working using the sprayer should strictly comply to all the recommendations on the package of the spraying agents.
9. It's forbidden to work using leaky or disabled sprayer.
10. All the operations should be done after decompression of the sprayer.
11. Thoroughly cleanse the sprayer after each using and before servicing.
12. It's forbidden to use the sprayer for other purposes than stipulated in the user's manual.
13. The sprayer must be stored clean and in winter season it is essential to check, that there is no liquid left in the container or lance.
14. **The only device for making the working pressure is a pump placed inside the container – it's forbidden to use any other devices for this purpose !!!**
15. It's forbidden to spray with easy inflammable chemicals or substances which can cause an explosion eg. Petrol, solvents.
16. 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 accidents.
17. 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.
18. After spraying, adulterate the remaining liquid at least 10 times and spray it on the same area or plant again.
19. After finishing work pour the water out, blow air through it by pumping through it a few times with feeding valve R020j open.
20. The user is fully responsible for the damages caused by not complying with these recommendations.
21. The sprayer must be stored empty and non-pressurized.
22. It is forbidden to block the safety valve or make any unauthorized changes in the sprayers as it may cause damages or injury.
23. After the compression the container must not be hit or dropped.
24. Before commencing work the safety valve must be checked by pulling the valve out. The valve should move in and out easily.
25. We recommend filling in the tank through our funnel with sieve. The sieve will filter the liquid and this will protect the nozzles from clogging.
26. The sprayer while working and storing should be secured from any unauthorized people, especially children.



6. TECHNICAL INSTRUCTIONS

Safety valve R03d - fig.2

Before using the sprayer, check the safety valve R03d by pulling its handle !

After test filling of the container (about 5 to 10 pump pushes) pull the valve handle - you should hear air coming out of the valve.

After you release the handle, air mustn't got out through the valve. Check if the safety valve nut R26 is screwed in tight.

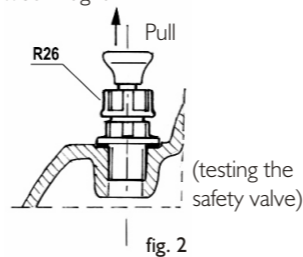


fig. 2

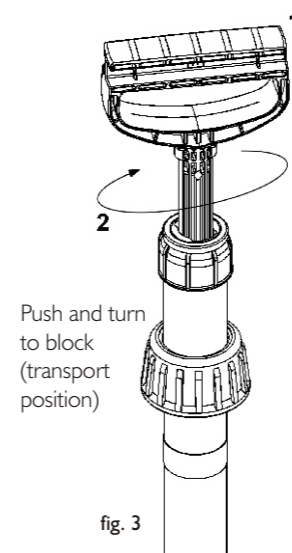


fig. 3

NOZZLES. Liquid output at 0.35 Mpa

nozzle	colour	liquid output	nozzle type	3 nozzle kit Z09j3	5 nozzle kit Z09j5	7 nozzle kit Z09j7
MR1.0	green	~0,40 litre/min.	adjustable stream angle		✓	✓
MR1.5	green yellow	~0,60 litre/min.			✓	✓
MR2.0	red	~0,80 litre/min.	flatstream			✓
MF2.110	yellow	~0,80 litre/min.		✓	✓	✓
MF3.110	blue	~1,15 litre/min.		✓	✓	✓
MF4.110	red	~1,65 litre/min.		✓	✓	
MF4.45	red	~1,10 litre/min.	flatstream with metal insert			✓
MF5.30	gold-brown	~1,60 litre/min.				✓

The marked nozzles: MR1.5, MF4.45 i MF5.30 are included with the sprayer Profession Plus. The other nozzles can be purchased in kits at our distributors or in our e-shop: <http://sklep.marolex.pl>

7. GUARANTEE CONDITIONS AND REPAIRS

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

8. MAINTENANCE AND SERVICE RECOMMENDATIONS

After finishing work, cleaning the sprayer and blowing air through it, you should:

1. Unscrew hose connected to the handle, remove R40 filter, and clean it (preferably under running water).
2. Check if the pump works easy without any jamming. If you feel any resistance, remove the pump, unscrew the R20b piston rod, and lubricate: gaskets, piston rod, cylinder using silicon lubricant.
3. Unscrew the bottom nut from the feeding valve - R020j, remove the valve piston with a spring, clean it, lubricate with silicon lubricant, put it back into the valve and screw in the nut tight.
4. Unscrew the nozzle cap, remove the nozzle, wash it and reassemble.
5. Check if the safety valve handle, after pulling, returns to its normal position. If it jams, unscrew the R26 safety valve nut, remove the valve pin, clean it and lubricate slightly with silicon lubricant. Reassemble the valve and screw the valve nut tight.



The sprayer used once for chemicals can not be used for other purposes.

9. FAILURE REMOVING

Syptoms:	Cause:	Solution:
After winter season water leaks from the handle	Freezing water rup-tured handle or valve.	Replace it (valve & handle - R020j)
	The valve or the hose nut is not screwed tight	Screw the valve tight or replace gasket
Feeding valve leaking	Damaged valves cylinder top gasket (it wasn't lubricated periodically)	Replace gaskets or the cylinder or even the entire R020j valve (don't forget about lubricating the valve!)
Feeding valve is closed, but lance is leaking	Damaged valves cylinder top gasket (it wasn't lubricated periodically)	Replace gaskets or the cylinder or even the entire R020j valve (don't forget about lubricating the valve!)
Weak spraying action although the pressure in the tank is high	R40 filter dirty	Unscrew the hose, remove the R40 filter and clean it or replace with a new one
Liquid stream is uneven	Nozzle end piece dirty	Unscrew the nozzle cap and clean nozzle and whirler
You can not reach the maximum pressure	Pump rubber valve-cap is dirty	Clean or replace gaskets. Lubricate the pump with silicon lubricant.
	Pumps cylinder gasket is worn out	
	No silicon lubricant in the pump	
There's air appearing in the hose and liquid stream is disrupted	Intake pipe M08 in container is not pushed tight into R82c hose stub pipe	Unscrew the hose, remove the pipe and push the stub pipe hard in (you can also glue it together)

10. DISMANTLING AND UTILISATION

The damaged sprayer, not suitable for repair, should be utilised in such way as not to pollute the environment. Cleansed plastic elements should be recycled as well as the metal parts.

11. GENERAL REMARKS

In the lances handle there's a filter (R40) installed, designed to protect nozzles from clogging. The container is protected against overpressurising by the R03d safety valve. It is possible to use the pump handle to carry the sprayer (after locking the handle in transport position). You can interchange parts and components between PROFESSION and HOBBY models. You can adjust the stream angle by twisting MR1.0 MR1.5 nozzles. There's a wide range of nozzles available from the MAROLEX catalogue. With MAROLEX sprayers you can use a wide range of nozzles: cone, deflect, flat, regulated which are available on the market.

12. SAFETY SIGNS

lp.	sign	meaning	place
1.		tablet	on container
2.		Sign indicating possibility of unspecified danger.	on container
3.		Sign indicating that a users manual should be read before starting work.	on container
4.		Sign indicating danger of poisoning. Eating or drinking while using the device is forbidden.	on container

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