Mirka® ROS

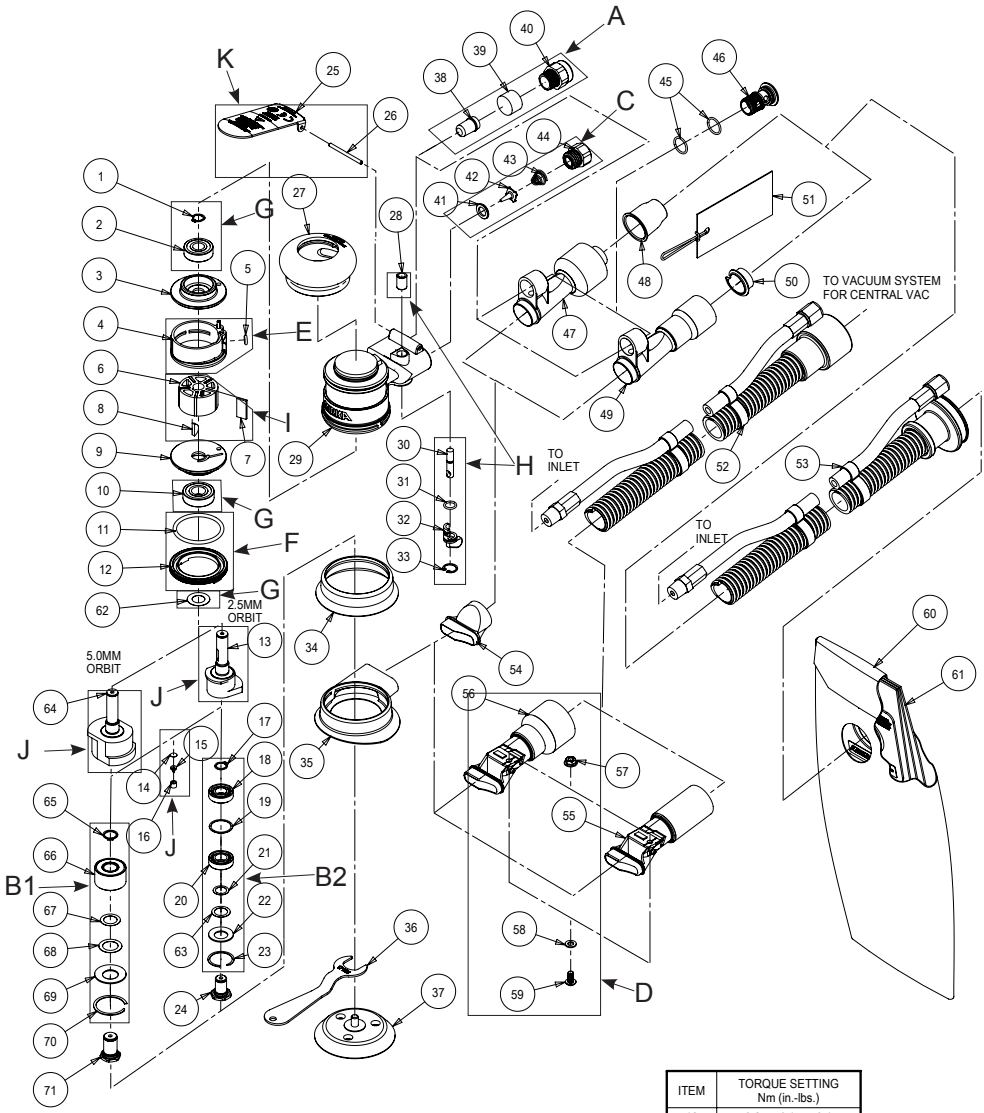
77 mm (3 in.)

Mirka® ROS

77 mm (3")

United States of America, Mexico & Canada

Parts Page

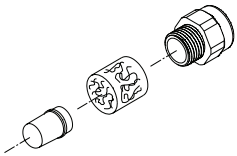


ITEM	TORQUE SETTING Nm (in.-lbs.)
12	6.2 - 7.3 (55 - 65)
40	1.8 - 2.3 (16 - 20)
44	6.8 - 8.1 (60 - 72)
46	4.0 - 5.4 (36 - 48)
59	3.4 - 3.9 (30 - 35)

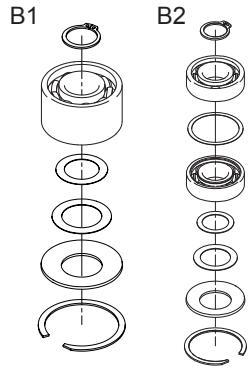
Parts List

ITEM	P/N	DESCRIPTION	QTY
1	MPA0040	EXTERNAL RETAINING RING	1
2	MPA0021	BEARING	1
3	MPB0017	REAR ENDPLATE	1
4	MPA0005	CYLINDER ASSEMBLY	1
5	MPA0042	O-RING	1
6	MPB0005	MACHINED ROTOR	1
7	MPA0010	VANE	5
8	MPA0041	KEY	1
9	MPB0016	FRONT ENDPLATE	1
10	MPA0019	BEARING	1
11	MPA0045	O-RING	1
12	MPA0001	LOCK RING	1
13	MPB0084	3 x 3/32 in ORBIT L.W. ROS AirSHIELD SHAFT BALANCER	1
14	MPA0122	FILTER	1
15	MPA0121	CHECK VALVE	1
16	MPA0120	RETAINER	1
17	MPA0107	RETAINING RING	1
18	MPA0162	BEARING	1
19	MPA0196	SPACER	1
20	MPA0161	BEARING	1
21	MPA0108	SHIM	1
22	MPA0126	BELLEVILLE WASHER	1
23	MPA0177	RETAINING RING	1
24	MPB0083	SPINDLE	1
25	MPA1698	LEVER FOR 12000 rpm, 2.5 mm (3/32 in.) ORBIT MACHINES	1
	MPA1699	LEVER FOR 12000 rpm, 5.0 mm (3/16 in.) ORBIT MACHINES	1
26	MPA0031	LEVER SPRING PIN	1
27	MPA0288	GRIP 2 1/2 in.	OPTIONAL
	MPA0289	GRIP 2 3/4 in	OPTIONAL
	MPA0290	GRIP 3 in.	1
28	MPA0015	VALVE SLEEVE	1
29	MPA0227	HOUSING	1
30	MPA0008	VALVE STEM ASSEMBLY	1
31	MPA0043	O-RING	1
32	MPB0014	SPEED CONTROL	1
33	MPA0039	INTERNAL RETAINING RING	1
34	MPC0046	3 in. ROS NON-VAC SHROUD	1
35	MPC0047	3 in. LW SuperVAC SKIRT	1
	MPC0243	3 in. LW SuperVAC SKIRT(For 5.0mm Orbit Machine)	1
36	MPA0146	17 mm WRENCH	1
37	NA	SEE LITERATURE FOR PADS (type/size determined by model)	1
38	MPA0062	INTERNAL MUFFLER	1
39	MPA0068	MUFFLER INSERT	1
40	MPA0166	MUFFLER HOUSING	1
41	MPA0009	VALVE SEAT	1
42	MPA0007	VALVE	1
43	MPA0014	VALVE SPRING	1
44	MPA0013	INLET BUSHING	1
45	MPA0044	O-RING	2
46	MPA0006	SGV RETAINER	1
47	MPA0410	ASSEMBLY FOR 1 in./28 mm HOSE SuperVAC SGV SWIVEL EXHAUST FITTING	OPTIONAL
48	MPA0778	1 in./28 mm HOSE SEAL	OPTIONAL
49	MPA0409	ASSEMBLY FOR 3/4 in./19 mm HOSE SuperVAC SGV SWIVEL EXHAUST FITTING	1
50	MPA0854	3/4 in./19 mm HOSE SEAL	1
51	MPA0931	1 in./28 mm HOSE SEAL TAG	OPTIONAL
	MPA0856	3/4 in./19 mm HOSE SEAL TAG	1
52	MPA0300	Ø 3/4 in. VAC HOSE TO Ø 3/4 in. x 1 in./28 mm ADAPTER COUPLING AND AIRLINE ASSM	OPTIONAL
	MPA0392	AIRLINE WITH Ø 1 in. VAC HOSE TO Ø 1 in./28 mm x 1 1/2 in. FRICTION FIT ADAPTER ASSEMBLY	
53	MPA0411	Ø 3/4 in. VAC HOSE TO DOUBLE BAG FITTING AND AIRLINE ASSY	1
	MPA0412	Ø 1 in. VAC HOSE TO DOUBLE BAG FITTING AND AIRLINE ASSY	OPTIONAL
54	MPC0108	SuperVAC SGV SKIRT/SHROUD ADAPTER	1
55	MPA0205	ROS SuperVAC CV 3/4 in. SWIVEL EXHAUST ASSEMBLY	OPTIONAL
56	MPA0099	ROS SuperVAC™ CV 1 in./28 mm SWIVEL EXHAUST ASSEMBLY	1
57	MPA0048	NUT	1
58	MPA0047	WASHER	1
59	MPA0769	SCREW	1
60	MPA0658	VACUUM BAG	1
61	MPA0465	10 PACK OF VACUUM BAG INSERTS	1
62	MPA2541	FRONT BEARING DUST SHIELD	1
63	MPA2543	SPINDLE BEARING DUST SHIELD	1
64	MPB0309	3 x 3/16 in ORBIT L.W. ROS AirSHIELD SHAFT BALANCER	1
65	MPA0090	RETAINING RING	1
66	MPA0938	DOUBLE ROW ANGULAR CONTACT BEARING	1
67	MPA0016	SPACER	1
68	MPA2542	SPINDLE BEARING DUST SHIELD	1
69	MPA0017	BELLEVILLE WASHER	1
70	MPA0018	RETAINING RING	1
71	MPB0312	SPINDLE	1

Sander Spare Parts Kits

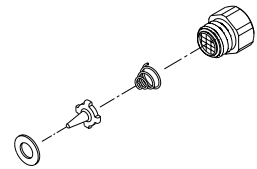


A MPA0797 12,000 rpm Muffler Kit
Code: 8993017311

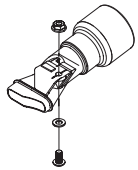


B1 MPA2304 LW ROS Spindle Bearing Kit
Code: 8994022811

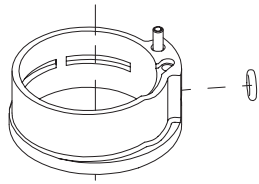
B2 MPA0807 LW ROS Spindle Bearing Kit
Code: 8993019611



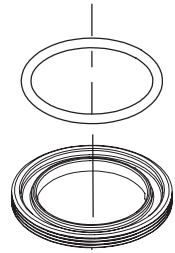
C MPA0798 Air Inlet Kit
Code: 8993018811



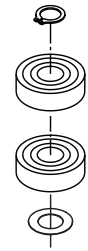
D MPA0988 CV Swivel Fitting Kit
Code: 8993006611



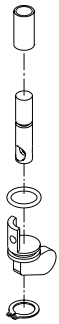
E MPA0994 Cylinder & O-ring Kit
Code: 8993009211



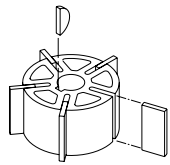
F MPA0993 Lock Ring & O-ring Kit
Code: 8993007911



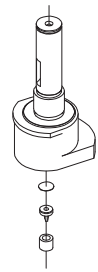
G MPA0799 Endplate Bearing Kit
Code: 8993019811



H MPA0800 Speed Valve Kit
Code: 8993019011



I MPA0801 Rotor, Vanes & Key Kit
Code: 8993017711



J MPA2154 Shaft Balancer Kit 2.5mm orbit
Code: 8993014311
MPA2892 Shaft Balancer Kit 5.0mm orbit
Code: 8993014321

K MPA0984 Lever Kit 2.5 mm orbit
Code: 8993010911
MPA0983 Lever Kit 5.0 mm orbit
Code: 8993010811

Mirka 12,000 rpm
77 mm (3 in.) LIGHTWEIGHT
RANDOM ORBITAL SANDERS

Declaration of conformity

KWH Mirka Ltd.
FI-66850 Jeppo, Finland
declare on our sole responsibility that the products
77 mm (3 in.) 12,000 rpm Random Orbital Sanders (see “Product Configuration/Specifications” table for particular model) to which this declaration relates are in conformity with the following standard(s) or other normative document(s): EN ISO 15744:2008. Following the provisions of 89/392/EEC as amended by 91/368/EEC, 93/44/EEC and 93/68/EEC Directives and consolidating Directive 2006/42/EC.

Jeppo 21.08.2014	MIRKA	
Place and date of issue	Company	Stefan Sjöberg, CEO

Operator Instructions

Includes – Please Read and Comply, Proper Use of Tool, Work Stations, Putting the Tool Into Service, Operating Instructions, Product Configuration/Specifications Tables, Parts Page, Parts List, Sander Spare Parts Kits, Trouble Shooting Guide.

Important

Read these instructions carefully before installing, operating, servicing or repairing this tool. Keep these instructions in a safe accessible location.

CE

Manufacturer/Supplier

KWH Mirka Ltd.
FI-66850 Jeppo, Finland
Tel: + 358 20 760 2111
Fax: +358 20 760 2290

Required Personal Safety Equipment

Safety Glasses — Breathing Masks

Safety Gloves — Ear Protection

Recommended Airline Size - Minimum

10 mm 3/8 in

Recommended Maximum Hose Length

8 meters 25 feet

Air Pressure

Maximum Working Pressure	6.2 bar	90 psig
Recommended Minimum	NA	NA

Original Instructions

Please Read and Comply with

1) General Industry Safety & Health Regulations, Part 1910, OSHA 2206, available from: Superintendent of Documents; Government Printing Office; Washington DC 20402.
2) Safety Code for Portable Air Tools, ANSI B186.1 available from: American National Standards Institute, Inc.; 1430 Broadway; New York, New York 10018.
3) State and Local Regulations.

Proper Use of Tool

This sander is designed for sanding all types of materials i.e. metals, wood, stone, plastics, etc. using abrasive designed for this purpose. Do not use this sander for any other purpose than that specified without consulting the manufacturer or the manufacturer's authorized supplier. Do not use back-up pads that have a working speed less than 12,000 rpm free speed.

Work Stations

The tool is intended to be operated as a hand-held tool. It is always recommended that the tool be used when standing on a solid floor. It can be used in any position, but before any such use the operator must be in a secure position and have a firm grip and footing, and be aware that the sander can develop a torque reaction. See the section "Operating Instructions".

Putting the Tool into Service

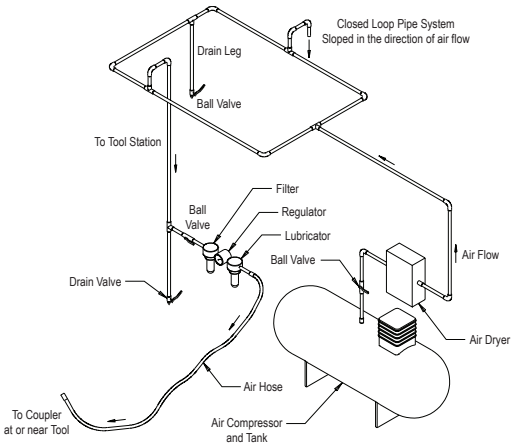
Use a clean lubricated air supply that will give a measured air pressure at the tool of 6.2 bar (90 psig) bar when the tool is running with the lever fully depressed. It is recommended to use an approved 10 mm (3/8 in.) x 8 m (25 ft) maximum length airline. It is recommended that the tool be connected to the air supply as shown in Figure 1.

Do not connect the tool to the airline system without incorporating an easy to reach and operate air shut-off valve. The air supply should be lubricated. It is strongly recommended that an air filter, regulator and lubricator (FRL) be used as shown in Figure 1 as this will supply clean, lubricated air at the correct pressure to the tool. Details of such equipment can be obtained from your supplier. If such equipment is not used then the tool should be manually lubricated.

To manually lubricate the tool, disconnect the airline and put two or three drops of suitable pneumatic motor lubricating oil such as Fuji Kosan FK-20, Mobil ALMO 525 or Shell TORCULA® 32 into the hose end (inlet) of the machine. Reconnect the tool to the air supply and run the tool slowly for a few seconds to allow air to circulate the oil. If the tool is used frequently, lubricate it on a daily basis or lubricate it if the tool starts to slow or lose power.
It is recommended that the air pressure at the tool is 6.2 bar (90 psig) while the tool is running. The tool can run at lower pressures but never higher than 6.2 bar (90 psig).

Operating Instructions

1) Read all instructions before using this tool. All operators must be fully trained in its use and aware of these safety rules. All servicing and repairs must be carried out by trained personnel.
2) Make sure the tool is disconnected from the air supply. Select a suitable abrasive and secure it to the back-up pad. Be careful and center the abrasive on the back-up pad.
3) Always wear the required safety equipment when using this tool.
4) When sanding always place the tool on the work then start the tool. Always remove the tool from the work before stopping. This will prevent gouging of the work due to excess speed of the abrasive.
5) Always disconnect the air supply from the sander before fitting, adjusting or removing the abrasive or back-up pad.
6) Always adopt a firm footing and/or position and be aware of the torque reaction developed by the sander.
7) Use only correct spare parts.
8) Always ensure that the material to be sanded is firmly fixed to prevent its movement.
9) Check the hose and fittings regularly for wear. Do not carry the tool by its hose; always be careful to prevent the tool from being started when carrying the tool with the air supply connected.
10) Dust can be highly combustible. The vacuum dust collection bag should be cleaned or replaced daily. Cleaning or replacing of the bag also assures optimum performance.
11) Do not exceed the maximum recommended air pressure. Use safety equipment as recommended.
12) The tool is not electrically insulated. Do not use where there is a possibility of coming into contact with live electricity, gas pipes, water pipes, etc. Check the working area before use.
13) Take care to avoid entanglement of the moving parts of the tool with clothing, ties, hair, cleaning rags, etc. If entangled, it will cause the body to be pulled towards the work, and moving parts of the machine and can be very dangerous.
14) Keep hands clear of the spinning pad during use.
15) If the tool appears to malfunction, stop using it immediately and arrange for servicing and repair.
16) Do not allow the tool to free-speed without taking precautions to protect any persons or objects from the loss of the abrasive or pad.



Product Configuration/Specifications: 12,000 rpm Random Orbital Sander

Orbit	Pad Size mm (in.)	Vacuum Type	Model Number	Product Net Weight kg (pound)	Heigh mm (inch)	Length mm (inch)	Power watts (HP)	Air Consumption LPM (scfm)	*Noise Level dBA	*Vibration Level m/s^2	*Uncer-tainty K m/s^2
2,5 mm (3/32 in,)	77 mm (3 in,)	Non-Vacuum	ROS325NV	0,51 (1,12)	78,7 (3,10)	124,3 (4,90)	209 (0,28)	481 (17)	76,5	3,04	0,80
		Central Vacuum	ROS325CV	0,57 (1,26)	78,7 (3,10)	186,2 (7,30)	209 (0,28)	481(17)	74,5	3,20	0,81
		Self-Gen Vacuum	ROS325DB	0,59 (1,30)	78,7 (3,10)	190,1 (7,50)	209 (0,28)	481 (17)	84,5	2,66	0,76
5,0 mm (3/16 in,)	77 mm (3 in,)	Non-Vacuum	ROS350NV	0,60 (1,33)	85,0 (3,35)	124,3 (4,90)	209 (0,28)	481 (17)	74,0	2,70	1,40
		Central Vacuum	ROS350CV	0,66 (1,47)	85,0 (3,35)	186,2 (7,30)	209 (0,28)	481(17)	76,0	2,30	1,20
		Self-Gen Vacuum	ROS350DB	0,68 (1,51)	85,0 (3,35)	190,1 (7,50)	209 (0,28)	481 (17)	88,0	2,80	1,40

The noise test is carried out in accordance with EN ISO 15744:2008 - Hand-held non-electric power tools -- Noise measurement code -- Engineering method (grade 2) and EN ISO 11203:2009 Acoustics-Noise emitted by machinery and equipment-Determination of emission sound pressure levels at a work station and other specified positions from the sound power level.

The vibration test is carried out in accordance with EN ISO 28927-3, Hand-held portable power tools – Test method for evaluation of vibration emission – Part 3: Polishers and rotary , orbital and random orbital sanders.

Specifications subject to change without prior notice.

*The values stated in the table are from laboratory testing in conformity with stated codes and standards and are not sufficient for risk evaluation. Values measured in a particular work place may be higher than the declared values. The actual exposure values and amount of risk or harm experienced to an individual is unique to each situation and depends upon the surrounding environment, the way in which the individual works, the particular material being worked, work station design as well as upon the exposure time and the physical condition of the user. KWH Mirka, Ltd. cannot be held responsible for the consequences of using declared values instead of actual exposure values for any individual risk assessment.

Further occupational health and safety information can be obtained from the following websites:
https://osha.europa.eu/en (Europe)
http://www.osha.gov (USA)

Troubleshooting Guide

Symptom	Possible Cause	Solution
Low power and/or low free speed.	Insufficient air pressure.	Check air line pressure at the inlet of the Sander while the tool is running at free speed. It must be 6.2 Bar (90 psig/620 kPa).
	Clogged muffler(s).	See the “Housing Disassembly” section for Muffler removal. The Item 38 Muffler can be back-flushed with a clean, suitable cleaning solution until all contaminants and obstructions have been removed. If the Muffler cannot be properly cleaned then replace it. Replace Item 39 Muffler Insert (see the “Housing Assembly” section).
	Plugged Inlet Screen.	Clean the Inlet Screen with a clean, suitable cleaning solution. If the Screen cannot be cleaned, replace it.
	One or more worn or broken Vanes.	Install a complete set of new Vanes (all vanes must be replaced for proper operation). Coat all vanes with quality pneumatic tool oil. See “Motor Disassembly” and “Motor Assembly”.
	Internal air leakage in the Motor Housing indicated by higher than normal air consumption and lower than normal speed.	Check for proper Motor alignment and Lock Ring engagement. Check for damaged O-Ring in Lock Ring groove. Remove Motor Assembly and Re-install the Motor Assembly. See “Motor Disassembly” and “Motor Assembly”.
	Motor parts worn.	Overhaul Motor. Contact authorized Mirka Service Center.
	Worn or broken Spindle Bearings.	Replace the worn or broken Bearings. See “Shaft Balancer and Spindle Disassembly” and “Spindle Bearings, AirSHIELD™ and Shaft Balancer Assembly”.
Air leakage through the Speed Control and/or Valve Stem.	Dirty, broken or bent Valve Spring, Valve or Valve Seat.	Disassemble, inspect and replace worn or damaged parts. See steps 2 and 3 in “Housing Disassembly” and steps 2 and 3 in “Housing Assembly”.
Vibration/rough operation.	Incorrect Pad.	Only use Pad sizes and weights designed for the machine.
	Addition of interface pad or other material.	Only use abrasives and/or interfaces designed for the machine. Do not attach anything to the Sander Pad face that was not specifically designed to be used with the Pad and Sander.
	Improper lubrication or build-up of foreign debris.	Disassemble the Sander and clean in a suitable cleaning solution. Reassemble the Sander. (See “Service Manual”.)
	Worn or broken rear or front Motor Bearing(s).	Replace the worn or broken Bearings. See “Motor Disassembly” and “Motor Assembly”.
	For vacuum machines it is possible to have too much vacuum while sanding on a flat surface, causing the pad to stick to the sanding surface.	For DB machines, add extra washer(s) to the pad spindle to increase the gap between the pad and shroud. For CV machines reduce vacuum through the vacuum system and/or add extra washer(s) to the pad.


GO
INDUSTRIAL

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For contact information,
please visit **www.mirka.com**

Quality from start to finish