



# Mirka AUTOMATION

– The first smart sanders and polishers for industrial robots

The Mirka® AIROS is the first Automated Industrial Random Orbital Sander. It is an electric smart sander for industrial robots, built inside a sturdy yet lightweight aluminum housing. Featuring an ISO 9409-1 compatible flange for mechanical robot coupling, it can be adapted to fit all mechanical couplings, offering maximum flexibility. The long-life, brushless 48V motor on the AIROS is safe for wet sanding, and it operates with a constant, configurable RPM.

## 1 EASY TO INTEGRATE

The Mirka® AIROS is a lightweight electric sander that is easy to integrate into automated production systems. It is specifically designed for robotic sanding applications and is built for continuous usage in robotic environments. It requires a lower weight handling capacity and saves electricity compared to traditional pneumatic options.

Mirka® AIROS has standardized connections ensuring faster and easier installation and maintenance, resulting in reduced downtime and improved productivity. It is equipped with custom flanges for most robot types to offer maximum flexibility by enabling all standard ISO mechanical couplings to be customized by means of an adapter.

## 3 THE MIRKA ECOSYSTEM

The Mirka® AIROS is part of the Mirka ecosystem, making it the most dependable solution on the market. Mirka systems consist of sanding heads, controller unit, abrasives (including custom designed abrasives for specific requirements) and, naturally, knowledge and support of true finishing professionals throughout the whole process.

Since the Mirka® AIROS sanding head is separate from the controller unit, parts are easy to replace, decreasing downtime and costs.

## 5 POLISHING AND SPOT REPAIR COMPLETE THE PACKAGE

The Mirka® AIROP is a random orbital polisher with an advanced electric polishing head, compatible with Mirka polishing pads and compounds. The Mirka® AIOS has a non-random sanding pad for robotic spot repair work, completing the package for automated surface finishing processes.

## 2 SMART SANDING SOLUTION WITH EXACT RPM MANAGEMENT

The Mirka® AIROS has built-in intelligence that allows two-way communication between the sanding tool and the control system. Full, live control of the sanding process ensures consistent quality and enables the controller to learn about the application and even improve the quality based on logged data.

Additionally, this smart electric sanding solution enables control over RPM that can be configured according to the needs of different phases of the process. Controlled RPM ensures consistent quality that is always reproducible even under higher production demands.

## 4 DUST-FREE AND WATERPROOF ELECTRIC SANDER

The Mirka® AIROS is an IP66-classified electric sander suitable for all sanding applications, even wet sanding and safe usage on hazardous materials.

The dust-free and waterproof design of Mirka® AIROS, combined with a rigid and robust aluminum housing, ensure a longer lifetime and safer operations. No lubrication oil is needed.

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## Specifications

The control electronics are separate from the tool and can be installed in a cabinet or other enclosure. **The electronics include:**

- Circuit board with speed controller and relay
- 48 VDC power supply compatible with 90 – 264 VAC
- Modbus RTU port for RS-485 serial communication
- Modbus steering system



AIROS 150NV

AIROS 350 CV/NV

AIROS 550 CV/NV

AIROS 650 CV/NV

AIOS 130NV

AIOS 353CV

AIROP 312NV

### Mirka Automation Sanding And Polishing Heads

Technical Data	AIROS 150 NV*	AIROS 350 CV/NV*	AIROS 550 CV/NV*	AIROS 650 CV/NV*
<b>Power</b>	50 W	350 W	350 W	350 W
<b>Input Voltage</b>	90 – 264 VAC	90 – 264 VAC	90 – 264 VAC	90 – 264 VAC
<b>Dc Voltage To Sander</b>	48 VDC	48 VDC	48 VDC	48 VDC
<b>Speed</b>	4,000 – 8,000 rpm	4,000 – 10,000 rpm	4,000 – 10,000 rpm	4,000 – 10,000 rpm
<b>Orbit</b>	5.0 mm	5.0 mm	5.0 mm	5.0 mm
<b>Weight</b>	1.8 lbs	2.4 lbs	2.9 lbs	2.9 lbs
<b>Height</b>	4.2"	4.5"	4.5"	4.5"
<b>Size Of Pad</b>	1" (32mm)	3" (77mm)	5" (125mm)	6" (150mm)
<b>Ambient Operating Temp.</b>	32 - 113°F	32 - 113°F	32 - 113°F	32 - 113°F
<b>Vacuum Hose</b>	Not applicable	Ø 1"	Ø 1"	Ø 1"
<b>Communication Interfaces</b>	Modbus RTU RS-485 included. Other alternatives also available.			

Technical Data	AIOS 130 NV*	AIOS 353 CV*	AIROP 312 NV*
<b>Power</b>	50 W	350 W	350 W
<b>Input Voltage</b>	90 – 264 VAC	90 – 264 VAC	90 – 264 VAC
<b>Dc Voltage To Sander</b>	48 VDC	48 VDC	48 VDC
<b>Speed</b>	4,000 – 8,000 rpm	5,000 – 10,000 rpm	4,000 – 8,000 rpm
<b>Orbit</b>	3.0 mm	5.0 mm	12.0 mm
<b>Weight</b>	1.5 lbs	2.6 lbs	2.4 lbs
<b>Height</b>	5"	4.6"	4.5"
<b>Size Of Pad</b>	1" (32mm)	3 x 5" (81 x 133 mm)	3" (77mm)
<b>Ambient Operating Temp.</b>	32 - 113°F	32 - 113°F	32 - 113°F
<b>Vacuum Hose</b>	Not applicable	Ø 1"	Not applicable
<b>Communication Interfaces</b>	Modbus RTU RS-485 included. Other alternatives also available.		

\* CV = Central Vacuum / NV = Non Vacuum