

# Smart Welder & Power Welder orbital welding power sources

More quality and flexibility through Industry 4.0 technology during orbital welding: These intelligent power sources connect the orbital welding process with state-of-the-art information and communication technology, and make for the best welding results, high efficiency and sustainable quality management.



<b>Future-oriented connectivity</b> through IoT-/Industry 4.0 technology (Connectivity IoT/4.0 Package 1 required)	✓
<b>Longer-term Welding data documentation</b> thanks to centralized data storage	✓
<b>100% data storage</b> - available at any time and at any place	✓
<b>Cost-saving</b> through digital and precise "PERMANENT-GAS" welding gas control	✓
<b>Intuitive and easy operation</b> via 12,4" color touch display or rotary knob	✓
<b>Auto programming</b> via entry of pipe diameter, wall thickness, material and weld gas	✓
<b>Integrated liquid cooling</b> for constantly low weld head temperatures	✓

The Smart Welder - an innovative welding power supply, which sets new standards in the matter of welding result, handling and communication

## The Smart Welder and Power Welder orbital welding power supplies combine the known and successful characteristics of the predecessor models with the newest technical innovations:

### Centralized access to projects and parameters

With the integrated LAN interface the power sources can be integrated into the network: All welding data and programs for each individual welding process can be called up and documented in full, analyzed and used and optimized for future welding processes. This way, production sequences can be planned better and are also safer and less time-consuming.

### Intuitive operation and a multilingual menu interface

The power sources are operated using the 12.4" color touch display screen, or alternatively with the multifunctional rotary knob. The multilingual menu interface with graphic support makes operation and

parametrization of the welding power supply simple and intuitive. Soft keys provide direct access to important commands.

### More quality

The power sources achieve more quality thanks to the digital and precise welding gas control, the "PERMANENT-GAS" function. It makes it possible to perform welding processes with the highest level of purity and a low gas requirement, reducing the costs for each welding process. The gas quantity values saved with the welding program thus make for easily reproducible welding results.

### Shorter welding cycles and more productivity

In order to minimize the gas pre-flow and post-flow times, ORBITALUM has incorporated the unique Flow-Force function. It shortens the welding process considerably when using closed weld heads: The digital gas control supplies protective gas at a very high volumetric flow rate directly from the pressure

reducer to the weld head - the unwanted residual oxygen is flushed out abruptly in the process. The resultant reduced pre-flow and post-flow times make for much shorter processing times and thus a higher level of productivity and an increased duty cycle. The high volumetric flow rate in the post-flow time and the optionally activatable cooling circuit delay reduce the temperature of the weld head - ideal for a high duty cycle. The benefits include a longer service life for the welding electrode. The optionally activatable permanent gas function prevents the penetration of oxygen in the weld head, even during secondary processing times. As a result, the system achieves almost completely oxidation-free seams with simultaneously short processing times.



Elegant and practical housing (IP23) with carrier handles integrated at the side



The integrated liquid cooling system of the Smart Welder keeps connected weld heads constantly at the right temperature



Hinged lid with display protects the control elements, the system printer and the rotary knob

### Elegant housing for good handling

The power sources feature an elegant as well as practical housing with carrier handles integrated at the side. The ports on the front of the device are set back for protection from mechanical damage. The hinged lid with display screen, when closed, protects the operating controls, the system printer and the control dial if the device is offline or is being transported.

The power sources automatically detect and include the connected system components. The integrated liquid cooling system keeps connected weld heads and heads constantly at the right temperature.

### Upgradeable with "LAN/IoT/VNC connectivity UPGRADE"

The optionally available "Connectivity Package" allows saving and calling up of welding programs via a central network storage location. To increase the process security of the documentation the log files can be stored centrally.

TECHNICAL SPECIFICATIONS		SMART WELDER PLUS
Smart Welder Plus		Code 850 000 010
LAN/IoT/VNC connectivity UPGRADE		Code 850 080 001
Supply voltage		1- 110 - 230 V, 50/60 Hz
Control range (Supply voltage > 160V)		3 - 180 A
Duty cycle		30 % at 180 A 60 % at 140 A 100 % at 110 A
Dimensions		600 x 400 x 320 mm 23.6 x 15.7 x 12.6 in
Weight without coolant		26.0 kg 57.32 lbs
SCOPE OF DELIVERY		SMART WELDER PLUS
Orbital welding power supply Smart Welder Plus		1 PIECE
Hose connection set ORBIMAT		1 PIECE
External keyboard		1 PIECE
Dummy plug for remote control socket		1 PIECE
3.5 liter OCL-30 cooling liquid		1 canister
Operating instructions with calibration certificate		1 set

Quick Start guide		1 PIECE
TECHNICAL SPECIFICATIONS		POWER WELDER
Power Welder		Code 852 000 001
Connectivity UPGRADE LAN/IOT/VNC		Code 850 080 001
Supply voltage		3~ 400 - 480 V, 50/60 Hz
Control range (Supply voltage > 160V)		5 - 300 A
Duty cycle		40 % at 300 A 60 % at 260 A 100 % at 220 A
Dimensions		600 x 400 x 480 mm 23.6 x 15.7 x 18.9 in
Weight		35.40 kg 78.04 lbs
SCOPE OF DELIVERY		POWER WELDER
Orbital welding power supply Power Welder		1 PIECE
Hose connection set ORBIMAT		1 PIECE
External keyboard		1 PIECE
Dummy plug for remote control socket		1 PIECE
Operating instructions with calibration certificate		1 set

Technical specifications are non-binding. They do not constitute any assurance of properties.

# Smart Welder & Power Welder orbital welding power sources



Smart Welder Plus

## Smart Welder Plus

Properties, application area, technical specifications and delivery scope, see from page 2.

ITEM	VERSION	CODE	MACHINE WEIGHT KG*
Smart Welder Plus	1 - 110 - 230V 50/60Hz	850 000 010	26.00

\*Without coolant

### Suitable accessories (optionally available):

- ORBICAR S
- ORBICAR W cart with integrated liquid cooling,
- Rugged transport case
- ORBICOOL Active compressor cooling unit
- ORBITWIN SW switching unit
- Remote control with cable
- Bar code/QR code scanner
- ORBmax residual oxygen meter
- SW manual torch
- Double pressure reducer
- USB WLAN stick

### Available upgrade options:

- Connectivity LAN/IoT/VNC (850 080 001)

Detailed information on our upgrade options can be found on our home page at

<https://www.orbitalum.com/de/produkt/smart-welder.htm>



## Power Welder

Properties, application area, technical specifications and delivery scope, see from page 8.

ITEM	VERSION	CODE	MACHINE WEIGHT KG
Power Welder *	3 - 400 - 480 V, 50/60 Hz	852 000 001	35.400
UPGRADE Connectivity LAN/IoT/VNC		850 080 001	0,002

**\* A external cooling unit is mandatory for the use of the orbital welding power source and must be ordered separately.**

### Suitable accessories (optionally available):

- ORBICAR W cart with integrated liquid cooling
- ORBICOOL Active compressor cooling unit
- ORBITWIN SW switching unit
- Remote control with cable
- Bar code/QR code scanner
- ORBmax residual oxygen meter
- SW manual torch
- Double pressure reducer

#### ORBITAL WELDING POWER SOURCES & ACCESSORIES



Power Welder