

Orion Welders

Laser and Pulse Arc/Resistance Welding Systems

Orion 200i² Patent D740,338

The Orion 200i² will simplify the welding needs of any metalsmith. Innovative new features include – the Pico weld mode for intricate welds using energy as low as 0.01 Joules of energy, to achieve truly microscopic weld joints; the ability to select up to 200 joules of energy for large work-pieces (like silver or platinum); a large 10" touch screen interface with one-touch access to all welding parameters; the ultimate space saving design; 3 unique pulse shape wave form options to choose from: Classic Orion (for Orion users that have come to love welds produced by the Orion 150i), Triangle (great for weld smoothing), and Square (for laser like welding); Seam mode— allows users to mimic laser welding with weld speeds up to 30 welds/sec. The patented Orion 200i² gives you the precision and speed of a laser with the versatility, power, and ease of a pulse arc welder.

Orion 150s

The Orion 150s is more basic than the Orion Pulse 150i but is still very easy to use and includes a wide range of power (from 1 – 150 joules of energy), giving users the ability to weld smaller applications in the lower energy settings and larger applications in the higher energy settings. Users will enjoy a touch screen interface that streamlines and simplifies the welding process, high-frequency agitation for added penetration and weld strength, tack mode for either temporary placement or permanent fusion welding, and an easy to adjust microscope with a clear magnified view of the work-piece.

Orion 100c

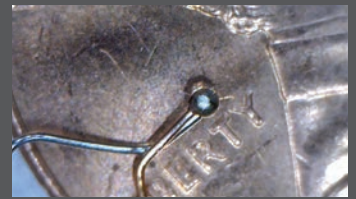
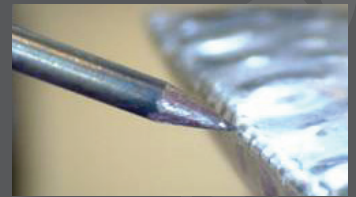
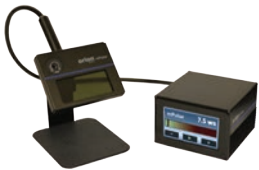
The Orion 100c is very basic yet still has more power and features than any other, non Orion, pulse arc technology in the market. Users get a wide range of power (from 3 – 100 joules of energy), an easy to use touch screen interface for quick access and adjustments to welding parameters, high-frequency agitation for additional penetration, weld length options, an easy to adjust microscope with a clear magnified view of the work-piece, and great weld quality.

Orion mPulse

The mPulse is the simple, compact, and affordable welding system in an easy-to-use package. The mPulse power settings range from 5.0ws to 30ws, in 2.5ws increments—that's 11 different power settings to choose from. The weld spot size on the smallest setting is nearly 1mm, depending upon your material. The largest setting of 30ws will yield a weld spot approximately 1.5mm in diameter, again, depending upon the material you're welding.

Orion LZR

The LZR60 and LZR100 laser welders are small tabletop welders, ideal for use in a variety of industries and applications. Despite being very compact machines, the Orion LZR lasers are equipped with a very powerful integrated cooling systems. Access to the welding is easy thanks to the wide opening in the front. There is a large touch-screen color display and video camera that is supplied as a standard option. This allows a view of the object being welded inside the welding chamber.



Industries

- Jewelry
- Medical
- Industrial
- Dental

Applications

- Filling Porosity
- Seam Welding
- Wire Beading
- Posts
- Small Wire or Chain
- Eyeglass Repair
- Holloware
- Jump Rings
- Watches
- Mold and Die Repair
- Tack Pieces Together
- Rings
- Prongs
- Thermocouples
- And So Much More!



Your partner in micro welding!
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We will find the solution for any application.

Orion Welders
+1-801-658-0015
1693 American Way #5
Payson, UT 84651 USA

OrionWelders.com

TECHNICAL COMPARISON

	Orion 200i ²	Orion 150s	Orion 100c	Orion mPulse 30	Closest Alternative
Display (Touch Screen)	10" Full	7" Full	4.4" Full	4.3" Full	3.4" Limited
Languages	20 +	20 +	20 +	N/A	6
Welder (L x W x H)	4.9" x 4.9" x 27"	11.75" x 8" x 8"	9.25" x 5.75" x 6.5"	5.5" x 5.25" x 3.625"	12" x 8" x 8"
Weld Programs	16	15	5	1	10
Save Settings Spaces	1000	10	5	0	20
CE Certificate	●	●	●	●	●
USB Upgradeable Software	●	●	●	○	●
Pulse Arc Welding					
Energy (min-max in Joules)	0.01 - 200	1 - 150	3 - 100	5 - 30	undisclosed
Current (min-max in Amps)	6 - 1000A	6 - 900A	6 - 350A	25 - 300A	9 - 400A
Power Settings	20,000	280	105	11	30
Length (min-max)	0.1 - 100ms	1 - 60ms	3 - 40ms	0.5 - 15ms	0.5 - 34ms
Length Settings	6000	200	3	1	30
Weld Spot Diameter Range	≈ 0.1 - 4.5mm	≈ 0.5 - 3.5mm	≈ 0.75 - 2.5mm	≈ 1 - 1.5mm	undisclosed
High Frequency Agitation	Multiple/Advanced	Multiple	Basic		Multiple
Pulse Shaping	Advanced	Basic	Basic	Basic	Basic
Max Welding Speed (Hz)	30Hz	2Hz	1.5Hz	.66Hz	1.5Hz
Max Charging Time	1.2s	1.2s	1.2s	3s	0.8s
Single Fire Mode	1 weld/0.5 seconds	1 weld/0.5 seconds	1 weld/0.7 seconds	1 weld/1.5 seconds	1 weld/0.8 seconds
Rapid Fire Mode	1 - 4 welds/sec (4Hz)	○	○	○	○
Seam Mode	1-30 welds/sec (33Hz)	○	○	○	○
Pico Mode	●	○	○	○	○
Ultra Mode	●	●	○	○	○
Adaptive Weld Ignition	●	○	○	○	○
Arc Start Technology	●	●	○	○	○
Internal Weld Monitoring	●	○	○	○	○
Tack Welding					
Energy (min-max in Joules)	5 - 200	5 - 150	3 - 100	N/A	undisclosed
Peak Current (max in Amps)	4,000	4,000	1,000	N/A	700
Power Settings	20,000	150	97	N/A	undisclosed
Length (min-max in milliseconds)	60ms	5 - 60ms	20ms	N/A	0.2 - 30ms
Length Settings	1	100	1	N/A	undisclosed
Microscope					
Magnification	5x	5x	5x	0	10x
Vertical Stylus Working Space	-110 mm	-110 mm	-110 mm	-145mm	-145mm
Automatic Eye Protection	Darkening Lens	Shutter	Shutter	Darkening Stand	Darkening Lens
UV Protection	> UV 16	Full	Full	> UV 12	> UV 11
IR Protection	> IR 16	Full	Full	> IR 12	> IR 11



CE TESTED AND CERTIFIED

Welder tested for electrostatic discharge immunity up to 2kV for CE compliance

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+1-801-658-0015

1693 American Way #5

Payson, UT 84651 USA