

# LASER



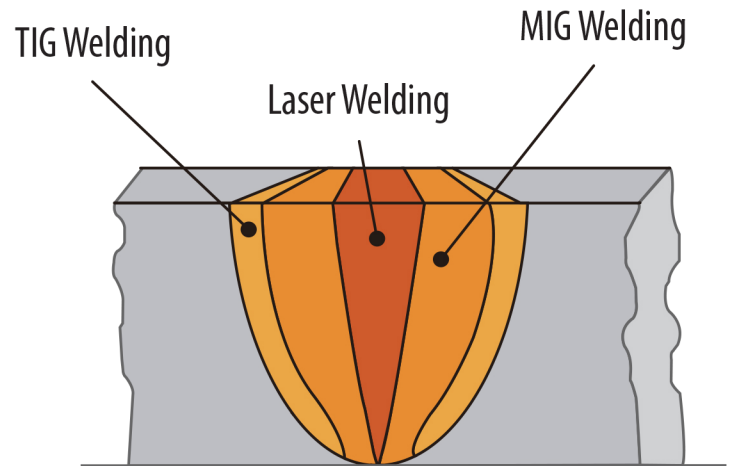
Fibre laser is an emerging technology within the sheet metal fabrication industry that uses a laser beam to melt and join metals.

Fibre laser technology is a great supplement to conventional welding methods in many fabrication applications and can offer advantages over conventional welding methods.

It delivers excellent welding results at low production costs when compared with conventional welding methods. As the challenges of the metal fabrication industry grow, this new technology can significantly improve fabricators efficiency and profitability in a competitive landscape where fast project delivery and effective cost control is vital.

This technology is much more precise than MIG/TIG with faster welding speeds, uniform weld beads and minimal material distortion thanks to the limited heat affected zone (HAZ).

## Comparison of HAZ



## In Comparison To Other Types Of Welding Technologies...

| Welding Technology |                          | Arc Welding                          | Solid YAG Laser    | CW Handheld Fibre Laser |
|--------------------|--------------------------|--------------------------------------|--------------------|-------------------------|
| Welding Experience | Heat input               | High                                 | Low                | Low                     |
|                    | Distortion               | High                                 | Low                | Low                     |
|                    | Weld seam processing     | Fillet                               | Fillet             | Variable                |
|                    | Post weld processing     | Yes                                  | Yes                | No                      |
|                    | Welding speed            | Low                                  | Medium             | High                    |
| Sustainability     | Ease of use              | Low                                  | High               | High                    |
|                    | Hazard to people         | High                                 | Low                | Low                     |
|                    | Pollution to environment | High                                 | High               | Low                     |
| Cost               | Consumables              | Electrode/Welding wire/Shielding gas | Crystal, Xenon gas | Shielding gas           |
|                    | Energy efficiency        | High                                 | Low                | High                    |
|                    | Skill requirement        | High                                 | Moderate           | Low                     |
|                    | Footprint                | Small                                | Large              | Small                   |

## Why JASIC Handheld Fibre Laser Welding?



### High Welding Efficiency

- Up to 10x faster than manual TIG welding
- Very limited spatter thus little post-weld cleaning needed
- Little need for rework thanks to minimal porosity, undercut or distortion



### Cost Efficient

- Minimal welding expertise needed, cut down costs incurred from experienced welders
- Almost 0 maintenance need for key component, pump source has over 100k hours life span



### High Usability

- New industrial design featuring better ergonomics, flexibility and reliability
- Colour touch screen control panel with intuitive user interface
- Comprehensive job parameter settings
- Small foot print, great mobility and flexibility



### High Energy Efficiency

- CW (continuous wave) laser with 40+% electro-optical conversion efficient, 10x that of a solid YAG laser



### 2 - Year Warranty

- Comprehensive quality assurance

# Jasic Laser Welder 15000

ORDER CODE **LS-15000F**



## KEY FEATURES

- Easy to navigate touchscreen display
- Single wire feed unit
- 4 roll wire feeder
- Excellent welding performance
- Simple lens change method
- Water cooled fibre laser source for high duty cycle operation
- Spot and continuous welding mode
- Ability to store jobs

The Jasic LS-15000F Laser Welder is designed to redefine efficiency and precision in professional welding applications. With a welding speed up to 10x faster than traditional manual TIG welding, significantly reducing project time while ensuring exceptional weld quality.

Engineered for cost efficiency, the LS-15000F eliminates the need for extensive welding expertise, helping companies reduce reliance on highly experienced welders.

Featuring an innovative industrial design, the LS-15000F offers ergonomic flexibility and ease of use, complete with a colour touchscreen control panel.

Powered by a CW laser with over 40% electro-optical conversion efficiency, it outperforms traditional solid YAG lasers with 10x the energy efficiency.

## TECHNICAL DATA

|                                                   |                       |                                           |
|---------------------------------------------------|-----------------------|-------------------------------------------|
| Input power supply                                |                       | 1P AC230V (-10% - +15%) 50Hz              |
| Input power                                       |                       | 5.8 kW                                    |
| Centre wave length                                |                       | 1080 ± 10nm                               |
| Electro-optical conversion efficiency             |                       | ≥40%                                      |
| Laser power                                       |                       | 1500W                                     |
| Fibre cable length                                |                       | 6m                                        |
| Cooling method                                    |                       | Water cooled                              |
| Single wire welding and self fusion welding       | Scan width            | 0~6mm                                     |
|                                                   | Welding wire diameter | 0.8/1.0/1.2/1.6mm                         |
|                                                   | Shielding gas         | Argon/nitrogen (≥3 bar)                   |
|                                                   | Welding thickness     | 0.5 - 5mm                                 |
|                                                   | Penetration           | 0.5 - 3mm                                 |
| Welding gap range                                 |                       | ≤Welding wire diameter                    |
| Water tank capacity                               |                       | 8L                                        |
| Operating temperature                             |                       | -10°C - 40°C; antifreeze needed when ≤5°C |
| Operating humidity                                |                       | ≤70% at 40°C; ≤90% at 20°C                |
| Power source weight                               |                       | 85Kg                                      |
| Packed weight                                     |                       | 103Kg                                     |
| Packed weight of wire feeder and accessories      |                       | 17.5Kg                                    |
| Power source dimensions                           |                       | 773 x 410 x 737mm                         |
| Package dimensions                                |                       | 865 x 475 x 1035mm                        |
| Package dimensions of wire feeder and accessories |                       | 890 x 320 x 430mm                         |

## STANDARD ACCESSORIES

Single Wire Feed Unit

## OPTIONAL ACCESSORIES



## KEY FEATURES

- Easy to navigate touchscreen display
- Single wire feed unit
- 4 roll wire feeder
- Excellent welding performance
- Simple lens change method
- Water cooled fibre laser source for high duty cycle operation
- Spot and continuous welding mode
- Ability to store jobs

The Jasic LS-20000F Laser Welder is designed to redefine efficiency and precision in professional welding applications. With a welding speed up to 10x faster than traditional manual TIG welding, significantly reducing project time while ensuring exceptional weld quality.

Engineered for cost efficiency, the LS-20000F eliminates the need for extensive welding expertise, helping companies reduce reliance on highly experienced welders.

Featuring an innovative industrial design, the LS-20000F offers ergonomic flexibility and ease of use, complete with a colour touchscreen control panel.

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|---------------------------------------------------|-----------------------|----------------------------------------|
| Input power supply                                |                       | 1P AC230V (-10% - +15%) 50Hz           |
| Input power                                       |                       | 7.8 kW                                 |
| Centre wave length                                |                       | 1080 ± 10nm                            |
| Electro-optical conversion efficiency             |                       | ≥40%                                   |
| Laser power                                       |                       | 20000W                                 |
| Fibre cable length                                |                       | 12m                                    |
| Cooling method                                    |                       | Water cooled                           |
| Single wire welding and self fusion welding       | Scan width            | 0~6mm                                  |
|                                                   | Welding wire diameter | 0.8/1.0/1.2/1.6mm                      |
|                                                   | Shielding gas         | Argon/nitrogen (≥3 bar)                |
|                                                   | Welding thickness     | 3 - 6mm                                |
|                                                   | Penetration           | 3 - 5mm                                |
|                                                   | Welding gap range     | ≤Welding wire diameter                 |
| Double wire welding                               | Scan width            | 0 - 6mm                                |
|                                                   | Welding wire diameter | 1.2/1.6mm                              |
|                                                   | Shielding gas         | Argon/nitrogen (≥3 bar)                |
|                                                   | Welding thickness     | 3 - 6mm                                |
|                                                   | Penetration           | 3 - 5mm                                |
|                                                   | Welding gap range     | ≤ Welding wire diameter                |
| Water tank capacity                               |                       | 8L                                     |
| Operating temperature                             |                       | -10℃ - 40℃; antifreeze needed when ≤5℃ |
| Operating humidity                                |                       | ≤70% at 40℃; ≤90% at 20℃               |
| Power source weight                               |                       | 92Kg                                   |
| Packed weight                                     |                       | 110Kg                                  |
| Packed weight of wire feeder and accessories      |                       | 17.5Kg                                 |
| Power source dimensions                           |                       | 773 x 410 x 737mm                      |
| Package dimensions                                |                       | 865 x 475 x 1035mm                     |
| Package dimensions of wire feeder and accessories |                       | 890 x 320 x 430mm                      |

## STANDARD ACCESSORIES

Single Wire Feed Unit

## OPTIONAL ACCESSORIES

Dual Wire Feed Unit

# Jasic Laser Welder 20000

ORDER CODE **LS-20000F-D**



## KEY FEATURES

- Easy to navigate touchscreen display
- Dual wire feed unit gives the option of running one or two wires, for higher deposition rates
- 4 roll wire feeder
- Excellent welding performance
- Simple lens change method
- Water cooled fibre laser source for high duty cycle operation
- Spot and continuous welding mode
- Ability to store jobs

The Jasic LS-20000F Laser Welder is designed to redefine efficiency and precision in professional welding applications. With a welding speed up to 10x faster than traditional manual TIG welding, significantly reducing project time while ensuring exceptional weld quality.

Engineered for cost efficiency, the LS-20000F eliminates the need for extensive welding expertise, helping companies reduce reliance on highly experienced welders.

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Powered by a CW laser with over 40% electro-optical conversion efficiency, it outperforms traditional solid YAG lasers with 10x the energy efficiency.

## TECHNICAL DATA

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| Input power supply                                |                       | 1P AC230V (-10% - +15%) 50Hz              |
| Input power                                       |                       | 7.8 kW                                    |
| Centre wave length                                |                       | 1080 ± 10nm                               |
| Electro-optical conversion efficiency             |                       | ≥40%                                      |
| Laser power                                       |                       | 20000W                                    |
| Fibre cable length                                |                       | 12m                                       |
| Cooling method                                    |                       | Water cooled                              |
| Single wire welding and self fusion welding       | Scan width            | 0~6mm                                     |
|                                                   | Welding wire diameter | 0.8/1.0/1.2/1.6mm                         |
|                                                   | Shielding gas         | Argon/nitrogen (≥3 bar)                   |
|                                                   | Welding thickness     | 3 - 6mm                                   |
|                                                   | Penetration           | 3 - 5mm                                   |
|                                                   | Welding gap range     | ≤Welding wire diameter                    |
| Double wire welding                               | Scan width            | 0 - 6mm                                   |
|                                                   | Welding wire diameter | 1.2/1.6mm                                 |
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|                                                   | Welding thickness     | 3 - 6mm                                   |
|                                                   | Penetration           | 3 - 5mm                                   |
|                                                   | Welding gap range     | ≤ Welding wire diameter                   |
| Water tank capacity                               |                       | 8L                                        |
| Operating temperature                             |                       | -10°C - 40°C; antifreeze needed when ≤5°C |
| Operating humidity                                |                       | ≤70% at 40°C; ≤90% at 20°C                |
| Power source weight                               |                       | 92Kg                                      |
| Packed weight                                     |                       | 110Kg                                     |
| Packed weight of wire feeder and accessories      |                       | 17.5Kg                                    |
| Power source dimensions                           |                       | 773 x 410 x 737mm                         |
| Package dimensions                                |                       | 865 x 475 x 1035mm                        |
| Package dimensions of wire feeder and accessories |                       | 890 x 320 x 430mm                         |

## STANDARD ACCESSORIES

Dual Wire Feed Unit

## OPTIONAL ACCESSORIES

Single Wire Feed Unit