

FASTLaser LR2075

Hypertherm's patented laser process technology breakthrough – aptly named FASTLaser (Flow Accelerated Screen Technology™) – significantly improves the speed and capacity for laser plate cutting applications.

Hypertherm proudly extends its laser product line to include the LR2075. Designed to bring the FAST Laser productivity benefits to existing systems, the LR2075 also incorporates many features aimed to maximize cutting time and minimize operating costs. The LR2075 CO₂ laser cutting head allows systems to expand their flexibility while optimizing cut speed and quality throughout the full daily production cycle.



FASTLaser® LR2075

Features

- FASTLaser technology
- Digital readout for focal position
- “No tools” quick lens change and inspections
- Lens centering accessible from the front of the head
- “No tools” quick lens change
- Water cooling of laser head
- No exposed cables
- Lens in position interlock
- Color coded lens holders
- High stability capacitive height sensor

Options

- Top mount spring collision for horizontal and vertical protection
- Retrofit kits for many installed systems

System specifications

- 5.0" and 7.5" focal lengths
- 1.5" and 2" diameter optics
- 2" (50.8 mm) clear aperture
- +/- 1.5 mm lateral lens adjustment
- 1" (25 mm) focal position adjustment
- 25 bar maximum pressure
- 3.4 kg laser head mass
- 9.0" (229 mm) laser head height
- 5.7" (146 mm) laser head width

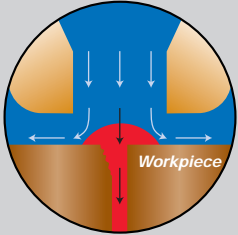


FASTLaser delivers optimal gas flow directly to the cut zone – consistently matching beam width and flow geometry.

With standard CO₂ lasers, cut speed has always been limited by the need to balance assist-gas pressure against cut quality. Lower pressures can improve quality but sacrifice speed, thickness capability, and dross-free cutting. Higher pressures often create stagnant zones of gas on the surface, inducing uncontrolled burning of the steel.

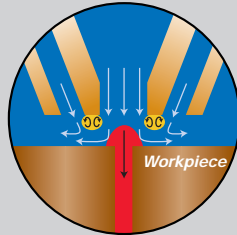
FASTLaser technology allows the laser beam to define the geometry of the gas flow precisely. An exclusive, patented, nozzle-embedded element allows accelerated high-velocity gas flows along the beam path. At the same time, a reduced outer flow protects the high-velocity jet from external contamination and helps remove molten material.

Standard technology



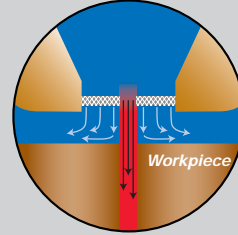
Conventional nozzles create a large stagnant zone of gas on the plate surface, inducing uncontrolled burning.

Shielded technology



Shielded nozzles allow two flow regions, but the primary jet still stagnates on the plate surface.

FASTLaser technology



FASTLaser nozzle technology allows the laser beam to define the flow geometry precisely, eliminating the stagnant zone.



Hypertherm LR-series cutting heads improve productivity

- FAST Laser technology delivers higher cut speeds and quality
- Focal position digital readout enables better repeatability for shift to shift and material changes
- “No tools” quick lens change and inspections reduces production interruptions
- Optional spring mounted collision protection system provides a safeguard and is self resetting when obstruction is cleared
- No fragile ceramic parts or exposed cables keep the system running
- Color coded lens holders are easily identifiable by operators
- High stability capacitive height sensor minimize recalibrations

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