

FASTLaser LH1575

Hypertherm's patent-pending laser process technology breakthrough – aptly named FASTLaser (Flow Accelerated Screen Technology™) – significantly improves the speed, the capacity and quality range, and combined productivity of plate laser cutting.

Hypertherm is proud to introduce our latest member to the LH-series™ system family, the LH1575. Hypertherm reaffirms and extends its position as the new performance leader in CO₂ laser-plate cutting technology with the LH1575. The LH1575 incorporates the patented Hypertherm FASTLaser process. Significantly improving the cut speeds, plate capacity and cut quality range, which combine to produce significant gains in CO₂ laser plate cutting. The FASTLaser process delivers optimal gas flow directly to the cut zone; consistently matching beam width and gas flow geometry.



FASTLaser® LH1575®

Features

- FASTLaser technology
- Pierce sensing
- Process sensing
- Gas cooling of lens
- “No tools” quick lens change
- Integrated AC servo controlled lens axis
- Quick focal-length change
- Water cooling of laser head and nozzle

Options

- Pre-centered optics
- Top mount spring collision protection

System specifications*

- 5.0" and 7.5" focal lengths
- 1.5" focusing lens diameter
- 33 mm clear aperture
- +/- 1.5 mm lateral lens adjustment
- 20 mm servo lens stroke
- 63 mm/min. maximum lens speed
- 25 bar maximum pressure
- 5.1 kg laser head mass
- 274 mm/10.8" laser head height
- 171 mm/7.0" laser head width



Summary

Hypertherm FAST Laser LH-series heads make laser cutting systems more capable

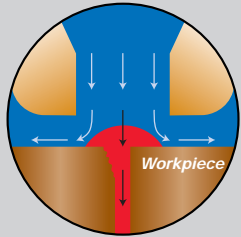
- Minimum 10 – 20 % increase in cut speeds on thick mild steel
- Expanded cut capacity and cut quality range
- Increased productivity through increased output, reduced operating costs, and reduced waste

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.

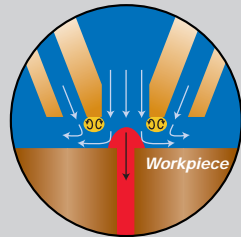
FASTLaser technology allows the laser beam to define the geometry of the gas flow precisely. An exclusive, patent-pending, nozzle-embedded screen allows accelerated high-velocity gas flows along the beam path. At the same time, a reduced outer flow protects the high-velocity jet from external contamination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

Standard technology



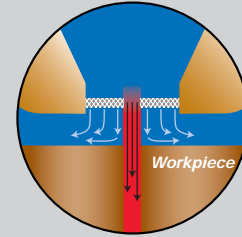
Conventional nozzles create a large stagnant zone of gas on the plate surface, inducing uncontrolled burning.

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 LH-series heads make laser cutting systems more capable

- Pierce and cut-sensing fiber optics for increased monitoring capabilities
- Optional pre-centered optics facilitate quick, precise lens changes
- Quick lens change allows fast, “no-tools-required” optics replacement
- Integrated servo-controlled lens axis delivers precise lens adjustment even at maximum operating pressure
- Quick focal length change decreases set-up for plate changes
- Water cooling of head for longer nozzle life
- Optional spring mount protects cutting head from terminal impacts

The bottom line – savings:

Based on a typical operation:

- 11 nests per day,
- 2 shifts per day,
- 5 days a week, and a
- 70% utilization factor

and typical FASTLaser benefits:

- 10% reduced cycle time,
- 4% reduction in plate cost

You can:

- Reduce your operating costs 4%
- Increase your output 9%
- Reduce per-part costs 4%

Hypertherm®

Hypertherm, Inc.
Hanover, NH 03755 USA
603-643-3441 Tel

Hypertherm (S) Pte Ltd.
417847, Republic of Singapore
65 6 841 2489 Tel

Hypertherm (Shanghai)
Consulting Co.
Shanghai, P.R. China 200120
86-21-5835-5362 /3 Tel

Hypertherm Europe B.V.
4704 SE Roosendaal, Nederland
31 165 59 69 07 Tel

HYPERTHERM BRASIL LTDA.
Guarulhos, SP - Brasil
55 11 6482 1087 Tel

www.hypertherm.com