

Contact

United States

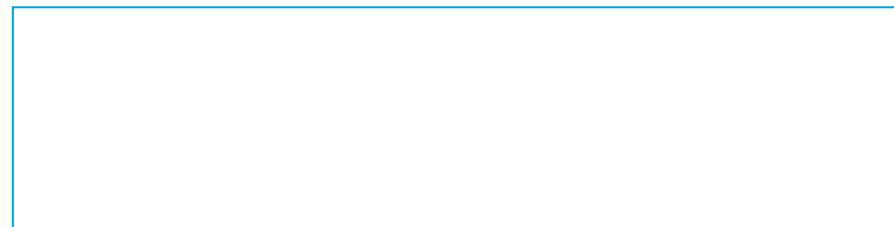
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Contact your Air Liquide representative for more information.



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BIFOCAL™, LASAL™ and FLOXAL™: L'Air Liquide S.A.

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BIFOCAL™

Quality and productivity for laser cutting



www.airliquide.com



Irving Tool now has a **BIFOCAL** lens in place on the Mazak laser on which it was originally tested. Stringer said his operators have seen a speed increase of more than 30 percent for some of the metals they cut. "... my people out there who run the lasers are pretty excited." - Harold Stringer, Irving Tool & Mfg. Co. Inc.

BIFOCAL works on all types of materials, and features particularly noticeable productivity increase results on aluminum and stainless steel with nitrogen assist gas and non-metallic materials such as wood.

BIFOCAL laser technology increases performance for optimal productivity and quality while minimizing production costs.



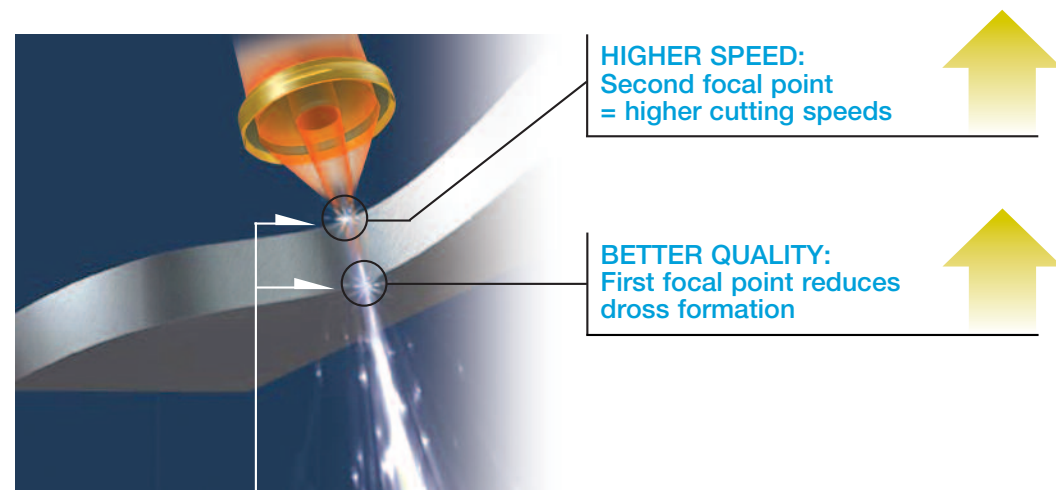
BIFOCAL Laser Cutting Technology

With Air Liquide's innovative design, laser operators are able to cut sheets, plates and tubes with:

- Increased speed
- More efficient assist gas usage
- Expanded cutting capability

BIFOCAL lenses focus the laser beam into two focal points instead of one

- A first focal point generates high heat density near the bottom of the work piece to prevent dross formation
- A second focal point generates high heat density near the top surface of the work piece to maintain high cutting speed



HIGHER SPEED:
Second focal point
= higher cutting speeds

BETTER QUALITY:
First focal point reduces
dross formation

- More efficient power density distribution
- Focus position tolerances are at least doubled

Benefits

- 10% to 50% improvement in production cutting speed
- 10% to 20% increase in maximum thickness cutting capability
- Reduction in set-up downtime
- Optimization of set-up and cutting performance
- Production launch assistance and training
- Annual laser audit with Digital Beam Mode Analysis
- No retrofit required
- Bifocal is user-friendly and field proven with all laser system makes and models

	WITH STANDARD LENS	WITH BIFOCAL	
GAINS		OPEN CAPACITY	Process more orders and reduce overtime
		VARIABLE COST SAVINGS	
COSTS	LENS COST	LENS COST	
	TANK RENTAL AND LEASE	TANK RENTAL AND LEASE	
	ASSIST GAS	ASSIST GAS	

LASAL™

Air Liquide can provide you with optimized and innovative gas installations and gas equipment to meet all your flowrate and pressure needs for CO₂ lasing gas:



- Lasal 1, 2, 4 (N₂, CO₂, He, laser grade) or one of the lasing mixes from the Lasal range.

Recommended cutting gas:

- Carbon steel: Lasal 2003
- Stainless steel aluminum: Lasal 2001
- Beam purging: Floxal™ or Nitrogen

