

# PLASMA AND FIBER LASER COMBINATION

Precision Plasma and Advanced Fiber Laser Technology

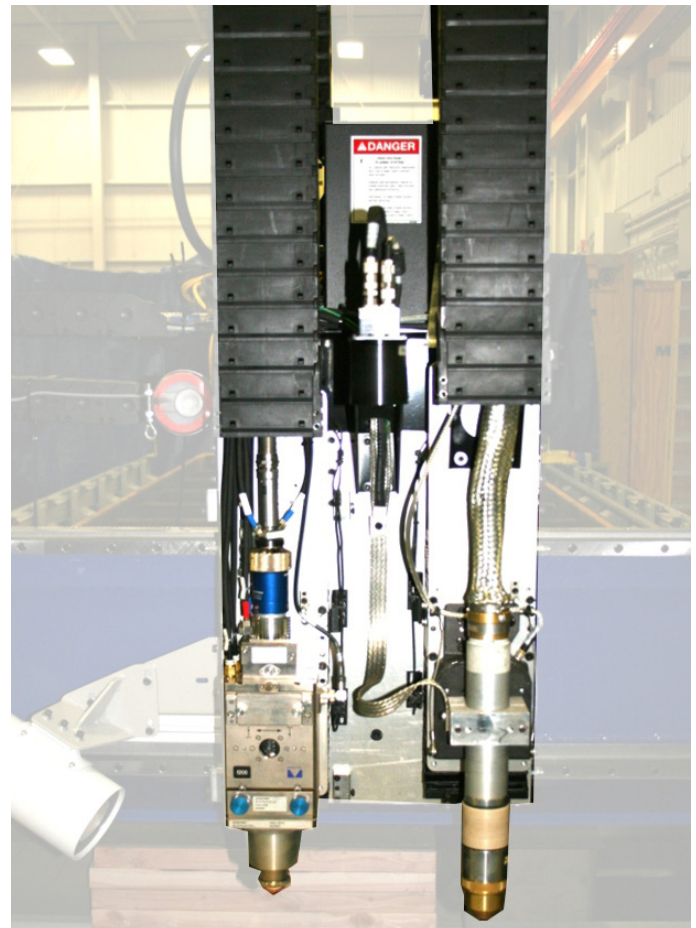
Messer Cutting Systems plasma/fiber laser combination cutting allows parts to be processed with either plasma, fiber laser or both. When combination cutting on the same piece part, productivity will increase by allowing critical internal features to be cut with the fiber laser and external features to be cut with the plasma torch without moving the part to another piece of equipment.

## FEATURES AND BENEFITS

- **Fiber laser utilizes fiber optic cable instead of mirrors for beam transmission allowing it to be used in conjunction with the plasma process as there are no mirrors to be contaminated.**
- **Fiber laser is three times faster than CO2 lasers and does not use laser gas making it cost effective.**
- **Fine details such as <1T holes and sharp internal corners not achievable with plasma can now be accomplished.**
- **Better part accuracy than True Hole® Technology on .75" and below material.**

## APPLICATION

Available on MetalMaster Xcel and MPC2000 machine models.



(Left) Fiber laser (Right) Plasma.

More information on back

# PLASMA AND FIBER LASER COMBINATION ON YOUR MESSER MACHINE



## FIBER LASER ENCLOSURE (featured above)

The Class 1 Enclosure comes with door interlocks for laser safety and machine access providing protection from spatter, glare, cutting, and noise. (Optional acoustic isolation reduces plasma sound level outside of the enclosure to 85 db.)

## TWO SHUTTLE CAPABILITIES

The shuttle table includes two pallets that transfer in and out of cutting area making the cutting process more efficient. The two shuttles have capacities of  $\leq .75$ " material thickness or  $.75$ "- $2$ ".

## SLAGGER® TABLE

The Slagger® table is standard for part drop and debris removal outside the cutting table and enclosure. Allowing more time cutting and less down time for maintenance. (Optional features include slag pit and bucket).

## PLASMA /FIBER LASER CUTTING COMBINATION CAPABILITY

- **Cutting a full range of materials:** The plasma and fiber laser combination provides the best quality, cycle time and lowest cost per piece.
- **Thin materials:** Fiber laser provides the best quality, lowest cycle time and lowest cost per piece.
- **Thick materials:** Plasma provides the lowest cycle time and lowest cost per piece.
- **Fiber laser speed and quality:** Equal to a CO2 laser at a third the operating cost.

**Fiber Laser:** MS 3/4" SS 1/2" AL 3/8"

» Excellent high speed marking

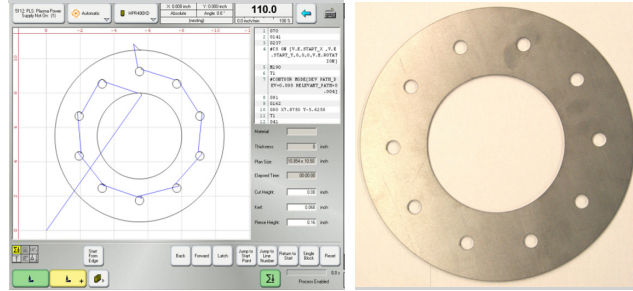
**Plasma:** HPR260XD MS 1.5" SS/AL 1.25"

» HPR400XD MS 2.0" SS/AL 1.75"

**Achievable Cut Part Accuracy over a 72" area**

» +/- .010" Fiber Laser

» +/- .030" Plasma



Flange 5" ID, 10" OD, (10) 1/2" Holes

Total inches of cut for entire part:	74.70"
Inches of cut for holes:	22.86"
Inches of cut for ID & OD:	51.84"

## COMBINATION TIME AND COST BENEFITS

Mild Steel Thickness	Process	Total Time per Minute	Cost to Process Piece
10 GA	Fiber Laser	1:01	\$.08
1/4"	Fiber Laser	1:28	\$.20
3/8"	Fiber Laser	1:52	\$.15
1/2"	Fiber Laser	2:46	\$.23
10 GA	Fiber Laser-holes Plasma ID/OD	1:26	\$.11
1/4"	Fiber Laser-holes Plasma ID/OD	1:14	\$.09
3/8"	Fiber Laser-holes Plasma ID/OD	1:34	\$.12
1/2"	Fiber Laser-holes Plasma ID/OD	1:47	\$.13
10 GA	Plasma only 50% speed for holes	2:06	\$.15
1/4"	Plasma only 50% speed for holes	1:22	\$.10
3/8"	Plasma only 50% speed for holes	1:47	\$.13
1/2"	Plasma only 50% speed for holes	1:42	\$.12
10 GA	4 Kw CO2 Laser	1:04	\$.29
1/4"	4Kw CO2 Laser	1:29	\$.41
3/8"	4Kw CO2 Laser	1:55	\$.52
1/2"	4Kw CO2 Laser	2:14	\$.61

