



 **KALIBURN**  
PLASMA CUTTING INNOVATION

*When others fall short, the Spirit lives on.*

 **Spirit 150a**



PLASMA CUTTING INNOVATION.

KALIBURN has been providing plasma cutting innovation for more than 22 years.

While technologies have been updated, and equipment needs have changed throughout our history, the "spirit" of the products and the quality of services KALIBURN provides have never been compromised.

The KALIBURN Spirit150a continues our legendary tradition of unprecedented quality, service and innovation for plasma cutting tools.



## INTRODUCING...

### KALIBURN Spirit150a

The Spirit150a by KALIBURN is a full function 150 amp high current density plasma cutting system incorporating fully automated process control for production cutting of most metals up to 3/4" (20.0 mm) thick, and has a maximum capacity of 1-1/2" (38.0 mm). It is designed to be the ultimate process tool when precise, square, and dross free cuts and ease of operation are important. **Unparalleled consumable life** is a benefit of all KALIBURN Spirit systems.

### THE "a" IS FOR AUTOMATIC...

Automatic setting of process parameters equates to exceptional ease of operation. The KALIBURN Spirit150a combines convenience with the ultimate in cut quality on gage thicknesses through most 3/4" metals. The KALIBURN Spirit150a truly sets the standard in precision plasma cutting within its thickness range.

With the KALIBURN Spirit150a automatic gas console (AGC) you simply select the material type and thickness - or you let your computers serial port transmit the cutting parameters. **The rest is automatic.**

### THE LEGEND IS TRUE...

True precision. True quality. The KALIBURN Spirit150a provides true precision high current density plasma cut edge quality. It delivers virtually dross free cuts with minimal face bevels. (†)

### CLEANER, FASTER CUTS...

The KALIBURN Spirit150a is available with the **optional** INOVA™ Torch Height Control system. Also, a pneumatic safety switch can be added to protect the torch from collision damage.



† Those considering this process should be aware of cut edge squareness criteria and how it relates to consumable lifetime. KALIBURN continues to describe the precision plasma process in traditional terms of minimal cut face bevel.



The KALIBURN Spirit150a incorporates H<sub>f</sub>OT™, Hafnium Optimizing Technology. The new process maximizes the lifetime of consumables and substantially reduces operating costs as shown below:

### CONSUMABLE COST SAVINGS PER YEAR FOR A TYPICAL PART

- Total inches of cut per part: 40
- Average inches per start: 5
- Number of pierces per part: 8
- Single shift operation

#### APPROXIMATE CONSUMABLE COST SAVINGS PER YEAR / For Carbon Steel

	.25" (6.0 mm) @ 100 amps	.375" (10.0 mm) @ 150 amps	.5" (12.0 mm) @ 150 amps	.75" (20.0 mm) @ 150 amps
<b>Spirit150a</b>	<b>\$7,290</b>	<b>\$5,838</b>	<b>\$4,318</b>	<b>\$3,110</b>

The Spirit150a is one of three fully automated systems in the KALIBURN Spirit family. Other Spirit systems offer identical cut quality but each has a unique amperage range and corresponding thickness capacity.

KALIBURN also offers three similar machines in a less automated configuration. Such systems offer identical cut quality but require manual process parameter setting.




**3 YEAR POWER SUPPLY WARRANTY**

# SPECIFICATIONS

## Spirit Torch

- 150 amps @ 100% duty cycle
- Dual gas
- Liquid cooled
- Built-in initial height sensing capability
- Extended life, low cost consumables
- Cutting and marking with the same consumables

## Spirit Power Supply

- Rated 150 amperes DC @ 100% duty cycle
-  approval available
- Advanced technology, high efficiency chopper-stabilized current output
- 400 ampere IGBT chopper transistor for high reliability
- Current overshoot reduction circuitry for longer electrode and nozzle life
- Very low transferred arc current sensing for higher starting height and longer nozzle shield life
- Fast switch transferred arc for extended nozzle life
- 70 GPH recirculating torch coolant system
- 0.4 amps peak to peak output current ripple at 150 amps
- 3-phase input, 32 KVA, 208v (87a), 230v (78a), 380v (48a), 415v (44a), 460v (40a), 575v (32a)
- 3 year warranty

## Spirit Automatic Gas Console

- Sets all plasma torch parameters by material type and thickness
- Displays torch parts for selected material and thickness
- Communicates with optional INOVA™ Torch Height Control and the x-y cutting table control via RS-422
- Performs self diagnostics
- Sets optional INOVA™ Torch Height Control automatically to proper pierce height, cutting height and arc voltage
- Tracks pierces, pierce errors and type of errors for the last six electrodes
- Extends electrode life through a patented process
- Software is updateable by 3.5" floppy

# Spirit 150a

Material	Thickness		Current (amps)	Speed	
	(in)	(mm)		(IPM)	(m/min)**
MILD STEEL O2 PLASMA/AIR SHIELD	.036	1.0	30	105	2.616
	.060	1.5		78	2.021
	.105	2.5		55	1.456
	.125	3.0	50	180	4.660
	.188	5.0	70	130	3.265
	.250	6.0		120	3.105
	.375	10.0	100	100	2.404
	.500	12.0	150	90	2.485
	.625	16.0		70	1.762
	.750	20.0		55	1.340
	1.00*	25.0		40	1.040
	1.25*	32.0		25	0.624
1.50*	38.0	15		0.385	
STAINLESS STEEL AIR PLASMA/N2 SHIELD	.036	1.0	30	200	4.857
	.060	1.5		125	3.259
	.105	2.5	50	75	2.082
	.120	3.0		65	1.684
STAINLESS STEEL H17 PLASMA/N2 SHIELD	.188	5.0	70	80	2.032
	.250	6.0	100	100	2.626
	.375	10.0	150	75	1.847
	.500	12.0		60	1.609
	.625	16.0		50	1.259
	.750	20.0		40	0.940
ALUMINUM AIR PLASMA/N2 SHIELD	.040	1.0	30	150	3.886
	.050	1.5		120	2.520
	.063	1.5	50	140	3.868
	.080	1.5		90	3.868
	.125	3.0	70	160	4.419
	.188	5.0		80	1.921
	.250	6.0		50	1.442
	.375	10.0	100	90	2.208
	.500	12.0	150	90	2.428
	.625	16.0		65	1.630
.750	20.0	45		0.992	

\* Requires edge start or moving pierce.

\*\* Approximate Speed.

 **KALIBURN**  
PLASMA CUTTING INNOVATION

(800) 252-2850

(843) 795-4286

www.kaliburn.net

455 Fleming Rd., Charleston, SC 29412