



 **KALIBURN**
PLASMA CUTTING INNOVATION

When others fall short, the Spirit lives on.  **Spirit150a**



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 definition 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 definition 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_fOT™, 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 pieces 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
Spirit150a	\$7,290	\$5,838	\$4,318	\$3,110

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. Spirit150m type systems offer identical cut quality but require manual process parameter setting.





SPECIFICATIONS

Spirit150a

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
-  and  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)

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

Material	Thickness		Current (amps)	Speed		
	(in)	(mm)		(IPM)	(m/min)**	
MILD STEEL	.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	100	150	3.952	
	.375	10.0		100	2.404	
	.500	12.0		65	1.850	
	O2 PLASMA O2/AIR SHIELD	.625	16.0	150	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	.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	
	AIR PLASMA AIR/N2 SHIELD	.188	5.0	70	100	2.447
	.250	6.0	100	100	2.596	
.375	10.0	80		1.935		
.500	12.0	55		1.539		
ALUMINUM	.040	1.0	30	150	3.886	
	.063	1.5		90	2.520	
	.050	1.5	50	180	3.868	
	.080	1.5		90	3.868	
	AIR PLASMA AIR/N2 SHIELD	.188	5.0	70	80	1.921
	.250	6.0	100	105	2.709	
	.375	10.0		90	2.208	
	.500	12.0		70	1.891	

* Requires edge start or moving pierce.

** Approximate Speed.



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