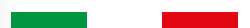




PLASMATECH
CEA PLASMA CUTTING DIVISION

PLASMA CUTTING

SINCE 1950



PLASMATECH is the new CEA division dedicated to Plasma cutting technology. Thanks to over 30 years' experience in the cutting sector, **CEA PLASMATECH** will become your strategic partner, focused on the plasma cutting field, fully meeting all market needs in a most efficient way.

In this catalogue you will find accurate, genuine technical details who will allow you to easily choose the product best suited to your job.



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Technical features might change without notice

SHARK

SHARK

The **SHARK** range of plasma cutting equipment is the result of very considerable investments of capital and resources dedicated to research. **SHARK** equipment is fitted with new technology torches, which have greatly contributed to a remarkable increase of both quality and speed throughout the entire cutting process. Quality is clearly reflected in neat cuts, lack of dross, minimal heat-affected zone and sufficiently squared edges.

SHARK power sources represent an efficient solution for the cutting of any metal and perforated lamination sheets. Electronic control, coupled with inverter precision and flexibility, always provides the most correct parameters in order to obtain the highest quality cut depending on the thickness and type of material being cut.

SHARK range new **SK** torches for manual cutting and **SKM** for CNC automation allow cuts without high frequency for arc striking, thus reducing external disturbances to the environment.

SHARK power sources, powerful and fitted with professional high flow air circuit, ensure perfect cuts.

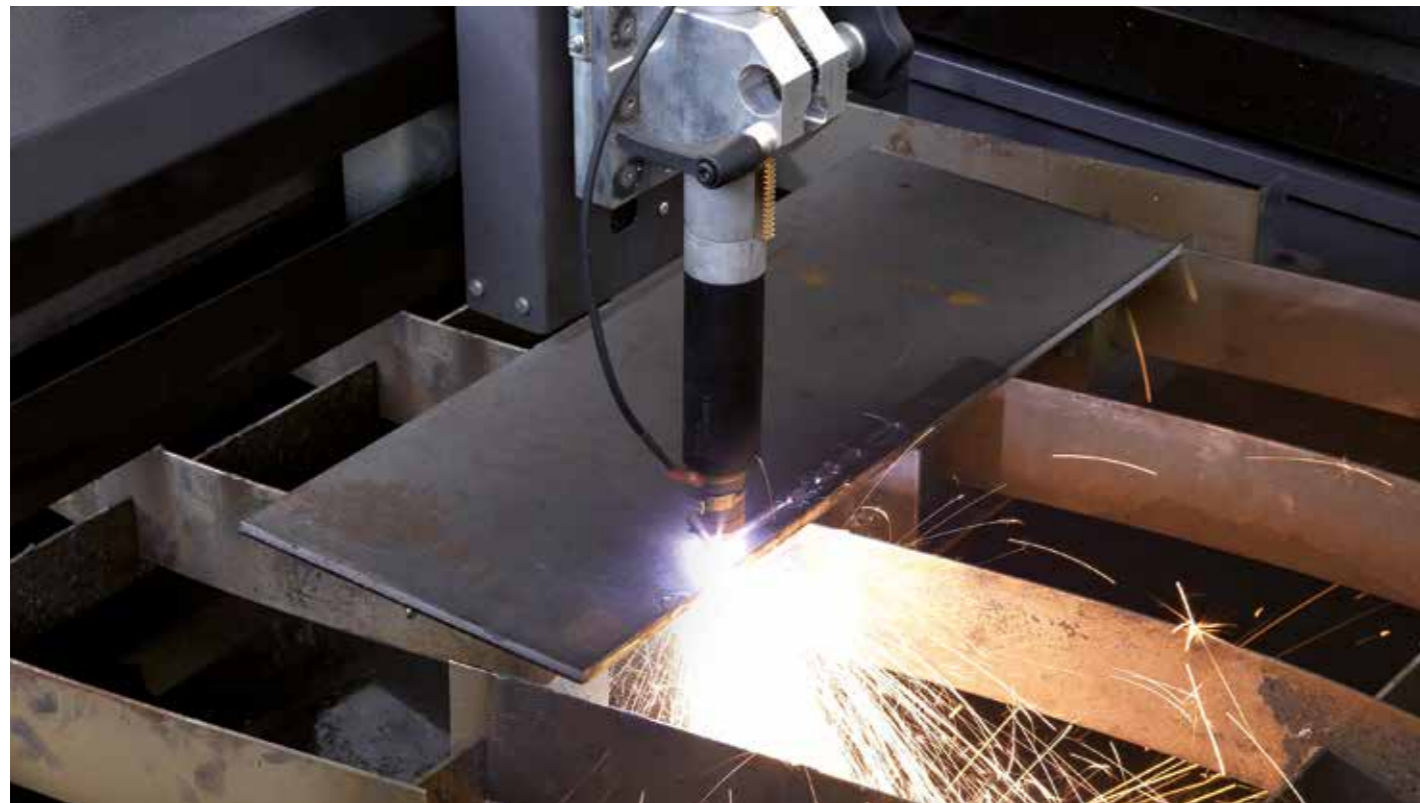
- Electronic control for excellent cutting quality
- Professional high flow air circulation
- Pilot arc torch
- Possibility of cutting grates and perforated lamination sheets
- Possibility of contact cutting with currents lower than 50 A, without any guiding device or other spacers.
- Regulator group with built-in filter and air impurity automatic expulsion
- Easy to read and adjust sloping front control panel, highly visible from any direction
- Metallic main structure with shockproof fibre compound front frames and control panel protected against accidental impact
- Electrical protection device on the torch to ensure operator's maximum safety



SHARK 75-M, SHARK 105-M and SHARK 155-M equipment, when fitted with SMK machine torch, are suitable to be used for automated cutting.

These power sources can be easily connected to cutting pantographs, having the ability to manage the following signals:

- Power source ON/OFF
- Cutting arc control
- Torch height



SHARK TECHNICAL DATA			SHARK 25 compressor	SHARK 45	SHARK 45 SV		SHARK 75	SHARK 105	SHARK 155
Input Voltage 50/60 Hz		V	230-1ph	230-1ph	115-1ph	230-1ph	400-3ph	400-3ph	400-3ph
Current range		A	10 ÷ 25	20 ÷ 40	20 ÷ 30	20 ÷ 40	20 ÷ 70	20 ÷ 100	20 ÷ 150
Duty Cycle at (40°C)	100%	A	15	20	-	20	55	70	100
	60%	A	20	30	20	30	65	90	120
	x%	A	25 (35%)	40 (35%)	30 (25%)	40 (35%)	70 (40%)	100 (40%)	150 (30%)
Cutting Capacity	Recommended	mm	6	10	8	10	20	30	40
	Maximum	mm	8	15	12	15	25	35	45
	Severance	mm	10	18	15	18	30	40	50
	Piercing	mm	-	8	-	8	15	20	25
Cutting power (*)		kVA	2,7	4,7	3,5	4,7	9,8	17	26,3
Weight		Kg	19	16	16		23	24	48

SHARK-M TECHNICAL DATA (MACHINE CUT)			SHARK 75-M	SHARK 105-M	SHARK 155-M
Input Voltage 50/60 Hz		V	400-3ph	400-3ph	400-3ph
Current range		A	20 ÷ 70	20 ÷ 100	20 ÷ 150
Duty Cycle at (40°C)	100%	A	55	70	100
	60%	A	65	90	120
	x%	A	70 (40%)	100 (40%)	150 (30%)
Cutting Capacity @ I ₂ Max	Quality	mm	15	25	32
	Production	mm	20	30	40
	Maximum	mm	25	35	45
	Piercing	mm	15	20	25
Cutting power (*)		kVA	9,8	17	26,3
Weight		Kg	23	24	48

(*) This value is obtained by multiplying the maximum current by the cutting voltage, thus allowing to evaluate the effective cutting power of the equipment.

PLASMA GOUGING

Plasma gouging is a rapid and economical method for removing metal. Compared to traditional gouging by carbon electrodes, it gives the following advantages:

- Easy to be carried out
- Does not require any trained and skilled operators
- Enables to clearly see the gouging area
- Reduces smoke emissions and noise at the workplace

Typical applications for plasma arc gouging are:

- Pipe and fixture edge preparation
- Removal of defective welds and overwelds
- Removals of cracks
- Repairing of mild steel, aluminium and stainless tanks
- Maintenance and repairing of vehicles



SHARK 25 compressor



Lightweight and handy, SHARK 25 compressor plasma cutting equipment, thanks to its built-in compressor, single-phase input, portability and flexibility in use, is the ideal solution for all maintenance jobs. SHARK 25 compressor is the best choice also for light fabrication work, agriculture and car body repairs.

- ✓ **SK25 Back Striking technology torch with coaxial cable**
- ✓ **Built-in compressor**
- ✓ **Portability and flexibility in the use**
- ✓ **Electronic control for an excellent cutting quality**



- ▶ Possibility of cutting grids and perforated lamination sheets
- ▶ Contact cutting possibility
- ▶ Torch with pilot arc
- ▶ Cutting parameter stability within $\pm 15\%$ mains voltage fluctuations
- ▶ Air filter incorporated into the compressor
- ▶ Metallic main structure with shockproof fibre compound front frame
- ▶ Sloping front control panel, easy to read and adjust and highly visible from any direction
- ▶ Electric protection on the torch for the maximum safety of the operator



SK25



234926



418485



410681

TECHNICAL DATA

		SHARK 25	
Input Voltage 50/60 Hz	V	230-1ph	
Input Power @ I ₂ Max	kVA	5	
Delayed Fuse (1 eff)	A	16	
Power factor / cos φ		0,68 / 0,99	
Efficiency Degree		80	
Current range	A	10 ÷ 25	
Duty Cycle at (40°C)	100%	A	15
	60%	A	20
	x%	A	25 (35%)
Cutting Capacity	Recommended	mm	6
	Maximum	mm	8
	Severance	mm	10
	Piercing	mm	-
Gas supply		Air	
Gas Pressure	bar	3,5 - 4,0	
Gas Flow	l/min	70 ÷ 80	
Protection Class	IP	23 S	
Dimensions	mm	425x220x540	
Weight	Kg	19	

Other voltages available on request

ORDER INFORMATION

CODE	MANUAL CUTTING
004390	SHARK 25 Compressor 230V-1 Ph with SK25 torch, 4mm ² / 3,2m ground cable & Consumable starting kit with: 2 Electrodes, 1 Nozzle ø 0,65 (10-20 A), 2 Nozzles ø 0,80 (20-30 A)
PLASMA TORCH	
022031	Torch SK25 4 m 25 A direct connection
343961	Consumable Starting Kit for SK25: 2 Electrodes, 1 Nozzle ø 0,65 (10-20 A), 2 Nozzles ø 0,80 (20-30 A)
ACCESSORIES	
418485	Compass for SK25 torch
410681	Wheeled torch holder
234926	Transport Trolley CTP 10



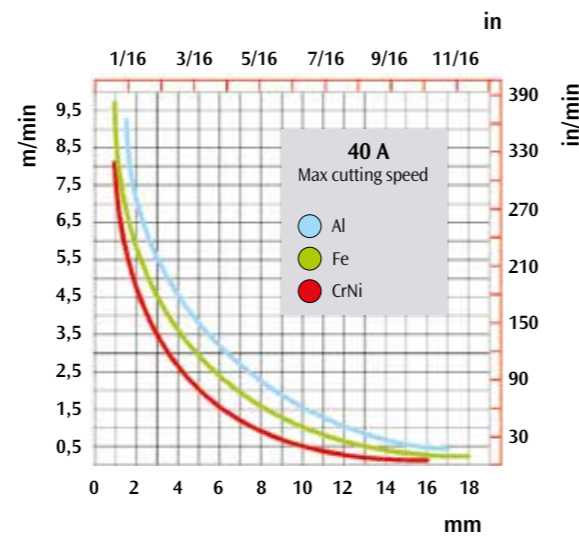
Powerful and light SHARK 45 single phase plasma cutting equipment with PFC is the ideal choice for car body repairs, agriculture and maintenance. PFC device ensures big cutting power coupled with a contained consumption.

- ✓ SK65 Back Striking technology torch with coaxial cable
- ✓ PFC Power Factor Correction - 16 A fuse
- ✓ High power professional air flow circulation
- ✓ Electronic control for an excellent cutting quality



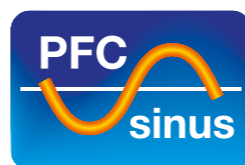
- ▶ Long life of consumable parts
- ▶ Possibility of cutting grids and perforated lamination sheets
- ▶ Contact cutting possibility
- ▶ Shockproof and dustproof control rack protection cover
- ▶ Torch with pilot arc
- ▶ Central connector for the torch
- ▶ Cutting parameter stability within $\pm 15\%$ mains voltage fluctuations
- ▶ Regulator group with built-in filter and air impurity automatic expulsion
- ▶ Metallic main structure with shockproof fibre compound front frame
- ▶ Sloping front control panel, easy to read and adjust and highly visible from any direction
- ▶ Electric protection on the torch for the maximum safety of the operator

CUTTING SPEED CHART



PFC: POWER FACTOR CORRECTION

The wave shape of the current drawn from the mains is made sinusoidal by the PFC device with a consequent total lack of harmonic disturbances in the mains and consumption optimization, which enables to utilize the power source at full range on a 16 A fuse. The PFC circuit gives the machine a wider protection against mains voltage fluctuations, by also making it safer whenever being operated by power generator sets.



SK65



234926



418485



410681



427529



427530

TECHNICAL DATA

		SHARK 45	SHARK 45 SV	
Input Voltage	50/60 Hz	V	230-1ph	115-1ph 230-1ph
Input Power @ I ₂ Max		kVA	5,5	4,8 5,5
Delayed Fuse (1 eff)		A	16	25 16
Power factor / cos φ			0,97 / 0,99	0,97 / 0,99
Efficiency Degree			80	75 80
Current range		A	20 ÷ 40	20 ÷ 30 20 ÷ 40
Duty Cycle at (40°C)	100%	A	20	- 20
	60%	A	30	20 30
	x%	A	40 (35%)	30 (25%) 40 (35%)
Cutting Capacity	Recommended	mm	10	8 10
	Maximum	mm	15	12 15
	Severance	mm	18	15 18
	Piercing	mm	8	- 8
Gas supply			Air / N ₂	Air / N ₂
Gas Pressure		bar	5,0 - 5,5	5,0 - 5,5
Gas Flow		l/min	130 ÷ 150	130 ÷ 150
Protection Class		IP	23 S	23 S
Dimensions		mm	390x185x595	390x185x595
Weight		Kg	16	16

Other voltages available on request

ORDER INFORMATION

CODE	MANUAL CUTTING
004420	SHARK 45 230V-1 Ph with SK65 torch, 10mm ² / 4m ground cable & kit of spares with: 2 Electrodes, 1 Nozzle contact cutting ø 0,90 (30-40 A), 2 Flat Nozzles ø 1,00 (40-50 A)
004421	SHARK 45-SV 115-230V-1 Ph with SK65, 10mm ² / 4m ground cable & kit of spares with: 2 Electrodes, 1 Nozzle contact cutting ø 0,90 (30-40 A), 2 Flat Nozzles ø 1,00 (40-50 A)
PLASMA TORCH	
022067	Torch SK65 4 m 60 A
343960	Consumable Starting Kit for SK65: 2 Electrodes, 1 Nozzle contact cutting ø 0,90 (30-40 A), 2 Flat Nozzles ø 1,00 (40-50 A)
ACCESSORIES	
418485	Compass for SK65 torch
410681	Wheeled torch holder
234926	Transport Trolley CTP 10
427529	Compressed air filter
427530	Filter cartridge Package of 4 pcs



Powerful and compact, SHARK 75 is the most efficient solution to fully meet the cutting needs of medium and light fabrication work. Its always precise cutting performance enables the achievement of the highest standards in all circumstances. Top quality cutting is achieved at high speed thanks to SK75 HPC High-Performance-Cutting technology torch, which offers a powerful and concentrated cutting beam.

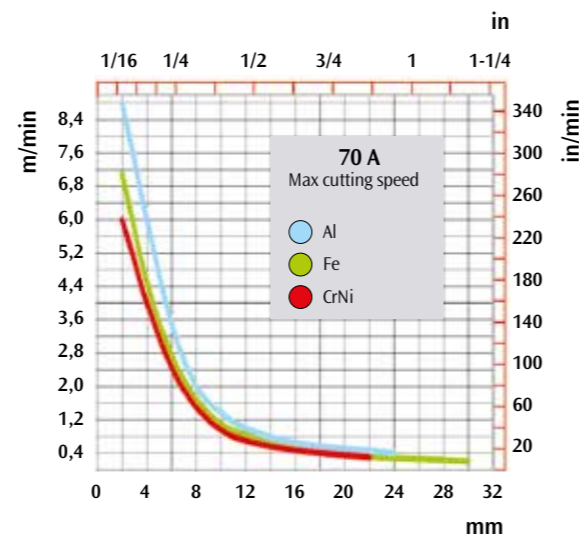
Smart Start Transfer and Smart End Cutting functions permit both initial and final cutting phases in an optimal way.

- ✓ SK75 torch with HPC High Performance Cutting technology and coaxial cable
- ✓ Powerful, compact and light, only 23 Kg
- ✓ More productivity thanks to high quality and cutting speed
- ✓ Reduced operating costs granted by longer life of the consumable parts



- ▶ Electronic control for an excellent cutting quality
- ▶ Professional high flow air circulation
- ▶ Pilot arc torch
- ▶ Possibility of cutting grids and perforated lamination sheets
- ▶ Possibility of contact cutting
- ▶ "Energy Saving" function to operate the power source cooling fan only when necessary
- ▶ Cutting parameter stability within $\pm 20\%$ mains voltage fluctuations
- ▶ Shockproof and dustproof control rack protection cover

CUTTING SPEED CHART



SMART START TRANSFER

Innovative electronic circuit during arc striking gives an optimal and gradual pilot arc switching to the cutting arc, by ensuring an immediate stability of the plasma beam for a longer life of the torch consumables.

SMART END CUTTING

At the end of the cutting process, the current gradually reduces to an optimal value, which favors part detachment in an efficient way. Besides minimizing noise at the end of cutting, this device also obviates the necessity of the operator having to manually separate the pieces, thereby avoiding any damage to cut surface ends.

SK75



SKM75



Possibility of CNC automated cutting for SHARK 75-M power source when fitted with SKM75 machine torch



TECHNICAL DATA

		SHARK 75	
Input Voltage	50/60 Hz	V	400-3ph
Input Power @ I ₂ Max		kVA	11
Delayed Fuse (1 eff)		A	16
Power factor / cos φ			0,87 / 0,99
Efficiency Degree			85
Current range		A	20 ÷ 70
Duty Cycle at (40°C)	100%	A	55
	60%	A	65
	x%	A	70 (40%)
Cutting Capacity	Recommended	mm	20
	Maximum	mm	25
	Severance	mm	30
	Piercing	mm	15
Gas supply			Air / N ₂
Gas Pressure		bar	5,0 - 5,5
Gas Flow		l/min	180 ÷ 210
Protection Class		IP	23 S
Dimensions		mm	390x185x595
Weight		Kg	23

Other voltages available on request

ORDER INFORMATION

CODE	MANUAL CUTTING
004425	SHARK 75 400V-3 Ph with SK75, torch 10mm ² / 4m ground cable & kit of spares with: 1 Electrode, 2 Nozzles 70 A, 1 Shield cap
PLASMA TORCH	
022029	Manual Torch SK75 6 m 70 A
343962	Consumable Starting Kit for SK75: 1 Electrode, 2 Nozzles 70 A, 1 Shield cap
ACCESSORIES	
418486	Compass for SK75 torch
410683	Wheeled torch holder
418508	Bevel Tool Kit: guide carriage and circle attachment for straight and bevel cutting
234926	Transport Trolley CTP 10
427529	Compressed air filter
427530	Filter cartridge Package of 4 pcs
CODE	MECHANIZED CUTTING
004426	SHARK 75-M 400V-3 Ph. with SKM75 torch 6 m - 10 mm ² / 4 m ground cable
004427	SHARK 75-M 400V-3 Ph. with SKM75 torch 12 m - 10 mm ² / 4 m ground cable
PLASMA TORCHES	
022073	Machine Straight Torch SKM75 6 m - 70 A with gear rack
022080	Machine Straight Torch SKM75 12 m - 70 A with gear rack



Powerful, robust and compact, SHARK 105 absolutely grants high productivity in the toughest cutting operations without any compromise: cuts are always precise and ensure the highest cutting results in all applications. Top cutting quality at high speed by means of SK125 HPC High-Performance-Cutting technology torch, granting a powerful and concentrated cutting beam. Smart Start Transfer and Smart End Cutting functions permit both initial and final cutting phases in the best way.

- ✓ **SK125 torch with HPC High Performance Cutting technology and coaxial cable**
- ✓ **Powerful, compact and light, only 24 Kg**
- ✓ **More productivity thanks to high quality and cutting speed**
- ✓ **Reduced operating costs granted by longer life of the consumable parts**



- ▶ Electronic control for an excellent cutting quality
- ▶ Professional high flow air circulation
- ▶ Pilot arc torch
- ▶ Possibility of cutting grids and perforated lamination sheets
- ▶ Possibility of contact cutting with currents lower than 50 A, without any guiding device or other spacers
- ▶ Ability to gouging jobs
- ▶ "Energy Saving" function to operate the power source cooling fan only when necessary
- ▶ Cutting parameter stability within $\pm 20\%$ mains voltage fluctuations
- ▶ Shockproof and dustproof control rack protection cover

PLASMA GOUGING

Plasma gouging represents a rapid, economic and easier method for removing metal as compared to traditional gouging by means of carbon electrodes. It reduces smoke emissions and noise; furthermore no specialized operators are required and gouging area can be clearly seen.

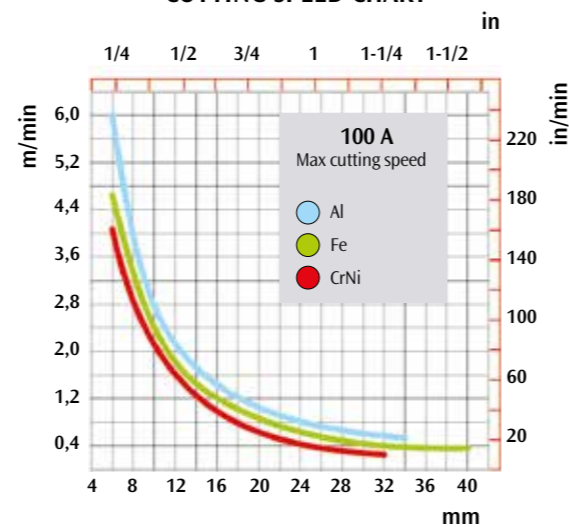
SMART START TRANSFER

Innovative electronic circuit during arc striking gives an optimal and gradual pilot arc switching to the cutting arc, by ensuring an immediate stability of the plasma beam for a longer life of the torch consumables.

SMART END CUTTING

At the end of the cutting process, the current gradually reduces to an optimal value, which favors part detachment in an efficient way. Besides minimizing noise at the end of cutting, this device also obviates the necessity of the operator having to manually separate the pieces, thereby avoiding any damage to cut surface ends.

CUTTING SPEED CHART



SK125



SKM125



Possibility of CNC automated cutting for SHARK 105-M power source when fitted with SKM125 machine torch



TECHNICAL DATA

		SHARK 105	
Input Voltage	50/60 Hz	V	400-3ph
Input Power @ I ₂ Max		kVA	15
Delayed Fuse (1 eff)		A	16
Power factor / cos φ			0,90 / 0,99
Efficiency Degree			85
Current range		A	20 ÷ 100
Duty Cycle at (40°C)	100%	A	70
	60%	A	90
	x%	A	100 (40%)
Cutting Capacity	Recommended	mm	30
	Maximum	mm	35
	Severance	mm	40
	Piercing	mm	20
Gas supply			Air / N ₂
Gas Pressure		bar	5,0 - 6,0
Gas Flow		l/min	280 ÷ 330
Protection Class		IP	23 S
Dimensions		mm	390x185x595
Weight		Kg	24

Other voltages available on request

ORDER INFORMATION

CODE	MANUAL CUTTING
004430	SHARK 105 400V-3 Ph with SK125 torch, 10mm ² / 4m ground cable & kit of spares with: 1 Electrode, 2 Nozzles 105 A, 1 Shield cap 100-125 A
PLASMA TORCH	
022028	Manual Torch SK125 6 m 120 A
343963	Consumable Starting Kit for SK125: 1 Electrode, 2 Nozzles 105 A, 1 Shield cap 100-125 A
ACCESSORIES	
418487	Compass for SK125 torch
410684	Wheeled torch holder guide
418508	Bevel Tool Kit: guide carriage and circle attachment for straight and bevel cutting
234926	Transport Trolley CTP 10
427529	Compressed air filter
427530	Filter cartridge Package of 4 pcs
CODE	MECHANIZED CUTTING
004431	SHARK 105-M 400V-3 Ph. with SKM125 torch 6 m - 10 mm ² / 4 m ground cable
004432	SHARK 105-M 400V-3 Ph. with SKM125 torch 12 m - 10 mm ² / 4 m ground cable
PLASMA TORCHES	
022074	Machine Straight Torch SK125 6 m - 120 A with gear rack
022081	Machine Straight Torch SK125 12 m - 120 A with gear rack

With its stunning cutting force, SHARK 155 is the most powerful machine in the range. Robust and precise, it ensures extremely high quality cutting results also on very large thickness. Equipped with a display for the digital control of all the parameters, it grants the highest cutting quality at high speed by means of SK165 HPC High-Performance-Cutting technology torch, which combines the concentrated cutting beam to high power. Smart Start Transfer and Smart End Cutting functions permit both initial and final cutting phases in the best way.

- ✓ SK165 torch with HPC High Performance Cutting technology and coaxial cable
- ✓ Digital display for the digital control of all parameters
- ✓ Very high cutting power
- ✓ More productivity thanks to high quality and cutting speed



- ▶ Reduced operating costs granted by longer life of the consumable parts
- ▶ Electronic control for an excellent cutting quality
- ▶ Professional high flow air circulation
- ▶ Pilot arc torch
- ▶ Possibility of cutting grids and perforated lamination sheets
- ▶ Possibility of contact cutting
- ▶ Ability to gouging jobs
- ▶ Cutting parameter stability within $\pm 20\%$ mains voltage fluctuations
- ▶ Shockproof and dustproof control rack protection cover

PLASMA GOUGING

Plasma gouging represents a rapid, economic and easier method for removing metal as compared to traditional gouging by means of carbon electrodes. It reduces smoke emissions and noise; furthermore no specialized operators are required and gouging area can be clearly seen.

SMART START TRANSFER

Innovative electronic circuit during arc striking gives an optimal and gradual pilot arc switching to the cutting arc, by ensuring an immediate stability of the plasma beam for a longer life of the torch consumables.

SMART END CUTTING

At the end of the cutting process, the current gradually reduces to an optimal value, which favors part detachment in an efficient way. Besides minimizing noise at the end of cutting, this device also obviates the necessity of the operator having to manually separate the pieces, thereby avoiding any damage to cut surface ends.

SK165



SKM165



Possibility of CNC automated cutting for SHARK 155-M power source when fitted with SKM165 machine torch



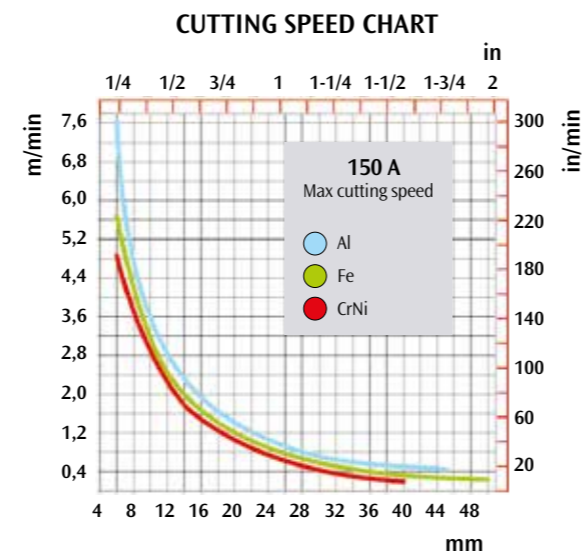
TECHNICAL DATA

		SHARK 155	
Input Voltage	50/60 Hz	V	400-3ph
Input Power @ I ₂ Max		kVA	27,7
Delayed Fuse (I eff)		A	25
Power factor / cos φ			0,89 / 0,99
Efficiency Degree			85
Current range		A	20 ÷ 150
Duty Cycle at (40°C)	100%	A	100
	60%	A	120
	x%	A	150 (30%)
Cutting Capacity	Recommended	mm	40
	Maximum	mm	45
	Severance	mm	50
	Piercing	mm	25
Gas supply			Air / N ₂
Gas Pressure		bar	5,0 - 6,0
Gas Flow		l/min	360 ÷ 410
Protection Class		IP	23 S
Dimensions		mm	515x290x730
Weight		Kg	48

Other voltages available on request

ORDER INFORMATION

CODE	MANUAL CUTTING
004435	SHARK 155 400V-3 Ph with SK165, torch 35mm ² / 4m ground cable & kit of spares with: 1 Electrode, 1 Nozzle 105 A, 1 Nozzle 125 A, 1 Nozzle 160 A, Shield cap 105-160 A
PLASMA TORCHES	
022032	Torch SK165 6 m 160 A
343059	Consumable Starting Kit for SK165: 1 Electrode, 1 Nozzle 105A, 1 Nozzle 125 A, 1 Nozzle 160 A, 1 Shield cap 105-160 A
ACCESSORIES	
418488	Compass for SK165 torch
410686	Wheeled torch holder guide
418507	Bevel Tool Kit: guide carriage and circle attachment for straight and bevel cutting
234927	Transport Trolley CTP 15
427529	Compressed air filter
427530	Filter cartridge Package of 4 pcs
CODE	MECHANIZED CUTTING
004436	SHARK 155-M 400V-3 Ph. with SKM165 torch 6 m - 35 mm ² / 4 m ground cable
004437	SHARK 155-M 400V-3 Ph. with SKM165 torch 12 m - 35 mm ² / 4 m ground cable
PLASMA TORCHES	
022076	Machine Straight Torch SKM165 6 m - 160 A
022082	Machine Straight Torch SKM165 12 m - 160 A





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