



# Freedom 38 PPA™

Engine-driven plasma cutting and gouging system with integrated air compressor lets you work anywhere the job takes you.

Deutz engine	Alternator	Air compressor	Powermax125® plasma system
4-cylinder, turbo diesel, Tier 4 interim compliant, oil-cooled	3-phase	470 l/min (996 scfh) @ 8.3 bar (120 psi)	25 mm (1") pierce
38.0 kW @ 1800 rpm, 63.4 peak HP	Class H, brushless	19 liter (5 gallon) holding tank	38 mm (1-1/2") recommended cut, 57 mm (2-1/4") severance
Cold start pre-heat		Auxiliary air line	100% duty cycle

## Safety

- Reduce on-the-job injuries from grinding or moving heavy cylinders.
- Remove the fire and explosion hazard of oxyfuel.
- Reduce noise and fumes from carbon arc gouging.

## Maximum productivity

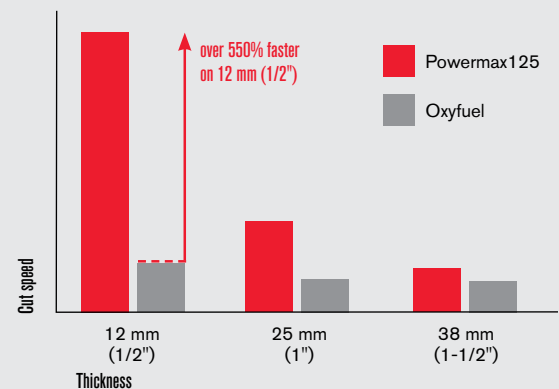
- Finish jobs faster with cut speeds five times greater than oxyfuel on 12 mm (1/2") mild steel.
- Cut any electrically conductive metal, even rusty metal or coated pipe.
- Reduce average bevel cut time by 50–80% over oxyfuel or machining and grinding on 15 mm (0.600") wall pipe.
- Achieve higher cut quality than oxyfuel and grinding.
- Reduce the time to remove welds with plasma gouging by 75% over grinding.
- Eliminate time lost waiting for cylinder deliveries.

## Lower Costs

- Reduce costs with increased productivity.
- Cut losses from oxygen/acetylene cylinder rentals and cylinder loss.
- Reduce the amount of gases needed and the number of grinding wheels used.
- Reduce the number of tools needed on site.



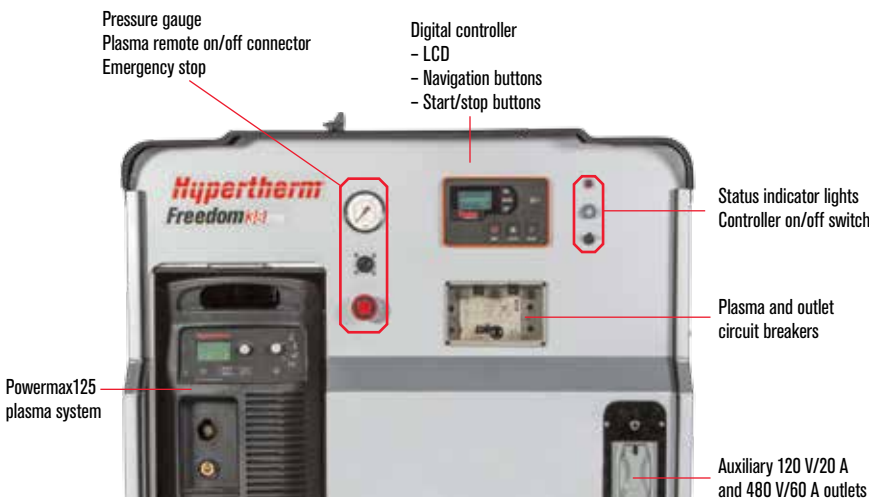
Relative cut performance on mild steel



## Specifications

	Genset
Fuel type	Diesel, ASTM 975, 1-D and 2-D
Oil capacity	14 litres (14.8 quarts)
Fuel capacity	64 litres (17 gallons)
Engine speed	1800 rpm constant speed
Exhaust gas flow	353 CFM
Standard output	480 V, 3-PH (40,000 watts standby, 36,000 watts continuous)
Auxilliary output	120 V, 1-PH; 480 V, 3-PH, 5-wire Hubble connector that can be configured for 277 VAC or 480 VAC using a Hubble plug, such as HBL560PS1W.
Dimensions	914 mm D x 1778 mm W x 1194 H (36" D x 70" W x 47 H)
Weight	System: 938 kg (2,068 lbs.) With full fuel tank: 996 kg (2,196 lbs.)
Fuel consumption	100% continuous 3.3 GPH 50% load 1.7 GPH
Operating temperature	-20° to 40° C (-4° to 104°F)
Battery capacity	750 CCA
Battery charging output	14 V/55 A
Average sound level at idle	91.5 dB(A) @ 1 m
Average sound level under load	115.0 dB(A) @ 1 m
Lift points	Top lift eye, lift truck slots
Warranty	Engine, genset, and alternator are warrantied by the respective manufacturers.

	Powermax125®
Input voltages	480/600 V, 3-PH, 50/60 Hz
Kilowatt output	21.9 kW
Input current @ 21.9 kW	480/600 V, 31/24 A
Output current	30-125 A
Rated output voltage	175 VDC
Duty cycle @ 40° C (104° F)	100% @ 125 A, 480/600 V, 3-PH
Open circuit voltage (OCV)	320 VDC
Gas supply	Clean, dry oil-free air
Power supply type	Inverter
Operating temperature	-10 to 40° C (14 to 104° F)
Warranty	Powermax systems have a 3-year warranty and torches a 1-year warranty.



Powermax125 plasma system

## Ordering information

Configuration	Part number
Freedom 38 PPA™	062005
Freedom 38 PPA™, with hazardous environment air intake shutoff valve	062006

## Powermax125 options

The Freedom 38 PPA™ includes a Powermax125® power supply. Torches, work lead, consumables, and accessories must be ordered separately.

## Duramax® Hyamp™ torches

Cable length	Handheld torches		Machine torches		Long torches			
	85°	15°	180°	Mini 180°	0.6 m (2'), 45°	0.6 m (2'), 90°	1.2 m (4'), 45°	1.2 m (4'), 90°
4.5 m (15')			059519	059514				
7.6 m (25')	059492	059495	059520	059515	059562	059563	059567	059568
10.7 m (35')			059521	059516				
15.2 m (50')	059493	059496	059522	059517	059579	059580	059581	059582
22.8 m (75')	059494	059497	059523					

## Starter kit consumable options

	Handheld	Mechanized	Mechanized with ohmic retaining cap
Kit	428099	428100	428101

## Cable options

Cable length	Work cables		Control cables
	Hand clamp	C-style clamp	Remote pendant
7.6 m (25')	223292	223298	128650
15.2 m (50')	223293	223299	128651
22.8 m (75')	223294	223300	128652

## Duramax® Hyamp™ torch consumable parts

Nozzles and electrodes are available in various quantities. Contact your distributor for more information.

Consumable type	Torch type	Amperage	Nozzle	Shield/Deflector	Retaining cap	Swirl ring	Electrode
Drag-cutting	Hand	45	420158	420172	220977	220997	220971
		65	420169	420172			
		125	220975	420000			
Mechanized	Machine	45	420158	420168	220977 or 420156 <sup>1</sup>	220997	220971
		65	420169	420168			
		125/105	220975	220976			
FineCut®	Hand	45	420151	420152	220977 or 420156 <sup>1</sup>	420159	220971
	Machine					220997	
Gouging	Hand	30-125	420001	420112 or 420509 <sup>2</sup>	220977	220997	220971
	Machine						

<sup>1</sup> Ohmic retaining cap

<sup>2</sup> Use 420112 for maximum metal removal or 420509 for maximum control

## Recommended Hypertherm genuine accessories



### Hyamp™ auto-dim helmet

Premium auto-dim shade 8-12 with large 5100 square mm (7.92 square inch) viewing area. ANSI Z87.1, CSA Z94.3, CE

017031



### Gouging heat shield

Additional protection when gouging.

428348 Duramax® Hyamp torches



### Arc-rated metalworking jersey

Top quality washable welder wear made from modacrylic fabric for flame and arc flash resistance. Durable with no chemical treatment. Made in USA. ASTM 1506-10a; OSHA 1910.269; NFPA 70E.

017016 Medium

017017 Large

017018 X-large

017019 2X-Large

017020 3X-Large



### Remote trigger pendant

Remote on/off control for a machine torch attaches to the CPC port on Powermax45®, 65, 85, 105, and 125 models.

128650 7.6 m (25')

128651 15.2 m (50')

128652 22.8 m (75')



### Hyamp torch adapter

Use a 44 mm (1-3/4 inch) machine torch with automation equipment designed to accept a 35 mm (1-3/8 inch) barrel torch.

428495

Engineered and assembled in the USA

ISO 9001:2008

Environmental stewardship is a core value of Hypertherm. Our Powermax products are engineered to meet and exceed global environmental regulations including the RoHS directive.



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