

Red-D-Arc Welderentals[®]

Plasma Cutting Systems

Hypertherm handheld and mechanized plasma systems
for metal cutting and gouging.



Hypertherm[®]

System advantages

Productivity

Fast cut speeds, superior cut quality, little or no secondary operations and no pre heating help you to do more in less time.

Ease of use

High portability, simple controls and good arc visibility make Hypertherm systems easy to operate. Any operator can quickly become skilled with one of these systems.

Versatility

From the shop to the field, cutting or gouging stainless, mild steel or aluminum, you can leverage a Hypertherm system for many jobs.

Low operating cost

High productivity and long consumable life minimize operating costs.

Reliability

Smart design, plus intense testing during both product development and manufacturing, delivers industry-leading reliability.

Confidence

Hypertherm's singular focus on plasma, plus the proven performance and reliability of our global installed base, gives you confidence that you are using the best.

Cut capacity ratings

There are no industry standards for rating cut capacities of plasma systems. Hypertherm's recommended cut and severance cut capacity ratings are based on cut edge quality of mild steel and torch travel speeds.

The recommended cut capacity is the thickness at which the system delivers good cut quality with torch travel speeds of about 500 mm (20") per minute. The severance cut capacity is the thickness at which the system can sever the metal but has poor cut quality with torch travel speeds of about 125 mm (5") per minute.

As a guide for model selection, around eighty percent of the metal being cut should be equal to or less than recommended thickness and cutting at the severance thickness should be infrequent.

Mechanized pierce capacity

The thickness of mild steel that may be pierced using an automated torch height control with good cut quality and without excessive wear on the consumable parts. The cut capacity for edge starts is the same as the handheld capacity.

System specifications comparison

		Viper30 XP	Viper30 AIR	Viper45	
Handheld cut capacity	Recommended	10 mm (3/8") 12 mm (1/2")	8 mm (5/16") 10 mm (3/8")	12 mm (1/2") 20 mm (3/4")	
	Severance	16 mm (5/8")	16 mm (5/8")	25 mm (1")	
Mechanized pierce capacity	with automatic torch height control	Not applicable	Not applicable	12 mm (1/2") ¹	
	Maximum without automatic torch height control			10 mm (3/8")	
Gouge capacity	Metal removed per hour	Not applicable	Not applicable	2.8 kg (6.2 lbs.)	
	depth x width ²	Not applicable	Not applicable	3.3 x 5.5 mm (.13 x .22")	
Output current		15-30 A	15-30 A	20-45 A	
Input voltages		120 - 240 V, 1-PH 50/60 Hz	120-240 V, 1-PH, 50/60 Hz	200-240 V, 1-PH, 50-60 Hz 480 V, 3-PH, 50-60 Hz	
Rated output voltage		125 VDC	83 VDC	132 VDC	
Input current		120 - 240 V, 1-PH: 25.5/18.8 A	120-240 V, 1-PH, 28.7-15 A	200/230 V, 1-PH, 34/28 A 480 V, 3-PH, 9 A	
Duty cycle ³		35%, 240 V 20%, 120 V	35%, 240 V 20%, 120 V	50% @ 45 A, 200-240 V, 1-PH 60% @ 41 A, 200-240 V, 1-PH 100% @ 32 A, 200-240 V, 1-PH 50% @ 45 A, 480 V, 3-PH 60% @ 41 A, 480 V, 3-PH 100% @ 32 A, 480 V, 3-PH	
Dimensions with handle	depth x width x height	356 x 140 x 305 mm (14.0 x 5.5 x 12.0")	420 x 195 x 333 mm (16.5 x 7.7 x 13.1")	426 x 172 x 348 mm (16.75 x 6.75 x 13.7")	
Weight with torch		9.7 kg (21.4 lbs.)	13.5 kg (29.8 lbs.)	17 kg (37 lbs.)	
Gas supply		Air or N ₂	Not applicable	Air or N ₂	
Recommended flow rate and pressure		113.3 l/min (4 scfm) @ 5.5 bar (80 psi)	Not applicable	Cutting: 170 l/min (360 scfh, 6 scfm) @ 5.5 bar (80 psi) Gouging: 170 l/min (360 scfh, 6 scfm) @ 4.1 bar (60 psi)	
Handheld torch lead lengths		4.5 m (15')	4.5 m (15')	6.1, 15.2 m (20', 50', 75')	
Motor generator requirements for full arc stretch at full output		5.5 kW	5.5 kW	8 kW	

¹ Pierce rating for handheld use or with automatic torch height control.

² Dependent on speed, torch angle and standoff.

³ Hypertherm's duty cycle ratings are established at 40° C, according to international standards, and are determined at actual cutting arc voltage levels.



Viper65	Python85	Python105	Python125
20 mm (3/4")	25 mm (1")	32 mm (1-1/4")	38 mm (1-1/2")
25 mm (1")	32 mm (1-1/4")	38 mm (1-1/2")	44 mm (1-3/4")
32 mm (1-1/4")	38 mm (1-1/2")	50 mm (2")	55 mm (2-1/4")
16 mm (5/8)" ¹	20 mm (3/4)" ¹	22 mm (7/8)" ¹	25 mm (1") ¹
12 mm (1/2")	16 mm (5/8")	20 mm (3/4")	22 mm (7/8")
4.8 kg (10.7 lbs.)	8.8 kg (19.5 lbs.)	9.8 kg (21.7 lbs.)	12.5 kg (27.6 lbs.)
3.5 x 6.6 mm (.14 x .26")	5.8 x 7.1 mm (.23 x .28")	8.1 x 6.6 mm (.32 x .26")	4.3-7.9 x 6.1-9.9 mm (0.17-0.31 x 0.24-0.39")
20-65 A	25-85 A	30-105 A	30-125 A
200-480 V, 1-PH, 50-60 Hz 200-600 V, 3-PH, 50-60 Hz 139 VDC	200-480 V, 1-PH, 50-60 Hz 200-600 V, 3-PH, 50-60 Hz 143 VDC	200-600 V, 3-PH, 50/60 Hz 160 VDC	480 V, 3-PH, 50-60 Hz 600 V, 3-PH, 50-60 Hz 175 VDC
200/208/240/480 V, 1-PH, 52/50/44/22 A 200/208/240/480/600 V, 3-PH, 32/31/27/13/13 A	200/208/240/480 V, 1-PH, 70/68/58/29 A 200/208/240/480/600 V, 3-PH, 42/40/35/18/17 A	200/208/240/480/600 V, 3-PH, 50/60 Hz, 58/56/49/25/22 A	480/600 V, 3-PH, 50/60 Hz, 31/24 A
50% @ 65 A, 230-600 V, 1/3-PH 40% @ 65 A, 200-208 V, 1/3-PH 100% @ 46 A, 230-600 V, 1/3-PH	60% @ 85 A, 230-600 V, 3-PH 60% @ 85 A, 480 V, 1-PH 50% @ 85 A, 240 V, 1-PH 50% @ 85 A, 200-208 V, 3-PH 40% @ 85 A, 200-208 V, 1-PH 100% @ 66 A, 230-600 V, 1/3-PH	200-600 V 50% @ 105 A, 200 V, 3-PH 54% @ 105 A, 208 V, 3-PH 70% @ 105 A, 240 V, 3-PH 80% @ 105 A, 480-600 V, 3-PH 100% @ 94 A, 480-600 V, 3-PH 100% @ 88 A, 240 V, 3-PH 100% @ 77 A, 208 V, 3-PH 100% @ 74 A, 200 V, 3-PH	100% @ 125 A, 480/600 V, 3-PH
500 x 234 x 455 mm (19.7 x 9.2 x 17.9")	500 x 234 x 455 mm (19.7 x 9.2 x 17.9")	592 x 274 x 508 mm (23.3 x 10.8 x 20.0")	592 x 274 x 508 mm (23.3 x 10.8 x 20.0")
29 kg (64 lbs.)	32 kg (71 lbs.)	45 kg (100 lbs.)	48 kg (105.7 lbs.)
Air or N ₂	Air or N ₂	Air or N ₂	Air or N ₂
Cutting: 189 l/min (400 scfh, 6.7 scfm) @ 5.9 bar (85 psi) Gouging: 212 l/min (450 scfh, 7.5 scfm) @ 4.8 bar (70 psi)	Cutting: 189 l/min (400 scfh, 6.7 scfm) @ 5.9 bar (85 psi) Gouging: 212 l/min (450 scfh, 7.5 scfm) @ 4.8 bar (70 psi)	Cutting: 217 l/min (460 scfh, 7.7 scfm) @ 5.9 bar (85 psi) Gouging: 212 l/min (480 scfh, 8.0 scfm) @ 4.8 bar (70 psi)	Cutting: 260 l/min (550 scfh, 9.2 scfm) @ 5.9 bar (85 psi) Gouging: 212 l/min (450 scfh, 7.5 scfm) @ 4.1 bar (60 psi)
7.6, 15.2, 22.8 m (25, 50, 75')	7.6, 15.2, 22.8 m (25, 50, 75')	7.6, 15.2, 22.8 m (25, 50, 75')	7.6, 15.2, 22.8 m (25, 50, 75')
15 kW	20 kW	30 kW	40 kW

Available technologies and features

Model	Power supply								Torch				Work cable		Miscellaneous			
	Drag-cutting capability	Gouging mode	Pilot arc controller	Boost	Conditioner circuit	Auto-voltage	FastConnect design	Basic machine interface	Advanced automation interface	75° hand torch*	15° hand torch	Full-length machine torch	Mini machine torch	Hand clamp	C-style clamp	Remote pendant	Carry strap	Wheel gear
Viper30 XP	●		●	●	●				●					●			●	
Viper30 AIR	●		●	●	●				●					●			●	
Viper45	●	●	●	●			●	●	●		■	■		●		■	●	
Viper65	●	●	●	●	●	●	●	■	●	■	■	■		●	■	■		●
Python85	●	●	●	●	●	●	●	■	●	■	■	■		●	■	■		●
Python105	●	●	●	●	●	●	●	■	●	■	■	■		●	■	■		●
Python125	●	●	●				●	■		■	■	■		●	■	■		●

- Standard
- Optional

* The Python125 hand torch has an 85° torch head



Ordering information

Below are nine standard plasma system models which all include a power supply, torch and work cable. The Viper65, Python85, Python105 and Python125 systems also include a wheel kit. All models are CSA certified.

Models	System part numbers
Viper30 AIR	088100
Viper30 XP	088102
Viper45 (200-240V)	088061
Viper45 (480V)	088071
Viper65	083298
Python85	087133
Python105	059525
Python125 (480V)	059608
Python125 (600V)	059609

The models listed in the table below can be custom configured by selecting the desired power supply, torch, work cables and consumable kits, as well as any accessories. When ordering torches for the Viper65, Python85, Python105 or the Python125 a starter consumable kit must be ordered.

Models	Power supply part numbers
Viper45 (200-240V)	088062
Viper45 (480V)	088070
Viper65	083299*
Python85	087134*
Python105	059524**
Python125 (480V)	059607**
Python125 (600V)	059606**

* Must order wheel kit (part #229370) when ordering this item.

** Must order wheel kit (part #229467) when ordering this item.

Torch selection for custom configurations

Cable length	Viper45		Viper65, Python85, Python105				Python125			
	Handheld	Machine	Handheld		Machine		Handheld		Machine	
	75°	180° full-length	75°	15°	180° full-length	180° mini	85°	15°	180° full-length	180° mini
4.5 m (15')	-	-	-	-	059476	059481	-	-	059519	059514
6.1 m (20')	088008	-	-	-	-	-	-	-	-	-
7.6 m (25')	-	88010	059473	059470	059477	059482	059492	059495	059520	059515
10.7 m (35')	-	88011	-	-	059478	059483	-	-	059521	059516
15.2 m (50')	088009	88012	059474	059471	059479	059484	059493	059496	059522	059517
22.8 m (75')	-	-	059475	059472	059480	-	059494	059497	059523	-

Starter consumable kits

	Viper65	Python85	Python105	Python125
Handheld torch	228963	228966	228849	428099
Machine torch	228964	228967	228848	428100
Machine torch with ohmic retaining cap	228965	228968	228969	428101

Work cables for custom configurations

Cable length	Viper65		Python85		Python105		Python125	
	Hand clamp	C-style clamp	Hand clamp	C-style clamp	Hand clamp	C-style clamp	Hand clamp	C-style clamp
25' (7.6 m)	223125	223194	223035	223203	223254	223287	223292	223298
50' (15 m)	223126	223195	223034	223204	223255	223288	223293	223299
75' (23 m)	223127	223196	223033	223205	223256	223289	223294	223300

Accessories

Part number	Description
027668	Cutting guide - deluxe
127102	Cutting guide - basic
128647	Eliminizer air filtration kit
011092	Replacement filter element for eliminizer air filter
024877	Leather torch lead cover with velcro closure, 7.5 m (25 ft) section
127410	System dust cover for Viper30 XP
127469	System dust cover for Viper30 AIR
127219	System dust cover for Viper45

Part number	Description
127301	System dust cover for Viper65 or Python85
127360	System dust cover for Python105 or Python125
229370	Wheel cart for Viper65 or Python85
229467	Wheel cart for Python105 or Python125
228697	Upgrade kit: CPC port with selectable voltage ratio for Viper65, Python85, Python105 or Python125
228539	Upgrade kit: Serial interface port (RS-485) for Viper65, Python85, Python105 or Python125

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Red-D-Arc rents and leases Hypertherm plasma cutting systems. Hypertherm, in business since 1968, is the world leader in plasma technology and continues to bring innovative products to market that help solve metal cutting and gouging challenges. All products are designed and assembled in the USA.

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