

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.

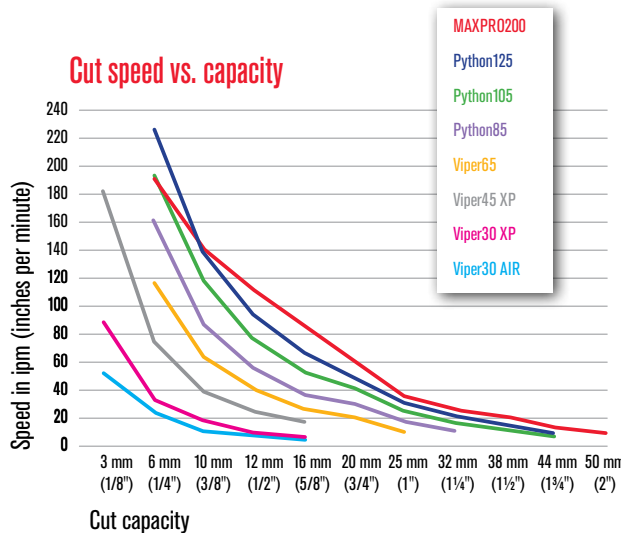
Cut capacity ratings

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

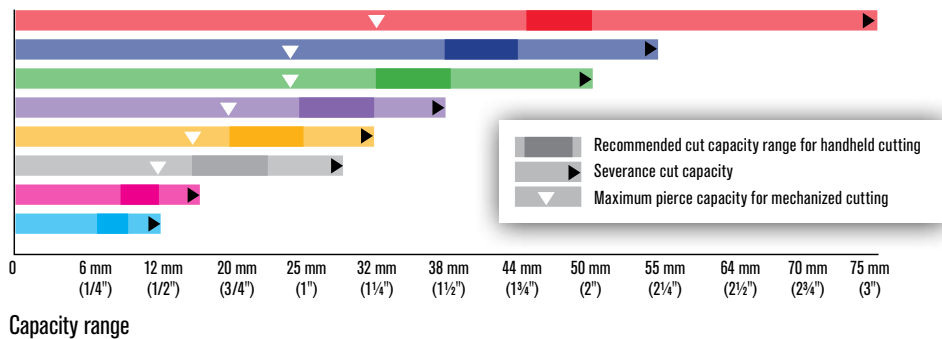
The recommended cut capacity is the thickness at which the system delivers good cut quality with torch travel speeds of about 500 mm (20") per minute. The severance cut capacity is the thickness at which the system can sever the metal but has poor cut quality with torch travel speeds approaching 125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

Mechanized pierce capacity is 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.



Capacity range



System specifications comparison

		Viper30 AIR	Viper30 XP	Viper45 XP	Viper65
Handheld cut capacity	Recommended (at 20 in./min.)	8 mm (5/16")	10 mm (3/8")	16 mm (5/8")	20 mm (3/4")
	Recommended (at 10 in./min.)	10 mm (3/8")	12 mm (1/2")	22 mm (7/8")	25 mm (1")
	Severance	16 mm (5/8")	16 mm (5/8")	29 mm (1-1/8")	32 mm (1-1/4")
Mechanized pierce capacity	with automatic torch height control	Not applicable	Not applicable	12 mm (1/2") ¹	16 mm (5/8") ¹
	Maximum without automatic torch height control			12 mm (1/2")	12 mm (1/2")
Gouge capacity	Metal removed per hour	Not applicable	Not applicable	2.6 kg (5.8 lbs.)	4.8 kg (10.7 lbs.)
	depth x width ²	Not applicable	Not applicable	3.0 x 5.3 mm (.12 x .21")	3.5 x 6.6 mm (.14 x .26")
Output current		15–30 A	15–30 A	10–45 A	20–65 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	200–480 V, 1-PH, 50–60 Hz 200–600 V, 3-PH, 50–60 Hz
Rated output voltage		83 VDC	125 VDC	145 VDC	139 VDC
Input current		120–240 V, 1-PH, 28.7–15 A	120 – 240 V, 1-PH: 25.5/18.8 A	200/230 V, 1-PH, 39/32 A 480 V, 3-PH, 9.4 A	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
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	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
Dimensions with handle depth x width x height		420 x 195 x 333 mm (16.5 x 7.7 x 13.1")	356 x 140 x 305 mm (14.0 x 5.5 x 12.0")	442 x 173 x 356 mm (17.4 x 6.8 x 14.0")	500 x 234 x 455 mm (19.7 x 9.2 x 17.9")
Weight with torch		13.5 kg (29.8 lbs.)	9.7 kg (21.4 lbs.)	14 kg (31 lbs.)	29 kg (64 lbs.)
Gas supply		Not applicable	Air or N ₂	Air or N ₂	Air or N ₂
Recommended flow rate and pressure		Not applicable	113.3 l/min (4 scfm) @ 5.5 bar (80 psi)	Cutting: 189 l/min (400 scfh, 6.6 scfm) @ 5.9 bar (85 psi) Gouging: 165 l/min (350 scfh, 5.8 scfm) @ 4.1 bar (60 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)
Handheld torch lead lengths		4.5 m (15')	4.5 m (15')	6.1, 15.2 m (20', 50', 75')	7.6, 15.2, 22.8 m (25, 50, 75')
Motor generator requirements for full arc stretch at full output		5.5 kW	5.5 kW	10 kW	15 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.

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	15° hand torch	65° hand torch	75° hand torch	85° hand torch	90° hand torch	Full-length machine torch	Mini machine torch	Hand clamp	C-style clamp	Remote pendant	Carry strap	Wheel gear
Viper30 AIR	●		●	●	●						●					●			●	
Viper30 XP	●		●	●	●						●					●			●	
Viper45 XP	●	●	●	●		●	●	■	■		●			■	■	●		■	■	
Viper65	●	●	●	●	●	●	●	■	■		●			■	■	●	■	■		●
Python85	●	●	●	●	●	●	●	■	■		●			■	■	●	■	■		●
Python105	●	●	●	●	●	●	●	■	■		●			■	■	●	■	■		●
Python125	●	●	●			●	●	■	■			■		■	■	●	■	■		●
MAXPRO200	●	●	●			●	●	■	■			■		■	■	■	■	■		■

● Standard

■ Optional

	Python85	Python105	Python125	MAXPRO200
	25 mm (1")	32 mm (1-1/4")	38 mm (1-1/2")	38 mm (1-1/2")
	32 mm (1-1/4")	38 mm (1-1/2")	44 mm (1-3/4")	47 mm (1-7/8")
	38 mm (1-1/2")	50 mm (2")	55 mm (2-1/4")	75 mm (3")
	20 mm (3/4") ¹	22 mm (7/8") ¹	25 mm (1") ¹	32 mm (1-1/4")
	16 mm (5/8")	20 mm (3/4")	22 mm (7/8")	Not applicable
	8.8 kg (19.5 lbs.)	9.8 kg (21.7 lbs.)	12.5 kg (27.6 lbs.)	18.7kg (41.2 lbs.)
	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")	102-69 x 105 cm (40.14"-27.12" x 41.23")
	25-85 A	30-105 A	30-125 A	50-200 A
	200-480 V, 1-PH, 50-60 Hz 200-600 V, 3-PH, 50-60 Hz	200-600 V, 3-PH, 50/60 Hz	480 V, 3-PH, 50-60 Hz 600 V, 3-PH, 50-60 Hz	200/208 VAC, 3-PH, 50 Hz, 108/104 A 220 VAC, 3-PH, 50-60 Hz, 98 A 240 VAC, 3-PH, 60 Hz, 90 A 380 VAC, 3-PH, 50 Hz, 57 A 400 VAC, CE, 3-PH, 50-60 Hz, 54 A 415 VAC, CE, 3-PH, 50 Hz, 52 A 440 VAC, 3-PH, 50-60 Hz, 49 A 480 VAC, 3-PH, 60 Hz, 45 A 600 VAC, 3-PH, 60 Hz, 36 A
	143 VDC	160 VDC	175 VDC	50-165 VDC
	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	480 VAC, 3-PH, 60 Hz, 45 A
	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	100% @ 33 kW
	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")	102 x 69 x 105 cm (40.1 x 27.1 x 41.2")
	32 kg (71 lbs.)	45 kg (100 lbs.)	48 kg (105.7 lbs.)	335 kg (740 lbs.)
	Air or N ₂	Air or N ₂	Air or N ₂	Plasma gas: Air, O ₂ , N ₂ Shield gas: Air, 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: 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)	6.2 +/- 0.7 bar (90 +/- 10 psig)
	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')	7.5, 15, 22, 30 m (25, 50, 75, 100')
	20 kW	30 kW	40 kW	N/A

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 XP (200-240 V)	088159
Viper45 XP (480 V)	088161
Viper65	083298
Python85	087133
Python105	059525
Python125 (480 V)	059608
Python125 (600 V)	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, Python125, or the MAXPRO200 a starter consumable kit must be ordered.

Models	Power supply part numbers
Viper45 XP (200-240 V)	088158
Viper45 XP (480 V)	088160
Viper65	083299*
Python85	087134*
Python105	059524**
Python125 (480 V)	059607**
Python125 (600 V)	059606**
MAXPRO200 (480 V)	078609***
MAXPRO200 (600 V)	078617***

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

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

*** Must order wheel kit (part# 428035) when ordering this item

Torch selection for custom configurations

	Viper45 XP		Viper65, Python85, Python105				Python125				MAXPRO200			
	Handheld	Machine	Handheld		Machine		Handheld		Machine		Handheld		Machine	
Cable length	75°	180° full-length	75°	15°	180° full-length	180° mini	85°	15°	180° full-length	180° mini	65°	90°	Standard	Quick disconnect
4.5 m (15')	-	-	-	-	059476	059481	-	-	059519	059514				
6.1 m (20')	088164	-	-	-	-	-	-	-	-	-				
7.6 m (25')	-	088167	059473	059470	059477	059482	059492	059495	059520	059515	228976	228980		
10.7 m (35')	-	-	-	-	059478	059483	-	-	059521	059516				
15.2 m (50')	088165	088169	059474	059471	059479	059484	059493	059496	059522	059517	228977	228981		
22.8 m (75')	059475	059480	059475	059472	059480	-	059494	059497	059523	-	228978	228982		
30.4 m (100')											228979	228983		
Diameter sleeve														
45 mm (1 3/4")													228937	428027
50 mm (2")													428024	428028

Starter consumable kits

	Viper45 XP	Viper65	Python85	Python105	Python125	MAXPRO200
Handheld torch	428559	228963	228966	228849	428099	428014
Machine torch	428560	228964	228967	228848	428100	428013
Machine torch with ohmic retaining cap	428561	228965	228968	228969	428101	-

MAXPRO interface cables

Choose one	PS To CNC/THC	
	1.5 m (5')	223327
3 m (10')	223328	
7.6 m (25')	223329	
15.2 m (50')	223330	
22.8 m (75')	223331	
30 m (100')	223332	

MAXPRO machine torch lead packages (shielded)

Choose one	Shielded leads	
	7.6 m (25')	229477
15.2 m (50')	229478	
22.8 m (7')	229479	
30 m (100')	229480	

Work cables for custom configurations

Cable length	Viper45 XP		Viper65		Python85		Python105		Python125		MAXPRO200	
	Hand clamp	Hand clamp	C-style clamp	Hand clamp	C-style clamp	Hand clamp	C-style clamp	Hand clamp	C-style clamp	Work cable assembly with lugs	Work cable ground clamp	
25' (7.6 m)	223595	223125	223194	223035	223203	223254	223287	223292	223298	223335	008539	
50' (15 m)	223596	223126	223195	223034	223204	223255	223288	223293	223299	223336		
75' (23 m)	223127	223127	223196	223033	223205	223256	223289	223294	223300	223337		
100' (30m)										223338		

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 XP

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
024866	MAXPRO200 Lead sheath: 1-3/4" x 10 ft leather with snaps
127389	MAXPRO200 Gouging heat shield
428035	MAXPRO200 Wheel kit



Red-D-Arc
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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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