

Red-D-Arc Welderentals

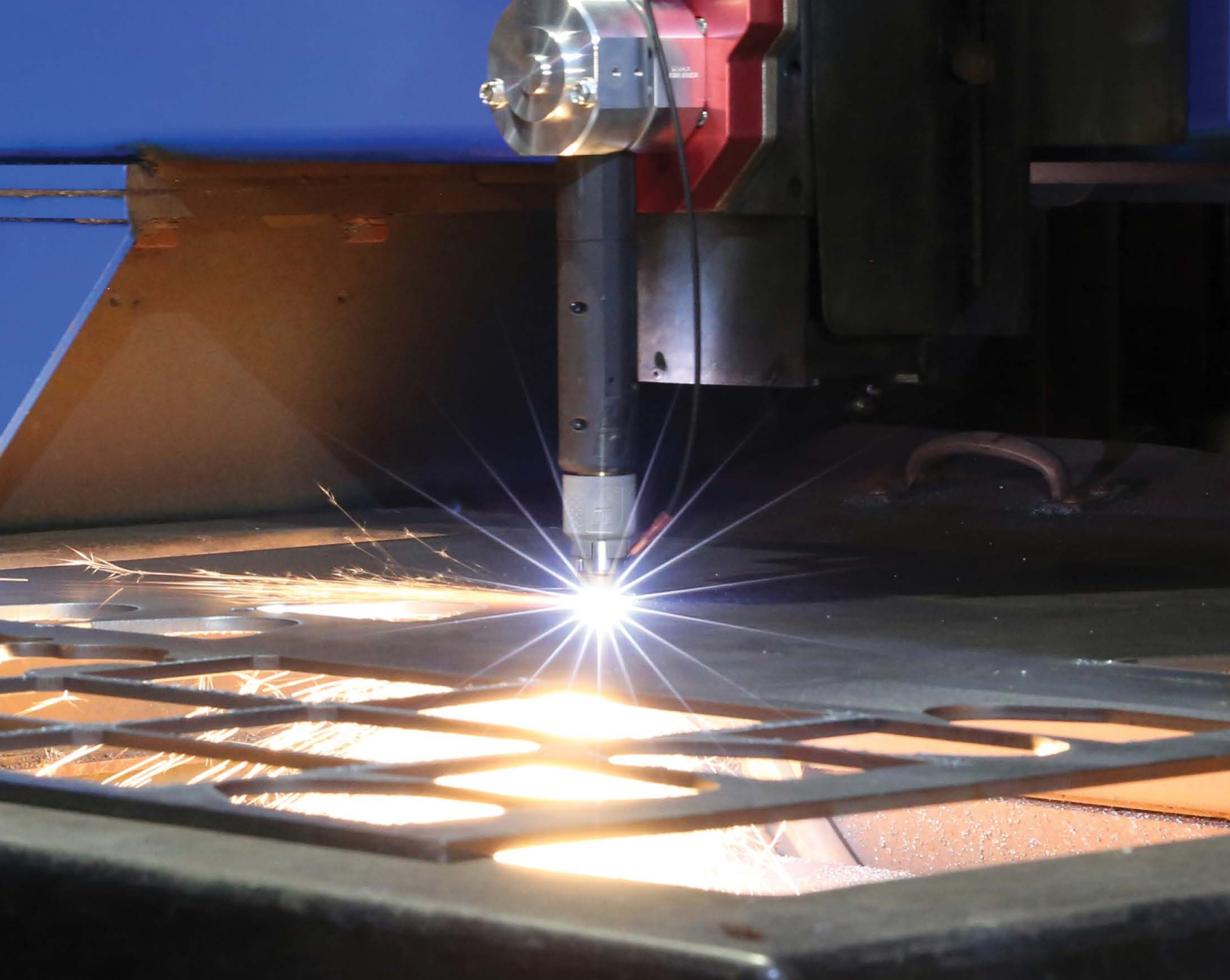
reddarc.com

New Viper and Python SYNC series

Professional air plasma systems from 65-105 amps



Hypertherm®



A dramatically simplified consumable platform combined with advanced torch communication for automated setup makes Red-D-Arc's new Viper 65 and Python85/105 SYNC plasma systems the smarter choice for any cutting or gouging application.

Cartridge

- Single-piece
- Easy to identify
- RFID communicates amperage and type



SmartSYNC torch

- Simple, twist-on consumable installation
- Convenient power and amperage adjustment controls




Auto-set power supply

- Automatic process and amperage setting
- Data display



Easy to use

- Easy to identify single-piece cartridge consumables are color coded by process to eliminate parts mix-up and simplify consumable inventory management.
- New SmartSYNC™ torches with the Hypertherm cartridge automatically set the correct amperage and operating mode, eliminating setup errors.
- End of life detection lets the operator know when it's time to change the cartridge.

Minimizes operating costs

- Simplified operation minimizes downtime, troubleshooting, waste and training time.
- Advanced cartridge consumable design provides up to twice the life for hand cutting and improved quality over life in mechanized setups compared to standard consumables.
- Access cartridge data for performance tracking, analyzing usage patterns.



Capacity	Viper65 SYNC™		Python85 SYNC™		Python105 SYNC™	
	Thickness	Cut speed	Thickness	Cut speed	Thickness	Cut speed
Cutting						
Recommended	3/4"	20 ipm	1"	20 ipm	1-1/4"	20 ipm
	1"	10 ipm	1-1/4"	10 ipm	1-1/2"	10 ipm
Severance	1-1/4"	5 ipm	1-1/2"	5 ipm	2"	5 ipm
Pierce*	5/8"		3/4"		7/8"	
*Pierce rating for handheld use or with automatic height control						
Capacity	Metal removal rate	Groove profile	Metal removal rate	Gouge profile	Metal removal rate	Gouge profile
	Maximum removal gouging					
Typical gouge	8.8 lbs. per hour	.11" D x .25" W	18.2 lbs. per hour	.14 D x .26 W	19.1 lbs. per hour	.26 D x .24 W



Maximize performance

- Tackle a wide range of jobs with easily interchangeable torch styles and application-specific Hypertherm cartridge consumables for various types of cutting and gouging.
- Reduce training time with simplified set up and consistent performance.
- Time-saving torch controls allow the operator to adjust the amperage on the fly and change consumables and applications without returning to the power supply.

Industry-leading reliability

- SmartSYNC™ torches are engineered for rugged, industrial environments.
- SpringStart™ technology ensures consistent starting and a more reliable torch.
- Industry-leading reliability reduces production downtime.

Torches and cartridges



75° hand torch



15° hand torch



Mechanized torch



New color-coded, quarter-turn cartridges can be changed out in about 10 seconds!



Gouging mode LED

Amperage adjustment button

Active/Inactive/Fault LED

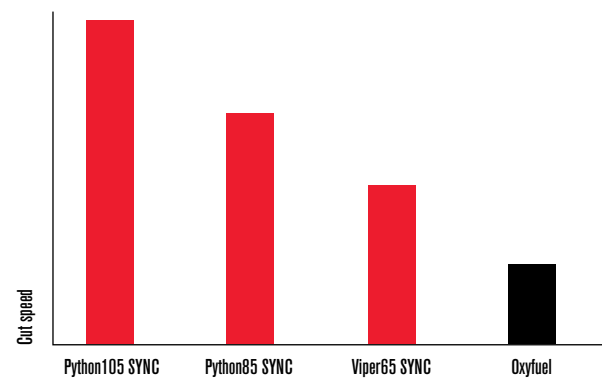
7-step amperage LED scale

Torch lock switch

Specifications

	Viper65 SYNC™	Python85 SYNC™	Python105 SYNC™
Input voltages	200-480 V, 1-PH, 50/60 Hz 200-600 V, 3-PH, 50/60 Hz	200-480 V, 1-PH, 50/60 Hz 200-600 V, 3-PH, 50/60 Hz	200-600 V, 3-PH, 50/60 Hz
Kilowatt output	9 kW	12.2 kW	16.8 kW
Input current	200/208/240/480 V, 1-PH 52/50/44/22 A @ 9 kW 200/208/240/480/600 V, 3-PH 32/31/27/13/13 A @ 9 kW	200/208/240/480, 1-PH 70/68/58/29 A @ 12.2 kW 200/208/240/480/600 V, 3-PH 42/40/35/18/17 A @ 12.2 kW	200/208/240/480/600 V, 3-PH 58/56/49/25/22 A @ 16.8 kW
Output current	20-65 A	25-85 A	30-105 A
Rated output voltage	139 VDC	143 VDC	160 VDC
Duty cycle @ 104° F	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	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
Open circuit voltage (OCV)	295 VDC	305 VDC	300 VDC
Dimensions with handles	19" D; 9.2" W; 17" H	19" D; 9.2" W; 17" H	23.3" D; 10.8" W; 20.0" H
Weight w/25' torch	61 lbs.	67 lbs.	95 lbs.
Gas supply	Clean, dry, oil-free air or nitrogen	Clean, dry, oil-free air or nitrogen	Clean, dry, oil-free air or nitrogen
Optimum inlet gas pressure	110-120 psi	110-120 psi	110-120 psi
Minimum inlet gas pressure	75 psi	75 psi	80 psi
Recommended inlet gas flow rate	Cutting: 450 scfh, 7.5 scfm @ 85 psi Gouging: 450 scfh, 7.5 scfm @ 70 psi	Cutting: 450 scfh, 7.5 scfm @ 85 psi Gouging: 450 scfh, 7.5 scfm @ 70 psi	Cutting: 550 scfh, 92 scfm @ 90 psi Gouging: 550 scfh, 92 scfm @ 70 psi
Input power cable length	10'	10'	10'
Power supply type	Inverter - IGBT	Inverter - IGBT	Inverter - IGBT
Engine drive requirement	15 kW for full 65 A output	20 kW for full 85 A output	30 kW for full 105 A output
Certifications	CSA-certified for use in the Americas and Asia, except China	CSA-certified for use in the Americas and Asia, except China	CSA-certified for use in the Americas and Asia, except China
Warranty	Power supplies have a 3-year warranty and torches a 1-year warranty	Power supplies have a 3-year warranty and torches a 1-year warranty	Power supplies have a 3-year warranty and torches a 1-year warranty

Relative cut performance on 1/2" mild steel



Ordering information

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

Standard model description	System part numbers
Viper65 SYNC (7.6 m [25 ft.] torch, 200-600 V, 1/3-PH)	083355
Python85 SYNC (7.6 m [25 ft.] torch, 200-600 V, 1/3-PH)	087195
Python105 SYNC (7.6 m [25 ft.] torch, 200-600 V, 3-PH)	059686

Note: not approved for use on phase converters.

Models listed in the table below can be custom configured. Select the desired power supply, torch, work cables and consumable kits, as well as any accessories.

Custom configured models	Power supply part numbers
Viper65 SYNC (200-600 V, 1/3-PH)	083374
Python85 SYNC (200-600 V, 1/3-PH)	087216
Python105 SYNC (200-600 V, 3-PH)	059707*

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

Work cables for custom configurations

Cable length	Viper65 SYNC			Python85 SYNC			Python105 SYNC	
	Hand clamp	C-style clamp	Ring terminal	Hand clamp	C-style clamp	Ring terminal	Hand clamp	C-style clamp
25' (7.6 m)	223125	223194	223254	223035	223203	223287	223254	223287
50' (15 m)	223126	223195	223255	223034	223204	223288	223255	223288
75' (23 m)	223127	223196	223256	223033	223205	223289	223256	223289

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
428951	SYNC adapter
528083	Cartridge reader kit
428951	Cartridge adapter: Duramax® handheld or machine torches
127301	System dust cover for Viper65 SYNC or Python85 SYNC
127360	System dust cover for Python105 SYNC
229370	Wheel cart for Viper65 SYNC or Python85 SYNC
229467	Wheel cart for Python105 SYNC
228697	Upgrade kit: CPC port with selectable voltage ratio for Viper65 SYNC, Python85 SYNC, or Python105 SYNC
228539	Upgrade kit: Serial interface port (RS-485) for Viper65 SYNC, Python85 SYNC, or Python105 SYNC

Torch selection for custom configurations

Cable length	Viper65 SYNC™, Python85/105 SYNC™					
	Handheld		Machine			
	75°	15°	180° full-length	180° mini	90° mini	45° mini
4.5 m (15')				059733		
6.1 m (20')						
7.6 m (25')	059726	059723	059719	059734	059731	059729
10.7 m (35')			059720			
15.2 m (50')	059727	059724	059721	059735	059732	059730
22.8 m (75')	059728	059725	059722		059737	059736

Hypertherm cartridge options

Amps	Drag cutting	Mechanized/standoff cutting	Max removal gouging	Max control gouging	Ohmic ring kit
45	428927	428925			
65	428931	428930	428932	428933	
85	428935	428934			428895*
105	428937	428936	428938	428939	

*Kit includes three 420580 ohmic ring clips.

Specialty application cartridge options

Amps	FlushCut™	FineCut® handheld	FineCut® mechanized
30-45		428928	428926
65	428952		
85	428953		
105	428954		

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