

THE NEXT GENERATION OF HIGH PRECISION PLASMA CUTTING

Victor[®] Thermal Dynamics[®] introduces ULTRA-CUT[®] XT SYSTEMS

MAL DICHAR





StepUP

We Bring Intelligence to the Table.™

Victor[®] Thermal Dynamics[®] introduces **ULTRA-CUT[®] XT SYSTEMS**

The new Ultra-Cut XT technology provides the next generation of higher productivity, increased flexibility and confidence in high precision plasma cutting. Their performance will meet or beat anyone on mild steel, and they are superior on non-ferrous metals. With the ability to grow with your business, you can expand from one system to the next higher in minutes. Ultra-Cut XT systems utilize StepUp[™] modular power technology, allowing units to be easily upgraded - ensuring you'll always have the right amount of power today - and tomorrow.



Superior Cut Quality Means Greater Efficiency

The Ultra-Cut XT range offers superior cut quality, which means that parts can go directly from the cutting table to welding, painting or assembly without expensive secondary operations.

Ultra-Cut XT high precision plasma systems cut with:

- Excellent dross-free cuts using oxygen (O₂) plasma on mild steel.
- Unmatched cut quality on non-ferrous metals using unique Water Mist Secondary (WMS®) process.



Ultra-Cut Cut Bevel Comparison

- ISO 9013:2002 (E). Class 3 (depending on cut thickness angles below 3 degrees) or better cut angles for true High Precision cuts.
- Minimal heat affected zone (HAZ) to improve welding quality.
- 3DPro technology sets the new standard in robotic cutting thin gauge material.

Higher Productivity Delivers Greater Profits

Ultra-Cut XT high precision systems deliver superior cut quality, at superior cutting speeds.

- Outstanding parts life to reduce down time and lower overall cost.
- Highest kW output for maximized duty cycle and cut speed.
- Reduced downtime during parts changes with the Speedlok cartridge design.
- Lower current draw to reduce cutting cost.
- Shorter switching time between marking and cutting process for higher daily throughput.
- Highest cut speed in its class on stainless steel up to 3 times faster than similar cutting systems.

Relative Cutting Speed





We Bring Intelligence to the Table."

Reduces Your Energy Costs

Compared to previous systems, Ultra-Cut XT systems draw about 20% less current and have an average electrical efficiency of more than 92%. They meet European Union Level V Efficiency Standards, and they will help companies everywhere lower utility bills.

Intelligent Solutions Set Us Apart

From superior technology for cutting heavy metal to better plasma marking, Victor[®] Thermal Dynamics[®] offers intelligent high precision solutions for automated plasma cutting applications. The XT Series provides access for these powerful cutting resources.

HeavyCut[™] Technology

When cutting parts thicker than 20 mm, rely on HeavyCut Technology to provide the best cut quality, parts life and precision with XTremeLife[™] consumables HeavyCut 300A and 400A electrodes with multiple Hafnium inserts increases parts life at high current applications.



Longer Parts Life with XTremeLife[™] Consumables



Diameter PRO[™] Technology

Diameter PRO is a software based intelligent solution that allows the Victor Thermal Dynamics iCNC XT controller to optimise hole quality for holes with a diameter to thickness ratio of 1:1 or greater.

It is the ideal process for a precision hole or radius with minimal-to-no taper on mild steel from 3 mm, to 50 mm, or 25 mm on aluminium.



Water Mist Secondary (WMS) optimizes non-ferrous metal cutting

WMS delivers excellent non-ferrous cut quality and low cost of operation by using N_2 as plasma gas and ordinary tap water as the secondary. A reducing atmosphere is produced in the cut by the release of hydrogen from the secondary water. The reducing atmosphere decreases oxidation on the cut face surface. WMS is recommended for materials up to 40 mm thick.

- The fastest process for cutting non-ferrous metals with significantly higher cut speeds than H35 cutting
- Excellent non-ferrous metal cut quality using N₂ as plasma gas and ordinary tap water as the secondary.
- Lowest operating cost.
- Dross-free cutting from 1.0 mm to 40 mm.
- Oxide-free cut face surface.
- Wide parameter window.

Stainless Steel Cutting Speed Comparison



Victor[®] Thermal Dynamics[®] introduces ULTRA-CUT[®] XT SYSTEMS



Stepue Modular Power T E C H N O L O G Y UPGRADABLE TO 400 AMPS

With StepUp[™] modular power technology, your system has the flexibility to grow with your

business. You can start with an Ultra-Cut 100 XT, and when you are ready, expand to a 200, 300 or 400 Amp system. With the Ultra-Cut XT, you never have to worry about choosing the right system.

StepUp[™] Modular Power Technology - Expand As Your Cutting Needs Grow

Victor Thermal Dynamics designed the Ultra-Cut XT with the flexibility to grow with your business. It features modular "inverter blocks" and a common cabinet for all amperages. To expand a 100A system into a 200A, 300A or 400A system, additional blocks can be easily installed.* A field technician can install a new inverter block in less than 30 minutes.

The Victor Thermal Dynamics intelligent approach means never "under-buying" again. With Ultra-Cut XT systems, you'll always have the right amount of power today — and tomorrow.

*When expanding by 200 or more amps, simply connect the required additional external cooler to the system, switch to the correct consumables and you're ready to cut.

Easy-to-Service

The Ultra-Cut XT high precision system's modular design is not only easier to upgrade, but also easier to maintain.

- The Amperage/Error display indicates the status of the XT system to accelerate trouble shooting.
- Common components in the XT system minimize inventory.

Better Flow Control and Plasma Marking with the Automatic Gas Control

Good gas flow control enhances cut quality and extends consumables life. Digital flow control with the automatic gas control — when integrated with the iCNC XT controller — provides a better level of quality control. Together, they instantly set and control gas pressure, leading to faster cycle times and more productive cutting.

And for plasma marking with Argon, the automatic gas console and Ultra-Cut XT minimizes the purge cycle between marking and cutting, as well as the changeover time associated with manual controls. Change seamlessly between cutting and marking to:



- Indicate part numbers Drill or hole points
- Weld locations Lot numbers Bend or cut lines

Reliability – Performance You Can Rely On

Victor Thermal Dynamics rigorously tests its plasma cutters to ensure flawless performance. Should your Ultra-Cut XT need service, our modular approach minimizes parts inventory and repair time.

We Bring Intelligence to the Table."



life also at 300

Speedlok Technology gives the fastest consumable change over in the industry.

Multiple Hafnium inserts improve parts life also at 300A and 400A.

At 300A and 400A, better cooling for consistent cut quality until the end of life.

Water cooled shield cup provides outstanding durability even at 50 mm piercing.



XT[™] Torch Technology – The New Standard for High Precision Plasma Cutting Systems



No Tools Required

Unlike other torches, no tools are required to change either the torch consumables or major components in the torch head.

'Leakless' Torch Head Design

Coolant doesn't drip from the torch head

when the consumables cartridge is removed from the torch head. The design prevents air from entering the system and becoming trapped in the leads.

Self-Centering Components

Consumable parts and torch body are precisely engineered to lock into place for absolute alignment and remain positioned cut after cut. Independentlyaligned tip and electrode assures accurate re-centering of the consumable cartridge after each parts change. This guarantees best cut quality time and time again.

Superior Warranty

Victor Thermal Dynamics' XT-Torch warranty covers components and service for a full 1-year period.

Precision Cuts on All Metals

The XT-Torch dual gas technology provides one of the highest arc density plasma stream in the industry for precision cuts on mild steel, stainless steel, aluminum and other non-ferrous materials. Choices for plasma gas include - Air, N₂, O₂, Ar-H₂ and Ar for marking. Shield gas choices include - Air, N₂, O₂, or Ar-H₂ and H₂O.

Designed for Demanding Production

With the XT-Torch the operating window permits wide travel speed variance, which means you'll get great cuts more often with less wasted material and time.

- Less critical standoff height
- Wider 'Operating Window' for dross-free cutting

XTR High Precision Torch for Robotic and Bevel Cutting

The XTR robotic torch is designed with built-in torch leads that offer the ultimate in reduced weight, flexibility, visibility and robustness. This reduction of the overall diameter, weight, and minimum bend radius make this torch extremely durable in repeated articulated motions. Consumable parts and torch body are engineered to precisely lock into place for absolute alignment and to remain perfectly positioned cut after cut. Specially engineered precision consumable parts for bevel cutting are suitable for cutting at angles up to 45 degrees.



3DPro Technology

3DPro Technology delivers all the tools necessary to bring high precision plasma cutting to robotic applications. Robotic drag shield caps and low amperage consumables (from 15 Amps) result in laser like cutting quality on thin materials. A graduated scale on the torch body provides a visual indicator to help position the clamping device consistently. Each torch includes a Teach/Position tool that provides a visual positioning aid when the robot is in teach mode. The SpeedLok consumables cartridge reduces down-time to seconds, improving productivity.

The Ultra-Cut XT is the latest addition to Victor Thermal Dynamics integrated automated plasma system solution. The next generation Ultra-Cut XT combines high precision cutting with exceptional cost-performance benefits to deliver a more profitable plasma cutting operation.

Victor[®] Thermal Dynamics[®] introduces ULTRA-CUT[®] XT SYSTEMS

The XT[™] System Technology



Manual Gas Control

Offers reliable performance with stable gas flow and pressure control.

Electronic Arc Starter

For reduced High Frequency emission, to avoid electrical interferance.

System Capabilities

		Ultra-Cut 100 XT	Ultra-Cut 200 XT	Ultra-Cut 300 XT	Ultra-Cut 400 XT
MILD STEEL	Production Pierce	15 mm*	25 mm	40 mm	50 mm*
	Maximum Pierce	15 mm*	40 mm	45 mm	50 mm*
	Edge Start	20 mm	65 mm	75 mm	90 mm
STAINLESS STEEL	Production Pierce	15 mm*	25 mm	25 mm	50 mm*
	Maximum Pierce	15 mm*	25 mm	30 mm	50 mm*
	Edge Start	20 mm	50 mm	50 mm	100 mm
ALUMINIUM	Production Pierce	15 mm*	20 mm	25 mm	50 mm*
	Maximum Pierce	15 mm*	25 mm	30 mm	60 mm*
	Edge Start	20 mm	50 mm	50 mm	90 mm

* With pierce retract function

We Bring Intelligence to the Table."





Unit Specifications*

	Ultra-Cut 100 XT	Ultra-Cut 200 XT	
Rated Output	100 A	200 A	
(Amps) Output Range	E 100 A	E 200 A	
(Amps)	5-100 A	5-200 A	
Untput (Voits)	180 V	180 V	
(Volts, Phase, Hertz)	400 V, 3 ph, 50-60 Hz	400 V, 3 ph, 50-60 Hz	
Input Amps (Amps, Volts)	31 A @ 400 V	62 A @ 400 V	
Duty Cycle (@ 104°F / 40° C)	100% (20 kW)	100% (40 kW)	
Max OCV	425 V	425 V	
Plasma Gas	Air, $\rm O_2, Ar-H_2, N_2 @ 8.3$ bar and Ar for marking	Air, ${\rm O}_{\rm 2},$ Ar-H_2, ${\rm N}_{\rm 2}$ @ 8.3 bar and Ar for marking	
Shield Gas	Air, N₂, O₂ @ 8.3 bar, H₂O @ 0.6 I/min	Air, N ₂ , O ₂ @ 8.3 bar, H ₂ O @ 0.6 l/min	
Power Supply Weight	186 kg	205 kg	
Dimensions	1219 mm x 698 mm x 1031 mm	1219 mm x 698 mm x 1031 mm	
Certifications	CSA, CE, CCC	CSA, CE, CCC	
	Ultra-Cut 300 XT	Ultra-Cut 400 XT	
Rated Output (Amps)	Ultra-Cut 300 XT 300 A	Ultra-Cut 400 XT 400 A	
Rated Output (Amps) Output Range (Amps)	Ultra-Cut 300 XT 300 A 5-300 A	Ultra-Cut 400 XT 400 A 5-400 A	
Rated Output (Amps) Output Range (Amps) Output (Volts)	Ultra-Cut 300 XT 300 A 5-300 A 180 V	Ultra-Cut 400 XT 400 A 5-400 A 200 V	
Rated Output (Amps) Output Range (Amps) Output (Volts) Input Volts (Volts, Phase, Hertz)	Ultra-Cut 300 XT 300 A 5-300 A 180 V 400 V, 3 ph, 50-60 Hz	Ultra-Cut 400 XT 400 A 5-400 A 200 V 400 V, 3 ph, 50-60 Hz	
Rated Output (Amps) Output Range (Amps) Output (Volts) Input Volts (Volts, Phase, Hertz) Input Amps (Amps, Volts)	Ultra-Cut 300 XT 300 A 5-300 A 180 V 400 V, 3 ph, 50-60 Hz	Ultra-Cut 400 XT 400 A 5-400 A 200 V 400 V, 3 ph, 50-60 Hz 137 A @ 400 V	
Rated Output (Amps) Output Range (Amps) Output (Volts) Input Volts (Volts, Phase, Hertz) Input Amps (Amps, Volts) Duty Cycle (@ 104°F / 40° C)	Ultra-Cut 300 XT 300 A 5-300 A 180 V 400 V, 3 ph, 50-60 Hz 93 A @ 400 V 100% (60 kW)	Ultra-Cut 400 XT 400 A 5-400 A 200 V 400 V, 3 ph, 50-60 Hz 137 A @ 400 V 100% (80 kW)	
Rated Output (Amps) Output Range (Amps) Output (Volts) Input Volts (Volts, Phase, Hertz) Input Amps (Amps, Volts) Duty Cycle (@ 104°F / 40° C) Max OCV	Ultra-Cut 300 XT 300 A 5-300 A 180 V 400 V, 3 ph, 50-60 Hz 93 A @ 400 V 100% (60 kW) 425 V	Ultra-Cut 400 XT 400 A 5-400 A 200 V 400 V, 3 ph, 50-60 Hz 137 A @ 400 V 100% (80 kW) 425 V	
Rated Output (Amps) Output Range (Amps) Output (Volts) Input Volts (Volts, Phase, Hertz) Input Amps (Amps, Volts) Duty Cycle (@ 104°F / 40° C) Max OCV Plasma Gas	Ultra-Cut 300 XT 300 A 5-300 A 180 V 400 V, 3 ph, 50-60 Hz 93 A @ 400 V 100% (60 kW) 425 V Air, 0 ₂ , Ar-H ₂ , N ₂ @ 8.3 bar and	Ultra-Cut 400 XT 400 A 5-400 A 200 V 400 V, 3 ph, 50-60 Hz 137 A @ 400 V 100% (80 kW) 425 V Air, 0 ₂ , Ar-H ₂ , N ₂ @ 8.3 bar and Ar for marking	
Rated Output (Amps) Output Range (Amps) Output (Volts) Input Volts (Volts, Phase, Hertz) Input Amps Outy Outs Input Amps Quty Cycle (@ 104°F / 40° C) Max OCV Plasma Gas Shield Gas	Ultra-Cut 300 XT 300 A 5-300 A 180 V 400 V, 3 ph, 50-60 Hz 93 A @ 400 V 100% (60 kW) 425 V Air, 0 ₂ , Ar-H ₂ , N ₂ @ 8.3 bar and Ar for marking Air, N ₂ , O ₂ @ 8.3 bar, H ₂ O @	Ultra-Cut 400 XT 400 A 5-400 A 200 V 400 V, 3 ph, 50-60 Hz 137 A @ 400 V 100% (80 kW) 425 V Air, 0 ₂ , Ar-H ₂ , N ₂ @ 8.3 bar and Ar for marking Air, N ₂ , 0 ₂ @ 8.3 bar, H ₂ 0 @	
Rated Output (Amps) Output Range (Amps) Output (Volts) Input Volts (Volts, Phase, Hertz) Input Amps (Amps, Volts) Duty Cycle (@ 104°F / 40° C) Max OCV Plasma Gas Shield Gas Power Supply Weight	Ultra-Cut 300 XT 300 A 5-300 A 180 V 400 V, 3 ph, 50-60 Hz 93 A @ 400 V 100% (60 kW) 425 V Air, 02, Ar-H2, N2 @ 8.3 bar and Ar for marking Air, N2, 02 @ 8.3 bar, H20 @ 244 kg	Ultra-Cut 400 XT 400 A 5-400 A 200 V 400 V, 3 ph, 50-60 Hz 137 A @ 400 V 100% (80 kW) 425 V Air, 0 ₂ , Ar-H ₂ , N ₂ @ 8.3 bar and Ar for marking Air, N ₂ , O ₂ @ 8.3 bar, H ₂ O @ 0.6 l/min	
Rated Output (Amps) Output Range (Amps) Output (Volts) (Volts, Phase, action (Amps, Volts) Duty Cycle (@ 104°F / 40° c) Max OCV Plasma Gas Shield Gas Power Supply Weight Dimensions	Ultra-Cut 300 XT 300 A 5-300 A 180 V 400 V, 3 ph, 50-60 Hz g3 A @ 400 V 100% (60 kW) 425 V Air, 0 ₂ , Ar-H ₂ , N ₂ @ 8.3 bar and Ar for marking Air, N ₂ , 0 ₂ @ 8.3 bar, H ₂ 0 @ 244 kg 1219 mm x 698 mm x 1031 mm	Ultra-Cut 400 XT 400 A 5-400 A 200 V 400 V, 3 ph, 50-60 Hz 137 A @ 400 V 100% (80 kW) 425 V Air, 02, Ar-H2, N2 @ 8.3 bar and Ar for marking Air, N2, 02 @ 8.3 bar, H20 @ 252 kg 1219 mm x 698 mm x 1031 mm	

* Subject to change without notice

Victor[®] Thermal Dynamics[®] introduces **ULTRA-CUT® XT SYSTEMS**

Cutting Speed Chart For Ultra-Cut XT Systems						
Material	Amps	Plasma /Shield	Thickness (mm)	Speed mm/min.		
	30	$0_2/0_2$	3	910		
	70	0 ₂ /Air	6	3100		
	100	0₂/Air	6	4030		
			10	2300		
	200	O₂/Air	25	1250		
Mild Cheel			35	750		
Mila Steel	300	O₂/Air	20	2540		
			25	1780		
			35	900		
	400	O₂/Air	25	2100		
			40	1330		
			50	790		
	30	N ₂ /H ₂ O	1.5	3100		
	50	N ₂ /H ₂ 0	2	4310		
			5	1523		
	70	N ₂ /H ₂ O	6	1495		
	100	H35/N ₂	6	1880		
			10	1350		
Stainless	100	N ₂ /H ₂ O	6	1810		
Steel	200	N ₂ /H ₂ 0	20	1100		
			25	900		
	300	N ₂ /H ₂ O	25	1030		
			35	760		
	300	H35/N₂	25	920		
			40	760		
	400	N ₂ /H ₂ O	20	2286		
			40	760		
	400	H35/N₂	25	1170		
			50	440		
	400	H35/H35	100	90		
	50	Air/Air	3	1520		
		N ₂ /H ₂ O	6	2760		
	100		10	1700		
		N₂/H₂0	20	2200		
			25	1300		
Aluminium	300	N ₂ /H ₂ O	25	1560		
Aluininuill			32	1000		
		H35/N ₂	25	2190		
	400	N ₂ /H ₂ O	20	2200		
			40	1350		
	400	H35/N₂	25	2330		
			50	810		

Note: The cutting speed chart includes preliminary data and is subject to change without notice. Take care in comparison. The speeds noted aboveare best cut quality speeds. Often, competitors show maximum cutting speeds. Although much higher speeds can be achieved, edge quality and the speeds can be achieved and the speeds can $be vel angle \, may \, be \, compromised. \, The \, capabilities \, shown \, in this \, table \, we re obtained \, by \, using \, new \, consumables, correct \, gas \, and \, current \, settings, in the \, capabilities \, shown \, in this \, table \, we re obtained \, by \, using \, new \, consumables, correct \, gas \, and \, current \, settings, in the \, capabilities \, shown \, in this \, table \, we re obtained \, by \, using \, new \, consumables, correct \, gas \, and \, current \, settings, in the \, capabilities \, shown \, in this \, table \, we re obtained \, by \, using \, new \, consumables, correct \, gas \, and \, current \, settings, in the \, capabilities \, shown \, in this \, table \, we re obtained \, by \, using \, new \, consumables, correct \, gas \, and \, current \, settings, in the \, capabilities \, shown \, in this \, table \, we re obtained \, by \, using \, new \, consumables, correct \, gas \, and \, current \, settings, in the \, capabilities \, shown \, in this \, table \, we re obtained \, by \, using \, new \, consumables, correct \, gas \, and \, current \, settings, in the \, capabilities \, shown \, in this \, table \, we re obtained \, by \, using \, new \, consumables, correct \, gas \, and \, current \, settings, in the \, capabilities \, shown \, in the \, shown \, constant \, settings, in the \, capabilities \, shown \,$ accurate torch height control and with the torch perpendicular to the workpiece. The operating chart does not list all processes available for the Ultra-Cut XT systems. Please contact Victor Thermal Dynamics for more information.

Victor (Ningbo) Cutting & Welding Equipment

Trade & Commerce Company Ltd. Shanghai, China

Tel: +86 21 6407 2626

Fax: +86 21 6448 3032

www.victortechnologies.com.cn



Cigweld Pty Ltd Victoria, Australia Tel: +61 3 9474 7508 Fax: +61 3 9474 7488 www.cigweld.com.au

PT. Victor Teknologi Indonesia **Cikarang, Indonesia** Tel: +62 21 8990 6095 Fax: +62 21 8990 6096 www.victortechnologies.asia

Victor Technologies Ltd Chorley, England Tel: +44 1257 224824 Fax: +44 1257 224800 www.victortechnologies.eu

Victor Technologies Asia Sdn Bhd Rawang, Malaysia Tel: +60 3 6092 2988 Fax: +60 3 6092 1085 www.victortechnologies.asia

Victor Technologies Srl Milan, Italy Tel: +39 02 36546801 Fax: +39 02 36546840 www.victortechnologies.eu

Victor Technologies GmbH Neuwied-Gladbach, Germany Tel: +49 (0) 2631 999960 Fax: +49 (0) 2631 9999610 www.victortechnologies.eu