



HERMAL DYNAMICS®

AUTOMATION

Auto-Cut™ 200

Automated Plasma Cutting System

- MaximumLife® Parts
- Increased Productivity
- XT™-301 Torch
- Water Mist Secondary (WMS™)

Now with SpeedLok™
Technology



Automated Plasma Cutting System

Automated Plasma Cutting

Auto-Cut™ 200

Automated Plasma Cutting System

Precision – Performance – Productivity

The **Thermal Dynamics® Auto-Cut™ 200** delivers premium cut performance on both mild steel and non-ferrous materials. The power supply is designed for reliable, low cost operation. Features like the XT™-301 consumable parts cartridge and the Machine Status Message Center make the Auto-Cut 200 easy to operate.

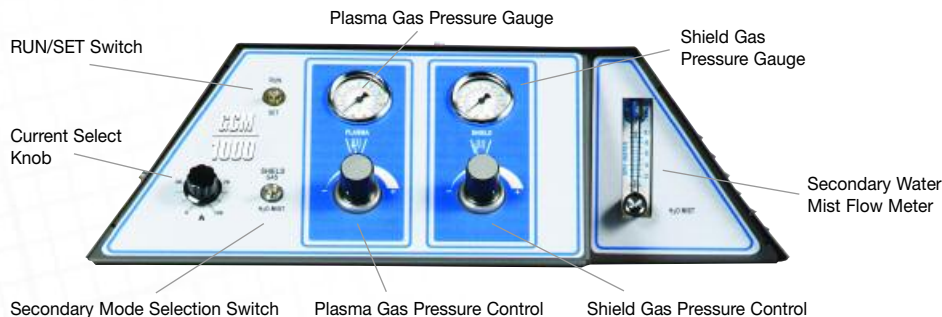
XT-301 consumable parts are available for cutting metals from gauge thickness to 1 inch plate. The Auto-Cut 200 and patented XT-301 torch is normally operated using economical air plasma and air shield gas for cutting mild steel and most non-ferrous metals, resulting in high quality surface finishes and dross-free cuts. For even better cut quality on mild steel, Auto-Cut 200 offers O₂ plasma cutting capability. For lowest cost non-ferrous cutting and unmatched cut quality, use our unique Water Mist Secondary (WMS™) process with nitrogen plasma and water shield. If heavy non-ferrous cutting is required, switch to Ar-H₂ (H35) and Nitrogen shield for premium non-ferrous performance up to 1" (25 mm).

Full Featured Gas Control - GCM 1000

Both plasma and secondary pressures and flows are precisely controlled at the power supply with individual single stage regulators. Changing from the secondary gas to water mist secondary is simple with the front panel mounted selector switch.



Auto-Cut 200
Power Supply

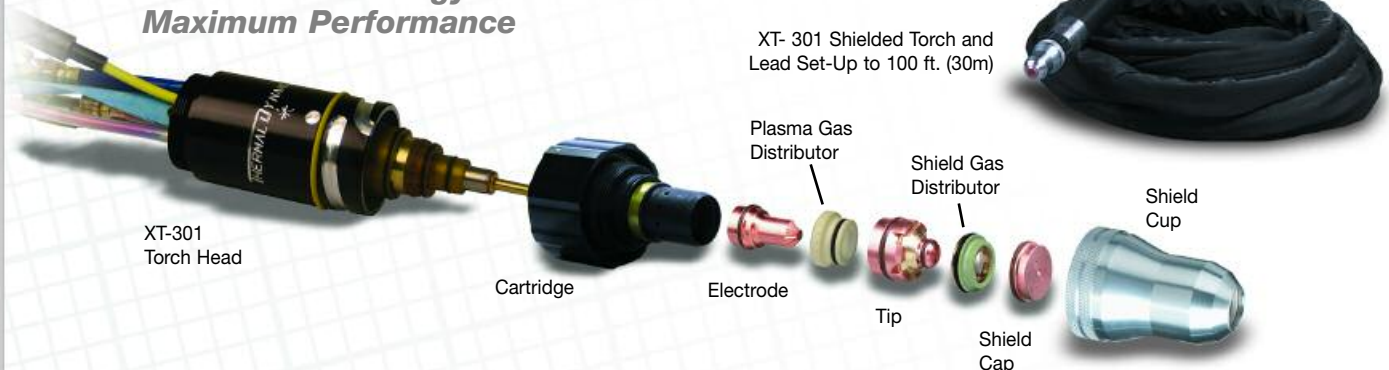


- For more extensive use of O₂ as plasma the Auto-Cut 200 can be field upgraded to an Auto-Cut 200₂

Patent Pending XT Torch Technology

Thermal Dynamics' advanced XT Torch Technology brings plasma cutting to new levels of precision and productivity. Patent pending precision design and construction of the XT-301 torch and cartridge ensure exact relocation of the center-line of the cut after process changes. Rapid engagement threads on the retaining collar of our keyless cartridge mean easy installation and a quick return to production.

XT Torch Technology for Maximum Performance



XT-301 Shielded Torch and
Lead Set-Up to 100 ft. (30m)

XT-301
Torch Head

Cartridge

Electrode

Plasma Gas
Distributor

Shield Gas
Distributor

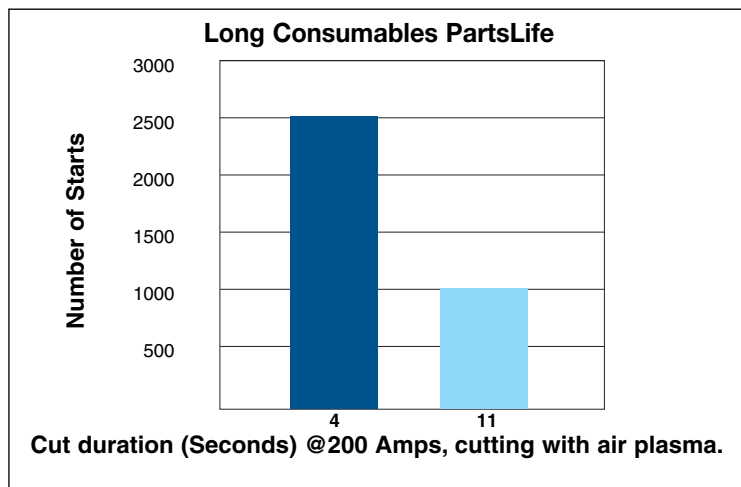
Tip

Shield
Cap

Shield
Cup

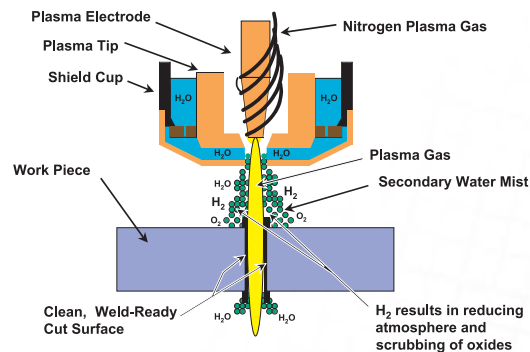
XT™-301 Torch Technology

Thermal Dynamics' patent pending XT Torch Technology delivers productivity and performance you can measure.



- Keyless Consumable Cartridge for Rapid Process Changes
- Precision Construction Insuring Accurate Re-Centering of Consumable Cartridge After Parts Change
- Rapid Engagement Retaining Collar Threads
- Liquid Cooled Consumable Parts Electrical Connections
- Spring Loaded Leak-Less Coolant Tube Design
- Increased Cooling of Tip and Electrode
- Improved Life Through Patent Alignment Control

Effect of N₂/H₂O Plasma on Non-Ferrous



Water Mist Secondary (WMS™) Optimizes Non-Ferrous Cutting

WMS delivers excellent non-ferrous cut quality and low cost of operation by using N₂ 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. This reducing atmosphere decreases oxidation on the cut face surface. WMS is recommended for materials up to 3/4" (20 mm) thick.

WMS Benefits

- Lowest Operating Costs
- Dross Free Cutting from Gauge to 3/4" (20 mm)
- Oxide Free Cut Face Surface
- Wide Parameter Window
- Easy to Use

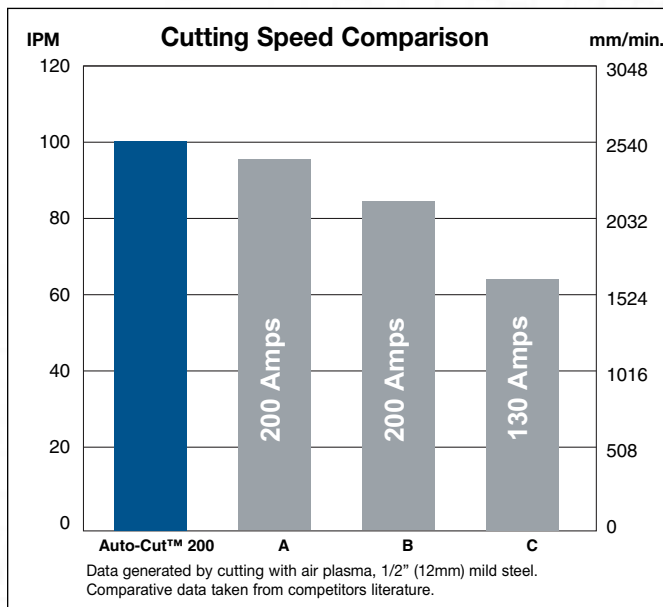
Competitive Comparison

Thermal Dynamics' patented XT Torch Consumable Technology is ideal for cutting from gauge (1 mm) to 1 inch (25 mm). Excellent quality cuts will be achieved on both ferrous and non-ferrous materials at higher speeds.

- Small Heat Affected Zone and Smooth Cutting Edge Surface
- Narrow Kerf for Tighter Angles and Radiuses at High Speeds
- Wide Virtually Dross-free Parameter Windows
- Higher Arc Density for Faster Speeds Without Sacrificing Cut Quality



3/4" (20 mm) Mild Steel Cut Sample



Auto-Cut™ 200

Automated Plasma Cutting System

Specifications (subject to change without notice)

Rated Output	200 Amps
Output Range (A)	10 - 200 Amps
Output (V)	80 - 160 VDC
Input Volts	208-230/460V, 3 ph, 50-60 Hz, 400V, 3 ph, 50-60 Hz, 600V, 3 ph, 50-60 Hz
Input Amps @ Rated Output	130A @ 208V 125A @ 230V 77A @ 400V 75A @ 460V 58A @ 600V
Duty Cycle (@ 104° F / 40° C)	100% @ 200A @ 160V (32kW)
MAX OCV	380 VDC
Plasma Gas	Air, O ₂ , Ar-H ₂ , N ₂ @ 120 psi (8.3 bar)
Shield Gas	Air, N ₂ @ 120 psi (8.3 bar), H ₂ O @ 10 GPH (0.6 liters/min.)
Weight	Power Supply – 487 lbs. (221kg) Torch Assy & Mounting Tube – 3 lbs. (1.3kg) Lead Set (15 ft./4.6m) – 12 lbs. (5.4kg) Torch Leads (per ft.) – 0.8 lb. (0.36kg)
Dimensions	48.75" (1238 mm) H x 27.5" (700 mm) W x 38.5" (978 mm) D (Fully Assembled Power Supply)
Warranty	Two Years Power Supply & One Year Torch
Certifications	CE, CCC

AUTO-CUT™ 200 Automated Systems include:

- 200A Power Supply including GCM-1000
- XT-301 Torch and leads
- Torch Parts Kit

Options & Accessories:

- Spare Parts Kit
- Wheel Kit

For complete ordering information contact Thermal Dynamics or your local Thermal Dynamics Automation Distributor.

DISTRIBUTED BY:

Cutting Speed Chart This cutting speed chart includes preliminary data and is subject to change without notice

Torch Model	XT™-301					
Production Piercing & Cutting Capacity	1" (25 mm)					
Maximum Edge Start	2" (50 mm)					
Material	Thickness Inch	Speed IPM	Amps	Plasma/Shield	Thickness mm	Speed mm/min.
Mild Steel						
	21 ga.	500	55	Air/Air	1	11500
	10 ga.	190			3	5460
	3/16	130			5	3180
	21 ga.	600	55	O ₂ /Air	1	14040
	10 ga.	180			3	5830
	3/16	120			5	2920
	1/4	150	100	Air/Air	6	4150
	3/8	85			10	2120
	1/2	75			12	1960
	3/4	30			20	720
	1	20			25	520
	1/4	130	100	O ₂ /Air	6	3610
	1/2	57			12	1580
	3/4	25			20	580
	1	10			25	280
	3/8	130	200	Air/Air	10	3190
	1/2	100			12	2710
	3/4	60			20	1430
	1	35			25	920
Stainless Steel						
	16 ga.	350	55	Air/Air	1.5	9750
	10 ga.	100			4	2180
	3/16	60			5	1450
	1/4	100	100	Air/Air	6	3020
	3/8	65			10	1580
	1/2	45			12	1260
	1/4	60	100	N ₂ /H ₂ O	6	1750
	3/8	50			10	1210
	1/2	35			12	970
	3/8	50	100	Ar-H ₂ /N ₂	10	1220
	1/2	37			12	1010
Aluminum						
	16 ga.	400	55	Air/Air	2	8790
	3/16	100			5	2360
	1/4	100	100	Air/Air	6	2650
	1/2	45			12	1310
	3/4	35			20	890
	1/4	60	100	N ₂ /H ₂ O	6	1640
	3/8	50			10	1210
	1/2	35			12	970
	3/8	60	100	Ar-H ₂ /N ₂	10	1450
	1/2	40			12	1130

Note: Take care in comparison. The speeds noted above are best cut speeds. Often, competitors show maximum cutting speeds. Although much higher speeds can be achieved, edge quality and bevel angle may be compromised. The capabilities shown in this table were obtained by using new consumables, correct gas and current settings, accurate torch height control and with the torch perpendicular to the workpiece. The operating chart does not list all processes available for the Auto-Cut 200. Please contact Thermal Dynamics for more information.

U.S. Plasma Manual Customer Care: 800-752-7621 / FAX 800-221-4401 • International Customer Care: 905-827-9777 / FAX 905-827-9797
U.S. Plasma Automation Customer Care: 866-279-2628 / FAX 800-221-4401 • www.thermal-dynamics.com



WORLD HEADQUARTERS: 16052 Swingley Ridge Road, Suite 300 • St. Louis, Missouri 63017 U.S.A.

THE AMERICAS

Denton, TX USA
U.S. Customer Care
Ph: (1) 800-426-1888
Fax: (1) 800-535-0557

Miami, FL USA
Sales Office, Latin America
Ph: (1) 954-727-8371
Fax: (1) 954-727-8376

Oakville, Ontario, Canada
International Customer Care
Ph: (1) 905-827-9777
Fax: (1) 905-827-9797

Rio de Janeiro, Brazil
Customer Care
Ph: (55) 21-2485-8998
Fax: (55) 21-2485-8866

EUROPE

Chorley, United Kingdom
Customer Care
Ph: (44) 1257-261755
Fax: (44) 1257-224800

Milan, Italy
Sales Office
Ph: (39) 0236546801
Fax: (39) 0236546840

ASIA/PACIFIC

Cikarang, Indonesia
Customer Care
Ph: 62 21+ 8983-0011 / 0012
Fax: 62 21+ 893-6067

Osaka, Japan
Sales Office
Ph: 816-4809-8411
Fax: 816-4809-8412

Melbourne, Australia
Customer Care:
Ph: 1300-654-674
Fax: 613- 9474-7391
International:
Ph: 613+ 9474-7508
Fax: 613+ 9474-7488

Rawang, Malaysia
Customer Care
Ph: 603+ 6092-2988
Fax: 603+ 6092-1085

Shanghai, China
Sales Office
Ph: 86 21+ 6280-1273
Fax: 86 21+ 3226-0955

Singapore
Sales Office
Ph: 65+ 6832-8066
Fax: 65+ 6763-5812

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