



THERMAL DYNAMICS

A U T O M A T I O N

Auto-Cut[®] 200

Automated Plasma Cutting System

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



With SpeedLok[™]
Technology



Automated Plasma Cutting Systems

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.

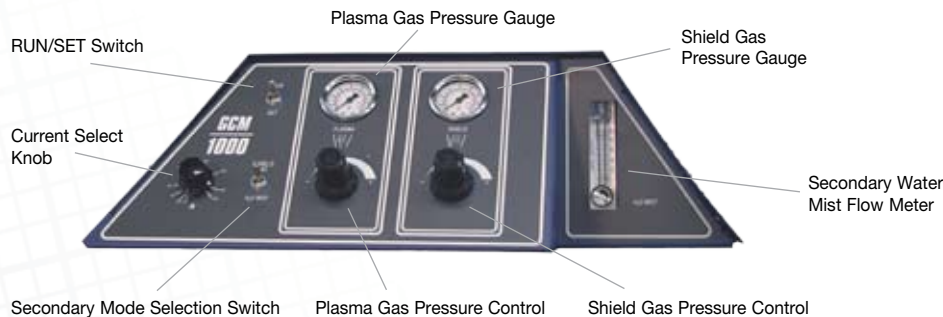
XT-301 consumable parts are available for cutting metals from gauge thickness to 2" (50mm) plate. The Auto-Cut 200 with patented XT-301 torch is normally operated using economical air plasma and air shield gas for cutting mild steel and most non-ferrous metals, resulting in high quality surface finishes 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" (25mm).

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

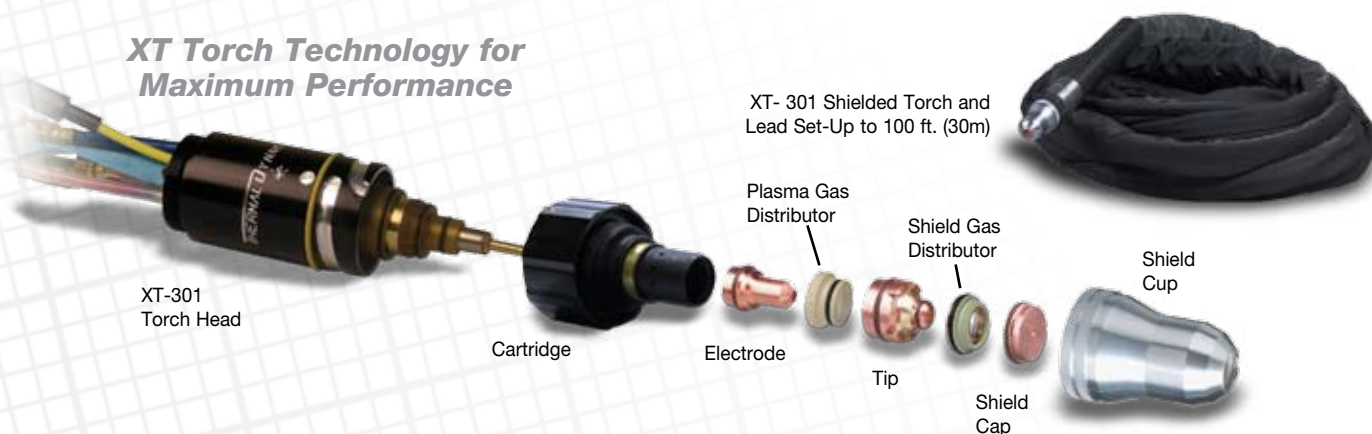


* For more extensive use of O₂ as plasma, the Auto-Cut 200 can be field upgraded to an Auto-Cut 200₂

Patent Pending XT Torch Technology

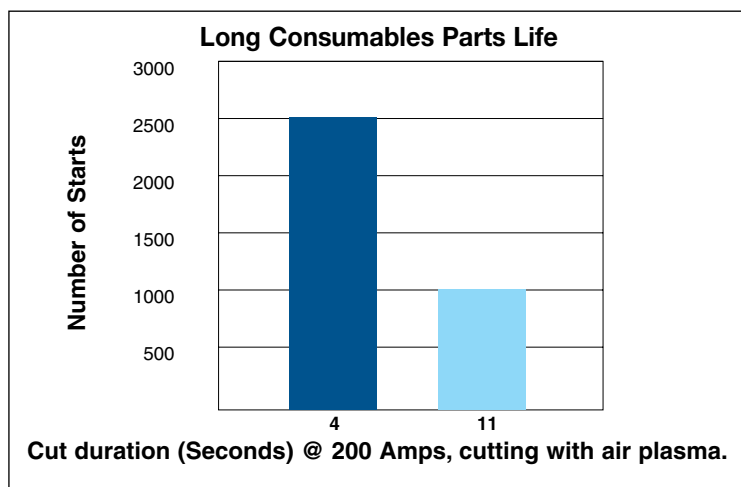
Thermal Dynamics' advanced XT Torch Technology brings plasma cutting to new levels of precision and productivity. Patent pending precision design and construction of the XT-301 torch and cartridge ensure exact relocation of the center-line of the cut after process changes. Rapid engagement threads on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

XT Torch Technology for Maximum Performance



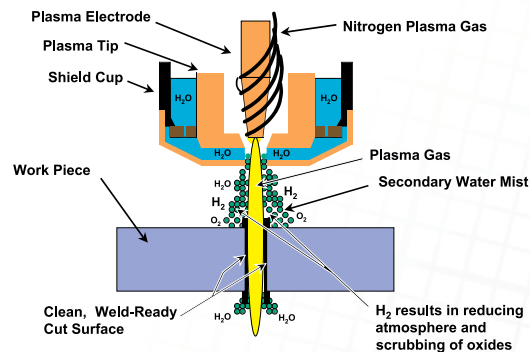
XT™-301 Torch Technology

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" (20mm) thick.

WMS Benefits

- Lowest Operating Costs
- Dross Free Cutting from Gauge (0.5mm) to 3/4" (20mm)
- Oxide Free Cut Face Surface
- Wide Parameter Window
- Easy to Use

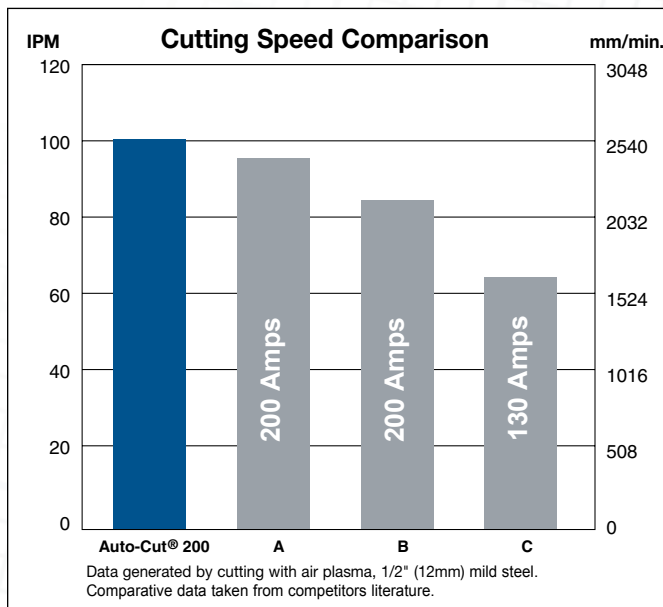
Competitive Comparison

Thermal Dynamics' patented XT Torch Consumable Technology is ideal for cutting from gauge (0.5mm) to 1" (25mm). 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" (20mm) 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 - 160V
Input Volts	208-230/460V, 3ph, 50-60 Hz, 400V, 3 ph, 50-60 Hz, 600V, 3 ph, 50-60 Hz
Input Amps @ Rated Output	117A @ 208V 115A @ 230V 77A @ 400V 68A @ 460V 51A @ 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 (8.3bar), H ₂ O @ 10 GPH (0.6 l/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" (1238mm) H x 27.5" (700mm) W x 38.5" (978mm) D (Fully Assembled Power Supply)
Warranty	Two Years Power Supply & One Year Torch
Certifications	CE, CCC, CSA

AUTO-CUT 200 Automated Systems include:

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

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 (Mild Steel)	1" (25mm)
Maximum Piercing & Cutting Capacity (Mild Steel)	1 1/4" (30mm)
Maximum Edge Start (Mild Steel)	2" (50mm)

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	O2/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	O2/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	N2/H2O	6	1750
	3/8	50			10	1210
	1/2	35			12	970
	3/8	50	100	Ar-H2/N2	10	1220
	1/2	37			12	1010
	3/4	50	200	Ar-H2/N2	20	940
	1	25			25	650
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	N2/H2O	6	1640
	3/8	50			10	1210
	1/2	35			12	970
	3/8	60	100	Ar-H2/N2	10	1450
	1/2	40			12	1130
	3/4	70	200	Ar-H2/N2	20	1660
	1	40			25	1060

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.

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