



# THERMAL DYNAMICS®

AUTOMATION

## **Auto-Cut™ 300**

*Automated Plasma Cutting System*

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



**Automated Plasma Cutting System**

# Auto-Cut™ 300

## Automated Plasma Cutting System

### Quality

- Excellent cuts using air plasma.
- Unmatched cut quality on non-ferrous materials to 1" (25 mm) using our unique Water Mist Secondary system (WMS™)

### Ease of Use

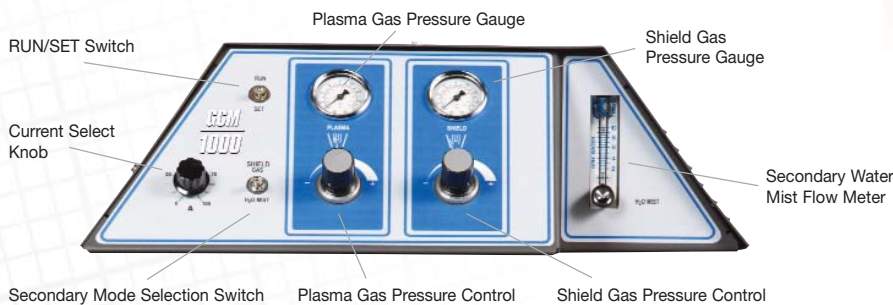
- Fast and easy installation.
- Simple set-up and user-friendly gas console.
- Quick-change, consumable design.
- Easy to identify and troubleshoot problems.

### Productivity

- Highest cut speed in its class.
- Highest kW output in its class.
- Reduced downtime during parts changes due to the revolutionary SpeedLok™ cartridge design of the XT-301 torch.



Auto-Cut 300  
Power Supply



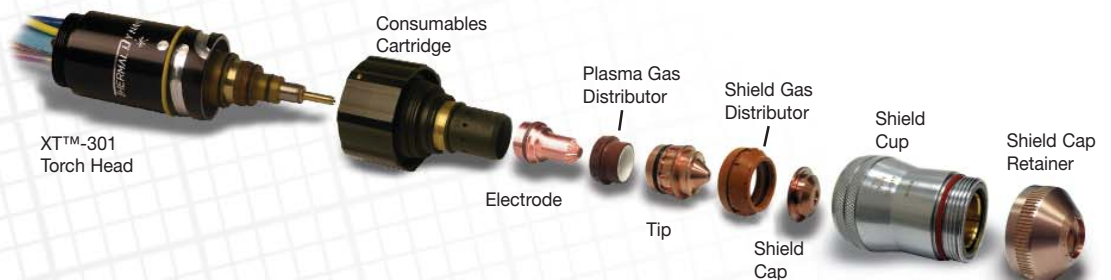
### Technology

- Microprocessor controlled to produce the best cut quality every cut.
- Precision torch design for the best cut quality in its class.

### Reliability

- Advanced testing in lab and field trials ensures ongoing performance and reliability.

### 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

**XT Torch Technology** for cutting from gauge (.5mm) to 1 1/4" (35mm). Cuts ferrous and non-ferrous materials with excellent quality.

- Small Heat Affected Zone
- Smooth Cutting Edge Surface
- Wide Dross-free Parameter Windows

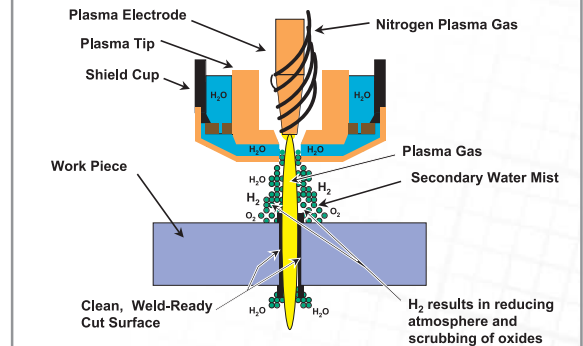
### Water Mist Secondary (WMS™) Optimizes Non-Ferrous Cutting

WMS delivers excellent non-ferrous cut quality and low cost of operation by using N<sub>2</sub> 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 significantly reduces oxidation on the cut face surface. WMS is recommended up to 1" (25 mm).

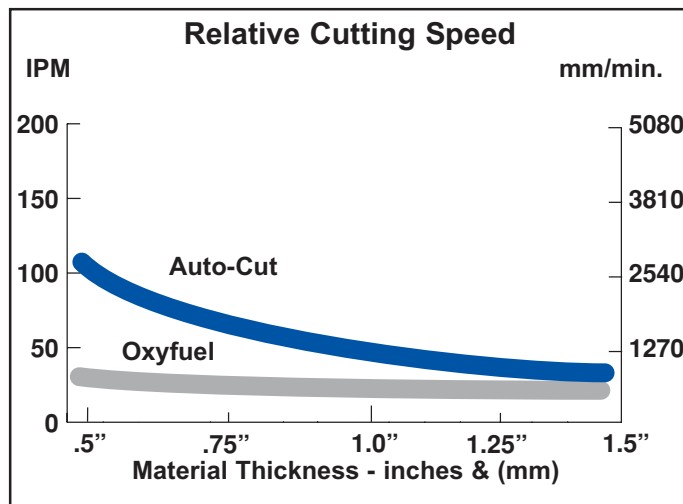
#### WMS Benefits

- Lowest Operating Costs
- Dross Free Cutting from Gauge to 1" (25 mm)
- Oxide Free Cut Face Surface
- Wide Parameter Window
- Easy to Use

#### Effect of N<sub>2</sub>/H<sub>2</sub>O Plasma on Non-Ferrous



### Competitive Comparison



#### Advantages of the Auto-Cut 300

- Averages 3 Times Faster Cut Speeds
- Pierces 1" (25 mm) in 0.7 Seconds
- One Auto-Cut 300 Replaces 3 Oxyfuel Torches that Require 3 separate Height Controls
- Less Material Waste
- Auto-Cut 300 Also Cuts Stainless Steel and Aluminum
- Higher Arc Density Equals Faster Speeds Without Sacrificing Cut Quality
- Smaller Tip Orifices Create a Narrow Kerf for Tighter Angles and Radiuses at Higher Speeds
- Patented Consumable Technology

## Auto-Cut™ 300

Automated Plasma Cutting System

Specifications (subject to change without notice)

|                                      |  |
|--------------------------------------|--|
| <b>Rated Output</b>                  | 300 Amps   |
| <b>Output Range (A)</b>              | 10 - 300 Amps  |
| <b>Output (V)</b>                    | 80 - 180 VDC   |
| <b>Input Volts</b>                   | 208-230/460V, 3 ph, 50-60 Hz,<br>400V, 3 ph, 50-60 Hz,<br>600V, 3 ph, 50-60 Hz   |
| <b>Input Amps @ Rated Output</b>     | 208A @ 208V<br>188A @ 230V<br>190A @ 400V<br>112A @ 460V<br>81A @ 600V   |
| <b>Duty Cycle (@ 104° F / 40° C)</b> | 100% @ 300A @ 180V (54kW)  |
| <b>MAX OCV</b>                       | 380 VDC  |
| <b>Plasma Gas</b>                    | Air, O <sub>2</sub> , Ar-H <sub>2</sub> , N <sub>2</sub> @ 120 psi (8.3 bar)   |
| <b>Shield Gas</b>                    | Air, N <sub>2</sub> @ 120 psi (8.3 bar)  |
| <b>Weight</b>                        | Power Supply – 535 lbs. (243kg)<br>Torch Assy & Mounting Tube – 3 lbs. (1.3kg)<br>Lead Set (15 ft./4.6m) – 12 lbs. (5.4kg)<br>Torch Leads (per ft.) – 0.8 lb. (0.36kg) |
| <b>Dimensions</b>                    | 60.0" (1524mm) H x 27.5" (700mm) W x<br>38.5" (978mm) D (Fully Assembled Power Supply)   |
| <b>Warranty</b>                      | Two Years Power Supply & One Year Torch  |
| <b>Certifications</b>                | CE, CCC  |

AUTO-CUT™ 300 Automated Systems include:

- 300A Power Supply including GCM-1000
- XT™ - 301 Torch and leads
- Torch Spare 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 |                | 1.0" (25 mm)  |      |                                   |              |               |
| Maximum Piercing & Cutting Capacity    |                | 1.25" (35 mm) |      |                                   |              |               |
| Maximum Edge Start                     |                | 2.75" (70 mm) |      |                                   |              |               |
| Material                               | Thickness Inch | Speed IPM     | Amps | Plasma/Shield                     | Thickness mm | Speed mm/min. |
| <b>Mild Steel</b>                      |                |               |      |                                   |              |               |
|  | 21 ga.         | 500           | 55   | Air/Air                           | 1            | 11500         |
|  | 10 ga.         | 190           |      |                                   | 3            | 5460          |
|  | 3/16           | 130           |      |                                   | 5            | 3180          |
|  | 1/4            | 150           | 100  | Air/Air                           | 6            | 4150          |
|  | 1/2            | 75            |      |                                   | 12           | 1960          |
|  | 3/4            | 30            |      |                                   | 20           | 720           |
|  | 1              | 20            |      |                                   | 25           | 520           |
|  | 3/8            | 130           | 200  | Air/Air                           | 10           | 3190          |
|  | 1/2            | 100           |      |                                   | 12           | 2710          |
|  | 3/4            | 60            |      |                                   | 20           | 1430          |
|  | 1              | 35            |      |                                   | 25           | 920           |
|  | 1/2            | 110           | 300  | Air/Air                           | 12           | 2790          |
|  | 1              | 50            |      |                                   | 25           | 1300          |
|  | 1-1/2          | 20            |      |                                   | 38           | 510           |
|  | 2              | 8             |      |                                   | 50           | 220           |
|  | 2-3/4          | 4             |      |                                   | 70           | 100           |
| <b>Stainless Steel</b>                 |                |               |      |                                   |              |               |
|  | 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 <sub>2</sub> /H <sub>2</sub> O  | 6            | 1750          |
|  | 3/8            | 50            |      |                                   | 10           | 1210          |
|  | 1/2            | 35            |      |                                   | 12           | 970           |
|  | 3/4            | 50            | 200  | Ar-H <sub>2</sub> /N <sub>2</sub> | 20           | 940           |
|  | 1              | 25            |      |                                   | 25           | 650           |
| <b>Aluminum</b>                        |                |               |      |                                   |              |               |
|  | 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 <sub>2</sub> /H <sub>2</sub> O  | 6            | 1640          |
|  | 3/8            | 50            |      |                                   | 10           | 1210          |
|  | 1/2            | 35            |      |                                   | 12           | 970           |
|  | 3/4            | 70            | 200  | Ar-H <sub>2</sub> /N <sub>2</sub> | 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.

U.S. 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 316-941-4491 • www.thermadyne.com



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

Home of the Brands You Trust™

#### 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) 02-98-80320  
Fax: (39) 02-98-281773

#### ASIA/PACIFIC

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

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

International:  
Ph: 613+ 9474-7508  
Fax: 613+ 9474-7488

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

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