

**THERMAL  
DYNAMICS**

**FROM SIMPLE SOFTWARE  
TO HEAVY STEEL**

*Thermal Dynamics® introduces*  
**iCNC™ XT  
INTEGRATED CONTROL**

### **The CNC Control That Knows How to Cut**

The XT series of iCNC™'s from Thermal Dynamics® brings cutting process intelligence to the table. The secrets of plasma cutting, and the precise requirements necessary to provide consistent cut quality with your table, are built in to every unit. And best of all, it combines sophisticated control with ease of use, automatically.



***We Bring Intelligence to the Table.™***

Thermal Dynamics® introduces

# iCNC™ XT

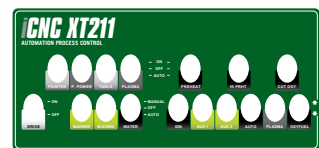
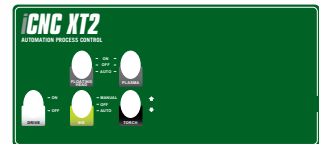
*When matched with Thermal Dynamics®' innovative Ultra-Cut® XT with Automatic Gas Control, the iCNC™ XT achieves true integrated control and turns the most precise plasma system into one of the easiest to operate. With special features like Dual Microprocessor Control, iCNC™ XT is an affordable upgrade that can be paired with any plasma cutting system for improved cut quality and performance.*

## Integrated System Savings

- Simpler installation when all systems are wired to one central box (the iCNC™) and can be pre-set to work with each other.
- Less case by case engineering.
- No finger pointing from vendor to vendor.
- Remote one spot access to the whole system and a possibility to do joint remote sessions with Thermal Dynamics® specialists for help and training.
- All information is available in one location and all settings and tuning can be done on the same screen.

## Operator Console Options

- XT2 is for Single Plasma machines with all needed switches and I/O also for a marking device, no external relays needed
- XT211 is for one Plasma, one Marker and one Oxy Fuel Torch.
- XT242 is for maximum 2 Plasmas, 4 Oxy Fuel stations and one Marker.
- The simplest version has no operator switches and the machine interface has 8 relay contacts and several low level I/O.
- Several additional configurations exist, we are happy to provide custom panels for partnering table OEMs.



## Built-In Process Parameter Database

- The iCNC™ communicates with all major brands of automated plasma systems that offer an automatic gas console.
- Even plasma systems without communication are supported by the databases, offering automatic settings for all other parameters. On time guidelines allow the operator to set the plasma system for selected cutting processes and tasks.
- Best integration is provided for Thermal Dynamics® Ultra-Cut® XT High Precision Plasma Systems and other Thermal Dynamics® Plasma Systems.
- Operator setting errors are practically eliminated.





# *We Bring Intelligence to the Table.™*

## **Built-In Torch Height Control (iHC) Options**

- A1 Option Includes Built In iHC for one Plasma Torch. No external electronics are needed, everything is inside the iCNC™.
- A2 Option Includes Built In iHC for two Plasma Torches. No external electronics are needed, everything is inside the iCNC™.
- 3 different lifter mechanics versions with 2 different Collision Sensor designs.
- The iHC is easy to integrate to any Plasma Torch lifter mechanics.
- To accommodate a standalone external Torch Height Control, we offer a simple version with only a serial port to communicate with the external Height Control System.



## **Built-In Servo System Options**

- Y2 Option has two 400W amplifiers built in.
- Y2L Option has one 400W + one 750W amplifiers.
- Y3 Option has three 400W amplifiers.
- Y3L Option has one 400W + two 750W amplifiers.
- All options are with Yaskawa amplifiers.
- Additional option with an installation kit for Yaskawas available without the actual servo amplifiers to provide the most economical option for Table Manufacturers.
- The simplest version has no servos built in, just 2 or 3 axis Enable and analog Speed signal outputs for external Servo Amplifiers and corresponding Encoder inputs.



## **Internet Diagnostics and Support**

- Our Dual Microprocessor Technology offers a significant advantage by fully utilizing sophisticated third party software solutions like GoToMeeting\*.
- Everything that is truly integrated into the iCNC™ can be diagnosed and serviced through the internet, servos, the height control and the plasma system itself. In addition, even the dip-switch settings of the Ultra-Cut® are displayed.
- Diagnose the system while it is cutting, in real time, a capability that is comparable to having an service expert on site in minutes, always.
- It is not just about trouble shooting, its also about answering simple support questions quickly and with less communication problems while the support technician or operator sees the screen.



***By utilizing Dual Microprocessor Technology, the system runs critical, real-time operations on a separate computer. This allows the required sophisticated software to run safely on the Windows\*\* based platform.***

\*GoToMeeting is a registered trademark of Citrix Systems, Inc

\*\*Windows is a registered trademark of Microsoft Corporation in the United States and other countries

Thermal Dynamics® introduces

# iCNC™ XT

## iCNC™ XT Overview

- Automatic Hole Optimization
- Automatic Height Control & Plasma Settings
- Remote Access through Wireless Internet Connection
- 15" Touch Screen
- Dual Microprocessor System
- Ethernet Connectivity as a Standard Feature
- Heat Exchanger to Allow All-in-one Design
- Designed for Shape Cutting Tables
- Runs Sophisticated, Easy to Use Software
- Reads ESSI, EIA and DXF Files
- Provides Many Cutting Specialized Tools
- Automatic Nesting also on Remnant Plates
- Automatic Cutting Order Optimization
- Automatic Parameter Settings by Process
- Dynamic Plasma Pre-Stop Adjusting
- Flash SATA Hard Drives with No Moving Parts

## Optimized for Thermal Dynamics® Plasma Systems

## Integrated Intelligence

- By seamlessly integrating sophisticated equipment and adding our extensive Plasma Cutting Knowledge, we have added the “experience” of Thermal Dynamics® into every system, greatly reducing the need for operator or programmer process expertise.
- The iCNC™ XT has the capability to recognize if a cut is a hole or an inside or outside contour. The shapes and nests are truly interpreted by the CNC, not just commands, coordinates, lines and arcs.
- That's why it is called the “intelligent” CNC.

**IT WORKS WITH ANY OFFICE NESTING SOFTWARE THAT YOU PREFER TO USE, nothing has to be changed in the way you build your nesting.**

## Built-In Cut Quality

- Hole cutting quality always optimal, automatically. Also with Macro Shapes or DXF files direct from a CAD system. But also with ESSI or EIA coded programs without doing anything special in the office software.
- Optimized cutting order and piercing locations.
- Optimized settings for different radius arcs.
- Dynamically optimized torch distance from plate through the whole operation from ignition, piercing, cutting and special circumstances.
- Automatic, dynamic compensation for plasma pre-stops, acceleration, following error, and much more.



*The XT series of iCNC's  
from Thermal Dynamics® ...  
True state-of-the-art system control  
for plasma cutting systems.*

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DYNAMICS®**