THE**R**M-X
XCUT

CNC Gas and Plasma Profile Cutting Machines
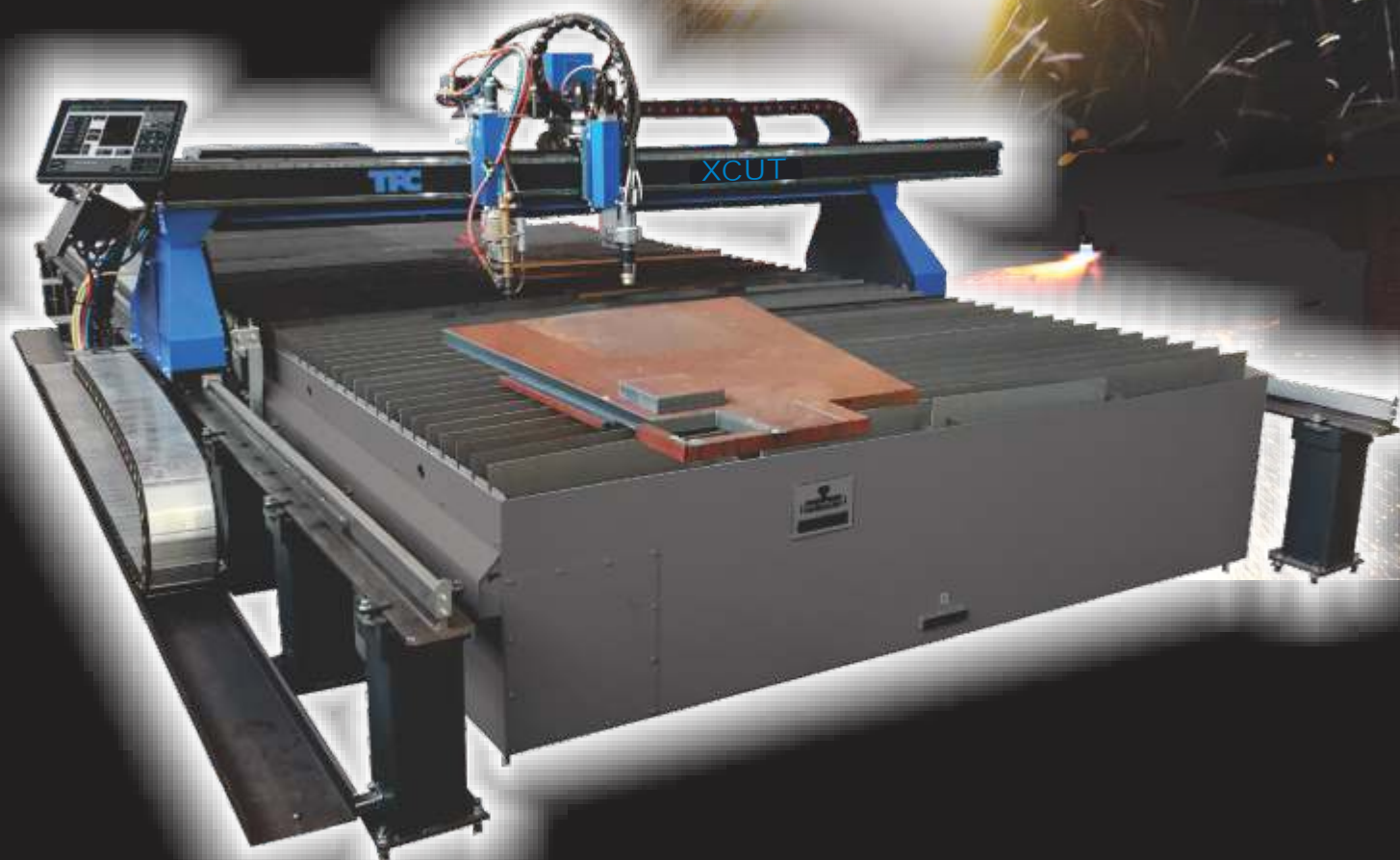
XCUT - CNC Gas and Plasma Profile Cutting machine

Basic Design

Heavy Duty Machined Steel Profile with easy alignment Heavy Duty rail and leg system – Made in India
Backlash Free Rack and Pinion Drives – Made in Germany
AC Servo Motors with integrated high resolution Encoders and Gear Box – Made in Europe
Two Linear Guide Bearing on Cross Axis – Made in Taiwan
Heavy Duty Machined Rails – Made in India
Fully Covered Energy Chain in both axis – IGUS, Germany
Air Cooling ready

Technology

Plasma Cutting
Oxy Fuel Cutting
Marking
Plasma Punch
Bolt Quality Hole Cutting

Control

Industrial CNC Control System – Made in Europe
17" Colour Touch Screen Full Menu Control
Digital Controlled AC Servo System
Inbuilt Gas and Plasma Cutting Technology

Equipment

Touch Screen Controller
Plasma torch Initial Height Sensing
Plasma Torch A/V Height Control
Gas Hi-Low Pre-heating
Gas Automatic Piercing (Proportional Valve control for Cut-Oxy)
Torch electric Ignition and Height Control
Anti-Collision Sensor
LASER Pointer
Pipe Cutting

Technical Data

Speed	12,000 / 20,000 mm/min
Maximum Cutting thickness- Oxy fuel	200 mm
Maximum Cutting Thickness - Plasma	According to Plasma Power Source
Standard Power Supply	230V AC/ 50Hz

Dimensions

Size In mm	XCUT 2000	XCUT 2500	XCUT 3000	XCUT 3500
Effective Cutting Width	1600	2100	2600	3100
Cutting Length	3000-24000	3000-24000	3000-24000	3000-24000
Machine Width	2150	2650	3150	3650
Machine Length	800	800	800	800
Machine Height	1200	1200	1200	1200

Accessories

Plasma Systems According to application
CAD/CAM Software for Nesting - Auto Nesting
Exhaust System with automatic section control
Filtration System with Automatic cleaning
Consumable for All delivered equipment

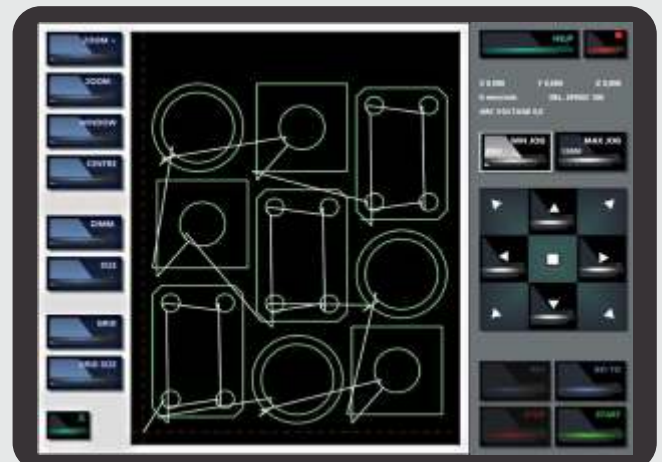## CNC CONTROL SYSTEM FOR GAS AND PLASMA CUTTING MACHINES

CHECK HOW SIMPLE THE GAS AND PLASMA CUTTING PROCESS CONTROL CAN BE.
INTUITIVE AND SIMPLE SYSTEM CONTROL SCREENS, LARGE BUTTONS AND MANY BUILT-IN PARAMETERS MAKE YOUR WORK A SIMPLE AND FUN GAME.

CUTTING PROCESS SCREEN

GRAPHIC SCREEN:

DESIGN:

The modern TFC control system has been developed and optimized specifically for cutting technology. The development of the system placed great emphasis on simple and intuitive control, reliable operation and easy diagnostics. An industrial computer equipped with a flash memory communicates with servo units and peripherals via the ETHERCAT digital bus. Planetary-gear servomotors are equipped with units involving absolute position sensors. The system is controlled by a colour LCD touch display, and its vertical position can be easily adjusted for the comfort of each operator. To load programs into the system, it is possible to use the USB port or Wi-Fi connection to the corporate network. The digital speed potentiometer allows you to select a range according to the operator's needs and automatically reduces sudden speed changes. The E-STOP button ensures an immediate and safe stop of the machine, including turning off of all activated functions.

CONTROL:

Machine control is provided via a colour touch screen. The communication interface (HMI) is designed to be simple and intuitive for the operator. The control screens automatically adjust to the selected cutting technology. The system features many pre-set parameters that are constantly updated. The set parameters are stored in the system memory and automatically offered during the next use.

TECHNOLOGY:

The control system incorporates technologies for plasma cutting, autogenous cutting, labelling and related processes. The built-in database of technological parameters for autogenous and plasma burners of various manufacturers facilitates operation Other technologies or their enhancements can be easily customized according to the user´s requirements. As standard, advanced features are available for plasma cutting such as automatic setting of the burner's initial height, height monitoring during the cutting process, controlled material piercing, precision hole cutting technology, and others. The autogenous cutting process features functions including automatic ignition of the burner, height monitoring, quick preheating and automatic piercing of the material.

MANUAL MOVEMENT:

Eight directional press buttons allow easy movement of the machine to the desired position. Movement speed is chosen by simply switching between the minimum and maximum, or any desired speed can be selected via the screen. The system automatically recognizes short and long pressing of the directional button to select the minimum or maximum speed of movement.

GEOMETRIC FUNCTIONS:

- Scale - Zoom in or zoom out, according to the selected scale
- Rotate - Rotating the shape according to the specified angle
- Selection of the initial cutting position
- Comparison - Program rotation according to the sheet position
- Arrangement into rows and columns
- Defining the number of pieces
- KERF compensation for external and internal shapes

AUTOMATIC CUTTING MODE:

In auto mode, you can choose between test mode and cutting mode. The test mode allows you to control and move the program on a sheet as required. The GO-TO Function allows you to move the machine to a position with specified coordinates, to a selected point of the cutting trajectory and the nodal points, or to the laser cross position. The REVERSE Function allows you to stop the cutting process and to reverse the machine along the trajectory up to the desired position, and to restart the cutting process.

INFORMATIONS AND DIAGNOSTICS:

The system records the necessary information about the cutting process: number of ignitions, cutting time, cutting length, ...
The operator is continuously informed about the machine's condition, the ongoing process, required machine maintenance, and any service recommendations.

OPERATING ENVIRONMENT:

Standard range of operating temperature 0 - 50 o C
- 95% humidity (non- condensing)

CUTTING MACHINE CONTROL STRUCTURE

TOUCH SCREEN

SERVO CONTROLLER

AC SERVOMOTORS WITH PLANETARY GEARBOXES

ETHERCAT

INDUSTRIAL PC

INTERFACE CARD

PERIPHERALS

Plasma Systems and Consumables from FORMICA, Europe / Hypertherm, USA

Air Plasma Systems and Consumables from GYS, France

Manufactured By :

THERM-X
Optimized Cutting Solutions

Therm-X Industrial Equipments Pvt. Ltd.

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