

OPERATOR'S CONSOLE

Makes it easier for operators to control plate cutting by integrating flame cutting machine process controls in one cabinet



Performance Benefits

The BURNY® Operator's Console makes it easy for operators to control plate cutting because it integrates flame cutting machine process controls (for oxyfuel and plasma) in one cabinet. Operators have a single console to control flame cutting processes. It is available from the Burny Division of Cleveland Motion Controls, internationally recognized for dedicated shape cutting controls and drive systems that improve productivity and reduce costs.

Design Features

The Operator's Console is designed to be easily interfaced with selected BURNY Controls (BURNY 3, BURNY 5 and the BURNY 10 Shape-Cutting Motion Control). Three standard control features include a speed dial for controlling both the cut and jog speed, a High/Low/Off switch for controlling the cutting speed range and an E-Stop button for disabling the flame cutting machine's operation, including its drive motors.

There are various control options. It is available with a panel for complete oxyfuel gas control, a panel for plasma control, an individual station select option with capabilities for controlling gas and oxygen solenoids, torch lifter controls for motorized torch lifters, and an auto height control panel with a capability for the remote control of eight Levitator® Torch Height Control Sensors.

- Includes controls for cutting speed, speed range and emergency stop — All standard
- Available with oxyfuel gas controls
- Available with plasma controls
- Available with individual station select switches
- Available with torch lifter controls
- Available with controls to provide a remote- controlled / automated torch height control system
- Interfaces with BURNY Controls
- Provides single source responsibility

Single Source Responsibility

With the Operators Console (Op Con), operators have a single console to control oxyfuel or plasma processes (for either cantilever or gantry flame cutting machines).



Complements Burny Shape Cutting Control Capabilities

For a complete operator control system, the Operators Console is specially designed to be compatible and easily interfaced with either new or existing BURNY shape cutting controls (BURNY 3, BURNY 5 or BURNY 10 Shape-Cutting Motion Control).

BURNY 3 offers two-way communications via an RS-232 port, and is available with floppy disk access. BURNY 5 offers maximum capability for almost any retrofit application. Along with its 50 standard shapes, two-way communications and up to 1 MB of non-volatile memory, the BURNY 5 CNC offers numerous other features such as multitasking and built-in graphics display (available in either a 9" monochrome screen or a 14" color screen with VGA resolution).

Complements Levitator System for Automated Torch Height Control

The Operators Console is also designed to be used with the optional Levitator System, including Torch Lifters and BURNY Torch Height Control Sensors. The Levitator System helps control quality by maintaining an optimum distance between the torch tip and the plate. It also maximizes productivity through a more automated shape cutting system, freeing the operator's time for other productive duties.

STANDARD DESIGN, CONSTRUCTION AND FUNCTIONAL SPECIFICATIONS

Standard Operator Control Panel

1. Each Operator Console has three standard controls: Speed, High/Low/Off and E-Stop. The panel also includes provisions for an

optional Clutch Control switch located above the Speed control dial.

2. The Speed control knob (or Feedrate) controls both the cut and jog speed, with a graduated speed range of 0 to 10.
3. The High/Low/Off Switch sets speed positions as follows:
 - High position sets range from zero to maximum speed.
 - Low position sets range from zero to adjustable low speed.
 - Off position stops machine.
4. The E-Stop button is used to disable operation of the cutting machine, including drive motors.

Optional Gas Control Panel

1. Gases Off/On/Start switch provides two sets of relay contacts to supply power to pre-heat solenoids and ignitor.
2. Preheat, Low/Auto/High Switch provides one set of relay contacts to activate High Preheat solenoids:
 - Low disables High Preheat function
 - High forces the High Preheat solenoid On.
 - Auto is used when a BURNY Control is used for Autocut Control of High Preheat.
3. Cutting Oxygen, Off/Auto/On Switch controls high pressure cutting oxygen:
 - Off position turns process off.
 - Auto position allows BURNY CNC to control cutting oxygen in the Autocut mode.
 - On position overrides all circuits and turns relay on.
 - An oxygen vent relay is provided.
4. Water Spray, Off/Auto/On Switch provides a set of relay contacts to control water spray:
 - Off position will prevent water spray operation.
 - Auto position turns on the water spray relay any time the cutting oxygen is turned on.
 - On position turns on the water spray manually.
5. Power provided is based on customer requirements and can be wired for 115 VAC or 230 VAC, 24 VDC or 24 VAC solenoids. *See Note.

Optional Plasma Control Panel

1. Plasma Start push-button enables manual starting of the plasma torch. It activates Plasma Control and Plasma Start, deactivates Plasma Stop Relay, and can be configured with momentary or maintained contacts.
2. Plasma Stop push-button enables manual stopping of plasma cutting. It activates the Plasma Stop relay, deactivates the Plasma Control and Plasma Start Relays, and can be configured with momentary or maintained contacts.
3. Plasma Off/Auto/Manual toggle switch has three positions:
 - Off position disables all plasma cutting—auto or manual.
 - Auto position allows BURNY CNC to control plasma cutting in the Autocut mode.

- Manual position allows plasma torch to be activated by the manual Plasma Start push-button only. Switch output provides a set of relay contacts which close during auto or manual operation.
4. Two position Plasma Run/Test toggle switch has two positions:
 - Run position readies plasma torch for cutting from Console.
 - Test position places torch in test mode and opens plasma run relay contacts.

Optional Station/Lifter Switch Panel

1. Various configurations of Individual Station Select switches select individual gas and oxygen solenoids and apply power to each station:
 - Power provided is based on the users requirements and can be wired for 115 VAC or 230 VAC, 24 VDC or 24 VAC solenoids. *See Note.
2. Various configurations of Torch Lifter Control switches are used to control individual motorized torch lifters:
 - Switches raise and lower individual torch lifters
 - All Up overrides and raises all stations simultaneously
 - Circuitry can be can be wired for 115 VAC or 230 VAC, 24 VDC or 24 VAC solenoids. *See Note.

Optional Levitator Torch Height Control Panel

1. Auto Height Lifter Control switches select auto height mode for each Levitator Torch Height Control:
 - Off Position puts Levitator into manual mode (raised or lowered with Up/Down switch).
 - On position puts Levitator into automatic mode where Torch Height Control attempts to maintain a set torch height from plate when cutting oxygen is On (during Preheat and Cut On for remote use).
2. Height Adjust Potentiometers are used for setting torch height for each Torch Height Control:
 - Counter-clockwise rotation increases torch-to-plate distance.
 - Clockwise rotation decreases torch-to-plate distance.
3. Two optional all-up timers (for remote use) are set to raise all torches before pierce and after cut-off.

Miscellaneous

1. All relays are suitable for voltages up to 230 VAC.
2. Durable brushed aluminum switch panels.

*Note:

The standard output voltage for the gas, station and lifter options is based on the incoming AC line voltage (115 AC or 230 VAC). However, the options can be wired to accept external power supplies (customer furnished) such as 24 VDC or 24 VAC power for oxygen solenoids, as well as single 24 Volt or ± 24 Volt supplies for lifters. Maximum external supply voltage for any option is 230 VAC.

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