

# RETRO SYSTEMS

## SENSOR™ Torch Height Control Software & RSVS-5 Lifter

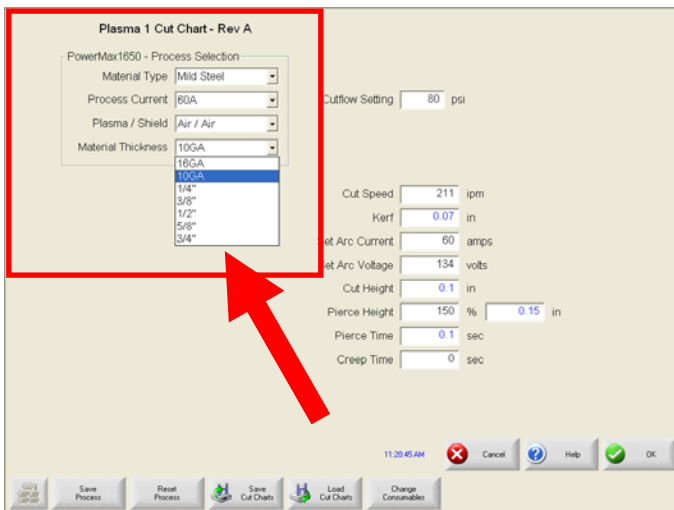
**SENSOR™** plasma torch height control software is tightly integrated into Hypertherm® CNC controls. Together they deliver a full featured precision plasma torch height control system specifically designed to work with Hypertherm plasma systems. **SENSOR** will significantly increase the productivity and profitability of your shape cutting operation.

The machine operator selects Material Type, Process Current, Plasma/Shield Gas and Material Thickness from the CUT CHART SCREEN. The CNC control retrieves cutting parameters from factory **Look-Up Tables** stored within the CNC control. All plasma process parameters are set and automatically maintained during the cutting cycle.

### SENSOR SOFTWARE PARAMETERS:

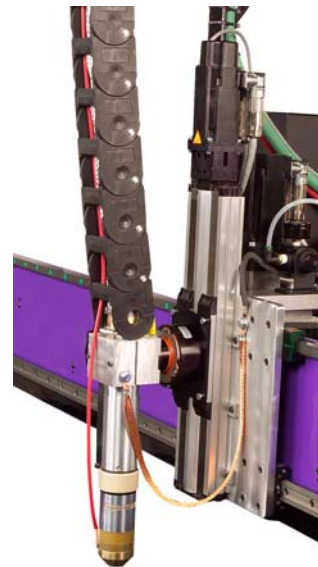
- Pierce height
- Pierce time
- Cutting height
- Cutting voltage
- Retract height after cut

### PLASMA CUT CHART SCREEN:



The screenshot shows the 'Plasma 1 Cut Chart - Rev A' interface. A red box highlights the 'Process Selection' area, which includes dropdown menus for 'Material Type' (set to 'Mild Steel'), 'Process Current' (set to '60A'), 'Plasma / Shield' (set to 'Air / Air'), and 'Material Thickness' (set to '10GA'). A red arrow points to the 'Material Thickness' dropdown menu, which is open and shows options: '10GA', '14GA', '3/8"', '1/2"', '5/8"', and '3/4"'. To the right of the dropdowns, there are input fields for 'Cutflow Setting' (80 psi), 'Cut Speed' (211 ipm), 'Kerf' (0.07 in), 'Set Arc Current' (60 amps), 'Set Arc Voltage' (134 volts), 'Cut Height' (0.1 in), 'Pierce Height' (150 % with a sub-field for 0.15 in), 'Pierce Time' (0.1 sec), and 'Creep Time' (0 sec). At the bottom, there are buttons for 'Save Process', 'Reset Process', 'Save Cut Charts', 'Load Cut Charts', 'Change Consumables', 'Cancel', 'Help', and 'OK'.

Selection of Material Type, Process Current, Plasma/Shield and Material Thickness automatically sets and maintains all torch height control parameters during the cutting cycle.



RSVS-5 plasma torch lifter

### RSVS-5 Lifter Features:

- Sets Initial Pierce Height and maintains torch to plate height during cut via voltage regulation
- Height Sensing using Ohmic or Position Error Stall Detection
- Ball Screw Drive with Dual Linear Guide Ways
- 250 Watt AC Servo Motor
- Up to 1,000 IPM (25.4mm/min) positioning speed
- 10" (250mm) or 13.7" (350mm) stroke travel for torch positioning
- 50-210 VDC Arc Voltage Range in 1 volt increments
- RAD Pneumatic plasma torch collision mount
- Lifter dimensions (with RAD plasma mount): H 21" (533mm); W 3.5" (95mm); D 5.0" (127mm)
- Lifter weight capacity: 100 lb (45.5.7kg)

### Typical Applications:

- Heavy Duty Conventional and High Definition plasma cutting