



# Bay State Surface Technologies, Inc.

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NO.  
HE-1010

## PRODUCT DATA SHEET



### KEY FEATURES

- 10 tons (120,000 BTUH) of heat removal is required
- Water temperature to process adjustable from 50° to 80°F
- 3-10 GPM flow required to process at 125-225 PSI
- Water components constructed of nonferrous materials
- Deionization/Deoxygenation system optional

### HE-1010 PlasmaGun® WATER CHILLER

FOR THE 80 KW  
PLASMAGUN  
SYSTEM



# AIR COOLED PORTABLE CHILLER

## DESIGN AND COMPONENT SPECIFICATIONS

### SPECIFICATIONS

Model:	HE-1010	Voltage:	460V/3/60
Capacity:	10.0 tons	MCA:	36 amps
(65°F lwt, 95°F ambient)		Operating Range:	50°F – 80°F
Refrigerant:	HCFC-22	Shipping Weight:	950 lbs
Pump:	7½ HP	Dimensions:	74"L x 34"W x 55"H
Flow to Process:	3-10 GPM	Process Connections:	1½" FNPT
Pressure:	125-225 PSI	Condenser Air Flow:	8,100 CFM

### MECHANICAL FEATURES

- Generously sized condenser for industrial environments (up to 115°F ambient temperatures)
- Twin top discharge fans and cleanable inlet air filter
- Energy efficient and reliable scroll compressor
- Electronic hot gas bypass for capacity control
- Brazed plate evaporator provides higher heat transfer coefficients due to reduced fouling
- Refrigerant TXV, filter/drier, and sight glass
- Freezestat safety switch with solid state sensor
- Encapsulated high and low refrigerant pressure safeties
- Nonferrous water circuit construction
- Insulated polyethylene reservoir with sight glass and removable cover
- Stainless steel process pump with pressure gauge
- Fail safe flow switch interlocked with compressor
- Flow switch and Flow meter in process return line
- Y-strainer on supply and return lines to protect evaporator from contamination
- Pressure regulated bypass valve to set process flow and pressure
- Compressed air purge
- Factory tested under full load conditions prior to shipment

### ELECTRICAL FEATURES

- NEMA-12 electrical enclosure with single point electrical connection
- Control transformer to provide 115V/1/60 control voltage
- Dual LED digital displays of actual and set point temperatures
- PID control algorithm
- Anti-cycle timer to prevent short-cycling of compressor
- Diagnostic lights (No Flow, High Refrigerant Pressure, Low Refrigerant Pressure, Freezestat, Under Set Point, Over Set Point, Pump On, Compressor On, Partial Load, High Water Temperature, Probe Fault)
- 24VDC signal for remote on/off capability
- Contact closure for system normal (contacts open upon chiller fault)
- Switches with indicating lights (Power, Start, Stop, Alarm Reset)

