



# FORWARD TECHNOLOGY

a Crest Group Company



(shown with optional features)

## VHF-1015

Vertical Hydraulic Hot Plate Filter Welder

The VHF-1015 is a vertical heat platen orientation, hydraulic motion controlled hot plate welding system specifically designed for welding filter assemblies up to 10" D x 15" H x 69" L (254mm x 381mm x 1753mm). Customized variants of this model are available.

The system design is ideal for:

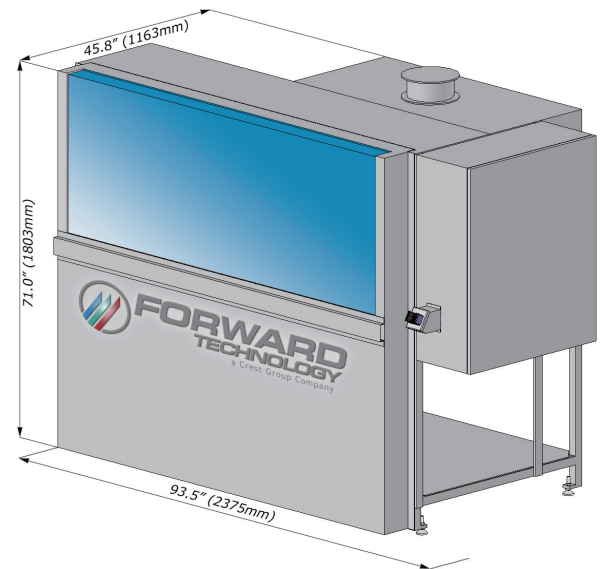
- Welding stackable filter cartridge modules together.
- Embedding filter media into plastic end caps (replacing potting operations).
- Welding of filtration housings.
- Welding termination fittings (ie: end-caps, twist-lock unions, "O"-ring fittings, etc...) to the ends of filter cartridge modules.

## Standard Features

- **Ultra-Rigid Construction** utilizing a tubular steel framework with leveling feet and linear guide shafts & bearings designed for precise tool alignment through decades of use.
- **Hydraulic System with Proportional Valve Control and Linear Position Transducers** offers improved control and reduced machine and coating wear by user programmed variable tool mounting jaws and heat platen carriage pressures and speeds, including "soft-touch" contact of part halves to heat platen (Melt) and each other (Weld/Seal).
- **Digital Single-Zone Temperature Control via PLC with Heater Burnout Alarm** ensures even heating and precise temperature control with temperature alarm limits. Burnout alarm halts operation of the machine in the event of platen heater failure.
- **Programmable Automatic Machine and Heat Platen Startup (Time/Date Based)** saves production time as the machine can be user programmed to automatically initialize warm-up of heat platen and hydraulic system before start of production.
- **Allen Bradley CompactLogix PLC with PanelView Plus 7 - 700 Color 6.5" Touch-Screen Graphical Display** simplifies parameter input and allows the following to be displayed:
  - Melt, Weld (Seal), & Open Time Digital Control & Display
  - Resettable Parts Counter
  - Non-Resettable Total Machine Cycle Counter
  - Diagnostic Display
  - Machine Alarms (history storage of up to 99 alarms)
  - Ethernet Connectivity
- **Multi-Level Passcode Protection** limits parameter adjustment to qualified personnel only.
- **25 Weld Program/Setup Memory** allows storage for instant recall, minimizing tool change time.
- **External 120VAC Duplex Electrical Outlet** allows user to easily connect small auxiliary equipment such as computers, printers, radios, etc.
- **Dual Venturi 25.0 in/Hg (63.5cm/Hg) Vacuum Pump System** designed to secure even the largest parts within the tooling.
- **Pneumatic Power Sliding Safety Door with Zero Force Cycle Activation Switch** provides optimum personnel protection while reducing operator fatigue.
- **Hinged Access Panels with Safety Interlock Switches** allow extensive access while providing maximum personnel protection.
- **Vent Hood with Exhaust Fan** evacuates airborne smoke and particulate from the operator location when welding at high temperatures without coatings.

## Optional Features

- Air/Pneumatic (VAF) Operation
- Special Energy Star Compliant Operating Voltages
- Additional Temperature Control Zone with Heater Burnout Alarm
- Larger Operator Interface
- LED Four Color Light Tower
- External Lighting
- Light Curtains
- Fork Lift Tubes
- Leveling Casters
- Quick Disconnect Outlets & Sensors
- Heat Platen & Tooling Fixture Storage Cart with Casters
- Pre-Heat Temperature Zone Station



### MECHANICAL SPECIFICATIONS:

Weight:	~2100 lbs (953kg)
Overall Dimensions:	45.8" D x 93.5" W x 71.0" H (1163mm x 2375mm x 1803mm)
Maximum Heat Platen:	10.0" D x 15.0" H (254mm x 381mm)
Heat Platen Carriage Stroke (back-front):	12.0" (305mm)
Heat Platen Assembly Lateral Stroke (side-side):	1.5" (38mm)
Tool Mounting Jaws:	10.0" D x 15.0" H (254mm x 381mm)
Daylight Opening (between Tool Mounting Jaws):	9.0" – 78.0" (229mm - 1981mm) Variable
Moving Tool Mounting Jaw Stroke:	6.5" (165mm)
Front Door Opening:	73.8" W x 28.0" H (1875mm x 711mm)

### PERFORMANCE SPECIFICATIONS:

Moving Tool Mounting Jaw:	Single – Right
Hydraulic System:	5.0 HP, 1750 RPM, 10.0 GPM (3.73kW, 1750 RPM, 37.9 LPM) 1000 PSI (68 Bar) Max. Pressure
Maximum Clamp Force:	880 lbs @ 1000 PSI (3.92kN @ 68.0 Bar)
Dual Venturi Vacuum System:	25.0 in/Hg (63.5cm/Hg)
Thermal Temperature Range:	100°F - 1000°F (38°C – 538°C) Tooling and Application Dependent
Warranty:	1 Year (Parts & Service)

### SYSTEM REQUIREMENTS:

Electrical Requirements:	480VAC, 3PH, 60 Hz
Pneumatic Requirements:	80 PSI, 0.5" ID (5.5 Bar, 13mm ID) Supply Line

System includes Filter/Regulator/Lubricator



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