FORWARD TECHNOLOGY
a Crest Group Company

(shown with optional features)

VAFIR-1015
Vertical Air Filter Infrared Welder

The VAFIR-1015 is a vertical infrared platen orientation, pneumatic motion controlled infrared 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.
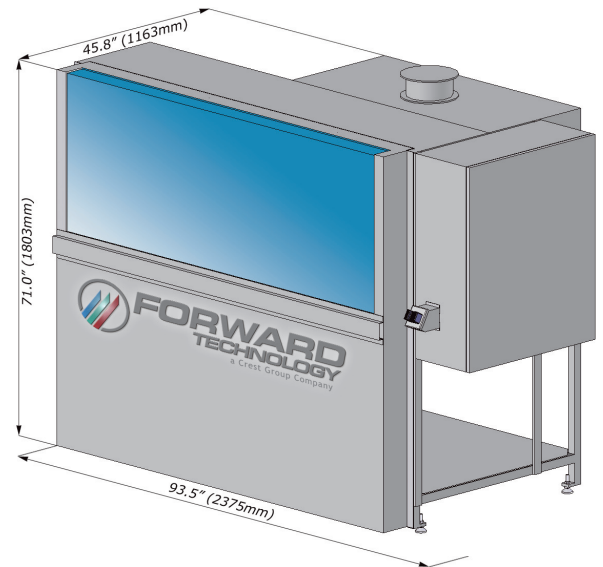
This system design is ideal for:
- Welding stackable filter cartridge modules together.
- Embedding filter media into plastic end caps (replacing potting operations).
- Welding of filtration housings.
- Welding termination fittings (ie: end-caps, twist-lock unions, "O"-ring fittings, etc...) to the ends 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.

- **Digital Dual IR Controllers provide (4 + 4) Eight Zone Infrared Intensity Control via PLC/HMI with Emitter Burnout Alarm and Digital Incoming Line Voltage Monitoring with settable Alarm Limits.** Alarms prevent operation of equipment in the event of emitter failure or if plant voltage rises/sags outside of user-defined limits (affecting actual infrared energy output).

- **Allen Bradley MicroLogix 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
  - 5 Digital Infrared Energy Control Steps (10% - 100%)
  - 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.

- **10 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 from the operator location.

Optional Features

- Hydraulic (VH) Operation
- Special Energy Star Compliant Operating Voltages
- Extended Stroke for Larger Parts
- Conventional Hot Plate Welding Controls
- Additional Conventional Temperature Control Zone with Heater Burnout Alarm
- Larger Operator Interface and/or PLC Upgrade
- Customized PLC Programming
- Pendant Arm Mounted User Interface
- LED Four Color Light Tower
- External Lighting
- Light Curtains
- Fork Lift Tubes
- Leveling Casters
- Quick Disconnect Outlets & Sensors
- Infrared Tooling/Fixture Storage Cart with Casters

45.8" (1163mm)
71.0" (1803mm)
93.5" (2375mm)

MECHANICAL SPECIFICATIONS:

Weight:	~1600 lbs (726kg)
Overall Dimensions:	45.8" D x 93.5" W x 71.0" H
	(1163mm x 2375mm x 1803mm)
Maximum Infrared Platen:	10.0" D x 15.0" H (254mm x 381mm)
Infrared Platen Carriage Stroke (back-front):	12.0" (305mm)
Infrared 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):	Variable from
	9.0" – 78.0" (229mm - 1981mm)
Tool Mounting Jaw Stroke:	4.5" (114mm)
Front Door Opening:	73.8" W x 28.0" H
	(1875mm x 711mm)

PERFORMANCE SPECIFICATIONS:

Moving Tool Mounting Jaw:	Single – Right
Maximum Clamp Force:	390 lbs @ 80 PSI (1.74kN @ 5.5 Bar)
Dual Venturi Vacuum System:	25.0 in/Hg (63.5cm/Hg)
Infrared Energy Control Range:	10% - 100% (in 1% increments)
Infrared Energy Control Steps:	5
Warranty:	1 Year (Parts & Service)

SYSTEM REQUIREMENTS:

Electrical Requirements:	240VAC, 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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