



# FORWARD TECHNOLOGY

a Crest Group Company



(shown with optional features)

## ESVAIR-1015

Extended Stroke Vertical Air Infrared Welder

The ESVAIR-1015 is an extended stroke, vertical infrared platen orientation, pneumatic motion controlled infrared welding system capable of welding parts up to 10" D x 15" H (254mm x 381mm) or multiple smaller parts. Customized variants of this model are available.

When compared to horizontal platen systems, vertical systems typically:

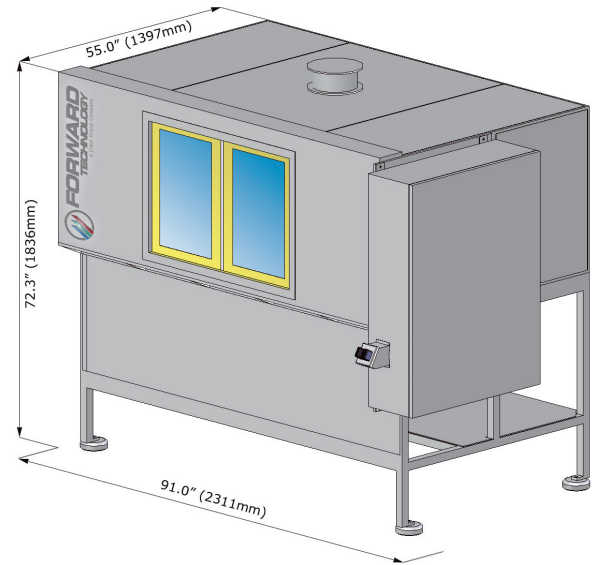
- Reduce risk of molten material possibly dripping onto the infrared platen during the melt step (resulting in premature emitter failure).
- Allow faster tooling changeovers.
- Allow easier and more positive operator loading and unloading of the tooling.
- Ensure more precise part half alignment during welding (less scrap) as no special part-part alignment features must be designed in the parts themselves (required for accurate machine pick-up of one part half on horizontal systems).

## 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 Dual Power Sliding Doors with Zero Force Cycle Activation Switch and Door Safety Tapeswitch** provide 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



### MECHANICAL SPECIFICATIONS:

Weight:	~1750 lbs (794kg)
Overall Dimensions:	55.0" D x 91.0" W x 72.3" H (1397mm x 2311mm x 1836mm)
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):	30.0" (762mm)
Tool Mounting Jaw Stroke (each):	12.0" (305mm)
Front Door Opening:	32.0" W x 23.8" H (813mm x 605mm)

### PERFORMANCE SPECIFICATIONS:

Moving Tool Mounting Jaws:	Dual - Left and 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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