



FORWARD TECHNOLOGY

a Crest Group Company



(shown with optional features)

VAIR-1015

Vertical Air Infrared Welder

The VAIR-1015 is a 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:

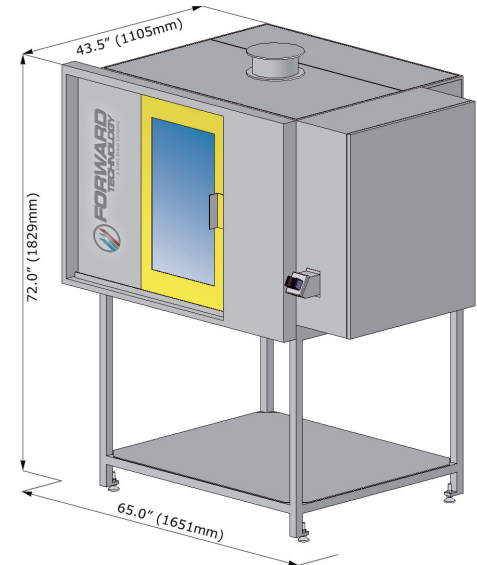
- Reduce risk of molten material possible dripping onto the infrared platen during the melt step (resulting in premature emitter failure).
- Allow faster tooling changeovers.
- Allow easier and more positive operator loading and unloading of the tooling.
- Ensure more precise part half alignment during welding (less scrap) as no special part-part alignment features must be designed into 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.
- **Automatic Cycle Start on Manual Safety Door Closure** eliminates the need to actuate start button(s). Door is equipped with captured lock and is interlocked to prevent opening while machine is in cycle.
- **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:	~1500 lbs (681kg)
Overall Dimensions:	43.5" D x 65.0" W x 72.0" H (1105mm x 1651mm x 1829mm)
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):	21.0" (533mm)
Tool Mounting Jaw Stroke (each):	6.0" (152mm)
Front Door Opening:	17.5" W x 33.0" H (445mm x 838mm)

PERFORMANCE SPECIFICATIONS:

Moving Tool Mounting Jaws:	Dual - Left and Right
Maximum Clamp Force:	660 lbs @ 80 PSI (2.94kN @ 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



**FORWARD
TECHNOLOGY**
a Crest Group Company

260 Jenks Ave. SW
Cokato, Minnesota 55321
Phone: 320.286.2578
Fax: 320.286.2467
info@forwardtech.com
www.forwardtech.com