FORWARD TECHNOLOGY

a Crest Group Company

(shown with optional features)

ESVHIR-1015

Extended Stroke Vertical Hydraulic Infrared Welder

The ESVHIR-1015 is an extended stroke, vertical infrared platen orientation, hydraulic 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:

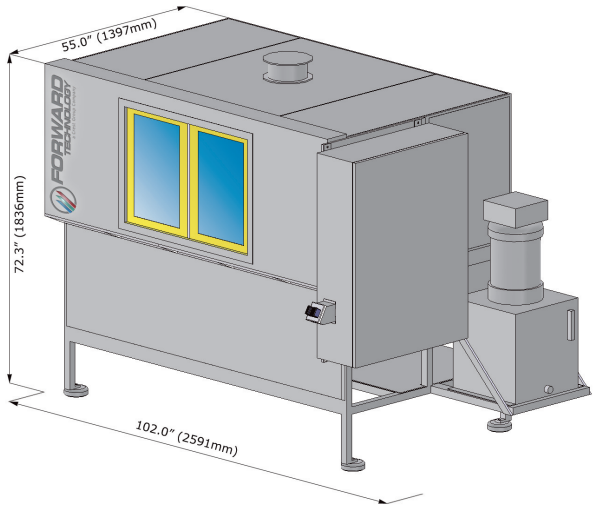
- *Reduce risk of molten material possibly dripping onto the infrared platen during the melt step (resulting in premature emitter failure).*
- *Allow faster tooling changeovers.*
- *Allow easier and more positive operator loading and unloading of the tooling.*
- *Ensure more precise part half alignment 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.*
- ***Hydraulic System with Proportional Valve Control and Linear Position Transducers*** *offers improved control and reduced machine wear by user programmed variable tool mounting jaws and infrared platen carriage pressures and speeds, including "soft-touch" contact of part halves to each other during the Weld (Seal) step.*
- ***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).*
- ***Programmable Automatic Machine Startup (Time/Date Based)*** *saves production time as the machine can be user programmed to automatically initialize warm-up of the 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*
  - *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.*
- ***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 Dual Power Sliding Safety 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

- *Special Energy Star Compliant Operating Voltages*
- *Additional Conventional 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*



MECHANICAL SPECIFICATIONS:

Weight:	*~2250 lbs (1021kg)*
Overall Dimensions:	*55.0" D x 102.0" W x 72.3" H*
	(1397mm x 2591mm 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

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)

Infrared Energy Control Range: 10% - 100% (in 1% increments)

Infrared Energy Control Steps: 5

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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