



VORTEX® precedence
Servo Spin Welder

 **EXTOL**^{INC}
IDEAS • ACTIONS • RESULTS

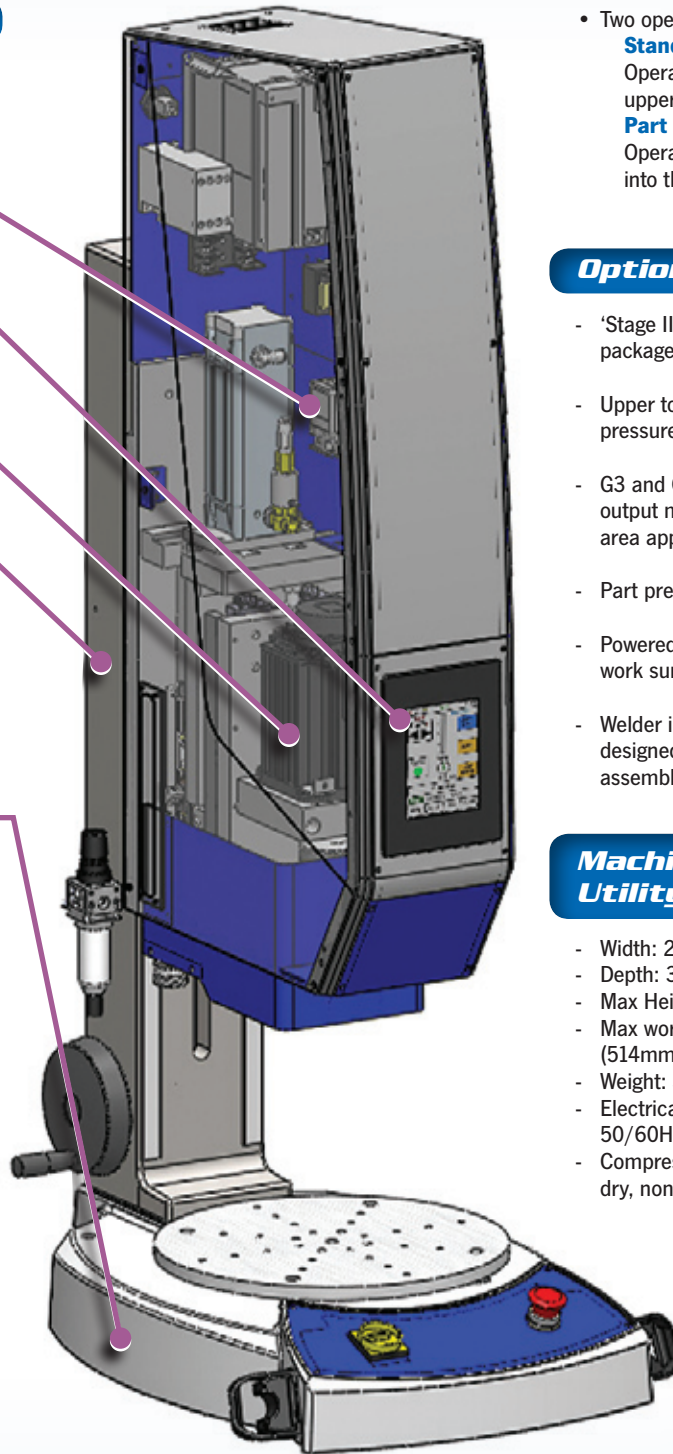
VORTEX[®] PRECEDENCE

Servo Spin Welder

Technical Description:

- Fully integrated power supply, controls, and operator interface
- Proprietary, electro-pneumatic z-axis control system which allows for in-cycle programmable force and velocity changes, and a wide force application range from 10 – 400Lbs (45 - 1780N)
- Large 7" color, touch-screen operator interface with English and Metric units and multiple languages
- Powerful 3.0kW servo drive motor producing 29.4 Nm peak torque, programmable speed to 5000rpm
- Linear Potentiometer provides weld-by-depth control
- Rigid, square column with 17" (430mm) height adjustment
- True process monitoring with high/low alarm limits for final angle, revolutions, collapse-travel, total-travel and weld time
- Standard on-board data-logging of the previous 50-cycles
- Heavy-duty cast machine base with leveling plate and integrated start switches and e-stop button
- Reset-able and lifetime cycle counters
- Manual mode provides complete z-axis and spindle rotation control to dramatically simplify the set-up process
- Four weld modes available – using dynamic or static triggering:
 - **Distance - Collapse Travel:**
Controls weld joint displacement
 - **Distance - Total Travel:**
Controls the final assembly height
 - **Revolutions Mode:**
Controls the weld through programmed spindle rotations
 - **Time Mode:**
Controls weld duration

Note: Orientation or final angle control is offered in all weld modes, programmable to +/- 1-degree



- Two operation modes:
 - Standard mode**
Operator loads components into the upper and lower tooling
 - Part Pick-up mode**
Operator loads both components into the lower nesting

Options:

- 'Stage II', Ethernet data collection package
- Upper tool vacuum or positive air pressure functionality
- G3 and G5 gear-reduction, high-torque output models for large part/surface area applications
- Part presence sensing
- Powered, adjustable height ErgoStation work surface
- Welder integration into custom designed and manufactured Extol assembly systems

Machine Dimensions, Utility Requirements:

- Width: 22" (559mm)
- Depth: 30.5" (775mm)
- Max Height: 69.2" (1,758mm)
- Max work window (no tooling): 20.25" (514mm)
- Weight: 325lbs (147Kg)
- Electrical supply: 200-240VAC 3-phase, 50/60Hz, 20amps service
- Compressed air supply: 80psi, clean, dry, non-lubricated