Dukane’s Servo Weld™ Spin Welder is designed to precisely assemble thermoplastic parts which have a circular joint. The welder is built around a servo motor that controls the radial orientation of the finished part with an accuracy of better than +/- one-tenth of a degree. Compared to competing machines using induction motors, servo motors produce more torque in a smaller package. These integrated bench-top machines are more compact than earlier spin welders and suitable for stand-alone production or for integration into automated equipment. Three different models are available having different speed/torque combinations to accommodate a wide range of part joint diameters.

The Servo Welder incorporates new controls using color touch-screen technology with an intuitive menu structure. The touch screen accesses a rich list of features including pre-load or pre-spin modes, part-pickup and torque-sense triggering. The Servo Welders can weld by time, number of turns, or absolute distance, with or without the radial positioning engaged. The machine stores up to eight setup files in its memory, and has programmable limits on all primary process parameters. Mechanical and pneumatic settings are placed behind a lockable panel to prevent unauthorized adjustment. The Servo Welders also meet CE requirements.

Best-in-Class Standard Features

- High precision servo spin drive with orientation accuracy of +/- 0.1 degree
- Large color touch screen with intuitive menu structure
- Programmable part parameter limits (Weld-Time, Rotations, Orientation, Energy, Peak Torque, Downstroke and Cycle time.)
- RS-232 connection for transfer of part data
- On board storage of 8 part setups
- Password protection of setup parameters
- Lockable door prevents unauthorized access to mechanical settings.
- Welds by time, turns, or absolute distance, with or without orientation
- Trigger by position or torque
- Pre-spin and part pickup modes
- Extra-rigid rectangular tube column with negligible deflection
- Up to 6” (150mm) stroke for greater versatility and easier part load and unload
- Pneumatic vertical actuation with hydraulic speed control standard, 500 pounds (2200N) maximum clamp force

Secure your settings from changes via the lockable door.
Best-in-Class Standard Features (continued)
- Optical cycle activation switches to reduce operator fatigue
- Ergonomic base with status indicators
- Integrated design eliminates cables and makes installation more compact
- Automation connector with cycle start, top of stroke, system status, part quality, part-in-place, fixture clamping, etc.
- Full two-year parts and labor warranty in North America (contact Dukane office for warranty outside of North America)
- CE and NAFTA certification

Options
- Spin tool vacuum system
- Larger air cylinder for up to 700 (3100N) pounds clamp force
- Available “less base” or “less base and column” for incorporation into automation
- Automation interface cable
- Two-position pneumatic rotary turntable kit allows loading of one fixture up to 12 by 14 inches (305mm by 356mm) while the other is under the spin head, increasing productivity

Machine Specifications

Power Requirement:
200-250 VAC Single Phase 50/60Hz @ 20 Amps

Weight:
375 Pounds (170KG)

SVT032R = 3000 RPM, 4.2 HP
SVT042R = 4000 RPM, 2.5 HP
SVT012R = 750 RPM, 4.2 HP

Stroke Length: 6” (152mm)
Height Adjustment: 14” (357mm)
Max Spin Tool Diameter: 16” (406mm) in standard configuration

Options
- Spin tool vacuum system
- Larger air cylinder for up to 700 (3100N) pounds clamp force
- Available “less base” or “less base and column” for incorporation into automation
- Automation interface cable
- Two-position pneumatic rotary turntable kit allows loading of one fixture up to 12 by 14 inches (305mm by 356mm) while the other is under the spin head, increasing productivity