



PROCESS DATA	
Part Nr. 12345678	Date 11/22/23
Limits -	Time 11:22:33
MELD	
Time (s) 1.00	Rotations 20.4
Peak RPM 1200	Peak Torque (lb) 15
Energy (J) 300	Orient. (Deg.) 32.2
Hold End (cm) 00.00	Peak Thrust (lb) 25
Hold End (cm) 00.20	Hold Col (cm) 0.20
Cycle (s) 9.53	
Part Data	

Color touch-screen with intuitive menu controls.



Melt-Match™



SVT012VR SVT032VR SVT042VR DUAL SERVO SPIN WELDERS

Dukane's **Dual ServoWeld** Spin Welder is designed for welding circular parts that have a tight tolerance requirement for both the orientation between the parts being welded and the overall final welded assembly height. The new design builds on the solid foundation of Dukane's existing single servo-spin welder, by replacing the pneumatic Z-axis drive with a second servomotor. The unit's control system has resolutions of 0.1 degrees for rotation and .0004 in. (.01 mm) for Z-axis position. In addition, the control system coordinates the performance of both servomotors thereby providing the user with a new welding technology Dukane calls Melt Match. The Melt Match technology uses a constant torque welding mode in which the welder automatically adjusts the Z-axis speed to match the melt rate of the material for a specified spin torque.

A user friendly color touch screen operator interface is standard. Setup of machine is virtually effortless thanks to the position jog teach feature. This intuitive interface allows the operator to quickly and simply jog the unit to both the final orientation axis position and the final Z-axis height position. Error conditions are graphically indicated on the panel and include an explanation of the source of the error.

All machine setup parameters are programmed through the password-protected interface. This insures that no unauthorized adjustment of the machine setup can occur. A programmable feature also allows the user to define the "home" position, thereby allowing the elimination of unnecessary vertical stroke and thereby reducing overall cycle time. The machine can store up to eight setup files in local memory, and has programmable limits on up to 11 independent process parameters. All weld data can be exported via RS-232 data port.

Best-in-Class Standard Features

- Large color touch screen with intuitive menu structure
- High precision servo spin drive with orientation resolution of 0.1 degree
- Servo vertical actuator with positioning resolution of .0004 in. (.01 mm)
- Trigger by vertical position or spin torque
- Programmable welding methods include Weld by Time, Rotations, Collapse Distance w/orientation, Absolute Distance w/orientation, and Energy.
- Post weld features include Hold by Time (constant speed or thrust) and Hold by Collapse Distance, with optional Static Hold.
- Up to 11 independent programmable upper and lower part limits allow for advance process control

Best-in-Class Standard Features (continued)

- Additional modes: part pickup, pre-spin orientation, constant torque welding
- Motorized mechanical stop
- Password protection of setup parameters
- On board storage of 8 part setups
- Weld data output to PC via RS-232
- Extra-rigid rectangular tube column with negligible deflection
- Up to 5" (127mm) stroke for greater versatility and easier part load and unload
- Optical cycle activation switches to reduce operator fatigue
- Ergonomic base with status indicators
- Integrated design reduces cables and foot print

- Automation connector for interfacing with custom machinery
- 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 for ease of load.
- Available "less base" or "less base and column" for incorporation into automation
- 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

PARAMETER		MODEL		
		SVT032VR	SVT042VR	SVT012VR
Motor Type		Direct Drive		Geared Drive
Top Spin Speed	RPM	3000	4000	750
Peak Spin Power	HP	4.2	2.5	4.2
Peak Spin Torque	ft.*lb. (Nm)	16 (21)	10 (14)	47 (64)
Stroke	in. (mm)	5 (127)		
Max. Down Force	lbs. (kN)	700 (3.1)		
Electrical Power		240 VAC, 20A single phase, 50/60 Hz		
Joint Diameters (guidelines only)	in. (mm)	.5-4 (12-100)	<2 (<50)	4-7 (100-180)
Weight		375 (170)		
Height Adjustment	lb. (kg)	14 (357) – Max. daylight approximately 20" (540)		
Model Selection	in. (mm)	recommended for most applications	small parts (RPM > 3000)	Large parts

