

Application

Automotive parts (such as headlamp, taillight, intake manifold, fascia, glove box, airbag bracket, air passage, pressure conduit, water tank, valve cap, filter components and so on);

Electronic apparatus (such as battery box, outlet valve of washing machine, acoustics and so on);

Commodity (such as snack box, water-canon and so on)



Principle

Vibration welding use the friction between two thermoplastic connecting parts to melt the plastic, this heat energy comes from the back and forth movement at a certain displacement or amplitude of one work piece on another workpiece's surface. Once the expected welding extend is reached, the vibration stops with certain pressure still on two workpieces, which can cool and solidify the welding part and bond firmly in the end.

Special Features

- *Applicable to large-scale and rule less thermoplastic welding, multiple plastic material welding, especially for soft and high-melting point material like nylon.
- *Efficient electromagnetic driving system, proven reliability, using dpwm technique.
- *The heaviest flame cutting overall bridge in the same level, which would prevent non effective vibration.
- *Four continuous supporting guide-bars & 8 reciprocating self-lubricating bearings makes it to be the best lift platform.
- *Stronger frame structure with multiple-beam.
- *Steel pipe frame worktable, 25mm metal panel, grinding machine processed base surface provide a stable platform for lower die. *Low noise below 80 dB
- *78L tank and proportional valve hydraulic power unit supplied by bossch rexroth, precise control of worktable when processing. *80% Parts can be exchanged by a compatible designed idea.



Model & Technical Specification

Model	MSV515LS	MSV630LS	MSV650LS	MSV715LS	MSV730LS	MSV830LS	MSV930LS
Vibration Head							
Vibration Upper Tool	15Kg	35Kg	45Kg	55Kg	70Kg	150Kg	200Kg
Welding Area (Approx./for PP)	160 cm ²	200 cm ²	200 cm ²	280 cm ²	460 cm ²	490 cm ²	650 cm ²
Amplitude (Peak to peak)	0.5~1.8mm	0.5~1.8mm	0.5~1.8mm	0.5~1.8mm	0.5~1.8mm	0.8~3.8mm	0.8~3.8mm
Frequency (with fixture)	230~260 Hz	230~260 Hz	230~260 Hz	230~260 Hz	230~260 Hz	125~145 Hz	100~140 Hz
Machine							
Machine Size: Width	2204mm	2454mm	2604mm	2454mm	2454mm	2980mm	3440mm
Depth	1240mm	1240mm	1240mm	1240mm	1240mm	1800mm	1800mm
Height	2240mm	2240mm	2225mm	2240mm	2240mm	2900mm	2900mm
Front Door Opening: Width	1150mm	1400mm	1550mm	1400mm	1500mm	1950mm	2200mm
Height	790mm	790mm	790mm	790mm	790mm	1100mm	1100mm
Drive Platen/upper: Width	762mm	860mm	1350mm	920mm	1020mm	1420mm	1880mm
Depth	420mm	440mm	540mm	540mm	540mm	500mm	500mm
Lift Table Size: Width	1200mm	1300mm	1420mm	1400mm	1500mm	2180mm	2640mm
Depth	500mm	600mm	590mm	600mm	600mm	850mm	850mm
Table Stroke/Max	500mm	500mm	500mm	500mm	500mm	800mm	800mm
Max Dist. betw Lift table/Vibration Head	735mm	735mm	745mm	735mm	735mm	1200~1500mm	1200~1500
Table Speed	250mm/sec	250mm/sec	250mm/sec	250mm/sec	250mm/sec	250mm/sec	250mm/sec
Clamp Force	15KN	15KN	28KN	22KN	30KN	32KN	32KN
Height Adjustment of Vibration Head	-	-	-	-	-	300mm	300mm
Hydraulic System	Servo Pump	Servo Pump	Servo Pump	Servo Pump	Servo Pump	Servo Pump	Servo Pump
Hydraulic Oil	ISOVG32	ISOVG32		ISOVG32	ISOVG32	ISOVG32	ISOVG32
Hydraulic System Size: Width	-	-	-	-	-	700mm	700mm
Depth	-	-	-	-	-	1450mm	1450mm
Height	-	-	-	-	-	1200mm	1200mm
Weight	2800Kg	3000Kg	3500Kg	3400Kg	3400Kg	7000Kg	8000Kg
Sound Pressure Level	<85dB	<85dB	<85dB	<85dB	<85dB	<85dB	<85dB
Machine							
Electrical Cabin Size: Width	-	-	-	-	-	-	-
Depth	-	-	-	-	-	-	-
Height	-	-	-	-	-	-	-
Main Voltage (3P)/Input	AC220V/50Hz	AC220V/50Hz	AC220V/50Hz	AC220V/50Hz	AC220V/50Hz	AC220V/50Hz	AC220V/50Hz
	AC380V, 400V	AC380V, 400V	AC380V, 400V	AC380V, 400V	AC380V, 400V	AC380V, 400V	AC380V, 400V
Power Consumption	23KVA	23KVA	23KVA	29KVA	47KVA	47KVA	47KVA
Maximum Power/Output	15Kw	15Kw	15Kw	18.5Kw	30Kw	30Kw	30Kw
Control Voltage	DC 24V	DC 24V	DC 24V	DC 24V	DC 24V	DC 24V	DC 24V
PLC Type (Mitsubishi)	QU2H	QU2H	QU2H	QU2H	QU2H	QU2H	QU2H
Operation Touch Panel (Mitsubishi)	A970GOT 10.4"	A970GOT 10.4"	A970GOT 10.4"	A970GOT 10.4"	A970GOT 10.4"	A970GOT 10.4"	A970GOT 10.4"
Frequency Tuning	Auto/Manual	Auto/Manual	Auto/Manual	Auto/Manual	Auto/Manual	Auto/Manual	Auto/Manual
Auto Tuning	4 Sec	4 Sec	4 Sec	4 Sec	4 Sec	4 Sec	4 Sec
Welding Control	Depth/Time	Depth/Time	Depth/Time	Depth/Time	Depth/Time	Depth/Time	Depth/Time
Step for Welding	8 Stage	8 Stage	8 Stage	8 Stage	8 Stage	8 Stage	8 Stage
Set up Number	80 ea	80 ea	80 ea	80 ea	80 ea	80 ea	80 ea
Welding Result Analysis	Good/Bad	Good/Bad	Good/Bad	Good/Bad	Good/Bad	Good/Bad	Good/Bad
Language	English/etc	English/etc	English/etc	English/etc	English/etc	English/etc	English/etc
Internet (ETOS-50)	Option	Option	Option	Option	Option	Option	Option
Communication Function	RS232C, 422	RS232C, 422	RS232C, 422	RS232C, 422	RS232C, 422	RS232C, 422	RS232C, 422
Printer	-	BTP-400	BTP-400	BTP-400	BTP-400	BTP-400	BTP-400