



Stronghold welding machines set the standard for multi-purpose resistance welding equipment, having adjustable reach for spot welding. They are easily adapted for projection welding and are available as a seam welding version.

Standard Features for spot welding include:-

- **ADAPTABILITY** - Infinitely adjustable reach from 500-800mm.
- **HIGH QUALITY WELDING** - Choice of 8 or 16 program microprocessor weld control.
- **PRODUCTIVITY** - Welding speeds up to 250 spots per minute.
- **RELIABILITY** - 50% duty cycle encapsulated transformer.
- **VERSATILITY** - Simple adaption to projection welding.

Optional extras

- Retract/high lift and or 160mm air cylinder.
- 100KVA , 150KVA single phase AC or 100KVA.
- 3-phase DC Medium Frequency Transformer.
- Low Force Approach System.
- Closed circuit water cooled system.
- Integration of automatic nut and bolt feed machines.

Stronghold spot welding machines are available as inverter controlled medium frequency machines and offer the following added benefits:-

- Improved weld quality.
- Reduced Power consumption costs.
- Lower peak currents providing increased electrode life.
- 3-phase even load distribution.
- Ideal for welding coated materials and aluminium.
- Weld times reduced through increased rate of heat input to work piece.
- Reduced weld splash owing to lower peak currents.
- Can be retrofitted to existing machines.

Federal Resistance Welding Limited

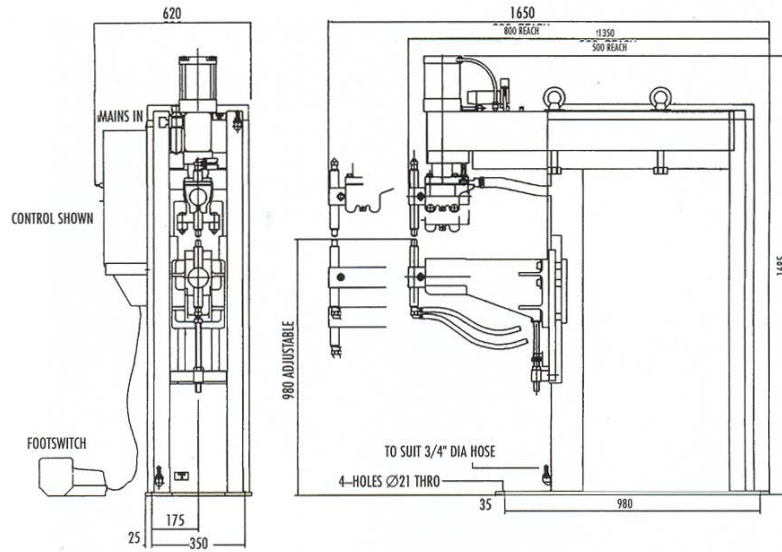
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Stronghold Spot Welder with adjustable reach



Drawing shows machine in standard mode

All measurements shown in mm unless otherwise indicated

Technical Specifications

			75 Stronghold	100 Stronghold	150 Stronghold
Continuous power @ 100% duty cycle	S _p	kVA	53	71	106
Max short circuit power	S _{sc}	kVA	290	360	460
Max welding power	S _{max}	kVA	230	290	360
Nominal power @ 50% duty cycle	S ₅₀	kVA	75	100	150
Nominal supply voltage	U _{in}	V	380 / 440	380 / 440	380 / 440
Continuous primary current at 100% DC	I _{1p}	A	130	170	250
Supply frequency		Hz	50	50	50
Supply phases			2	2	2
Supply capacity		kVA	170	210	300
HRC fuse size to BS88		A	160	200	315
Feed cable c.s.a up to 30m. long		mm ²	50	70	95
Max. short circuit primary current	I _{1cc}	A	690	860	1,200
Max short circuit secondary current	I _{2cc}	A	32,000	35,000	42,000
Max welding current	I _{2max}	A	25,000	28,000	33,000
Duty cycle for max welding	X _{max}	%	5.4	6.1	7.1
Continuous secondary current at 100% DC	I _{2p}	A	6,000	7,200	8,900
Number of taps			3	3	3
Secondary open circuit volts	U _{2o}	V	8.8 / 8 / 7	9.9 / 8.8 / 8	11.9 / 10.4 / 8.6
Weld cylinder		mm	125	125	160
Weld force min/max with a 1.5/5.5 bar supply		kN	1.8 / 6.7	1.8 / 6.7	3.0 / 11.0
Weld force min/max with an 20/80 psi supply		lbf	400 / 1,500	400 / 1,500	650 / 2,500
Weld cylinder stroke max.		mm	76	76	76
Air pressure normal		bar	5.5	5.5	5.5
Air pressure max operating		bar	7	7	7
Air connection/hose size		BSP/in	1/2" / 1/2"	1/2" / 1/2"	1/2" / 1/2"
Cooling water min operating pressure		bar	3	3	3
Cooling water consumption		Lit./min	20	20	20
Cooling water max inlet temp.		°C/°F	30 / 86	30 / 86	30 / 86
Cooling water connection/hose size		BSP/in	1/2" / 3/4"	1/2" / 3/4"	1/2" / 3/4"
Shipping specifications	machine size	mm	590W x 1,350D x 1,685H	590W x 1,350D x 1,685H	590W x 1,350D x 1,685H
	machine weight.	kg	595	595	655

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