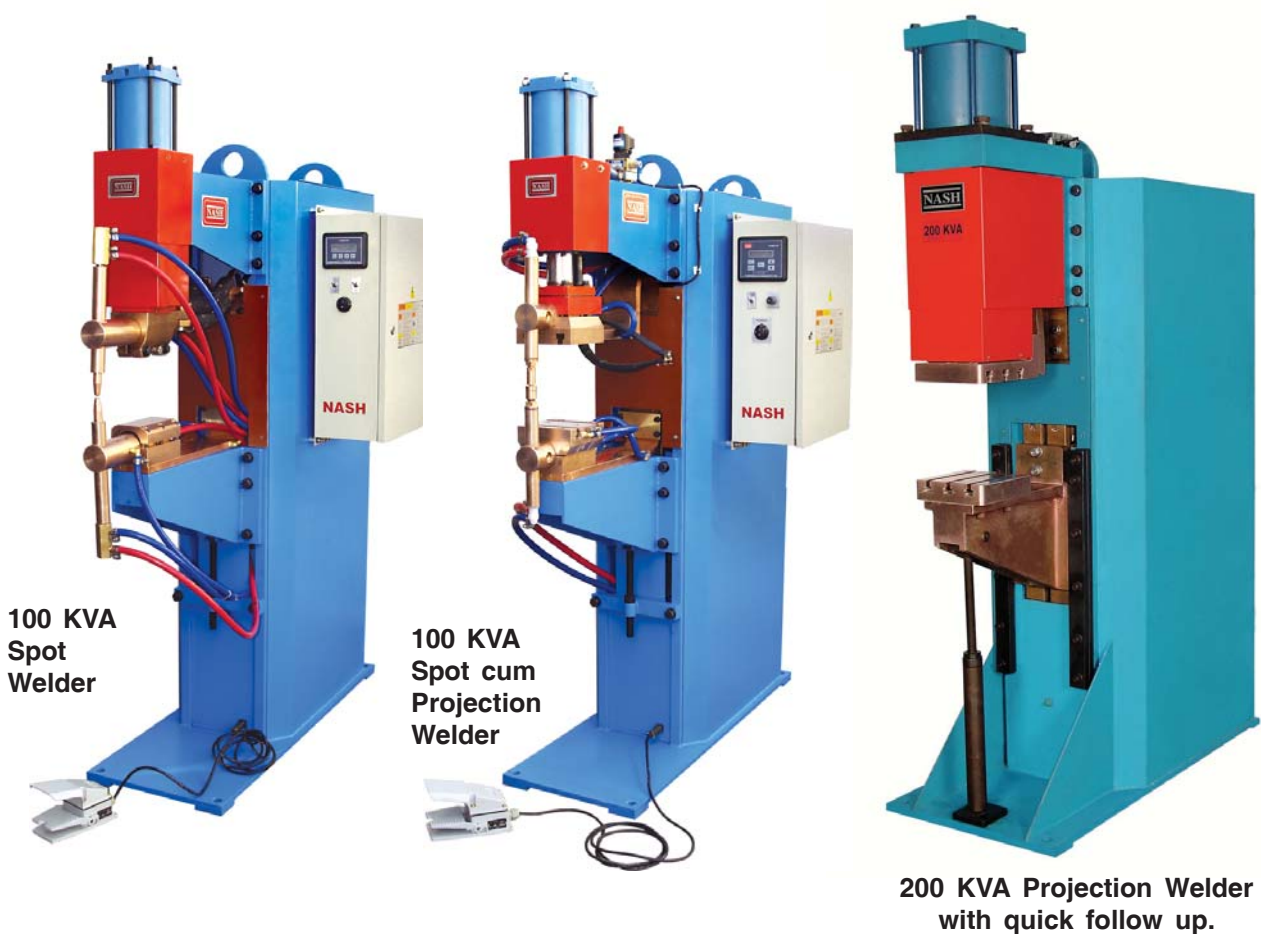




SPOT AND PROJECTION WELDING MACHINES

AC / MFDC / 3 Phase DC

BOLD SERIES

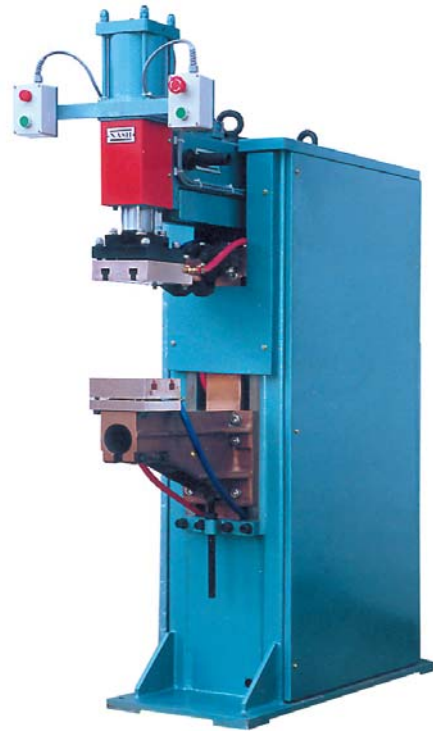


- Press Type Welders - are general purpose machines for broad variety of jobs build to high quality standards of NASH.
- Projection Welding Machines - are available as dedicated projection welders or as conversion from spot welders.
- Range of Microprocessor Controllers are available *For detailed features please refer separate catalogue.*
All controllers have constant current as standard features.
- Transformer - Fully Epoxy moulded "H" Class Insulation, excellent resistance to humidity, dust and vibration
- Lower Platen - Spherical seating for lower platen for perfect tooling alignment.
- Optional - Pendant programming, extra large TD, Large platen size, High lift, Low force approach system, Low inertia arrangement for projection welder, Two foot pedals for two welding time and current values.

STRONGHOLD SERIES



100 kva Spot Welding Machine



100 kva Projection Welding Machine

- Spot Welding Machines - have unique features of infinitely variable throat depth from 500 mm to 800 mm for 75, 100 and 150 KVA machines and 450 mm to 600 mm for 30 and 50 KVA machines.
- Knee, Platens, Horns, Holders - Class 3 alloy having excellent combination of hardness (95 RB) conductivity (50% IACS)

COMPACT SERIES



50 KVA
Spot Welder

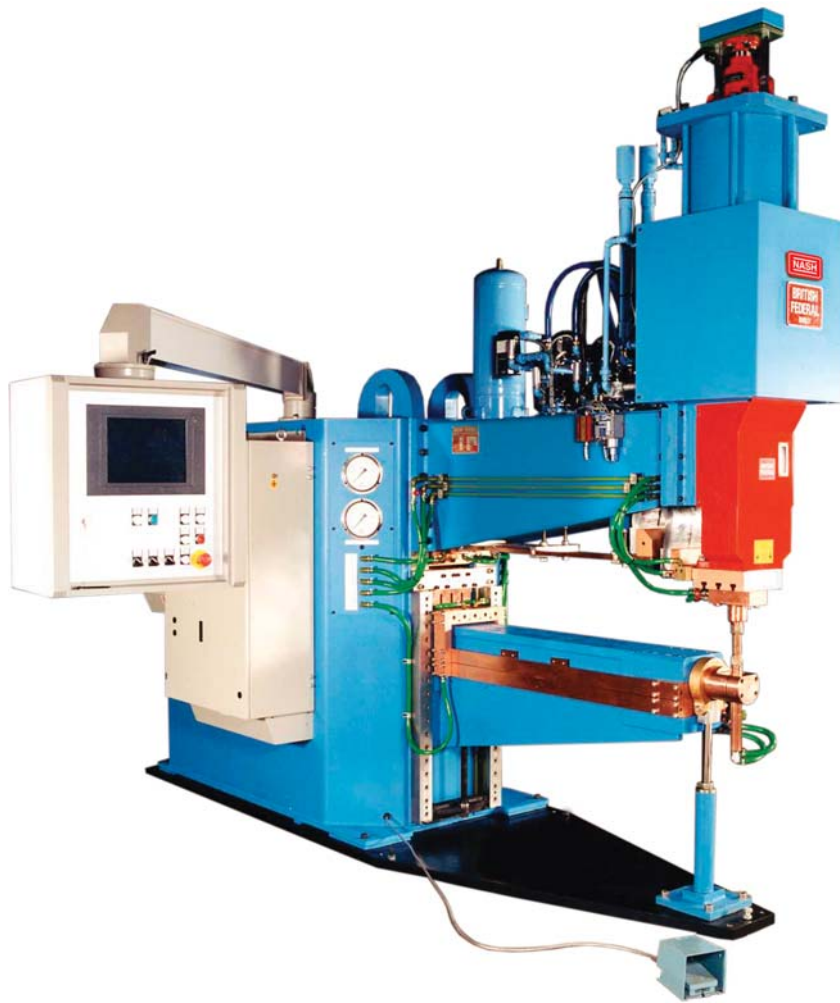


100 KVA
Spot cum
Projection Welder

AIRCRAFT MACHINE

Features

- Aero frame
- 3 Phase DC or MFDC Transformer 100-600 KVA
- Dual P/V force control or Servo Drive
- Low inertia force system to achieve 25-30 ms quick response, 15-45 KN:
- 0-150 mm adjustable high-lift;
- Specially developed Welding control system;
- Special software to provide intensive features on programming, monitoring, logging and data storage.
- LCD touch screen PC;
- Store over 100,000 weld data;
- Fault indicators and emergency stop in one panel
- All operating switches and buttons on panel
- Printer output available

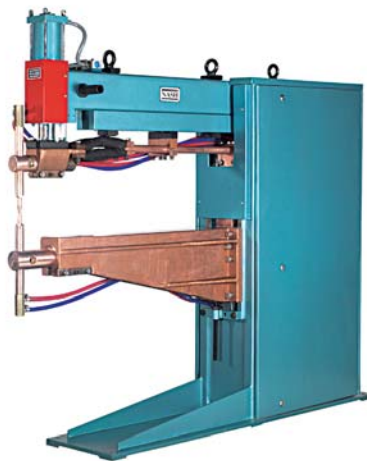


**MFDC - 600 KVA
Spot Welding Machine**

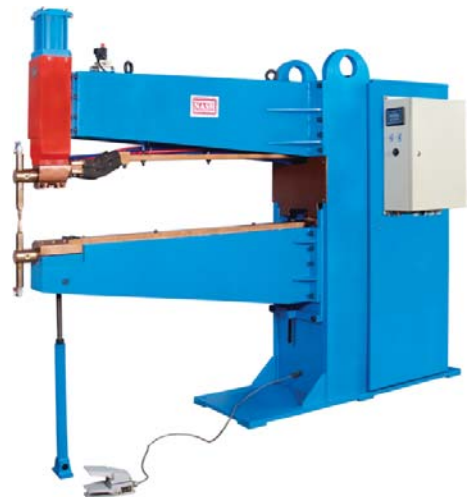
LONG TD MACHINES



Throat Depth 1000 mm



Throat Depth 1200 mm



Throat Depth 1500 mm

MEDIUM FREQUENCY SPOT WELDERS



Medium Frequency Advantages :

- MF Technology is best option for higher manufacturing standards demanded by auto industry due to increased use of aluminium, stainless steel, and coated materials.
- Three Phase load distribution.
- Very high secondary current capability due to reactance component being zero.
- Lower Peak Currents give increased electrode life
- Reduced splashing due to lower peak current.
- Much higher electrode life - 10 times more.
- Reduced energy costs - 25 to 30% less.
- Light weight transformers.
- High power efficiency. ● Can reduce robot costs.
- Higher rate of heat input. ● Near unity power factor ● Network capability
- Shorter weld times due to increased rate of heat input to work piece.

WELD CHECKER (AC & DC) Features:

- A hand held, battery powered weld analyser is, a sophisticated instrument to fulfill the demands of measurement, accuracy and weld quality analysis of today's welding technology.
- Easy operation setup, highly presentable data, and analysis of the weld, to full depth, makes it the most suitable unit to fulfill these demands.
- Battery powered with Auto-Off.
- Weld analysis up to every half (10 ms.) cycle.
- Measures weld current, weld time (cycle/ms), conduction angle, No. of pulses in the weld.
- Measurement data of last 1000 welds, is saved on the main part of a measuring instrument.



Specifications MFDC Spot Welders

Rated power @50% duty cycle	kVA	56	100	600
Rated power @100% duty cycle	KVA	40	71	424
Maximum short circuit power at 300mm TD	kVA	114	300	1200
Maximum Welding Power	kVA	91	240	960
Supply voltage	V	380/415	380/415	380/415
Supply frequency	Hz	50/60	50/60	50/60
Supply phases		3	3	3
Supply capacity	kVA	60	100	600
HRC fuse size to BS88	A	100	160	1000
Feed Cable c.s.a upto 30. long	mm ²	16	25	400
Maximum short circuit primary current	A	275	722	2800
Maximum short circuit secondary current	A	22000	30000	120000
Maximum Welding Current	A	18000	24000	96000
Continuous secondary current @100% duty cycle	A	5000	5000	30000
Weld Cylinder	mm	100	125 160	400
Weld Force Min / Max. with a 1.5 / 5.5 bar supply	KN	1.2/4.3	1.8/6.7 3.0/11.0	16/48
Weld cylinder stroke maximum	mm	63	76	13 (150 hilift)
Air pressure normal	bar	5.5	5.5	5.5
Air connection / hose size	mm	10	10	12
Cooling water minimum operating pressure	bar	3	3	3
Cooling water consumption	lit / min	25	25	35
Cooling water maximum inlet temperature	°C	30	30	30
Cooling water connection / hose size	mm	12 / 19	12 / 19	12 / 19

Specifications - D.C. 3 Phase Spot / Projection Welders

Technical Data	Model	NASH 3F				
		100	150	250	350	450
Rated power at 50%	kVA	100	150	250	350	450
Power at 100%	kVA	71	107	177	247	318
Short Circuit Power	kVA	450	660	1260	1980	2500
Max. Welding Power	kVA	360	528	1008	1584	2000
Rated Supply Voltage	V	415	415	415	415	415
Supply Frequency	Hz	50 / 60	50 / 60	50 / 60	50 / 60	50 / 60
Supply Phase	3	3	3	3	3	
Supply Capacity	kVA					
Cross section connection cables	mm ²	50	50	95	120	2x120
Fuse (delayed action)	A	125	200	250	300	400
Secondary Voltage	V	10	12	14	18	18
Secondary short circuit current (TD - 600mm)	kA	45	55	90	110	140
Max. Welding Current	kA	36	44	72	88	112
Work stroke	mm ²	100	100	100	100	100
Electrode force at 6 bar	daN	900	1200	1880	2400	3600
Water consumption at 3 bar	l/min	20	20	20	20	25
Dimensions	mm	1480	1540	1540	1610	1610
	mm	430	480	480	530	530
	mm	1800	1890	1890	2170	2300
Weight	kg	1160	1250	1350	1460	1820

Specifications Strong Hold Series

Power at 50% D.C.	Model*	Projection Welder Data					Spot Welder Data					Weld Force Min/Max at 5.6 kg/cm ²	Dimensions				Approximate Wt.	
		Throat depth projection	Short circuit secondary current Projection	Platen Area	Platen spacing	T-Slot Centre	Throat Depth Spot	Maximum Short Circuit Secondary Current Spot	Horn Diameter		Electrode Holder Diameter		Cylinder Diameter All - 76 mm Stroke	Depth (spot)	Depth (projection)	Width		Height
									Upper	Lower								
KVA		mm	Amp**	mmx	mmx	mm	mm	Amps**	mm	mm	mm	mm	Kgs	mm	mm	mm	mm	Kgs
30		300 450 750	22,000 20,000 18,000	102x 102	150 to 300	62	450 to 600	17,000 15,000 15000***	63.5	63.5	32	100	140/435	1145 to 1295	1065	615	1580	200
50	Please refer separate chart.	300 450 750	28,000 24,000 23,000***	102x 102	150 to 300	62	450 to 600	22,000 19,000 19000***	63.5	63.5	32	100	140/435	1145 to 1295	1065	695	1710	425
75		300 450 750	37,000 30,000 29,000***	152x 152	150 to 300	76	450 to 800	27,000 23,000 23000***	63.5	76	32	125	180/680	1390 to 1690	1294	695	1740	550
100		300 450 750	46,000 37,000 37,000***	152x 152	150 to 300	76	500 to 800	31,000 27,000 27000***	63.5	76	32 or 38	125	180/680	1390 to 1690	1294	695	1740	550
150		300 450 750	60,000 49,000 49,000***	152x 152	150 to 300	76	500 to 800	38,000 34,000 34000***	63.5	76	32 or 38	160	250/1120	1390 to 1690	1294	695	1740	610
200		300	64,000	200x 200	215 to 500	63 -	- -	- -	- -	- -	- -	200	500/1700	-	1240	850	2035	1160

* 30/50 KVA machines available in frame size 1 or 2 and 75 KVA available in frame size 2 or 3.

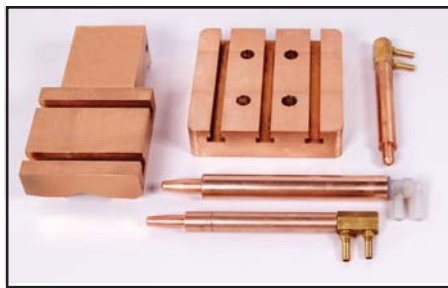
** Values are based on 3% D.C. for projection welder and 4% for spot welder.

*** These values are based upon transformers having higher secondary voltage than transformers used with machines having shorter throat depths but having same KVA rating. This slightly reduces permissible operation duty cycle.

All details are correct at the time of going to print but may be subject to change due to our policy of continuous improvement.

Specifications Compact Series

Specifications		S-6-355	S-6-505	SP-10-75		SP-10-110	
				Projection	Spot	Projection	Spot
Rated Capacity	kVA	35	50	75		110	
Throat Dimensions (Opening x depth)	mm	200 x 500	200 x 500	200 x 300	200 x 400	200 x 300	200 x 400
Max. short circuit secondary Current	A	18,500	22,000	35,000	26,000	45,000	35,000
Rated max. input	kVA	106	177	265	265	354	354
Duty Cycle	%	4	4	4	4	4	4
Rated Frequency	Hz	50/60	50/60	50/60	50/60	50/60	50/60
Welder power source	V	400	400	400	400	400	400
Control unit power source	V	110	110	110	110	110	110
Max. electrode force	kgf	600	600	1000	1000	1000	1000
Electrode stroke	mm	60.20	60.20	60.20	60.20	60.20	60.20
Platen		-	-	150x150		150x150	
Electrode Tip diameter	mm	Ø 16	Ø 16	-	Ø 20	-	Ø 20
Electrode Tip taper		1/10	1/10	-	1/10	-	1/10
Tip Holder Diameter	mm	Ø 25	Ø 25	-	Ø 32	-	Ø 32
Horn Diameter	mm	Ø 60	Ø 60	-	Ø 60	-	Ø 60
Cooling water	L/min.	6	8	8	8	8	8
Weight	Kg.	245	260	340	340	410	410



Projection Welding Platen



Projection Welding Electrodes



Swivel Head / Swing Head Electrodes

Specifications Bold Series

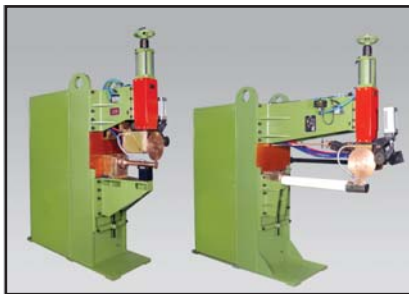
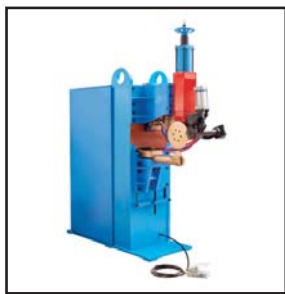
Specifications		Nash-1-30A	Nash-1-50A	Nash-2-75A		Nash-2-100A	
				Projection	Spot	Projection	Spot
Rated Capacity	KVA	30	50	75		100	
Throat Dimensions (opening x depth)	MM	200 x 500	200 x 500	200 x 285	200 x 500	200 x 385	200 x 500
Max. Short Circuit Secondary Current	A	18,500	22,000	32,000	34,000	37,000	35,000
Rated Max. Input	KVA	106	139	230	230	300	290
Duty Cycle	%	4	6.5	5.3	5.3	5.5	5.9
Rated Frequency	Hz	50 / 60	50 / 60	50 / 60	50 / 60	50 / 60	50 / 60
Welder Power Source	V	415	415	415	415	415	415
Max. Electrode Force	kgf	400	400-600	600	600	600	800
Electrode Stroke	mm	85	85	85	85	85	85
Platen		-	-	152X152/200X200	-	152X152/200X200	200X200
Electrode Tip Diameter	mm	16	16	-	16	-	16
Electrode Tip Taper		MT-2	MT-2	-	MT-2	-	MT2
Tip Holder Diameter	mm	32	32	-	32	-	32
Horn Diameter	mm	63.5	63.5	-	63.5	-	63.5
Cooling Water	L/mm	20	20	20	20	20	20
Weight	kg	300	360	460	460	500	500

Specifications Bold Series

Specifications		Nash-3-125A		Nash-3-150A		Nash-4-200A	
		Projection	Spot	Projection	Spot	Projection	Spot
Rated Capacity	KVA	125		150		200	
Throat Dimensions (opening x depth)	MM	200 x 385	200 x 500	200 x 385	200 x 500	200 x 300	200 x 300
Max. Short Circuit Secondary Current	A	40,000	38,000	46,000	42,000	72,000	68,000
Rated Max. Input	KVA	390	335	430	360	740	700
Duty Cycle	%	5.1	6.9	6.0	8.6	3.6	4.0
Rated Frequency	Hz	50 / 60	50 / 60	50 / 60	50 / 60	50 / 60	50 / 60
Welder Power Source	V	415	415	415	415	415	415
Max. Electrode Force	kgf	1000	1000	1000	1000	1000	1000
Electrode Stroke	mm	85	85	85	85	100	100
Platen		152x152/200x200	-	152x152/200x200	-	200x200	-
Electrode Tip Diameter	mm	-	22	-	22	-	22
Electrode Tip Taper		-	MT-3	-	MT-3	-	MT-3
Tip Holder Diameter	mm	-	32	-	32	-	32
Horn Diameter	mm	-	63.5/76	=	63.5/76	-	80
Cooling Water	L/mm	20	20	20	20	30	30
Weight	kg	500	500	650	650	1200	1200

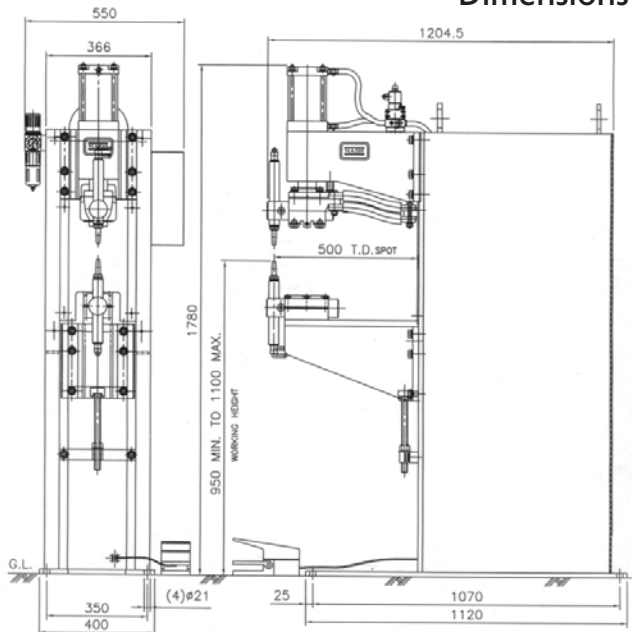
UNIVERSAL SEAM WELDING MACHINES AC / MFDC / 3 Phase DC

Please refer separate catalogue for Seam Welding Machines

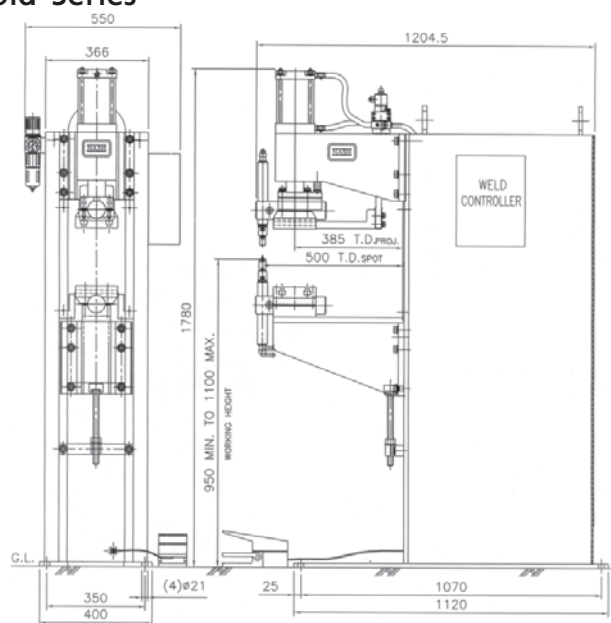


Portable Seam Welder

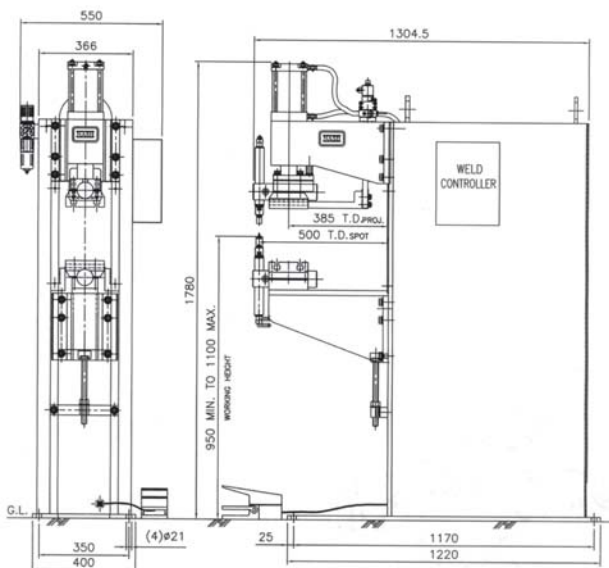
Dimensions - Bold Series



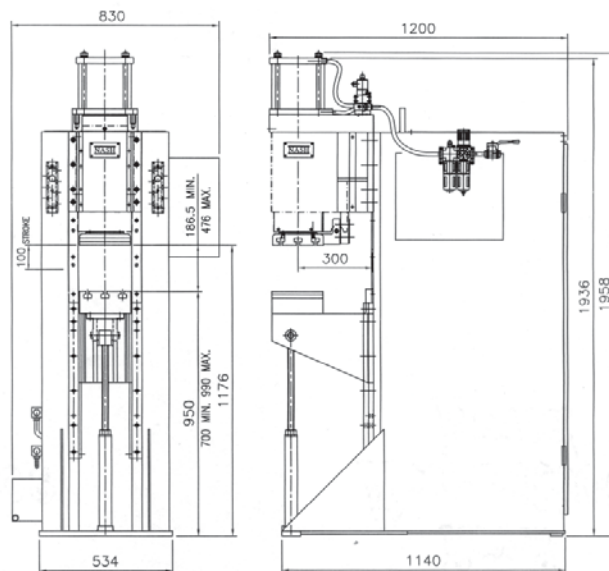
Model 1 - 30 to 50 KVA Spot Welder



Model 2 - 75 to 100 KVA Spot Welder
75 to 100 KVA Projection Welder



Model 3 - 125 to 150 KVA Spot Welder
125 to 150 KVA Projection Welder



Model 4 - 150 to 200 KVA Spot Welder
150 to 200 KVA Projection Welder

NASH reserves the right to change specifications and appearance without prior notice.

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