# TECHNICAL SPECIFICATIONS OF SPOT CUM PROJECTION WELDING MACHINE

Machine Model	Unit	TSP 30	TSP 50	<b>TSP 75</b>	<b>TSP 100</b>	<b>TSP 150</b>	TSP 200
Rating KVA @@ 50% duty cycle	KVA	30	50	75	100	150	200
Max. available current(short circuit)	K.Amp	15	20	27.	35	47	62
@ Throat Depth : 460 mm							
Optimum Weldability							
{@ 460 Throat Depth }:							
Minimum	mm	0.3 + 0.3	0.5 + 0.5	0.5 + 0.5	0.8 + 0.8	1.2 + 1.2	1.6 + 1.6
Maximum	mm	1.5 + 1.5	2 + 2	2.5 + 2.5	3 + 3	4 + 4	5 + 5
Main Disconnect Switch	Amps	75	125	200	250	375	500
Main supply cable size -	mm2	30	50	80	100	120	140
(Alum. 2 <sup>1/2</sup> core)							
Throat Clearance	mm	200	250	250	250	300	300
Electrode Stroke	mm	75	75	75	100	100	100
Nominal Electrode							
Force/Cyl. NB {@ 5.6 Kg. / cm2 Air							
Pressure)@ Throat Depth:460mm	kgf / mm	450 / 100	450 / 100	450 / 100	450 / 100	1000 / 150	1000 / 150
Air Consumption per 75mm single stroke	Ltrs	1.6	1.6	1.6	3.6	6.3	6.3
Transformer Cooling		Water	Water	Water	Water	Water	Water
		Cooled	Cooled	Cooled	Cooled	Cooled	Cooled
Water Required	Ltrs / min	20	30	30	40	50	60
Horn Diameter	mm	60	60	60	80	80	80
Electrode Holdeer Dia.	mm	25	30	30	30	40	40
Length of El. Holders	mm	225	225	225	240	250	250
Electrode Taper		MT2	MT2	MT2	MT2	MT3	MT3
Platen Size	mm	100 X 100	150 X 150	150 X 150	150 X 150	200 X 200	200 X 200
Machine Dimensions (Approx. LxW)	mm	100 X 520	1220 X 570	1220 X 570	1220 X 570	1410 X 720	1410 X 720
Height		1500	1570	1570	1570	1570	1570
Net Wt. (For 460 mm Throat)	Kgs.	450	600	650	750	900	975
(+30Kg. for 200mm Throat (Approx))							
Shipping Wt. (For 460 Throat)	Kgs.	525	675	750	850	1025	1100
(+30 Kg. for 200 Throat (Approx))							

























The information and illustrations in this catalogue are subject to alterations due to a constant endeavour to update and design.

The Innovative People KUETHERM

# KEJE THERMOWELD EQUIPMENTS PVT. LTD.

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# **SPOT CUM PROJECTION** WELDING MACHINE



RANGE 30-200 KVA

#### SPOT WELDING

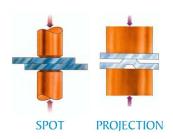
The principle use of spot welding is to join overlapping sheets of metal when the joint does not have to be gas tight or liquid tight.

#### **GENERAL PRINCIPLE**

A resistance spot weld is made by passing current ,for a time interval through the workpieces from the electrodes which apply the welding force. The current is continued until fusion takes place at the faying surfaces of the workpieces. The electrode force is applied before ,during and after the current time interval.

#### SPOT CUM PROIECTION WELDER

Most versatile machine which does spot as well as projection welding General purpose machine Wide variety of jobs can be done on this machine Suitable for nuts ,bolts and stud welding. Sturdy ram assembly permits high speed operation. Weld sequence controller ,sophisticated Quartz timer with squeeze ,weld ,hold and off timings with single/repeat cycle facility ,weld timing being controlled by tyristor circuit ,heat controllable from 5% to 95%. Electrode cushion control adjusts the descent of the upper electrode to any desired speed and completely eliminates 'HAMMER BLOW '



# BENCH TYPE

Generally used for smaller auto components, electronic sub assemblies, electrical switches ,etc .



# ROCKER ARM

These machines are basically Low on cost, deliver more no. of spots /min., intricate auto assemblies, wire metc.

# Medium Frequency Spot Welder

- Energy saving since higher power factor.
- Consistent quality with electronic timer with feedback & correction.
- · Reduction in size.
- · Low rated load on the mains.
- Balanced loading on all three phases.
- Low cost of installation (main transformer, cable cross section, circuit breakers.)
- · High quality of welds.
- No inductive losses.
- · Longer electrode life.
- · Wide welding range.
- Large welds can be made.
- Improved power factors.
- Better distribution of secondary current in weld zone.

# PROJECTION WELDER

Projection welding is a resistance welding process by which the current & heating during welding are localized at a predetermined point by the design of the parts being welded. This is usually accomplished by a projeftion , or embossment ,on one or both of the work pieces.



#### **APPLICATION**

The application of projection welding is only limited by the ingenuity of the designer. The principle uses of projection welding are those in which punched ,stamped or formed parts are assembled with embossments being formed during the stamping operations.

There are also specialized applications of projection welding bolts & nuts .These applications have increased in recent years in the automotive & heavy appliance industry.

### USES

Welding of weld nuts ,electrical gadgets ,heavy sub assemblies, push rods ,gas springs,etc.

#### **ADVANTAGES**

- Ease of obtaining satisfactory heat balance for welding difficult combinations .
- · More uniform results
- Increased output per machine because of making several welds simultaneously .
- Longer electrode life
- Finish ,or surface appearance is often improved
- Parts may be projetion welded that could not be otherwise resistance welded .

Pneumatic & hydraulic versions of these machines are available .

