

# Stationary Spot Cum Projection Welding Machines

## MAIN FEATURES

- Formed Brackets Instead of fabricated for better strength
- Use of Oil-less bushes for cylinder ram movement for less friction, wear and increased reaction time.
- Improved Holder assembly for easier approach to JOB
- Improved design of secondary circuit for better welding current
- Improved design of secondary circuit for better water cooling
- Improved design of Transformer for better water flow ( increased water flow of 25%) to increase the efficiency and life
- Modified programme selector switch
- Weld on/off toggle switch on pendent
- Error reset/ restart switch on pendent
- Microprocessor Based Sophisticated Control Unit with Constant Current Operation
- Single Board SMD Construction for Very High Reliability
- Diagnosis Mode for Troubleshooting
- Program Sequence Operation
- Advanced Diagnostic Data Display of every spot
- 63 Programs Memory with 31 Direct Recalls (10 Recalls Provided on Machine)
- Hardware Lock with Universal Key to prevent unintentional/unauthorised changes.



**TECNA WELCON**  
INDIA PRIVATE LIMITED

Years long Experience Cast into the Future...!

# Technical Data

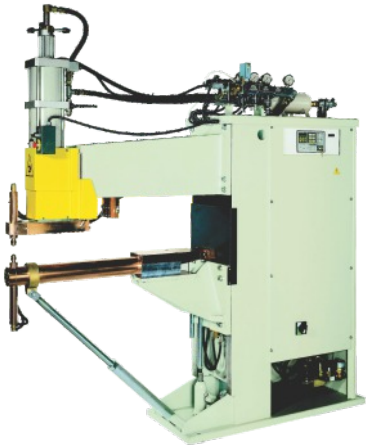
|                           |     | Eco Model |      |      |      | Std. Model |      |       |       | High Force Model |      |       |       |
|---------------------------|-----|-----------|------|------|------|------------|------|-------|-------|------------------|------|-------|-------|
| Model No. SCP             |     | 35 E      | 50 E | 75 E | 35 S | 50 S       | 75 S | 100 S | 150 S | 50 H             | 75 H | 100 H | 150 H |
| Frame                     |     | E         | E    | E    | E    | E          | E    | S     | S     | S                | S    | B     | B     |
| Controller                |     | TE 90     |      |      |      | TE 550     |      |       |       | TE 550           |      |       |       |
| Nominal Power             | Kva | 35        | 50   | 75   | 35   | 50         | 75   | 100   | 150   | 50               | 75   | 100   | 150   |
| Rated Duty Cycle          | %   | 50        | 50   | 50   | 50   | 50         | 50   | 50    | 50    | 50               | 50   | 50    | 50    |
| Rated Primary Voltage     | V   | 440       | 440  | 440  | 440  | 440        | 440  | 440   | 440   | 440              | 440  | 440   | 440   |
| No Load Sec. Voltage      | V   | 6.4       | 6    | 9.2  | 6.4  | 6          | 9.2  | 14.8  | 21    | 6                | 9.2  | 14.8  | 21    |
| Max Short Circuit Current | KA  | 13        | 18   | 22   | 13   | 18         | 22   | 25    | 25    | 18               | 22   | 25    | 25    |
| Cylinder Dia              | mm  | 63        | 100  | 100  | 63   | 100        | 100  | 125   | 125   | 125              | 125  | 150   | 150   |
| Force at 6 bar            | Kgf | 300       | 470  | 470  | 300  | 470        | 470  | 736   | 736   | 736              | 736  | 1060  | 1060  |
| Throat Depth              | mm  | 400       | 475  | 475  | 400  | 475        | 475  | 475   | 475   | 475              | 475  | 475   | 475   |
| Throat Depth Adj. Range   | mm  | 0         | 50   | 50   | 0    | 50         | 50   | 50    | 50    | 50               | 50   | 50    | 50    |
| Throat Gap                | mm  | 290       | 200  | 200  | 290  | 200        | 200  | 200   | 200   | 200              | 200  | 200   | 200   |
| Throat Gap Adj. Range     | mm  | 0         | 50   | 50   | 0    | 50         | 50   | 50    | 50    | 50               | 50   | 50    | 50    |
| Supply Voltage +/- 10%    | V   | 415       | 415  | 415  | 415  | 415        | 415  | 415   | 415   | 415              | 415  | 415   | 415   |
| Supply Frequency +/- 3    | Hz  | 50        | 50   | 50   | 50   | 50         | 50   | 50    | 50    | 50               | 50   | 50    | 50    |
| Cooling Water Pressure    | Bar | 2.5       | 2.5  | 2.5  | 2.5  | 2.5        | 2.5  | 2.5   | 2.5   | 2.5              | 2.5  | 2.5   | 2.5   |
| Cooling Water Flow        | LPM | 15        | 15   | 20   | 15   | 15         | 20   | 23    | 23    | 15               | 20   | 23    | 23    |
| Inlet Water Temp.         |     | 30        | 30   | 30   | 30   | 30         | 30   | 30    | 30    | 30               | 30   | 30    | 30    |

## 3 Phase DC Welding Machines

### Main Welder Features

DC Three-phase welding machines, offering the following additional features:

- High power factor
- Reduced load on plant primary electrical service.
- Balanced load distribution on the three phases.
- Reduced effect of magnetic materials between arms on the welding current.
- Reduced installation costs.



### Features And Technical Data

| Normal power at 50%           | kVA             | 100    | 160    | 250    | 260     | 480     | 630     |
|-------------------------------|-----------------|--------|--------|--------|---------|---------|---------|
| Spot welder                   |                 | •      | •      | •      |         |         |         |
| Projection welder             |                 | •      | •      | •      | •       | •       | •       |
| Maximum welding power         | kVA             | 450    | 700    | 1090   | 1800    | 1900    | 2100    |
| Short circuit current         | kA              | 60     | 90     | 106    | 150     | 190     | 200     |
| Max. welding current on steel | kA              | 48     | 72     | 85     | 120     | 150     | 160     |
| Thermal current 100%          | kA              | 11     | 13     | 15     | 18      | 24      | 26      |
| No load secondary voltage     | V               | 6.3    | 7.3    | 8.8    | 10      | 9.5     | 10.5    |
|                               |                 |        | 6.3    | 8      | 8.6     | 8.4     | 9.5     |
|                               |                 | 5.5    | 5.9    | 7.1    | 7.4     | 7.6     | 8.4     |
|                               |                 |        |        |        | 6.4     | 6.8     | 7.6     |
| Supply voltage 50Hz**         | **V             | 400    | 400    | 400    | 400     | 400     | 400     |
| Cables section L=30 m         | mm <sup>3</sup> | 50     | 75     | 120    | 2 x 120 | 3 x 95  | 3 x 95  |
| Delayed fuses                 | A               | 125    | 200    | 250    | 400     | 630     | 630     |
| Cylinder                      | N°              | 4/736  | 4/736  | 6/1206 | 6/1206  | 8/3388  | 8/3388  |
|                               |                 | 6/1206 | 6/1206 | 7/1885 | 7/1885  | 9/2945  | 9/2945  |
|                               | daN             | 7/1885 | 7/1885 | 8/3388 | 8/3388  | 10/5509 | 10/5509 |
| Water cooling                 | l/min           | 10     | 14     | 16     | 25      | 30      | 33      |
| ø supply hose                 | mm              | 25     | 25     | 25     | 25      | 25      | 25      |
| Compressed air supply         | bar             | 6.5    | 6.5    | 6.5    | 6.5     | 6.5     | 6.5     |
| ø hose                        | mm              | 25     | 25     | 25     | 25      | 25      | 25      |

\*\* Different voltages available on request

## Bench Spot & Projection Welders



- ♦ 35KVA to 100KVA Models
- ♦ Space Saving Design
- ♦ Advanced Controller for Precise Welding Current Control in Smaller Jobs

## MFDC Welding Machines

### WELDER MAIN FEATURES

- Medium frequency welders, designed to obtain high quality welding.
- Modular design of mechanical structure, arms, brackets, cylinders.
- Cylinder with chrome plated stem for heavy duty works and long life; adjustable anti-rotation device.
- Lubrication free pneumatic components to eliminate oil mist and to protect the environment.
- Adjustable double-stroke cylinder with key control.
- Electrodes descent without pressure for both maintenance and set-up.
- Built-in compressed air filter unit and tank. Compressed air disconnection device.
- Water-cooled transformer, plates, electrode-holders and electrodes; transformer with epoxy resin coated windings.



## Technical Data

| ITEM 6121                                   |                 | 6121  | 6122  | 6123  | 6124  | 6125  | 6126  |
|---------------------------------------------|-----------------|-------|-------|-------|-------|-------|-------|
| Spot welder                                 |                 |       |       | ●     |       |       | ●     |
| Spot-projection welder                      |                 | ●     | ●     |       | ●     | ●     |       |
| Nomial power at 20%                         | kVA             | 142   | 142   | 142   | 285   | 285   | 285   |
| Nomial power at 50%                         | kVA             | 90    | 90    | 90    | 180   | 180   | 180   |
| Short circuit current                       | kA              | 32    | 32    | 32    | 60    | 60    | 60    |
| Thermal current 100%                        | kA              | 6.6   | 6.6   | 6.6   | 12    | 12    | 12    |
| No load secondary voltage                   | V               | 9.4   | 9.4   | 9.4   | 9.4   | 9.4   | 9.4   |
| Supply voltage 50Hz*                        | V               | 400   | 400   | 400   | 400   | 400   | 400   |
| Cables section L = 30m                      | mm <sup>2</sup> | 35    | 35    | 35    | 95    | 95    | 95    |
| Delayed fuses                               | A               | 100   | 100   | 100   | 200   | 200   | 200   |
| Minimum gap                                 | mm              | 175   | 175   | 175   | 175   | 175   | 175   |
| Maximum gap                                 | mm              | 475   | 475   | 475   | 475   | 475   | 475   |
| Depth L                                     | mm              | 388   | 538   | 803   | 388   | 538   | 803   |
| Depth D                                     | mm              | 262   | 412   | ---   | 262   | 412   | ---   |
| Max. electrode force 6 bar (standard)       | daN             | 736   | 736   | 736   | 736   | 736   | 736   |
| Max. electrode force 6 bar with option 6135 | daN             | 1242  | 1242  | 1242  | 1242  | 1242  | 1242  |
| Maximum stroke                              | mm              | 100   | 100   | 100   | 100   | 100   | 100   |
| Double stroke (standard)                    | mm              | 0+80  | 0+80  | 0+80  | 0+80  | 0+80  | 0+80  |
| Compressed air supply                       | bar             | 6.5   | 6.5   | 6.5   | 6.5   | 6.5   | 6.5   |
| Air for 1000 spots (6 bar)                  |                 |       |       |       |       |       |       |
| Standard version                            |                 |       |       |       |       |       |       |
| Stroke 20 mm                                | Nm <sup>3</sup> | 4.6   | 4.6   | 4.6   | 4.6   | 4.6   | 4.6   |
| Max stroke                                  | Nm <sup>3</sup> | 15.4  | 15.4  | 15.4  | 15.4  | 15.4  | 15.4  |
| Option 6135                                 |                 |       |       |       |       |       |       |
| Stroke 20 mm                                | Nm <sup>3</sup> | 9.4   | 9.4   | 9.4   | 9.4   | 9.4   | 9.4   |
| Max stroke                                  | Nm <sup>3</sup> | 21.7  | 21.7  | 21.7  | 21.7  | 21.7  | 21.7  |
| Ø supply hose                               | mm              | 16    | 16    | 16    | 16    | 16    | 16    |
| Water cooling                               | l/min           | 10    | 10    | 10    | 10    | 10    | 10    |
| Net weight (approximately)                  | kg              | 490   | 500   | 550   | 540   | 550   | 600   |
| Ø arms                                      | mm              | 60    | 60    | 60    | 60    | 60    | 60    |
| Ø electrode-holders                         | mm              | 32    | 32    | 32    | 32    | 32    | 32    |
| electrode taper Ø                           | mm              | 19.05 | 19.05 | 19.05 | 19.05 | 19.05 | 19.05 |

\* Different voltages available on request

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