



Sigmaweld series welding machines are sophisticated IGBT based inverters with total digital control having wide current range. Sigmaweld series of welding machines are sophisticated IGBT based welding inverters with total digital control having wide range of applications. Sigmaweld SW1000 - CV is designed to meet the varied requirement of the welding industry having possibilities of use for **MIG , MAG, FCAW, hardfacing, arcing and submerged arc welding applications.**

Advanced micro-controller technology enables Sigmaweld to have inbuilt wire feeder drive for MIG/ MAG applications, interconnectivity with SAW trolley and other SPM's. The power source has inbuilt features for use in 2T, 4T modes with pre-flow , post flow controls for MIG ,MAG , FCAW applications.

**Significant energy saving vis-à-vis traditional welding equipments for SAW applications.**

**IGBT Based Solid State Inverter Design:** Latest technology used for full bridge topology to ensure reliable, superior weld control every time.

**Mobility:** At 85 Kgs, with 4 wheels and 4 eye bolts it is easy to move our SW1000- SAW to any locations with a lot of ease compared to the traditional equipments (300 Kgs).

**Adaptive Soft Start:** Sigmaweld ensure the wire feed speed is automatically controlled from a slow start to the set current and voltage levels to eliminate globule formation at the end of wire and gives clean start each time.

**Single Increment Range:** Digital front panel allows the operator to set the current and voltage as required in single increments.

**Crater Current & Crater Voltage:** Programmable crater current & crater voltage settings for smooth weld finish.

**Safe and Reliable:** Low OCV and protection against prolonged output short, IGBT over current, IGBT short circuit current, welding over current, thermal overload.

**Power Fluctuation Compensation:** Power source does not get affected and it remains constant regardless of fluctuation in input power  $\pm 15\%$ . It is suitable especially for the Indian industry.

**Digital Reading:** During welding, it continuously monitors and displays weld current and weld voltage in all modes.

**Versatile:** Sigmaweld can weld using welding wire sizes from 0.8 mm to 5.0 mm.

**External Wire Feeder:** Compact and portable external wire feeder with 4 feed roll mechanism to guarantee steady uninterrupted wire feeding can be programmed to use with track and trolley for SAW or independent wire feeder units for hardfacing and arcing applications.

## Sigma Weld for 1000Amps SAW Welding Inverter

Sr. No.	Description	1000 Amps	800 Amps	600 Amps
1	Input Voltage (V)	3Ø, 415 V, ±15%, 50 Hz		
2	Duty Cycle	100% @ 1000Amps	100% @ 480Amps	100% @ 360Amps
3	Rated Input (A) KVA @ 100% Duty Cycle	32KVA	25 KVA	18 KVA
4	Open Circuit Voltage (V)	80V	80V	80V
5	Output Current Range (A)	60 -1000A	60 -800A	60 -600A
6	Output Voltage Range (V) @ 100% Duty Cycle	16 - 45 V	16 - 39 V	16 - 33 V
7	No Load Power(W)	200W	200W	150W
8	Efficiency	91%	90%	90%
9	Insulation Grade	H	H	H
10	Housing Protection Grade	IP 23	IP 23	IP 23
11	Wire Size	2- 6 mm	2- 4 mm	1.2- 2.0 mm

## Sigma Weld Tractor Mounting Welding Head

Sr. No.	Description	Specification
1	Wire	1.6,2,2.5,3,15, 4 and 5mm.
2	Speed Range of Wire Feeder-	0.5 to 4.0 meter/minute.
3	Range of Cross Slide Adjustment – Vertically X Axis Horizontal Y Axis Parallel to Welding head	140mm 140mm 140mm Manufactured in Aluminium and Linear Bearing for smooth movement
4	Maximum Swivel of Welding Head Transverses to welding Head travel Parallel to Head Travel Horizontal Swing Span	30Degree 360 Degree
5	Standard bore for Spool	285 – 315mm Adjustable.
6	Weight of the Wire Spool	25Kg.
7	Flux Hopper Capacity	10Kg.
8	Total Weight without Flux and Wire	105 Kg Approx.
9	Trolley Speed	75mm to 1500mm/minute
10	Trolley and wire feed controls	D.C. Thyristors drive with required logic i.e. Weld start and trolley will start after some delay wire feed will start.
11	• Display • Controls on Controller	Ammeter 0 to 1000 Amps, Voltmeter 0 to 100 Volts, Trolley Speed Meter Up/DN inch, Wire inch, O.C. V Sensing push button, Trolley Left/Right, Trolley ON/OFF, Wire feed Pot, Trolley Speed Pot
12	Track	In Your Scope

\*Continual development can lead to change in specification



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