

PASSION FOR WELDING SINCE 1951



(Formerly Advani-Oerlikon Ltd.)



Welding Equipment

SMAW Equipment | GMAW Welding Equipment
GTAW Welding Equipment | SAW Welding Equipment



INDEX

Welding Equipment



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SOME BASICS TO KNOW



MOST COMMON TYPES OF INSULATION CLASSES USED IN WELDING EQUIPMENT

The most common types of Insulation Classes, for which welding equipment are designed, are basically B, F and H. However electrical machines have following range of Insulation classes as per National and International standards. The maximum allowable temperatures are given below for these Insulation classes

- A = Class of Insulation --105 Deg. Centigrade
- E = Class of Insulation –120 Deg. Centigrade
- B = Class of Insulation –130 Deg. Centigrade
- F = Class of Insulation –155 Deg. Centigrade
- H = Class of Insulation –180 Deg. Centigrade
- C = Class of Insulation --220 Deg. Centigrade

MOST COMMON TYPES OF ENCLOSURE PROTECTIONS USED IN WELDING EQUIPMENT

DEGREE OF INGRESS PROTECTION CLASS USED FOR ENCLOSURES OF WELDING EQUIPMENT

The most common Ingress Protection classes (IP class) used for the enclosure of the welding equipment are IP 21, IP 23 and IP 44. These protections classes of enclosures provide different degree of protection against Ingress of foreign body or particle and vertically falling water to the machines

- IP 21 • IP 23 • IP 44

FIRST DIGIT – Indicates protection against the ingress of foreign body or the particle

- 2 = Protection against ingress of foreign body / particle > 12 mm dia
- 4 = Protection against ingress of foreign body / particle > 1 mm dia

SECOND DIGIT – Indicates protection against the ingress of dripping or vertically falling water

- 1 = Protection against ingress of water i.e.dripping or vertically falling water
- 3 = Protection against ingress of spraying or splashing water up to 60 degrees
- 4 = Protection against the ingress of the splashing water from any direction i.e. all round the machine

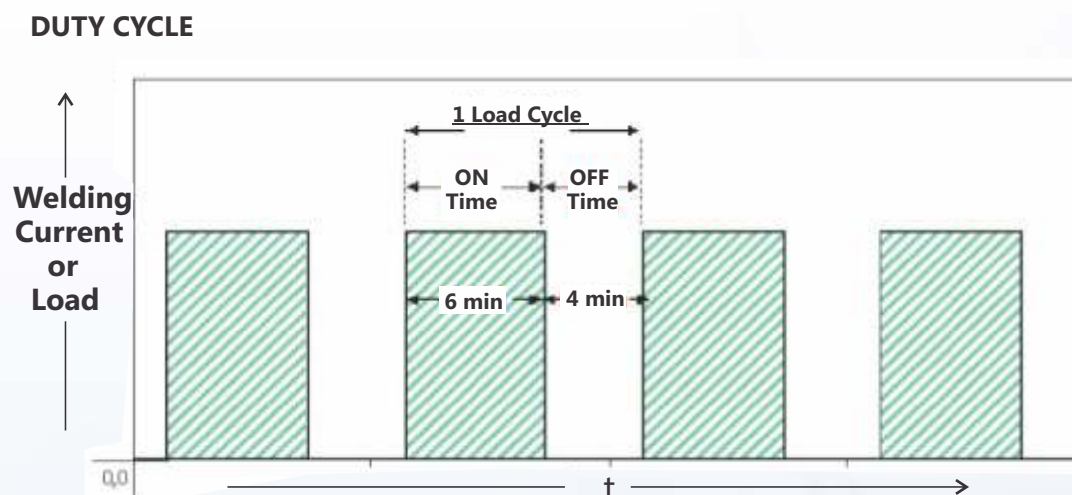
MOST COMMON TYPES OF DUTY CYCLES USED IN WELDING EQUIPMENT

DUTY CYCLES OF WELDING EQUIPMENT

Welding equipment are never used continuously for manual or semiautomatic welding processes. The common duty cycles observed for majority of welding applications are 25%, 35%, 40%, 60%. However all welding equipment are also supposed to be specified for 100% duty cycles. The duty cycle of the machine or application indicates how severely machines will be used to complete the jobs to be welded. A typical duty cycle is explained on next page, which indicate the WELD time and OFF time observed during the welding of job. The total CYCLE TIME consists of one WELD time and one OFF time associated with the respective WELD time. The CYCLE TIMES are 5 minute and 10 minute as per Indian and International standards respectively.



SOME BASICS TO KNOW



$$\begin{aligned} \% \text{ Duty cycle} &= \frac{(\text{ON Time}) \times 100}{(\text{ON Time} + \text{Off Time})} \\ &= \frac{6 \times 100}{(6 + 4)} = 60\% \end{aligned}$$

FINDING CURRENT FOR THE REQUIRED DUTY CYCLE WHEN CURRENT IS SPECIFIED AT DIFFERENT DUTY CYCLE

Present specs. are 400 A @ 60 % duty cycle

- Follow following steps to find the welding current at 100% duty cycle
- Losses @ d1 = Losses @ d2
- $(I_1)^2 \times r \times t_1 = (I_2)^2 \times r \times t_2$
- $(400 \times 400) \times 6 = (I_2)^2 \times 10$
- $(I_2)^2 = (6/10) \times 400 \times 400$
- $I_2 = \text{sq. root of } (6/10) \times 400$
- $I_2 = \text{sq. root of } 0.6 \times 400$
- $I_2 = 0.7746 \times 400$
- $I_2 = 309.8$
- $I_2 = 310$

Present specs. are 310 A @ 100 % duty cycle

- Follow following steps to find the welding current at 60% duty cycle
- Losses @ d1 = Losses @ d2
- $(I_1)^2 \times r \times t_1 = (I_2)^2 \times r \times t_2$
- $(310 \times 310) \times 10 = (I_2)^2 \times 6$
- $(I_2)^2 = (10/6) \times 310 \times 310$
- $I_2 = \text{sq. root of } (10/6) \times 310$
- $I_2 = \text{sq. root of } 1.66 \times 310$
- $I_2 = 1.29 \times 310$
- $I_2 = 400.2$
- $I_2 = 400$



SOME BASICS TO KNOW



ELECTRODE TYPES / SIZES VS. RECOMMENDED WELDING CURRENTS

SN.	ELECTRODE TYPE	AWS TYPE	WELDING CURRENTS (AMPS) FOR ELECTRODE SIZE (DIA)						
			1.6MM	2.0MM	2.5MM	3.2MM	4.0MM	5.0MM	6.3MM
1.	Superbond	E6013	30-50	55 40-60	80 60-90	125 100-130	170 140-180	220 180-240	275
2.	Superbond-S	E6013	30-50	55 40-60	80 60-90	125 100-140	170 140-180	220 180-250	250-330
3.	Superbond-SS	E6013	30-50	40-60	90 60-90	135 100-140	180 140-190	240 190-250	300 250-330
4.	Supabase	E7018	40-60	50-70	80 60-90	125 100-140	170 150-200	200 200-240	275 270-360
5.	Supabase-X-Plus	E7018	40-60	50-70	80 60-90	125 90-140	170 150-190	225 200-250	300 270-320
6.	Celwel 70G	E7010-G	-	-	55 50-70	100 80-120	130 110-160	180 140-210	-
7.	Celwel 60	E6010	-	-	55 50-70	100 80-120	130 110-160	-	-

GUIDING NOTES

1. Recommended Polarities

- Superbond, Superbond-S, Superbond-SS = AC, DC (-)
- Supabase, Supabase-X-Plus = AC (70 OCV), DC (+)
- Celwel 60, Celwel 70G = DC (+) (for all passes), DC (-) (for root pass only)

2. Recommended Welding Positions

- Superbond, Superbond-S, Superbond-SS, Celwel 60, Celwel 70G = All including vertical down (Vertical - Top to Bottom)
- Supabase, Supabase-X-Plus = All except vertical down (Vertical - Top to Bottom)

3. Current Selection Generally Adapted

- For Downhand flat, horizontal and overhead positions = Current at middle of the range is used.
- For Vertical up (Bottom to Top) = Current at maximum of the range is used.
- For vertical down (Top to Bottom) = Current at maximum of the range or slightly more than maximum is used.
- For the same diameter, as the thickness of parent material increases, employed current is increased.



SELECTION GUIDE

WELDING & CUTTING EQUIPMENT & PROCESSES



HELP ME CHOOSE

THE BEST WELDING EQUIPMENT FOR DESIRED APPLICATION

STEP 1 METAL JOINING AND CUTTING PROCESS SELECTION

Select a process for a given metal you want to join or cut from the table given below

METAL TYPE	WELDING PROCESS						CUTTING PROCESS		
	STICK	MIG	FCAW	SAW	AC-TIG	DC-TIG	CAC-A-AC	CAC-A-DC	PLASMA
STEEL	✓	✓	✓	✓		✓		✓	✓
STAINLESS STEEL	✓	✓	✓	✓		✓		✓	✓
ALUMINIUM		✓			✓			✓	✓
CAST IRON	✓							✓	✓
COPPER, BRASS		✓				✓	✓		✓
TITANIUM						✓			✓
MAGNESIUM ALLOYS					✓				✓
SKILL LEVEL	MODERATE	LOW	LOW	MODERATE	HIGH	HIGH	MODERATE	MODERATE	HIGH

STEP 2 WELDING PROCESS SELECTION

It is possible that more than one welding process can be used for a given requirement. Hence to facilitate selection, study and understand the advantages of each process as given below.

A	SMAW / MMAW / STICK WELDING	Most suitable for outside/opendoor use One of jobs or less volume jobs. Better accessibility for intricate joints Ideal for dirty/rusty surfaces
B	GMAW/MIG/MAG/SEMI-AUTOMATIC/CONTINUOUS WELDING	Suitable for high welding productivity Most suitable for relatively thinner sheets Very neat and clean welding without slag removable Easy to learn for welders
C	FLUX CORED (FCAW) MIG/MAG	Suitable for deep penetration for welding thick sections with less nos. of runs Provides higher welding deposition rates Gives excellent weld bead shape
D	SUBMERGED ARC WELDING (SAW)	Most suitable where excellent mechanical properties are required Ideally suitable for heavy duty longitudinal structures like girders High deposition rates gives higher welding productivity Gives excellent weld bead shape
E	TIG WELDING (GTAW)	Used where highest quality welding required Gives precise welding with very good welding finish Most suitable for thinnest sheets where better heat input controls are required and very minimal distortions allowed
F	AIR PLASMA ARC CUTTING	Used with almost all electrical conducting metals. Distortion free, dross free, burr free, narrow kerf with clean cuts, compared to carbon arc cutting.

HELP ME CHOOSE



THE BEST WELDING EQUIPMENT FOR DESIRED APPLICATION

STEP 3 ADDITIONAL CHECK LIST

Also check for following along with above mentioned process advantages

1.	POWER SUPPLY CONDITIONS*	<ul style="list-style-type: none"> • Stable / Unstable / Very Low / Very High voltage condition • Chemical (Acidic) Contamination. Conducting Dust Contamination. • Economy 	
2.	ENVIRONMENTAL CONDITIONS*		
3.	BUDGET		

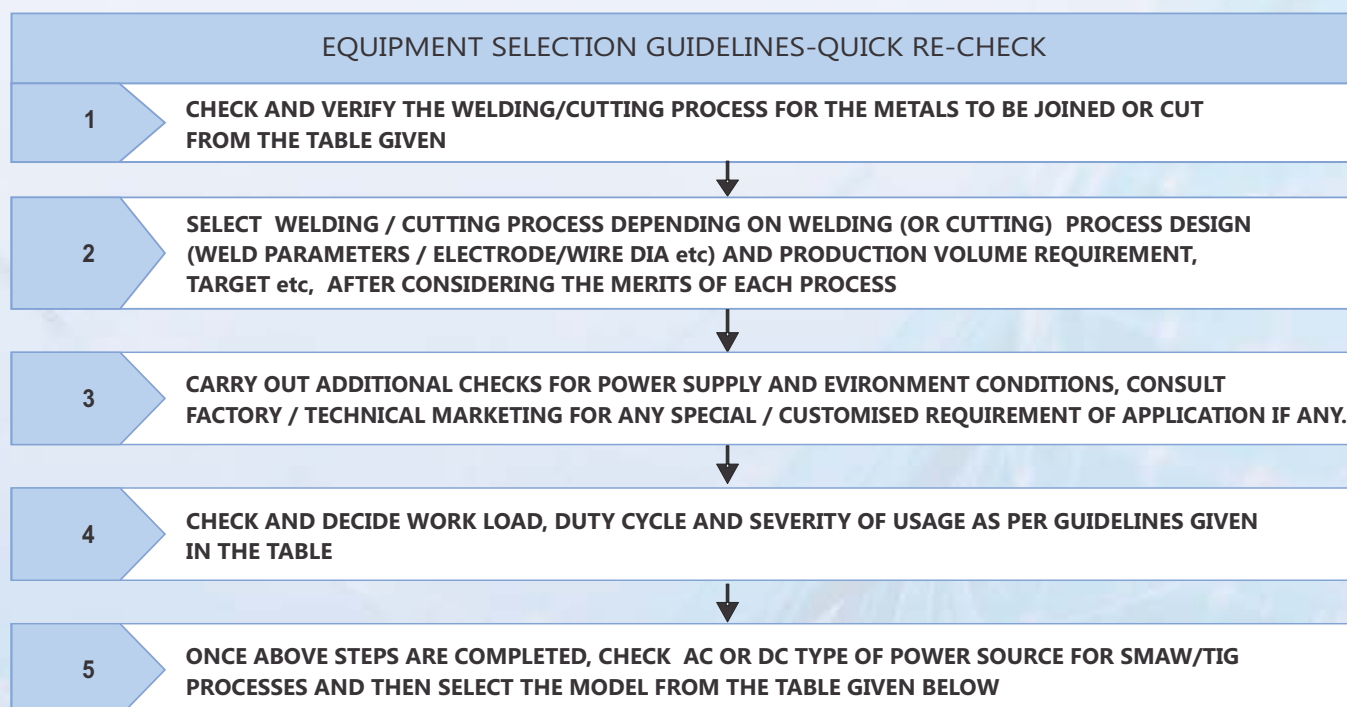
* Consult factory / Technical Marketing Team for extreme supply and environmental conditions

STEP 4 SELECTION OF WORK LOAD AND DUTY CYCLE

Workload/usage/duty	Likely Duty Cycle	Welding Current Range Recommended
Light Duty - Single Shift	20 % to 35 %	Upto 225 Amps
Medium Duty - Single or Two Shift	>35 % to 60 %	225 Amps to 300 Amps
Heavy Duty - Two or Three Shift	>60% to 100 %	More than 300 Amps

STEP 5 MODEL SELECTION TABLE

Thus after selecting the process, duty cycle, and going through the additional checklist, please verify once again the steps completed so far as per following FLOW CHART as a QUICK RE-CHECK and select the model for your welding/cutting need from the model selection table





WELDING TRANSFORMERS WITH FORCED AIR COOLING

RED SERIES WELDING TRANSFORMERS



RED 400 (S) / RED 401 (S)

400 Amp capacity World Class Welding Transformer



- Single phase (2 lines of 3 phase) Welding Transformers
- User friendly AC ARC Welder
- Easily maneuverable from job to job on the shop-floor
- Stepless, smooth and infinitely variable current regulation
- Forced air cooled transformers - less coil temperature resulting in longer service life

SALIENT FEATURES

- Smooth welding current control by modern moving core magnetic shunt design
- Stepless, smooth and infinitely variable current regulation
- Adjustment of welding current possible even while welding is in progress
- Current Indicator provided on side panel
- ON-OFF switch control and current control provided on the front panel
- A Special design provides for excellent dynamic characteristic and ensures smooth and optimum metal transfer

SPECIFICATIONS




MODELS		UNIT	RED 400 (S)	RED 401 (S)
INPUT				
Supply Voltage		Volts	415	415
Phases		No.	2 lines of 3 phase	2 lines of 3 phase
Frequency			50	50
Input KVA @ 100% Duty Cycle		KVA	19	12.6
Input switch fuse rating		A	80	63
Recommended Capacitor for P.F. improvement		KVAr	8	8
OUTPUT				
Output Characteristic		Type	CC	CC
Operating Arc Voltage		Volts	22-36	22-36
Open circuit voltage		Volts	80	70
Welding current range		A	60-400 in two overlapping ranges	60-400 in two overlapping ranges
Max. Continuous hand welding current @ 60% Duty Cycle		A	300	230
current @100% Duty Cycle		A	230	180
Max. Intermittent welding current		A	400	400
Welding Electrode range				
Minimum		mm	2	2
Maximum		mm	6.3	5



RED 400 (S) / RED 401 (S)



400 Amp capacity World Class Welding Transformer

GENERAL				
Cooling		Type	Forced Air	Forced Air
Protection class		Class	IP23	IP23
Dimensions (approx.):				
Length		mm	745	730
Width		mm	460	415
Height		mm	540	490
Weight (approx.)		Kg.	98	81

- **Warranty** : One year from the date of commissioning. ADOR WELDING LIMITED warrants that all new equipment sold from Plant/Area Offices / Authorised Distributors are free from defects in materials and workmanship and will perform in full accordance with applicable specifications.
- In view of continuous development, ADOR WELDING LIMITED reserves the right to modify/change the design and/or the specifications without any prior notice.
- Backed by dedicated customer care package.





RED SERIES WELDING TRANSFORMERS



RED SERIES

A Wide Range of World Class Welding Transformers



- Single phase (2 lines of 3 phase) Welding Transformers
- Class F Insulation - enhances services life
- Easily maneuverable from job to job on the shop-floor
- Stepless, smooth and infinitely variable current regulation
- Forced air cooled transformers - less coil temperature resulting in longer service life
- User friendly AC ARC Welders



TPA SERIES WELDING TRANSFORMERS



TPA SERIES

A Wide Range of World Class Welding Transformers



- Three phase Welding Transformers
- User friendly AC ARC Welders
- Stepless, smooth and infinitely variable current regulation
- Convenient and easily maneuverable from job to job on the shop-floor
- 'Open-delta' design enables conversion of three phase input into single phase output
- Forced air cooled transformers - less coil temperature resulting in longer service life
- Compact and lightweight










SALIENT FEATURES

- Smooth welding current control by moving core magnetic shunt design
- Stepless, smooth and infinitely variable current regulation
- Adjustment of welding current possible even while welding is in progress
- 1 swivel front wheel and 2 rear wheel arrangement for easy maneuverability
- ON-OFF switch control, current control and current indicator provided on the front panel
- A Special design provides for excellent dynamic characteristic and ensures smooth and optimum metal transfer - RED Series specifically recommended for low hydrogen electrodes

RED / TPA SERIES WELDING TRANSFORMERS



A Wide Range of World Class Welding Transformers

MODELS	UNIT	RED 403	RED 503	RED 603	TPA 403
INPUT					
Supply Voltage 	Volts	415	415	415	415
Phases 	No.	2 Lines of 3 Phase	2 Lines of 3 Phase	3	3
Frequency 	Hz	50	50	50	50
Input KVA @ 100 % Duty Cycle	KVA	19	25	28.4	19.0
Input switch fuse rating	A	80	100	80	80
Recommended Capacitor for P.F. improvement	KVAr	8	10	10	10
OUTPUT					
Output Characteristic 	Type	CC	CC	CC	CC
Operating Arc Voltage 	Volts	22-36	23-40	24-44	22-36
Open circuit voltage	Volts	80	80	80	80
Welding current range	A	60-400	80-500	100-600	60-400
Max. Continuous hand welding current @ 60% Duty Cycle	A	300	400	450	300
current @100% Duty Cycle 	A	230	300	350	230
Max. Intermittent welding current	A	400	500	600	400
Welding Electrode range					
Minimum	mms	2	2.5	2	2
Maximum	mms	6.3	6.3	6.3	6.3
GENERAL					
Class of Insulation	Class	F	F	F	A
Cooling Type 	Type	Forced Air	Forced Air	Forced Air	Forced Air
Protection class	Class	IP23	IP23	IP23	IP23
Dimensions (mms) L 	mms	720	745	820	800
W	mms	460	500	560	500
H	mms	750	780	850	850
Weight (approx.) 	kgs.	110	132	160	160

- **Warranty** : One year from the date of commissioning. ADOR WELDING LIMITED warrants that all new equipment sold from Plant/Area Offices / Authorised Distributors are free from defects in materials and workmanship and will perform in full accordance with applicable specifications.
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- Backed by dedicated customer care package.



WELDING TRANSFORMERS WITH NATURAL AIR COOLING

DOUBLE MUSTANG / DOUBLE RACER DOUBLE HORSE / DOUBLE STALLION



Thoroughbred Series AC ARC Welding Transformers



- Light weight and compact transformers with robust construction - Ideal choice for site usage
- Natural air cooled transformers - coils designed for natural air cooling which eliminates the use of fan and thus risk of coil burning whenever fan fails
- Specially designed transformer coils with minimum joints and better interlayer insulation -eliminates the coil failure and enhances service life of transformer
- Stepless, infinitely variable current adjustment through sturdy and smooth moving core mechanism
- Stepless, smooth and infinitely variable current adjustment possible even while welding is in progress

SALIENT FEATURES

- Ensures the fine control of welding current to minimise the heat input to the job which reduces the HAZ
- Dynamic output characteristics ensures smooth and uninterrupted arc resulting excellent welding performance throughout the entire welding range
- Provided with input power ON-OFF switch
- Welder friendly usage - easy to operate since all controls like ON-OFF switch, welding current controlling handle, current scale on the same side i.e. front side

DOUBLE MUSTANG / DOUBLE RACER DOUBLE HORSE / DOUBLE STALLION



Thoroughbred Series AC ARC Welding Transformers

SPECIFICATIONS	UNIT	DOUBLE MUSTANG	DOUBLE RACER	DOUBLE HORSE	DOUBLE STALLION
INPUT	Volts	230/400	415	415	415
Voltage Supply Phases	No.	1	1	1	1
		(.....2 Lines of 3 Phase AC.....)			
Frequency	Hz	50	50	50	50
Input KVA @ 100% Duty Cycle	KVA	10.5	16.0	21.0	25.5
Recommended Capacitor for PF improvement	KVAr	5.0	8.0	9.0	11.0
OUTPUT					
Open Circuit Voltage	V	66	80	80	80
Welding Current Range	A	35-250	50-300	60-400	80-500
		(.....Single Range Control.....)			
Maximum intermittent welding current at 35% duty	A	250	300	400	500
Maximum continuous welding current at 60% duty cycle	A	190	225	300	375
Maximum automatic welding current at 100% duty cycle	A	150	175	230	300
GENERAL SPECIFICATIONS					
Type of Cooling		(.....Natural Air Cooled.....)			
Insulation	Class	H	H	H	H
Recommended electrode size/range	mm	2-5	2-2.6	2-6.3	2.5-6.3
Overall dimensions:					
Length	mm	590	650	650	650
Width	mm	425	475	500	550
Height	mm	660	700	725	755
Weight (approx.)	kg	92	120	140	170

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E-WELMAC 190



E-WELMAC AC ARC Welding Transformers



- Light weight, compact AC arc welding transformer - easy to mobilise at sites
- Single phase, natural air cooled transformer with robust construction
- Most reliable and simple transformer - very convenient and welder friendly to use at sites
- Infinitely variable current adjustment through sturdy and smooth moving core mechanism

SALIENT FEATURES








- Welding current adjustment possible even while welding is in progress
- Dynamic output characteristics ensures smooth and uninterrupted arc resulting excellent welding performance throughout the entire welding range
- H-class insulation of windings enhances reliability and service life
- Provided with input power ON-OFF switch



E-WELMAC 190



E-WELMAC AC ARC Welding Transformers

MODELS	UNIT	E-WELMAC 190
INPUT		
Input Supply:	Volts	230
Voltage	No.	1
Phases 	Hz	50
Frequency	KVA	5.5
Input KVA @ 100% Duty Cycle		
OUTPUT		
Open Circuit Voltage 	Volts	50
Welding Current Range 	Amps	30-150
Current:		
@20% duty cycle 	Amps	200
@60% duty cycle	Amps	115
@100% duty cycle	Amps	90
Welding Electrode range	mm	2.0-4.0
GENERAL		
Cooling 	Type	-----Natural Air Cooled-----
Dimensions (approx.):	Class	H
Length 	mm	340
Width	mm	315
Height	mm	500
Weight (approx.) 	Kg.	39

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GL SERIES WELDING RECTIFIERS (DIODE BASED)



A Wide of World Class Welding Rectifiers



SALIENT FEATURES

- Transductor controlled rectifier units.
- 600 Amps ideally suited for gouging application
- Welding rectifiers based on most simple, reliable and maintenance free diode based technology.
- These welding rectifiers are built with most robust and rugged mechanical construction which withstand rough handling at construction and project sites.
- Welding current adjustment and regulation through electromagnetic transductor resulting stepless and smooth current control.

- These welding rectifiers are welder friendly - Very easy to use and operate, maintain and service by ordinary electricians.
- Single knob current control from the front panel or remote control unit (provided optionally.)

- Easy parallel connection of these welding rectifiers possible for high current gouging applications.
- These welding rectifiers can be also used for DC TIG welding applications by connecting suitable TIG control units.

APPLICATIONS

- Most simple, robust and reliable welding rectifiers ideally recommended for heavy duty structural welding of construction equipment like crane, steel foundries, steel and fertiliser plants, shipyards.
- These welding rectifiers are ideally suitable for heavy fabrication shops, project sites with harsh

environment, where maintenance staff is not well equipped and qualified.

- GL 601 is most recommended for heavy duty welding and gouging applications in foundries, steel plants, heavy engineering workshops etc.

SPECIFICATIONS

Technical Specifications		Unit	GL 401	GL 601
Input				
Input Supply :				
Supply Voltage		Volt	400/440	400/440
Phase		No	3	3
Frequency		Hz	50	50
Input KVA @ 100% duty cycle		KVA	26	38.5
Input Current @ 100% duty cycle		A	45	70
Recommended switch fuse rating		A	TP50	TP80
Output				
Output Characteristic		Type	CC	CC
Open circuit voltage		Volts	80	80
Welding current range		A	50-400	80-600



GL SERIES WELDING RECTIFIERS (DIODE BASED)



A Wide of World Class Welding Rectifiers

Cont.

@ 35% duty cycle		A	NA	NA
@ 60% duty cycle	X%	A	400	600
@ 100% duty cycle		A	310	465
General				
Class of Insulation		Class	B	B
Cooling Type	FF	Type	Fan cooled	
Protection class		Class	IP23	IP23
Dimensions (mm)				
Length		mm	840	907
Height		mm	705	750
Width		mm	905	1005
Weight (approx.)		Kg	275	430

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- Backed by dedicated customer care package.





THYROLUXE 401

THYROLUXE 600

THYROLUXE 401 / THYROLUXE 600



The world class Thyristor based DC welders











SALIENT FEATURES

- Choice of heavy duty models to take care of both welding & gouging (for 600 A model only)
- Superior welding performance for the complete welding current range
- Ideal constant current drooping characteristics
- Stepless control for current adjustments
- Protections against input supply fluctuations i.e Under voltage, Over voltage, Single phasing, over load and short circuit
- Power source provided with built in Hot start, Antistick and self controlled Arc force dynamics
- Worry-free on maintenance
- Smooth and stable arc with minimum spatters
- Welder friendly Remote controller for easy and convenient setting of current from the workplace or the job
- Easy arc striking, High OCV for ease in arc start / restart

THYROLUXE 401 / THYROLUXE 600



The world class Thyristor based DC welders

SPECIFICATIONS TECHNICAL SPECIFICATIONS	UNIT	THYROLUXE 401	THYROLUXE 600
INPUT			
Input Supply: Voltage 	Volts	415, +10, -15%	415, +10, -15%
Phase	No.	3	3
Frequency	Hz.	50/60	50/60
Input KVA @100% duty cycle 	KVA	19.5	31.5
Input current @100% duty cycle	Amps AC	26.0	44
Recommended switch fuse/rating	Amps AC	TP-35	TP-60
OUTPUT			
Open Circuit Voltage 	Volts DC	100	100
Welding Current Range 	Amps DC	100-400	20-600
Current:			
@40% duty cycle 	Amps DC	-	-
@60% duty cycle	Amps DC	400	600
@100% duty cycle	Amps DC	310	465
GENERAL			
Gouging Carbon Electrode size	mm Ø	-	6 to 9
Current Display	-	Analog	Analog
Ingress Protection	Class	IP23	IP23
Cooling 	Type	Forced Air	Forced Air
Insulation	Class	H	H
Dimensions			
Length 	mm	835	980
Width	mm	495	550
Height	mm	820	960
Weight (approx.) 	Kg.	147	216

- **Warranty** : One year from the date of commissioning. ADOR WELDING LIMITED warrants that all new equipment sold from Plant/Area Offices / Authorised Distributors are free from defects in materials and workmanship and will perform in full accordance with applicable specifications.
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- Backed by dedicated customer care package.





THYROLUXE 1000 THYROLUXE 1200



The world class Thyristor based DC welders



SALIENT FEATURES




- Thyristor based heavy duty DC Welding and Gouging Rectifiers.
- Stepless control for current adjustments.
- Protections against supply fluctuations i.e Under voltage, Over voltage, Single phasing, over load and short circuit.
- Constant current drooping characteristics – Ideal for Welding and Gouging applications.
- Power source provided with built in Hot start, Antistick and self controlled Arc force dynamics.
- Smooth and stable arc with minimum spatters
- Welder friendly Remote controller for easy and convenient setting of current from the work place or the job

SPECIFICATIONS TECHNICAL SPECIFICATIONS	UNIT	THYROLUXE 1000	THYROLUXE 1200
INPUT			
Input Supply:	Volts	415 , +10%, -10%	415 , +10%, -10%
Voltage	No.	3	3
Phase	Hz	50/60	50/60
Frequency			
Max. rated Input KVA	KVA	81	96.5
OUTPUT			
Open Circuit Voltage	Volts DC	100	100
Welding Current Range	Amps DC	100-1000	100-1200
Current:			
@40% duty cycle	Amps DC	1000	-
@60% duty cycle	Amps DC	850	1200
@100% duty cycle	Amps DC	650	930

THYROLUXE 1000 THYROLUXE 1200



The world class Thyristor based DC welders

SPECIFICATIONS TECHNICAL SPECIFICATIONS	UNIT	THYROLUXE 1000	THYROLUXE 1200
GENERAL			
Suitable Gouging Carbon Electrode size	mmØ	6 to 12 mm	6 to 12 mm
Current Display		Analog	Analog
Ingress Protection	Class	IP23	IP23
	Type	Forced Air	Forced Air
Cooling 	Class	H	H
Insulation			
Dimensions			
Length 	mm	1130	1200
Width	mm	770	770
Height	mm	1080	1175
Weight (approx.) 	Kg.	403	450

- **Warranty** : One year from the date of commissioning. ADOR WELDING LIMITED warrants that all new equipment sold from Plant/Area Offices / Authorised Distributors are free from defects in materials and workmanship and will perform in full accordance with applicable specifications.
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CHAMP 200

The world class Inverter based DC Welder



SALIENT FEATURES

- Single phase High efficiency DC Welder
- High frequency IGBT based PWM Inverter
- Light weight, compact and portable for easy handling
- Compatible to power generator supply
- Hot start feature available
- Smooth and stable arc with minimum spatter
- TIG welding with scratch/Lift arc start
- Provided with the UV, OV thermal and line Voltage (415V) Protections

SPECIFICATIONS



Technical Specifications		Unit	CHAMP 200
Input			
Input Supply :			
Voltage		Volt	240, +10%, -15%
Phase		No	1
Frequency		Hz	50/60
Max input KVA @ 100% duty cycle		KVA	5
Efficiency		%	>84
Output			
Open Circuit Voltage @ 240 Vac		Volt	68 +/-3
Welding Current Range		Amps	10-200
Welding Current (40°C 10 minute cycle)			
@ 35% duty cycle		Amps	200
@ 60% duty cycle		Amps	150
@ 100% duty cycle		Amps	120
General			
Suitable Welding Electrode size		mm Ø	1.6, 2.5, 3.2 and intermittent 4
Hot Start		-	120% of the set current
Antistick		-	Built in
Ingress Protection		Class	IP23
Cooling		Type	Forced Air
Insulation		Class	F
Welding Output Terminals			Stud type / Camlock

Cont.

CHAMP 200



The world class Inverter based DC Welder

Technical Specifications	Unit	CHAMP 200
General		
Dimensions		
Length 	mm	415
Width	mm	155
Height	mm	300
Weight (approx.) 	Kg	7

- **Warranty** : One year from the date of commissioning. ADOR WELDING LIMITED warrants that all new equipment sold from Plant/Area Offices / Authorised Distributors are free from defects in materials and workmanship and will perform in full accordance with applicable specifications.
- In view of continuous development, ADOR WELDING LIMITED reserves the right to modify/change the design and /or the specifications without any prior notice.
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CHAMP 250



The world class Inverter based DC Welder








SALIENT FEATURES

- Three phase PWM controlled inverter based, high efficiency and high power factor heavy duty DC welder
- Enhanced Reliability due to SMD technology
- High frequency IGBT based Rectifier
- Arc force adjustment on panel
- TIG Welding possible with External HF Unit
- Light weight, compact and portable for easy handling
- High efficiency
- Built in Hot Start
- Smooth and stable arc with minimum Spatter

PROTECTIONS WITH AUTO RESET

- Input Supply Voltage protections for over and under Voltage
- Over Temperature
- Protection against Single phasing

SPECIFICATIONS

Technical Specifications	Unit	CHAMP 250
Input		
Input Supply :		
Voltage 	Volt	415, +15%, -10%
Phase	No	3
Frequency	Hz	50/ 60
Input KVA @ 415 Vac 		
@ 100% duty cycle	KVA	7.5
@ No Load	KVA	0.15
Power Factor	CosØ	0.94
Efficiency	%	85
Output		
Open Circuit Voltage 	Volt	84
Welding Current Range 	Amps	10-250
Welding Current (40°C 10 minute cycle)		
@ 60% duty cycle	Amps	250
@ 100% duty cycle 	Amps	195

Cont.







CHAMP 250



The world class Inverter based DC Welder

Cont.

General			
Suitable Welding Electrode size		mm Ø	1.6, 2.5, 3.2, 4 and intermittent 5 mm
Arc force setting		-	Adjustable by Potentiometer
Built in Hot Start		-	25% more than set current for 2 seconds
Current Display (Actual)			3 digit –7 segment digital panel pcb
Ingress Protection		Class	IP23
Cooling		Type	Forced Air
Insulation		Class	H
Insulation			
Dimensions			
Length		mm	520
Width		mm	260
Height (with handle)		mm	450
Height (without handle)		mm	410
Weight (approx.)		Kg	26

- **Warranty** : One year from the date of commissioning. ADOR WELDING LIMITED warrants that all new equipment sold from Plant/Area Offices / Authorised Distributors are free from defects in materials and workmanship and will perform in full accordance with applicable specifications.
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CHAMP 300



The world class Inverter based DC Welder



TYPICAL APPLICATIONS

- Three phase inverter based, high efficiency and high power factor DC Welder
- High frequency IGBT based Rectifier
- Arc force adjustment on panel.
- TIG Welding possible with External HF Unit handling
- Light weight, compact and portable for easy handling
- Auto-selection of Remote control when Remote controller (optional) is plugged into the machine
- Can be equipped with VRD, ELCB, Current and Voltage Dual-display meters as optional features



SALIENT FEATURES

- IGBT based latest PWM inverter technology
- High efficiency
- High OCV and suitable for all types of electrodes.
- Smooth and stable arc with minimum spatter
- Controls provided for adjustments of Arc force
- TIG operation possible with external HF TIG Control unit.

PROTECTIONS WITH AUTO RESET

- Input Supply Voltage protections for over and under Voltage
- Over Temperature
- Protection against Single phasing

SPECIFICATIONS

Technical Specifications	Unit	CHAMP 300
Input		
Input Supply :		
Input Supply Voltage, Phase, Frequency 	V Ac, No., Hz	415 , +15%, -10%, 3, 50 / 60
Input KVA @ 415V Supply 	KVA	0.2 @ No Load, 10.5 @ 100% Duty Cycle, 13.5 @ 60% Duty Cycle, 17 @ 35% Duty Cycle
Input Current @ 415V Supply	I AC	0.24 @ No Load, 14.5 @ 100% Duty Cycle, 18.5 @ 60% Duty Cycle, 23.5 @ 35% Duty Cycle
Power Factor	λ	0.72 Max.

Cont.








CHAMP 300



The world class Inverter based DC Welder

Cont.

Efficiency		%	>82
Output			
Open Circuit Voltage		V DC	88 V DC + / - 5 V
Welding Current Range		A DC	10-300
Welding Current (40°C, 10 Minute Duty Cycle)		A DC	300 @ 35% Duty Cycle, 250 @ 60% Duty Cycle, 200 @ 100% Duty Cycle
Arc Force Control		A DC	0 - 80 A More Than Set Current
General			
Suitable Welding Electrode size		mm Ø	2.5 - 5 mm For E-6013 & E - 7018, 2.5 - 3.2 For E - 6010
Current Display (Set Current & Actual Current)		A	3 Digit -7 Segment Digital Panel Meter
Remote Control (optional)		10 Meter	Provided As Optional For Current Setting.
Front Panel Functions			1) MMA / Tig Mode Selection Switch. 2) Current & Arc Force Adjustment Pot. 3) Mains on 'green' Colour Led Indication 4) Trip - 'red' Colour LED Indication of "Machine Under Protection Mode". 5) Dpm For Display Of Set Current & Actual Current
Protection (Auto Resettable)			
Ingress Protection		Degree	IP23 S
Cooling		Type	Forced Air
Insulation		Class	H
Dimensions (L x W x H)		mm	536 x 200 x 345
Weight (approx.)		Kg	20

- **Warranty** : One year from the date of commissioning. ADOR WELDING LIMITED warrants that all new equipment sold from Plant/Area Offices / Authorised Distributors are free from defects in materials and workmanship and will perform in full accordance with applicable specifications.
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CHAMP T400



The world class Inverter based DC Welder







SALIENT FEATURES

- Three phase IGBT inverter based, high efficiency and high power factor DC Welder
- High OVC and suitable for Long distance welding and cellulosic electrodes
- Enhanced Reliability due to SMD technology
- Capable of Welding with all types of cellulosic electrodes including 6010, 7010G and 8010G I HF Unit
- High frequency IGBT based Rectifier
- Arc force adjustment on panel
- TIG Welding possible with External HF Unit
- Light weight, compact and portable for easy handling
- Capable of Welding with 100 meter + 100 meter welding and return cables
- Smooth and stable arc with minimum spatter
- Controls provided for adjustments of Arc force
- TIG operation possible with external HF TIG Control unit

PROTECTIONS WITH AUTO RESET

- Input Supply Voltage protections for over and under Voltage
- Over Temperature
- Protection against Single phasing

SPECIFICATIONS

Technical Specifications	Unit	CHAMP T400
Input		
Input Supply :		
Voltage 	Volt	415 , +15%, -10%
Phase	No	3
Frequency	Hz	50/ 60
Input KVA @ 415 Vac 		
@ 100% duty cycle	KVA	14
@ No Load	KVA	0.24
Power Factor	CosØ	Upto 0.93
Efficiency	%	≥ 85
Output		
Open Circuit Voltage 	Volt	85 V DC
Welding Current Range 	Amps	10-400
Welding Current (40°C)		

Cont.







CHAMP T400



The world class Inverter based DC Welder

Cont.

@ 60% duty cycle (10 minute cycle)		Amps	400
@ 100% duty cycle		Amps	310
General			
Suitable Welding Electrode size		mm Ø	2.5, 3.2, 4, 5 and 6.3 mm
Arc force setting		-	Adjustable by Potentiometer
Current Display (Set Current & Actual Current)		A	3 digit –7 segment digital panel pcb
Ingress Protection			IP23
Cooling		Class	Forced Air
Insulation		Type	H
Welding Output Terminals		Class	Stud type for Lug type cable connections
Dimensions L x W x H		mm	660 X 305 X 530
Weight (approx.)		Kg	40

- **Warranty** : One year from the date of commissioning. ADOR WELDING LIMITED warrants that all new equipment sold from Plant/Area Offices / Authorised Distributors are free from defects in materials and workmanship and will perform in full accordance with applicable specifications.
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CHAMP 500 / CHAMP 600



The world class Inverter based DC Welder



SALIENT FEATURES

- Three phase inverter based, high efficiency and high power factor DC Welders
- Enhanced Reliability due to SMD technology
- High frequency IGBT based Rectifier
- Arc force adjustment on panel
- TIG Welding possible with External HF Unit
- Suitable for all electrodes including 6010, 7010G and 8010G
- Latest PWM inverter technology
- Smooth and stable arc with minimum spatter
- Suitable for Gouging Application and long distant welding
- Arc force adjustments provided on the front panel
- TIG operation possible with external HF TIG Control unit.

PROTECTIONS WITH AUTO RESET

- Input Supply Voltage protections for over and under Voltage
- Over Temperature
- Protection against Single phasing

SPECIFICATIONS

Technical Specifications	Unit	CHAMP 500	CHAMP 600
Input			
Input Supply :			
Voltage	Volt	415 , +15%, -10%	
Phase	No	3	
Frequency	Hz	50/ 60	
Input KVA @ 415 Vac			
@ 100% duty cycle	KVA	17.5	22.0
@ No Load	KVA	0.27	0.31
Power Factor	CosØ	0.93	
Efficiency	%	87	
Output			
Open Circuit Voltage	Volt	89	
Welding Current Range	Amps	20-500	20-600
Welding Current (40°C 10 minute cycle)			
@ 60% duty cycle	Amps	500	600
@ 100% duty cycle	Amps	387	465

Cont.






CHAMP 500 / CHAMP 600



The world class Inverter based DC Welder

Cont.

General			
Suitable Welding Electrode size	mm Ø	2.5, 3.2, 4, 5 and 6.3 mm	
Suitable for Gouging Electrode Size	mm Ø	Max. up to 9mm	Max. up to 9 mm 12mm –limited use
Arc force setting		Adjustable by Potentiometer	
Current Display (Actual)		4 digit –7 segment digital panel pcb	
Ingress Protection 	Class	IP23	
Cooling	Type	Forced Air	
Insulation	Class	H	
Welding Output Terminals		Stud type for Lug type cable connections	
Dimensions			
Length 	mm	700	
Width	mm	460	
Height (with handle)	mm	575	
Height (without handle)	mm	630	
Weight (approx.) 	Kg	57	58

- **Warranty** : One year from the date of commissioning. ADOR WELDING LIMITED warrants that all new equipment sold from Plant/Area Offices / Authorised Distributors are free from defects in materials and workmanship and will perform in full accordance with applicable specifications.
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CHAMP 1200 - GOUGEMASTER



The world class Inverter based DC Welder with High Current Gouging Facility



GENERAL

- Three phase inverter based, high efficiency and high power factor DC Welder
- Suitable for normal Electrode Welding as well as gouging at high currents
- Enhanced Reliability due to SMD technology

PROTECTIONS WITH AUTO RESET

- Input Supply Voltage protections for over and under Voltage
- Over Temperature
- Protection against Single phasing

SPECIFICATIONS

Technical Specifications	Unit	Champ 1200
Input		
Input Supply :		
Voltage	Volt AC	415 , +15%, -10%
Phase	No	3
Frequency	Hz	50/ 60
Max Input KVA @ @ 100% duty cycle	KVA	55
Input Supply Current @ 100% duty cycle (1000 Amps)	Amps, AC	76
Input Supply Current @ 60% duty cycle (1200 Amps)	Amps, AC	92
Power Factor @ 100% duty cycle		0.93
Efficiency @ 100% duty cycle	%	≥ 85
Output		
Open Circuit Voltage	Volt,DC	90
Welding Current Range	Amps,DC	100-1200
Welding Current (40°C 10 minute cycle)		
@ 60% duty cycle	Amps,DC	1200
@ 100% duty cycle	Amps,DC	1000
General		
Suitable Welding Electrode size	mm Ø	3.2, 4, 5 and 6.3 mm
Suitable for Gouging Electrode Size	mm Ø	Up to 12 mm
Remote Control (Optional)		10 meter Remote Control provided as optional for current setting
Ingress Protection	Class	IP23
Cooling	Type	Forced Air
Insulation	Class	H

Cont.



CHAMP 1200 - GOUGEMASTER



The world class Inverter based DC Welder with High Current Gouging Facility

Cont.

Welding Output Terminals		Stud type for Lug type cable connections
Dimensions		
Length	mm	930
Width	mm	525
Height (with handle)	mm	950
Weight (approx.)	Kg	115
Front Panel Functions		'MAINS ON' - Green LED Indication
		'MMA/GOUGING' - Red LED Indication
		'REMOTE ON' - Red LED Indication
		'TRIP' - Red LED Indication if Machine is under Protection Mode
		Current Adjustment Encoder
Protections (Auto - Reset)		4 Digit Digital Display for Current and Voltage
		Over Voltage, Under Voltage, Single Phasing Over Temperature

- **Warranty** : One year from the date of commissioning. ADOR WELDING LIMITED warrants that all new equipment sold from Plant/Area Offices / Authorised Distributors are free from defects in materials and workmanship and will perform in full accordance with applicable specifications.
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CHAMPCUT 100



The world class Inverter based Air Plasma Cutting Outfit



TYPICAL APPLICATION

- Three phase inverter based, high efficiency cutting outfit
- Ideal for Heavy duty production jobs
- Suitable for manual cutting as well as with CNC machine
- High frequency IGBT based PWM Inverter
- Enhanced reliability due to SMD technology
- Seven Segment LED display for set and actual cutting current for precise control of cutting current.
- Air pressure indicating meter is provided on front panel
- Emergency stop push button stops the cutting operation instantly in case of emergency.

SALIENT FEATURES

- Latest inverter based technology
- Emergency stop push button is provided on front panel
- Micro-controller Based control provides precise control on sequence of operation and its interlocking.
- Capability to interface with CNC controllers
- Post flow cooling provides torch cooling after the cut for longer torch life
- Safety device signal provided on front panel for
 - a) Low air pressure
 - b) Thermal failure
 - c) Mains voltage higher or lower than limit..

PROTECTIONS WITH AUTO RESET

- Under-voltage / Over-voltage protection.
- Thermal protection.
- Low air pressure

SPECIFICATIONS

Technical Specifications	Unit	CHAMPCUT 100
Input		
Input Supply :		
Voltage	Volts AC	370 -470
Phase	No	3
Frequency	Hz	50/60
Max input KVA @ 100% duty cycle	KVA	15.4
Current @ 100% Duty Cycle	Amps AC	23

Cont.








CHAMPCUT 100



The world class Inverter based Air Plasma Cutting Outfit

Cont.

Output		
Pilot ARC Current 	Amps DC	≤ 20
Cutting Current (40°C) @100% Duty cycle 	Amps DC	100
Open Current Voltage @415VAC Input Supply	Volts DC	320 +/- 10V
Efficiency @ 100% duty cycle	%	>88
Cutting Current Range	Amps DC	20 - 100
Maximum Cutting Thickness (Severance)	mm	35
Optimum Cutting Thickness	mm	25
Machine Used Protect Cutting Thickness	mm	≤ 20
General		
Front Panel Functions		1) Cutting Current Adjustment Pot 2) Mains LED, Green 3) Trip LED, Red 4) Cutting LED Yellow 5) Switch to Select 2T/4T Functions 6) Switch for Air Check 7) LED Display for Displaying The Cutting Range
Protection (Auto Resettable)		Thermal, UV,-OV, Low Pressure, Emergency Stop Switch
Cooling 	Type	Forced Air
Class of Insulation		H
Degree of Protection		IP21
Air Pressure	MPA/BAR	0.45-0.55 / 4.5-5.5
Dimensions (L x W x H) 	mm	620 x 300 x 526
Weight (approx.) 	Kg	43

- **Warranty** : One year from the date of commissioning. ADOR WELDING LIMITED warrants that all new equipment sold from Plant/Area Offices / Authorised Distributors are free from defects in materials and workmanship and will perform in full accordance with applicable specifications.
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- Backed by dedicated customer care package.





CHAMPCUT 25C

The world class inverter based Plasma Cutting Machine



TYPICAL APPLICATION

- Three phase inverter based, soft switching technology high efficiency and high cutting capacity Plasma Cutting Machine
- Suitable for both manual and mechanized cutting operation with suitable Cutting Torch
- High Frequency arc striking for ease of operation
- Digital display for precise setting of cutting current
- Time delay function provides effective protection to cutting torch
- Self Hold ON / OFF setting feature makes themachine typically suitable for use with Automatic CNC Cutting outfit

SPECIFICATIONS

Technical Specifications	Unit	CHAMPCUT 25C
Characteristic Control		IGBT Inverter Based
Characteristics	Type	Constant Current
Input		
Input Supply Voltage	Volts AC	380 - 415
Phase		3
Frequency	No.	50/60
Rated Input Power	Hz	14.5
Output		
Cutting Current Range	Amps, DC	30-100
Cutting Current @100% Duty Cycle	Amps, DC	100
General		
Maximum Severing Capacity	mm	40
Optimal Cutting Capacity	mm	1-20
Maximum Machine (Automatic) Cutting	mm	≤ 15
Nominal Air Pressure	Mpa/Bar	0.45 / 4.5
Dimensions (L X W X H)	mm	550 / 300 / 500
Weight (Approx)	kg	40

- **Warranty** : One year from the date of commissioning. ADOR WELDING LIMITED warrants that all new equipment sold from Plant/Area Offices / Authorised Distributors are free from defects in materials and workmanship and will perform in full accordance with applicable specifications.
- In view of continuous development, ADOR WELDING LIMITED reserves the right to modify/change the design and /or the specifications without any prior notice.
- Backed by dedicated customer care package.





CHAMPCUT 150



The world class Inverter based Air Plasma Cutting Outfit



TYPICAL APPLICATION

- Three phase inverter based, high efficiency cutting outfit
- Ideal for Heavy duty production jobs
- Suitable for manual cutting as well as with CNC machine
- High frequency IGBT based PWM Inverter
- Enhanced reliability due to SMD technology
- Seven Segment LED display for set and actual cutting current for precise control of cutting current.
- Air pressure indicating meter is provided on front panel
- Emergency stop push button stops the cutting operation instantly in case of emergency.



SALIENT FEATURES

- Latest inverter based technology
- Emergency stop push button is provided on front panel
- Micro-controller Based control provides precise control on sequence of operation and its interlocking.
- Capability to interface with CNC controllers
- Post flow cooling provides torch cooling after the cut for longer torch life
- Safety device signal provided on front panel for
 - a) Low air pressure
 - b) Thermal failure
 - c) Mains voltage higher or lower than limit..

PROTECTIONS WITH AUTO RESET

- Under-voltage / Over-voltage protection.
- Thermal protection.
- Low air pressure

SPECIFICATIONS

Technical Specifications - Plasma Cutting Power Source	Unit	CHAMPCUT 150
Input		
Input Supply :		
Voltage 	Volts AC	415 + / -10%
Phase	No	3
Frequency	Hz	50/60
Max input KVA @ 100% duty cycle 	KVA	26.4
Current @ 100% Duty Cycle	Amps AC	38

Cont.





CHAMPCUT 150



The world class Inverter based Air Plasma Cutting Outfit

Cont.

Output		
Open Current Voltage @415VAC Input Supply	Volts DC	330 +/- 10V
Cutting Current Range	Amps DC	30 - 50
Cutting Current (40°C) @100% Duty cycle	Amps DC	150
Recommended Cutting With Rage (With CNG)	mm	5 -35
Maximum Cutting Capacity (Severance) For as MS Material	mm	50
Maximum Piercing Capacity	mm	20
Machine Used Protect Cutting Capacity (For M.S.)	mm	≤ 25
General		
Type of End Connector for Plasma Cutting Torch		Euro
Type of Cooling 	Type	Forced Air
Class of Insulation		H
Ingress Protection		IP23S
Air Pressure	MPA/BAR	0.45-0.55 / 4.5-5.5
Weight (approx.) 	Kg	60
Plasma Cutting Power Source		
	Unit	CCT 150
Voltage Glass		M
Standard Length	Mtr	6
Air Pressure	BAR	5
Air Consumption	I/Min	230
Duty Cycle 60%	A	150
Duty Cycle 100%	A	150

- **Warranty** : One year from the date of commissioning. ADOR WELDING LIMITED warrants that all new equipment sold from Plant/Area Offices / Authorised Distributors are free from defects in materials and workmanship and will perform in full accordance with applicable specifications.
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- Backed by dedicated customer care package.





CUTi 35, 70, 90, 120



The world Class Inverter based Plasma Cutting Machines

SALIENT FEATURES

- The small power packages of the CUTi series are easy to handle and thus especially suitable for mobile use. From among the models of the series, the user may choose the unit which meets his individual requirements best.
- Using compressed Air as the Plasma Gas, mild steel, stainless steel, aluminium, brass, copper and other electrically conductive materials can be cut.
- All CUTi inverters operate with gas-cooled plasma torches and external compressed air supply.
- Due to the sinusoidal power consumption with PFC (power factor correction), the inverter CUTi 35 draws its maximum power from the single-phase 230 V mains, without major reactive power loss.
- Light, portable, easy to handle
- Contains inlet FRL Unit to ensure flow of clean, dry air
- Productive due to high cutting speed
- Energy saving due to modern inverter technique
- High cut quality
- Versatile use due to a large variety of accessories
- Safe working due to safety shut-down

DELIVERY CONTENTS OF OUTFIT:

- Plasma Power Source with input cable and power supply plug
- Plasma Cutting Torch (Air cooled) with cutting accessories
- Return cable with Earth clamp
- Air supply hose

APPLICATION AREAS

- Convenient Hand Torches
- Plasma gouging does not require after-treatment and produces less smoke compared to gouging with carbon electrodes.
- Suitable for industry and craft
- In workshops and training centres
- For repairing and servicing
- At assembly workplaces, on construction sites
- Straight, profile and contour cutting, also with templates
- For piercing and hole cutting
- Bevel cutting at any angle for weld preparation, possible with appropriate accessories
- Plasma gouging in preparation of weld joints, fettling, removal of welding mistakes and surface defects with CUTi 90 and CUTi 120

CUTi 35, 70, 90, 120



The world Class Inverter based Plasma Cutting Machines

ERGONOMIC HANDLE DESIGN

- Thanks to the ergonomic handle design and the low weight of the KjellCut plasma torches work is easy. In addition to the convenient operation, safety is also of prime importance here.

ACCESSORIES FOR CUTi

- A large variety of accessories is available for the flexible use of the CUTi units.

TECHNICAL SPECIFICATIONS

Parameter	UNIT	CUTi 35	CUTi 70	CUTi 90	CUTi 120
Input					
Mains Voltage	VOLTS, AC	1 X 230 V	3 X 400 V	3 X 400 V	3 X 400 V
Fuse, Slow	AMPS, AC	16 A	16 A	25 A	32 A
Connected Load, Max.	KVA	3.7 KVA	11.1 KVA	15 KVA	16.7 KVA
Output					
Cutting Current Range	AMPS, DC	5-35 A	26 -70 A	26 -90 A	25 -120 A
Duty Cycle	10 min duty cycle	35 A @ 40%	70 A @ 35%	90 A @ 40%	120 A @ 35%
		28 A @ 60%	60 A @ 60%	74 A @ 60%	95 A @ 60%
		22 A @ 100 %	50 A @ 100 %	55 A @ 100 %	80 A @ 100 %
General					
Protection Class	CLASS	IP 21	IP 21	IP 21	IP 21
Cutting Range	MM	12 MM	30 MM	35 MM	50 MM
Ignition	TYPE	DRAWN ARC	HIGH VOLTAG	HIGH VOLTAGE	HIGH VOLTAGE
Plasma Gas	TYPE	AIR	AIR	AIR	AIR
Pressure	MPA	0.4 MPA	0.5 MPA	0.5 MPA	0.5 MPA
Air Consumption	L / MIN	70 L / MIN	140 L / MIN	195 L / MIN	195 L / MIN
Dimensions (L X W X H)	MM	480 X 150	470 X 180	470 X 180	610 X 230
		X 225 MM	X 250 MM	X 270 MM	X 410 MM
Weight	KG	10 KG	16.4 KG	17 KG	28.5 KG

- **Warranty** : One year from the date of commissioning. ADOR WELDING LIMITED warrants that all new equipment sold from Plant/Area Offices / Authorised Distributors are free from defects in materials and workmanship and will perform in full accordance with applicable specifications.
- In view of continuous development, ADOR WELDING LIMITED reserves the right to modify/change the design and /or the specifications without any prior notice.
- Backed by dedicated customer care package.





PLASMACUT - 25



Air plasma cutting system with unmatched cutting speed



SALIENT FEATURES

- Most dependable and reliable power source
- Distortion-free, dross-free, burr-free, narrow kerf width clean cuts
- Suitable for cutting all conducting metals
- Simple and easy to use

PLASMACUT - 25

for all your Cutting Needs Whether it's clean cuts that you want or separation cuts

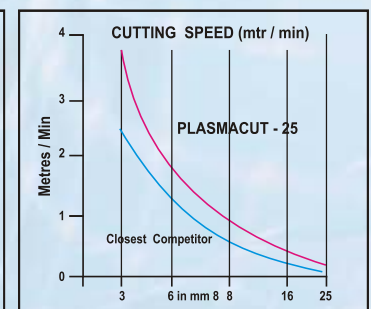
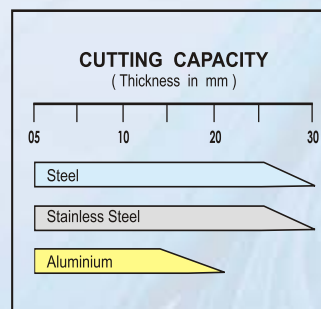
PLASMACUT - 25 works with equal ease.

TYPICAL APPLICATION

- Automotive Repairs
- General Fabrication
- Bus and coach Body Building
- Railway and Road Transport Workshops
- Power Stations, Chemical, Petrochemicals or Fertilizer Industry
- Sheet Metal Fabrication
- Construction and Maintenance Workshops
- Manufacture of Food Processing and Pharmaceutical equipment using SS
- Scrap Cutting Demolition, ship-breaking etc.

MACHINE FEATURES

- Rugged and robust Design
- User Friendly, requires minimum operator training
- Special "Safety-interlock" for operator protection
- Railway and Road Transport Workshops
- Lightweight and Flexible Torch with 8 m long hose assemble
- Air pressure safety switch for "fail-safe cutting"
- Double air filter-cum-pressure regular unit to ensure clean compressed air for excellent cut quality
- Easy manoeuvrability on the shopfloor
- Full range of accessories







PLASMACUT - 25



Air plasma cutting system with unmatched cutting speed

SPECIFICATIONS

Technical Specifications -	Unit	PLASMACUT 150
Input		
Input Supply :		
Voltage 	Volts AC	415
Phase	No	3
Frequency	Hz	50
Max input KVA @ 100% duty cycle 	KVA	28
Recommended switch fuse rating	Amps AC	TP-45
Output		
Cutting Current	Amps	100
Open Current Voltage	DC Volts	300
Cutting Current @60% Duty cycle	Amps	100
Pilot arc open circuit voltage	DC Volts	300
General		
Insulation	Class	'B'
Type of Cooling 	Type	Forced Air
Overall Dimensions		
Length	mm	800
Width	mm	370
Height	mm	825
Weight (approx.) 	Kg	165
Torch		Model : CCT-25 (A)
Max Current / Voltage @ 60% duty cycle	Amps/ Volts	100/110
Cooling	Type	Air
Air to be used (Plasma+Cooling)		
Flow	Lit/Min	120 to 150
Pressure	kg/cm ²	6
Cable Hose Length	Mtrs.	6

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SUPERGEN 320



Performance Proven Motor Generator Welding Set
Choice of the finest equipment for superior weld quality and efficiency



SALIENT FEATURES

- The set consists of three-phase motor as prime mover and DC welding generator of a special patented design
- Excellent high quality welding with big savings in power bills
- Positive protection against overload and single phasing
- Mobile and mounted on rubber-tyred wheels
- Ideal for welding with cellulosic electrodes for cross country pipelines and thermal/nuclear power plants.

QUANTUM LEAP IN WELDING PRODUCTION FEATURE-WISE COMPARISON

Features you want	Brand X	Our new technology break through
Welding with 100 mtr cable length without any current drop	Current drops	Constant current even with longer cable length
Low no load power consumption	3.2 KW	1.1 KW - less than half power consumption and energy cost
Low power consumption at	22.23 KW 320 Amp.welding current	15.5 KW Reduction by 30% in energy bill Saving upto Rs. 46,000 in a year
Low maintenance cost	Periodic wear'n tear of brushes	Brushless' technology eliminates frequent Maintenance and down time costs
Freedom from stator failures	No protection	Built-in protection against single phasing, over voltage and under voltage
Insulation class	"B"	"H"- provides longer service life- more reliable
Suitable for welding in open/ dusty sites	S.P.D.P.* Open type design - sucks in dirt and dust	Totally enclosed preventing entry of dirt and dust insidel winding - ideal for site conditions
Ease of mobility	330 kgs in weight	Only 265 kgs in weight i.e.25% lighter-easier to move about
Availability of Spares & service	Spares subject to imports- Limited service network	Easy availability of spares Large network of authorised service centres.

Cont.



SUPERGEN 320



Performance Proven Motor Generator Welding Set
Choice of the finest equipment for superior weld quality and efficiency

SPECIFICATIONS

Cont.



Technical Specifications		Unit	Value
Input			
Input Supply :			
Voltage		Volt	415
Phase		No	3
Frequency		Hz	50
Power		Kw/HP	15.5/20.78
Speed (Synchronous)		RPM	3000
Starting		-	Star / Delta starter
Recommended switch fuse rating		-	TP40
Protection to Machine		-	Machine provided with built in Single Phasing, Under voltage (340V), Over voltage (480 V) and thermal protection
Output			
Open Circuit Voltage		Volt	100
Welding Current Range		Amps	35-320
Welding Current			
@ 60% duty cycle		Amps	320
@ 100% duty cycle		Amps	250
Welding Electrode Range		mm	2.5-6.3
General			
Insulation		Class	H
Cooling		Type	Fan Cooled
Enclosure		Type	Totally enclosed
Protection		Class	IP44 (excluding Fan side)
Dimensions L X W X H		mm	1065 x 540 x 840
Weight (approx)		Kg	265

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SILENT CHALLENGER 301 S2



New Generation Diesel Engine Driven Silent Welding Set
Conforming to Latest CPCB II Norms



SALIENT FEATURES

- Conforms to latest CPCB norms for noise & exhaust emission level
- Versatile applications, including cross country, inplant pipe and tube welding
- Ideal for heavy fabrication & site applications
- Highly reliable even in hostile site conditions
- Big savings in fuel & longer runs before next refuelling
- Specially proven with Cellulosic (6010, 7010G & 8010G types) and other special types of electrodes
- Excellent Pre and Post Sales Services
- Super Silent Operations

SPECIFICATIONS

Technical Specifications	Unit	Value
Machine Name		SC 301 S2
CPCB compliance	Type	Meets CPCB - II compliance for Exhaust Emission and Noise within 75 dba at 1 mtr
Welding Generator		
Welding Generator	Type	Brushless type, high frequency generator, specially designd for welding applications, constant current (CC) characteristic with winding less, commutator less, magnet less, slip-ring less and rotating diode less rotor construction for maintenance free and reliable operation
Welding process	Type	SMAW (Shielded Metal Arc Welding)
Operators	No	Single
Welding current range	Amps	40 - 300 A
Max. hand welding current	Amps	300 A @ 32 V
Max. hand welding current @ 60% DC	Amps	230 A @ 29V
Max. hand welding current @ 100% DC	Amps	310
Open circuit voltage (Max. / Min)	Volts DC	100 / 45 VDC
Generally, Conforms To	IS	26-35
Diameter of coated electrode	mm	2.5, 3.15, 4, 5, 6
Insulation Class	Type	H
Auxiliary Power Source (built In)		
Rating 3 Phase / Single Phase	KVA	10 / 3
Voltages (3 Phase/1 Phase)	VOLTS	415 / 240
MCB Rating	AMPS	16 AMPS



SILENT CHALLENGER 301 S2



New Generation Diesel Engine Driven Silent Welding Set
Conforming to Latest CPCB II Norms

Cont.

Engine Make, Type		SIMPSON, SC213 CPCB-II COMPLIANT
Cylinder	Nos.	2
Engine Cooling	Type	Water Cooled
Engine Rating	BHP	23 BHP @ 1800 RPM
Speed	RPM	1800
Conforms to	Standard	10002/81
Starting (12 V)	Type	Electric
Fuel tank Capacity	Ltrs.	50
Meters/Gauges/Indications	Type/Detail	Lube oil pressure, Fuel level Indication, Battery charging current, Charging failure warning lamp, Engine speed, Hour Meter etc.
OPTIONAL Engine Safety Protection	Type	engine auto shut off in the event of low lube oil pressure (or) high cylinder head temperature
General (Dimensions & Weight)		
Skid Mounted :		
Length/Width/Height	mm	1700 X 820 X 1130
Weight (Net)	Kg	695
Two Wheel Mounted :		
Length/Width/Height	mm	2540 X 1455 X 1725
Weight (Net)	Kg	770
Four Wheel Mounted :		
Length/Width/Height	mm	3200 X 1555 X 1990
Weight (Net)	Kg	845

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- Backed by dedicated customer care package.





SILENT CHALLENGER 401



New Generation Diesel Engine Driven Silent Welding Set
Conforming to Latest CPCB II Norms



SALIENT FEATURES

- Conforming to latest CPCB norms for noise & exhaust emission level
- Versatile applications, including cross country, inplant pipe and tube welding
- Ideal for heavy fabrication & site applications
- Highly reliable even in hostile site conditions
- Big savings in fuel & longer runs before next refueling
- Specially proven with Cellulosic (6010, 7010G & 8010G types) and other special types of electrodes
- Excellent Pre and Post Sales Services
- Super Silent Operations
- Capable of Arc Cutting with up to 4 mm Arc Cutting Electrode

SPECIFICATIONS

Technical Specifications	Unit	Value
Machine Name		SC 401
CPCB compliance	Type	Meets CPCB - II compliance for Exhaust Emission and Noise within 75 dba at 1 mtr
Welding Generator		
Welding Generator	Type	Brushless type, high frequency generator, specially designd for welding applications, constant current (CC) characteristic with winding less, commutator less, magnet less, slipring less and rotating diode less rotor construction for maintenance free and reliable operation
Welding process	Type	SMAW (Shielded Metal Arc Welding)
Operators	No	Single
Welding current range	Amps	50 - 400
Max. hand welding current	Amps	400
Max. hand welding current @ 60% DC	Amps	400
Max. hand welding current @ 100% DC	Amps	310
Open circuit voltage (Max. / Min)	Volts	100/45
Diameter of coated electrode	mm	2.5-6.3
Insulation Class	Type	H
Engine Make, Type		SIMPSON, SJ327T CPCB-II Compliant
Cylinder	No.	3
Rated engine Speed	RPM	1800
Engine Cooling	Type	Water Cooled
Engine Rating	BHP	38.5 BHP @ 1800 RPM
Conforms to	Standard	IS 10002(BI)
Starting	Type	Electric (Battery 12 V, 75 AH)



SILENT CHALLENGER 401



New Generation Diesel Engine Driven Silent Welding Set
Conforming to Latest CPCB II Norms

Cont.

Fuel Consumption @ 60% Duty Cycle	Ltrs./Hrs.	4.0 ltrs/hr @ 100% Duty Cycle	
Fuel tank Capacity	Ltrs.	70	
Meters/Gauges/Indications	Type/Detail	Lube oil pressure, Fuel level Indication, Battery charging current, Charging failure warning lamp, Engine speed, Hour Meter etc.	
OPTIONAL Engine Safety Protection	Type	Engine Auto Shut off in the event of low lube oil pressure	
Arc Cutting		Arc Cutting with upto 4 mm Cutting Electrode	
Auxiliary Power Source (Indicates rating with simultaneous welding load)			
Rating	KVA	10	3
Voltage	Volts	415	240
Phases	No	3	1
MCCB Rating	Amps	16	
Output Sockets	No	2	
General (Dimensions & Weight)			
Skid Mounted :			
Length/Width/Height	mm	2000 x 820 x 1460	
Weight (Net)	Kg	1100	
Two Wheel Mounted :			
Length/Width/Height	mm	2900 x 1455 x 1990	
Weight (Net)	Kg	1240	
Four Wheel Mounted :			
Length/Width/Height	mm	2900 x 1555 x 1990	
Weight (Net)	Kg	1340	

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- Backed by dedicated customer care package.





SILENT CHALLENGER 501



New Generation Diesel Engine Driven Silent Welding Set
Conforming to Latest CPCB II Norms



SALIENT FEATURES

- Conforming to latest CPCB norms for noise & exhaust emission level
- Versatile applications, including cross country, inplant pipe and tube welding
- Big savings in fuel and longer runs before next refueling
- Arc Cutting and Gouging capability. Maximum size of Gouging Electrode is 6 mm
- Specially proven with Cellulosic (6010, 7010G & 8010G types) and other special types of electrodes
- Excellent Pre and Post Sales Services
- Ideal for heavy fabrication & site applications
- Highly reliable even in hostile site conditions
- Super Silent Operations

SPECIFICATIONS

Technical Specifications	Unit	Value
Machine Name		SC 501
CPCB compliance	Type	Meets CPCB - II compliance for Exhaust Emission and Noise within 75 dba at 1 mtr
Welding Generator		
Welding Generator	Type	Brushless type, high frequency generator, specially designd for welding applications, constant current (CC) characteristic with winding less, commutator less, magnet less, slipring less and rotating diode less rotor construction for maintenance free and reliable opertaion
Welding process	Type	SMAW (Shielded Metal Arc Welding)
Operators	No	Single
Welding current range	Amps	50 - 500
Max. hand welding current	Amps	500
Max. hand welding current @ 60% DC	Amps	500
Max. hand welding current @ 100% DC	Amps	400
Open circuit voltage (Max. / Min)	Volts	100/45
Diameter of coated electrode	mm	2.5-6.3
Insulation Class	Type	H
Engine Make, Type		
Cylinder	No.	3
Rated engine Speed	RPM	1800
Engine cooling	Type	Water Cooled
Engine Rating	BHP	38.5 @ 1800 RPM
Conforms to	Standard	IS 10002(BI)
Starting	Type	Electric (Battery 12 V, 75 AH)

Cont.



SILENT CHALLENGER 501



New Generation Diesel Engine Driven Silent Welding Set
Conforming to Latest CPCB II Norms

Cont.

Fuel Consumption @ 60% Duty Cycle	Ltrs./Hrs.	4.0 ltrs/hr @ 100% Duty Cycle	
Fuel tank Capacity	Ltrs.	70	
Meters/Gauges/Indications	Type/Detail	Lube oil pressure, Fuel level Indication, Battery charging current, Charging failure warning lamp, Engine speed, Hour Meter etc.	
OPTIONAL Engine Safety Protection	Type	Engine Auto shut of in the event of low lube oil pressure or High Cylinder Head Temperature	
Gouging and Arc Cutting		Capable of Gouging with upto 6 mm Gouging Electrode	
Auxiliary Power Source (Indicates rating with simultaneous welding load)			
Rating	KVA	10	3
Voltage	Volts	415	240
Phases	Nos	3	1
MCCB Rating	Amps	16	
Output Sockets	Nos	2	
General (Dimensions & Weight)			
Skid Mounted :			
Length/Width/Height	mm	1995 X 820 X 1520	
Weight (Net)	Kg	1100	
Two Wheel Mounted :			
Length/Width/Height	mm	2900 x 1455 x 1990	
Weight (Net)	Kg	1240	
Four Wheel Mounted :			
Length/Width/Height	mm	3435 x 1555 x 1990	
Weight (Net)	Kg	1340	

- **Warranty** : One year from the date of commissioning. ADOR WELDING LIMITED warrants that all new equipment sold from Plant/Area Offices / Authorised Distributors are free from defects in materials and workmanship and will perform in full accordance with applicable specifications.
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- Backed by dedicated customer care package.





SILENT CHALLENGER 2 X 301



The New generation Diesel Engine Driven Silent Welding Set
Conforming To Latest CPCB II norms



SALIENT FEATURES

- Conforms to latest CPCB norms for noise & exhaust emission level
- Versatile applications, including cross country, in-plant pipe and tube welding
- Ideal for heavy fabrication & site applications
- Highly reliable even in hostile site conditions
- Big savings in fuel and longer runs before next re-fueling
- Specially proven with Cellulosic (6010, 7010G & 8010G types) and other special types of electrodes
- Excellent Pre and Post Sales Services
- Super Silent Operations

SPECIFICATIONS

Technical Specifications	Unit	Values	
Welding Generator	Type	Double Operator	Single Operator
		Manual (CC)	Manual (CC)
Welding Current Range	Amps, DC	15x300 A	30-600 Amps
Max. Hand Welding Current @ 40% DC	Amps, DC	2x300 A @29V	600 Amps @30V
Max. Hand Welding Current @ 60% DC	Amps, DC	2x250 A @26.5V	500 Amps @30V
Max. Hand Welding Current @ 100% DC	Amps, DC	2x200 A @24V	400 Amps@36V
Open Circuit Voltage (Max)	Volts, DC	92 VDC	92 VDC
Generally Conforms To	IS	26-35	
Insulation	Type	H	
Engine Make, Type		SIMPSON, SJ327T CPCB-II Compliant	
Cylinder	Nos.	3	
Engine Colling	Type	Water Cooled	
Engine Rating	BHP	38.5 BHP @ 1800 RPM	
Speed	RPM	1800	
Conforms to	IS	10002/82	
Starting (12V)	Type	Electric	
Fuel Consumption	Ltrs./Hrs.	4	
Fuel tank Capacity	Ltrs.	75	
Meters/Gauges/Indications	Type/Detail	Lube oil pressure, Fuel level Indication, Battery charging current, Charging failure warning lamp, Engine speed, Hour Meter etc.	
OPTIONAL Engine Safety Protections	Type	Engine Auto shut off in the event of low lube oil pressure (or) High Cylinder Head Temperature	

Cont.



SILENT CHALLENGER 2 X 301



The New generation Diesel Engine Driven Silent Welding Set
Conforming To Latest CPCB II norms

Cont.

Auxiliary Power Source (Built In)			
Mode		Weld Load together with Auxiliary Load	Auxiliary Mode without Weld Load
Rating (3 Phase)	KAV/KW	8	10 & 8 KVA from each socket Respectively (18 KVA Total)
OR			
Rating (Single Phase)	KAV/KW	3	3 KVA from each socket Respectively (6 KVA Total)
Votage (3 Phase / 1 Phase)	Volts	415/240	
Phases	No	Three / Single	
MCCB Rating	Amps	10/12.5	27/25
Dimensions, Rate & Mounting Details			
Skid Mounted			
Length/Width/Height	mm	1995 x 820 x 1520	
Weight (Net)	Kgs	1008	
Two Wheel Mounted			
Length/Width/Height	mm	2905 x 1455 x 2100	
Weight (Net)	Kgs	1150	
Four Wheel Mounted			
Length/Width/Height	mm	3435 x 1555 x 2100	
Weight (Net)	Kgs	1250	

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MAXIMIG 251



The Workhorse Diode based Tap controlled MIG / MAG Welding Rectifier



SALIENT FEATURES

- Recommended for All position MIG / MAG welding applications
- Suitable for welding of wide range of metals like Carbon Steel, Stainless Steel and other steel alloys, with appropriate or recommended consumable
- High volume thin sheet metal fabrication welding as in Auto Industries and other engineering industries, maintenance and repair workshops
- Most ideal for Auto Ancillary units - for increased productivity and quality welding applications
- Most reliable and dependable workhorse welding machines with proven economy
- Diode based power source with traditional tapped transformer, provided with switch on front panel for step control of voltage, enabling welder to obtain the desired arc voltage with ease
- User friendly selection of 2 track / 4track operation for zero defect GMAW welding
- Good and consistent weld quality with low hydrogen content
- Dependable Thyristorized wire-feeder system ensures long, uninterrupted welding
- Quick release wire feed roller mechanism enables operator to change the wire spool quickly, minimising the unproductive time and thus increasing the productivity on the shop floor
- Standard Package comprises of Power Source, Wire feeder (2 Roll Drive) with 5 meter interconnection and Welding Torch only
- Rugged design, reliable performance and superior arc characteristics

SPECIFICATIONS

Technical Specifications	Unit	Maximig 251
Chracteristic Control		Tap Controlled Diode Based
Characteristics	Type	Constant Potential
Input		
Input Supply:		
Voltage	Volts, Ac	380 / 415 , +10%, -10%
Phase	No	3
Frequency	Hz	50/60
Maximum Input Current	Amps, AC	13
Input Kva @ 100% Duty Cycle	KVA	10
Input Kva @ 60% Duty Cycle	KVA	7
No. Of Welding Steps		16

Cont.






MAXIMIG 251



The Workhorse Diode based Tap controlled MIG / MAG Welding Rectifier

Cont.

Output			
Open Current Voltage		Volts, DC	16-36
Welding Current Range		Amps, DC	50-250
Welding Current @ 100% duty cycle		Amps, DC	195 @ 23.8 V
Welding Current @ 60% duty cycle		Amps, DC	250 @ 26.5 V
General			
Cooling		Type	120% of the set current Forced Air
Insulation		Class	F
Welding Output Terminals		Type	Stud Type For Lug Type Cable Connections
Dimensions (L X W X H)		mm	770 x 400 x 740
Weight (Approx)		Kg	93

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- Backed by dedicated customer care package.





MAXIMIG 400



The Workhorse Diode based Tap controlled MIG / MAG Welding Rectifier



SALIENT FEATURES

- Most reliable and dependable workhorse MIG / MAG welding machines proven for wide range of applications
- Rugged design, reliable performance and superior arc characteristics – minimum maintenance requirements
- Diode based power source with traditional tapped transformer, provided with switch on front panel for step control of voltage enabling welder to obtain the desired arc voltage with ease
- User friendly selection of 2track / 4track operation for zero defect GMAW welding
- Good and consistent weld quality with low hydrogen content
- Dependable Thyristorized wire feeder system ensures long, uninterrupted welding
- Quick release wire feed roller mechanism enables operator to change the wire spool quickly, minimizing the unproductive time and thus increasing the productivity on the shop floor
- Standard Package comprises of Power Source, Wire feeder (2 Roll Drive) with 5 meter interconnection and Welding Torch only
- Recommended for All position MIG / MAG welding applications
- Suitable for wide range of metals like Carbon Steel, Stainless Steel, with appropriate or recommended consumable
- Ideally recommended for heavy duty MIG / MAG welding applications like crane structure components manufacturing, 3 shift use, rough handling on the shop-floor and fabrication shops where maintenance staff is not very qualified

SPECIFICATIONS

Technical Specifications	Unit	Maximig 400
Characteristic Control		Tap Controlled Diode Based
Characteristics	Type	Constant Potential
Input		
Input Supply:		
Input Supply Voltage	Volts, Ac	415 , +10%, -10%
Phase	No	3
Frequency	Hz	50/60
Input Kva @ 100% Duty Cycle	KVA	17.5
No. Of Welding Steps		32

Cont.



MAXIMIG 400



The Workhorse Diode based Tap controlled MIG / MAG Welding Rectifier

Cont.

Output		
Open Circuit Voltage	X%	Volts, DC
Welding Current Range		Amps, DC
Welding Current @ 100% duty cycle		Amps, DC
Welding Current @ 60% duty cycle		Amps, DC
General		
Cooling		Type
Insulation		Class
Welding Output Terminals	5	Type
Dimensions (L X W X H)		mm
Weight (Approx)		Kg
Wire Feeder	Model	FEEDLITE 40 NEM(C) - 4 ROLL
Weight (Without Spool)	Kg	16 KG (Approx)
Dimensions (LXWXH)	MM	563 X 230 X 410
Suitable for wire spool capacity	Kg	15 Kg
Wire Feeder Fitted with rollers	mm	1.2/1.6 for solid wire 2 No.
Wire Feeder Motor Voltage	Volts DC	42 V DC
Wire Drive Motor	Type	Permanent Magnet DC Type
Wire Roll Drive	No	Four
Wire Feed Speed	Mtr/ min	1.5 to 18
Suitable for wire sizes	mm	0.8,1,1.2,1.6
Torch (3 Meter)		ADOR TW 402 (E) / ADOR MTG 400 (E)

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- Backed by dedicated customer care package.





STRIKER 400



Thyristor based welding power source, suitable for MIG/MAG Semiautomatic and Automatic welding applications



SALIENT FEATURES

- Light weight, Compact design of Power source, Wire feeder and Torch
- Crater Voltage and Current control possible with ON/OFF switch
- LED Indications for Mains ON and Trip signal
- Globule Detachment Technique keeps the tip ready without globule formation for next welding cycle
- Protection against overheating and very high secondary short circuit current
- Flux core or solid wire selection switch and Gas check Toggle switch on front panel
- Special construction of transformer – resulting in faster response time and Excellent Arc dynamics
- Digital voltage and current meters on front panel
- Wheels for easy movement of machine on the shop floor

Details Of Complete System:

The complete system consists of power source, wire feeder, interconnecting cables and Torch as option. Remote control is provided along with the outfit to enable the user to set voltage and current while welding.

Technical Specifications	Unit	TCVR405 (STRIKER) 400
Input		
Voltage	Volts, Ac	415 , +10%, -10%
Phase	No.	3
Frequency	Hz	50
Input Kva	KVA	18.7 @ 100% Duty Cycle, 23 @ 60% Duty Cycle
Rated Input Current (max.)	Amps, Ac	32
Output		
Open Circuit Voltage	Volts, Dc	55 V
Welding Current Range	Amps, Dc	50 - 400
Welding Current @ 100% Duty Cycle	Amps, Dc	310
Welding Current @ 60% Duty Cycle	Amps, Dc	400
Welding Voltage Range	Volts, Dc	16 - 39

Cont.



STRIKER 400



Thyristor based welding power source, suitable for MIG/MAG Semiautomatic and Automatic welding applications

Cont.

General		
Ingress Protection	Class	IP23
Cooling	Type	Forced Air
Insulation	Class	H
Dimensions (l X W X H)	mm	780 X 450 X 915
Weight	Kg	157

Wire Feeder	Unit	Feedlite 20 ST	Feedlite 40 ST
Drive Unit	Type	2 Roll Print Motor	4 Roll Print Motor
Motor Voltage	Volts, Dc	18.3	18.3
Wire Speed	Meters Per Minute	1.5 - 18	1.5 - 18
Wire Spool Capacity	Kg	15	15
Suitable For Wire Diameter	mm	0.8, 1.0, 1.2 And 1.6	0.8, 1.0, 1.2 AND 1.6
Inch Switch		On Wire Feeder	On Wire Feeder
Dimensions (l X W X H)	mm	530 X 230 X 315	530 X 230 X 315
Weight	Kg	9	9

- **Warranty** : One year from the date of commissioning. ADOR WELDING LIMITED warrants that all new equipment sold from Plant/Area Offices / Authorized Distributors are free from defects in materials and workmanship and will perform in full accordance with applicable specifications.
- In view of continuous development, ADOR WELDING LIMITED reserves the right to modify/change the design and /or the specifications without any prior notice.
- Backed by dedicated customer care package.





RANGER 600



The Heavy Duty Thyristorized MIG/MAG Welding Rectifier



SALIENT FEATURES

- Most reliable and dependable thyristor based power source for high quality MIG / MAG semi automatic manual and semiautomatic mechanized welding applications
- Hex phase, full wave full control bridge rectification circuit reduces ripple in the welding output - resulting in spatter free welding
- Special design and construction of Transformer - resulting faster response time and excellent Arc dynamics
- Light weight, Compact design of power source, wire feeder and Torch
- Adjustment of Crater Voltage, Crater Current possible with regulating pots provided on the front panel
- Globule detach technique keeps the tip ready for next welding cycle
- Choice of different types of wire feeder motors and welding torches available for different industrial applications
- Quick release wire feed roller mechanism enables operator to change the wire spool quickly, minimizing the unproductive time and thus increasing the productivity on the shop floor
- Power source protected from Over Voltage, Under Voltage supply, Single phasing, Over load / overheating and very high secondary short circuit current
- Suitable for ALL position MIG / MAG welding applications - both within shop-floor as well as at open yards and project sites (with due protection or shield against windy air)
- Suitable for wide range of metals like Carbon Steel, Stainless Steel, Aluminium and its alloys, with appropriate or recommended consumable
- Specifically designed for heavy duty, structural welding, machine building applications

SPECIFICATIONS

Technical Specifications	Unit	TCVR 600 (Ranger 600)
Characteristics Control		Constant Potential Thyristorized Phase Control
Input		
Input Supply:		
Voltage	Volts, Ac	415 , +10%, -10%
Phase	No	3
Frequency	Hz	50/60

Cont.



RANGER 600



The Heavy Duty Thyristorized MIG/MAG Welding Rectifier

Cont.

Maximum Input Current	Amps, AC	55
Input Kva @ 100% Duty Cycle	KVA	31.7
Input Kva @ 60% Duty Cycle		40
Output		
Open Circuit Voltage	Volts, DC	65 V MAXIMUM
Welding Current Range	Amps, DC	60-600
Welding Current @ 100% duty cycle	Amps, DC	465
Welding Current @ 60% duty cycle	Amps, DC	600
General		120% of the set current
Ingress Protection		IP23
Cooling	Class	Forced Air
Insulation	Type	H
Welding Output Terminals	Class	Stud Type For Lug Type Cable Connections
Dimensions (L X W X H)	mm	980 x 550 x 960
Weight (Approx)	Kg	230
Wire Feeder		120% of the set current
Weight (without spool)	Kg	16 Kg Approx
Dimensions (L X W X H)	mm	563X230X410
Suitable for wire spool capacity	Kg	15 Kg
Wire Feeder Fitted with Rollers	mm	1.2/1.6 for Solid Wire 2 No.
Wire Feeder Motor Voltage	V DC	42 V DC
Wire Driver Motor	Type	Permanent Magnet DC Type
Wire Roll Driver	No	Four
Wire Feed Speed	mtr/min	1.5 to 18
Suitable for Wire sizes	mm	0.8,1,1.2,1.6

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RANGER 600 MULTI



The Heavy Duty Multipurpose Thyristorized Welding Rectifier for MMA / MIG / TIG / GOUGING Applications



SALIENT FEATURES

- Heavy duty Thyristorized Multipurpose Welding Rectifier with Double-star configuration
- Suitable for multi process welding applications like SMAW / GMAW / FCAW / GTAW and GOUGING processes within shop floor as well as at open yards and project sites (with due protection or shield against windy air)
- Suitable for wide range of metals like Carbon Steel, Stainless Steel, Aluminium and its alloys, with appropriate or recommended consumable
- Specifically designed for heavy duty, structural welding, machine building application
- Rugged construction -most reliable and dependable thyristor based power source for high quality welding processes
- Hex- phase, full wave full control bridge rectification circuit reduces ripple in the welding output- resulting spatter-free welding
- Automatic Globule Detachment technique keeps the tip ready for next welding cycle
- Choice of 2 roll and 4 roll wire-feeders and different torches available for different industrial applications
- Quick release wire feed roller mechanism enables operator to change the wire spool quickly, minimising the unproductive time and thus increasing the productivity on the shop floor
- Power source protected from Over Voltage, Under Voltage supply, Single phasing, Over load/overheating and very high secondary short circuit current

SPECIFICATIONS

Technical Specifications	Unit	TCCVR 600
Characteristics Control	CC/CV	Constant Potential Thyristorized Phase Control
Input		
Input Supply:		
Voltage	Volts, Ac	415 , +10%, -10%
Phase	No	3
Frequency	Hz	50/60
Maximum Input Current	Amps, AC	55
Recommended Switch Fuse Rating	Amps, AC	60
Input Kva @ 100% Duty Cycle	KVA	31.7
Input Kva @ 60% Duty Cycle		40

Cont.



RANGER 600 MULTI



The Heavy Duty Multipurpose Thyristorized Welding Rectifier
for MMA / MIG / TIG / GOUGING Applications

Cont.

Output		
Open Circuit Voltage	Volts, DC	80 V (CC Mode)
		65 V MAXIMUM
Welding Current Range	Amps, DC	20-600 (CC Mode)
		75-600 (CV Mode)
Welding Current (40°, 10 Min duty cycle) °°°		
@ 60% duty cycle	Amps, DC	600
@ 100% duty cycle	Amps, DC	465
General		
Ingress Protection		IP23
Cooling	Class	Forced Air
Insulation	Type	H
Welding Output Terminals	Class	Stud Type For Lug Type Cable Connections
Dimensions		
Lenght	mm	980
Width	mm	550
Height (With Handel)	mm	960
Wire Feeder		FEEDLITE 40 NEH(C)
Weight (without spool)	Kg	16 Kg Approx
Dimensions (L X W X H)	mm	563X230X410
Suitable for wire spool capacity	Kg	15 Kg
Wire Feeder Fitted with Rollers	mm	1.2/1.6 for Solid Wire 2 No.
Wire Feeder Motor Voltage	V DC	42 V DC
Wire Driver Motor	Type	Permanent Magnet DC Type
Wire Roll Driver	No	Four
Wire Feed Speed	mtr/min	1.5 to 18
Suitable for Wire sizes	mm	0,8,1,1,2,1,6

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CHAMP MIG 250

The world class Inverter based MIG Welder



INTRODUCTION

CHAMP MIG 250 is IGBT inverter based welding outfit suitable for GMAW applications. The IGBT Power module, ferrite core and fast recovery diode are used as key device for power conversion and trans-mission to assure better efficiency and performance. The complete system consists of power source, wire feeder and MIG torch and interconnecting cables.

DETAILS OF COMPLETE SYSTEM

Sr. No.	Description	CHAMP MIG 250 A	CHAMP MIG 250 B
1	Power Source	ICVR 250	ICVR 250
2	Wire feeder	FEEDLITE 20 (NELR)	FEEDLITE 20 (NELR)
3	Torch	ADOR HIPRO 253 (E)	ADOR MTG 250 (E)

SALIENT FEATURES

- Inverter based GMAW outfit
- High efficiency and high power factor – resulting energy saving
- Auto “Weld Stop” when welding torch is taken away from weld job
- Compatible to Power Generator Supply
- Enhanced Reliability due to SMD technology
- Digital Panel for adjusting the welding parameters
- 30% more Energy efficient than conventional machines
- Maximum Power factor is 0.93
- Excellent dynamic response enables superior arc characteristics. 2T, 4T operating modes
- Electronic choke adjustment for better arc control
- Crater voltage and Crater current adjustment through digital panel
- Unique feature of Globule Detachment to stop formation of globules at the tip of wire at the end of welding
- Automatic “Weld Stop” facility

PROTECTION

The equipment is provided with following protections.

- Under Voltage and Over Voltage:** Error message is displayed and the equipment shuts down if the supply voltage exceeds the positive or negative limits specified in the Technical Specifications
- Over Temperature:** Error message is displayed and the equipment shuts down if the temperature of the main power components exceeds the safe limits
- Single Phasing Protection:** Error message is displayed and the equipment shuts down if any one of the three phase supply line is absent (single-phasing prevention / protection)











CHAMPMIG 250



The world class Inverter based MIG Welder

SPECIFICATIONS

Technical Specifications		Unit	ICVR 250
Input			
Input Supply :			
Voltage		Volt	415, +15%, -10%
Phase		No	3
Frequency		Hz	50/ 60
Input KVA			
@ 100% duty cycle		KVA	6.5
@ No Load		KVA	0.19
Output			
Open Circuit Voltage		Volts +/-5%	65
Welding Current Range		Amp	50-250
Welding Current (40°C 10 minutes cycle)			
@ 100% duty cycle		Amp	195
Welding Voltage Range		Volt	16-34
Crater Current Range		Amp	50-250
Crater Voltage Range		Volt	16-34
Mode of operation			2 track, 4 track, Gas check, OCV check facility
Remote Control (on wire feeder)			For setting voltage & current
Power Factor			Max 0.93
Efficiency		%	83% @ 100% duty cycle
General			
Compatibility to International standard			As per Std. EN60974-1
Wire feed speed		m/min	1.5-18
Suitable Welding Wire Diameter		mm	Steel 0.8,1.0 and 1.2
Ingress Protection		Class	IP23
Cooling		Type	Forced Air
Dimensions (Approx.)			
Length		mm	500
Width		mm	260
Height		mm	470
Weight		Kg	26
Audio Noise Emission			70

Cont.



CHAMPMIG 250



The world class Inverter based MIG Welder

Technical Specifications	Unit	FEEDLITE 20 (NELR)
Suitable for wire	mm	0.8,1,1.2
Wirefeed speed	mtr/min	1.5 to 18
Wire roll drive	-	TWO
Wire drive motor	Type	Permanent Magnet DC
Wire feeder Motor voltage	V	42
Wire feeder fitted with rollers	-	0.8/1.0/1.2 for sold wire 1no
Suitable for Wire Spool capacity	Kg	15
Dimensions		
Length	mm	460
Width	mm	210
Height	mm	280
Weight (without spool)	Kg	10 (Approx)

Torch Specification			
Technical Specifications	Unit	ADOR HIPRO 253 (E)	ADOR MTG 250 (E)
Rating	A	250A @ 60% Duty cycle for CO ₂	250A @ 60% Duty cycle for CO ₂
End Connection to Torch	Type	Euro	Euro
Suitable for Wire Ø	mm	0.8, 1.0, 1.2	0.8, 1.0, 1.2
Torch Length	meter	3	3

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OMNIMIG 250



The new Inverter based Compact MIG Welder



SALIENT FEATURES

- Latest Inverter based technology.
- Low Power Consumption due to Power Factor Correction Technique that brings the Power Factor nearly equal to one.
- Single point controlled synergic MIG welding operation.
- 3-digit Digital Panel Meters to display the set voltage, actual voltage, set current and actual current while welding.
- LED Indications for Mains ON and Trip signal.
- Protections: Over-Voltage, Under -Voltage, Over-Temperature & Output Short Circuit Protection.
- Compact Design with built-in Wirefeeder.
- Gas Trolley for easy movement of machine on the shop floor.

TECHNICAL SPECIFICATIONS - POWER SOURCE

Technical Specifications	Unit	OMNIMIG
Input		
Input Supply :		
Voltage	Volts, Ac	230 V +15%, -10%,
Phase		1
Frequency	HZ	50/ 60
Input Power @ 230VAC in MIG Mode		CC - CV
@100% duty cycle	KVA	4.6 Max.
@ 60% duty cycle	KVA	6.5 Max.
@ 35% duty cycle	KVA	8.5 Max.
@ No Load	KVA	0.15
Input Current 415V Supply		
@ 100% duty cycle	Amps, Ac	18.9
@ 60% duty cycle	Amps, Ac	27.3
@ 35% duty cycle	Amps, Ac	36.2
@ No Load	Amps, Ac	0.3
Power Factor		0.99 Max.
Efficiency	%	>82
Output		
Open Circuit Voltage @230V Input Supply	Volts, DC	75V DC (+/-5V)
Welding Voltage Range	Volts, DC	14 - 34
Welding Current Range	Amps, DC	50 - 250

Cont.



OMNIMIG 250



The new Inverter based Compact MIG Welder

Cont.

Crater Voltage Range	Volt, DC	14 - 34
Crater Current Range	Amps, DC	50 - 250
Welding Current (40°C 10 minutes cycle)		
@ 100% duty cycle X%	Amps, DC	160
@ 60% duty cycle	Amps, DC	195
@ 35% duty cycle	Amps, DC	250
General		
Gas Preheater Rating	V / A	90 V DC / 1.1 Amps
Welding Wire Sizes (Diameter)	mm	0.8, 1.0, 1.2
Protections (Auto Reset)	-	Over Voltage, Under Voltage, Over Temperature, Output Short Circuit
Front Panel Functions		<ol style="list-style-type: none"> 1. 2 Track/ 4 track control and Crater Setting 2. Creep Feed 3. Adjustable Burn-back 4. Display - set Voltage and Wire Speed, actual Voltage and Welding Current 5. Pre flow and Post flow 6. Wire Diameter Selection- 0.8, 1.0 & 1.2 7. Shielding Gas Selection- Co2 And Mixed Arco2
Cooling	Type	Forced Air
Class of Insulation	-	H
Degree of Protection	-	IP23S
Dimensions (L x W x H) Power Source	mm	600 x 330 x 530
Dimensions (L x W x H) With Trolley	Kg	1040 x 475 x 1140
Weight (Approx. only Power Source)	Kg	32
Weight (Approx. Trolley)	Kg	77

Cont.



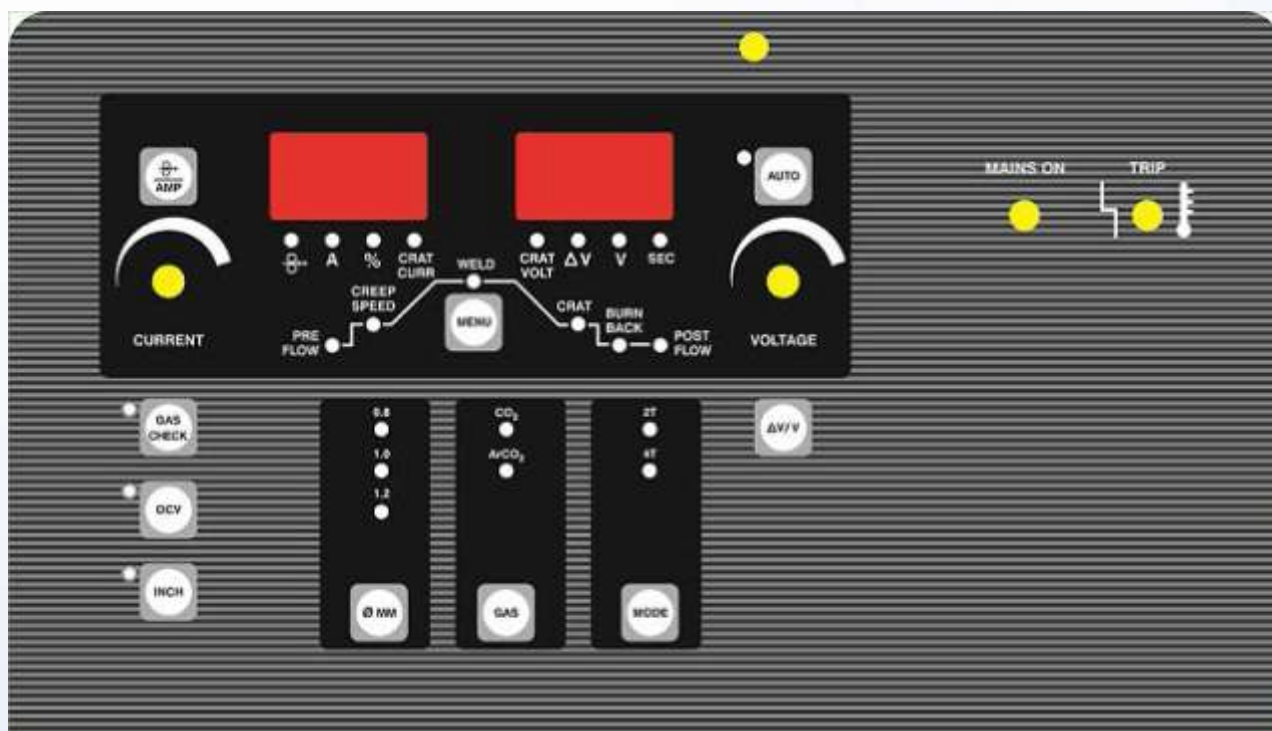
OMNIMIG 250



The new Inverter based Compact MIG Welder

FRONT CONTROL PANEL – OMNIMIG 250

Cont.



TECHNICAL SPECIFICATIONS – BUILT-IN WIRE FEEDER

Wire Feeder (built - in)		
Parameter	Unit	Value
Drive Unit	-	2 Roll PMDC Motor
Motor Voltage	Volt, Dc	42 V DC ± 0.5 V
Rated Power	Watts	90 W
End Connection For Torch	-	Euro Type
Suitable For Wire Sizes	mm	0.8, 1.0, 1.2
Wire Drive Motor.	Type	Permanent Magnet DC Type With Encoder Feedback
Rated Power	Watts	
Wire Roll Drive	No	Four
Wire Feed Speed	Mtrs. / Min.	2-22 (For 0.8 mm Wire), 2-18 (For 1.0 mm Wire), 2-8 (For 1.2 mm Wire)

Cont.



OMNIMIG 250



The new Inverter based Compact MIG Welder

Cont.

TECHNICAL SPECIFICATIONS – WELDING TORCH

Mig Welding Torch		
Parameter	Unit	Value
Maximum Current @ 60% Duty Cycle	Amps	250 Amps With Co2 Gas, 200 Amps With Mixed Gas
Torch Cable Length	Meter	3
Torch Adapter	Type	Euro Type
Suitable For Wire Size Diameter	mm	0.8, 1.0, 1.2
Standard Accessories:		
Gas Hose With Both Side End Connectors		2 Mtr.

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CHAMPMIG 300



The world class Inverter based MIG / MMA Welder



TYPICAL APPLICATION

- Three phase inverter based high efficiency and high power factor DC Welder with high frequency switching technology.
- Suitable for both MIG and MMA welding operation.
- User friendly digital front panel interface with 7 segment LED display and multi function encoders.
- Anti stick function to protect the machine from short circuit condition in MMA mode.
- Option of Remote control unit with digital display for setting wire feed speed/current and voltage remotely in MIG/MMA mode.

SPECIFICATIONS

Technical Specifications	Unit	CHAMPMIG 300
Input		
Input Supply :		
Voltage	Volts, Ac	415, +15%, -10%
Phase		3
Frequency	HZ	50/ 60
Characteristics		CC - CV
Input KVA @ 100% duty cycle	KVA	8.1-MIG Mode, 10.66 MMA Mode
Input KVA @ 60% duty cycle	KVA	10.9-MIG Mode, 13.08 MMA Mode
Input KVA @ 35% duty cycle	KVA	12.9-MIG Mode, 17.45 MMA Mode
Input Current @ 100% duty cycle	Amps, Ac	11.2-MIG Mode, 14.9 MMA Mode
Input Current @ 60% duty cycle	Amps, Ac	15.1-MIG Mode, 18.4 MMA Mode
Input Current @ 35% duty cycle	Amps, Ac	18.2-MIG Mode, 24.6 MMA Mode
Power Factor	%	Up to 85%
Efficiency		0.84 Max.
Output		
Open Circuit Voltage	Volts, DC	65 V (+/-3V) - MIG mode, 88V (+/-5V) MMA Mode
Welding Current Range	Amps, DC	50-250
Welding Current (40°C 10 minutes cycle)		
@ 100% duty cycle	Amps, DC	195
@ 60% duty cycle	Amps, DC	16-34
@ 35% duty cycle	Amps, DC	50-250
Auxiliary Pre Heating Supply	Volts, AC, Watts	16-34

Cont.



CHAMPMIG 300



The world class Inverter based MIG / MMA Welder

Cont.

Front Panel Functions		
1. Creep On/Off Switch	2. Crater Current & Voltage Adjustment	3. MMA/MIG Selection Switch
4. 2T/4T selection switch	5. GAS/OVC Check Switch	6. GAS CO2/ARCO2 Selection Switch
7. Segment LED display for displaying set Voltage & Wire Feed speed, while Welding display Actual Current & Voltage	8. Wire Selection 0.8/1.0/1.2 mm selection switch	9. Menu Switch Selecting all Functions - Gas Pre Flow Time, Weld on Current & Voltage, Burn Back Time, Gas Post Flow Time
10. Encoder for selection parameter Value Increment / Decrement	11. 10 memory Location with Save & recall function	12. Remote connector (10 meter remote control can be provide as an option for setting Voltage & wire feed speed)
13. Output Terminal KNOBS	14. Mains on 'Green' Color indication	17. Trip 'Red' Color LED Protection Mode
16. Torch switch gear	17. Gas Out	

General	Unit	Value
Ingress Protection		IP23S
Cooling	Class	Forced Air
Insulation	Type	H
Dimensions (L x W x H)	mm	575 x 225 x 450
Weight (approx.)	Kg	28
MIG Welding Parameter	Unit	Value
Gas Pre Flow Time	Sec.	0 to 10
Current Range in MIG	Amp.	10 to 300
Voltage Range in MIG	Volts.	14 to 40
Crater Current in MIG	Amp.	10 to 300
Crater Voltage in MIG	Volts.	14 to 40
Burn Back Time	Sec.	0 to 2
Gas Post Flow Time	Sec.	0 to 10

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CHAMP MIG 400



The world class Inverter based MIG Welder



INTRODUCTION

CHAMP MIG 400 is IGBT inverter based welding outfit suitable for GMAW applications. The IGBT Power module, ferrite core and fast recovery diode are used as key device for power conversion and transmission to assure better efficiency and performance.

The complete system consists of power source, wire feeder, MIG torch and interconnecting cables.

DETAILS OF COMPLETE SYSTEM

Sr. No.	Description	CHAMP MIG 400	CHAMP MIG 400
1	Power Source	ICVR 400	ICVR 400
2	Wire feeder	FEEDLITE 40 (NEMRC)	FEEDLITE 40 (NEMRC)
3	Torch	ADOR HIPRO 403 (E)	ADOR MTG 400 (E)

SALIENT FEATURES

- Inverter based digitally controlled GMAW outfit
- Digital Panel for adjusting the welding parameters
- 25% more Energy efficient than conventional machines
- Maximum Power factor is 0.94
- Excellent dynamic response enables superior arc characteristics
- 2T, 4T operating modes
- Welding dynamic adjustment for better arc control
- Crater voltage and Crater current adjustment through digital panel
- Unique feature of Fresh Tip Transfer (FTT) to avoid globule formation
- Automatic "Weld Stop" facility

PROTECTION

The equipment is provided with following protections.

- Under Voltage and Over Voltage:** Error message is displayed and the equipment shuts down if the supply voltage exceeds the positive or negative limits specified in the Technical Specifications
- Over Temperature:** Error message is displayed and the equipment shuts down if the temperature of the main power components exceeds the safe limits
- Single Phasing Protection:** Error message is displayed and the equipment shuts down if any one of the three phase supply line is absent (single-phasing prevention / protection)











CHAMPMIG 400



The world class Inverter based MIG Welder

SPECIFICATIONS

Technical Specifications	Unit	ICVR 400
Input		
Input Supply :		
Voltage 	Volt	415 , +15% , -10%
Phase	No	3 Ø
Frequency	Hz	50/ 60
Input KVA 		
@ 100% duty cycle	KVA	12
@ No Load	KVA	0.24
Output		
Open Circuit Voltage 	Volts +/-5%	65
Welding Current Range 	Amp	50-400
Welding Current (40°C 10 minutes cycle)		
@ 60% duty cycle 	Amp	400
@ 100% duty cycle	Amp	310
Welding Voltage Range	Volt	16-39
Crater Current Range	Amp	50-400
Crater Voltage Range	Volt	16-39
Mode of operation		2 track, 4 track, Gas check, OCV check facility
Remote Control		For setting voltage & current
Power Factor		Max 0.93
Efficiency	%	87% @ 100% duty cycle
General		
Compatibility to International standard		As per Std. EN60974-1
Wire feed speed	m/min	1.5-18
Suitable Welding Wire Diameter	mm	Aluminum 1.2 – 1.6 Steel 0.8,1.0,1.2 & 1.6
Ingress Protection	Class	IP23
Cooling 	Type	Forced Air
Dimensions (Approx.) 		
Length	mm	700
Width	mm	450
Height	mm	600
Weight 	Kg	44
Audio Noise Emission	dB	70

Cont.



CHAMPMIG 400



The world class Inverter based MIG Welder

Technical Specifications	Unit	FEEDLITE 40 (NEMRC)
Suitable for wire Ø	mm	0.8,1,1.2,1.6
Wirefeed speed	mtr/min	1.5 to 18
Wire roll drive	-	Four
Wire drive motor	Type	Permanent Magnet DC
Wire feeder Motor voltage	V	42
Wire feeder fitted with rollers	-	1.2/1.6 for sold wire 2 no
Suitable for Wire Spool capacity	Kg	15
Dimensions		
Length	mm	563
Width	mm	230
Height	mm	410
Weight (without spool)	Kg	16 (Approx)

TORCH SPECIFICATION

Technical Specifications	Unit	ADOR HIPRO 403 (E)	ADOR MTG 400 (E)
Rating	A	400A @ 60% Duty cycle for CO ₂	400A @ 60% Duty cycle for CO ₂
End Connection to Torch	Type	Euro	Euro
Suitable for Wire Ø	mm	0.8, 1.0, 1.2, 1.6	0.8, 1.0, 1.2, 1.6
Torch Length	meter	3	3

- **Warranty** : One year from the date of commissioning. ADOR WELDING LIMITED warrants that all new equipment sold from Plant/Area Offices / Authorised Distributors are free from defects in materials and workmanship and will perform in full accordance with applicable specifications.
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- Backed by dedicated customer care package.





CHAMP MIG 600



The world class Inverter based MIG Welder



INTRODUCTION

CHAMP MIG 600 is an IGBT inverter based welding power source, suitable for GMAW applications. The IGBT Power module, high frequency transformer and fast recovery diode are used as key device for power conversion and transmission to assure better efficiency and performance.

The complete system consists of power source, wire feeder, water cooled or gas cooled torch, water cooling unit (for water cooled systems) and interconnecting cables.

DETAILS OF COMPLETE SYSTEM

Sr. No.	Description	CHAMP MIG 600 A	CHAMP MIG 600 E
1	Power Source	ICVR 600	ICVR 600
2	Wire feeder	FEEDLITE 40 (NEH-RC)	FEEDLITE 40 (NEH-RC)
3	Torch	ADOR-MTG 600 E.	ADOR TW 502 (E)

SALIENT FEATURES

- Inverter based digitally controlled GMAW outfit
- Auto "Weld Stop" when welding torch is taken away from weld job
- Digital Panel for adjusting the welding
- 25% more Energy efficient than conventional machines.
- Maximum Power factor is 0.95
- Excellent dynamic response enables superior arc characteristics. 2T, 4T operating modes
- Dynamic Inductance adjustment for better arc control
- Crater voltage and Crater current adjustment through digital panel. Unique feature of Pinch off pulse to avoid globule formation.
- Automatic "Weld Stop" facility.
- Normal/ Creep feeding selection available on front panel.

PROTECTION

The equipment is provided with following protections.

- Under Voltage and Over Voltage:** If supply voltage goes lower or higher than set limit, error message is displayed on Display
- Over Temperature:** If the temperature of the main power elements is more than safety limits, error message is displayed
- Single Phasing Protection:** If any one of the three phases (R, Y, and B) is absent, welding will stop. Welding current would not be available in this condition)











CHAMPMIG 600



The world class Inverter based MIG Welder

SPECIFICATIONS

Technical Specifications	Unit	ICVR 600
Input		
Input Supply :		
Voltage 	Volt	415, +15%, -10%
Phase	No	3 Ø
Frequency	Hz	50/ 60
Max Input KVA 		
@ 100% duty cycle	KVA	21.5
@ No Load	KVA	0.31
Output		
Open Circuit Voltage 	Volts +/-5%	65
Welding Current Range 	Amp	65-600
Welding Current (40°C 10 minutes cycle)		
@ 60% duty cycle 	Amp	600
@ 100% duty cycle	Amp	465
Welding Voltage Range	Volt	16-45
Crater Current Range	Amp	65-600
Crater Voltage Range	Volt	16-45
Mode of operation		2 track, 4 track, Gas check, OCV check facility
Remote Control		For setting voltage & current
Power Factor		Max 0.94
Efficiency	%	89% @ 100% duty cycle
General		
Compatibility to International standard		As per Std. EN60974-1
Wire feed speed	m/min	1.5-18
Suitable Welding Wire Diameter	mm	Aluminum 1.2 – 1.6 Steel 0.8,1.0,1.2 & 1.6
Ingress Protection	Class	IP23
Cooling 	Type	Forced Air
Dimensions (Approx.) 		
Length	mm	670
Width	mm	450
Height	mm	620
Weight 	Kg	56
Audio Noise Emission	dB	70

Cont.



CHAMPMIG 600



The world class Inverter based MIG Welder

Technical Specifications	Unit	Feedlite 40 (NEHR)C
Suitable for wire Ø	mm	0.8,1,1.2,1.6 mm
Wirefeed speed	mtr/min	1.5 to 18 mtr/min
Wire roll drive	-	Four
Wire drive motor	Type	Permanent Magnet DC
Wire feeder Motor voltage	V	42
Wire feeder fitted with rollers	-	1.2/1.6 for sold wire 2 no
Suitable for Wire Spool capacity	Kg	15
Dimensions		
Length	mm	563
Width	mm	230
Height	mm	410
Weight (without spool)	Kg	16 (Approx)

- **Warranty** : One year from the date of commissioning. ADOR WELDING LIMITED warrants that all new equipment sold from Plant/Area Offices / Authorised Distributors are free from defects in materials and workmanship and will perform in full accordance with applicable specifications.
- In view of continuous development, ADOR WELDING LIMITED reserves the right to modify/change the design and /or the specifications without any prior notice.
- Backed by dedicated customer care package.





CHAMP MULTI 400, 600



The world class Inverter based Multipurpose Welder



SALIENT FEATURES

- CHAMPMULTI- 400 and CHAMPMULTI- 600 are Multi process welding outfits with Inverter based welding power source
- The IGBT power module, High frequency transformer and fast recovery diode are used as key device for power conversion and transmission to assure better Efficiency and performance
- The welding power source has both constant current (CC) and constant voltage characteristics (CV), which are suitable for MMA and MIG/MAG and FCAW applications

- Set output parameters are constant against input supply variations
- Power source is protected against single phasing, under voltage, over voltage, short circuit and temperature rise
- Water cooled version available for CHAMP MULTI 600 as option
- MMA process with this outfit is most suitable for all kinds of electrodes including CELWEL for fabrication work, pipe welding, site construction etc
- GMAW process is suitable for welding in semiautomatic / automatic mechanism for welding MS, SS and Al materials with Solid and Flux core wires (FCAW Mode)
- Both the models can operate with single point Synergic control in MIG/MAG mode
- The complete system consists of Power Source, wire feeder, torch and inter connecting cables and control cables between wire feeder and power source
- Available with both Gas cooled and Water cooled MIG Torches for 600 Amp model
- High efficiency (>85%)
- Single point Synergic control in GMAW
- User friendly Digital front panel and analog remote controller
- Auto "Weld Stop" when welding torch is taken away from work piece
- 2T, 4T and SPOT and Multi Spot operating modes in MIG Mode as well as FCAW mode
- Dynamic Inductance adjustment in GMAW process and Arc force adjustment in MMA process for better arc control
- Crater voltage and Crater current adjustment through digital panel
- Unique feature of Pinch-off pulse to avoid globule formation

CHAMP MULTI 400, 600



The world class Inverter based Multipurpose Welder

PROTECTIONS WITH AUTO RESET

The Equipment is provided with following protections:

- Under / Over Input supply Voltage :
 1. Red LED glows if input supply voltage goes below 330V AC
 2. Red LED glows if input supply voltage goes above 480V AC
- Over Temperature Trip :
If the temperature of the Semiconductor Component is increased above safety limits then machine goes in safety mode (Trip Mode). In this condition welding voltage will not be available and welding will stop.
- Single phasing protection :
If any one of three phases of input supply (R, Y, B) is absent, then Machine will Trip and Red LED will glow. In this condition welding voltage will not be available and welding will stop.
- Output Short Circuit Protection :
Welding Output is protected against any Short circuit.
- No Output Voltage will be available in both conditions.

DETAILS OF COMPLETE SYSTEM

Sr. No.	Description	Model	
		Champ Multi 400	Champ Multi 600/600 (W)
1	Power Source	ICCCVR- 401	ICCCVR- 600
2	Wire Feeder	FEEDLITE 40 (NEM)- C	FEEDLITE 40 (NEH - C) / NEHW
3	Torch	HIPRO 403 (E) / MTG 400 (E)	TW 502 (E) / MTG 600 (E) for Gas cooled systems TW 600 (WE) for Water cooled systems
4	Gas Pressure Regulator Cum Flow Meter (optional)	ARGON Or CO ₂ Regulator	ARGON Or CO ₂ Regulator
5	Gas Heater (optional)	110V AC, In Case of CO ₂ Regulator	110V AC, In Case of CO ₂ Regulator
6	Water Cooling Unit (optional)		WCU-302 For Water Cooled Version Only

Sr. No.	Error Code	Error
1	ERR 001	Under Voltage Error
2	ERR 002	Over Voltage Error
3	ERR 003	Thermal Trip Error
4	ERR 004	No Current Flow Error
5	ERR 005	Feeder Motor Overloading Error
6	ERR 006	Wire Feeder Error
7	ERR 007	Water Pressure Error
8	ERR 008	Communication Error



CHAMP MULTI 400, 600



The world class Inverter based Multipurpose Welder

SPECIFICATIONS

Parametre	Unit	Value	
		CHAMPMULTI 400	CHAMPMULTI 600
Nominal Input Voltage	V AC	415 V, 3 PH	
Input Voltage Range	V AC	415 (+15% - 10%)	
Phase	No	3	
Frequency	Hz	50/ 60	
Efficiency @ 100% duty cycle	%	>90	>89
Power Factor @ 100% duty cycle		0.93 Max	
Open Circuit Voltage In MMA Mode @415v, 3 Phase	V DC	84 V	90 V
Open Circuit Voltage In MIG Mode @415v, 3 Phase		55 V	65 V
Open Circuit Voltage In TIG Mode @415v, 3 Phase		84 V	90 V
Welding Current Range In MMA Mode	A DC	50-400 A	50-600
Welding Current Range In TIG Mode		10-400	10-600
Welding Current Range In MIG Mode		40-400	40-600
Welding Current @ 100% duty cycle (10 minute cycle)	A DC	310	465
Welding Current @ 60% duty cycle (10 minute cycle)		400	600
Input Power (In MMA Mode) @ 100% duty cycle	KVA	12.0	22.0
Input Power (In MIG Mode) @ 100% duty cycle		11.0	22.0
Input Power (In TIG Mode) @ 100% duty cycle		9.0	16.5
Crater Current Range In MIG Mode		500-400 A	65-600 A
Crater Current Voltage In MIG Mode	-	14-40 V	14-44 V
Cooling	Type	Forced Air	
Class of Insulation	Class	H	
Degree of Protection	-	IP23	
Protections Auto Resettable	-	Over Voltage, Undervoltage, Single-Phasing, Over Temperature	
Suitable Welding Electrode Size Dia. - In MMA Mode	mm	2.5, 3.2 , 4, 5, 6 MM Diameter	
Suitable Welding Electrode Size Dia. - In MIG Mode	mm	0.8, 1.0, 1.2, 1.6 MM Diameter	
Dimensions L x W x H	mm	650 x 450 x 570	700 x 460 x 650
Auxiliary Outputs On Back Panel	V AC	110 V – Gas Heater, 230 V – Water Cooling Unit	
Front Panel Functions	MIG / FCAW MODE	Ø MMA /TIG/ MIG /FCAW Process Selection	
		Ø Separate Switches To Check OCV, Gas Flow & Wire Inch.	
		Ø Selection Switches For Wire Dia, Material & Gas For Synergic Application.	
		Ø Welding Mode 2t / 4t / Spot / Multispot Selection Switch.	
		Ø Auto/manual Selection Switch.	

Cont.



CHAMP MULTI 400, 600



The world class Inverter based Multipurpose Welder

Cont.

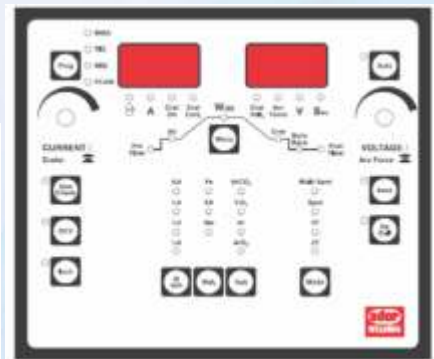
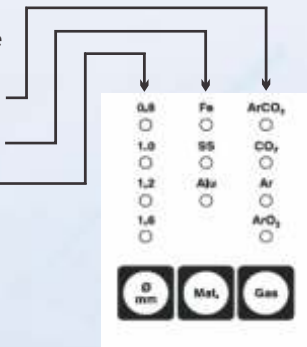
Front Panel Functions	MIG / FCAW Mode	Ø Save & Recall Switches To Save & Recall 10 Programs. Ø Facility To Set Preflow, Post Flow Burnback, Spot & Pause Time Before Welding.	
	-	Ø 3 Digits Digital Display For Voltage and Current.	
	MMA / TIG Mode	Ø Current Setting By Encoder Ø Encoder For Arc Force Setting With On/ Off Facility Switch Only In MMA Mode.	
Remote Control	-	Remote Control With Cable For Setting Voltage and Current	
Mounting Wheels Of The Power Source	-	Wheel Mount Front: Swivel, Rear: Fixed	
Lifting Arrangement		Handle Provided	
Weight (Approx.)	Kg.	52	57

SYNERGIC FUNCTIONS

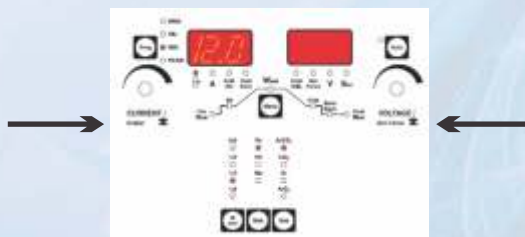
Select the right program

The Synergic Panel shows weld-programs loaded inside the power source

- Shielding Gas selection- ArCO₂ / CO₂ / Ar / Ar O₂
- Weld Material selection- Fe / Al / SS
- Wire Sizes selection- 0.8 / 1.0 / 1.2 / 1.6



Wire Feed Speed is the dominant control parameter for each wire feed speed, a corresponding voltage is programmed into the machine.



Turning the knob, the voltage can be trimmed to suit the best welding if required.

Cont.



CHAMP MULTI 400, 600



The world class Inverter based Multipurpose Welder

TECHNICAL SPECIFICATIONS OF WATER COOLING UNIT – TYPE WCU 302

Cont.

Sr. No.	Parameter	Unit	Value
1	Input Supply	V AC	240
2	Phase	No.	1
3	Frequency	Hz	50
4	Cooling Capacity	W	750-1000
5	Maximum Motor Power	W	220
6	Maximum Pump Pressure	Bar	2.5
7	Maximum Pump Flow Rate	L/min	10
8	Tank Capacity	L	8
9	Connector Size	In/out	1/4" X 9
10	Dimensions L X W X H	mm	560 X 325 X 285
11	Weight	Kg.	18

TECHNICAL SPECIFICATIONS OF WIRE FEEDER – TYPE FEEDLITE 40 NEM(C) / NEH(C)

Sr. No.	Parameter	Unit	Value
1	Suitable for Wire Sizes	mm	
	Steel		0.8, 1.0, 1.2, 1.6
	FCW		1.2, 1.6
	Aluminium		1.2, 1.6
2	Wire Feed Speed	m / min	0 - 18
3	Wire Roll Drive	Type	4 Roll
4	Wire Drive Motor	Type	PMDC, 42 V, 80 W
5	Dimensions L X W X H	mm	563 X 230 X 410
6	Weight	Kg.	16

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CHAMP PULSE 500



The New Indigenous World Class Inverter Based
MULTIPROCESS PULSED MIG Welder



INTRODUCTION:

ADOR's CHAMP PULSE 500 outfit is an indigenously developed inverter based system with advanced IGBT protection mechanism. Outfit supports different welding process modes: SMAW, GTAW, GMAW, PULSE MIG with single and double pulse mode along with preprogrammed synergic data. Front panel comes with G-LCD and digital encoder which makes it user friendly. Built in various protection features allows it to work in the harsh environment. Machine can be used for manual as well as automatic welding application. With its different welding modes, the machine is suitable for welding with different materials like MS / SS / AL / FCAW / CORTEN STEEL / Al+Mg / Al+Si / DCu. This complete system comes with Power Source, Wire Feeder, Water Cooling unit and Water Cooled MIG torch.

SALIENT FEATURES:

1. Inverter based indigenous advanced digitally controlled SMAW, GTAW, GMAW & SINGLE/TWIN PULSE MIG welding outfit
2. Synergic mode of operation for single point control that allows Automatic parameter selection (Synergic) in MMA, TIG, MIG and Pulse MIG mode
3. Advanced digital control algorithms enable superior arc characteristics
4. Digital control of inverter for spatter less MIG welding application
5. Fine Arc length control in Pulse Mig and MIG welding mode for different types of welding application
6. Excellent arc force control in MMA mode for low current application
7. Twin pulse mode in Pulse Mig with low heat input makes it possible to weld the thin plates
8. Digital pulse feedback of motor from wire feeding motor for accurate control of wire feeding, even at low speed
9. With built in Water-on-Demand and VRD functionality for energy saving
10. Advanced IGBT (VCE (sat)) fault detection mechanism for enhancing reliability of machine
11. Power source with Graphical-LCD for displaying machine's settings along with dual 7 segments LED display for actual current and voltage display
12. Digital Encoder and switches for setting the machine
13. Wire Feeder with digital console for remote parameter setting
14. Facility to store 10 welding programs (weld parameter) for easy save and recall operation
15. Provision to measure the Welding Arc on Time for productivity measurement
16. Available feature like settable pre-flow, Burn-back, post-flow & adjustment of welding voltage & wire speed / Current in MIG / Pulsed MIG welding mode
17. CRATER OFF (2T), CRATER ON (4T) mode of operation in MIG & Pulse MIG
18. Details of Synergic Mode
 - (i) In MMA welding, Automatic welding current (Synergic) setting is done by selection of Type of welding material (MS/SS/CI), Diameter of Electrode (2.5/ 3.2/4.0/5.0), thickness of welding plate (1.6/ 2.4/3.2/4.8/6.4/12.8) and Type of Electrode (E7018, E6013, E6010, E308L, N1CL)

Cont.



CHAMP PULSE 500



The New Indigenous World Class Inverter Based MULTIPROCESS PULSED MIG Welder

Cont.

- (ii) In TIG welding, Automatic welding current(Synergic) setting is done by selection of Type of welding material (SS/DCu), Welding plate thickness (2.5,3.2,4.0,5.0) & Type of welding joint (Butt/Lap/Corner/Fillet).
- (iii) In MIG welding, Automatic welding current (Synergic) setting is done by selection of welding material (MS/SS/ALU), Diameter of welding wire (0.8/1.0/1.2/1.6) & welding gas (Arco₂/Aro₂/Co₂/Ar).
- (iv) In PULSEMIG welding, Automatic welding current (Synergic) setting is done by selection of type of welding material (MS/Corten/FCAW/SS19/SS/ Al+SI / Al+Mg), diameter of welding wire (0.8/1.0/1.2/1.6) & welding gas (ArCO₂/Co₂/ArO₂/Ar).

PROTECTION:

The equipment is provided with following protections.

- a) Under Voltage and Over Voltage: If supply voltage goes lower or higher than set limit, RED colour Trip LED will glow on the front panel and display will show the corresponding error.
- b) Over Temperature: If the temperature of the main power elements is more than safety limits, RED Colour Trip LED will glow on the front panel, display will show the corresponding error.
- c) Single Phasing Protection: If any one of the three phases (R, Y, and B) is absent, welding will stop.
- d) IGBT VCE-Sat Protection: This protection mechanism continuously monitors the IGBT's VCE voltage and if this voltage goes beyond the permissible limit of IGBT due to over current through IGBT, display will show the corresponding error.

WELDING PARAMETER SPECIFICATIONS

Mma Welding Parameter Specifications		
Parameter	UNIT	VALUE
Welding Current	AMP	50 - 500
Arc Force	%	0 - 100

Tig Welding Parameter Specifications		
Parameter	UNIT	VALUE
Welding Current	AMP	20 - 500

Mig Welding Parameter Specifications		
Parameter	UNIT	VALUE
Gas Pre Flow Time	SEC.	0 - 10
ARC Length	%	0 - 40
Welding Current	AMP.	50 - 500
Welding Voltage	VOLT, DC	14.0 - 46.0
Crater Current	AMP	50 - 500

Cont.



CHAMP PULSE 500



The New Indigenous World Class Inverter Based
MULTIPROCESS PULSED MIG Welder

Cont.

Crater Voltage	Volt, DC	14.0 – 46.0
Burn - Back Time	Sec.	0.1 - 2.0
Gas Post Flow Time	Sec.	0 – 10

Pulsed Mig Welding Parameter Specifications		
Parameter	Unit	Value
Gas Pre-flow Time	Sec	0 - 10
Welding Current	AMP	40 - 500
Welding Voltage	Volt, DC	14.0 – 46.0
Arc Length	%	- 40 TO + 40
Crater Current	AMP	40 - 500
Crater Voltage	VOLT, DC	14.0 – 46.0
Burn - Back Time	SEC.	0.1 - 2.0
Gas Post Flow Time	SEC.	0 – 10.
Twin Pulse Frequency	HZ	1.0 – 10.0
Twin Pulse Duty Cycle	%	20 - 80
Twin Pulse Current Ratio	%	10 - 50

EQUIPMENT TECHNICAL SPECIFICATIONS

Power Source	Model	Champ Pulse 500
Parameter	UNIT	Value
Input		
Supply Voltage, Phase, Frequency	VOLT, AC	415 V +15%, -10%, 3 Phase, 50 / 60 Hz
Max. Input Kva @ 415 V Supply		
@ 100% DUTY CYCLE	KVA	Mma / Tig / Pulsed Mig Modes - 20, Mig Mode - 17.5
@ 60% DUTY CYCLE	KVA	Mma / Tig / Pulsed Mig Modes - 30, Mig Mode - 25.5
Input Current @ 415 V Supply		
@ 100% DUTY CYCLE	AMP, AC	Mma / Tig / Pulsed Mig Modes - 28, Mig Mode - 24
@ 60% DUTY CYCLE	AMP, AC	Mma / Tig / Pulsed Mig Modes - 41, Mig Mode - 35
Power Factor		0.8 Maximum
Efficiency	%	Upto 85

Cont.



CHAMP PULSE 500



The New Indigenous World Class Inverter Based
MULTIPROCESS PULSED MIG Welder

Cont.

Output		
Open Circuit Voltage @ 415v Input Supply	Volt, DC	MMA / TIG / Pulsed Mig Modes - 98, MIG Mode - 65
Welding Current Range	Amp, DC	MMA Mode 50 - 500, TIG Mode 20 - 500, MIG Mode 50 - 500, Pulsed MIG Mode 40 - 500
Welding Current At 40 Deg C, 10 Minute Cycle @ 100% Duty Cycle	Amp, DC	387
@ 60% Duty Cycle	Amp, DC	500
General		
Wire Feeder (for Mig / Pulsed Mig Welding)	5 Meter Interconnection	Provided With Digital Front Panel Control For Setting Wire Speed / Current And Voltage/ Arc Length
Protections	-	Over Voltage, Under Voltage, Single- Phasing, Over Temperature, Over Current
Front Panel Functions		<ol style="list-style-type: none"> 1. MMA/ TIG / MIG / Pulsed MIG Selection Switch 2. 2T/ 4T Selection Switch 3. Gas Check / Wire Inch / Ocv Check Switches 4. Material / Wire Diameter / Shielding Gas Selection Switches 5. Gas Cooling / Watr Cooling Selection Switch 6. Wire Speed / Current / Plate Thickness Selection Switch 7. Up / Down Switches Are Provided To Set The Gas Pre-flow, Gas Post- flow & Burn Back Times

Cont.



CHAMP PULSE 500



The New Indigenous World Class Inverter Based
MULTIPROCESS PULSED MIG Welder

Cont.

Front Panel Functions		8. 3 Separate Encoders Are Provided To Set Respectively Current, Voltage And Additional Parameters 9. Connectors For Wire Feeder And Remote Control 10. Output Terminals (stud Type) 11. Mains On - Green Led Indicator 12. Trip - Red Led Indicator
Program Storage Facility		13. Jobs Along With Parameter Locking Facility
Auxiliary Power Supply For Water Cooling Unit	VAC, VA	240 V, 300 VA
Cooling	TYPE	Forced Air
Ambient Temperature Rating	°C	40
Class Of Insulation	-	H
Degree Of Protection	-	IP23S
Compatibility To International Standards		AS PER EN 60974 -10 (EMI / EMC Standard)
Dimensions L X W X H (without Wire Feeder At Top)	MM	1140 X 475 X 1130
Weight (approx Without Wire Feeder.)	KG	105
Wire Feeder	Model	Feedlite 40 (nepm - 5)
Parameter	Unit	Value
Weight (without Spool, And With 5 Meter Interconnection)	Kg	20 KG (APPROX)
Dimensions (L X W X H)	mm	535 X 255 X 410
Suitable For Wire Spool Capacity	Kg	15 KG
Wire Spool Diameter	mm	300
Wire Feeder Motor Voltage	Volts, DC	42 V DC
Wire Drive Motor.	Type	Permanent Magnet Dc Type With Encoder Feedback

Cont.



CHAMP PULSE 500



The New Indigenous World Class Inverter Based MULTIPROCESS PULSED MIG Welder

Cont.

Rated Power	Watt	80
Wire Roll Drive	No	Four
Wire Feed Speed	Meters / Minute	2 - 22
Suitable For Wire Sizes	mm	Solid Wire - 0.8,1,1.2,1.6; Fcw - 1.2, 1.6; Aluminium - 1.2, 1.6
Torch End Adatper	Type	Euro
Front Panel		7dual -segment Display And Encoder For Setting Parameters
Water Cooling Unit	Model	WCU - 302
Parameter	Unit	Value
Supply Voltage, Phase, Frequency	Volt, AC	230 V, 1 PHASE, 50 / 60 HZ
Cooling Capacity	W	750-1000
Max Motor Power	W	180
Max Pump Pressure	BAR	3.2
Max Pump Flow Rate	L/Min	10
Tank Capacity	L	8
Connector Size	In/Out	1/4 ² BSP, 19TPI
Dimensions (I X W X H)	mm	540 X 315 X 255
Weight(approx.)	Kg	14
Mig Welding Torch	Model	Ador Tw 600 (we)
Parameter	Unit	Value
Maximum Current @ 60% Duty Cycle	Amp	550 (with Co2 Gas); 500 (with Mixed Gas)
Torch Cable Length	METERS	3
Torch Cable Type	-	Co-axial
Torch Adapter	TYPE	EURO
Cooling	TYPE	Water
Suitable For Wire Size Diameter	MM	0.8, 1.0, 1.2, 1.6

- **Warranty** : One year from the date of commissioning. ADOR WELDING LIMITED warrants that all new equipment sold from Plant/Area Offices / Authorised Distributors are free from defects in materials and workmanship and will perform in full accordance with applicable specifications.
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HF 2000 / HF 2000 AD & HF 3000 / HF 3000 AD



The high efficiency, low power consumption World Class DC and AC/DC TIG control units



TYPICAL APPLICATIONS

- Light Weight, Compact & Portable for greater flexibility in operation
- Suitable for TIG Welding application with SMAW Power Source of any make
- Gas Preflow / Postflow facility
- Gas flow through solenoid valve for Economical consumption of costly Argon gas

SALIENT FEATURES

- Portable & Light Weight
- Built in high frequency unit for easy arc striking in AC/DC TIG welding process
- HF on/off switch to prevent high frequency interference (In DC mode only)
- Gas flow through solenoid valve for Economical consumption of costly Argon gas
- Auto HF cut off if arc does not strike within 10 seconds
- Built in gas pre-flow / post-flow facility
- In built water cooling unit with HF 3000/ HF 3000AD

SPECIFICATIONS

Technical Specifications	Unit	HF 2000 Value	HF 2000 AD Value	HF 3000 Value	HF 3000 AD Value
Input					
Input Supply :					
Voltage	Volt	230	230	230	230
Phase	No	1	1	1	1
Frequency	Hz	50	50	50	50
Rating					
Welding Current DC					
@ 60% Duty Cycle	Amps	200	200	300	300
@ 100% Duty Cycle	Amps	150	150	230	230



HF 2000 / HF 2000 AD & HF 3000 / HF 3000 AD



The high efficiency, low power consumption World Class DC and AC/DC TIG control units

Technical Specifications						
Model	Unit	HF 2000	HF 2000 AD	HF 3000	HF 3000 AD	
Input	Unit					
I/P Supply Voltage	V	230	230	230	230	
Phase	No	1	1	1	1	
Frequency	Hz	50	50	50	50	
Rating						
Welding Current DC						
@ 60% Duty Cycle	Amps	200	200	300	300	
@ 100% Duty Cycle	Amps	150	150	230	230	
Welding Current AC						
@ 60% Duty Cycle	Amps	-	150	-	250	
@ 100% Duty Cycle	Amps	-	110	-	180	
Gas Preflow Time	Sec.	0.1-5	0.1-5	0.1-5	0.1-5	
Gas Postflow Time	Sec.	1-30	1-30	1-30	1-30	
General						
Water Tank Capacity	Liter	-	-	8	8	
Protection Class	Class	IP23	IP23	IP23	IP23	
Mode of Operation	Type	2T / 4T	2T / 4T	2T / 4T	2T / 4T	
Arc Striking	Type	HF/Touch	HF/Touch(DC)	HF/Touch	HF/Touch(DC)	
Dimensions						
Length	mm	440	560	614	614	
Width	mm	165	290	400	400	
Height	mm	315	438	580	880	
Weight	Kg	10	25	46 _(Without water)	50	
Torch Model	Class	IP23	IP23	IP23	IP23	
Max. Current Carrying Capacity		HI-PRO TIG 201-4/201-8		HI-PRO TIG 301-4/301-8		
@ 60% DC	Amps DC/AC	200 / 150		300 / 250		
@ 100 % DC	Amps DC/AC	150 / 115		230 / 180		
Length	Mtrs.	4 / 8		4 / 8		
Cooling	Type	Gas		Water		
Electrode Capacity		1.6, 2.4 & 3.2		1.6, 2.4, 3.2 & 4.0		

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- Backed by dedicated customer care package.





CHAMPTIG 220P



The World Class Inverter based DC TIG and DC Pulsed TIG Welder

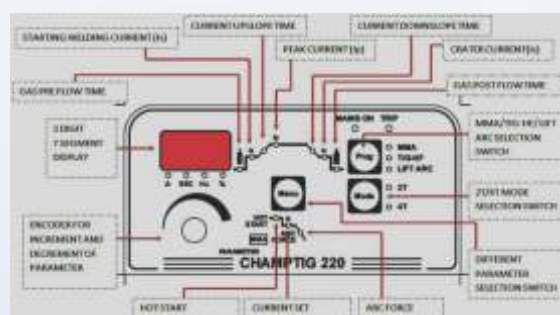


SALIENT FEATURES

- Single phase (240 V AC) inverter based, high efficiency and high power factor pulse TIG/ MMA DC welder
- Useful for wide variety of material types and thickness.
- Full featured TIG controls possible
- HF ignition
- Intelligent protection: over voltage, line (415V), over Current, temperature
- Latest PWM inverter technology
- High efficiency (Up to 87%)

CONTROL PANEL FEATURES

Control Panel Features CHAMPTIG 220P



CHAMPTIG 220P Control Panel Operations

Item	Symbol	Functionality / Description	Mode of Operation
3 Digit Seven Segment Display	 A SEC H% %	 A SET CURRENT AND ACTUAL WELDING CURRENT DURING WELDING	MMA-TIG
		 SEC DISPLAYS PREFLOW, POST FLOW, UP-SLOPE AND DOWN-SLOPE TIME DURING PARAMETER SETTING WITH MENU KEY	TIG
		 HZ Frequency of Pulsing in Hz	TIG
		 % DISPLAYS HOT START AND ARC FORCE PERCENTAGE DURING PARAMETER SETTING WITH MENU KEY	MMA

Cont.



CHAMPTIG 220P



The World Class Inverter based DC TIG and DC Pulsed TIG Welder

Cont.

Item	Symbol	Functionality / Description	Mode of Operation
Power Supply On Indicator		<p>MAINS ON</p> <p>MAINS ON</p>	MMA-TIG
Machine Trip Indication		<p>TRIP</p> <p>MACHINE TRIP</p>	MMA-TIG
MMA/TIG HF/LIFT ARC Selection	<ul style="list-style-type: none"> <input type="radio"/> MIMA <input type="radio"/> TIG-HF <input type="radio"/> LIFT ARC 	MMA/TIG HF/ LIFT ARC Selection Through Prog Button (Visual Indications Are Provided For The Same)	MMA-TIG
Panel Encoder		Setting The Welding Current 'A' In MMA Mode & Also The Different Parameters In TIG Mode Clockwise Rotation =>Increase, Anticlockwise Rotation =>Decrease	MMA-TIG
Parameter Setting In MMA Mode	<p>HOT START ARC FORCE MMA</p>	MMA Mode Hot Start, Current Set & ARC MMA Force Mode. Visual Indications Are Provided For The Same	MMA-TIG
Parameter Setting In TIG Mode	<p>Ip Ia Ib Ic</p>	TIG Mode Set Pre Flow Time, Starting Current, Unslope Time, Peak Current, Post Flow Time Respectively. Visual Indications Are Provided For The Same	TIG
Self-Hold On-Off Selection in TIG Mode (2 Track/ 4Track Operation)	<ul style="list-style-type: none"> <input type="radio"/> 2T <input type="radio"/> 4T 	TIG Mode Set 2T/4T Modes Of Operation. Visual Indications are Provided. Disabled In MMA Mode.	TIG
Menu Key		Menu Key Is Used to Set the Different Parameters In MMA Mode & TIG Mode of Operation in Different Combinations Of 2T, 4T in TIG Mode & Hot Start & ARC Forced In MMA Mode	MMA-TIG
Normal Pulse Selection	<ul style="list-style-type: none"> <input type="radio"/> PULSE <input type="radio"/> NORMAL 	TIG Mode Select The Modes Pulse/ Normal, Visual Indications Are Provided For The Same. Disabled in MMA Mode.	TIG

Cont.



CHAMPTIG 220P



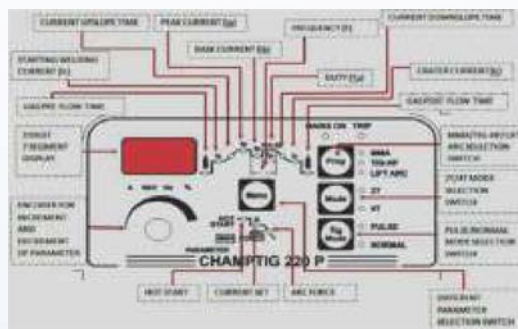
The World Class Inverter based DC TIG and DC Pulsed TIG Welder

Cont.



CONTROL PANEL FEATURES

Control Panel Features CHAMPTIG 220P



CHAMPTIG 220P Control Panel Operations

Parameter	Unit	Value		Parameter	Unit	Value	
		MMA Mode	TIG Mode			MMA Mode	TIG Mode
Hot Start	%	0-100% of Set Current	NA	Hot Start	%	0-100% of Set Current	NA
Welding Current Set	A	10-200	NA	Welding Current Set	A	10-200	NA
ARC Force	%	0-100%	NA	ARC Force	%	0-100%	NA
Gas Pre Flow Time	Sec	NA	0-5	Gas Pre Flow Time	Sec	NA	0-5
Start Current (IS)	A	NA	5-220	Start Current (IS)	A	NA	5-220
Current Unslope Time	Sec	NA	0-10	Current Unslope Time	Sec	NA	0-10
Peck Current (IP)	A	NA	5-220	Peck Current (IP)	A	NA	5-220
Current Down Slope Time	Sec	NA	0-10	Base Current (IB)	A	NA	5-220
				Pulse Fervency	Hz	NA	1-200
Crater Current (IC)	A	NA	5-220	Duty Cycle (TP)	%	NA	10-90
				Current Down Slope Time	Sec	NA	0-10
Gas Post Flow Time	Sec	NA	0-20	Crater Current (IC)	A	NA	5-220
				Gas Post Flow Time	Sec	NA	0-20



CHAMPTIG 220P



The World Class Inverter based DC TIG and DC Pulsed TIG Welder

Cont.

TECHNICAL SPECIFICATIONS



Parameter	Unit	CHAMPTIG 220P	
Input			
Supply Voltage, Phase Frequency :	Volts AC	240 V +10%-15%, 1 Phase, 50/60 Hz	
Max output Input KVA @ 240 V Supply	KVA	MMA Mode	TIG Mode
@ 100% duty cycle		5.6	4
@ 60% duty cycle		6.7	5.5
@ 25% duty cycle		9.80	7.80
Efficiency	%	Upto 87	
Output			
Open Circuit Voltage	Volts DC	78 V DC (+/- 5V)	
Welding Current Range	Amps DC	MMA Mode 10-200	TIG Mode 5-220
Welding Current (40°C 10 minutes cycle)	Amps DC		
@ 100% duty cycle		120	130
@ 60% duty cycle		150	170
@ 25% duty cycle		200	220
General			
Suitable for Welding Electrode Size	mm	2.5,3.2 Intermittent 4	
Ingress Protection	Type	IP23	
Cooling	Type	Forced Air	
Insulation	Class	F	
Front Panel Functions		<ol style="list-style-type: none"> 1. Menu Switch For Selections Like Gas Preflow, Gas Post Flow, Unslope Time, Downslope Time, Welding Current As Per Selected Mode Operation (TIG Mode only) 2. MMA/ TIG HF/ LIFT ARC Mode Selection 3. Menu Switch For Selection of Hot Start, Welding Current & ARC Force (In MMA mode only) 4. Mains On 'Green' Color Indication 5. Trip 'Red' Color LED for indication Machine is Under Protection Mode 6. Encoder for Selected Parameter Vaule Increment/Decrement. 7. 2T/4T Mode Selection (In TIG Mode only) 	

Cont.



CHAMPTIG 220P



The World Class Inverter based DC TIG and DC Pulsed TIG Welder



Cont.

Additional Functions Specific to CHAMPTIG 220P only		8. Pulse Normal Mode Selection Switch Base Current, Frequency & Duty Cycle Selection By Menu Switch
Protections		Over Voltage, Under Voltage, Single Phasing, Over Temperature
Dimensions L x W x H (Without handle)	mm	480 x 140 x 255
Weight (Approx)	Kg	9

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CHAMPTIG 300P




The World Class Inverter based DC TIG and DC Pulsed TIG Welder



SALIENT FEATURES

- Three phase inverter based, High efficiency and High Power Factor Pulse TIG/MMA DC Welder
- Full featured TIG controls possible
- Power source with built in HF ignition
- Intelligent protection: over/under voltage, over current/ temperature
- Option of water cooled Torch with water cooling unit available
- Smooth and stable arc with spatter less welding
- HF start ignition
- Pulse TIG for precision welding

SPECIFICATIONS

Technical Specifications	Unit	CHAMPTIG 300P	
Input			
Input Supply :			
Voltage 	Volt	415 , +15%, -10%	
Phase	No	3	
Frequency	Hz	50/60	
		MMA Mode	TIG Mode
Efficiency @ 100% duty cycle	%	82	77
Power Factor @ 100% duty cycle	OSØ	0.93	0.93
Input KVA 			
@ 100% duty cycle	KVA	7.5	7
@ No Load	KVA	0.19	0.19
Output			
Open Circuit Voltage 	Volt	70	
Welding Current Range		MMA Mode	TIG Mode
Welding Current	Amps	50-250	5-300
@ 100% duty cycle	Amps	195	230
@ 60% duty cycle (10 min cycle)	Amps	250	300

Cont.



CHAMPTIG 300P



The World Class Inverter based DC TIG and DC Pulsed TIG Welder

Cont.

Pulse TIG Parameters		
Duty Ratio	%	10-90
Pulse Frequency	Hz	0.5-10
Base Current	Amps	5 - 90% of Ipulse current
Pulse Current (Ipulse)	Amps	5-300
General		
Start current	Amps	5-300
Current unpslope time	Sec	0-10
Current down slope control	Sec	0-10
Pre-Flow	Sec	0-5
Post-Flow	Sec	1-20
Crater current	Amps	5-300
Current / Voltage Display		7 –Segment LED Display for Current & Other parameters
Ingress Protection	Class	IP23
Cooling	Type	Forced Air
Insulation	Class	H
Welding Output Terminals	-	Cam Lock connections
Dimensions		
Length	mm	610
Width	mm	295
Height	mm	480
Weight (approx.)	Kg	38
Water Cooling Unit		
Input Supply Voltage (AC)	Volts	230
Phase	-	1
Frequency	Hz	50-60
Water Reservoir Capacity	Liters	8
Flow rate	Ltr/min	10
Dimensions		
Length	mm	560
Width	mm	325
Height	mm	285
Weight (approx.)	Kg	18
Trolley		
Dimensions		
Length	mm	660
Width	mm	525
Height	mm	415
Weight (approx.)	Kg	10

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CHAMPTIG 300 SP



Synergic DC TIG and DC Pulsed TIG Welder with Intelligent Control



TYPICAL APPLICATION

- Latest Inverter based technology.
- IGBT based operating at high frequency.
- Suitable for both DC TIG (Pulse & Normal) and MMA welding operation.
- Available with Synergic mode in TIG for pulse/normal mode. Also suitable for scratch start in TIG mode.
- Built in HF ignition for easy arc striking.
- User friendly front panel interface with LCD display and Multi-functional encoder.
- Anti-stick function to protect the machine from short circuit condition in MMA mode.
- Option of Remote control unit with digital display, for setting current remotely in MMA and TIG mode
- Option of Foot switch control regulator for setting current in TIG mode

SPECIFICATIONS

Technical Specifications	Unit	ICVR 250
Input		
Input Supply :		
Voltage	Volts, Ac	415, +15%, -10%
Phase		3
Frequency	HZ	50/ 60
Characteristics		CC - CV
Input KVA @ 100% duty cycle	KVA	MMA Mode-10.3, TIG Mode-7.1
Input KVA @ 60% duty cycle	KVA	MMA Mode-13.1, TIG Mode-9.5
Input KVA @ 35% duty cycle	KVA	MMA Mode-16.9, TIG Mode-11.9
Input Current 415V Supply @ 100% duty cycle	Amps, Ac	MMA Mode-14.4, TIG Mode-9.8
Input Current 415V Supply @ 60% duty cycle	Amps, Ac	MMA Mode-18.3, TIG Mode-13.2
Input Current 415V Supply @ 35% duty cycle	Amps, Ac	MMA Mode-23.5, TIG Mode-16.5
Power Factor		Up to 0.75
Efficiency	%	Up to 84
Output		
Open Circuit Voltage @415V Input Supply	Volts, DC	80 V DC (+/-5V)
Welding Current Range	Amps, DC	MMA Mode-50-300, TIG Mode-10-300
Welding Current (40°C 10 minutes cycle)		
@ 100% duty cycle	Amps, DC	200
@ 60% duty cycle	Amps, DC	250
@ 35% duty cycle	Amps, DC	300

Cont.



CHAMPTIG 300 SP



Synergic DC TIG and DC Pulsed TIG Welder with Intelligent Control

Cont.

General	Unit	Value
Remote Controller	10 Meter	Provide as optional for Current Setting
Foot Switch Control	5 Meter	Provide as optional for Current Setting
Welding Electrode Size (MMA Mode)	Dia in mm	2.5,3,1.5,4
Protection		Over Voltage, Under Voltage, Single Phasing, Over Temperature
Front Panel Functions		<ol style="list-style-type: none"> 1. MMA/HF TIG/ LIFT ARC TIG selection switch 2. 2T/4T/Spot/Cycle Switch 3. Pulse/Normal Mode selection 4. Normal/Foot switch selection switch 5. Menu switch for selecting all functions for pulse - Gas pre flow, Gas post flow, pulse frequency, current unslope time current downslope time, welding current (peak current for pulsing mode), Background current (for pulsing mode), set current time - as per selected mode of operation 6. Mains on 'Green' color indication 7. Trip 'Red' color LED for indication of machine is under protection mode 8. Encoder for selection parameter Value Increment / Decrement 9. Auto key making synergic mode on/off 10. Para/Gas switch to set the parameters in synergic mode & to check gas in normal mode 11. Remote controller 12. Gas Out 13. Water/ Gas cooled selection switch 14. Torch switch connector 15. Foot switch connector 16. Cam look output connector 17. 10 sets of parameter setting can be saved & recalled

Cont.



CHAMPTIG 300 SP

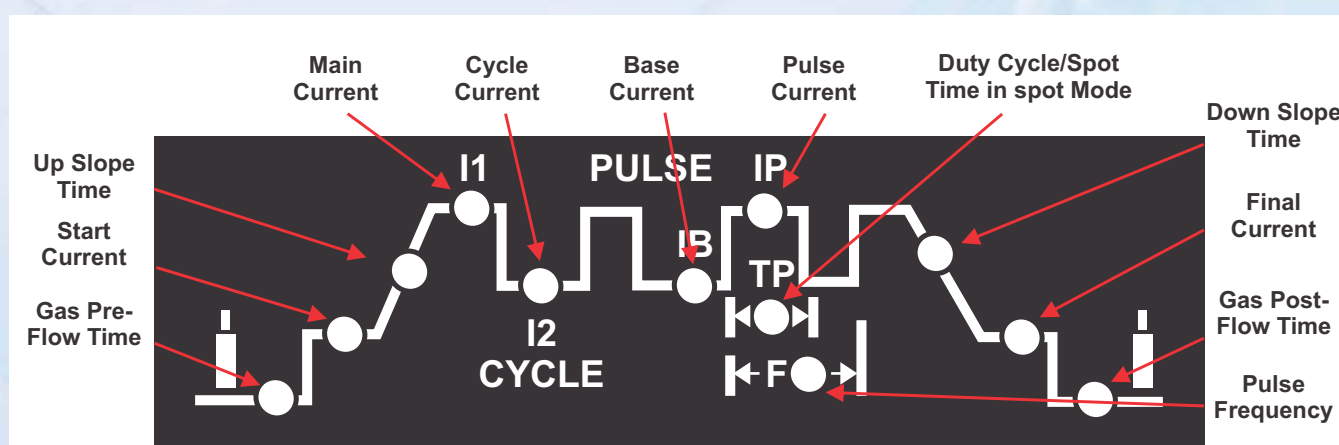
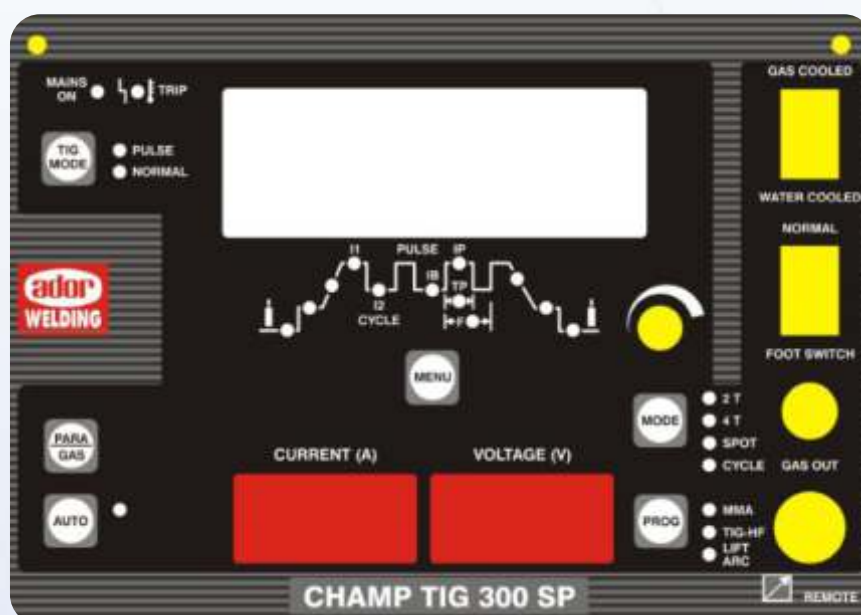


Synergic DC TIG and DC Pulsed TIG Welder with Intelligent Control

Cont.

Auxiliary power supply for water cooling unit	VAC, W	240V, 300W
Cooling	Type	Forced Air
Ambient Temperature rating	°C	40
Class of Insulation	-	H
Degree of Protection	-	IP23S
Dimensions (L x W x H)	mm	600 x 215 x 470
Weight (approx.)	Kg.	27

DIGITAL PANEL DETAILS FOR MODEL: CHAMPTIG 300SP



Cont.









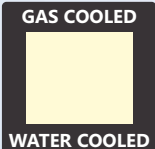

CHAMPTIG 300 SP



Synergic DC TIG and DC Pulsed TIG Welder with Intelligent Control

DIGITAL PANEL DETAILS FOR MODEL: CHAMPTIG 300SP

Cont.

Key	Legend	Description
MMA/TIG HF/LIFT ARC Selection Key	 <ul style="list-style-type: none"> ○ MMA ○ TIG-HF ○ LIFT ARC 	Prog key can be used to select MMA / TIG (With HF & Without HF) Process. Visual indications are provide for the same
Encoder		With the help of Encoder we can set the welding current 'A' in MMA TIG mode & also the different parameters in TIG mode. (Encoder rotation clockwise = +, I.E. Increment Encoder Rotation anticlockwise = -, I.E. Decrement
Pulse / Normal Selection	 <ul style="list-style-type: none"> ○ PULSE ○ NORMAL 	This can be used TIG mode only. In TIG mode, with the help of this button can toggle between Pulse / Normal TIG mode. Visual indication are provide for the same
2T / 4T / Spot / Cycle Selection Key	 <ul style="list-style-type: none"> ○ 2T ○ 4T ○ SPOT ○ CYCLE 	This key can be used in TIG mode to select the mode 2T / 4T / Spot / Cycle. Visual indications are provided for the same. This key is inactive in MMA mode.
Para / Gas Selection Key		This key can be used in TIG mode to select different parameters when synergic mode is on. This same key can be used to check Gas in TIG mode when synergic mode is off.
Auto Switch		This key can be used to enabled or disable the synegetic TIG mode. Visual indiction is also provided.
Gas Cooled / Water Cooled Selection Switch		This key is enabled in TIG mode only to select the cooling way depending upon the TIG Torch to be used.
TIG Parameter Selection Switch		Menu Key Is Used to Set the Different Parameters In MMA Mode & TIG Mode of Operation in Different Combinations Of 2T, 4T, Spot, Cycle with pulse & normal. Visual indiction is also provided for all TIG parameters

Cont.



CHAMPTIG 300 SP



Synergic DC TIG and DC Pulsed TIG Welder with Intelligent Control

DIGITAL PANEL DETAILS FOR MODEL: CHAMPTIG 300SP

Cont.

Key	Legend	Description
LED Display		7 - SEG LED Display shows actual Welding & Current
Mains on Indication		This Green LED Indicates that Machine is ready for use.
Trip Indication		This Red LED Indicates that Machine is under one of the protection mode via. under Voltage / Over Voltage / Single Phase
Normal Foot Switch		Mini Rocker switch is provided for Normal / Foot switch selection
Remote		This is 4 pin connector provided for interfacing Remote
Gas Out		Gas Nippal is Provided on panel to interface the Gas connection of torch in TIG mode.
LED Display	LED Display shows the selected parameter value which can be set	

Cont.



CHAMPTIG 300 SP



Synergic DC TIG and DC Pulsed TIG Welder with Intelligent Control

SPECIFICATION OF WATER COOLING UNIT

Cont.

Parameter	Unit	Value
Supply Voltage, Phase, Frequency	Volts, Ac	230 V, 1 Phase, 50 / 60 HZ
Cooling Capacity	W	750 - 1000
Max Motor Power	W	220
Max Pump Pressure	BAR	2.5
Max Pump Flow Rate	L	10
Tank Capacity	Min	8
Connector Size	In / Out	1/4" BSP, 19TPI
Dimensions (L X W X H)	mm	580 X 215 X 270
Weight (Approx.)	Kg.	14

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CHAMPTIG 400P



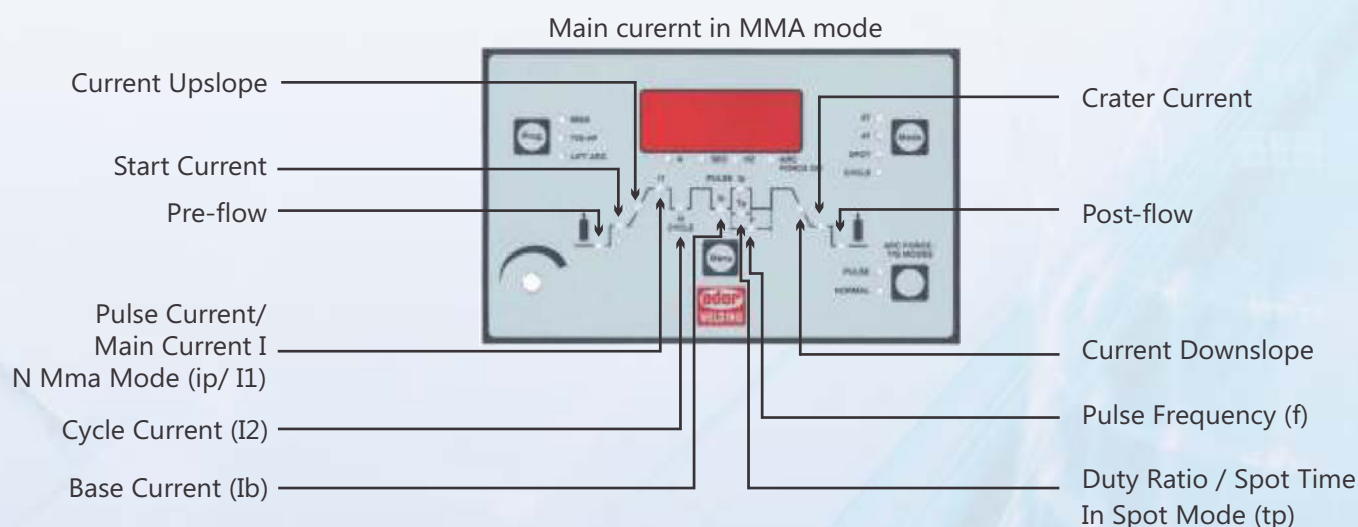
The World Class Inverter based DC TIG and DC Pulsed TIG Welder



SALIENT FEATURES

- Three phase inverter based, High efficiency and High Power Factor Pulse TIG/ MMA DC Welder
- Useful for wide variety of material types and thickness.
- Full featured TIG controls possible
- HF ignition
- Intelligent protection: over/under voltage, over current / temperature
- Water cooled Torch with water cooling unit option.
- Latest PWM inverter technology
- High efficiency (>85%)
- Smooth and stable arc with spatter less welding

CONTROL PANEL FEATURES



SPECIFICATIONS

Technical Specifications	Unit	CHAMPTIG 400P
Input		
Input Supply :		
Voltage	Volt	415 , +15%, -10%
Phase	No	3
Frequency	Hz	50/60
Efficiency @ 100% duty cycle	%	85
Power Factor @ 100% duty cycle		0.94 Max

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








CHAMPTIG 400P



The World Class Inverter based DC TIG and DC Pulsed TIG Welder

Cont.

Input KVA			MMA Mode	TIG Mode
@ 100% duty cycle		KVA	13	10
@ No Load		KVA	0.13	0.13
Output				
Open Circuit Voltage		Volt	70	
Welding Current Range			MMA Mode	TIG Mode
Welding Current		Amps	50-400	10-400
@ 100% duty cycle		Amps	310	
@ 60% duty cycle (10 min cycle)		Amps	400	
Pulse TIG Parameters				
Duty Ratio		%	10-90	
Pulse Frequency		Hz	0.5-10	
Base Current		Amps	10 - 90% of I _{pulse} current	
Pulse Current (I _{pulse})		Amps	10-400	
General				
Start current		Amps	10-400	
Current unsplope time		Sec	0-10	
Current down slope control		Sec	0-10	
Pre-Flow		Sec	0-5	
Post-Flow		Sec	0.1-20	
Crater current		Amps	10-400	
Current / Voltage Display			7-Segment LED Display for Current & Other parameters	
Ingress Protection		Class	IP23	
Cooling		Type	Forced Air	
Insulation		Class	H	
Welding Output Terminals		-	Cam Lock connections	
Dimensions				
Length		mm	660	
Width		mm	315	
Height		mm	485	
Weight (approx.)		Kg	46	
Water Cooling Unit				
Input Supply Voltage (AC)		Volts	230	
Phase		-	1	
Frequency		Hz	50-60	
Water Reservoir Capacity		Liters	8	
Flow rate		Ltr/min	10	
Dimensions				
Length		mm	560	
Width		mm	325	
Height		mm	285	

Cont.






CHAMPTIG 400P



The World Class Inverter based DC TIG and DC Pulsed TIG Welder

Cont.

Weight (approx.)		Kg	18
Trolley			
Dimensions			
Length		mm	1005
Width		mm	500
Height		mm	109
Weight (approx.)		Kg	35

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CHAMPTIG 300 AD



The World Class Inverter based AC / DC Pulsed / Mixed Pulsed TIG Welding system



SALIENT FEATURES

- Large input supply voltage range with under/over voltage
- Single phase protection
- Higher efficiency & power factor
- Lower power consumption
- In built spot TIG welding facility, AC/DC as well as mixed TIG Welding facility. In built pulse TIG welding controls with Independent settings of all parameters from front panel. Optionally welding current variation possible by using remote Control (hand held) or foot control regulator
- Cleaning width control in ac TIG welding enables user to adjust Oxide cleaning as well as penetration of weld puddle according to his choice
- Constant current characteristics irrespective of arc length variation
- High efficiency ($\approx 82\%$)
- Smooth and stable arc with spatter less welding
- Light weight and compact TIG welding system
- Latest PWM inverter technology

TECHNICAL SPECIFICATIONS

Parameter	Unit	Value	
Input			
Supply Voltage, Phase Frequency :	Volts, AC	415 (+15%-10%) 3 Phase, 50/60 Hz	
Max output Input KVA @ 416 V Supply	KVA	MMA Mode	TIG Mode
@ 100% duty cycle		7	7.5
@ 60% duty cycle		10	11
Power Factor		Upto 0.92	
Efficiency	%	Upto 82	
Output			
Open Circuit Voltage @ 416 V Supply	Volts, DC	75 V DC (+/- 3V)	
Welding Current Range		AC TIG Mode 20-300 DC TIG Mode 10-300	MMA Mode 50-250
Welding Current (40°C 10 minutes cycle)	Amps		
@ 60% duty cycle		TIG Mode 300 Amps	MMA Mode 250 Amps
@ 100% duty cycle		TIG Mode 230 Amps	MMA Mode 195 Amps
General			
Remote Controller	10 Meter	Provide as Optional for Current Settings	
Foot Switch Control	10 Meter	Provide as Optional for Current Settings	

Cont.



CHAMPTIG 300 AD



The World Class Inverter based AC / DC Pulsed / Mixed Pulsed TIG Welding system

Cont.

Protections		Over Voltage, Under Voltage, Single Phasing, Over Temperature
Front Panel Functions		MMA TIG Selection Switch
		2T/ 4T / Spot/ Cycle Selection Switch
		DC+/ DC-/ AC Welding Method Selection Switch
		Gas Check Switch
		Pulse/ Normal Mode Selection Switch
		HF On/ HF Off Selection Switch
		Normal/ Foot Selection Switch
		Menu Switch for Selecting All Functions Via Gas Pre Flow, Start Current, Up slope Time, Base Current, Pulse Current, Down Slope Time, Crater Current, Gas Post Flow Time, Cleaning for AC, AC Frequency, AC Offset, Pulse Width/Spot Time, Pulse Frequency, As Per Mode Selection Operation
		Torch Switch Connector
		Foot Switch Connector
		Remote Connector
		Gas Out
		CAMLOCK output Connector
		Mains On 'Green' Color Indication
		Trip 'Red' Color LED for indication Machine is Under Protection Mode
		Water/Gas Cooled Selection Switch
	Encoder for Selected Parameter Vaule Increment/Decrement.	
Cooling	Type	Forced Air
Ambient Temperature Rating	°C	40
Class of Insulation	-	H
Degree of Protection	-	IP23
Dimensions L x W x H (Without handle)	mm	650 x 425 x 515
Weight (Approx)	Kg	50

Cont.



CHAMPTIG 300 AD



The World Class Inverter based AC / DC Pulsed / Mixed Pulsed TIG Welding system

TIG Welding Parameter Setting

SPECIFICATIONS

Parameter	Unit	Value
Gas Pre Flow Time	Sec	0-5
Start Current	Amp	5-300
Current Unslope Time	Sec	0-10
Base Current	A	5-300
Pulse Current	A	5-300
Pulse Width	%	10-90% of Width of Pulse Current
Pulse Frequency	Hz	0.5 to 500
Current Down Slope Time	Sec	0-10
Crater Current	A	5-300
Gas Post Flow Time	Sec	0.1-20
Spot Time	Sec	1-10
Cleaning Control	%	(-40) - (+40)
AC Frequency Control	Hz	20-100
AC Offset	%	(-50) - (+30)

- **Warranty:** One year from the date of commissioning. ADOR WELDING LIMITED warrants that all new equipment sold from Plant/Area Offices / Authorised Distributors are free from defects in materials and workmanship and will perform in full accordance with applicable specifications.
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CHAMPTIG 500 AD



The World Class Inverter based AC / DC Pulsed / Mixed Pulsed TIG Welding system



SALIENT FEATURES

- Latest Inverter based technology with constant output current
- IGBT based operating at high frequency
- Suitable for both TIG(AC & DC) and MMA welding operation
- Positive (DC+) & negative (DC-) polarity selection in MMA mode
- Option of HF ON & HF OFF in TIG mode, hence also suitable for scratch start in TIG mode Built HF ignition for easy arc striking.
- Welding process, mode selection and parameter adjustment by using keypad and multi function encoder provided on digital front panel
- 7 segment LED display for actual current display & 7 segment LED display for actual voltage display & LCD display for other parameter display setting
- Anti stick function to protect the machine from short circuit condition in MMA mode.
- CRATER OFF (2T), CRATER ON (4T), SPOT, CYCLE mode of operation (TIG).
- Available with Cleaning width control and AC offset adjustment and AC frequency setting for AC TIG welding application.
- Adjustment of pulse current, pulse frequency, pulse width, AC current, AC frequency, cleaning control and AC offset, it can meet the requirement of seam depth, width and ripple, which can prolong the using life of tungsten electrode.
- Option of Remote control unit for setting current remotely in MMA and TIG
- Mode Option of Foot switch control regulator for setting current in TIG mode
- The outfit is provided with Water Cooling Unit and 500 Amp capacity Water cooled TIG Torch for heavy-duty TIG Welding

CHAMPTIG 500 AD



The World Class Inverter based AC / DC Pulsed / Mixed Pulsed TIG Welding system

TECHNICAL SPECIFICATIONS

Parameter	Unit	Value
Input		
Supply Voltage, phase, frequency	Volts, AC	415 V +15%, -10%, 3 Phase, 50 / 60 Hz
Input Power @ 415ac	KVA	
@ 100 % Duty Cycle	KVA	MMA Mode - 19, TIG Mode - 15
@ 60 % Duty Cycle	KVA	MMA Mode - 26, TIG Mode - 20
@ 35 % Duty Cycle	KVA	MMA Mode - 34, TIG Mode - 27
Input Current @ 415vac	Amps, AC	
@ 100 % Duty Cycle	Amps, AC	MMA Mode - 26, TIG Mode - 21
@ 60 % Duty Cycle	Amps, AC	MMA Mode - 36, TIG Mode - 28
@ 35 % Duty Cycle	Amps, AC	MMA Mode - 47, TIG Mode - 38
Efficiency	%	UP TO 82
Power Factor		0.8 Max
Output		
Open Current Voltage @ 415v Input Supply	Volts, AC	78 V DC (+/-5 V)-DC MMA, TIG; 78 V AC (+/-5 V)-AC TIG
Welding Current Range	Amps	MMA Mode 50 - 500, AC / DC TIG Mode 20 - 500
Welding Current At 40deg C, 10 Minute Cycle		
@ 100 % Duty Cycle		310
@ 60 % Duty Cycle		400
@ 35 % Duty Cycle		500
General		
Remote Controller / Foot Switch Controller	10 Meter	Provided As Optional For Current Setting.
Protections		Over Voltage, Under Voltage, Single-phase, Over-temperature Protection.
Front Panel Functions		1. Selector Switches For Selection of: MMA / TIG, 2T / 4T / Spot / Cycle, Dc+/dc-/ac Welding Method, NormPulse / Normal Mode, Hf On / Off, al / Food Switch Control, Water / Gas Cooled Torch Selection

Cont.



CHAMPTIG 500 AD



The World Class Inverter based AC / DC Pulsed / Mixed Pulsed TIG Welding system

Cont.

		2. Gas Check Switch
		3. Menu Switch For Selecting All Functions Via. Gas Pre Flow Start Current, Upslope Time, Base Current, Pulse Current, Down Slope Time, Crater Current, Gas Post Flow Time, Cleaning For Ac, Ac Frequency, Ac Offset, Pulse Width/ Spot Time, Pulse Frequency As Per Selected Mode of Operation.
		4. Connect For Torch Switch, Foot Switch, Remote, Gas Out, Camlock Power Output
		5. Mains On 'green' Colour And Trip 'red" Indication
		6. Encoder For Selected Parameter Value Increment / Decrement
Cooling	Type	Forced Air
Class Of Insulation	-	H
Degree Of Protection	-	IP23(S)
Dimension (L x W x H)	mm	780 X 355 X 620
Weight (Approx.)	Kg.	66

THE WELDING PARAMETER SETTINGS

Parameter	Unit	Value
Gas Pre Flow Time	Sec.	0 - 5
Initial Welding Current - TIG	Amps	20 - 500
Current Upslope Time	Sec.	0 - 10
Base Current TIG	Amps	20 - 500
Pulse Current (TIG)	Amp.	20 - 500
Pulse Width	%	10 - 90% Of Pulse Time Period (1 Second - 2 Milisecond)
Pulse Frequency	Hz	1 - 500
Current Downslope Time	Sec.	0 - 10
Crater Current (tig)	Amps	20 - 500
Gas Post-flow Time	Sec.	0.1 - 20
Spot Time	Sec.	1 - 10
Cleaning Control		-40 to +40
Ac Frequency Control		20 - 50
Ac Frequency Control	%	-50 to +30

Cont.



CHAMPTIG 500 AD



The World Class Inverter based AC / DC Pulsed / Mixed Pulsed TIG Welding system

SPECIFICATIONS OF WATER COOLING UNIT

Parameter	Unit	Value
Input Supply	V ac	240
Phase	No.	1
Frequency	Hz	50
Cooling Capacity	W	750 - 1000
Maximum Motor Power	W	220
Maximum Pump Pressure	Bar	2.5
Maximum Pump Flow Rate	L/Min	10
Tank Capacity	L	8
Connector Size	In/Out	1/4" X9
Dimensions (L x W x H)	Mm	560 X 325 X 285
Weight	Kg.	18

- **Warranty** : One year from the date of commissioning. ADOR WELDING LIMITED warrants that all new equipment sold from Plant/Area Offices / Authorized Distributors are free from defects in materials and workmanship and will perform in full accordance with applicable specifications.
- In view of continuous development, ADOR WELDING LIMITED reserves the right to modify/change the design and /or the specifications without any prior notice.
- Backed by dedicated customer care package.





MAESTRO SERIES 800, 1000, 1200



A range of SUBMERGED Arc Welding Equipment to suit a wide range of applications

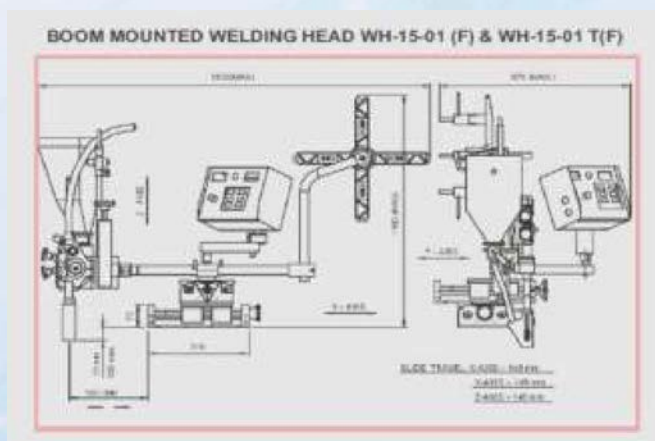
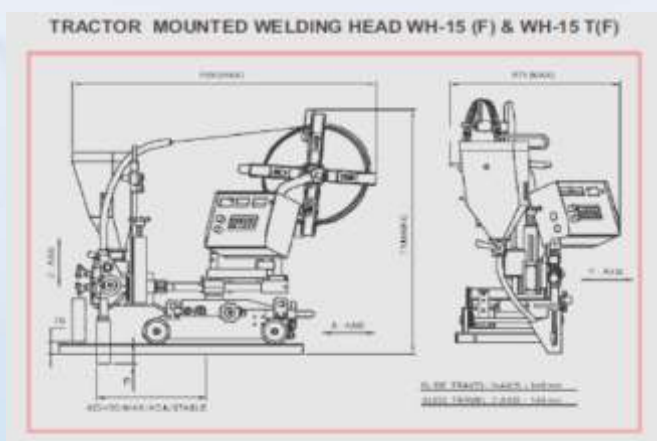
SALIENT FEATURES

- Choice of Boom mounted or Tractor mounted Welding head models offered with Diode or Thyristorized Power Source
- Boom mounted head comes with a choice of manual, semi – motorized and fully motorized cross slides
- Programmed sequential operations of Power Source, Wire feed and carriage through built-in solid state circuitry
- **Twin Wire Attachment** : Twin Wire Attachment is available for the Tractor as well as boom mounted welding heads. The arrangement consists of one set of each of wire drive roll and nozzle for 2 and 2.5 mm size wire to feed two wires in tandem and increase

the deposition rate substantially. These arrangements is ideal for applications like cladding of hard surfaces as well as for filing weld metal in extra large size preparation grooves. Twin 2.5 mm wires can deliver up to 20% higher deposition rates than a single 5 mm wire at the same welding current and arc voltage parameters.

- **Fillet Welding Attachment** : To enhance the usability of SAW Outfits, a Fillet Welding attachment can be provided to increase shop-floor productivity.
- **Spot Light Projector** : This facility is especially useful for welding operations inside cylindrical jobs where a light source is required to examine the seam

The Welder - friendly tractor or boom mounted welding head with Diode / Thyristorized Power sources perfectly match; Adopted to local conditions; offering a range of models to suits every budget and need



MAESTRO SERIES 800, 1000, 1200



A range of SUBMERGED Arc Welding Equipment to suit a wide range of applications

Cont.

TECHNICAL SPECIFICATIONS DOIDE BASED SYSTEMS



Power Source	Unit	PS 800 (F)	PS 1000 (F)	PS 1200 (F)
Input				
Input Supply:				
Voltage	Volts, AC	415	415	415
Phase	No	3	3	3
Frequency	Hz	50	50	50
Input Kva @ 100% Duty Cycle	KVA	37	45	54
Recommended Switch Fuse Rating	Amps, AC	TP-60	TP-80	TP-100
Output				
Static Characteristics	Type	CV	CV	CV
Open Circuit Voltage Range (max. With IPT)	Volts, DC	35-63	35-63	35-63
Open Circuit Voltage Range (Actual)		29-54	29-54	29-54
Welding Voltage		21.15-44	24-44	24-44
Welding Current Range	Amps, DC	150-800	200-100	200-1200
Welding current @ 60% duty cycle		800	100	1200
Welding current @ 100% duty cycle		650	800	1000
General				
Insulation	Class	H	H	H
Cooling	Type	Forced Air	Forced Air	Forced Air
Dimensions L x W x H	mm	1225x800x900	1225x800x900	1225x800x900
Weight (Approx)	Kg	350	365	390

TECHNICAL SPECIFICATIONS THYRISTOR BASED SYSTEMS



Power Source	Unit	PS 800 T(F)	PS 1000 T(F)	PS 1200 T(F)
Input				
Input Supply:				
Voltage	Volts, AC	415	415	415
Phase	No	3	3	3
Frequency	Hz	50	50	50
Input Kva @ 100% Duty Cycle	KVA	44	50	63
Recommended Switch Fuse Rating	Amps, AC	TP-70	TP-80	TP-100
Output				
Static Characteristics	Type	CV	CV	CV
Open Circuit Voltage Range (max.)	Volts, DC	62	62	62
Open Circuit Voltage Range		150-800	200-1000	200-1200
Welding current @ 60% duty cycle	Amps, DC	800	100	1200
Welding current @ 100% duty cycle		650	800	1000



MAESTRO SERIES 800, 1000, 1200



A range of SUBMERGED Arc Welding Equipment to suit a wide range of applications

Cont.

General				
Insulation	Class	H	H	H
Cooling	Type	Forced Air	Forced Air	Forced Air
Dimensions L x W x H	mm	1225x800x1060	1225x800x1060	1225x800x1060
Weight (Approx)	Kg	350	365	390

ORDERING INFORMATION OPTIONAL ACCESSORIES

Description	Product Code
Set Of Welding Cables SAC 800, For PS 800 (F), 800 T (F)	S10.36.011.0005
Set Of Welding Cables SAC 1000, For PS 800 (F), 1000 T (F)	S10.36.011.0006
Set Of Welding Cables SAC 1200, For PS 800 (F), 1200 T (F)	S10.36.011.0004
Description	Product Code
WAS : Set Of Welders Accessories - All Models	S10.36.041.0001
SLP: Spotlight Projector - All Models	S10.36.031.0001
FWA: Fillet Welding Attachment - All Models	S10.36.021.0001
TWA: Twin Wire Attachment (2 And 2.5 Mm) - All Models	S10.36.021.0003

TECHNICAL SPECIFICATIONS - WELDING HEADS

Saw Head	Unit	WH -15(F)	WH -15-01(F)	WH -15-02(F)	WH -15-03(F)
Max. Welding Current @ 60% Duty Cycle	Amps, DC	1500	1500	1500	1500
Max. Welding Current @ 60% Duty Cycle		1250	1250	1250	1250
Recommended Power Source		PS 800 (F) / PS 1000 (F) / PS 1200 (F)			
Recommended Wire Diameter Single Wire	mm	2, 2.5, 3.2 For 800 (F); 2, 2.5, 3.2, 4.5 For 1000 (F) & 1200 (F)			
Recommended Wire Diameter Twin Wire		2, 2.5 (Optional)			
Speed Range Wire Feed	M / Min.	0.5-4	0.5-4	0.5-4	0.5-4
Speed Range Carriage		0.1-1.5	NA	NA	NA
Input To Control Unit	Volts, AC	42 V, 1 PH, 50 Hz From Power Source			
Range Of Adjustment					
Vertical (Z)	mm	140 (Manual)	140 (Manual)	100 (Motorized)	100 (Motorized)
Horizontal (X)-Transverse To Travel Direction		140 (Manual)	140 (Manual)	100 (Motorized)	100 (Motorized)
Horizontal (Y)-In Direction Of Travel		-	140 (Manual)	140 (Manual)	100 (Motorized)
Maximum Swivel					
Transverse To Head Travel	Degree	45			
Parallel To Head Travel		30			
Horizontal Swing		270			
Standard Bore For Spool	mm	285 - 315 (Adjustable)			
Weight Of Spool (max.)	Kg	25			
Flux Hopper Capacity (max.)	Kg/Ltrs	10/7			
Dimensions (L X W X H)	mm	1500x1030x580	1500x1030x580	1500x1030x600	1500x1030x600
Weight (without Flux And Wire)	Kg	80	80	110	110



MAESTRO SERIES 800, 1000, 1200



A range of SUBMERGED Arc Welding Equipment to suit a wide range of applications

- **Warranty**: One year from the date of commissioning. ADOR WELDING LIMITED warrants that all new equipment sold from Plant/Area Offices / Authorised Distributors are free from defects in materials and workmanship and will perform in full accordance with applicable specifications.
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INTERFACE UNIT WITH INTERCONNECTION CABLE

INTERFACE UNIT WITH INTERCONNECTION CABLE

UNI - MAESTRO RETROFIT UNIT FOR SAW



The customized Retrofit unit (complete with new welding head) for Interfacing new welding head (diode based) with old model of SAW Power Source

- The UNI-MAESTRO retrofit box is a "BORN AGAIN PACKAGE (Rejuvenate)" to upgrade productivity from existing old working power source, Model: CPR-1204 / CPR-1205 / PS-1200, but with welding head which is in non-working condition or the customer is not having welding head.
- Old version of "UP-15-CP / WH-15" series Welding Heads are upgraded with New "Feather-Touch controlled WH-15 (F)" series (Diode based) Welding Heads, as old version of "UP-15-CP / WH-15" are discontinued from AWL production range.
- The complete outfit consists of Retrofit box, tractor mounted or boom mounted submerged arc welding unit, inter-connection control cable between Power source and Retrofit box. These are interfaced with suitable capacity of old power source CPR-1204 / CPR-1205 / PS-1200, which is already available with the customer.

COMPLETE SYSTEM

The complete system or outfit consists of:

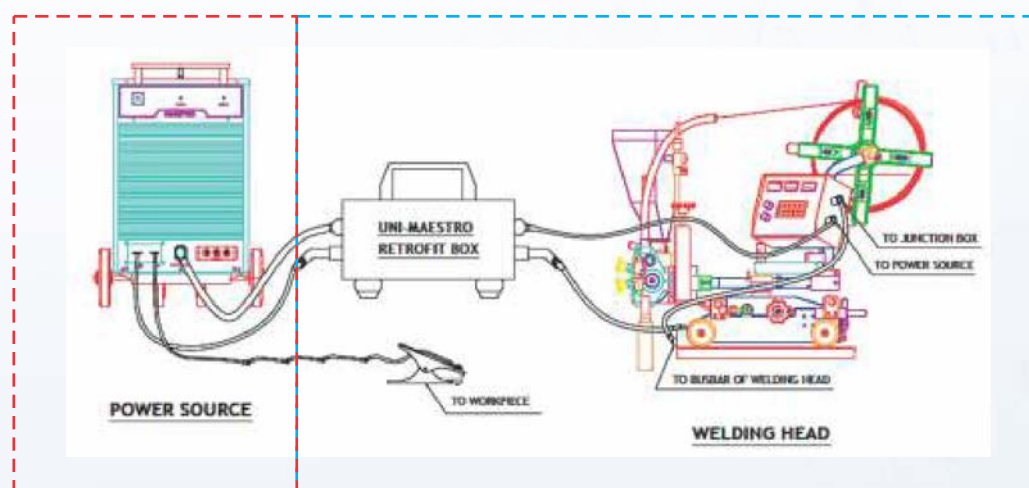
1. Retrofit Box (Interface Box)
2. Welding Head type WH 15 (F) or WH 15-01 (F) => suitable for Diode based systems only
3. Interconnection control cable between power source & Welding Head - 10 meters length

UNI - MAESTRO RETROFIT UNIT FOR SAW



The customized Retrofit unit (complete with new welding head) for
Interfacing new welding head (diode based) with old model of SAW Power Source

CONNECTION SYSTEM



EXISTING OLD DIODE BASED
SAW POWER SOURCE - CUSTOMER

WELDING HEAD

ORDERING INFORMATION

UNI - MAESTRO RETROFIT UNIT (Comprising of Interface box, Welding Head Assembly type WH – 15 (F) Tractor mounted, 10 Meter Interconnection cable between Interface Box and Welding Head)	S15.01.001.0601
UNI - MAESTRO RETROFIT UNIT (Comprising of Interface box, Welding Head Assembly type WH – 15 01 (F) Boom mounted, 10 Meter Interconnection cable between Interface Box and Welding Head)	S15.01.001.0602





THREE WHEEL TRACTOR WELDING HEAD



The new welding head for flexible operations



SALIENT FEATURES

- The Three wheel tractor is more versatile compared to the 4 wheel tractor; it shortens the welding spacing and has a wider welding range for wires from $\Phi 2.0$ to $\Phi 5.0$ mm.
- Besides linear welding, the three wheel tractor can turn left and right and weld around circular curve.
- Easy and flexible regulation, integrated up and down, rotation of the tractor head with the torch.
- Easy adjustable flux container.
- Double driven wire feeding with straightening mechanism, stable wire feeding, good centering, strong drawing force and low dissipation power.

SPECIFICATIONS

Technical Specifications	Unit	VALUE
Input		
Rated Input Voltage Of Traveling Mechanism	Volts DC	42 V
Rated Input Current Of Traveling Mechanism	Amps DC	5.5 Amps
Rated Input Voltage Of Wire Feeding Mechanism	Volts DC	42 V
Rated Input Current Of Wire Feeding Mechanism	Amps DC	0.75 Amp
Welding Speed	Meters / Minute	0.2 - 1.5 / 0.2 - 2 M / Min
Wire Feeding Speed	Meters / Minute	0.6 - 6 M / Min
Rated Power Source	Capacity	1200 Amps @ 60% Duty Cycle
Wire Diameters	mm	2, 3, 4, 5,
Type Of Wires Applicable		Soft Steel, Solid Core
Adjustable Height Of Tractor Head	mm	70 MM
Adjustable Distance Of Tractor Head	mm	100 X 100 (longitudinal X Transversal)
Rotatable Angle Of Tractor Head Around Cross Beam	Degree	$\pm 90^\circ$
Tractor Head Inclination	Degree	$\pm 45^\circ$
Torch Inclination	Degree	$\pm 45^\circ$
Flux Container Volume	Litres	6 L
Inner Diameter Of Wire Spool	mm	$\Phi 300$ mm
Wire Spool Capacity	Kg	25 KG
Dimension (L X W X H)	mm	1020 X 480 X 780
Weight	Kg	50 Kg (Does Not Include Wire)
Insulation	Class	F
Welding Output Terminals		Stud type / Camlock





MAESTRO 1200 (I)



The world Class Inverter based Submerged Arc Welder

SALIENT FEATURES

- Inverter based digitally controlled Welding head and Power source.
- High efficiency and high power factor resulting in substantial energy saving over conventional SAW outfits
- Enhanced Reliability due to SMD technology.
- Power source is CC-CV type and capable for MMA/GOUGING and SAW processes.
- *****SAW Welding can be done in either CV or CC modes. In the Constant Current mode of SAW welding, advanced Adaptive control technology is utilized to obtain the most stable arc parameters, highest level of penetration, and excellent weld bead finish*****
- The complete system consists of inverter based power source; tractor / boom mounted welding head and interconnecting cables. SAW flux is used for shielding weld metal against external atmosphere.
- Inverter based power source is energy efficient giving almost 30% energy saving over conventional type of machines.
- User can save and recall up to ten programs.
- Better user interface having 128 X 64 character LCD display for selecting various modes and button, LED and indicator lamp, which helps in easy operation of the equipment.
- Automatically selects the MMA or SAW mode based on welding head connections to power source.

FRONT PANEL FUNCTIONS

- Mains On 'Green' Colour Led Indication
- Operation Mode Indications (MMA / Gouging, Saw, Remote)
- Trip 'Red' Colour Led Indication of machine is Under Protection Mode.
- 4 digit digital displays for Voltage and Current.
- Current adjustment Encoder .



MAESTRO 1200 (I)



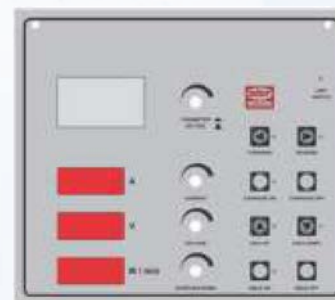
The world Class Inverter based Submerged Arc Welder

WELDING HEAD CONTROL PANEL :

The Welding Head Control panel consists of four encoders for selecting welding parameters selection, welding current selection, welding voltage selection and carriage speed selection respectively.

1) Welding parameters can be seen on 128*64 character LCD as

- MATERIAL: MS/SS
- DIAMETER: 2-5mm
- WIRESPEED: 0-4 M/MIN
- UP TIME: 01-10 sec
- SAVE: 01-10
- RECALL: 01-10



2) Proper parameters can be selected by rotating the respective encoders.

3) A facility has been given for saving the welding parameters settings in at most 10 memory locations. So the same settings can again be recalled even after turning On the machine, by rotating RECALL option.

4) Another special feature of UP TIME is given to the user in between 1 second to 10 second, so that after welding is OFF, wire won't stick in to the weld pool. In this case wire feeder motor will rotate in opposite direction to pull out the wire for the specified seconds.

5) The Front panel consists of seven tact switches, for selecting various functions such as carriage movement direction (FORWARD / REVERSE) selection, carriage motor ON / OFF command, wire inch UP / DOWN switch and welding ON / OFF switch.

6) CC-CV Mode Selection switch for SAW is provided on panel to suit specific SAW Welding requirements

TECHNICAL SPECIFICATIONS WELDING HEAD (WH 15 I)

Input	Unit	Value
Input Supply:		
Voltage	Volt	42 V (From Power Source)
Output		
Welding Current Range	Amps	100-1200
Duty Cycle 100% Continues	Amps	1000
Welding Voltage Range	Volts, DC	26-44
Welding Carriage Speed	M/Min	0.1-1.6
Wire Feed Speed	M/Min	0-4
General		
Range Of Adjustment Vertical		140
Transverse To Head Travel - Horizontal	mm	140
Parallel To Head Travel - Horizontal		140
Max Swivel :		
Transverse To Hand Travel	Degree	45°

Cont.



MAESTRO 1200 (I)



The world Class Inverter based Submerged Arc Welder

Cont.

Parallel To Head Travel	Degree	30°
Horizontal Open Swing		270°
Standard Bored Spool	mm	285-315 (Adjustable)
Welding Flux-Hooper Capacity	Kg./Ltr.	10/7
Wire Spool Weight	Kg	25
Suitable Welding wire Diameter	mm	2.0,2.5,3.15,4.0,5.0
Dimension (L x W x H)	mm	1500 x 1030 x 580
Total Weight Without Flux & Wire	Kg.	95

TECHNICAL SPECIFICATIONS - POWER SOURCE



Parameter	Unit	Value
Input		
Supply Voltage, Phase Frequency :	Volts AC	415 V +15% -10%, 1 Phase, 50/60 Hz
Input Power @ 415 VAC @ 100% duty cycle	KVA	55
Input Power @ 415 VAC @ 60% duty cycle		66
Input Supply Current @ 415 VAC @ 100% duty cycle (1000)	Amps DC	76
Input Supply Current @ 415 VAC @ 60% duty cycle (1200)		92
Efficiency	%	≥ 85
Power Factor		Upto 0.93
Output		
Open Circuit Voltage @415 V Input Supply	Volts DC	90 V
Welding Current Range (CC-GOUGING Mode)	Amps	100-1200
Welding Voltage Range (CC-SAW Mode)		26-44
Welding Current (40°C) @ 100% duty cycle	Amps DC	1000
Welding Current (40°C) @ 60% duty cycle (10 min DC)		1200
Welding Electrode Sizes (Dia.) In MMA Application	mm	3.2,4.5,6.3 mm
Welding Electrode Sizes (Dia.) In GOUGING Application		Upto 12 mm
SAW Welding Wire Size (Dia.)	mm	2.5,3.2,4.5 mm
Remote Controller Optional (Can be Used In MMA/GOUGING Process only)	10 Meter	Provide as Optional for Remote Current Setting
General		
Front Panel Functions		Mains On 'Green' Colour Indication
		Operation Mode Indications (MMA/GOUGING, SAW, REMOTE)
		Trip 'Red' Colour LED for indication Machine is Under Protection Mode
		4 Digit Display for Voltage & Current Current Adjustment Encoder

Cont.



MAESTRO 1200 (I)



The world Class Inverter based Submerged Arc Welder

Cont.

Protections	-	Over Voltage, Under Voltage, Single Phasing, Over Temperature Over Temperature Protection
Cooling	Type	Forced Air
Class Of Insulation	-	H
Degree Of Protection	-	IP23
Dimensions L x W x H (Without handle)	mm	930 x 525 x 950
Weight (Approx)	Kg	115

- **Warranty** : One year from the date of commissioning. ADOR WELDING LIMITED warrants that all new equipment sold from Plant/Area Offices / Authorised Distributors are free from defects in materials and workmanship and will perform in full accordance with applicable specifications.
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ELECTRODE AND FLUX DRYING OVENS



For Welding Electrodes and Submerged Arc Welding Fluxes

TYPICAL APPLICATIONS

Reliable Ovens which works hour after hour, day after day the same consistency.

Temperature Control : Provided with thermostat control for precise setting of drying temperature required for various types of electrodes.

Flawless Welds : Totally dry welding consumables yield radiographic quality welds.

SALIENT FEATURES

- Heavy duty drying ovens for welding electrode & submerged arc welding fluxes
- Robust constructions
- ADOR HANDY model portable Electrode drying oven for quick shifting from one place to the other
- User friendly
- Uniform heating of charged materials
- Heavy duty thermostats for accurate temperature controls throughout range
- Heavy duty metallic body

TECHNICAL SPECIFICATIONS

Models	ADOR HANDY	ADORDRY-I	KING OVEN-II	ADORDRY-III	ADORFLUX
Input					
Voltage	230V AC	230V AC	230V AC	230V AC	415V AC
Current (Amps)	2	7.5	10	20	10
Phase	1 Phase	1 Phase	1 Phase	1 Phase	3 Phase
Frequency	50 Hz	50 Hz	50 Hz	50 Hz	50 Hz
Watts	0.5 KW	1.75 KW	2.25 KW	4.5 KW	12 KW
Output					
Temperature	50°C - 300°C	50°C - 250°C	AMBIENT + 5° C - 370° C	50°C - 500°C	50°C - 400°C



ELECTRODE AND FLUX DRYING OVENS



For Welding Electrodes and Submerged Arc Welding Fluxes

Cont.

Models	ADOR HANDY	ADORDRY-I	KING OVEN-II	ADORDRY-III	ADORFLUX
General Specifications					
Capacity	5 KG ELECTRODES	25 KG ELECTRODES	25 KG ELECTRODES	25 KG ELECTRODES	100 KG FLUX
DIMENSIONS IN MM (L X W X H)	EXTERNAL: 515 X 190 X 190 INTERNAL: 435 (L) X 62 (Ø)	490 X 450 X 440	490 X 450 X 440	490 X 450 X 440	750 X 600 X 600
No.of Shelves	-	Five	Five	Five	Six
Air Circulation		NATURAL CONVECTION	NATURAL CONVECTION	NATURAL CONVECTION	FORCED AIR
Temperature Control	THERMOSTAT	THERMOSTAT	THERMOSTAT WITH ELECTRONIC CONTROLLER & DIGITAL TEMPERATURE INDICATOR		

- **Warranty** : One year from the date of commissioning. ADOR WELDING LIMITED warrants that all new equipment sold from Plant/Area Offices / Authorised Distributors are free from defects in materials and workmanship and will perform in full accordance with applicable specifications.
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Our Global Footprints



-  Head Office
-  Manufacturing Facilities
-  Corporate Marketing Office

INDIA



- Delhi
- Jaipur
- Ahmedabad
- Indore
- Silvassa
- Mumbai
- Pune
- Bengaluru
- Coimbatore
- Chennai
- Hyderabad
- Raipur
- Kolkata

MIDDLE EAST



- Dubai
- Sharjah
- Abu Dhabi
- Muscat
- Sohar
- Doha
- Kuwait
- Tehran
- Jordan
- Iraq
- Jubail
- Dammam
- Manama
- Riyadh
- Sanaa
- Jeddah

AFRICA



- Nairobi
- Kampala
- Dar E salaam
- Blantyre
- Khartoum
- Algiers
- Senegal
- Ghana
- Lagos
- Cairo
- Addis Ababa
- Mombasa
- Congo
- Angola

ASIA, EUROPE & US



- Kathmandu
- Myanmar
- Vietnam
- Singapore
- Jakarta
- Lahore
- Baku Azerbaijan
- Italy
- Salt Lake City
- Utah

Disclaimer: This map is not to the scale. It is only geographical representation. Company does not take any responsibility of the accuracy of the same.

ADOR WELDING LIMITED

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