

# CHAMP MULTI 400 (SSPW) CHAMP MULTI 400

The new world class inverter based,  
indigenous multi-process welding outfits



- Inverter based digitally controlled synergic GMAW, self shielded FCAW and MMA welding outfits.
- High efficiency and high power factor – resulting energy saving upto 30%.
- Light weight compact MIG/MAG/FCAW welding outfits.
- Enhanced Reliability due to SMD technology.
- Auto “Weld Stop” when welding torch is taken away from weld job.
- Compatible for automation.
- Champ Multi 400 (SSPW) specially proven for root pass/hot pass and filling/copping of cross country pipeline welding applications.



WELDERS TO THE NATION  
**ADOR WELDING LIMITED**

(Formerly known as Advani Oerlikon Ltd.)  
[www.adorwelding.com](http://www.adorwelding.com)



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## The new world class inverter based Multi process welding outfit

### INTRODUCTION

CHAMP MULTI 400 welding outfits are IGBT inverter based welding power source with Synergic operation, suitable for GMAW, self shielded FCAW and MMA welding applications. The IGBT Power module, ferrite core and fast recovery diode are used as key devices for power conversion and transmission to assure better efficiency and performance. It is most suitable for manual and semi automatic self shielded flux cored arc welding for Pipe welding application, as well as for multi process activity like GMAW and SMAW

The complete system consists of power source, wire feeder, torch and interconnecting cables. By selecting the MMA or MIG or FCAW mode through Digital panel, SMAW or GMAW or semi automatic self shielded FCAW process can be selected.

### DETAILS OF COMPLETE SYSTEM

Sr. No.	Description	CHAMP MULTI 400 A	CHAMP MULTI 400 B	CHAMP MULTI 400 (SSPW)
1	Power Source	ICCCVR 400	ICCCVR 400	ICCCVR 400 (SSPW)
2	Wire feeder	Litefeed: 200 : 2 Roll	Litefeed: 400 : 4 Roll	WF MULTI 40 (I): 4 Roll, Suitable for Self Shielded FCAW 2 mm wire
3	Torch	ADOR-TW 400 (E)	ADOR-TW 400 (E)	SUPER FCAW-350: Self shielded FCAW Torch (Lincoln End Connection), 350 A

### SALIENT FEATURES

- Digital Panel for adjusting the welding parameters and selection of Process either SMAW, Lift Arc TIG, MIG or Semi automatic self shielded FCAW.
- Synergic mode of operation for single point control in MIG mode.
- 30% more Energy efficient than conventional machines.
- Maximum Power factor upto 0.90
- Excellent dynamic response enables superior arc characteristics.
- 2T, 4T and SPOT and Multi Spot operating modes
- Electronic choke adjustment and Arcforce 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.
- Gas preflow, post flow and Burn back time presetable
- Welding program for 10 Jobs, can be stored in manual mode of MIG process.
- Automatic "Weld Stop" facility.
- Suitable for TIG operation by interfacing separate HF unit in TIG mode.



### APPLICATIONS

- Heavy duty patrication and structured welding
- Champ Multi 400 (SSPW) proven with cellu logic (6010, 7010G, 8010G) and other special electrodes self shielded flux cored wires such as AWS 5.29, ASME SFA 5.29, E71T8K2 and E81T8G for manual welding (root pass, hot pass) and semiautomatic welding processes of cross country pipeline welding applications.



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## PROTECTION

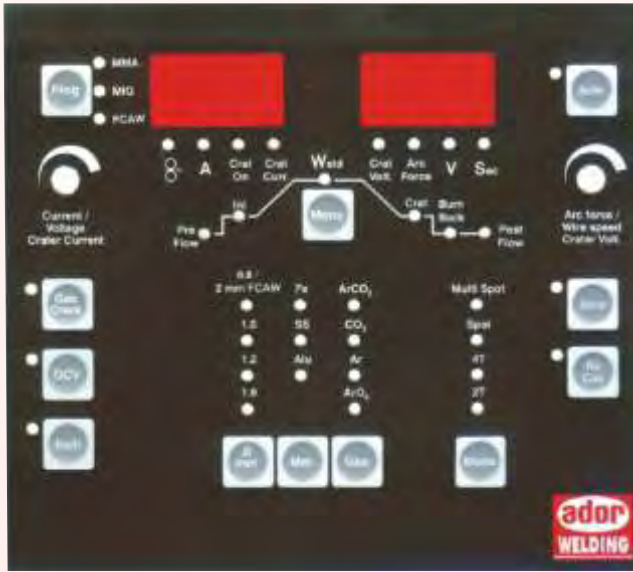
The equipment is provided with following protections.

- 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.

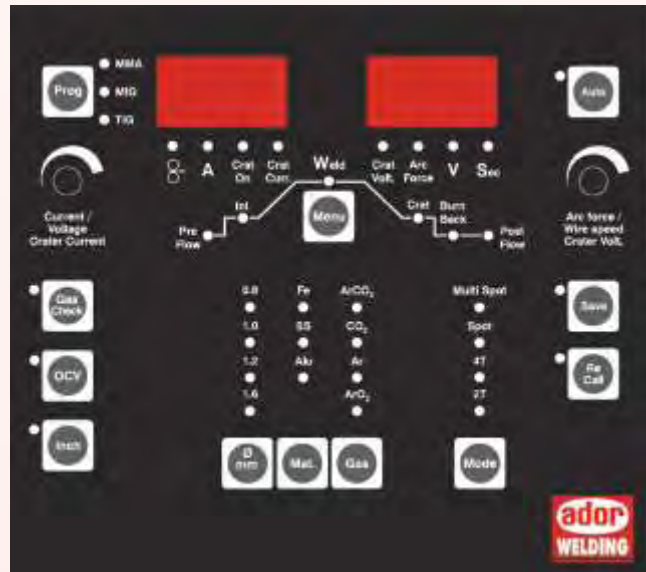
## CHAMP MULTI 400(SSPW) / CHAMP MULTI 400

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### CHAMP MULTI 400 (SSPW)



### CHAMP MULTI 400



## WIRE FEEDER SPECIFICATIONS:

TECHNICAL SPECIFICATIONS	LITEFEED 200	LITEFEED 400	WF-40 MULTI (I)
Suitable for wire sizes	0.8,1,1.2,1.6 mm	0.8,1,1.2,1.6 mm	2.0 mm Flux cored wire
Wirefeed speed	1.5 to 18 mtr/min	1.5 to 18 mtr/min	15 to 50 rpm / 1.0 to 6.0mtr/min
Wire roll drive	Two	Four	Four
Wire feeder Motor voltage	Permanent Magnet DC type.	Permanent Magnet DC type.	Permanent Magnet DC type.
Wire feeder fitted with rollers	42 V	42 V	42 V
Suitable for Wire Spool capacity	15kg	15kg	15kg
Dimensions:			
Length	500 mm	500 mm	520 mm
Width	230 mm	230 mm	240 mm
Height	380 mm	380 mm	360 mm
Weight (without spool)	8 kg (Approx)	8 kg (Approx)	20 kg (Approx)

## TORCH SPECIFICATIONS:

TECHNICAL SPECIFICATIONS	UNIT	ADOR-TW 400 (E)	SUPER FCAW-350
Rating	A	400A @ 60% Duty cycle 310 A @ 100% Duty cycle	350A @ 60% Duty Cycle
End Connection to Torch	Type	Euro	Lincoln End Connection
Suitable for Wire Ø	mm	0.8, 1.0, 1.2, 1.6	1.2 to 2.4 mm Self Shielded Flux cored wires
Torch Length	meter	3	3



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## SPECIFICATIONS

TECHNICAL SPECIFICATIONS	UNIT	ICCCVR 400
<b>INPUT</b>		
Input Supply:		
Voltage	Volt	415 V +10 %, -10 %
Phase	No	3 Ø
Frequency	Hz	50 / 60
Max. Input		13 (FCAW/ MIG Mode)
@ 100% duty cycle	KVA	14 (MMA Mode)
		18 (FCAW/MIG Mode)
@ 60% Duty cycle	KVA	20 (MMA Mode)
<b>INPUT</b>		
Open Circuit Voltage	Volts+/-5%	67 V for FCAW/MIG/TIG Mode 75 V for MMA Mode
Welding Current Range	Amp	40-400 FCAW (MIG) Mode 10-400 for MMA Mode
@ 60% duty cycle	Amp	400
@ 100% duty cycle	Amp	310
Welding Voltage Range	Volt	14-41 For FCAW (MIG) Mode
Crater Current Range	Amp	40-400 For Semi Auto FCAW/MIG Mode
Crater Voltage Range	Volt	14-41 For Semi Auto FCAW/MIG Mode
Mode of operation	Type	2 track, 4 track, spot timer (1-5 Sec.), Multi Spot , Gas check, OCV check facility
Remote Control	Type	With Digital display for setting voltage & current
Power Factor	Cos (Ø)	upto 0.90
Efficiency	%	>82
<b>GENERAL</b>		
Compatibility to International standard		As per Std. EN60974-10 (EMI-EMC standard for Welding Equipment)
Wire feed speed	m/min	1-6 in case with WF MULTI 40 (I) wirefeeder 1.5-18 in case with Litefeed 200/400 wirefeeder
Suitable welding wire dia	mm	Aluminum 1.2 – 1.6 Steel 0.8,1.0,1.2 & 1.6 2.0 , 2.4 for Self shielded Flux core wire
Synergic Mode	Type	Single point control in short circuit arc in MIG Mode
Program Storage Facility	Nos	10 jobs along with parameter locking facility in MIG in manual mode
Interfacing ( Optional)		Through RS232 for stored Parameters/ jobs
Ingress Protection	Class	IP23
Cooling	Type	Forced Air
Mounting		CHAMP MULTI 400: on Wheels
Dimensions (approx.)		Champ Multi 400 (SSPW): On Skid
Length	mm	680
Width	mm	340
Height	mm	675
Weight	Kg	59
Audio Noise Emission	dB	70

## ORDERING INFORMATION:

PRODUCT	MODEL	PRODUCT CODE
WELDING OUTFIT	CHAMP MULTI 400 (A)	F10.37.401.0042
WELDING OUTFIT	CHAMP MULTI 400 (B)	F10.37.401.0052
WELDING OUTFIT	CHAMP MULTI 400 (SSPW)	F10.37.401.0044
Power source	ICCCVR400	F10.34.401.0041
Power Source	ICCCVR 400 (SSPW)	F10.34.401.0047
Wire feeder	Litefeed 200	015.01.001.0327
Wire feeder	Litefeed 400	015.01.001.0331
Wire eeder	WF-40 MULTI (I)	015.01.001.0808
Torch	ADOR-TW 400 (E)	015.01.002.0050
Torch	SUPER FCAW 350	015.01.002.1007

**Warranty:** One year from the date of purchase. 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.



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