

## MIG 500 Synergy

### MULTIPROCESS WELDER DESIGNED FOR INDUSTRY

#### PRELIMINARY INFORMATION

**SPARTUS Pro MIG 500 Synergy** is a professional industrial semiautomatic MIG welder with separate wire feeder. The device is made by using modern solutions: inverter technology, IGBTs and PWM technology. It allows to weld in methods such as MIG/MAG welding, FCAW welding, TIG welding and MMA welding. The maximum welding current is 500A with high duty cycle (60%). Device is powered from three phase 400V source power.

#### DESCRIPTION

The device has **built-in 23 synergic programs** for MIG/MAG welding, it allows to weld materials such as steel, stainless steel and aluminium. Just choose the right program and the value of welding amps that you need. Other parameters will be automatically given by the device. Additionally the operator has the possibility of manual correction of choosen program. In addition you can choose the manual mode and set all welding parameters according to the technological requirements.

The unit is supplied with a dedicated welding trolley. The trolley has a sturdy carrying handle, chassis to mount gas cylinders and front swivel wheels. The unit installed on trolley creates a robust construction.

SPARTUS Pro MIG 500 Synergy has been designed and constructed for specialized applications in the industry. The device is ready to work in harsh industrial environments, where you need the resistance to extreme loads, high duty cycle and best performance.

The device has a 24 months warranty.



#### EXAMPLES OF USE

- heavy industry,
- shipbuilding,
- constructions,
- production.

# SPARTUS Pro MIG 500 Synergy

## WIRE FEEDER

Separated 4-roll gear **wire feeder** is **equipped with a function panel** which allows to **fully adjust MIG parameters** in synergic mode and manual mode. Using dedicated wire feeder with fully adjustable function panel increases the range of the device and improves the quality and ergonomics of use in harsh industrial environments. Device is compatible with **Spool Gun**. Also this wire feeder is equipped with handy grip and wheels.



- Standard equipped with feed roll 1.0 - 1.2 mm

SPARTUS Pro MIG 500 Synergy has a wide range of functions that support the process of MIG/MAG welding such as:

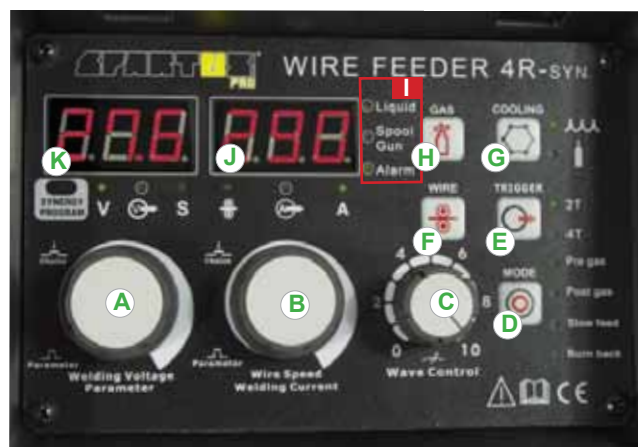
**Wave Control** - precise control of the arc dynamics provides to complete control of the welding arc characteristic. It can reduce amount of welding spatters and you can control the width and depth of weld penetration.

**Burn back** - precise control of end time of burning welding wire, eliminates the risk of sticking the welding wire to contact tip.

**Slow feed** - also called soft start. Slow start of wire feeder is especially recommended when welding with high wire feed speeds. Slow start of feeding wire, eliminates the risk of defects at the beginning of the weld.

**2T / 4T** - the ability to choose one of two modes.

## WIRE FEEDER CONTROL PANEL



<b>A</b>	Welding parameters adjustment knob: welding parameters / synergic program	<b>G</b>	Cooling
<b>B</b>	Welding parameters adjustment knob: welding current / wire feed speed	<b>H</b>	Gas test
<b>C</b>	Wave Control adjustment knob	<b>I</b>	Abnormal indicator
<b>D</b>	The choice of welding parameters	<b>J</b>	Digital meter
<b>E</b>	Operation mode 2T/4T	<b>K</b>	Digital meter
<b>F</b>	Wire test		



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## TECHNICAL PARAMETERS

Input	~3 x 400V ±10% 50/60 Hz
Welding current MIG [A]	40 – 500
Duty cycle [%]	60
MIG PARAMETERS	
Output working voltage [V]	10 – 50
Wire feeding speed [m/min]	1,5 – 24
Wire feeder	separated, 4-roll gear
Welding wire spool [kg]/[mm]	≤ 15[kg], Ø200/Ø300[mm]
Wire diameter Ø [mm]	0.8 / 1.0 / 1.2 / 1.6 / 2.0
Synergy	✓
Inductance control	Wave Control
Slow feed	✓
Burn back	✓
Spool Gun	✓
2T/4T Control	✓
Pre-gas	✓
Post-gas	✓
TIG PARAMETERS	
TIG DC welding	✓
Welding current TIG [A]	10 – 500
Down slope [s]	0 – 10
Arc ignition	LIFT
MMA PARAMETERS	
MMA welding mode	✓
Welding current MMA [A]	10 – 500
ARC FORCE	✓
HOT START	✓
VRD	✓
No-load voltage [V]	14,2
OTHER	
Current consumption [A]	45
Power factor (cosφ)	0,75
Insulation class	H
Protection class	IP23
Weight [kg]	83,5
Dimensions [mm]	1050 × 500 × 1200

## FUNCTION PANEL



L	Power indicator	T	Hot Start
M	Abnormal indicator	U	Welding current
N	Abnormal indicator	W	Arc Force
O	ON/OFF switch	X	Down slope
P	Operation mode 2T/4T	Y	Welding parameters adjustment knob: selection and adjustment of parameters
R	The choice of welding method	Z	Digital meter
S	Cooling		

SPARTUS Pro MIG 500 Synergy function panel (at source power) allows to precise control welding parameters in TIG mode such as: welding current, 2T/4T mode and down slope. In MMA welding mode you can precise adjustment: welding current, **Hot Start** function (easier arc ignition), **Arc Force** (easier welding in tough positions). In addition the welding source is equipped with a **VRD** function.



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## STANDARD EQUIPMENT

- 3 meter work clamp
- User's manual



## PACKAGE EQUIPMENT

- 3 meter electrode holder
- 3 meter work clamp
- Connection cable set 5m
- Gas regulator SPARTUS Ar/CO2
- MIG gun SPARTUS 360 5m
- User's manual



## Gas-heater socket (24V)



In package:  
special **cable gland** protects  
against pulling out cables

