













MMA **SMAW**









Main Applications

- · Thin sheet fabrication
- · Repair and maintenance
- Car repairs
- · Outfitting in shipyards and offshore
- Pipeline
- · Aluminum shipyards

Mig Mag Inverter - Pulse Sigma Galaxy 400 S-W + Trolley









Sigma Galaxy 400

The Sigma Galaxy contains all the best features from Sigma² plus even more intelligence in the digital soft key control panel, MIG/ MAG welding with or without pulse, based on the latest research in arc physics, three program packages: Standard, Standard Plus and the newly developed IAC™ which includes mild steel and stainless steel. The Sigma Galaxy is also perfect for robot welding.



IACTM (Intelligent Arc Control)

Sublime welds - quite automatically

IACTM (Intelligent Arc Control) is a brand new intelligent and adaptive control of the short arc process for Sigma Galaxy 400 which automatically handles all changes in the weld pool during the welding process. The result is a 100 % stable and focused short arc, colder welding, lower heat input, less distortion and lower power consumption. IAC[™] (Intelligent Arc Control) increases welding speed in vertical downwards welding of root passes.

 $\textbf{Less spatter and more stability} \\ \textbf{IAC}^{TM} \ (\ \textbf{Intelligent Arc Control} \) \ \textbf{registers every single welding cycle and adjusts the arc 50.000 times}$ per second. The powerful computer in the Sigma Galaxy continuously predicts the next milliseconds of the welding process which allows the IACTM (Intelligent Arc Control) to supply the required energy.



Intelligent Gas Control

sures extensive savings.

IAC root pass welded in vertical downwards position in 5 mm mild steel.



IAC root pass welded in vertical downwards position in 10 mm mild steel, filled with two Sequence Repeat passes in vertical downwards



Digital memory with Migatronic MJC™ MJC™ Miga Job Control is an easy to use job control function for recall of your favorite settings for repetitive welding operations. The clear digital color display makes it easy to choose settings. The newly developed MJC[™] Miga Job Control allows welders to save up to 200 individual welding jobs, and for every job name saved, additionally nine sequences can be saved which means that the Galaxy can hold as much as 1.800 settings.

Intelligent Gas Control is a standard feature in the Sigma Galaxy, a dynamic gas control that monitors consumption and optimizes gas protection. IGC® may give gas savings in excess of 50% with proportionally fewer replacements of gas cylinder to the benefit of economy, environment and efficiency. From the start of the welding process, the IGC® function prevents over consumption of gas and gives a good initial performance. IGC® takes control once the weld pool is established and en-



Bumi PT. Bumi Teknik Utama

Machine Specifications	
Welding range MIG/MAG	15 - 400 A
Welding range MMA	15 - 400 A
Welding current at 40 % - 40°C	400 A
Welding current at 60 % - 40°C	350 A
Welding current at 100 % - 40°C	280 A
Open circuit voltage	80 V
Input phase	3 Phase
Main voltage, Tolerance	400 V, ± 15 %
Frequency	50 / 60 Hz
Rated power at max. current	19.5 KVA
Rated power at 100 %	11.4 KVA
Connection cable / fuse delayed	20 A
Efficiency	0.82
Power factor	0.90
Index protection	IP 23 S
Dimension (L x W x H)	1031 x 524 x 1144 mm
Weight	87 kg

Wire Feeder MWF 41 Specifications		
Working voltage	0.5 - 30 m/min	
Max. load at 60 % - 40°C	500 A	
Max. load at 100 % - 40°C	420 A	
Weldable Fe, Ss wires	0.8 - 1.6 mm	
Weldable cored wire	1.2 - 1.6 mm	
Weldable Al wire	0.9 - 2.4 mm	
Gas pressure max.	5.0 bar	
Dimensions (L x W x H)	780 x 245 x 440 mm	
Weight	19 Kg	

Cooling Unit	
Cooling efficiency	1.7 kW (1.5 l/min)
Tank capacity	3.5 liter
Flow - 1.2 bar - 60°C	1.75 l/min
Pressure max.	3 bar

Function	Process	Value Range
Selection of trigger mode	MIG/MAG	2 times / 4 times
Control of current / voltage / wire feed speed	-	Local / torch control
Wire inching	MIG/MAG	Yes
Torch cooling	-	Water cooled / gas cooled
Hot start %	MMA	0 - 100 %
Hot start time	MMA	0 - 20 sec
Arc power	MMA	0 - 150 %
Gas pre flow	MIG MAG	0 - 10 sec
Soft start	MIG MAG	0.5 - 24.0 m/min
Hot start	Synergic	-99 % - +99 %
Hot start time	Synergic	0.0 - 20.0 sec
Slope down	Synergic	0.0 - 10.0 sec
Stop amp	Synergic	0 - 100 %
Burn back	MIG/MAG	1 - 30
Gas post flow	MIG/MAG	0.0 - 20.0 sec
Sequence timer / spot welding time	MIG/MAG	0.0 - 50.0 sec
DUO Plus [™] efficiency	MIG/MAG	0 - 50 %
DUO Plus [™] time	MIG/MAG	0.1 - 9.9 sec
Electronic choke		-5.0 - +5.0
Sequence		99 sequence steps

Item Code	Item Name	MoQ
135.06.001.1	Sigma Galaxy 400 S-W + Trolley - Mig Mag Inverter Water Cooled Package for Steel	1 Set
135.06.001.2	Sigma Galaxy 400 S-W + Trolley - Mig Mag Inverter Water Cooled Package for Alu.	1 Set
	 MWF 41 - wire feeder - 1 unit Galaxy control panel - 1 set Software - standard license - 1 pcs Module & software IGC - intelligent gas control - 1 set KIT MWF 1.2 V Red - 1 set Interconnection 70 mm2 water, at 1.5 m - 1 set Standard trolley - 1 set 	

C 54 www.bumi.info

			135.06.001.1	135.06.001.2
Item Code	Item Name	MoQ	13	13
Standard Access	ories		-	
135.06.001	Mig Mag Inverter - Pulse - Sigma Galaxy 400 S-W + Trolley	1 Unit	•	•
235.03.003	Plug to Ground Clamp 600 A, 50 mm2 at 3 m	1 Set	•	•
201.23.001	Argon Gas Regulator	1 Pc		•
Standard Alterna	tive			
250.02.009.1	Mig Torch - Pro Mig 500 at 3 m long	1 Set	•	•
250.02.010.1	Mig Torch - Pro Mig 500 at 4 m long	1 Set	•	•
250.16.006.1	Teflon Liner - Red Ø 1.0 - 1.2 mm at 5 m	1 Set		•
250.16.009.1	Teflon Liner - Yellow Ø 1.4 - 1.6 mm at 5 m	1 Set		•
201.23.001	Argon Gas Regulator	1 Pc	•	Γ
201.23.003	CO2 Heater 220V Gas Regulator	1 Pc	•	
201.23.004	CO2 Fin Type Gas Regulator	1 Pc	•	
Optional Access	ories for SMAW / MMA			
208.04.007	Plug to Ground Clamp 600 A, 50 mm2 at 5 m	1 Set	•	•
208.03.005	Plug to Electrode Holder 400 A, 50 mm2 at 5 m	1 Set	•	•
General Accesso	pries			
201.22.009	Welding Helmet - Solarmatic Blue	1 Set	•	•
201.22.010	Welding Helmet - Solarmatic Red	1 Set		•
201.22.011	Welding Helmet - Solarmatic Green	1 Set	•	•
208.18.002	Torch Holder - MIG	1 Pcs	•	•
215.01.002.1	Metallotion Protec CE 15 L at 20 ltr Package	1 Liter	•	•
336.01.001	Antispatter Spray - Distac Weld 400 ml - Siliconi	1 Can	•	•
336.01.002	Antispatter Paste - Paste Welding 300ml - Siliconi	1 Can	•	•
336.01.003	Antispatter Spray - Ceramstak 400 ml - Siliconi	1 Can	•	•







www.bumi.info