

MigMatic® S400i/S500i

Synergic MIG Systems

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MIG/MAG (CV)
Welding System



Quick Specs



Industrial Applications

General industrial fabrication
Construction
Railcars
Mobile machinery
Shipbuilding

Processes

MIG/MAG (GMAW)
Flux-cored (FCAW)

Input Power

400 V, 3 phases (50/60 Hz)

Welding Output

S400i: 400 A, 34 V at 80% duty cycle
S500i: 500 A, 39 V at 50% duty cycle

Max. Output Amperage

S400i: 440 A

Output Range

S500i: 550 A

S400i: 15 A – 400 A

S500i: 15 A – 500 A

Net Weight

Power source: 53 kg

Wire feeder: 19 kg

Cooler: 23 kg

Performance / Durability / Productivity

NEW!

Miller MigMatic® S400i / S500i are fully synergic MIG/MAG systems featuring the unique Miller drive system for the highest level of wire feed performance and reliability. All modules are bespoke to the system and designed for trouble free, high productivity welding. Never before has it been so easy and straight forward to achieve excellent welding performance. Enjoy full control at all times.

Trigger program switch

Re-call up to 4 preset programs from the torch trigger (any standard MIG torch) for increased productivity on complex objects.

Miller robustness

Tested and approved for heavy duty welding under the toughest conditions. Miller goes to extreme measures to ensure trouble free welding in any environment.

MigMatic Feed 2.0

A new generation of feeder has been developed to step up the user experience and quality of the MigMatic family.

Energy efficient

The Fan-On-Demand™ power source cooling system operates only when needed, reducing the amount of contaminants pulled through the machine. The MigMatic® Cool is controlled and monitored by the power source and runs only when needed, reducing noise and the overall energy use.

Full synergic MIG/MAG with presets

Synergic lines for all common wire/gas combinations with presets of start/stop parameters for optimal welds.

Wind Tunnel Technology™

Internal air flow that protects electrical components and PC boards from dirt, dust and debris, greatly improving reliability.

Ease of use and versatility

Large intuitive LCD panel for quick and precise setting of advanced weld parameters.



Easy to use



Versatility

- Compatible with Push/Pull torches (optional accessory kit).
- Optional connection for automation.
- Upgradable from air cooled to water cooled without any modification to the machine or trolley.
- Suspension hook and wheel kit for the wire feeder for increased reach.
- Cable management system keeping the interconnection cable off the floor.
- Compatible with On-torch control of wire feed speed and voltage.



Warranted for three years, parts and labour.



International Headquarters Miller Electric Mfg. LLC

An ITW Welding Company
1635 W. Spencer Street
Appleton, WI 54914 USA

MillerWelds.com/europe

Miller Europe

Orbitalum Tools GmbH
Josef Schuettler Str. 17
78224 Singen, Germany
Tel.: +49 7731 792 400
sales.MILLER@ITWwelding.com

UK sales office

Tel.: +44 1695 58 59 11

New MigMatic Feed design

Hardware upgrade:

- More compact
- Screen incline
- Updateable through USB port
- Easy to carry
- Full protection for water hoses
- Push encoder
- Gun holder



Upgraded UI:

- Better clarity
- Larger size
- Improved accessibility to settings
- Intuitive UI

MigMatic® user interface – clean, crisp and easy to use

The MigMatic® system provides a full set of features and settings at your fingertips – ease of use without compromise.



1. Four different trigger options:

- 2T
- 4T
- Miller 4TS
- Spot

2. Weld processes:

- A. Manual MIG/MAG
- B. Synergic
- C. Synergic Pulse
- D. Synergic Double Pulse

3. Adjustment of parameters:

- A. Pre/post gas
- B. Run-in speed
- C. Crater fill
- D. Burnback
- E. Inductance

4. Store, modify and recall programs:

- A. A total of 8 programs available
- B. The first 4 recalled using the torch trigger

5. System settings and factory reset

MigMatic® S400i / S500i components



MigMatic® Feed 2.0 is equipped with a robust 4 wheel drive mechanism which will last in toughest conditions. The feeder can be suspended from a crane with interconnection cable up to 30 meters. The new design makes in more compact and intuitive for the operator.



MigMatic® S400i/S500i benefits from Wind Tunnel Technology™ directing the airflow where it is needed whilst sensitive components are protected from ingress of dust and moisture.



MigMatic® Cool powered by the S400i/S500i is equipped with a low flow alarm and a push button to prime the pump. The tank can hold up to 5 litres of coolant and the system generates 1 kW or 3412 BTU/h.



MigMatic® Cart can easily be adjusted to carry both the air and water cooled system. The wheels are large and durable making the system easy to move between work sites.



Specifications (Subject to change without notice.)



MigMatic® S400i

Input Power	Voltage Range in CV	Amp Range DC	Rated Output @ 40°C	IP Rating	Max. Open Circuit Voltage	Dimensions H/W/D	Weight
400 VAC, 3 ph (50/60 Hz)	13 - 42 V	15 - 400 A	400 A / 34 V @ 80% duty cycle	IP23S	70 VDC	530 / 305 / 730 mm	53 kg

MigMatic® S500i

Input Power	Voltage Range in CV	Amp Range DC	Rated Output @ 40°C	IP Rating	Max. Open Circuit Voltage	Dimensions H/W/D	Weight
400 VAC, 3 ph (50/60 Hz)	13 - 42 V	15 - 500 A	500 A / 39 V @ 50% duty cycle	IP23S	70 VDC	530 / 305 / 730 mm	53 kg

MigMatic® Feed 2.0

Input Power	Welding Power Source	Wire Feed Speed	Wire Diameter Range	Welding Circuit Rating	Dimensions H/W/D	Weight
42 VAC, 1 ph (50/60 Hz)	S400i, MP S400iP S400iP, S500i	1.5 - 20 m/min	0.6 - 1.8 mm	39 V, 500 A, 60% duty cycle	465 / 275 / 710 mm	18 kg

MigMatic® Cool

Coolant Tank Capacity	Maximum Cooling Capacity	Input Power	Cooler on Standby	Cooler Enabled	Dimensions H/W/D	Weight
5 l	1 kW (3412 BTU/h)	400 VAC 50/60 Hz	Volts in: 400 VAC I in: 54 mA Input power (W): 6 Input power (VA): 22	Volts in: 400 VAC I in: 683 mA Input power (W): 237 Input power (VA): 273	292 / 305 / 720 mm	23 kg

Drive Rolls (ø 37 mm)

Drive Rolls for Steel

Groove	Type	Stock No.	Quantity
0.6 - 0.8 mm	Pressure roll	7700000011	x2
	Feed roll	7700000016	x2
0.8 - 1.0 mm	Pressure roll	7700000012	x2
	Feed roll	7700000017	x2
0.9 - 1.1 mm	Pressure roll	7700000013	x2
	Feed roll	7700000018	x2
1.0 - 1.2 mm	Pressure roll	7700000014	x2
	Feed roll	7700000019	x2
1.2 - 1.6 mm	Pressure roll	7700000015	x2
	Feed roll	7700000020	x2

Drive Rolls for Aluminium

Groove	Type	Stock No.	Quantity
0.8 - 1.0 mm	Drive Rolls	7700000021	x4
1.0 - 1.2 mm	Drive Rolls	7700000022	x4
1.2 - 1.6 mm	Drive Rolls	7700000023	x4

Drive Rolls for Flux Core

Groove	Type	Stock No.	Quantity
1.2 - 1.6 mm	Drive Rolls	7700000024	x4

MIG guns – Miller® EuroGun line

Stock No.	EuroGun	Water	Air	Euro connector	Water quick connect	Remote WFS and Volts control on gun	3 meter	4.5 meter	Rating CO ₂ gas (A)	Rating Mix gas (A)	Duty cycle (%)
058023005	A-300	-	●	●	-	-	●	-	300	250	100
058023006	A-300	-	●	●	-	-	-	●	300	250	100
058023007	A-300R	-	●	●	-	●	●	-	300	250	100
058023008	A-300R	-	●	●	-	●	-	●	300	250	100
058023001	W-500	●	-	●	●	-	●	-	500	400	100
058023002	W-500	●	-	●	●	-	-	●	500	400	100
058023003	W-500R	●	-	●	●	●	●	-	500	400	100
058023004	W-500R	●	-	●	●	●	-	●	500	400	100

A – air cooled **W** – water cooled **R** – remote current control on gun

Ordering Information

System Component	Stock No.	Description	Qty.	Price
MigMatic® S400i	059015054	400 VAC, 3 ph (50/60 Hz) equipped with mains cable, 3 m		
MigMatic® S500i	059015056	400 VAC, 3 ph (50/60 Hz) equipped with mains cable, 3 m		
MigMatic® Feed 2.0	3800000003	Fitted with Euro connector, 1.0 - 1.2 mm "V" groove drive rolls and spool cover		
MigMatic® Cool	058042005	1 kW of cooling, 5 l tank capacity		
MigMatic® Cart	058066141	Complete for air- or water-cooled system, incl. swivel for wire feeder		
Interconnection Cables				
Interconnection cable 2.5 m, MigMatic® air	058019368			
Interconnection cable 5 m, MigMatic® air	058019369			
Interconnection cable 10 m, MigMatic® air	058019370			
Interconnection cable 15 m, MigMatic® air	058019371			
Interconnection cable 20 m, MigMatic® air	058019372			
Interconnection cable 30 m, MigMatic® air	058019373			
Interconnection cable 2.5 m, MigMatic® water	058019374			
Interconnection cable 5 m, MigMatic® water	058019375			
Interconnection cable 10 m, MigMatic® water	058019376			
Interconnection cable 15 m, MigMatic® water	058019377			
Interconnection cable 20 m, MigMatic® water	058019378			
Interconnection cable 30 m, MigMatic® water	058019379			
Accessories				
Wheel kit for MigMatic® Feed	028066304			
Return cable kit, 400 A, 70 mm², 5 m	057014340			
Suspension hook	058435	To attach to the wire feeder when suspended from a crane/boom		
Push/Pull configuration kit	057084226	For installation in the feeder to synchronize the drive motors		
14-pin receptacle kit for automation	056076174	For installation in the feeder to facilitate connection with external automation components		
Miller® EuroGun		See section MIG Guns – Miller® EuroGun		
Coolant 3.8 l	043810	2 canisters required to fill the tank		

Date:

Total Quoted Price:

Distributed by:

