


# 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 Welding Output

400 V, 3 phases (50/60 Hz)  
S400i: 400 A, 34 V at 80% duty cycle  
S500i: 500 A, 39 V at 50% duty cycle

#### Max. Output Amperage

S400i: 440 A

S500i: 550 A

#### Output Range

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.

#### The toughest wire drive mechanism

The Miller unique 4-roll drive system will ensure trouble free wire feeding.

#### 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 (available in Q4-2020).

**TRUE BLUE**  
3YR. WARRANTY

Warranted for three years, parts and labour.

**ITW** WELDING



#### International Headquarters Miller Electric Mfg. LLC

An Illinois Tool Works Company  
1635 W. Spencer Street  
Appleton, WI 54914 USA

MillerWelds.com

#### ITW Welding Products BV

Edisonstraat 10  
P.O. Box 1551  
NL-3261 LD Oud-Beijerland  
The Netherlands

Tel.: +31 186 641 444  
info@itw-welding.com  
ITWwelding.com

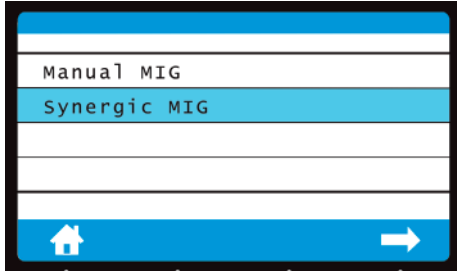
#### UK sales office

Tel.: +44 1695 58 59 11

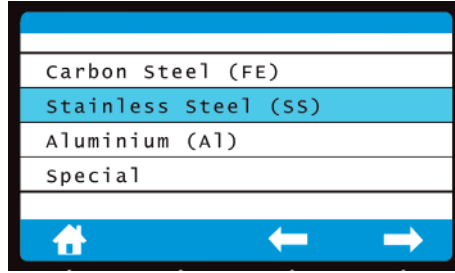
## Advanced weld settings made easy

The machine is ready for advanced manual and synergic MIG/MAG welding in seconds.

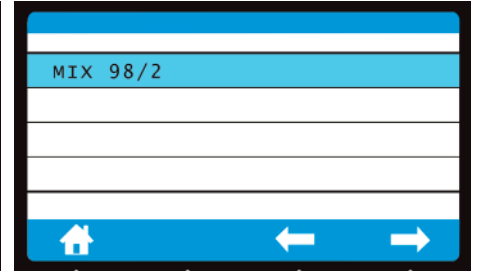
Step 1: Select your process



Step 2: Select your base material



Step 3: Select your gas mixture



Step 4: Select your wire diameter



Result: Ready to weld



## 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.

Four different trigger options:

- 2T
- 4T
- Miller 4TS
- Stitch



1. Weld processes:

- A. Manual MIG/MAG
- B. Synergic

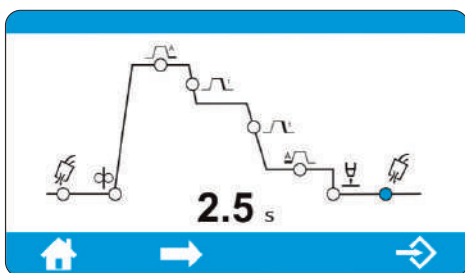
2. Adjustment of parameters:

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

3. Store, modify and recall programs:

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

4. System settings and factory reset



**Miller 4TS trigger functionality –**  
Gives access to hot start or cold start from the torch trigger

## MigMatic® S400i / S500i components



**MigMatic® Feed** is equipped with the Miller unique 4-wheel drive system with 37 mm driven rollers. The feeder can be fitted with wheels or suspended from a crane with interconnection cables up to 30 meters. The strain relief and the cable management system (part of the trolley) keep the interconnection cable protected.



**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

Input power	Welding Power Source	Wire Feed Speed	Wire Diameter Capacity	Max. Spool Size Capacity	Input Welding Circuit Rating	Dimensions H/W/D	Weight
42 VAC	S400i S400iP S500i	1.5 - 20 m/min	0.6 - 2.0 mm	300 mm	39 V 500 A 60% duty cycle	465 / 275 / 710 mm	19 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 and Wire Guides\*

Wire Size	"V" Groove Drive Roll for Hard Wire	"U" Groove Drive Roll for Soft Wire or Soft-Shelled Cored Wires	"V" Knurled Drive Roll for Hard-Shelled Cored Wires
0.8 mm	046780	—	—
1.0 mm	046781	044750	—
1.2 mm	046782	046785	046793
1.4 mm	046783	—	046794
1.6 mm	046784	046787	046795



\* Kits including a set of drive rolls and wire guides.

## 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	059007022	Fitted with Euro connector, 1.0 - 1.2 mm "V" groove drive rolls and spool cover		
MigMatic® Cool	058042005	1kW of cooling, 5 l tank capacity		
MigMatic® Cart	058066141	Complete for air- or water-cooled system, incl. swivel for wire feeder		
<b>Interconnection Cables</b>				
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			
<b>Accessories</b>				
Wheel kit for MigMatic® Feed	028066304			
Return cable kit, 400 A, 70 mm <sup>2</sup> , 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		
Bernard™ Q300, air cooled Mig Gun, 4.5 m	Q3015TE3EEQ			
Bernard™ T-Gun, 400 A, water cooled, 4.5 m	E4215-45-5-445Q			
Coolant 3.8 l	043810	2 canisters required to fill the tank		

Date:

Total Quoted Price:

Miller recommends **Elega** consumables

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