

FASTMIG™ SYNERGIC



Kemppi FastMig™ Synergic – All the elements needed for successful MIG/MAG welding from the same device

- Basic welding
- Synergic welding
- Root pass welding

The FastMig™ Synergic range is suitable for the MIG/MAG welding of all materials in the heavy and medium heavy metal industry. The range is modular, allowing the construction of different welding configurations by varying power source, wire feed and panel options.

The power to weight ratio of the energy-saving FastMig™ Synergic power sources for 300, 400 and 500 amperes is without peer.

The wire feed unit casings are designed for demanding conditions and different environments. Three models are available for 200 mm and 300 mm wire spools. MSF 53 and 57 have shock-proof, recyclable double plastic casings. A powerful engine with precise gears and power transmission guarantee an uninterrupted, reliable wire feed. Two panel options are available for each wire feed device to suite different welding needs.

The FastCool 10 provides effective cooling of liquid cooled MIG/MAG welding guns in heavy duty applications.

FastROOT™ process is an optional FastMig™ software product for fast, accurate root pass welding in Fe and Ss materials (See page 25).

Benefits

- **Easy to handle**
 - Lightweight, compact and modular design
- **Versatility**
 - Two panel options for each wire feeder
 - Synergic programs library for the most common materials
- **Spatterless MIG welding**
 - Optional FastROOT™ welding process software product for fast, accurate root closure welding in Fe and Ss materials

Main applications

- Heavy and medium heavy metal fabrication workshops
- Shipyards and Offshore
- Chemical and Process industry
- Steel structure workshops

FAST - Formula Arc System Technology

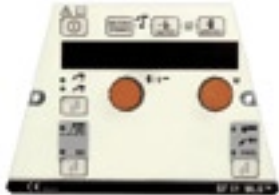
Arc properties guaranteed to increase welding productivity and quality

FastMig™ Synergic panels

- Choose the control level that suits your application

With clear and logical displays, the FastMig™ Synergic range panels have a large number of different features and special functionalities enabling further improvements in welding quality and productivity.

The MSF 53 wire feed unit can be equipped with either the SF 51 panel with basic functionality or the more versatile SF 52 synergic panel while the MSF 55 and 57 wire feed devices can be equipped with the basic SF 54 panel or the synergic SF 53 panel.



Panels 51 and 54 contain e.g. the following basic functions

- Digital displays
- Stepless welding voltage control
- Stepless wire feed control
- MMA welding option
- Gas test
- Wire inch
- MLS™ (Multi Logical System) allows exchangeable panels



In addition to the basic functions, synergic panels 52 and 53 include:

- Crater filling
- Hot start
- Creep start
- Memory locations for storing MIG parameters
- Optional FR-MIG process for root pass welding
- MLS™ (Multi Logical System) allows exchangeable panels



FastMig™ Synergic wire feeders – for different welding environments



MSF 53

- compact and lightweight making it easy to use in tight situations
- material: double skinned durable and impact resistant plastic
- for 200 mm wire spools
- Panels: basic 51, synergic 52



MSF 55

- functional, stylish and lightweight, suits conventional workshop applications
- material: glass fibre reinforced polyamide and aluminium
- for 300 mm wire spools
- Panels: basic 54, synergic 53



MSF 57

- designed for extra tough workshops and site use
- material: double skinned durable and impact resistant plastic
- for 300 mm wire spools
- Panels: basic 54, synergic 53

FastMig™ Synergic -range includes

3 power sources: KMS 300, KMS 400, KMS 500

3 wire feeders: MSF 53, MSF 55, MSF 57

4 panel options: SF 51, 52, 53 and 54

Cooling unit FastCool 10

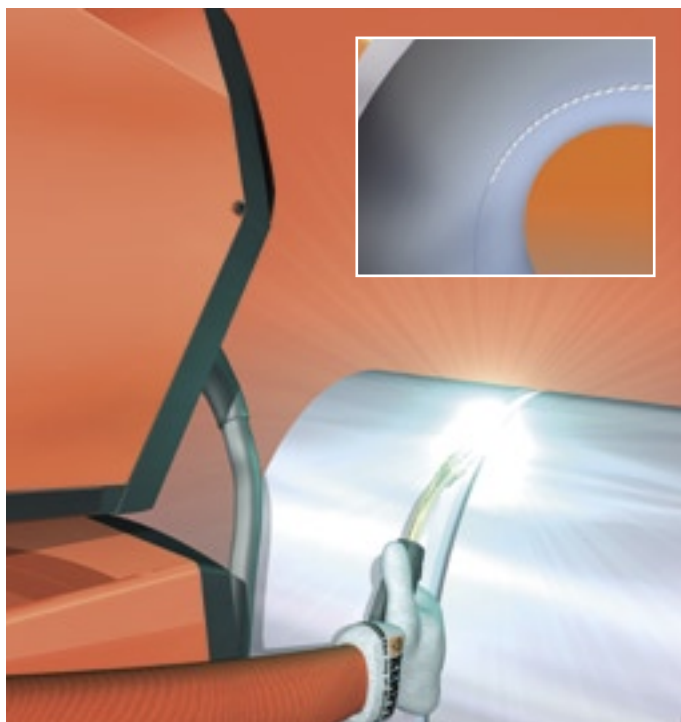
Transport unit PM 500

Technical Data

FastMig™ Power sources		KMS 300	KMS 400	KMS 500
Mains voltage	3~50/60 Hz	400 V -15 %...+20	400 V -15 %...+20	400 V -15 %...+20
Rated power	60% ED	-	-	26.1 kVA
	80% ED	-	19,5 kVA	-
	100% ED	13.9 kVA	18.5 kVA	20.3 kVA
Connection cable/fuse delayed		4 x 6 S - 5 m / 25 A	4 x 6 S - 5 m / 35 A	4 x 6 S - 5 m / 35 A
Load capacity 40 °C	60% ED	-	-	500 A / 39 V
	80% ED	-	400 A / 34 V	-
	100% ED	300 A / 29 V	380 A / 33 V	430 A / 35.5 V
Open circuit voltage		50 V	50 V	50 V
Power ratio at max current		0.9	0.9	0.9
Efficiency at max current		87 %	87 %	87 %
Welding range	MIG	10 V...37 V	10 V...39 V	10 V...42 V
	MMA	10 A...300 A	10 A...400 A	10 A...500 A
External dimensions	L x W x H	590 x 230 x 430 mm	590 x 230 x 430 mm	590 x 230 x 430 mm
Weight		34 kg	35 kg	36 kg

FastMig™ Wire feeders		MSF 53	MSF 55	MSF 57
Operating voltage		50 V DC	50 VDC	50 VDC
Rated power		100W	100 W	100 W
Load capacity 40 °C	60% ED	520 A	520 A	520 A
	100% ED	440 A	440 A	440 A
Feeding mechanism		4-roll feed	4-roll feed	4-roll feed
Wire feed speed		0...25 m/min	0...25 m/min	0...25 m/min
Spool, max. ø		200 mm	300 mm	300 mm
Filler wires ø	Fe, Ss	0.6...1.6 mm	0.6...1.6 mm	0.6...1.6 mm
	Cored wire	0.8...1.6 mm	0.8...2.0 mm	0.8...2.0 mm
	Al	1.0...1.6 mm	1.0...2.4 mm	1.0...2.4 mm
External dimensions	L x W x H	510 x 200 x 310 mm	620 x 210 x 445 mm	625 x 243 x 476 mm
Weight		9.4 kg	11.1 kg	14 kg
Material		plastic	metal	plastic

FastMig™ Cooling unit		FastCool 10
Operating voltage		1 ~, 50/60 Hz 400 V -15%...+20%
Connection capacity	100% ED	120 W
Cooling power		1.25 kW
Maximum pressure		400 kPa
Recommended cooling liquid		20 % - 40 % ethanol/water
Tank volume		3 l
External dimensions	L x W x H	570 x 230 x 280 mm
Weight		13 kg



FastROOT™

Developed by Kemppi, FastROOT™ welding process is an optional FastMig™ software product for fast, accurate root pass welding in Fe and Ss materials.

The FastROOT™ welding process is only available for use with the FastMig™ SF 52 and SF 53 function panels. The Kemppi FastROOT™ welding process software can be purchased as an up-grade to standard FastMig™ Synergic machines at a later date if required.

FastROOT™ process is an excellent option over conventional root pass welding in MMA, TIG and MIG/MAG.

Order Information

Power sources		
FastMig™ KMS 300		6053000
FastMig™ KMS 400		6054000
FastMig™ KMS 500		6055000
Panels		
SF 51		6085100
SF 52		6085200
SF 53		6085300
SF 54		6085400
FastROOT™ -feature		6265011
Wire feeders		
MSF 53		6065300
MSF 55		6065500
MSF 57		6065700
Cooling unit	FastCool 10	6068100
Transport units		
	PM 500	6185291
	PM 501 (with PSL 55)	6185292
	P 500	6185265
	T 10*	6185231
Accessories		
Remote control units		
	R10, 5 m	6185409
	R10, 10 m	618540901
	R20, 5 m	6185419
	RMT 10 (for PMT)	6185475
Remote controlled interconnecting cable, 10 m		6185481
MSF 53 hanging frame (incl. KPS mounting set)		6185285
MSF 55 hanging kit		W001694
MSF 53 protection slides (incl. KPS mounting set)		6185286
Swing arm KV 401 Fastmig MSF 55 and MSF 57		6185248
Gun holder	GH30	6256030

MIG -guns	
PMT 35 3 m	6253513
PMT 35 4,5 m	6263514
PMT 42 3 m	6254213
PMT 42 4,5 m	6254214
PMT 50 3 m	6255013
PMT 50 4,5 m	6255014
PMT 30 W 3 m	6253043
PMT 30 W 4,5 m	6253044
PMT 42W 3 m	6254203
PMT 42W 4,5 m	6254204
PMT 52W 3 m	6255203
PMT 52W 4,5 m	6255204
WeldSnake™ guns on page 33	
Earth cable	
5 m, 50 mm ²	6184511
5 m, 70 mm ²	6184711
Cable for MMA welding	
5 m, 50 mm ²	6184501
5 m, 70 mm ²	6184701
Interconnection cables	
KWF 70-1,8-GH	6260401
KMS 70-1,8-WH	6260410
PROMIG 2/3 70-10-GH	6260326
PROMIG 2/3 70-10-WH	6260334
PROMIG 2/3 70-20-GH	6260327
PROMIG 2/3 70-20-WH	6260337
PROMIG 2/3 70-30-GH	6260330
PROMIG 2/3 70-30-WH	6260340
Other lengths subject to enquiry	
* FastMig™ requires mounting kit, order number W002085	