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The Joy of Welding

FastMig M

A new breed of
industrial workhorse

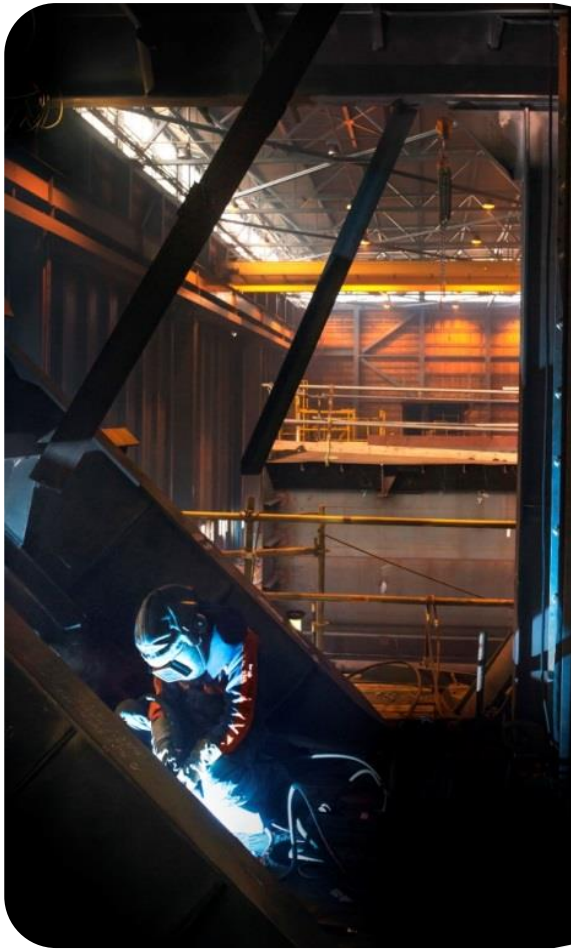
FastMig M – A new breed of industrial work horse

Proven reliability from the top of the welding technology

- Top welding performance for industrial MIG/MAG welding
- Two package options − Regular easiness or Synergic diversity
- Welding machine with various configurations and possibilities
- 3 power levels, 3 wire feeders, regular or synergic control option for each
- Whatever FastMig M setup you choose, it’s easy to upgrade later on

FastMig M series offers many benefits

- Top welding performance: 320A @ 100%, 420A @ 60%, 520A @ 60%
- Easy-to-use memory channels in the synergic product package
- A wide selection of welding software for a multitude of material and gas combinations
- SuperSnake subfeeder for extended working range – the best on the market!
- Connect MagTrac F 61 welding carriage for improved productivity
- Wise™ performance solutions are available, including WiseFusion
- Compatible with ArcInfo and ArcQuality, offering Total Welding Quality Management (TWQM)



FastMig M – Two package options

Enjoy the magnificient ease of use – either Synergic or Regular

- **Regular set-up** for strong and reliable welding for affordable price
- The basic MR 200 and MR 300 control panels offer a straightforward 2-knob way of regulating the welding parameters.

- **Synergic set-up** for demanding industrial applications
- The synergic 1-knob MS 200 and MS 300 control panels offer super easy functions and a rich selection of features for optimising your welding system.

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FastMig MXF – Three wire feeder options

Choose the optimal wire feeder model for your taste and application

- **Regular MR** control panel available for MXF feeders
- **Synergic MS** control panel available for MXF EL feeders

MXF 65 – Metal cover
for spool size 300 mm,
metal casing

MXF 63 – Small and agile
for spool size 200 mm,
dual-skin plastic

MXF 67 – Robust and durable
for spool size 300 mm,
dual-skin plastic

FastMig M – Regular welding control

Traditional two-knob style of controlling the welding parameters

- **MR 200** for MXF 63 wire feeder
- **MR 300** for MXF 65 and MXF 67 wire feeders
- Easy adjustment of wire feed speed and welding voltage with stepless knobs
- Suitable for applications where simple and straightforward traditional control is essential
- MMA welding as a standard

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FastMig M – Synergic welding control

Easy one-knob control of welding power and a rich choice of features

- **MS 200** for MXF 63 EL wire feeder
- **MS 300** for MXF 65 EL and MXF 67 EL wire feeders
- Wire and gas combination can be seen at a glance
- Easy one button setup and selection of memory channels
- Welding programs for all common wire size and shielding gas combinations for steel, stainless steel and aluminium
- MMA welding as a standard

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FastMig M for many processes

Connect the AS kit and use power source independently for MIG/MAG, MMA and TIG welding

- Connect MasterTig LT 250 and use for DC TIG welding
- Connect ArcFeed and use e.g. self-shielded wires
- Use FastMig M as an independent MMA power source, including the welding parameter display and settings

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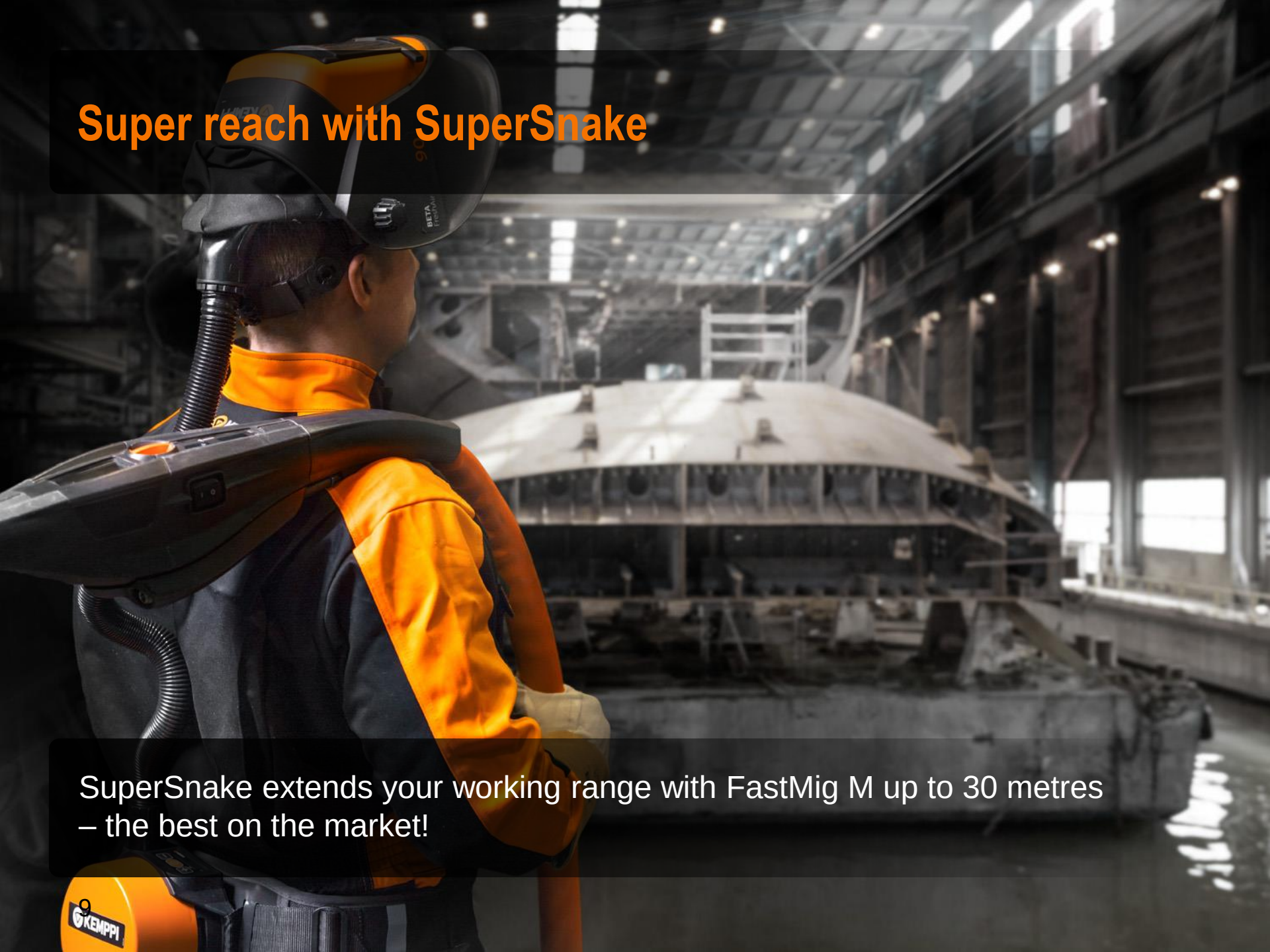
Super reach with SuperSnake



SuperSnake extends your working range with FastMig M up to 30 metres – the best on the market!

MagTrac F 61 – A shortcut to productivity

Combine the power of FastMig M with the speed of MagTrac F 61 welding carriage

- Ensures fast travel speeds and constantly high quality
- Simple way to gaining the benefits of mechanised welding
- Equipped with Kemppi's unique welding gun quick-fixing mechanism with integrated power supply
- Welding values and memory channel selections at the carriage control panel
- Can be used with Wise optimised arc processes to further boost your quality and productivity

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Software processes for optimised welding

FastMig M synergic version allows the usage of Kemppi's Wise and Match welding optimisation products:

- **WiseRoot** for optimised root pass welding
- **WiseThin** for optimised sheet welding
- **WiseFusion** for ensuring consistent weld quality in all positions
- **WisePenetration** for delivering constant welding power regardless of changes in the stick-out length
- **MatchLog** for quickly changing welding parameters during welding

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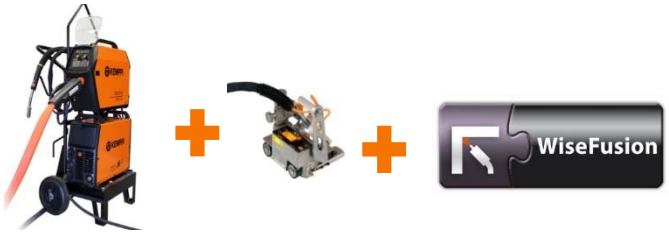
Less costs with WiseFusion and mechanisation

MagTrac F 61 welding carriage with WiseFusion function enables same welding speed with significantly smaller heat input.

Assumptions:

Weld: Fillet weld, 4 mm throat thickness, 1.2 mm FE MC wire
Wire feed speed: 12 m/min
Welding speed: 800 mm/min (13.3 mm/s)



WITHOUT WiseFusion: 337 A / 33 V
→ **Heat input = 0.67 kJ/mm**

WITH WiseFusion: 319 A / 28.6 V
→ **Heat input = 0.55 kJ/mm**

As the sample calculation shows, WiseFusion enables **up to 20 % smaller heat input**, which goes directly to your profit through decreased after work costs and improved quality.

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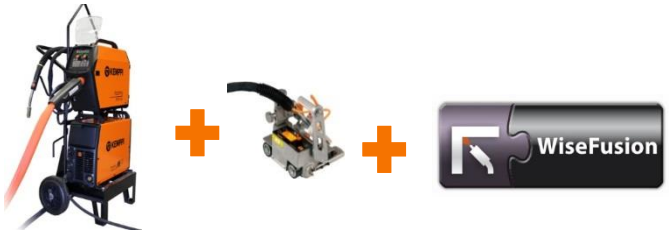
More speed with WiseFusion and mechanisation

MagTrac F 61 welding carriage with WiseFusion function enables faster welding without increasing the heat input.

Assumptions

	Normal	WiseFusion
Travel speed	800 mm/min	975 mm/min
WFS	12.0 m/min	14.6 m/min
Heat input	0.67 kJ/mm	0.67 kJ/mm
Throat thickness	4.0 mm	4.0 mm
Duty cycle	30 %	30 %
Saving hours		316 h
Days		39 d



WITHOUT WiseFusion: Travel speed
→ **800 mm/min**

WITH WiseFusion: Travel speed
→ **975 mm/min**

WiseFusion enables **up to 22 % faster welding**. This means a significant reduction in welding hours per year, so that your yearly saving could be **up to 39 working days.**

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FastMig M – High performance saves costs

The performance of FastMig M is top-notch, making it energy efficient and resulting in lower energy costs.

Assumptions:

Time: 1 year = 220 working days, 8 hours per day

Costs: Total 40 € per hour, including 75 % of labour costs

Param: 300 A, 29 V, 25% arc time, idling power 25W/825W; 0.87% / 0.68

High performance welding equipment can reduce electricity consumption by up to 34% compared to conventional technology machines

This alone means **23 000 € annual savings** for a welding machine fleet of 100 machines

FastMig M – Accessories

- FastMig AS Kit
- Transport units PM 500, P 501
- Gun holder GH 30
- Remote control units R10, R20, R 30
- KWF 200 & 300 protection sliders
- GG200/300 gas guard

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Technical specifications

FastMig M		320	420	520
Connection voltage	3~50/60 Hz	400 V -15 %...+20 %	400 V -15 %...+20 %	400 V -15 %...+20 %
Rated power	60 % ED		20 kVA	27 kVA
	100 % ED	15 kVA	18 kVA	20 kVA
Output 40 °C	60 % ED		420 A	520 A
	100 % ED	320 A	380 A	430 A
Welding current and voltage range	MMA	15 A/20 V – 320 A/45 V	15 A/20 V – 420 A/44 V	15 A/20 V – 520 A/43 V
	MIG	20 A/12 V – 320 A/45 V	20 A/12 V – 420 A/44 V	20 A/12 V – 520 A/43 V
Max. welding voltage MMA		45 V	45 V	45 V
Open circuit voltage	MMA	U_0 = 48 - 53 V U_{av} = 50 V	U_0 = 48 - 53 V U_{av} = 50 V	U_0 = 48 - 53 V U_{av} = 50 V
	MIG/MAG/Pulse	U_0 = 50 - 58 V	U_0 = 50 - 58 V	U_0 = 50 - 58 V
Idle power		25 W	25 W	25 W
Efficiency at max current		88 %	89 %	89 %
Power factor at max. current		0.80	0.87	0.90
Operating temperature range		-20…+40 °C	-20…+40 °C	-20…+40 °C
Storage temperature range		-40…+60 °C	-40…+60 °C	-40…+60 °C
EMC class		A	A	A
Degree of protection		IP23S	IP23S	IP23S
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

Technical specifications

FastMig M		420 MV, 400 V range	420 MV, 230 V range
Connection voltage	3~50/60 Hz	380 V -10% … 440 V +10%	220 V -10% … 230 V +10%
Rated power	60 % ED	22kVa	21 kVA
	100 % ED	19 kVA	18 kVA
Output 40 °C	60 % ED	420 A	420 A
	100 % ED	320 A	380 A
Welding current and voltage range	MMA	15 A/20 V – 420 A/44 V	15 A/20 V – 420 A/48 V
	MIG	20 A/12 V – 420 A/44 V	20 A/12 V – 420 A/48 V
Max. welding voltage MMA		44 V	48 V
Open circuit voltage	MMA	U_0 = 48 - 53 V U_{av} = 50 V	U_0 = 48 - 53 V U_{av} = 50 V
	MIG/MAG/Pulse	U_0 = 50 - 58 V	U_0 = 60 - 65 V
Idle power		25 W	25 W
Efficiency at max current		87 %	87 %
Power factor at max. current		0.82	0.85
Operating temperature range		-20…+40 °C	-20…+40 °C
Storage temperature range		-40…+60 °C	-40…+60 °C
EMC class		A	A
Degree of protection		IP23S	IP23S
External dimensions	L x W x H	590 x 230 x 580mm	590 x 230 x 580mm
Weight		49 kg	49 kg

Technical specifications – wire feeders

FastMig MXF		63	65	67
Output 40 °C	60 % ED	520 A	520 A	520 A
	100 % ED	440 A	440 A	440 A
Wire feed speed		0 – 25 m/min	0 – 25 m/min	0 – 25 m/min
Wire feed mechanism		4-roll	4-roll	4-roll
Diameter of feed rolls		32mm	32mm	32mm
Filler wires	ø Fe, Ss	0.6 – 1.6 mm	0.6 – 1.6 mm	0.6 – 1.6 mm
	ø Cored wire	0.8 – 1.6 mm	0.8 – 2.0 mm	0.8 – 2.0 mm
	ø Al	1.0 – 1.6 mm	1.0 – 2.4 mm	1.0 – 2.4 mm
Wire spool	Max.weight / max ø	5 kg / 300 mm	20 kg / 300 mm	20 kg / 300 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	12.5 kg


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