

FastMig X Pipe

High-end multi-process welding equipment for high-quality welding on pipes and plates

Briefly

- High-quality welding on pipes and plates – From root to the top
- Root welding without backing
- Optimal weld penetration and weld shape in all positions
- Stable process – Easy to handle for welders on all skill levels
- Quick change of parameters during welding with MatchLog – More speed and productivity

Applications

- Pipe welding in all segments
- Sheet welding from one side
- Pressure vessels, tanks, heat exchangers (thick carbon steel)
- Harsh conditions, cold and hot, salt, dust



Product description

Kemppi's FastMig X product series is a versatile range of high-end multi-process welding equipment. It contains device and software components specially designed for certain welding applications.

There are three ready-made sample setups available for FastMig X: **Regular**, **Pipe** and **Intelligent**, all of them either air or liquid cooled.

This datasheet presents the FastMig X Pipe setup, which is intended for high-quality welding on pipes and plates and for root welding from one side. Please see also the datasheets for the Regular and Intelligent setups.

Sample setup: FastMig X Pipe

- Power source options: FastMig X 450, 350 or 350MV (multi-voltage), all of them including the MMA option.
- Fixed X 37 power source control panel contains 10 user profiles and 10 memory channels for each profile. Can be replaced with the Remote X 37 panel.
- Wire feeder options: WFX 200 P Fe/Ss or WFX 300 P Fe/Ss.
- Cool X cooling unit for liquid-cooled setups.
- Wire feeders available fitted for either steel (Fe) or stainless steel (Ss) welding.
- Includes WiseRoot+™, WiseFusion™ and MatchLog™ welding optimization software.
- Several optional extras. See the next page for further details.

NOTE: All wire feeders are delivered without feed rolls, liners and wire guide tubes. They can be ordered separately based on the welding application. For information, please visit go.kemppi.com/kitsselect.



Compatible with these welding quality solutions

- Kemppi ARC System for managing welding production
- ArcInfo for monitoring the welding process
- Kemppi Universal WPS packages for MMA and MIG/MAG welding

Detailed technical information can be found in the technical data tables later in this datasheet.

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Wire feeders

WFX 200 P Fe/Ss and WFX 300 P Fe/Ss:

- Special models for steel welding (Fe) and stainless steel welding (Ss).
- Wire spool sizes: 5 kg/200 mm in WFX 200 P Fe/Ss and 20 kg/200 mm in WFX 300 P Fe/Ss.
- Full-metal, two-motor GT04™ wire feed mechanism for 300 mm spool size.
- Reliable DuraTorque™ wire drive mechanism for 200 mm spool size.
- WiseFusion™, WiseRoot+™ and MatchLog™ included.
- Compatible with all Wise™ software products.
- Pulsed and double-pulsed MIG/MAG included in the Ss model.
- ArcVoltage feature included. It measures the actual voltage at the welding arc and displays it on the control panel. This helps you keep your welding values inside the predefined range regardless of the size and length of the cables.



Optional extras

There are several optional extras that you can purchase for your FastMig X. This sample setup is compatible with at least the following hardware and software options.

- SuperSnake sub feeder for extra wide working range
NOTE: WiseRoot+ and WiseThin+ cannot be used with SuperSnake.
NOTE: Not possible to use SuperSnake with WFX 200 P feeders.
- PMT MN multi-neck welding guns with changeable neck options optimized for different welding tasks, e.g. root welding.
- Remote X 37 control panel to replace the fixed control panel on power source.
- Hand remote control units R 10, R 20 and R 30.
- Transport units.
- ARC Mobile Control adapter lets you use a smartphone or a tablet computer for wireless monitoring and controlling of the welding parameters and copying welding settings from one machine to another.



Please visit Kemppli website for further information.

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Technical data

FastMig™		X 350	X 450
Connection voltage	3~50/60 Hz	400 V, -15...+20 %	400 V, -15...+20 %
Rated power	60 % ED		22.1 kVA
	80 % ED	16.0 kVA	
	100 % ED	15.3 kVA	16.0 kVA
Output 40 °C	60 % ED		450 A
	80 % ED	350 A	
	100 % ED	330 A	350 A
Welding current and voltage range	MMA	15 A/20 V – 350 A/46 V	15 A/20 V – 450 A/46 V
	MIG	20 A/12 V – 350 A/46 V	20 A/12 V – 450 A/46 V
Max. welding voltage MMA		46 V	46 V
Open circuit voltage	MMA	U ₀ = 70 – 98 V U _{av} = 50 V	U ₀ = 70 – 98 V U _{av} = 50 V
	MIG/MAG/Pulse	U ₀ = 80 – 98 V	U ₀ = 80 – 98 V
Open circuit power		100 W	100 W
Power factor at max. current		0.85	0.88
Efficiency at 100 % ED		87 %	87 %
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 430 mm	590 x 230 x 430 mm
Weight		38 kg	38 kg
The minimum recommended generator output is 35 kVA.			

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FastMig™ X 350MV		230 V range	400 V range
Connection voltage	3~50/60 Hz	220 V -10%...230 V +10%	380 V -10%...440 V +10%
Rated power	80 % ED	16.0 kVA	16.0 kVA
	100 % ED	15.3 kVA	15.3 kVA
Output 40 °C	80 % ED	350 A	350 A
	100 % ED	330 A	330 A
Welding current and voltage range	MMA	15 A/20 V – 350 A/46 V	15 A/20 V – 350 A/46 V
	MIG	20 A/12 V – 350 A/46 V	20 A/12 V – 350 A/46 V
Max. welding voltage MMA		46 V	46 V
Open circuit voltage	MMA	$U_0 = 70 - 98 \text{ V}$, $U_{av} = 50 \text{ V}$	$U_0 = 70 - 98 \text{ V}$, $U_{av} = 50 \text{ V}$
	MIG/MAG/Pulse	$U_0 = 80 - 98 \text{ V}$	$U_0 = 80 - 98 \text{ V}$
Open circuit power		100 W	100 W
Power factor at max. current		0.90	0.88 ... 0.82
Efficiency at 100 % ED		83 %	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 580 mm	590 x 230 x 580 mm
Weight		49 kg	49 kg

The minimum recommended generator output is 35 kVA.

WFX		200 P Fe, 200 P Ss	300 P Fe, 300 P Ss
Output 40 °C	60 % ED	520 A	520 A
	100 % ED	440 A	440 A
Wire feed speed		1 – 25 m/min	0.5 – 25 m/min
Wire feed mechanism		4-roll	4-roll, two motors
Diameter of feed rolls		32 mm	32 mm
Filler wires	ø Fe, Ss	0.6 – 1.6 mm	0.6 – 2.0 mm
	ø Cored wire	0.8 – 2.0 mm	0.8 – 2.4 mm
	ø Al	0.8 – 2.4 mm	0.8 – 2.4 mm
Wire spool	max. weight	5 kg	20 kg
	max. ø	200 mm	300 mm
Operation 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	510 x 200 x 310 mm	590 x 240 x 445 mm
Weight		9.4 kg	13.1 kg

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Ordering information

FastMig X 450 power source	X 37 control panel included	6103450
FastMig X 450 power source	No control panel	610345001
FastMig X 350 power source	X 37 control panel included	6103350
FastMig X 350 power source	No control panel	610335001
FastMig X 350MV power source	X 37 control panel included	6103353
FastMig X 350MV power source	No control panel	610335301
WFX 200 wire feeder	200 mm, regular pulse welding	6103520
WFX 300 wire feeder	300 mm, regular pulse welding	6103530
WFX 200 P Fe wire feeder	200 mm, pipe welding, steel	6103521
WFX 300 P Fe wire feeder	300 mm, pipe welding, steel	6103531
WFX 200 P Ss wire feeder	200 mm, pipe welding, stainless steel	6103522
WFX 300 P Ss wire feeder	300 mm, pipe welding, stainless steel	6103532
WFX 200 AMC wire feeder	200 mm, intelligent pulse welding	6103523
WFX 300 AMC wire feeder	300 mm, intelligent pulse welding	6103533
WFX 200-T	200 mm, tailored	6103524
WFX 300 P-T	300 mm, tailored	6103535
WFX 300-T	300 mm, tailored	6103534

Control devices

Remote X 37 control panel		6103800
Arc Mobile Control adapter	Bluetooth adapter for Arc Mobile Control (included with WFX 200 AMC and WFX 300 AMC)	6103100

Cables

Earth return cable	5 m, 50 mm ²	6184511
Earth return cable	5 m, 70 mm ²	6184711
MMA welding cable	5 m, 50 mm ²	6184501
MMA welding cable	5 m, 70 mm ²	6184701

Interconnection cables, air-cooled

FASTMIG X 70-1.8-GH	1.8 m	6260468
FASTMIG X 70-5-GH	5 m	6260469
FASTMIG X 70-10-GH	10 m	6260470
FASTMIG X 70-20-GH	20 m	6260471
FASTMIG X 70-30-GH	30 m	6260472

– For other lengths, please contact Kemppi.

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Interconnection cables, liquid-cooled		
FASTMIG X 70-1.8-WH	1.8 m	6260473
FASTMIG X 70-5-WH	5 m	6260474
FASTMIG X 70-10-WH	10 m	6260475
FASTMIG X 70-20-WH	20 m	6260476
FASTMIG X 70-30-WH	30 m	6260477
– For other lengths, please contact Kemppi.		

Software products		
MatchLog™	Included with WFX 200 AMC and 300 AMC	9991017
MatchChannel™	Included with MatchLog™ licence	
WiseRoot+™	Included with WFX 200 P Fe/Ss and 300 P Fe/Ss	9990418
WiseThin+™	Included with WFX 200 AMC and 300 AMC	9990419
WiseFusion™	Included with all WFX wire feeders	9991014
WisePenetration™ function	Included with WFX 200 AMC and 300 AMC	9991000
Pipe Steel welding program package	Inlcuded with WFX 200 P Fe and 300 P Fe	99904274
Pipe Stainless welding program package	Inlcuded with WFX 200 P Ss and 300 P Ss	99904275
Steel Pack for WiseThin+ welding program package	Included with WFX 200 AMC and 300 AMC	99904301
Steel Pack	Included with WFX 200 AMC and 300 AMC	99904232
Stainless Steel Pack	Included with WFX 200 AMC and 300 AMC	99904233
Aluminium Pack	Included with WFX 200 AMC and 300 AMC	99904231
Work Pack	Included with WFX 200 and 300	99904230
– Other welding software available.		

Accessories		
Cooling unit Cool X		6068200
SuperSnake GT02S sub feeder	10 m	6153100
SuperSnake GT02S sub feeder	15 m	6153150
SuperSnake GT02S sub feeder	20 m	6153200
SuperSnake GT02S sub feeder	25 m	6153250
SuperSnake GT02S W sub feeder	10 m	6154100
SuperSnake GT02S W sub feeder	15 m	6154150
SuperSnake GT02S W sub feeder	20 m	6154200
SuperSnake GT02S W sub feeder	25 m	6154250
SuperSnake GT02S sub feeder synchronization unit for WFX wire feeders		W004030
KV 200 mounting plate for two wire feeders and TIG unit		6185249
Gun holder GH 30		6256030
Transport unit PM 500		6185291
Remote control unit R10	5 m	6185409

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Remote control unit R10	10 m	618540901
Remote control unit R20	5 m	6185419
Remote control unit R30 DataRemote	5 m	6185420
Remote control unit R30 DataRemote	10 m	618542001
Remote control extension cable	10 m	6185481
Software installation device DataGun		6265023

NOTE! WiseRoot+™ and WiseThin+™ welding processes are not available with SuperSnake sub feeder.

MIG guns			
PMT MN	1.2 mm / 60° / L198 / ROOT	3.5 m	62503230N04
PMT MN	1.2 mm / 60° / L168 / ROOT	3.5 m	62503230N06
PMT MN	1.2 mm / 60° / L198 / ROOT	5 m	62503250N04
PMT MN	1.2 mm / 60° / L198	3.5 m	62503230N08
PMT MN	1.2 mm / 60° / L198	5 m	62503250N08
PMT MN	1.2 mm / 45° / L222	3.5 m	62503230N02
PMT MN	1.2 mm / 45° / L222	5 m	62503250N02
PMT MN	1.0 mm / Ss / 60° / L198 / ROOT	5 m	62503250N03SS
PMT MN	1.0 mm / Ss / 60° / L198	5 m	62503250N07SS
PMT MN	1.0 mm / Ss / 45° / L222	5 m	62503250N01SS
Neck	45° / L222		SP007229
Neck	60° / L198 / ROOT		SP007811
Neck	60° / L168 / ROOT		SP007810
Neck	60° / L198		SP008006
Neck	60° / L168		SP008007
PMT 35		3 m	6253513
PMT 35		4.5 m	6253514
PMT 42		3 m	6254213
PMT 42		4.5 m	6254214
PMT 50		3 m	6255013
PMT 50		4.5 m	6255014
PMT 30W		3 m	6253043
PMT 30W		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

– More Kemppi welding guns available.