



KEMPPPI PRO EVOLUTION



Digital **Control**
for the **Welding Professional**



 **KEMPPPI**
The Joy of Welding

www.kemppi.com



Kemppi Pro Evolution – the professional's intelligent tool

Benefits

- A single product for every need
 - Extensive control panel options
 - MIG/MAG, pulse MIG, TIG, and MMA
- Outstanding usability
 - Clear panels with easy-to-use adjustments
 - Wide range of synergic programmes
- Improved productivity and quality
 - Easy welding with parameter storing feature
 - Monitoring of parameters via Kemppi Pro Weld Data

Main applications

- Heavy and medium heavy metal fabrication workshops
- Shipyards and offshore facilities
- The chemical and process industry
- Steel structure workshops
- Automotive applications
- Robotic welding



■ **Kemppi Pro Evolution is a modular product family** consisting of mutually compatible multi-process welding machines that can be combined to form an optimal configuration for several applications and sets of conditions.

You don't need to purchase separate machines for different welding purposes, as it is possible to assemble more than 100 different welding set variations for MIG/MAG, TIG, and MMA welding. From this variety of choices you can find just the right components even for conditions where material types, welding processes, and welding needs vary greatly.

Wide selection of equipment

The basis of the product family is its three power source units: the Pro3200, Pro4200, and Pro5200. In addition, the Pro Evolution product family includes MIG/MAG wire feeders, a TIG HF unit, water coolers, control panels, remote control devices, and carriage systems.

New digital convenience

Pro Evolution products have a digital control system that uses a lightweight communication cable between the power source and the wire feed unit. The lightweight cables make the wire feed unit easy to move around, which allows accurate arc control at the hot end, even when long distances are involved.

Welding efficiency in a compact package

Even the smaller power sources in the Pro Evolution family are amazingly efficient, allowing full welding power to be achieved also with long interconnection cables. This improves the extendibility and usability of the devices, especially in shipyards and on-site work.

Flexibility

■ **The productivity of welding** should be judged with all phases of the welding process in mind. Such things as moving the equipment from one work location to another, the overall smoothness of the work, safety issues, and the maintenance needs accompany the quality of the weld itself in affecting productivity.

Kemppi's Research and Development Department set for itself the target of finding an overall solution in which all aspects of productivity are considered. The result was a new product family for the 21st century: Kemppi Pro Evolution, the most versatile welding system ever seen.

Adaptability

The strength of the Kemppi Pro Evolution product family rests on the outstanding options created by the modular flexibility of this unique welding system. The flawless controllability of this welding power system is made possible by a wide choice and range of hardware, control function panels and remote control devices allowing our customers the optimum choice to build a welding set for every environment and application.

This unparalleled flexibility and adaptability combine with great welding power to make Kemppi Pro Evolution a remarkably productive welding system for many types of applications.

The product family includes a solution for workshop use next to a welding table as well as for heavy-duty shipyard conditions, fitted with a 50-metre-long extension cable.

Easy controllability and data monitoring

A versatile selection of control panels makes for great controllability of the Kemppi Pro Evolution welding system. Control panels include many time-saving features for speeding up welding work. Also welding data monitoring and analysis is available for increasing the productivity of the work.

Accurate control allows quality welds also, which reduces the need for grinding and other finishing work. This makes the welding work more productive as well as more rewarding.





Control units

■ **Control panels** represent the central memory and control unit of the Kemppi Pro Evolution welding system. Their versatile and accurate control features allow hassle-free work and quality welds.

Data monitoring: The welding set can be connected to a PC for observing and analysing welding parameters such as wire feed, heat input, and welding energy during the welding process, with the aid of the Kemppi Pro Weld Data software. The values can be transmitted over a wireless connection for centralised analysis of the welding values and productivity.

Wire feed units

■ **Kemppi Pro Evolution wire feeders** are reliable devices that include various useful features to speed up the welding work and increase the productivity.

The four-wheel wire drive ensures undisturbed wire run with all wire types. The automatic wire threading speeds up changing of the reel. Time saving additional features are easy to enable, and in many cases are enabled by the wide choice of control panels options that fit many of the wire feed units available.

Special features of the various panels ensure that the correct wire feeder solution can be found for every need.

Power source units

■ **Digitally controlled, effective power sources** are the foundation of the Kemppi Pro Evolution product family. These multi-process power sources based on inverter technology are suitable for MIG/MAG, TIG and MMA welding. The power sources can be used in manual as well as robotic welding.

All Kemppi Pro Evolution power sources are small and lightweight devices with exceptional welding efficiency and loadability. Versatile operation functions and digital control enable first-class welds.

Cooling units

■ **Cooling the welding guns and torches** can be accomplished with a Procool 10 or Procool 30. These microprocessor-controlled cooling units for MIG/MAG welding guns and TIG torches are designed for demanding professional use. The Procool 30 fits into transport unit P40 and Procool 10 fits into transport unit P30W.



MC control panel

- Welding current control
- Selection of welding method
- MMA/MIG dynamics adjustment
- Storage of welding parameters
- Display of welding parameters
- Gas test



ML control panel

- Pulse MIG / Synergic MIG control
- Control of welding parameters
- Selector for welding method
- MMA/MIG dynamics control
- Display of welding parameters
- Gas test



MXE control panel

- Pulse MIG / double pulse MIG
- MMA, MIG/MAG, synergic 1-knob MIG, and pulse MIG welding
- Gas test
- 20 channel memory
- Arc start and user tailored set-up options

Technical Data

ProMig wire feeders	100	200	300	501, 501L	511	530	
Operating voltage	50 V DC	50 V DC	50 V DC	50 V DC	50 V DC	50 V DC	
Rated power				100 W	100 W	100 W	
Filler wires ø	Fe, SS	0.6...1.6 mm	0.6...1.6 mm	0.6...1.6 mm	0.6...1.6 mm	0.6...1.6 mm	
	Cored wire	0.8...2.0 mm	0.8...1.6 mm	0.8...2.0 mm	0.8...2.0 mm	0.8...2.0 mm	
	Al	1.0...2.4 mm	1.0...1.6 mm	1.0...2.4 mm	1.0...2.4 mm	1.0...2.4 mm	
External dimensions	L x W x H	575 x 185 x 200 mm	500 x 230 x 315 mm	600 x 225 x 415 mm	620 x 230 x 480 mm	620 x 230 x 670 mm	640 x 230 x 430 mm
Weight		8.9 kg	13 kg	17 kg	22 kg	25 kg	21 kg

Kemppi Pro Evolution power sources		3200 / 3200 MVU	4200 / 4200 MVU	5200 / 5200 MVU
Mains voltage	3~50/60 Hz	400 V -15%...+20%	400 V -15%...+20%	400 V -15%...+20%
Mains voltage, MVU	3~50/60 Hz	400 V -15%...+20%	400 V -15%...+20%	400 V -15%...+20%
		230 V -10%...+10%	230 V -10%...+10%	230 V -10%...+10%
Connection cable, fuse delayed		4 x 6S-5 m / 25 A	4 x 6S-5 m / 35 A	4 x 6S-5 m / 35 A
Connection cable, fuse delayed, MVU		4 x 6S-5 m / 35 A	4 x 10S-5 m / 50 A	4 x 16S-5 m / 63 A
Load capacity 40 °C	70% ED	-	420 A / 19.7 kVA	520 A / 26.6 kVA
	100% ED	320 A / 13.3 kVA	400 A / 18.6 kVA	440 A / 20 kVA
Power ratio at maximum current		0.93	0.93	0.93
Welding voltage range	MMA	10 A...320 A	10 A...420 A	10 A...520 A
	TIG	5 A...320 A	5 A...420 A	5 A...520 A
	MIG	12 V...37 V	12 V...39 V	12 V...42 V
External dimensions	L x W x H	530 x 230 x 520 mm	530 x 230 x 520 mm	530 x 230 x 520 mm
External dimensions, MVU	L x W x H	530 x 230 x 630 mm	530 x 230 x 630 mm	530 x 230 x 630 mm
Weight		37 kg / MVU 45 kg	41 kg / MVU 49 kg	48 kg / MVU 56 kg

Cooling units		ProCool 10	ProCool 30
Operating voltage		50 V DC	50 V DC
Connection capacity	100% ED	120 W	120 W
Maximum pressure		400 kPa	400 kPa
Recommended cooling liquid		20% - 40% ethanol/water	20% - 40% ethanol/water
Tank volume		3 l	3 l
External dimensions	L x W x H	450 x 190 x 420 mm	610 x 230 x 290 mm
Weight		16 kg	12.5 kg

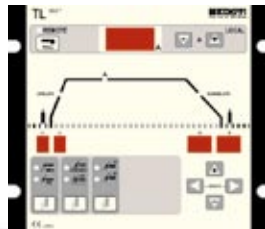
Easy TIG welding with the Protig 410

■ **The Kemppi Pro Evolution Protig 410** is an HF ignition unit that ensures excellent, stable arc ignition in TIG welding. The versatile control panels let you select exactly the functions you need, including storing of welding parameters. The unit can be attached to the top of the power source and it can be moved to the work area in its standard frame.

ProTig 410 Technical Data

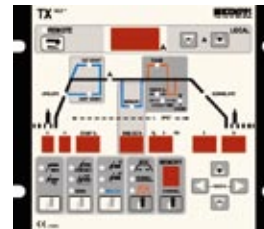
Operating voltage	50 V DC
Load capacity at 40 °C	60% ED 400 A
	100% ED 310 A
Dimensions	L x W x H 615 x 260 x 400 mm
Weight	17 kg

For power source technical data, see previous page



TL control panel

- Control and display of welding parameters
- High frequency/contact ignition
- MMA/TIG welding selector
- Recall of most recently used parameters
- 2/4 sequence latching
- Pre and Post gas timer control



TX control panel

- Control and display of welding parameters
- Continuous/spot/pulse welding selector
- Minilog control automatics
- 2/4 sequence latching
- Pre-programming and storing of welding parameters
- Learning function

■ **The Kemppi Pro Evolution power sources** are multi-process DC devices suitable for diverse MMA welding applications. Kemppi Pro Evolution lets you use all MMA electrodes, including cellulosic ones.

During normal MMA welding the constant current (CC) feature of the power source ensures that the welding current remains stable, regardless of changes in the arc length.

The Kemppi Pro Evolution control panels for MMA welding include many useful features, such as automatic hot start, automatic arc dynamics, and anti-freeze features.



PL control panel

- Control of welding current
- Control of MMA dynamics
- Display of welding parameters



PX control panel

- Control of welding current
- Tack welding / MMA / carbon arc gouging selector
- Adjustment of start pulse / MMA dynamics
- Display of welding parameters

ProMig Series

Wire feeders	
ProMig 501	6232501
ProMig 501L (left)	6232505
ProMig 511 with swing-arm	6232511
ProMig 530	6232530
ProMig 100 tandem feeder	6236305
ProMig 100B special version	6236306
ProMig 200	6231520
ProMig 300	6231530
Control panels	
MC	6263501
ML	6263502
MXE	6263504
Synchronising unit	
Prosync 50/ProMig 100, push-pull gun	6263121
Remote control units	
R 20 (2-knob)	6185419
RMT 10, MIG gun control	6185475
C 100 T, wireless	6185412
External metering device	
PMU 10	6265010
Cables	
Earth and welding cables: by an enquiry	
Transport units	
P 30 W	6185262
P40	6185264
P 500 (for ProMig 501)	6185265
Gun holders	
GH 20	6256020
GH 30	6256030
Lift hooks	
for ProMig 501	3135870
for ProMig 530	4298180
Intermediate cables for ProMig 501, 511, 530	
Water hose (ProMig 511, 1.6 m)	4269330
Water hose (ProMig 501/530, 1.0 m)	4269340
70-5-WH,	6260312
70-10-GH	6260313
70-10-WH	6260314
70-15-GH	6260315
70-15-WH	6260316
Intermediate cables for ProMig 100	
50-15-GH	6260211
50-25-GH	6260213
70-15-WH	6260225
70-25-WH	6260227
Intermediate cables for ProMig 200, 300	
70-15-GH	6260325
70-20-GH	6260327
70-15-WH	6260335
70-20-WH	6260337
ProWeld Data monitoring system	6265003

TIG Welding

TIG ignition unit Protig 410	6271262
Control panels	
TL control panel	6271265
TX control panel	6271266
Remote control units	
R 10 (1-knob)	6185409
R 10F, foot pedal	6185406
R 10F, extension cable 10 m	6185482
Transport units	
P 30 W	6185262
P40	6185264
P40L	6185264L
Intermediate cables	
50-1-G	6271906
50-1-W	6271907
50-10-GH	6271913
50-10-WH	6271914
Cables	
Earth and welding cables: by an enquiry	

MMA Welding

Control panels	
PL control panel	6185801
PX control panel	6185802
Remote control unit	
R 10 (1-knob)	6185409
Transport unit	
T 10	6185231
Cables	
PRO remote control extension cable, 10 m	6185481
Earth and welding cables: by an enquiry	

Power Sources

Kemppi Pro Evolution 3200	6131320
Kemppi Pro Evolution 4200	6131420
Kemppi Pro Evolution 5200	6131520
Kemppi Pro Evolution 3200 MVU	613132003
Kemppi Pro Evolution 4200 MVU	613142003
Kemppi Pro Evolution 5200 MVU	613152003

Water Cooling Units

Procool 10	6262012
Procool 30	6262016

For information about ProMig solutions for welding automation, see <http://www.kemppi.com>.

■ The Joy of Welding...



...Around the World.



Photo: Aker Yards

Kemppi Oy – a pioneer in welding equipment technology

■ Ever since it was founded in 1949, the family-owned company Kemppi has been at the cutting edge of arc welding equipment. Good quality, technological expertise, and entrepreneurial spirit have led Kemppi into global markets. Today this international company operates globally while still having its head office in Lahti, Finland.

From the very beginning, Kemppi has been a pioneer in developing and manufacturing arc welding machines. This continues today: Kemppi leads the way to the welding technology of the future and innovative welding services.