

# Product catalogue

## 2013



# The Joy of Welding Around the World

Kemppi business operates globally. The company headquarters and main production units are located in Finland. Kemppi sales organisations are established in Finland, Sweden, Norway, Denmark, Germany, France, United Kingdom, Netherlands, Poland, Russia, Australia, India and China. Kemppi also has representatives in more than 70 countries, responsible for country based product distribution, sales and customer service.

For a full list of Kemppi sales companies, distributors and dealers, visit [www.kemppi.com](http://www.kemppi.com)





# | A people business



## Design solutions

Finnish industrial design carries integrity, efficiency, confidence and quality. Kemppi people are reliable, dedicated and responsible.



## Developing performance

Kemppi welding products ensure productive satisfaction. Our research teams are curious and open-minded to seek alternative solutions that further develop our customers' performance.

Kemppi has introduced many new innovations to the market, pioneering the development of both welding devices and productive welding solutions and services. Today, the company still relies on the same basic values that have guided its operations for over 60 years. Entrepreneurship, innovation, honesty and respect for the individual are fundamental principles.

Kemppi investment in research and product development place primary importance on the usability, technical quality and productivity of its products and comprehensive customer service.



### Producing quality

Kemppi production facilities are modern and efficient. Products are manufactured utilizing quality materials and testing processes to ensure productivity from the first to the last weld.



### Customer satisfaction

Kemppi business starts and finishes with our customers. Satisfaction here is what really matters.



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## Special symbols



4-roll wire drive



2-roll wire drive



Water cooling option



Direct and pulsed current output



Supply frequency



Alternating, direct and pulsed current output



Constant voltage output



Constant current output



Constant current and constant voltage output



Requires single phase supply



Requires three phase supply



Multi-voltage unit



Energy efficient compared to alternative product options



# MIG/MAG welding

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Because welding applications vary, we design products to meet specific needs. So if you're looking for a lightweight compact machine or modular welding equipment for heavy industry, you can be sure to select the right machine for the task.

Designed for welders with an eye for quality, Kemppi MIG/MAG equipment keeps the technology on the inside and simple, intuitive control and performance outside. Real world welding satisfaction.

# MinarcMig Evo 170/200

## An adaptive tool for the mobile welder



Energy efficient

### Why buy

- Precise weld quality and arc ignition
- 200 A / 170 A of MIG/MAG welding power from a 16 A supply
- Choose either Automatic or Manual model
- Use with Fe, Fe FCW, Ss, Al, CuSi filler wires, 1 kg and 5 kg spools
- Just set the plate thickness and weld with 200 A model
- Large graphical display guides user
- Designed for use with long supply cables of 100m+
- A 3-meter gun, cable set and carrying strap included
- Suitable for mains network or generator use
- Kemppi 2+ warranty for parts and labour

### Easier welding than ever

**MinarcMig Evo machines pack huge MIG/MAG welding capacity and quality into their portable, compact size.** Choose from either 200 A or 170 A models, delivering their welding power at 35 % duty cycle from a 16 A, 1-phase mains supply. MinarcMig Evo delivers premium results wherever your work takes you.

**MinarcMig Evo 200 offers Automatic and Manual mode set-up** for precise welding quality and arc ignition, monitored and controlled by Kemppi's adaptive arc regulation system. MinarcMig Evo 170 offers manual setting only, with separate controls for voltage and wire feed speed. Each model features a large graphical interface guiding the user during set-up and with MinarcMig Evo 200 you can simply set the plate thickness and weld, including materials selection for ferrous, stainless steel, aluminum and CuSi brazing filler wires, satisfying a wide variety of industrial applications.

**PFC power source technology offers the ultimate energy economy with a power factor of 0.99.** MinarcMig Evo can also be used efficiently with extra long power supply cables of more than 100 meters long, allowing for optimum welding utility in site welding environments.

## Technical specifications

| MinarcMig Evo                                                     |                            | 170                                          | 200                                              |
|-------------------------------------------------------------------|----------------------------|----------------------------------------------|--------------------------------------------------|
| Connection voltage                                                | 1~, 50/60 Hz               | 230 V (± 15 %)                               | 230 V (± 15 %)                                   |
| Connection voltage (AU)                                           | 1~, 50/60 Hz               | 240 V (± 15 %)                               | 240 V (± 15 %)                                   |
| Rated power at max. current                                       | 35 % ED                    | 170 A/4.8 kVA                                | 200 A/6.2 kVA                                    |
| Supply current                                                    | 35 % ED I <sub>lmax</sub>  | 20,3 A                                       | 26.2 A                                           |
|                                                                   | 100 % ED I <sub>leff</sub> | 10,1 A                                       | 13.2 A                                           |
| Connection cable                                                  | H07RN-F                    | 3G1.5 (1.5 mm <sup>2</sup> , 3 m)            | 3G1.5(1.5 mm <sup>2</sup> , 3 m)                 |
| Fuse                                                              | type C                     | 16 A                                         | 16 A                                             |
| Output 40 °C                                                      | 35% ED                     | 170 A/24 V                                   | 200 A/24 V                                       |
|                                                                   | 60% ED                     | 140 A/21 V                                   | 160 A/23 V                                       |
|                                                                   | 100% ED                    | 100 A/20 V                                   | 120 A/20 V                                       |
| Welding range                                                     |                            | 20 A/15 V – 170 A/ 24 V                      | 20 A/15 V – 200 A/ 26 V                          |
| No-load voltage                                                   |                            | 74 V                                         | 74 V                                             |
| Idle power                                                        |                            | 12 W fan off, 21 W fan on                    | 12 W fan off, 26 W fan on                        |
| Voltage steps                                                     |                            | 0.1 V                                        | 0.1 V                                            |
| Power factor at max. current                                      |                            | 0.99                                         | 0.99                                             |
| Efficiency at 100 % ED                                            |                            | 80 %                                         | 82 %                                             |
| Filler wires ø                                                    | Fe solid wire              | 0.6...1.0 mm                                 | 0.6...1.0 mm                                     |
|                                                                   | Fe cored wire              | 0.8...1.0 mm                                 | 0.8...1.0 mm                                     |
|                                                                   | Ss                         |                                              | 0.8...1.0 mm                                     |
|                                                                   | Al                         |                                              | 1.0 mm                                           |
|                                                                   | CuSi                       |                                              | 0.8...1.0 mm                                     |
| Wire feed speed adjustment range                                  |                            | 1...12 m/min                                 | 1...13 m/min                                     |
| Wire spool                                                        | max. ø                     | 200 mm / 5 kg                                | 200 mm / 5 kg                                    |
| Shielding gases                                                   |                            | CO <sub>2</sub> , Ar + CO <sub>2</sub> mixed | CO <sub>2</sub> , Ar, Ar + CO <sub>2</sub> mixed |
| External dimensions                                               | L x W x H                  | 450 x 227 x 368 mm                           | 450 x 227 x 368 mm                               |
| Weight (incl. gun and cables 3.0 kg)                              |                            | 13 kg                                        | 13 kg                                            |
| Temperature class                                                 |                            | F (155 °C)                                   | F (155 °C)                                       |
| EMC class                                                         |                            | A                                            | A                                                |
| Degree of protection                                              |                            | IP23S                                        | IP23S                                            |
| Operating temperature range                                       |                            | -20...+40 °C                                 | -20...+40 °C                                     |
| Storage temperature range                                         |                            | -40...+60 °C                                 | -40...+60 °C                                     |
| Standards: IEC 60974-1, IEC 60974-5, IEC 60974-10, IEC 61000-3-12 |                            |                                              |                                                  |

## Ordering information

| MinarcMig Evo (incl. gun, cables, gas hose and shoulder strap) |       |            |
|----------------------------------------------------------------|-------|------------|
| MinarcMig Evo 170                                              |       | 61008170   |
| MinarcMig Evo 170 AU                                           |       | 61008170AU |
| MinarcMig Evo 170 (Denmark)                                    |       | 61008170DK |
| MinarcMig Evo 200                                              |       | 61008200   |
| MinarcMig Evo 200 AU                                           |       | 61008200AU |
| MinarcMig Evo 200 (Denmark)                                    |       | 61008200DK |
| Welding gun MMG22                                              | 3 m   | 6250220    |
| Earth return cable and clamp                                   | 3 m   | 6184003    |
| Shielding gas hose                                             | 4.5 m | W001077    |
| Shoulder strap                                                 |       | 9592163    |

## Applications

- Thin sheet metal fabrication workshops
- Installation and set-up
- Repair and maintenance



Quality welding, wherever work takes you.



MinarcMig Evo suits a variety of welding fabrication tasks.



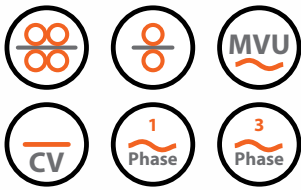
MinarcMig Evo 170 and 200 models include LCD control panels. MinarcMig Evo 200 also includes material type, plate thickness and weld shape selection.

# Kempact RA

## Switch on the new standard



Energy efficient



### Why buy

- Modern, energy efficient power source
- Excellent welding performance with mixed or CO<sub>2</sub> shielding gas
- Precise, clean arc ignition
- Maximum output at 35 % duty cycle
- Large, clear LCD display
- WireLine™ service indicator
- GasMate™ chassis design featuring floor level cylinder loading
- Brights™ cabinet lighting
- HotSpot™ heat treatment function
- 2T/4T gun switch latching
- Spot and cycle arc timer
- Parts storage trays
- 3.5 m FE welding gun
- Kemppi 2+ warranty



## New standards in compact MIG/MAG class

**Designed for the modern welding workshop, Kempact RA expresses stylish and purposeful design** through high build quality and functional user benefits, making weld tasks productive, accurate and efficient.

**Kempact RA is built on Kemppi's latest power source platform, ensuring optimal welding performance and excellent power cost efficiency.** Eleven model options include 180, 250 and 320 ampere power sources, including a choice of either Regular (R) or Adaptive (A) control panel interface, which serve the wide ranging needs of metal fabrication workshops. Delivery specification includes welding gun and earth return lead pack.

**New technology features include reduced energy costs of more than 10 %** when compared to conventional step controlled power sources, Brights™ cabinet lighting for easy wire loading in low light conditions, WireLine™ service alert function that signals routine wire-path maintenance needs, plus the integrated GasMate™ chassis design, making gas cylinder loading and machine movement easy and safe. Whichever model you select, Kempact RA ensures you get the most from every welding task.

## Design features:

1. Tough Plexiglas cover and lens plate provide added protection and style.
2. Choose either Regular (R models) or Adaptive (A models) control panel interface.
3. 2-roll (181 and 251 models) or 4-roll (253 and 323 models) wire drive systems.
4. Inverted gun connection improves wire feeding and gun life.
5. Brights™ wire cabinet lighting for low light conditions.
6. WireLine™ service symbol alerts drive system maintenance needs.
7. Integrated storage trays for wire drive and gun parts.
8. GasMate™ chassis design makes cylinder loading and machine movement easy and safe.
9. Strong pressed steel and moulded plastic construction.
10. Easy change welding polarity terminals.
11. Particle filter option for dusty fabrication shops.



2012



*Kempact RA is accurate and efficient; designed for use with a variety of filler materials.*



*The large and clear LCD control panels make parameter setting and reference easy. Parts trays provide convenient storage and access.*



*GasMate chassis design makes gas cylinder collection, storage and movement easy. Gas cylinders are floor level loaded and secured with a strong fabric webbing system.*



*Kempact Adaptive (A) models include special features, including power setting by plate thickness control, filler materials selection and memory channels.*

# Kempact RA

## Technical specifications

| Kempact                                                           |                        | 181A                              |                        | 251R, 251A                        |
|-------------------------------------------------------------------|------------------------|-----------------------------------|------------------------|-----------------------------------|
| Connection voltage                                                | 1~, 50/60 Hz           | 230V (±15 %)                      | 1~, 50/60 Hz           | 240V (±15 %)                      |
| Rated power at max. current                                       | 50 % ED I1max (180 A)  | 5 kVA                             | 30 % ED I1max (250 A)  | 8.5 kVA                           |
| Supply current                                                    | 50 % ED I1max (180 A)  | 22 A                              | 30 % ED I1max (250 A)  | 36 A                              |
|                                                                   | 100 % ED I1eff (140 A) | 16 A                              | 100 % ED I1eff (150 A) | 17 A                              |
| Connection cable                                                  | H07RN-F                | 3G1.5 (1.5 mm <sup>2</sup> , 5 m) | H07RN-F                | 3G2.5 (2.5 mm <sup>2</sup> , 5 m) |
| Fuse                                                              | Type C                 | 16 A                              | Type C                 | 20 A                              |
| Welding range                                                     |                        | 10 V / 20 A – 26 V / 180 A        |                        | 10 V / 20 A – 29 V / 250 A        |
| Power factor at max.                                              | 180 A / 23 V           | 0.99                              | 250 A / 26.5 V         | 0.99                              |
| Efficiency at 100% ED                                             | 140 A / 21 V           | 0.82                              | 150 A / 21.5 V         | 0.82                              |
| Wire feed speed adjustment range                                  |                        | 1.0-14.0 m/min                    |                        | 1.0-18.0m/min                     |
| Voltage adjustment range                                          |                        | 8.0-26.0V                         |                        | 8.0-29.0V                         |
| External dimensions                                               | L x W x H              | 623 x 579 x 1070 mm               | L x W x H              | 623 x 579 x 1070 mm               |
| Weight (without gun and cables)                                   |                        | 44 kg                             |                        | 44 kg                             |
| EMC class                                                         |                        | A                                 |                        | A                                 |
| Standards: IEC 60974-1, IEC 60974-5, IEC 60974-10, IEC 61000-3-12 |                        |                                   |                        |                                   |

| Kempact                                           |                        | 253R, 253A                        |                        | 323R, 323A                        |
|---------------------------------------------------|------------------------|-----------------------------------|------------------------|-----------------------------------|
| Connection voltage                                | 3~, 50/60 Hz           | 400V (±15 %)                      | 3~, 50/60 Hz           | 400V (±15 %)                      |
| Rated power at max. current                       | 40 % ED I1max (250 A)  | 8.5 kVA                           | 35 % ED I1max (320 A)  | 12 kVA                            |
| Supply current                                    | 40 % ED I1max (250 A)  | 11.9 A                            | 35 % ED I1max (320 A)  | 17.2 A                            |
|                                                   | 100 % ED I1eff (150 A) | 6.1 A                             | 100 % ED I1eff (190 A) | 8.2 A                             |
| Connection cable                                  | H07RN-F                | 4G1.5 (1.5 mm <sup>2</sup> , 5 m) | H07RN-F                | 4G1.5 (1.5 mm <sup>2</sup> , 5 m) |
| Fuse                                              | Type C                 | 10A                               | Type C                 | 10A                               |
| Welding range                                     |                        | 10 V / 20 A – 31 V / 250 A        |                        | 10 V / 20 A – 32.5 V / 320 A      |
| Power factor at max.                              | 250 A / 26.5 V         | 0.93                              | 320 A / 30 V           | 0.94                              |
| Efficiency at 100% ED                             | 150 A / 21.5 V         | 0.88                              | 190 A / 23.5 V         | 0.86                              |
| Wire feed speed adjustment range                  |                        | 1.0-18.0m/min                     |                        | 1.0-20.0m/min                     |
| Voltage adjustment range                          |                        | 8.0-31.0V                         |                        | 8.0-32.5V                         |
| External dimensions                               | L x W x H              | 623 x 579 x 1070 mm               | L x W x H              | 623 x 579 x 1070 mm               |
| Weight (without gun and cables)                   |                        | 44 kg                             |                        | 44 kg                             |
| EMC class                                         |                        | A                                 |                        | A                                 |
| Standards: IEC 60974-1, IEC 60974-5, IEC 60974-10 |                        |                                   |                        |                                   |



Kempact 181/251 models include the GT02, two roll wire drive unit.



Kempact 253/323 models include the Dura-Torque four roll wire drive unit.



HotSpot™ feature makes metal shrinking and component heating simple and convenient.

# Kempact RA

## Technical specifications

| Kempact                                           |                            | 253 RMV/AMV                       |                           | 323 RMV/AMV                       |
|---------------------------------------------------|----------------------------|-----------------------------------|---------------------------|-----------------------------------|
| Connection voltage                                | 3~, 50/60 Hz               | 230 V -15%...400 V +15%           | 3~, 50/60Hz               | 230 V -15%...400 V +15%           |
| Rated power at max. current                       | 40% ED I1max (250 A)(230V) | 9 kVA                             | 35% ED I1max (320A)(230V) | 13.5 kVA                          |
|                                                   | 40% ED I1max (250A)(400V)  | 8.5 kVA                           | 35% ED I1max (320A)(400V) | 12.5 kVA                          |
| Supply current                                    | 40% ED I1max (250A)(230V)  | 22.2 A                            | 35% ED I1max (320A)(230V) | 33.3 A                            |
|                                                   | 40% ED I1max (250A)(400V)  | 12.3 A                            | 35% ED I1max (320A)(400V) | 17.8 A                            |
|                                                   | 100% EDI1eff (150A)(230V)  | 10.8 A                            | 100% EDI1eff (190A)(230V) | 14.8 A                            |
|                                                   | 100% EDI1eff (150A)(400V)  | 6.2 A                             | 100% EDI1eff (190A)(400V) | 8.3 A                             |
| Connection cable                                  | H07RN-F                    | 4G1.5 (1.5 mm <sup>2</sup> , 5 m) | H07RN-F                   | 4G1.5 (1.5 mm <sup>2</sup> , 5 m) |
| Fuse                                              | Type C (230V)              | 16 A                              | Type C (230V)             | 16 A                              |
|                                                   | Type C (400V)              | 10 A                              | Type C (400V)             | 10 A                              |
| Welding range                                     | 10V/20A - 31V/250A         |                                   | 10V/20A - 32.5V/320A      |                                   |
| Power factor at max.                              | 250A/26.5V (230V)          | 0.94                              | 320A/30V (230V)           | 0.94                              |
|                                                   | 250A/26.5V (400V)          | 0.93                              | 320A/30V (400V)           | 0.94                              |
| Efficiency at 100% ED                             | 150A/21.5V (230V)          | 0.79                              | 190A/23.5V (230V)         | 0.80                              |
|                                                   | 150A/21.5V (400V)          | 0.82                              | 190A/23.5V (400V)         | 0.83                              |
| Wire feed speed adjustment range                  | 1.0-18.0m/min              |                                   | 1.0-20.0m/min             |                                   |
| Voltage adjustment range                          | 8.0-31.0V                  |                                   | 8.0-32.5V                 |                                   |
| External dimensions                               | L x W x H                  | 623 x 579 x 1070 mm               | L x W x H                 | 623 x 579 x 1070 mm               |
| Weight (without gun and cables)                   | 44 kg                      |                                   | 44 kg                     |                                   |
| EMC class                                         | A                          |                                   | A                         |                                   |
| Standards: IEC 60974-1, IEC 60974-5, IEC 60974-10 |                            |                                   |                           |                                   |

## Ordering information

| Kempact RA              |       |
|-------------------------|-------|
| Kempact 181A, FE20 3.5m | P2201 |
| Kempact 181A, FE20 5m   | P2202 |
| Kempact 251R, FE25 3.5m | P2203 |
| Kempact 251R, FE25 5m   | P2204 |
| Kempact 251A, FE25 3.5m | P2205 |
| Kempact 251A, FE25 5m   | P2206 |
| Kempact 253R, FE27 3.5m | P2207 |
| Kempact 253R, FE27 5m   | P2208 |
| Kempact 253A, FE32 3.5m | P2209 |
| Kempact 253A, FE32 5m   | P2210 |
| Kempact 323R, FE32 3.5m | P2211 |
| Kempact 323R, FE32 5m   | P2212 |

| Kempact RA                |         |
|---------------------------|---------|
| Kempact 323A, FE32 3.5m   | P2213   |
| Kempact 323A, FE32 5m     | P2214   |
| Kempact 253RMV, FE27 5m   | P2215   |
| Kempact 253RMV, FE27 3.5m | P2216   |
| Kempact 253AMV, FE27 5m   | P2217   |
| Kempact 253AMV, FE27 3.5m | P2218   |
| Kempact 323RMV, FE32 3.5m | P2219   |
| Kempact 323RMV, FE32 5m   | P2220   |
| Kempact 323AMV, FE32 3.5m | P2221   |
| Kempact 323AMV, FE32 5m   | P2222   |
| Holder                    | 9592106 |
| Carbon electrode          | 4192160 |

For MIG/MAG welding gun range please see page 64-79.

# FastMig KM/KMS



## Why buy

- Precise electronic control
- Quality welding performance
- Practical, modular design
- Low energy consumption
- Distance wire feeding options
- Practical and versatile functions
- Wise™ process solutions

## Applications

- Metal fabrication workshops
- Shipyards and offshore industry
- Chemical and process industry
- Steel structure workshops



Energy efficient

## Combine choice, power, quality and economy

**FastMig KM and KMS MIG/MAG machines** pack huge duty cycle performance into compact lean dimensions and weight, increasing productivity and work site mobility. Precise arc performance suits environments where quality matters, and 10 % more power efficiency over conventional designs will please every user.

## FastMig KM key features:

### **FastMig KM range is the modern alternative to traditional stepswitch designs.**

New control technology ensures excellent arc ignition and welding performance, so you spend more time welding and less time cleaning weld spatter.

**Choose from 300/400/500 amp power source models**, plus two robust, impact resistant, plastic cased wire feeders for 200 mm and 300 mm wire spools. Electronic control means you can tune and adjust the weld settings from the wire feed unit, even during welding. Choose from our wide range of interconnecting cable sets and you'll have the reach, control and distance you need.

## FastMig KMS key features:

**Power efficient 300/400/500 amp KMS models** combine with three MXF wire feed units suiting different work site conditions and 200 mm and 300 mm wire spools. A choice of basic or synergic control panels offer large, clear meter displays and logical, useful functions that make welding easy in any situation. Synergic SFW control panels simplify weld process control including selections for Fe, St/St, Al, CuSi, CuAl8 filler wires in a range of diameters.

**FastMig KMS** is compatible with several Wise process products, including WiseRoot and WisePenetration, ensuring KMS users have the option to easily tackle those specialist tasks when needed.



Wire feed units for different applications. MXF 65/MXF 67 for 300 mm wire spools. MXF 63 for 200 mm wire spools.



KM and KMS models give precise, clean welding performance. KMS models also support optional root pass welding process.



Combine FastMig KMS with SuperSnake for the ultimate distance and access welding solution, extending the reach of standard welding guns up to 25 m from the wire feed unit.



The modular design of KM/KMS models ensures you choose the specification that best suits your needs.

# FastMig KM/KMS

## Technical specifications

| FastMig                     |              | KM/KMS 300          | KM/KMS 400          | KM/KMS 500          | KM/KMS 400 MVU     |                    |
|-----------------------------|--------------|---------------------|---------------------|---------------------|--------------------|--------------------|
| Connection voltage          | 3~, 50/60 Hz | 400 V (-15...+20 %) | 400 V (-15...+20 %) | 400 V (-15...+20 %) | 400 V (-15...+20%) | 230 V (±10%)       |
| Rated power at max. current |              | 12.9 kVA/ 13.9 kVA  | 18.5 kVA/ 19.5 kVA  | 25.9 kVA/ 26.1 kVA  | 19 kVA             | 20 kVA             |
| Connection cable            | H07RN-F      | 4G6 (5 m)           | 4G6 (5 m)           | 4G6 (5 m)           | 4G10 (5 m)         | 4G10 (5 m)         |
| Fuse, delayed               |              | 25 A                | 35 A                | 35 A                | 35 A/50 A          | 35 A/63 A          |
| Output 40 °C                | 60 % ED      | -                   | -                   | 500 A/39 V          |                    |                    |
|                             | 80 % ED      | -                   | 400 A/34 V          | -                   | 400 A/34 -36V      | 400 A/36 V         |
|                             | 100 % ED     | 300 A/29 V          | 380 A/33 V          | 430 A/35.5 V        | 380 A/35 V         | 380 A/33-35 V      |
| Open circuit voltage        | MMA          | 50V                 | 50V                 | 50V                 | 50V                | 50V                |
|                             | MIG          | 65V                 | 65V                 | 65V                 | 65V                | 65V                |
| Power ratio at max. current |              | 87 %                | 87 %                | 87 %                | 87 %               | 87 %               |
| Welding range               | MIG          | 20A/12V-300A/32V    | 20A/12V-400A/36V    | 20A/12V-500A/40V    | 20A/12V- 400A/36V  | 20A/12V - 500A/40V |
|                             | MMA          | 10A/20V-300A/32V    | 10A/20V-400A/36V    | 10A/20V-500A/40V    | 10A/20V- 400A/36V  | 10A/20V - 500A/40V |
| External dimension (mm)     | L x W x H    | 590 x 230 x 430     | 590 x 230 x 430     | 590 x 230 x 430     | 590 x 230 x 580    | 590 x 230 x 580    |
| Weight                      |              | 34 kg               | 35 kg               | 36 kg               | 49 kg              | 49 kg              |

| FastMig wire feeders     |            | MF 29           | MF 33           | MXF 63          | MXF 65          | MXF 67          |
|--------------------------|------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Operating voltage        |            | 24 V DC         | 24 V DC         | 50 V DC         | 50 V DC         | 50 V DC         |
| Rated power              |            | 100 W           | 100 W           | 100 W           | 100 W           | 100 W           |
| Output 40 °C             | 60 % ED    | 520 A           | 520 A           | 520 A           | 520 A           | 520 A           |
|                          | 100 % ED   | 440 A           | 440 A           | 440 A           | 440 A           | 440 A           |
| Wire feed mechanism      |            | 4 roll          | 4 roll          | 4 roll          | 4 roll          | 4 roll          |
| Wire feed speed          |            | 0...25 m/min    | 0...25 m/min    | 0...25 m/min    | 0...25 m/min    | 0...25 m/min    |
| Wire spool, maximum      | ø          | 200 mm          | 300 mm          | 200 mm          | 300 mm          | 300 mm          |
| Filler wires ø (mm)      | Fe, Ss     | 0.6...1.6       | 0.6...1.6       | 0.6...1.6       | 0.6...1.6       | 0.6...1.6       |
|                          | Cored wire | 0.8...1.6       | 0.8...1.6       | 0.8...1.6       | 0.8...2.0       | 0.8...2.0       |
|                          | Al         | 1.0...1.6       | 1.0...1.6       | 1.0...1.6       | 1.0...2.4       | 1.0...2.4       |
| External dimensions (mm) | L x W x H  | 510 x 200 x 310 | 510 x 200 x 310 | 510 x 200 x 310 | 620 x 210 x 445 | 625 x 243 x 476 |
| Weight                   |            | 9.4 kg          | 13.6 kg         | 9.4 kg          | 11.1 kg         | 14 kg           |

| FastCool 10                |           |                         |
|----------------------------|-----------|-------------------------|
| Operating voltage          |           | 24 V DC                 |
| Rated power                |           | 50 W                    |
| Cooling power              |           | 1.0 kW                  |
| Maximum pressure           |           | 450 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                     |           | 11 kg                   |

# FastMig KM/KMS

## Ordering information

| Power Sources                |           |
|------------------------------|-----------|
| FastMig KM 300               | 6033000   |
| FastMig KM 400               | 6034000   |
| FastMig KM 500               | 6035000   |
| FastMig KM 400 MVU           | 603400003 |
| FastMig KMS 300              | 6053000   |
| FastMig KMS 400              | 6054000   |
| FastMig KMS 500              | 6055000   |
| FastMig KMS 400 MVU          | 605400003 |
| Control panels               |           |
| SF 51                        | 6085100   |
| SF 52W                       | 6085200W  |
| SF 53W                       | 6085300W  |
| SF 54                        | 6085400   |
| WiseRoot™ feature            | 6265011   |
| Wire Feeders                 |           |
| MF 29                        | 6063200   |
| MF 33                        | 6063300   |
| MXF 63                       | 6152300   |
| MXF 65                       | 6152100   |
| MXF 67                       | 6152200   |
| FastCool 10                  | 6068100   |
| Transport units              |           |
| PM 500                       | 6185291   |
| PM 501 (with PSL 55)         | 6185292   |
| PM 502                       | 6185293   |
| P 500 (MF 29, MF 33, MXF 63) | 6185265   |
| P 501 (MXF 65, MXF 67)       | 6185269   |
| T 10*                        | 6185231   |
| T 120*                       | 6185252   |
| Remote control units         |           |
| R10, 5 m                     | 6185409   |
| R10, 10 m                    | 618540901 |
| R20, 5 m                     | 6185419   |
| RMT 10 (PMT)                 | 6185475   |
| R30 DataRemote 5 m           | 6185420   |
| R30 DataRemote 10 m          | 618542001 |
| Remote control cable, 10 mm  | 6185481   |
| Accessories                  |           |
| KWF 200 hanging frame        | 6185285   |
| KWF 200 protection sliders   | 6185286   |
| KWF 300 protection sliders   | 6185287   |
| KV 200 mounting plate        | 6185249   |

|                                                    |         |
|----------------------------------------------------|---------|
| MXF 63 hanging frame (incl. KPS mounting set)      | 6185285 |
| MF 65 hanging kit                                  | W001694 |
| MXF 63 protection sliders (incl. KPS mounting set) | 6185286 |
| KWF Sync 300                                       | 6263300 |
| GG200/300 gas guard                                | 6237406 |
| MXFSuperSnake synchronisation kit                  | W004030 |
| Gun holder GH30                                    | 6256030 |
| KV 401 SWING BOOM ARM (PM 500)                     | 6185248 |

### MIG welding guns (see pages 64-79)

|                |            |
|----------------|------------|
| MMT 35 3 m     | 6253513MMT |
| MMT 35 4.5 m   | 6253514MMT |
| MMT 42 3 m     | 6254213MMT |
| MMT 42 4.5 m   | 6254214MMT |
| MMT 42W 3 m    | 6254203MMT |
| MMT 42W 4.5 m  | 6254204MMT |
| MMT 52W 3 m    | 6255203MMT |
| MMT 52W 4.5 m  | 6255204MMT |
| 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 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    |

### Earth return cables

| 5 m, 50 mm <sup>2</sup> | 6184511 |
|-------------------------|---------|
| 5 m, 70 mm <sup>2</sup> | 6184711 |
| Cable for MMA welding   |         |
| 5 m, 50 mm <sup>2</sup> | 6184501 |
| 5 m, 70 mm <sup>2</sup> | 6184701 |

| Interconnection cables (KM) |         |
|-----------------------------|---------|
| KM 70-1.8-WH                | 6260411 |
| KM 70-1.8-GH                | 6260413 |
| KM 70-10-GH                 | 6260417 |
| KM 70-10-WH                 | 6260418 |
| KM 70-20-GH                 | 6260450 |
| KM 70-20-WH                 | 6260451 |
| KM 70-30-GH                 | 6260454 |
| KM 70-30-WH                 | 6260455 |

| Interconnection cables (KMS) |         |
|------------------------------|---------|
| 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 if requested.

\* FastMig requires a mounting kit, order number W002085.



SF51/SF54 control panel



SF 52W/SF 53W control panel

# FastMig Pulse 350/450

Modular design, digital precision and quality



## Why buy

- Basic, 1-MIG, pulsed, double-pulsed, and MIG/MAG processes
- High quality welding performance
- Wise arc solution compatible
- Menu language choice
- Power cost efficient
- Security code lock

## Applications

- Shipyards and offshore
- Metal fabrication workshops
- Chemical and process industry
- Automotive manufacture
- Production welding

## It's your welding mission

**FastMig Pulse puts you in control.** We don't just mean in welding terms, although FastMig Pulse is particularly impressive here. FastMig Pulse sets new standards for customer choice. The software architecture allows standard or tailored packages to suit your specific welding environment, so the commercial benefits are yours. Whatever your welding mission, FastMig Pulse will deliver the technical and commercial solution that's right for you.

**Build the pulsed MIG/MAG machine you need.** Air or water cooled packages combine with innovative distance wire feeding and remote control options to deliver outstanding welding performance.

**Kemppi's Wise software** products offer additional choice and solutions that match welding business in the real world, so you can be sure to cover your welding requirements now and far into the future.

## Key features

**Clear, simple control panel.** Power and arc length control, memory channels and lock, safety isolation, inductance, gas test, wire inch, 2T/4T, hot start, crater fill and MMA and MatchLog options.

**DuraTorque 4x4 wire drive mechanism** ensures consistent wire speed and quality welds.

**Three-core control cable** makes distance cable sets lightweight and easy to maintain.

**Tough, dual-skin wire feed case options** made from impact resistant plastic. MXF63 and MXF67 casings offer long service life protection.

**Select, manage and refine weld process** with P65 control panel. Process and materials menu, specialist welding functions, menu language selection, security lock, user channels.

**Increase welding performance** and gun consumable life with optional FastCool units.

**Wise solution products** keep you ahead of the game.

## Welding software choice

**WORK PACK - MATERIALS PACK - PROJECT PACK.** FastMig Pulse offers a variety of welding software choices. Choose either the standard materials package 'Work Pack', offering a basic selection of steel, stainless steel and aluminum welding curves in 1.0 mm and 1.2 mm filler wire sizes, or material specific packages for aluminum, steel or stainless steel applications. Integrated package options are also available including WiseFusion, the 'Auto arc length regulation solution' for improved weld quality and welding speed in all positions.

Project Pack offers the ultimate flexibility, suiting customers with very specific project requirements. With Project Pack you can select your own welding software profile from the DataStore, which is Kemppi's online webstore.

Should your needs change, you can easily upgrade your machine software profile as needed.

| Welding software                  |                     | Ordering code |
|-----------------------------------|---------------------|---------------|
| Work Pack                         | 15 welding programs | 99904230      |
| Aluminium Pack                    | 12 welding programs | 99904231      |
| Steel Pack                        | 12 welding programs | 99904232      |
| Stainless Steel Pack              | 12 welding programs | 99904233      |
| Work Pack + WiseFusion            | 15 welding programs | 99904234      |
| Aluminium Pack + WiseFusion       | 12 welding programs | 99904235      |
| Steel Pack + WiseFusion           | 12 welding programs | 99904236      |
| Stainless Steel Pack + WiseFusion | 12 welding programs | 99904237      |

For full package details and software options visit Kemppi DataStore at <http://datastore.kemppi.com>



*FastMig Pulse leads its class, offering premium welding quality and modular construction. Plus welding software and menu language choice.*



*Upgrade your equipment anytime with alternative welding software, available through Kemppi DataStore at <http://datastore.kemppi.com>*



*Kemppi Wise and SuperSnake product ranges offer unique solutions to difficult welding issues. Please see pages 30-31, 96-97 for further details.*

# FastMig Pulse 350/450

## Technical specifications

| FastMig Pulse                        |              | 350                 | 450                 |
|--------------------------------------|--------------|---------------------|---------------------|
| Mains 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            |
| Connection cable / fuse delayed      |              | 4G6 (5m) / 25 A     | 4G6 (5m) / 35 A     |
| Output 40 °C                         | 60 % ED      |                     | 450 A               |
|                                      | 80 % ED      | 350 A               |                     |
|                                      | 100 % ED     | 330 A               | 350 A               |
| Welding current and voltage range    | MMA          | 10...350 A          | 10...450 A          |
|                                      | MIG          | 8...50 V            | 8...50 V            |
| Max. welding voltage MMA             |              | 49 V                | 53 V                |
| Open circuit voltage MMA             |              | 50 V                | 50 V                |
| Open circuit voltage MIG/MAG/Pulse   |              | 80 V                | 80 V                |
| Open circuit power                   |              | 100 W               | 100 W               |
| Efficiency                           |              | 88 %                | 88 %                |
| Power factor                         |              | 0.85                | 0.9                 |
| Storage temperature range            |              | -40...+60 °C        | -40...+60 °C        |
| Operating temperature range          |              | -20...+40 °C        | -20...+40 °C        |
| Protection class                     |              | IP 23 S             | IP 23 S             |
| External dimensions                  | L x W x H    | 590 x 230 x 430 mm  | 590 x 230 x 430 mm  |
| Weight                               |              | 36 kg               | 36 kg               |
| Voltage supply for auxiliary devices |              | 50 V DC             | 50 V DC             |
| X14, X15                             |              | fuse 6.3 A, delayed | fuse 6.3 A, delayed |
| Voltage supply for cooling unit      |              | DC 24 V, 50 VA      | DC 24 V, 50 VA      |



DuraTorque 4x4 wire drive mechanism



Menu selection in 9 language options



Process control panels for either 200 mm or 300 mm wire spool cabinets

# FastMig Pulse 350/450

## Ordering information

### Power sources

|                                |         |
|--------------------------------|---------|
| FastMig Pulse 350 power source | 6150400 |
| FastMig Pulse 450 power source | 6150500 |

### Wire feeders

|                           |                      |           |
|---------------------------|----------------------|-----------|
| MXF63 wire feeder, 200 mm | Work Pack profile    | 6152300EL |
| MXF65 wire feeder, 300 mm | Work Pack profile    | 6152100EL |
| MXF67 wire feeder, 300 mm | Work Pack profile    | 6152200EL |
| MXF63 wire feeder, 200 mm | Project Pack profile | 6152300   |
| MXF65 wire feeder, 300 mm | Project Pack profile | 6152100   |
| MXF67 wire feeder, 300 mm | Project Pack profile | 6152200   |
| Gun holder GH 30          |                      | 6256030   |

### Control panels

|                                |                            |          |
|--------------------------------|----------------------------|----------|
| Arc Wizard P65 setup panel     | Included with power source | SP155300 |
| PF63 wire feeder control panel |                            | 6155200  |
| PF65 wire feeder control panel |                            | 6155100  |

### Coolers

|                          |         |
|--------------------------|---------|
| FastCool 10 cooling unit | 6068100 |
|--------------------------|---------|

### SuperSnakes

|                                                                                                |         |
|------------------------------------------------------------------------------------------------|---------|
| The Kemppi SuperSnake GT02S range includes 10, 15, 20, and 25 m models, air- and water-cooled. |         |
| Sub feeder synchronisation unit FastMig MXF Sync                                               | W004030 |

### Transport units

|                                    |         |
|------------------------------------|---------|
| P 501 wire feed transport unit     | 6185269 |
| PM 500 power source transport unit | 6185291 |

### Welding software options

|                                      |         |
|--------------------------------------|---------|
| MMA welding process                  | 9991016 |
| WiseRoot welding function            | 6265011 |
| WiseThin welding function            | 9991013 |
| WiseFusion welding function          | 9991014 |
| WisePenetration welding function     | 9991000 |
| MatchLog                             | 9991017 |
| DataGun software installation device | 6265023 |

### Interconnection cables

|              |         |
|--------------|---------|
| Cable, 1.8 m | 6260401 |
| Cable, 5 m   | 6260405 |
| Cable, 10 m  | 6260326 |
| Cable, 15 m  | 6260325 |
| Cable, 20 m  | 6260327 |
| Cable, 30 m  | 6260330 |

### Remotes

|                             |           |
|-----------------------------|-----------|
| R10, 5 m                    | 6185409   |
| R10, 10 m                   | 618540901 |
| R20, 5 m                    | 6185419   |
| RMT 10 (PMT)                | 6185475   |
| R30 DataRemote 5 m          | 6185420   |
| R30 DataRemote 10 m         | 618542001 |
| Remote control cable, 10 mm | 6185481   |

### Interconnection water cooled cables

|                                              |         |
|----------------------------------------------|---------|
| Cable, 1.8 m                                 | 6260410 |
| Cable, 5 m                                   | 6260407 |
| Cable, 10 m                                  | 6260334 |
| Cable, 15 m                                  | 6260335 |
| Cable, 20 m                                  | 6260337 |
| Cable, 30 m                                  | 6260340 |
| Other lengths available                      |         |
| Return current cable 5 m, 70 mm <sup>2</sup> | 6184711 |

For MIG/MAG welding gun range please see page 64-79.

Wire feed units for different applications. MXF 65/MXF 67 for 300mm wire spools. MXF 63 for 200mm wire spools.



# FastMig X 450 - MXP 37 Pipe

## Complete solution for welding pipes and plates



### Why buy

- WiseRoot+ special process for open gap root welding without backing
- Excellent welds from the root to the top with one machine
- Increased productivity means less costs
- Multiple processes: MIG, 1-MIG, pulsed MIG, MMA and TIG options
- Optimized welding characteristics in solid wire root welding with CO<sub>2</sub> or mixed argon shielding gases
- Combine two wire feeders on the same power source for alternative filler wires
- MatchChannel for changing welding parameters on the run
- GT04 wire drive mechanism with twin motors
- ArcQuality compatible for managing welding quality

### Applications

- Onshore pipeline welding
- Pipe welding at offshore sites
- Tanks and pressure vessels
- Sub-sea constructions
- Power industry
- Shipbuilding and steel construction industry



## Excellent pipe welding with digital precision and quality

**FastMig X 450 power source and MXP 37 Pipe wire feeder is the complete solution** for welding on pipes in offshore and onshore applications, in prefabrication workshops or at installation sites. The system is based on FastMig X 450, a multi-process power source that you can use for root welding, fill-ups and caps. You can connect two wire feeders to allow quick changing of welding process and filler wire type and size.

**Where applications demand alternative power levels during welding, MatchChannel delivers the solution.** Change power levels during welding at the press of the gun trigger, accommodating changes in welding position and material thickness or type. The alternative power settings are stored in MatchChannel memory, making welding faster and saving you the extra time used with traditional equipment setting between welds.

## Total welding experience – **WiseRoot+**

**Designed for easy and efficient open-gap root welding**, WiseRoot+ is the premium and market leading root closure process without backing. With the amazing sampling rate of 20 million per second and the revolutionary precise wire feed control mechanism, WiseRoot+ delivers supreme arc stability and the optimal penetration and bead shape you're looking for. FastMig X 450 system creates a new level of accuracy and reliability in arc control.

## Wire drive with a grip that doesn't slip

**Extra strong GT04 wire drive mechanism** and the latest arc voltage sensing technology deliver precise and easy root weld control and high quality. Housed in a tough, dual skin, plastic cabinet and equipped with Brights LED lighting for making settings in low light conditions, MXP 37 Pipe also includes quick-change colour coded wire feed rolls and optional cabinet heating to control filler wire condensates in changing atmospheric conditions.

**The PMT air cooled multi-neck welding gun system** is designed especially to meet the requirements of welding root passes on pipes and plates.

**The PMT MN gun** is equipped with a fast change neck design, so that you can easily select the best neck length, bending angle and gas nozzle for the welding task ahead, allowing good reach and control. Well balanced and light in weight MN guns are available in 3.5m or 5m lengths. MN guns can also be equipped with RMT10 remote control for selection of power or preset welding channels.



**Voltage sensing cable** measures the actual arc voltage during welding. This allows WiseRoot+ to optimise welding characteristics, which results in low-spatter filler material transfer and a stable welding arc.



The GT04 wire feed mechanism has two separate motors for driving the feed rolls.



The PMT MN torch model is equipped with a changeable neck. Multiple neck options meet changing needs. For PTM MN welding gun range please see page 65, 76, 77.



Connect MasterTig LT 250 to use FastMig X 450 as a TIG welding power source.



Mount two wire feeders for quick and easy change between welding process and filler wire size and type, or combine with the LT 250 TIG welding unit.



XF 37 control panel of the MXP 37 Pipe wire feeder.



X 37 control panel of the FastMig X 450 power source.



**The Wise and Match options** provide specialised welding software solutions. **FastMig X 450 includes WiseRoot+ and WiseFusion** as standard.



ArcQuality reporting is clear and concise, measuring and recording WPS conformity or deviation. Please see pages 100-101 for further details.

# FastMig X 450 - MXP 37 Pipe

## Technical specifications

### FastMig X 450

|                                                               |                     |                                                    |
|---------------------------------------------------------------|---------------------|----------------------------------------------------|
| Connection voltage                                            | 3~50/60 Hz          | 400 V, -15...+20 %                                 |
| Rated power                                                   | 60 % ED             | 22.1 kVA                                           |
|                                                               | 80 % ED             |                                                    |
|                                                               | 100 % ED            | 16.0 kVA                                           |
| Connection cable                                              | HO7RN-F             | 4G6 (5 m)                                          |
| Fuse (delayed)                                                |                     | 35 A                                               |
| Output 40 °C                                                  | 60 % ED             | 450 A                                              |
|                                                               | 100 % ED            | 350 A                                              |
| Welding current and voltage range                             | MMA                 | 15 A/20 V – 450 A/46 V                             |
|                                                               | MIG                 | 20 A/12 V – 450 A/46 V                             |
| Max. welding voltage MMA                                      |                     | 46 V                                               |
| Open circuit voltage                                          | MMA                 | U <sub>0</sub> = 70 – 98 V, U <sub>av</sub> = 50 V |
|                                                               | MIG/MAG, Pulsed MIG | U <sub>0</sub> = 80 – 98 V                         |
| Open circuit power                                            |                     | 100 W                                              |
| Power factor at max. current                                  |                     | 0.88                                               |
| Efficiency at max. current                                    |                     | 87 %                                               |
| Operating temperature range                                   |                     | -20...+40 °C                                       |
| Storage temperature range                                     |                     | -40...+60 °C                                       |
| EMC class                                                     |                     | A                                                  |
| Minimum short circuit power S <sub>SC</sub> of supply network |                     | 5.5 MVA                                            |
| Degree of protection                                          |                     | IP23S                                              |
| External dimensions                                           | L x W x H           | 590 x 230 x 430 mm                                 |
| Weight                                                        |                     | 38 kg                                              |
| Voltage supply for auxiliary devices                          |                     | 50 V DC / 100 W                                    |
| Fuse (delayed)                                                |                     | 6.3 A                                              |
| Voltage supply for cooling unit                               |                     | 24V DC / 50 VA                                     |
| Suitable for generator use                                    |                     |                                                    |

### FastMig MXP 37 Pipe

|                                    |              |                    |
|------------------------------------|--------------|--------------------|
| Operating voltage (safety voltage) |              | 50 V DC            |
| Rated power                        |              | 250 W              |
| Output 40 °C                       | 60 % ED      | 520 A              |
|                                    | 100 % ED     | 440 A              |
| Wire feed speed                    |              | 0.5 – 25 m/min     |
| Wire feed mechanism                |              | 4-roll, two motors |
| Diameter of feed rolls             |              | 32 mm              |
| Filler wires                       | ø Fe, Ss     | 0.6 – 2.0 mm       |
|                                    | ø Cored wire | 0.8 – 2.4 mm       |
|                                    | ø Al         | 0.8 – 2.4 mm       |
| Wire spool                         | max. weight  | 20 kg              |
|                                    | max. ø       | 300 mm             |
| External dimensions                | L x W x H    | 590 x 240 x 445 mm |
| Weight                             |              | 13.1 kg            |

# FastMig X 450 - MXP 37 Pipe

## Ordering information

| FastMig X 450                                                                 |                                     |           |
|-------------------------------------------------------------------------------|-------------------------------------|-----------|
| FastMig X 450 power source                                                    |                                     | 6103450   |
| FastMig X 450 power source                                                    | No control panel                    | 610345001 |
| FastMig MXP 37 Pipe Steel wire feeder                                         | 300 mm                              | 6103700   |
| FastMig MXP 37 Pipe Stainless wire feeder                                     | 300 mm                              | 6103710   |
| Control devices                                                               |                                     |           |
| Control panel X 37                                                            | Included with power source          | W007700   |
| Remote X 37 control panel                                                     |                                     | 6103800   |
| Software products                                                             |                                     |           |
| MatchLog function                                                             |                                     | 9991017   |
| MatchChannel function                                                         | Included with MatchLog licence      |           |
| WisePulseMig licence for pulse welding                                        | Included with MXP 37 Pipe Stainless | 9990417   |
| MMA welding process                                                           | Included with power source          | 9991016   |
| WiseFusion function                                                           | Included with MXP wire feeder       | 9991014   |
| WisePenetration function                                                      |                                     | 9991000   |
| Pipe Steel welding program package                                            | Included with MXP 37 Pipe Steel     | 99904274  |
| Pipe Stainless welding program package                                        | Included with MXP 37 Pipe Stainless | 99904275  |
| – Other welding software available.                                           |                                     |           |
| Accessories                                                                   |                                     |           |
| Cooling unit FastCool 10                                                      |                                     | 6068100   |
| Cabinet heater KWF 200/300                                                    |                                     | 6185288   |
| Magnetic clamp for earth return cable                                         | 600 A                               | 9871570   |
| Magnetic clamp for voltage sensing cable                                      | 200 A                               | 9871580   |
| 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 MXF and MXP 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   |
| Software installation device DataGun                                          |                                     | 6265023   |

NOTE: WiseRoot+ welding process is not available with SuperSnake sub feeder.

| Cables             |                         |         |
|--------------------|-------------------------|---------|
| Earth return cable | 5 m, 50 mm <sup>2</sup> | 6184511 |
| Earth return cable | 5 m, 70 mm <sup>2</sup> | 6184711 |
| MMA welding cable  | 5 m, 50 mm <sup>2</sup> | 6184501 |
| MMA welding cable  | 5 m, 70 mm <sup>2</sup> | 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.

| Interconnection cables, water 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.

| Remote controls                    |      |           |
|------------------------------------|------|-----------|
| Remote control unit R10            | 5 m  | 6185409   |
| 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   |



Scan or click to see the product video.

# Kempact MIG 2530, Kempact Pulse 3000

Combine the economy of cost, size, weight, and performance



## Why buy

- Basic MIG/MAG model
- Synergic pulsed model
- 4-roll wire drive system
- Electronic power regulation
- Maximum output at 40 % duty cycle
- Light weight: 22 kg

## Applications

- Thin sheet metal fabrication workshops
- Car repair
- Agriculture
- Shipyards and offshore industry
- Installation and set-up
- Repair and maintenance

## Plenty of welding power per kilogram

**Kempact 2530 is 70 % lighter in weight than traditional step regulated machines.** Electronic control of voltage and wire speed allows arc tuning during the weld process, so you can quickly establish the desired weld settings. Includes gun trigger latching and wire inch function.

**Kempact Pulse 3000 features synergic, pulsed and double-pulsed welding.** Standard programs suit a variety of materials including Fe, FeMc, FeFc, St/St, Alu, CuSi3, CuAl8 fillers wires. Simply select the filler wire type, size and plate thickness and weld. For those regular welding jobs there's even a 100 channel memory function.

**When the heat is on,** keep your gun cool with KempactCool 10. Optional fit for Kempact Pulse 3000 only.

## Technical specifications

| Kempact                      |              | MIG 2530                 | Pulse 3000             | Pulse 3000 MVU       |
|------------------------------|--------------|--------------------------|------------------------|----------------------|
| Connection voltage           | 3~, 50/60 Hz | 380 – 440V ±10%          | 400 V (±15 %)          | 230 V/400 V          |
| Rated power                  |              | 12 kVA                   | 12 kVA                 | 10 kVA               |
| Connection cable             | H07RN-F      | 4G1.5 (5 m)              | 4G1.5 (5 m)            | 4G1.5 (5 m)          |
| Fuse, delayed                |              | 16 A                     | 16 A                   | 16 A                 |
| Output 40 °C                 | 40 % ED      | 250 A/26.5 V             | 250 A/26.5 V           | 250 A/26.5 V         |
|                              | 60 % ED      | 207 A/24 V               | 207 A/24 V             | 207 A/24 V           |
|                              | 100 % ED     | 160 A/22 V               | 160 A/22 V             | 160 A/22 V           |
| Open circuit voltage         |              | 30...45 V                | 56 V                   | 68 V                 |
| Power factor at max. current |              | 0.64                     | 0.69                   | 0.78                 |
| Efficiency at max. current   |              | 87 %                     | 84 %                   | 83 %                 |
| Welding range                |              | 20 A/15 V – 250 A/26.5 V | 20A/15 V – 250A/26.5 V | 20A/15 V – 300A/29 V |
| Wire feed speed              |              | 1...18 m/min             |                        |                      |
| Wire spool                   | max. ø       | 300 mm                   | 300 mm                 | 300 mm               |
| Wire feed mechanism          |              | 4-roll                   | 4-roll                 | 4-roll               |
| Filler wires ø (mm)          | Fe, Ss       | 0.6...1.0                | 0.6...1.2              | 0.6...1.2            |
|                              | Cored wire   | 0.9...1.2                | 0.9...1.2              | 0.9...1.2            |
|                              | Al           | 0.9...1.2                | 0.9...1.2              | 0.9...1.2            |
|                              | CuSi         | 0.8...1.0                | 0.8...1.2              | 0.8...1.2            |
| External dimensions (mm)     | L x W x H    | 580 x 280 x 440          | 580 x 280 x 440        | 580 x 280 x 600      |
| Weight                       |              | 20 kg                    | 22 kg                  | 33 kg                |

| KempactCool 10             |           |                       |  |
|----------------------------|-----------|-----------------------|--|
| Operating voltage          | 50/60 Hz  | 400 V (-15...+10 %)   |  |
| Rated power                | 100 % ED  | 250 W                 |  |
| Cooling power              |           | 1.0 kW                |  |
| Maximum pressure           |           | 450 kPa               |  |
| Recommended cooling liquid |           | 20–40 % ethanol/water |  |
| Tank volume                |           | 3 l                   |  |
| External dimensions (mm)   | L x W x H | 580 x 280 x 300 mm    |  |
| Weight                     |           | 13 kg                 |  |

## Ordering information

| Kempact MIG 2530 (Incl. earth return cable (35 mm <sup>2</sup> , 5 m) and gas hose 6 m) |                                    | 621853002   |
|-----------------------------------------------------------------------------------------|------------------------------------|-------------|
| Gun holder                                                                              | GH 30                              | 6256030     |
| Earth return cable                                                                      | 35 mm <sup>2</sup>                 | 5 m 6184311 |
| Transport units                                                                         | ST 7 (power source + gas cylinder) | 6185290     |
|                                                                                         | P 250                              | 6185268     |
| KFH 1000 feeder hanger                                                                  |                                    | 6185100     |
| Welding boom                                                                            | Incl. KFH 1000 feeder hanger       | 6264026     |
| Wire feeder hanging device                                                              |                                    | 4298180     |
| Kempact Pulse 3000                                                                      |                                    | 621830002   |
| Kempact Pulse 3000 MVU                                                                  |                                    | 62183000302 |
| KempactCool 10                                                                          |                                    | 6218600     |
| Earth return cable                                                                      | 5 m, 35 mm <sup>2</sup>            | 6184311     |

For MIG/MAG welding gun range please see page 64-79.



Ideal pulsed MIG/MAG solution for sheet metal fabrication and automotive repair.

## Best arc characteristics

Kempact MIG machines have superb arc performance. Excellent arc ignition assisted by burn back time technology guarantee satisfaction. Electronic arc dynamics control offers the best arc performance in all situations.

## Memory channels add usability

Kempact Pulse 3000 includes 100 memory channels to store welding values for later use. This makes it quick and easy to start welding without needing to adjust the settings once more.



Kempact Pulse 3000 control panel.

# SuperSnake GT02S/GT02SW

The ultimate distance  
and access solution



## Why buy

- Suitable for Fe/Ss/Al/FCW/MCW filler wires
- Includes voltage and wire speed adjustment
- Large, clear meter display
- Brights™ LED cabinet lighting
- 10-, 15-, 20-, 25-meter air- and water-cooled models
- Visible safety with tough, bright orange sheathing
- Gun remote control option

## Applications

- Heavy and medium-heavy metal fabrication workshops
- Shipyards and offshore industry
- Installation and set-up

## Weld predator

If distance and access are your problem, then take a look at **SuperSnake GT02S and GT02SW**. SuperSnake extends the reach of standard Euro MIG welding guns, providing simple distance wire feeding for a variety of filler wires up to 30m from the wire feed unit. Negotiating its terrain with ease, SuperSnake is the ultimate predator of the welding world.

The **SuperSnake GT02S/GT02SW** removes the need to carry large and heavy wire feed units, reducing personnel fatigue, improving safety, and increasing productivity. The SuperSnake connects easily to FastMig MXF wire feed units, bringing quality welding to locations that other welding brands just can't reach.

**SuperSnake GT02S/GT02SW** is compatible with FastMig KMS, FastMig Pulse, Kemppi Pro equipment.



red dot design award  
honourable mention 2009

## Technical specifications

### SuperSnake

|                                           |                    |                |
|-------------------------------------------|--------------------|----------------|
| Output 40 °C                              | 60 % ED            | 380 A          |
| Wire feed mechanism                       | 2-roll             |                |
| Wire feed speed                           | 0...25 m/min       |                |
| Feeder body (GT02SW) dimensions L x W x H | 102 x 371 x 138 mm |                |
| Wire recommendations, 25 m                | Solid Fe/Ss        | ø 1.0...1.6 mm |
|                                           | Al alloys          | ø 1.2...1.6 mm |
|                                           | FCW/MCW            | ø 1.2...1.6 mm |
| Cable diameter                            | 50 mm <sup>2</sup> |                |
| Supply voltage                            | 50 VDC             |                |
| Protection class                          | IP23S              |                |



*Liberate your welding team by giving greater freedom of movement.*

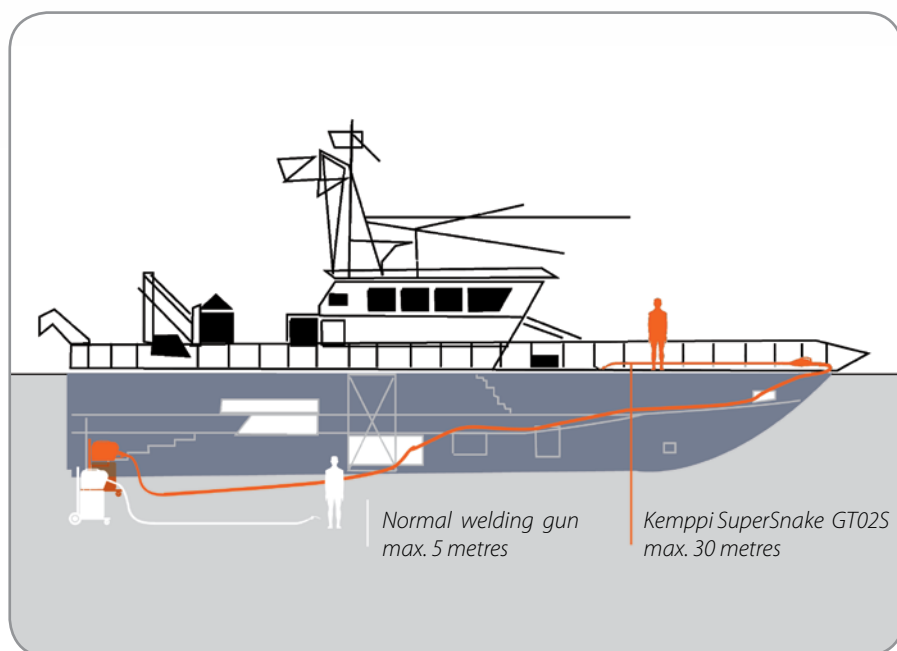
## Ordering information

### SuperSnake

|                         |         |
|-------------------------|---------|
| GT02S, 10 m             | 6153100 |
| GT02S, 15 m             | 6153150 |
| GT02S, 20 m             | 6153200 |
| GT02S, 25 m             | 6153250 |
| GT02SW, 10 m            | 6154100 |
| GT02SW, 15 m            | 6154150 |
| GT02SW, 20 m            | 6154200 |
| GT02SW, 25 m            | 6154250 |
| MXF synchronisation kit | W004030 |



*Traditional motor pistols and spool gun designs increase weight and strain on the operator's wrist and are limited by their distance, filler wire, or volume welding capability. The SuperSnake GT02S resolves all of these issues, providing distance and volume welding, whilst reducing the weight and strain on the operator's wrist by using standard welding guns.*



*When connected with Kemppi FastMig equipment, SuperSnake is compatible with the RMT10 Gun remote control, making real-time power management or remote channel selection easy and convenient.*

# FitWeld 300

Big power, small package,  
quick ignition



Energy efficient

## Why buy

- 300 A at 20 % duty cycle, 14.5 kg
- Easy tune stepless voltage and wire speed
- Adjustment for shielding gas flow to welding gun
- Three position switch for self-shielded and gas-shielded filler wires

## Applications

- Shipyards and offshore industry
- Metal fabrication workshops
- Installation and set-up
- Car repair
- Agriculture



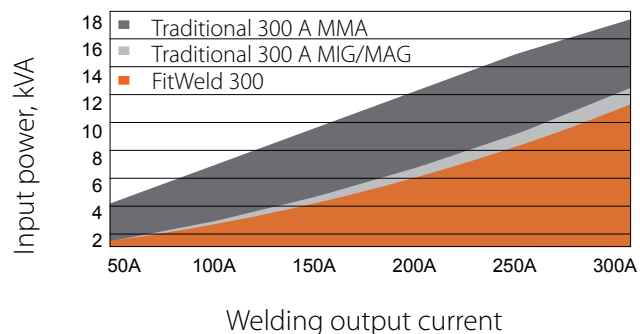
reddot design award  
honourable mention 2009

## Speed, quality and economy

**FitWeld 300 MIG/MAG machine** is the solution for tacking and welding in heavy industry. QuickArc™ ignition techniques, the latest GT WireDrive™ mechanics and Brights™ cabinet lighting, combine with other features to make welding faster, easier and safer. Offering real economy of size and weight, FitWeld also saves up to 57 % on input power and increases tack and welding speed to twice that of traditional MMA equipment.

### FitWeld's welding heritage shines through with precise and crisp arc character.

Its tough and robust plastic case protects the power source in extreme conditions. The GT WireDrive unit is compact and strong, giving rapid response to welding gun trigger signals, making it ideal for multiple arc starts in tack welding environments.



## FitWeld architecture:

1. Adjustment for shielding gas flow to welding gun.
2. Brights™ LED's illuminate the wire feed cabinet, making wire spool changes and adjustment easy and safe in dark conditions.
3. GT WireDrive™ is compact and strong, giving rapid response to welding gun trigger signals. Designed for multiple arc start use.
4. QuickArc™ ignition ensures precise, clean arc ignition, so spatter is minimised and arc stabilisation is fast.
5. Reinforced fibre plastic case protects the power source in extreme conditions.
6. GasGuard™ function prevents welding without shielding gas in 2T/4T position.
7. Three position switch for self-shielded and gas-shielded filler wires.
8. Strong grab handles make carrying and lifting easy, also protecting rear fittings.
9. Enclosed wire cabinet design helps to protect filler wire from the welding environment.
10. Cabinet door latch mechanism is protected from damage and accidental opening.
11. Easy polarity change allows either positive or negative welding.



*Tough and robust for tacking and welding in demanding environments*



*For independence of movement in and around workshop or site.*



## Technical specifications

| FitWeld 300                  |                        |                        |
|------------------------------|------------------------|------------------------|
| Connection voltage           | 3~, 50/60 Hz           | 380 – 440 V ±10%       |
| Rated power at max. current  |                        | 11.0 kVA               |
| Output 40 °C                 | 20% ED                 | 300 A / 29 V           |
|                              | 60% ED                 | 180 A / 23 V           |
|                              | 100% ED                | 140 A / 21 V           |
| Connection cable             | H07RN-F                | 4G1.5 (5 m)            |
| Fuse (delayed)               |                        | 10 A                   |
| Open circuit voltage         |                        | 40 – 46 V              |
| Power factor at max. current |                        | 0.95                   |
| Efficiency at max. current   |                        | 0.85                   |
| Welding range                |                        | 40 A/16 V – 300 A/30 V |
| Wire spool                   | max. ø                 | 200 mm                 |
| Wire feed mechanism          |                        | 2-roll feed            |
| Filler wires                 | Fe solid, Fe cored, Ss | 0.8...1.2 mm           |
|                              | Al                     | 1.0...1.2 mm           |
| External dimensions          | L x W x H              | 457 x 226 x 339 mm     |
| Weight                       |                        | 14.5 kg                |

## Ordering information

| FitWeld 300                     |            |
|---------------------------------|------------|
| FitWeld 300, MMT32, 3 m         | P2101      |
| FitWeld 300, MMT32, 4,5 m       | P2102      |
| MMT32, 3 m                      | 6253213MMT |
| MMT 32, 4,5 m                   | 6253214MMT |
| Earth return cable, 35 mm², 5 m | 6184311    |
| Shielding gas hose, 6 m         | W000566    |

# ArcFeed 200/300/300P/300RC

MIG/MAG productivity from any CC or CV welding power source



## Why buy

- Utilise MMA power sources for productive MIG/MAG welding
- Ideal for tough site environments
- Excellent for self shielded filler wires
- Compact, lightweight, robust
- Large, clear LCD display

## Applications

- Heavy steel welding in workshops
- Construction and shipyards
- Oil and gas pipe welding
- On-site welding
- Equipment hire business

## Voltage sensing wire feeder

**ArcFeed 200 and 300** are voltage sensing wire feed units for productive MIG/MAG welding. They can be used from almost every welding power source, including welder generators. Even old static MMA equipment can be transformed for productive MIG/MAG welding.

ArcFeed gives a good, smooth start and the backlit LCD display is protected by thick polycarbonate glass.

**ArcFeed equipment only requires one power cable and the earth return lead from the power source**, so it's ideal for site conditions where multi-core control cables could easily damage. Less cable means less to carry on site, making the lightweight cabinets easy to live with.

Each unit is equipped with a 4x4 wire drive mechanism and ArcFeed 300RC model is equipped with a useful remote control function for adjusting welding current.

### Other additional features include:

- Burn back time control
- Wire inch switch
- Gas test
- Post gas timer

## Technical specifications

| ArcFeed             |                                | 200                | 300, 300RC         | 300P               |
|---------------------|--------------------------------|--------------------|--------------------|--------------------|
| Rated power         |                                | 150 W              | 150 W              | 150 W              |
| Output 40 °C        | 100 % ED                       | 300 A              | 300 A              | 300 A              |
| Wire feed mechanism |                                | 4-roll             | 4-roll             | 4-roll             |
| Filler wires ø mm   | Cored filler wires             | 1.2...2.0          | 1.2...2.0          | 1.2...2.4          |
|                     | Self-shielded flux-cored wires | 1.6...2.0          | 1.6...2.0          | 1.6...2.4          |
|                     | Solid wires                    | 1.0...1.6          | 1.0...1.6          | 1.0...1.6          |
| External dimensions | L x W x H                      | 510 x 200 x 310 mm | 590 x 240 x 445 mm | 590 x 240 x 445 mm |
| Weight              |                                | 11 kg              | 15 kg              | 15 kg              |

## Ordering information

### Wire Feeders

|                      |         |
|----------------------|---------|
| Kemppi ArcFeed 200   | 6120200 |
| Kemppi ArcFeed 300   | 6120300 |
| Kemppi ArcFeed 300P  | 6120310 |
| Kemppi ArcFeed 300RC | 6120301 |

### Accessories

|                                                                |         |
|----------------------------------------------------------------|---------|
| Gas flow regulator                                             | W000364 |
| Hanging frame for the ArcFeed 200 model                        | 6185285 |
| KFH 1000 hanging device for ArcFeed 300, 300P and 300RC models | 6185100 |
| Safety slide bars for the ArcFeed 200 model                    | 6185286 |
| Safety slide bars for ArcFeed 300, 300P and 300RC models       | 6185287 |

### Cables

|                    |                                |         |
|--------------------|--------------------------------|---------|
| Extension cable    | 70 mm <sup>2</sup> , 25 m      | 6183725 |
| Extension cable    | 70 mm <sup>2</sup> , 10 m      | 6183710 |
| Earth return cable | 16 mm <sup>2</sup> , 5 m SKM25 | 6184015 |



ArcFeed 200 shown with KMS 400 AS power source





# **TIG** welding

|                    |           |
|--------------------|-----------|
| MinarcTig Evo      | <b>38</b> |
| MinarcTig          | <b>40</b> |
| MasterTig MLS      | <b>42</b> |
| MasterTig LT 250   | <b>44</b> |
| MasterTig MLS ACDC | <b>46</b> |
| MasterTig AC/DC    | <b>48</b> |

Professional TIG welders know what they want. At Kemppi we've developed the tools to keep them smiling. Precise ignition and smooth, stable current flow are the baseline for every model in our TIG welding range. Optional remote control units can be selected to suit either workshop or site conditions, allowing welders to concentrate on quality.

# MinarcTig Evo 200/200MLP

## The finest TIG welding quality



### Why buy

- 200 A DC @ 25% duty cycle, 1-phase, 230 V
- Smooth welding quality
- Refined arc ignition from 5 A
- Pre and post gas timer
- Slope in/out timer
- Torch switch latching
- MLP and Pulse welding option
- Remote current controls options
- PFC technology for ultimate energy efficiency
- Mains networks or generator use
- Kemppi 2+ warranty for parts and labour

### Smooth, refined and powerful

#### **MinarcTig Evo is just what you'd expect from a Kemppi TIG welding machine.**

Accurate and refined HF ignition and the necessary control, power and work capacity to reliably complete a variety of professional welding tasks. MinarcTig Evo is the ideal DC TIG welding solution for light industrial manufacturing, installation, repair and maintenance applications. The lightweight and compact size is a real bonus for welding professionals on the move.

#### **Models include either the MinarcTig Evo 200 or the MinarcTig Evo 200MLP.**

The powerful PFC power source design combines useful performance advantages, including excellent energy efficiency and the ability to reliably perform on extra long power supply cables of more than 100 meters long.

**MinarcTig Evo models include large LED metering displays** and feature a range of functions including pre and post gas time control, slope current time controls and remote control options. MLP models are equipped with additional functions including Minilog control and semi-automatic arc pulse function. MinarcTig Evo is a dual-process machine that also provides quality MMA welding for a range of DC electrode types.

## Technical specifications

| MinarcTig Evo 200/200MLP                                          |              |          |                                   |
|-------------------------------------------------------------------|--------------|----------|-----------------------------------|
| Connection voltage                                                | 1~, 50/60 Hz |          | 230 V ±15 % (AU 240 V ±15 %)      |
| Rated power at max. current                                       | TIG          | 35 % ED  | 200 A/4.9 kVA                     |
|                                                                   | MMA          | 35 % ED  | 170 A/5.7 kVA                     |
| Supply current, I <sub>1max</sub>                                 | TIG          |          | 21.1 A                            |
|                                                                   | MMA          |          | 24.8 A                            |
| Supply current, I <sub>1eff</sub>                                 | TIG          |          | 12.7 A                            |
|                                                                   | MMA          |          | 14.7 A                            |
| Connection cable                                                  | H07RN-F      |          | 3G1.5 (1.5 mm <sup>2</sup> , 3 m) |
| Fuse                                                              | type C       |          | 16 A                              |
| Output 40 °C                                                      | TIG          | 25 % ED  | 200 A /18 V                       |
|                                                                   |              | 60 % ED  | 160 A /16.4 V                     |
|                                                                   |              | 100 % ED | 140 A /15.6 V                     |
|                                                                   | MMA          | 35 % ED  | 170 A /26.8 V                     |
|                                                                   |              | 60 % ED  | 130 A /25.2 V                     |
|                                                                   |              | 100 % ED | 110 A /24.4 V                     |
| Welding range                                                     | TIG          |          | 5 A /10.2 V...200 A /18.0 V       |
|                                                                   | MMA          |          | 10 A /20.4 V...170 A /26.8 V      |
| Open circuit voltage                                              |              |          | 95 V (VRD 30 V, AU VRD 12 V)      |
| Idle power                                                        | TIG          |          | 10 W                              |
|                                                                   | MMA          |          | 30 W                              |
| Power factor at 100 % ED                                          | TIG          |          | 0.99                              |
|                                                                   | MMA          |          | 0.99                              |
| Efficiency at 100 % ED                                            | TIG          |          | 77 %                              |
|                                                                   | MMA          |          | 83 %                              |
| Striking voltage                                                  |              |          | 6...12 kV                         |
| Stick electrodes, MMA                                             | Ø            |          | 1.5...4.0 mm                      |
| External dimensions                                               | L × W × H    |          | 449 × 210 × 358 mm                |
| Weight (without cables)                                           |              |          | 11 kg                             |
| Temperature class                                                 |              |          | F (155 °C)                        |
| Degree of protection                                              |              |          | IP23S                             |
| EMC class                                                         |              |          | A                                 |
| Operating temperature range                                       |              |          | -20...+40 °C                      |
| Storage temperature range                                         |              |          | -40...+60 °C                      |
| Standards: IEC 60974-1, IEC 60974-3, IEC 60974-10, IEC 61000-3-12 |              |          |                                   |

## Ordering information

| MinarcTig Evo (incl. earth return and welding cables and shoulder strap) |       |
|--------------------------------------------------------------------------|-------|
| MinarcTig Evo 200, TTC 220 4 m                                           | P0640 |
| MinarcTig Evo 200, TTC 220 8 m                                           | P0641 |
| MinarcTig Evo 200MLP, TTC 220 4 m                                        | P0642 |
| MinarcTig Evo 200MLP, TTC 220 8 m                                        | P0643 |
| MinarcTig Evo 200 AU, TTC 220 4 m                                        | P0672 |
| MinarcTig Evo 200 AU, TTC 220 8 m                                        | P0673 |
| MinarcTig Evo 200MLP AU, TTC 220 4 m                                     | P0674 |
| MinarcTig Evo 200MLP AU, TTC 220 8 m                                     | P0675 |
| MinarcTig Evo 200 DK, TTC 220 4 m                                        | P0676 |
| MinarcTig Evo 200 DK, TTC 220 8 m                                        | P0677 |
| MinarcTig Evo 200MLP DK, TTC 220 4 m                                     | P0678 |
| MinarcTig Evo 200MLP DK, TTC 220 8 m                                     | P0679 |

## Applications

- Installation and set-up
- Repair and maintenance
- Thin sheet metal fabrication workshops
- Chemical and process industry



Minilog function is a very easy-to-use pulsing feature: you just set the pulse time and current average and start welding.



Quality welding, wherever work takes you



MinarcTig Evo 200  
MinarcTig Evo 200 MLP with Pulse function

# MinarcTig 250, 250MLP

Powerful, portable and compact



## Why buy

- Excellent low current ignition
- Clear parameter display
- Pre and post gas timer
- Slope in/out timer
- Torch switch latching
- Pulse welding option

## Applications

- Installation and set-up
- Repair and maintenance
- Thin sheet metal fabrication workshops
- Chemical and process industry

## Refined TIG welding quality for precise applications

**MinarcTig 250 is the ideal DC TIG welding solution** for installation, repair and maintenance applications. The 250 amp model suits high quality work and the lightweight and compact size is a real bonus for professionals on the move around site.

**MinarcTig 250 is a dual-process machine**, providing an impressive DC TIG and MMA welding experience. In addition to the basic 250 machine there is the 250 MLP model, equipped with special features, such as Minilog and pulsed arc function. High 35% duty cycle and light weight combine real performance advantages, plus exceptional control in low current ignition means refined TIG welding quality for precise applications.

## Technical specifications

### MinarcTig 250/250MLP

|                                 |           |                                |
|---------------------------------|-----------|--------------------------------|
| Connection voltage              | 50/60 Hz  | 3~, 400 V (-20...+15 %)        |
| Rated power at maximum current  | TIG       | 7.2 kVA                        |
|                                 | MMA       | 8.2 kVA                        |
| Connection cable                | H07RN-F   | 4G1.5 (5 m)                    |
| Fuse, slow                      |           | 10 A                           |
| Output 40° C                    | TIG       | 35 % ED 250 A / 20.1 V         |
|                                 |           | 60 % ED 180 A / 17.2 V         |
|                                 |           | 100 % ED 160 A / 16.4 V        |
|                                 | MMA       | 35 % ED 220 A / 28.8 V         |
|                                 |           | 60 % ED 170 A / 26.8 V         |
|                                 |           | 100 % ED 150 A / 26.0 V        |
| Welding range                   | TIG       | 5 A / 10.2 V – 250 A / 20.1 V  |
|                                 | MMA       | 10 A / 20.4 V – 220 A / 28.8 V |
| Open circuit voltage            |           | 95 V                           |
| Power factor at maximum current | TIG       | 0.92                           |
|                                 | MMA       | 0.91                           |
| Efficiency at maximum current   | TIG       | 80 %                           |
|                                 | MMA       | 86 %                           |
| Stick electrode                 | Ø         | 1.5–5.0 mm                     |
| External dimensions             | L x W x H | 400 x 180 x 340 mm             |
| Weight (without cables)         |           | 11 kg                          |

## Ordering information

### MinarcTig

|                                  |       |
|----------------------------------|-------|
| MINARCTIGTM 250, TTC 160 4 m     | P0607 |
| MINARCTIGTM 250, TTC 160 8 m     | P0608 |
| MINARCTIGTM 250, TTC 220 4 m     | P0609 |
| MINARCTIGTM 250, TTC 220 8 m     | P0610 |
| MINARCTIGTM 250 MLP, TTC 160 4 m | P0611 |
| MINARCTIGTM 250 MLP, TTC 160 8 m | P0612 |
| MINARCTIGTM 250 MLP, TTC 220 4 m | P0613 |
| MINARCTIGTM 250 MLP, TTC 220 8 m | P0614 |

### Accessories

|                    |                        |                       |
|--------------------|------------------------|-----------------------|
| Welding cable      | 25 mm <sup>2</sup> 5 m | 6184201 (250/250 MLP) |
| Earth return cable | 25 mm <sup>2</sup> 5 m | 6184211 (250/250 MLP) |



MinarcTig 250 shown on optional 2-wheel transport unit MST400.



MinarcTig 250 is an ideal machine for thin sheet fabrication tasks. The low current ignition and stable arc, make quality welding easy.



MinarcTig can be used in the production and maintenance of many metal products. In the workshop or site, MinarcTig 250 is a dependable and portable welding partner.

# MasterTig MLS 3000/4000

Some tools simply feel better to use than others



## Why buy

- DC TIG and MMA power output
- Compact size ensures effortless mobility
- Excellent ignition quality, even with long TIG torches
- Quick pulse function increases welding speed and quality
- Suitable for mains or power generator use

## Applications

- Installation and set-up
- Repair and maintenance
- Thin sheet metal fabrication workshops
- Chemical and process industry

## DC equipment for industrial applications

**MasterTig MLS DC range has become an industry standard for many users,** offering precise welding performance and lightweight, portable design. A popular choice for welding professionals, options include 300 and 400 amp power sources with 30% duty cycle at maximum output current.

**Choose from four control panel options,** allowing you to select exactly the parameter control that's right for your welding application.

**MTL/MTX/MTM/MTZ control panel options contain basic and specialist functions** required for quality DC TIG and MMA welding. Features can include: HF or contact ignition, pre-gas and post-gas control, torch switch latching 2T/4T, remote control and setup options, welding current upslope and downslope timer, MMA ignition pulse, MMA arc dynamics, pulse and synergic pulse TIG, spot timer, 4T log and memory channel function.

## Technical specifications

| MasterTig MLS™          |              | 3000                       | 4000                       |
|-------------------------|--------------|----------------------------|----------------------------|
| Connection voltage      | 50/60 Hz     | 3~, 400 V -15...+20 %      | 3~, 400 V -15...+20 %      |
| Rated power at 100 % ED | TIG          | 8.4 kVA                    | 13.8 kVA                   |
|                         | MMA          | 9.4 kVA                    | 15 kVA                     |
| Connection cable        | HO7RN-F      | 4G1.5 (5 m)                | 4 G2.5 (5 m)               |
| Fuse, delayed           |              | 10 A                       | 16 A                       |
| Output 40 °C            | 30 % ED TIG  | 300 A/22 V                 | 400 A/26 V                 |
|                         | 60 % ED TIG  | 230 A/19.2 V               | 320 A/22.8 V               |
|                         | 100 % ED TIG | 200 A/18 V                 | 270 A/20.8 V               |
|                         | 35 % ED MMA  | -                          | -                          |
|                         | 40 % ED MMA  | 250 A/30 V                 | 350 A/34 V                 |
|                         | 60 % ED MMA  | 205 A/28.2 V               | 285 A/31.4 V               |
|                         | 100 % ED MMA | 160 A/26.4                 | 220 A/28.8 V               |
| Welding range           | TIG          | 5 A/10 V ... 300 A/22 V    | 5 A/10 V ... 400 A/26 V    |
|                         | MMA          | 10 A/20.5 V ... 250 A/30 V | 10 A/20.5 V ... 350 A/34 V |
| Open circuit voltage    |              | 80 V DC                    | 80 V DC                    |
| Power factor at 100% ED |              | 0.95                       | 0.95                       |
| Efficiency at 100% ED   |              | 86 %                       | 86 %                       |
| Stick electrode         | Ø            | 1.5...5.0 mm               | 1.5...6.0 mm               |
| External dimensions     | L x W x H    | 500 x 180 x 390 mm         | 500 x 180 x 390 mm         |
| Weight                  |              | 22 kg                      | 23 kg                      |

### MasterCool 10

|                     |           |                     |
|---------------------|-----------|---------------------|
| Connection voltage  | 50/60 Hz  | 400 V (-15...+20 %) |
|                     |           | 230 V (-15...+10 %) |
| Cooling power       | 100 % ED  | 1.0 kW              |
| Rated power         | 100 % ED  | 250 W               |
| External dimensions | L x W x H | 500 x 180 x 260 mm  |
| Weight              |           | 10 kg               |

## Ordering information

### Power Sources

|                    |         |
|--------------------|---------|
| MasterTig 3000 MLS | 6114300 |
| MasterTig 4000 MLS | 6114400 |

### Cooling units

|               |         |
|---------------|---------|
| MasterCool 10 | 6122350 |
|---------------|---------|

### Control panels

|     |         |
|-----|---------|
| MTL | 6116000 |
| MTX | 6116005 |
| MTM | 6116010 |
| MTZ | 6116015 |

### Transport units

|       |         |
|-------|---------|
| T 100 | 6185250 |
| T 130 | 6185222 |
| T 200 | 6185258 |

For TIG torches please see page 80-81.

## MasterTig MLS options



MTM



MTL



MTZ



MTX



MasterTig MLS equipment is lightweight and portable for site use, but delivers high welding current and duty cycle.

# MasterTig LT 250

A premium TIG welding solution that eliminates troublesome control and mains power cables



Energy efficient



## Why buy

- 250 amps DC TIG/MMA @ 35% ED
- No mains voltage power cables or control cable
- Compact size and weight – 12.6kg
- Remote current control options
- HF or contact ignition
- Digital meter display
- Gas flow meter fitted as standard
- Pre- and post-gas control
- Slope control timers
- 2T and 4T latching
- Kemppi 2+ warranty

## TIG equipment for construction and extreme site conditions

**MasterTig LT 250 eliminates the need for traditional control and mains voltage power cables**, removing related health and site safety risks, cable management and site maintenance issues. The air cooled electronic power source is ideal for challenging environments, including high ambient temperatures, humidity and sub-zero work site conditions. Powered from any DC welding power source that provides a minimum of 40 volts pole voltage, including welding generators, MMA and MIG/MAG sources, Mastertig LT 250 provides a most versatile DC TIG solution.

**Precise ignition in both DC TIG and MMA process makes welding easy**, reliably serving applications using extended torch lengths. The digital display provides clear reference for pre-set welding values and parameter setting is logical, easy and accurate. The rear panel mounted gas control meter allows localised shielding gas flow control and weighing only 12.6kg, MasterTig LT 250 is easy to carry to site using the standard fabric shoulder strap.

**Multiple MasterTig LT 250 units can be powered from a single welding power source.** Kemppi's KempGouge ARC 800 is an ideal parent power source solution, providing enough power to run up to 4 LT 250 units at full power – and all units can weld simultaneously on the same work piece.

## Technical specifications

| MasterTig LT 250                                                 |             |          |                       |
|------------------------------------------------------------------|-------------|----------|-----------------------|
| Connection voltage range                                         | DC          |          | 40 – 100 V            |
| Rated input power                                                |             |          | 8.6 kW/9.1 kVA        |
| Supply current, $I_{1max}$                                       | TIG         |          | 155 A                 |
|                                                                  | MMA         |          | 230 A                 |
| Supply current, $I_{1eff}$                                       | TIG         |          | 90 A                  |
|                                                                  | MMA         |          | 135 A                 |
| Connection cable                                                 |             |          | 35 mm <sup>2</sup>    |
| Output 40° C                                                     | TIG         | 35 % ED  | 250 A/20 V            |
|                                                                  |             | 60 % ED  | 200 A/18 V            |
|                                                                  |             | 100 % ED | 160 A/16.4 V          |
|                                                                  | MMA         | 35 % ED  | 250 A/30 V            |
|                                                                  |             | 60 % ED  | 200 A/28 V            |
|                                                                  |             | 100 % ED | 160 A/26.4 V          |
| Welding range                                                    | TIG         |          | 5 A/1 V – 250 A/35 V  |
|                                                                  | MMA         |          | 10 A/1 V – 250 A/35 V |
| Open circuit voltage                                             |             |          | 90 V                  |
| Idle power                                                       | TIG         |          | 8 W                   |
|                                                                  | MMA         |          | 21 W                  |
| Efficiency at 100 % ED                                           | TIG         |          | 80 %                  |
|                                                                  | MMA         |          | 86 %                  |
| Arc striking voltage                                             |             |          | 10 kV                 |
| MMA welding electrodes                                           |             |          | 1.6 – 5.0 mm          |
| External dimensions                                              | (L × W × H) |          | 460 × 180 × 390 mm    |
| Weight                                                           |             |          | 12.6 kg               |
| Temperature class                                                |             |          | F                     |
| Degree of protection                                             |             |          | IP23S                 |
| EMC class                                                        |             |          | A                     |
| Operating temperature range                                      |             |          | –20...+40 °C          |
| Storage temperature range                                        |             |          | –40...+60 °C          |
| Standards: IEC 60974-1:2012, IEC 60974-10:2007, IEC 60974-3:2007 |             |          |                       |



MasterTig LT 250 control panel: process selection for TIG and MMA, HF or Touch-Arc ignition, torch switch latching, and remote control selection. Current display, pre- and post-gas control, slope current timer.



R 10 hand remote offers convenient current control at a distance, for both TIG and MMA process.



RTC 10 remote control integrates to TTC TIG torches for easy on-torch current regulation during welding.



R 11F remote foot control ensures precise current regulation where frequent and fine adjustment is required. Ideal for workshop use.

## Ordering information

| MasterTig LT2 50                           | 6115100   |
|--------------------------------------------|-----------|
| <b>Cables</b>                              |           |
| Welding cable, 35 mm <sup>2</sup> , 5 m    | 6184301   |
| Welding cable, 35 mm <sup>2</sup> , 10 m   | 6184302   |
| Earthing cable, 35 mm <sup>2</sup> , 5 m   | 6184311   |
| Earthing cable, 35 mm <sup>2</sup> , 10 m  | 6184312   |
| Extension cable, 35 mm <sup>2</sup> , 5 m  | 6183305   |
| Extension cable, 35 mm <sup>2</sup> , 10 m | 6183310   |
| <b>Torches</b>                             |           |
| TTC 160, 4 m                               | 627016004 |
| TTC 160, 8 m                               | 627016008 |
| TTC 220, 4 m                               | 627022004 |
| TTC 220, 8 m                               | 627022008 |

| Remote current control options                                |           |
|---------------------------------------------------------------|-----------|
| RTC 10                                                        | 6185477   |
| RTC 20                                                        | 6185478   |
| R 10, 5 m                                                     | 6185409   |
| R 10, 10 m                                                    | 618540901 |
| R 11F                                                         | 6185407   |
| Gas flow gauge AR/clock                                       | 6265136   |
| Shielding gas hose (4.5 m)                                    | W001077   |
| Carrying strap                                                | 9592160   |
| <b>Optional parent power source for multiple operator use</b> |           |
| KempGauge ARC 800                                             | 6284000   |

# MasterTig MLS

## 2300/3003 ACDC

MLS control for the finest  
TIG welding quality



Energy efficient

### Why buy

- TIG and MMA process eg: DC-/DC+/AC/MIX TIG
- Power cost efficient, compact dimensions
- MasterCool option for high duty applications
- MicroTack for fast, low heat tack welding

### Applications

- Metal fabrication workshops
- Shipyards and offshore industry
- Chemical and process industry
- Mechanised welding

## Make demanding work easy

**MasterTig MLS ACDC offers TIG welding professionals the necessary control** to meet their exacting needs. Whatever the application, enjoy the performance. Model choice includes a 230 A version with 1-phase 230 V power supply, and 300 A version with 3-phase 230/460 V power supply.

**MasterTig MLS ACDC is a precise aluminium welding specialist** that suits all welded materials. Modular design allows you to build the package that best suits your needs.

**Choose from either ACS or ACX control panels** allowing fast adjustment of base parameters including: pre and post gas time control, AC arc frequency and upslope and downslope control. ACS provides all necessary controls for DC, AC and MIX TIG welding with either HF or contact ignition. ACX offers additional functions including MicroTack, memory channels and pulsed welding function.

## Technical specifications

| MasterTig MLS              |              | 2300 ACDC                | 3003 ACDC                           |
|----------------------------|--------------|--------------------------|-------------------------------------|
| Connection voltage         | 50/60 Hz     | 1~, 230 V (±15 %)        | 3~, 230 V (-10 %) ... 460 V (+10 %) |
| Rated power at 100 % ED    | TIG          | 5.7 kVA                  | 9.2 kVA                             |
|                            | MMA          | 6.0 kVA                  | 10 kVA                              |
| Connection cable           | H07RN-F      | 3G2.5 (3.3 m)            | 4G2.5 (5 m)                         |
| Fuse recommendation (slow) |              | 15 A                     | 20/16 A                             |
| Output 40 °C               | 40 % ED TIG  | 230 A/19.2 V             | 300 A/22 V                          |
|                            | 60 % ED TIG  | 200 A/18 V               | 230 A/19.2 V                        |
|                            | 100 % ED TIG | 170 A/16.8 V             | 190 A/17.6 V                        |
|                            | 40 % ED MMA  | 180 A/27.2 V             | 250 A (230 V AC 30 %)/30 V          |
|                            | 60 % ED MMA  | 150 A/26 V               | 230 A/29.2 V                        |
|                            | 100 % ED MMA | 120 A/24.8 V             | 190 A/27.6 V                        |
| Welding range              | TIG          | 3 A/10 V–230 A/19.2 V    | 3 A/10.0 V–300 A/22 V               |
|                            | MMA          | 10 A/20.5 V/180 A/27.2 V | 10 A/20.5 V–250 A/30 V              |
| Open circuit voltage       |              | 58 V DC                  | 58 V DC                             |
|                            | AU models    | 20 V DC/VRD              | -                                   |
| Power factor at 100% ED    |              | 0.99                     | 0.95                                |
| Efficiency at 100% ED      |              | 82 %                     | 81 %                                |
| Stick electrode, MMA       | ∅            | 1.5...4.0 mm             | 1.5...5.0 mm                        |
| External dimensions        | L x W x H    | 430 x 180 x 390 mm       | 500 x 180 x 390 mm                  |
| Weight                     |              | 15 kg                    | 25 kg                               |

| Cooling unit               |           | MasterCool 20           | MasterCool 30           |
|----------------------------|-----------|-------------------------|-------------------------|
| Connection voltage         |           | 230 V (±15 %)           | 24 V DC                 |
| Rated power at 100 % ED    |           | 50 W                    | 50 W                    |
| Cooling power              |           | 1.0 kW                  | 1.0 kW                  |
| 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 | 500 x 180 x 260 mm      | 500 x 180 x 260 mm      |
| Weight                     |           | 8 kg                    | 8 kg                    |

## Ordering information

| Power Sources                  |            |
|--------------------------------|------------|
| MasterTig MLS 2300 ACDC        | 6162300    |
| MasterTig MLS 2300 ACDC VRD AU | 6162300AU  |
| MasterTig MLS 3000 ACDC VRD    | 6163000VRD |
| MasterTig MLS 3003 ACDC        | 6163003    |
| Cooling units                  |            |
| MasterCool 20                  | 6162900    |
| MasterCool 30                  | 6163900    |
| Control panels                 |            |
| ACS                            | 6162805    |
| ACX                            | 6162804    |

For TIG torches please see page 80-81.

## Options



All MasterTig MLS ACDC welding devices can be equipped with an ACX or ACS control panel introducing numerous additional features that make welding easier and more efficient.



A stable arc ensures a smooth weld and strong base material attachment, thus ensuring good mechanical properties for the joint.



MicroTack welding is an easy, fast and precise way of improving quality and productivity for taking and setting tasks. Extremely effective with very thin materials.

# MasterTig

## AC/DC 3500W

Powerful, dependable  
and reassuringly economic



Energy efficient



MasterTig AC/DC 3500 mounted to T22 transport unit.

### Why buy

- Automatic AC balance increases the quality and speed of welding
- Precise penetration control based on AC frequency adjustment
- Reliable arc ignition and functionality
- A choice of three control panels suiting different customer needs
- Energy efficient and excellent for limited fused supplies

### Applications

- Fabrication workshops
- Chemical and process industry
- Installation and set-up
- Repair and maintenance

## Powerful AC/DC TIG equipment with a small appetite

**MasterTig AC/DC 3500W only requires a 20 amp 3-phase power supply**, some small indication of the economy offered by this modern power source design. A maximum power output of 350 amp at 60 % duty cycle ensures you have enough power and the integral water cooling unit keeps torches cool during high duty production welding.

**MasterTig AC/DC 3500W control panels provide all of the necessary functions needed for TIG welding.** Simply choose the control level that suits your particular needs. Options include pulsed and basic versions with large clear meter displays. Standard features include: pre and post gas time control, upslope and downslope control, arc shape AC balance control, torch switch latching, remote control selection and MMA process. Safety codelock feature prevents unauthorised use of the equipment.

## Technical specifications

| MasterTig AC/DC 3500W       |              |                        |
|-----------------------------|--------------|------------------------|
| Connection voltage          | 3~, 50/60 Hz | 400 V (±10 %)          |
| Rated power, max.           | TIG          | 11.7 kVA               |
|                             | MMA          | 15.7 kVA               |
| Fuse, delayed               | 400 V        | 20 A                   |
| Output 40 °C                | 60 % TIG AC  | 350 A/24 V             |
|                             | 100 % TIG AC | 280 A/21.2 V           |
|                             | 60 % MMA DC  | 350 A/34 V             |
|                             | 100 % MMA DC | 280 A/31.2 V           |
| Welding range               | TIG DC       | 3 A/10 V...350 A/24 V  |
|                             | AC           | 10 A/10 V...350 A/24 V |
|                             | MMA          | 10 A/20 V...350 A/34 V |
| Open circuit voltage        | AC, DC       | 70 V DC                |
| Power ratio at max. current |              | 0.9                    |
| Efficiency at max. current  |              | 80 %                   |
| External dimensions         | L x W x H    | 690 x 260 x 870 mm     |
| Weight                      |              | 74 kg                  |

For TIG torches please see page 80-81.

## Ordering information

| MasterTig AC/DC 3500W | 6163505 |
|-----------------------|---------|
| Control panels        |         |
| ACDC basic panel      | 6162801 |
| ACDC Minilog panel    | 6162802 |
| ACDC Pulse panel      | 6162803 |
| Transport unit T22    | 6185256 |



MasterTig AC/DC 3500W has earned its reputation as a dependable, quality welding equipment

## Choose from three control panel options:



ACDC



ACDC Minilog



ACDC Pulse



# MMA welding

|                    |    |
|--------------------|----|
| Minarc Evo         | 52 |
| Minarc 220         | 54 |
| Master MLS         | 56 |
| FastMig KMS 400 AS | 58 |
| KempGouge          | 60 |

Compact, lightweight and capable. Kemppi MMA equipment meets professional welding demands in every respect. Arc ignition and stability dynamic control ensure every electrode burns effortlessly to produce quality welding.

All models are power generator compatible and able to operate in sub zero or desert sun conditions. So whether you need to repair your snow bike or complete that steel building project in the heat of the midday sun, you can trust Kemppi MMA equipment to get the job done.

# Minarc Evo 150

Little giants of the welding world



Energy efficient



## Why buy

- Premium welding performance
- Use with all electrode types
- PFC technology for ultimate energy efficiency
- Designed for use with long supply cables
- High current output and duty cycle
- Lightweight and portable
- Precise lift TIG technology
- Mains network or generator use
- Optional remote control
- Kemppi 2+ warranty for parts and labour

## Outstanding welding performance

**Every element of Minarc Evo 150 is designed to meet the needs of professional welders** on the move. Where size, weight and welding quality are concerned, there is no equal.

**Ideal for site use**, you can use Minarc Evo 150 from mains or generator power supplies, even with extra long supply cables. Minarc Evo is easy to carry, so you can normally take everything you need in one journey.

**Large voltage reserves and automatic arc force control** provide excellent arc stability in all welding positions and for a wide range of electrode types, making sure you get quality welding results every time.

**The large and clear meter display** makes accurate current setting simple and easy, and precise lift TIG ignition ensures high quality DC TIG welding. Connect Minarc Evo's remote control option and you can adjust welding parameters at distance during welding, for the ultimate convenience and weld pool control.

## Technical specifications

| Minarc Evo 150                                       |                            |                         |                                      |
|------------------------------------------------------|----------------------------|-------------------------|--------------------------------------|
| Connection voltage                                   | 1 ~ 50/60 Hz               |                         | 230 V ±15 % (AU 240 V ± 15 %)        |
| Rated power at max. current                          | 35 % ED MMA                |                         | 140 A/4.5 kVA                        |
|                                                      | 35 % ED TIG                |                         | 150 A/3.2 kVA                        |
| Supply current                                       | 35 % ED I <sub>1max</sub>  |                         | 19.7 A                               |
|                                                      | 100 % ED I <sub>1eff</sub> |                         | 12.9 A                               |
| Connection cable                                     | H07RN-F                    |                         | 3G1.5 (1.5 mm <sup>2</sup> , 3 m)    |
| Fuse                                                 | type C                     |                         | 16A: 140A ED 35%<br>10A: 140A ED 28% |
| Output 40 °C                                         | MMA                        | 35 % ED                 | 140 A/25.6 V                         |
|                                                      |                            | 60 % ED                 | 115 A/24.6 V                         |
|                                                      |                            | 100 % ED                | 100 A/24.0 V                         |
|                                                      | TIG                        | 35 % ED                 | 150 A/16.0                           |
|                                                      |                            | 60 % ED                 | 125 A/15.0 V                         |
|                                                      |                            | 100 % ED                | 110 A/14.4 V                         |
| Welding range                                        | MMA                        | 10 A/15 V... 140 A/37 V |                                      |
|                                                      | TIG                        | 10 A/1 V... 150 A/36 V  |                                      |
| No-load voltage; peak                                |                            |                         | 90 V (VRD 30 V, AU VRD 12 V)         |
| Idle power                                           | 17 W                       |                         |                                      |
| Voltage steps                                        |                            |                         | stepless                             |
| Power factor at 100 % ED                             |                            |                         | 0.99                                 |
| Efficiency at 100 % ED                               | MMA                        |                         | 82 %                                 |
| Stick electrodes                                     | ø                          |                         | 1.5...3.25 mm (some 4 mm)            |
| External dimensions LxWxH                            | height with handle         |                         | 361x139x267 mm                       |
| Weight                                               | without connection cable   |                         | 5.4 kg                               |
|                                                      | with connection cable      |                         | 5.85 kg                              |
| Temperature class                                    |                            |                         | B (130 °C)                           |
| EMC class                                            |                            |                         | A                                    |
| Degree of protection                                 |                            |                         | IP23S                                |
| Operating temperature range                          |                            |                         | -20...+40 °C                         |
| Storage temperature range                            |                            |                         | -40...+60 °C                         |
| Standards: IEC 60974-1, IEC 60974-10, IEC 61000-3-12 |                            |                         |                                      |

## Ordering information

| Minarc Evo (includes earth- and welding cables) |     |             |
|-------------------------------------------------|-----|-------------|
| Minarc Evo 140 AU                               |     | 61002140AU  |
| Minarc Evo 150                                  |     | 61002150    |
| Minarc Evo 150 AU                               |     | 61002150AU  |
| Minarc Evo 150 (Denmark)                        |     | 61002150DK  |
| Minarc Evo 150VRD                               |     | 61002150VRD |
| Earth return cable and clamp                    |     | 6184015     |
| Welding cable and electrode holder              |     | 6184005     |
| Carrying strap                                  |     | 9592163     |
| Optional: TIG torch TTM15V                      | 4 m | 6271432     |
| BETA 90X electronic welding shield              |     | 9873047     |
| R10 Hand held remote control                    | 5 m | 6185409     |

## Applications

- Metal workshops
- Construction industry
- Agriculture
- Repair and maintenance



Lightweight, compact and super portable



Large and clear meter display



Minarc Evo 150 includes electrode holder and welding cable set.

# Minarc 220

Powerful, portable and compact



## Why buy

- Excellent welding quality and ignition dynamics
- Light weight, high power and duty
- Ready to weld packages

## Applications

- Metal workshops
- Construction industry
- Agriculture
- Repair and maintenance

## For welding on the move

**Minarc 220** is a three phase, 220A DC MMA welding power source, offering a truly portable specification for welding technicians on the move.

Ignition performance is excellent with all MMA electrode types and the TIG welding TouchArc function provides reliable DC TIG welding capability when combined with the TTC 220 GVTIG torch. Remote control for MMA and TIG is also possible with either the R10 remote control unit or the RTC10 torch control unit.

## Technical specifications

| Minarc 220, 220 VRD             |              |          |                              |
|---------------------------------|--------------|----------|------------------------------|
| Connection voltage              | 3~, 50/60 Hz |          | 400 V -20 %...+15 %          |
| Rated power                     | MMA          | 35 % ED  | 220 A                        |
|                                 |              | 100 % ED | 150 A                        |
|                                 |              |          |                              |
| Output 40 °C                    | MMA          | 35 % ED  | 220 A / 28.8 V               |
|                                 |              | 60 % ED  | 170 A / 26.8 V               |
|                                 |              | 100 % ED | 150 A / 26.0 V               |
|                                 | TIG          | 35 % ED  | 220 A / 18.8 V               |
|                                 |              | 60 % ED  | 180 A / 17.2 V               |
|                                 |              | 100 % ED | 160 A / 16.4 V               |
| Connection cable                | H07RN-F      |          | 4G1.5 (5 m)                  |
| Fuse, delayed                   |              |          | 10 A                         |
| Welding range                   | MMA          |          | 10 A / 20.4 V-220 A / 28.8 V |
|                                 | TIG          |          | 10 A / 10.4 V-220 A / 18.8 V |
| Open circuit voltage            |              |          | 85 V (30 V/VRD)              |
| Power factor at maximum current | MMA          |          | 0.91 (TIG 0.92)              |
| Efficiency at max current       |              |          | 0.86 (TIG 0.80)              |
| Stick electrode                 | Ø            |          | 1.5–5.0 mm                   |
| External dimensions             | L x W x H    |          | 400 x 180 x 340 mm           |
| Weight                          |              |          | 9.2 kg                       |



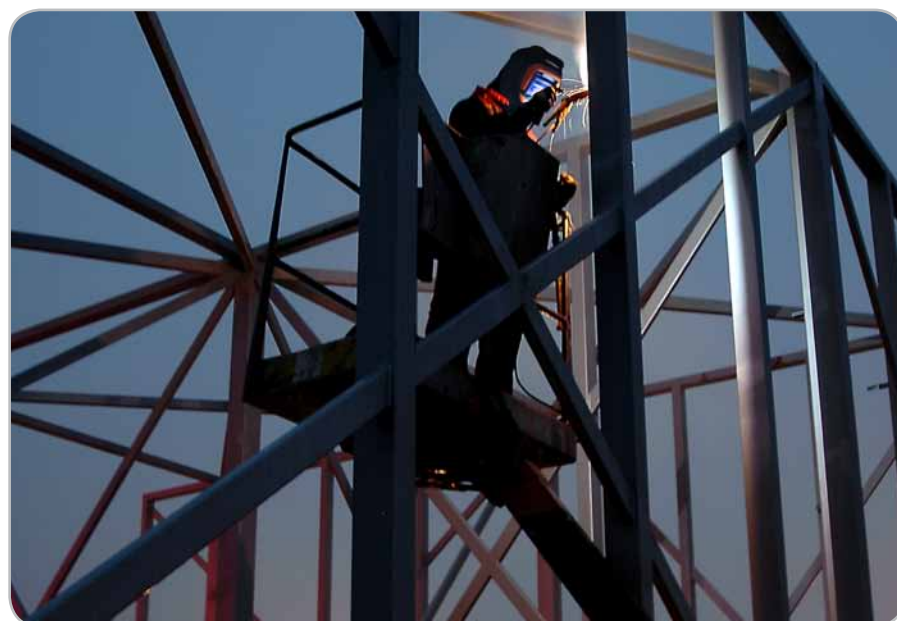
Exceptional welding performance and compact size makes Minarc 220 ideal for maintenance workshops repairing heavy equipment.

## Ordering information

|                                                                           |                |
|---------------------------------------------------------------------------|----------------|
| <b>Minarc 220, incl. earth return and welding cable, connection cable</b> | <b>6102220</b> |
| Minarc 220 VRD, incl. earth return and welding cable, connection cable    | 6102220VRD     |
| <b>Accessories</b>                                                        |                |
| Earth return cable                                                        | 6184211        |
| Welding cable                                                             | 6184201        |
| Carrying straps                                                           | 9592162        |



Minarc 220 is easy to set. Electrode type selection ensures the best welding quality and you can also use an optional remote control to make fine current adjustments during welding.



Minarc 220 for MMA site welding

# Master MLS 2500/3500

Premium MMA  
welding quality



## Why buy

- Specific design for MMA welding
- Compact and portable
- Control panel choice for varied applications
- Designed for all electrode types
- MMA and TIG welding function
- Suitable for use with power generators

## Applications

- Installation and set-up
- Repair and maintenance
- Chemical and process industry
- Shipyards and offshore industry

## Excellent arc control, durable design

### **Master MLS machines offer the best choice in MMA welding refinement.**

Combine either the 250 or 350 amp power source with the basic MEL or advanced MEX control panels for outstanding welding performance. High 40 % duty cycle ensures you have the work capacity to get the job done; whilst the compact and lightweight design makes work around site easy.

### **Control panel options MEL and MEX include all of the necessary parameter functions for high quality MMA welding.**

MEL panel includes process selection for MMA or basic TIG welding, large, clear meter display, hot start and arc force control, plus remote control function. MEX panel offers a more diverse selection of parameter controls including: Electronic electrode type selector, arc gouging, or broken arc welding technique and memory channel function. High quality TouchArc function provides a credible DC TIG welding facility.

## Technical specifications

| Master MLS™                 |              | 2500                        | 3500                        |
|-----------------------------|--------------|-----------------------------|-----------------------------|
| Connection voltage          | 3~, 50/60 Hz | 400 V (-15...+20 %)         | 400 V (-15...+20 %)         |
| Rated power at max. current | MMA          | 9.4 kVA                     | 15 kVA                      |
|                             | TIG          | 8.4 kVA                     | 13.8 kVA                    |
| Connection cable            | H07RN-F      | 4G1.5 (5 m)                 | 4G2.5 (5 m)                 |
| Fuse, delayed               |              | 10 A                        | 16 A                        |
| Output 40 °C                | 40 % ED      | 250 A/30 V (300 A/22 V TIG) | 350 A/34 V (400 A/26 V TIG) |
|                             | 60 % ED      | 205 A / 28.2 V              | 285 A / 31.4 V              |
|                             | 100 % ED     | 160 A / 26.4 V              | 220 A / 28.8 V              |
| Welding range               | MMA          | 10 A/20.5 V...250 A/30 V    | 10 A/20.5 V...350 A/34 V    |
|                             | TIG          | 5 A/10 V...300 A/22 V       | 5 A/10 V...400 A/26 V       |
| Open circuit voltage        |              | 80 V                        | 80 V                        |
| Power factor at 100% ED     |              | 0.95                        | 0.95                        |
| Efficiency at 100% ED       |              | 86 %                        | 86 %                        |
| Stick electrode             | ∅            | 1.5...5.0 mm                | 1.5...6.0 mm                |
| External dimensions         | L x W x H    | 500 x 180 x 390 mm          | 500 x 180 x 390 mm          |
| Weight                      |              | 20 kg                       | 21 kg                       |

## Ordering information

| Master MLS™ 2500          |         | 6104250   |
|---------------------------|---------|-----------|
| Welding cable 35 mm²      | 5 m     | 6184301   |
| Earth return cable 25 mm² | 5 m     | 6184311   |
| Electric plug 16 A        | 5-poles | 9770812   |
| Master MLS™ 3500          |         | 6104350   |
| Master MLS™ 3500 VRD      |         | 6104350C1 |
| Welding cable 50 mm²      | 5 m     | 6184501   |
| Earth return cable 50 mm² | 5 m     | 6184511   |
| Electric plug 16 A        | 5-poles | 9770812   |
| Control panels            |         |           |
| MEL                       |         | 6106000   |
| MEX                       |         | 6106010   |



Master MLS, shown here with T100 2-wheel transport unit

## Master MLS options



MEL



MEX



Master MLS is designed for professional use in demanding conditions.

# FastMig KMS 400 AS

CC/CV site welding with  
extraordinary  
credentials



## Why buy

- High output power and duty cycle
- For DC MMA and MIG/MAG welding
- Power generator compatible
- Light weight and compact, only 35 kg

## KMS 400 AS features include:

- Power source metering
- CC/CV process mode selection
- MMA Arc Force control
- MIG/MAG dynamics adjustment
- Start power control

## Power all DC welding process

### Site welding machines normally serve a little compromise in performance.

Not so with FastMig KMS 400 AS. 400 amp at 80 % duty cycle, 0.58 m<sup>3</sup> and weighing only 35 kg leaves most competitors in the cold – and that's before you start comparing the welding performance.

### Use FastMig KMS 400 AS for MMA welding or as a quality MIG/MAG power supply.

The perfect partner for ArcFeed 200/300 tough case site wire feed units. FastMig KMS 400 AS and ArcFeed combination requires no control cable and only a single power cable and earth return lead. Excellent for site welding applications.

**FastMig KMS 400 AS operation is clear and simple,** providing clean, efficient welding results. Select either CC mode for MMA welding or CV for MIG/MAG welding. Arc tuning functions are available at the touch of a button including MMA arc force and MIG/MAG dynamics control. For the Kemppi MXF wire feed user, FastMig KMS 400 AS provides full functionality for SF and SFW control panels, including appropriate Wise welding processes.

## Technical specifications

| FastMig KMS 400 AS                   |              |                         |
|--------------------------------------|--------------|-------------------------|
| Connection voltage                   | 3~, 50/60 Hz | 400 V (-15...+20 %)     |
| Rated power                          | 60 % ED      | -                       |
|                                      | 80 % ED      | 19.5 kVA                |
|                                      | 100 % ED     | 18.5 kVA                |
| Connection cable/fuse delayed        | H07RN-F      | 4G6 (5 m)               |
| Fuse (delayed)                       |              | 35 A                    |
| Output 40 °C                         | 60 % ED      | -                       |
|                                      | 80 % ED      | 400 A                   |
|                                      | 100 % ED     | 380 A                   |
| Welding current and voltage range    | MMA          | 10...400 A              |
|                                      | MIG          | 10...39 V               |
| Max. welding voltage                 |              | 46 V                    |
| Open circuit voltage                 |              | 50 V                    |
| Open circuit power                   |              | 25 W                    |
| Efficiency at 100 % ED               |              | 87 %                    |
| Power factor at 100 % ED             |              | 0.9                     |
| Operating temperature range          |              | -20...+40 °C            |
| Storage temperature range            |              | -40...+60 °C            |
| Degree of protection                 |              | IP23S                   |
| EMC class                            |              | A                       |
| External dimensions                  | L x W x H    | 590 x 230 x 430 mm      |
| Weight                               |              | 35 kg                   |
| Voltage supply for auxiliary devices |              | 50 V DC                 |
| X14, X15                             |              | fuse 6.3 A delayed      |
| Voltage supply for cooling unit      |              | 1~ 400 V AC and 24 V DC |

## Ordering information

| FastMig KMS 400 AS     | 6054001   |
|------------------------|-----------|
| Wire feeders           |           |
| ArcFeed 200            | 6120200   |
| ArcFeed 300            | 6120300   |
| ArcFeed 300P           | 6120310   |
| ArcFeed 300RC          | 6120301   |
| MXF 65                 | 6152100EL |
| MXF 67                 | 6152200EL |
| MXF 63                 | 6152300EL |
| MXF 65                 | 6152100   |
| MXF 67                 | 6152200   |
| MXF 63                 | 6152300   |
| Panels for MXF feeders |           |
| SF 51                  | 6085100   |
| SF 52W                 | 6085200W  |
| SF 53W                 | 6085300W  |
| SF 54                  | 6085400   |



KMS 400 AS shown with ArcFeed 200 voltage sensing site wire feed unit.

# KempGouge ARC 800

Mobile, heavy duty carbon arc gouging power



Energy efficient

## Why buy

- Designed specifically for carbon arc gouging
- Extremely power efficient
- Compact and easy to move
- Panel or remote current adjustment

## Applications

- Shipyards
- Metal fabrication workshops
- Foundries

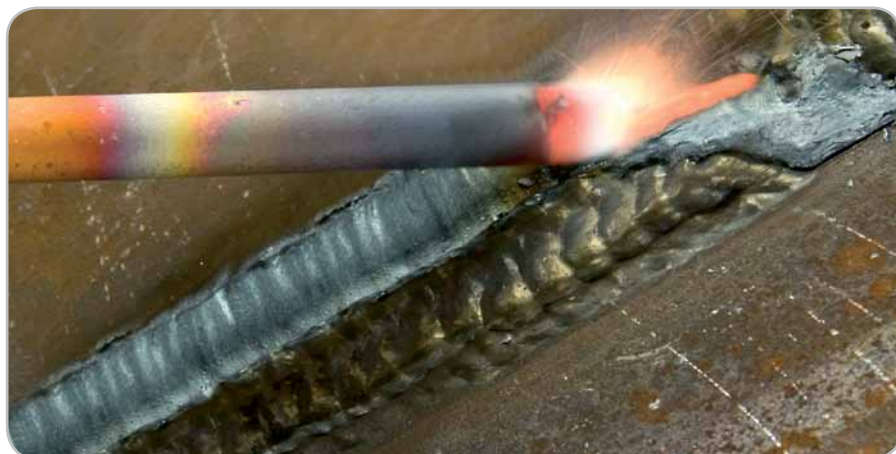
## The heavy-duty gouging specialist

**KempGouge offers 800 amps of gouging power with 50% duty cycle.** The characteristics curve is specifically designed for carbon arc gouging, so gouging properties are optimised and noise levels kept very low. Package includes power source, control panel, and transport unit for easy mobility. KempGouge lets you open roots or faulty welds, prepare welding grooves, cut metals, pierce holes, clean casts and remove excess metal.

**KempGouge ARC 800 gives productivity and convenience to gouging work.** When equipped with the optional R10 remote control unit, gouging current adjustment can be made directly from the work site, removing the need to move between the work piece and the power source. The carbon arc gouging electrode holder GT4000 is designed for use with the KempGouge and suits either round or flat electrodes. The air pressure used for gouging can be adjusted via the control mounted on the holder itself.

## KempGouge ARC 800 is a fast, effective, and safe way to:

- Open root welds
- Remove faulty welds and cracks
- Prepare welding grooves
- Cut metal
- Pierce holes



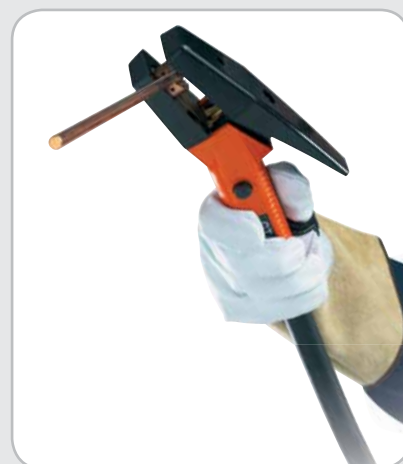
KempGouge ARC 800 makes easy work of carbon arc gouging tasks.

## Technical specifications

| <b>KempGouge™ ARC 800</b>   |              |                        |
|-----------------------------|--------------|------------------------|
| Connection voltage          | 3~, 50/60 Hz | 400 V, -15...+20 %     |
| Rated power at max. current | 50 % ED      | 44 kVA                 |
| Output                      | 50 % ED      | 800 A/44 V             |
|                             | 100% ED      | 600 A/44 V             |
| Fuse                        |              | 63 A delayed           |
| Welding range               |              | 20 A/20 V...800 A/44 V |
| Connection cable            | H07RN-F      | 4G16 (16 mm)           |
| Open circuit voltage        |              | 50 V                   |
| Power ratio at 100 % ED     |              | 0.9                    |
| Efficiency at 100 % ED      |              | 0.90                   |
| External dimensions         | L x W x H    | 700 x 660 x 1400 mm    |
| Weight with transport unit  |              | 115 kg                 |

## Ordering information

| <b>Power Sources</b>                        |           |
|---------------------------------------------|-----------|
| KempGouge ARC 800 (includes transport unit) | 6284000   |
| <b>Gouging electrode holder</b>             |           |
| GT 4000 with 2.1 m cable                    | 6285400   |
| <b>Remote control units</b>                 |           |
| R10 5 m                                     | 6185409   |
| R10 10 m                                    | 618540901 |
| Remote control extension cable for R10 10 m | 6185481   |



The carbon arc gouging electrode holder GT4000 is designed for use with the KempGouge and suits either round or flat electrodes.



KempGouge ARC 800 can be equipped with a R10 remote control unit, which enables gouging current adjustment directly from the work site.



A mobile, heavy duty carbon arc gouging power source for multiple type metals removal and cutting tasks.

# Guns and torches

|                                  |    |
|----------------------------------|----|
| MIG/MAG welding gun range        | 64 |
| Consumable and replacement parts | 66 |
| TIG welding torch range          | 80 |
| Consumable and replacement parts | 82 |



**Designed for comfortable and productive welding.**

Many welding tasks carry exceptional responsibility for the business and craftsman completing the work. So whether you're welding ship hulls or pleasure boats, rail cars or racing cars, you can trust Kemppi welding guns and torches to deliver value to every weld.





## MIG/MAG welding gun range

### Designed for **comfortable and productive welding**

**The best combination of weight and balance ensures welding craftsmen comfortably deliver their skill weld after weld. Choose from a wide range of Euro connected MIG/MAG welding guns in a variety of lengths from 3 to 8 meters.**

**FE guns** are specifically designed for regular fabrication tasks using ferrous filler wires and are available from 3.5 to 5 meters in length.

**MMT guns** are suitable for use across a wide range of materials and tasks, and they are available in both air and water cooled models from 3 to 4.5 meters in length.

**PMT guns** suit a variety of professional applications and include both air and water cooled models. PMT-MN models are air cooled only and designed specifically for root pass welding. **MN stands for Multi-Neck**, a 'fast change' gun neck system, allowing one of three neck variants to be selected and fitted to the gun handle in seconds. All PMT models accept the RMT10 remote control device, and when connected with compatible Kemppi MIG/MAG equipment, provides 'real time' selection of welding power or memory channels during welding.

**WS guns** offer extended reach and distance for stainless steel and aluminium welding and are available in both air and water cooled models from 6 to 8 meters in length. WS guns use a patented DL liner material that reduces friction loss and makes distance wire feeding possible.

## Technical specifications and ordering information

| FE                                  |       | FE 20     | FE 25     | FE 27     | FE 32     | FE 35     | FE 42     |
|-------------------------------------|-------|-----------|-----------|-----------|-----------|-----------|-----------|
| Load capacity, Ar + CO <sub>2</sub> | 35 %  | 200A      | 250 A     | 270 A     | 320 A     | 350 A     | 420 A     |
| Cooling                             |       | Air       | Air       | Air       | Air       | Air       | Air       |
| Filler wires                        | ø mm  | 0.6...1.2 | 0.6...1.2 | 0.6...1.2 | 0.8...1.6 | 0.8...1.6 | 0.8...1.6 |
| Length /                            | 3.5 m | 6602003   | 6602503   | 6602703   | 6603203   | 6603503   | 6604203   |
| Ordering code                       | 5 m   | 6602004   | 6602504   | 6602704   | 6603204   | 6603504   | 6604204   |

| MMT                                 |       | MMT 25     | MMT 27     | MMT 32     | MMT 35     | MMT 42     | MMT 42C   | MMT 30W    | MMT 42W    | MMT 52W    |
|-------------------------------------|-------|------------|------------|------------|------------|------------|-----------|------------|------------|------------|
| Load capacity, Ar + CO <sub>2</sub> | 35 %  | 250 A      | 270 A      | 320 A      | 350 A      | 420 A      | -         | -          | -          | -          |
|                                     | 100 % | -          | -          | -          | -          | -          | 350 A     | 300 A      | 400 A      | 500 A      |
| Cooling                             |       | Air        | Air        | Air        | Air        | Air        | Air       | Water      | Water      | Water      |
| Filler wires                        | ø mm  | 0.6...1.2  | 0.6...1.2  | 0.8...1.6  | 0.8...1.6  | 0.8...1.6  | 0.8...1.6 | 0.8...1.6  | 0.8...1.6  | 0.8...1.6  |
| Length /                            | 3 m   | 6252513MMT | 6252713MMT | 6253213MMT | 6253513MMT | 6254213MMT | 6254205   | 6253043MMT | 6254203MMT | 6255203MMT |
| Ordering code                       | 4.5 m | 6252514MMT | 6252714MMT | 6253214MMT | 6253514MMT | 6254214MMT | 6254207   | 6253044MMT | 6254204MMT | 6255204MMT |

| PMT                                 |       | PMT 25    | PMT 27    | PMT 32    | PMT 35    | PMT 42    | PMT 30W   | PMT 42W   | PMT 52W   |
|-------------------------------------|-------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Load capacity, Ar + CO <sub>2</sub> | 35 %  | 250 A     | 270 A     | 320 A     | 350 A     | 420 A     |           |           |           |
|                                     | 100 % |           |           |           |           |           | 300 A     | 400 A     | 500 A     |
| Cooling                             |       | Air       | Air       | Air       | Air       | Air       | Water     | Water     | Water     |
| Filler wires                        | ø mm  | 0.6...1.2 | 0.6...1.2 | 0.8...1.6 | 0.8...1.6 | 0.8...1.6 | 0.8...1.6 | 0.8...1.6 | 0.8...1.6 |
| Length /                            | 3 m   | 6252513   | 6252713   | 6253213   | 6253513   | 6254213   | 6253043   | 6254203   | 6255203   |
| Ordering code                       | 4.5 m | 6252514   | 6252714   | 6253214   | 6253514   | 6254214   | 6253044   | 6254204   | 6255204   |

The gun's standard delivery has welding set for steel wire.

| PMT MN       | 3.5 m, ø 1.0 mm |                   | 3.5 m, ø 1.2 mm |                 | 5 m, ø 1.0 mm |                   | 5 m, ø 1.2 mm |                 |
|--------------|-----------------|-------------------|-----------------|-----------------|---------------|-------------------|---------------|-----------------|
| Filler wires | Ordering code   | Neck              | Ordering code   | Neck            | Ordering code | Neck              | Ordering code | Neck            |
| 0.8...1.6    | 62503230N01     | Fe, 45°, L222     | 62503230N02     | Fe, 45°/222     | 62503250N01   | Fe, 45°, L222     | 62503250N02   | Fe, 45°/222     |
| 0.8...1.6    | 62503230N01SS   | Ss, 45°, L222     | 62503230N02SS   | Ss, 45°/222     | 62503250N01SS | Ss, 45°, L222     | 62503250N02SS | Ss, 45°/222     |
| 0.6...1.2    | 62503230N05     | Fe, L168, RP      | 62503230N06     | Fe, 60°/168, RP | 62503250N05   | Fe, 60°, L168, RP | 62503250N06   | Fe, 60°/168, RP |
| 0.6...1.2    | 62503230N07     | Fe, 60°, L198     | 62503230N08     | Fe, 60°/198     | 62503250N07   | Fe, 60°, L198     | 62503250N08   | Fe, 60°/198     |
| 0.6...1.2    | 62503230N09     | Fe, 60°, L168     | 62503230N10     | Fe, 60°/168     | 62503250N09   | Fe, 60°, L168     | 62503250N10   | Fe, 60°/168     |
| 0.6...1.2    | 62503230N03     | Fe, L198, RP      | 62503230N04     | Fe, 60°/198, RP | 62503250N03   | Fe, 60°, L198, RP | 62503250N04   | Fe, 60°/198, RP |
| 0.6...1.2    | 62503230N03SS   | Ss, 60°, L198, RP | 62503230N04SS   | Ss, 60°/198, RP | 62503250N03SS | Ss, 60°, L198, RP | 62503250N04SS | Ss, 60°/198, RP |
| 0.6...1.2    | 62503230N05SS   | Ss, 60°, L168, RP | 62503230N06SS   | Ss, 60°/168, RP | 62503250N05SS | Ss, 60°, L168, RP | 62503250N06SS | Ss, 60°/168, RP |
| 0.6...1.2    | 62503230N07SS   | Ss, 60°, L198     | 62503230N08SS   | Ss, 60°/198     | 62503250N07SS | Ss, 60°, L198     | 62503250N08SS | Ss, 60°/198     |
| 0.6...1.2    | 62503230N09SS   | Ss, 60°, L168     | 62503230N10SS   | Ss, 60°/168     | 62503250N09SS | Ss, 60°, L168     | 62503250N10SS | Ss, 60°/168     |

RP= Root pass, Ss models with Chili liner, Fe models with spiral liner. All packages air-cooled, load capacity 320 A @ 35% A (Ar + CO<sub>2</sub>)

| WS                                                                                  |             | WS35       | WS30W       | WS42W       | MMG                                                          | MMG 20                | MMG 22       |
|-------------------------------------------------------------------------------------|-------------|------------|-------------|-------------|--------------------------------------------------------------|-----------------------|--------------|
| Load capacity, Ar + CO <sub>2</sub>                                                 |             | 300 A/35 % | 250 A/100 % | 300 A/100 % |                                                              | 200 A (35 %)          | 200 A (35 %) |
| Cooling                                                                             |             | Air        | Water       | Water       |                                                              | Air                   | Air          |
| Filler wires                                                                        | Ss          | 1.0        | 1.0...1.2   | 1.0...1.2   | Fe                                                           | 0.6...1.0             | 0.6...1.0    |
| ø mm                                                                                | Al          | 1.2        | 1.2 (1.6)   | 1.2 (1.6)   | Ss, Al                                                       | 0.8...1.0             | 0.8...1.0    |
| Ordering codes                                                                      | 6 m, Al 1.2 | 6253516A12 | 6253046A12  | 6254206A12  | 3 m                                                          | 6250200               | 6250200      |
|                                                                                     | 6 m Ss 1.0  | 6253516S10 | 6253046S10  | 6254206S10  | MMG 20 and MMG 22 guns are used only in MinarcMig equipment. |                       |              |
|                                                                                     | 6 m Ss 1.2  | -          | 6253046S12  | 6254206S12  |                                                              |                       |              |
|                                                                                     | 8 m, Al 1.2 | -          | 6253048A12  | 6254208A12  | Wire liners:                                                 |                       |              |
|                                                                                     | 8 m Ss 1.0  | -          | 6253048S10  | 6254208S10  |                                                              |                       |              |
|                                                                                     | 8 m Ss 1.2  | -          | 6253048S12  | 6254208S12  |                                                              |                       |              |
| The ordering number comprises the gun, the DL Teflon wire liner and 5 contact tips. |             |            |             |             | MMG 22                                                       | 0.6...1.0 mm (Fe)     | 4307650      |
|                                                                                     |             |            |             |             |                                                              | 0.8...1.0 mm (Ss, Al) | 4307660      |

# Consumable and replacement parts

Kemppi consumable and replacement parts are specifically designed for their application and manufactured under the ISO quality system. Please ensure that you always select and replace damaged or worn gun parts with original Kemppi equipment. All parts listed suit the model specifications at the time of publication.

## Wire liners

Kemppi gun liners are strong, durable and efficient. Designed to suit specific filler wire materials and applications, Kemppi liners support the filler wire and ensure reliable delivery to the welding arc. The liner selection tables describe gun type, filler material, liner colour, item code and gun length. Steel spiral liners carry the same colour coding as Kemppi machine feed rolls and drive rolls, making wire size, liner and drive roll matching easier if the gun is connected to Kemppi equipment. Steel spiral liners are suitable for welding solid and cored filler wires of corresponding wire diameter.

Kemppi DL Chili -Teflon liners are the latest solution for reliable feeding of aluminium, stainless steel, acid-resistant and solid steel filler wires. Kemppi's patented technology, two layer DL Chili liner material significantly reduces friction losses between the filler wire material and liner wall, ensuring reliable and worry-free feeding for listed wires types, even in guns up to 8 meters in length. Please refer to the following tables to ensure accurate selection of liners for your chosen welding gun and application.

### Wire liners for FE guns

| Steel/<br>cored wire                | Filler wire<br>ø, mm | Order<br>number,<br>3.5 m | Order<br>number,<br>5 m |
|-------------------------------------|----------------------|---------------------------|-------------------------|
|                                     | 0.6...0.8            | 4188573                   | 4188576                 |
|                                     | 0.9...1.2            | W006453                   | W006454                 |
|                                     | 1.4...1.6            | W006455                   | W006456                 |
| Steel/Aluminium/<br>Stainless steel | Filler wire<br>ø, mm | Order<br>number,<br>3.5 m | Order<br>number,<br>5 m |
| DL Chili 4.7/1.5                    | 0.6...1.0            | W007675                   | W007676                 |
| DL Chili 4.7/2.0                    | 1.0...1.2            | W007677                   | W007680                 |
| DL Chili 4.7/2.5                    | 1.2...1.6            | W007681                   | W007683                 |

### Wire liners for WeldSnake

| Steel/Aluminium/<br>Stainless steel | Filler wire<br>ø, mm | Order<br>number,<br>6 m | Order<br>number,<br>8 m |
|-------------------------------------|----------------------|-------------------------|-------------------------|
| DL Chili 5.9/1.5                    | 0.6...1.0            | W005943                 | W005946                 |
| DL Chili 5.9/2.0                    | 1.0...1.2            | W005944                 | W005947                 |
| DL Chili 5.9/2.5                    | 1.2...1.6            | W005945                 | W005948                 |
| Aluminium                           |                      |                         |                         |
| DL Chili 5.9/3.0                    | 1.6                  | W007672                 | W007958                 |

### Wire liner system for automation

| Steel spiral liner (min. 10 m)        | W005195 |
|---------------------------------------|---------|
| Liner connector (2 needed)            | W005197 |
| DT 400/400L/410 connector             | W005188 |
| DT 400/400L/410 adapter               | W005174 |
| Wire spool / drum connector, isolated | W005189 |

### Wire liners for MMT, PMT guns

| Steel/<br>cored wire                | Filler wire<br>ø, mm | Order<br>number,<br>3 m | Order<br>number,<br>4.5 m |
|-------------------------------------|----------------------|-------------------------|---------------------------|
|                                     | 0.6...0.8            | 4188571                 | 4188572                   |
|                                     | 0.9...1.2            | 4188581                 | 4188582                   |
|                                     | 1.4...1.6 (1.2)      | 4188591                 | 4188592                   |
|                                     | 1.6...2.0            | 4188601                 | 4188602                   |
|                                     | 2.0...2.4            | 4188611                 | 4188612                   |
|                                     | 2.8...3.2            | 4188621                 | 4188622                   |
| Steel/Aluminium/<br>Stainless steel | Filler wire<br>ø, mm | Order<br>number,<br>3 m | Order<br>number,<br>4.5 m |
| DL Chili 5.9/1.5                    | 0.6...1.0            | W005920                 | W005937                   |
| DL Chili 5.9/2.0                    | 1.0...1.2            | W005921                 | W005938                   |
| DL Chili 5.9/2.5                    | 1.2...1.6            | W005922                 | W005939                   |
| Aluminium                           |                      |                         |                           |
| DL Chili 5.9/3.0                    | 1.6                  | W007671                 | W007957                   |

### Wire liners for PMT MN guns

| Steel/<br>cored wire                | Filler wire<br>ø, mm | Order<br>number,<br>3.5 m | Order<br>number,<br>5 m |
|-------------------------------------|----------------------|---------------------------|-------------------------|
|                                     | 0.9...1.2            | W007968                   | W007969                 |
|                                     | 1.4...1.6            | W007970                   | W007971                 |
| Steel/Aluminium/<br>Stainless steel | Filler wire<br>ø, mm | Order<br>number,<br>3.5 m | Order<br>number,<br>5 m |
| DL Chili 5.9/1.5                    | 0.6...1.0            | W007959                   | W007960                 |
| DL Chili 5.9/2.0                    | 1.0...1.2            | W007961                   | W007962                 |
| DL Chili 5.9/2.5                    | 1.2...1.6            | W007963                   | W007964                 |

# Contact tips

When you replace the contact tip, always check the label on the tip to make sure that the part is suitable for the filler wire. As a general rule, the contact tip hole must be 0.2–0.5 mm greater than the filler wire diameter.

## Standard contact tips M8 (DHP) for solid mild steel and flux-cored wire

Marking: Kemppi 1.2



| Wire ø | Hole ø | Tolerance   | Order number |
|--------|--------|-------------|--------------|
| 0.8    | 0.9    | +0.1/-0.0   | 9580122      |
| 0.9    | 1.05   | +0.05/-0.02 | 9580121      |
| 1.0    | 1.15   | +0.05/-0.02 | 9580123      |
| 1.2    | 1.4    | +0.05/-0.05 | 9580124      |
| 1.4    | 1.6    | +0.05/-0.05 | 9580125      |
| 1.6    | 1.8    | +0.1/-0.0   | 9580126      |
| 2.0    | 2.3    | +0.0/-0.1   | 9580127      |
| 2.4    | 2.7    | +0.05/-0.05 | 9580128      |
| 2.8    | 3.1    | +0.1/-0.0   | 9580129      |
| 3.2    | 3.6    | +0.05/-0.05 | 9580130      |

## Contact tips M8 (DHP) for Aluminium wire

Marking: Kemppi 1.2 A

|     |      |             |          |
|-----|------|-------------|----------|
| 0.8 | 1.05 | +0.05/-0.02 | 9580122A |
| 0.9 | 1.15 | +0.05/-0.02 | 9580121A |
| 1.0 | 1.4  | +0.05/-0.05 | 9580123A |
| 1.2 | 1.6  | +0.05/-0.05 | 9580124A |
| 1.4 | 1.8  | +0.10/-0.00 | 9580125A |
| 1.6 | 2.0  | +0.00/-0.10 | 9580126A |

## Contact tips M8 (CuAg) for Fe and flux cored wire

Marking: Kemppi 1.2 Ag

|     |      |             |           |
|-----|------|-------------|-----------|
| 1.0 | 1.15 | +0.05/-0.02 | 9580123AG |
| 1.2 | 1.4  | +0.05/-0.05 | 9580124AG |

## Contact tips M8 (CuCrZr) for solid mild steel and flux cored wire

Marking: Kemppi 1.2 CRZR

|     |      |             |           |
|-----|------|-------------|-----------|
| 1.0 | 1.15 | +0.05/-0.02 | 9580123ZR |
| 1.2 | 1.4  | +0.05/-0.05 | 9580124ZR |
| 1.4 | 1.6  | +0.05/-0.05 | 9580125ZR |

## Contact tips M8 (DHP) for stainless and high acid-resistant steel

Marking: Kemppi 1.2 SS

|     |      |             |           |
|-----|------|-------------|-----------|
| 0.8 | 1.15 | +0.05/-0.02 | 9580122SS |
| 0.9 | 1.4  | +0.05/-0.05 | 9580121SS |
| 1.0 | 1.6  | +0.05/-0.05 | 9580123SS |
| 1.2 | 1.8  | +0.10/-0.00 | 9580124SS |
| 1.6 | 2.3  | +0.00/-0.10 | 9580126SS |

## Contact tips M8 (LIFE+ material) for solid mild steel and flux cored wire

Marking: Kemppi 1.2 LIFE+



|     |      |             |         |
|-----|------|-------------|---------|
| 0.8 | 0.9  | +0.1/-0.0   | W007919 |
| 0.9 | 1.05 | +0.05/-0.05 | W007920 |
| 1.0 | 1.15 | +0.05/-0.05 | W006826 |
| 1.2 | 1.4  | +0.05/-0.05 | W006518 |
| 1.6 | 1.8  | +0.1/-0.0   | W007921 |

## Standard contact tips M6 (DHP) for solid mild steel and flux cored wire

Marking: Kemppi 1.2

|     |      |             |         |
|-----|------|-------------|---------|
| 0.6 | 0.8  | +0.05/-0.02 | 9876634 |
| 0.8 | 0.95 | +0.05/-0.02 | 9876635 |
| 0.9 | 1.05 | +0.05/-0.02 | 9876633 |
| 1.0 | 1.15 | +0.05/-0.02 | 9876636 |
| 1.2 | 1.37 | +0.05/-0.02 | 9876637 |
| 1.6 | 1.8  | +0.05/-0.02 | 9876639 |

## Contact tips M6 (CuCrZr) for solid mild steel and flux cored wire

Marking: Kemppi 0.8 CrZr

|     |      |             |           |
|-----|------|-------------|-----------|
| 0.8 | 0.95 | +0.05/-0.02 | 9876635ZR |
|-----|------|-------------|-----------|

## Contact tips M6 ROOT (DHP) for solid mild steel and flux cored wire

Marking: Kemppi 1.2



|     |      |             |         |
|-----|------|-------------|---------|
| 0.8 | 0.95 | +0.05/-0.02 | 9876647 |
| 0.9 | 1.05 | +0.05/-0.02 | 9876648 |
| 1.0 | 1.15 | +0.05/-0.02 | 9876649 |
| 1.2 | 1.37 | +0.05/-0.02 | 9876650 |

# Consumable parts for wire feed mechanisms

## Wire guide tubes for 2-roll wire feed mechanism SL250

| Wire ø mm  |           | Wire guide tube ø mm |     |         |       |         |     |                 |
|------------|-----------|----------------------|-----|---------|-------|---------|-----|-----------------|
| Fe, Mc, Fc | 0.6...0.8 |                      | 1.0 | 3134140 | brass | 4285900 | 1.8 | plastic 4102283 |
|            | 0.9...1.6 |                      | 2.0 | 3133700 |       |         |     |                 |
| Ss, Al     | 0.8...1.6 |                      | 2.5 | 3134290 |       |         |     |                 |



## Wire guide tubes for 4-roll wire feed mechanism SL500

| Wire ø mm  |           | Wire guide tube ø mm |     |         |  |     |         |                 |
|------------|-----------|----------------------|-----|---------|--|-----|---------|-----------------|
| Fe, Mc, Fc | 0.6...0.8 |                      | 1.0 | 3134140 |  | 2.0 | 3134120 | plastic 4267220 |
|            |           |                      |     |         |  |     |         | plastic 4266970 |
|            | 0.9...1.6 |                      | 2.0 | 3133700 |  |     |         | plastic 4270180 |
|            | 1.6...2.4 |                      | 4.0 | 3134130 |  | 4.0 | 3134110 | brass 4267030   |
| Ss, Al     | 0.8...1.6 |                      | 2.5 | 3134290 |  | 2.5 | 3134300 | plastic 4267220 |
|            | 1.6...2.4 |                      | 3.0 | 3134710 |  | 3.0 | 3134720 | plastic 4270180 |



| Feed rolls         |  | 2-roll      |         | 4-roll |             |         |
|--------------------|--|-------------|---------|--------|-------------|---------|
|                    |  | ø mm        |         | ø mm   |             |         |
| Fe, Ss, Al         |  | 0.6/0.8     | 3133810 |        | 0.6/0.8     | 3133810 |
|                    |  | 0.8/0.8 (L) | 3143180 |        | 0.8/0.8 (L) | 3143180 |
| V-groove, plain    |  | 1.0/1.2     | 3133210 |        | 1.0/1.2     | 3133210 |
|                    |  | 1.0/1.0 (L) | 3138650 |        | 1.0/1.0 (L) | 3138650 |
|                    |  | 1.2/1.2 (L) | 3137390 |        | 1.2/1.2 (L) | 3137390 |
|                    |  | 1.4-1.6     | 3133820 |        | 1.4-1.6/2.0 | 3133820 |
|                    |  | 1.6/1.6 (L) | 3141120 |        | 1.6/1.6 (L) | 3141120 |
|                    |  |             |         |        | 2.4         | 3133880 |
|                    |  |             |         |        | 3.2         | 3133910 |
| Fe, Fc, Mc         |  | 1.0/1.2     | 3133940 |        | 1.0/1.2     | 3133940 |
|                    |  | 1.2/1.2 (L) | 3137380 |        | 1.2/1.2 (L) | 3137380 |
| V-groove, knurled  |  | 1.4-1.6     | 3133990 |        | 1.4-1.6/2.0 | 3133990 |
|                    |  | 1.6/1.6 (L) | 3141130 |        | 1.6/1.6 (L) | 3141130 |
|                    |  |             |         |        | 2.4         | 3134030 |
|                    |  |             |         |        | 3.2         | 3134060 |
| Al                 |  | 1.0/1.2     | 3133960 |        | 1.0/1.2     | 3133960 |
| U-groove           |  | 1.2/1.6     | 3141590 |        | 1.2/1.6     | 3141590 |
| Fe, Fc, Mc, Ss, Al |  | 1.2/1.2 (L) | 3142210 |        | 1.2/1.2 (L) | 3142210 |
|                    |  | 1.4/1.4 (L) | 3142220 |        | 1.4/1.4 (L) | 3142220 |
| Trapezoid groove   |  | 1.6/1.6 (L) | 3142200 |        | 1.6/1.6 (L) | 3142200 |
|                    |  |             |         |        | 2.0/2.0 (L) | 3142230 |
|                    |  |             |         |        | 2.4 (L)     | 3142240 |

(L) = Fitted with ball bearings

## Gear wheel, 2-roll wire feed mechanism

|         |              |         |         |
|---------|--------------|---------|---------|
| ø 28 mm | (0-18 m/min) | 4265240 | plastic |
| ø 28 mm | (0-18 m/min) | 4287860 | steel   |

## Gear wheel, 4-roll wire feed mechanism

|         |              |         |         |
|---------|--------------|---------|---------|
| ø 28 mm | (0-18 m/min) | 4265240 | plastic |
| ø 28 mm | (0-18 m/min) | 4287860 | steel   |
| ø 40 mm | (0-25 m/min) | 4265250 | plastic |
| ø 40 mm | (0-25 m/min) | 4297270 | steel   |

**Wire feed mechanism DuraTorque™ 400 / DT400 / DT400L / DT410 / MXF 63 -65 -67 / MSF 53 -55 -57 / MF 29 / Kempact MIG 2530 -Pulse 3000 -Pulse 3000MVU**
**Wire feed mechanism GT04 / Fastmig MXP 37**

| Feed rolls (plastic) |    |   |         |         |         |         |                       |         |         |         |
|----------------------|----|---|---------|---------|---------|---------|-----------------------|---------|---------|---------|
| Wire ø mm            |    |   | 0.6     | 0.8/0.9 | 1.0     | 1.2     | 1.4                   | 1.6     | 2.0     | 2.4     |
| Fe,SS, (Al, Mc, Fc)  | V  | 1 | W001045 | W001047 | W000675 | W000960 | W001049               | W001051 | W001053 | W001055 |
| V-groove, plain      |    | 2 | W001046 | W001048 | W000676 | W000961 | W001050               | W001052 | W001054 | W001056 |
| Fc, Mc (Fe)          | V≡ | 1 |         |         | W001057 | W001059 | W001061 (ø 1.4 - 1.6) |         | W001063 | W001065 |
| V-groove, knurled    |    | 2 |         |         | W001058 | W001060 | W001062 (ø 1.4 - 1.6) |         | W001064 | W001066 |
| Al, (Fc, Mc, SS, Fe) | U  | 1 |         |         | W001067 | W001069 | W001071               |         |         |         |
| U-groove             |    | 2 |         |         | W001068 | W001070 | W001072               |         |         |         |

1= lower feed roll, 2= upper feed roll.

**Wire feed mechanism DuraTorque™ 400 / DT400 / DT400L / DT410 / MXF 63 -65 -67 / MSF 53 -55 -57 / MF 29 / Kempact MIG 2530 -Pulse 3000 -Pulse 3000MVU**
**Wire feed mechanism GT04 / Fastmig MXP 37**

| Feed rolls (metal) Wire ø mm |    |   | 0.8/0.9 | 1.0     | 1.2     | 1.4                   | 1.6     | 2.0     |  |
|------------------------------|----|---|---------|---------|---------|-----------------------|---------|---------|--|
| Fe,SS, (Al, Mc, Fc)          | V  | 1 | W006074 | W006076 | W004754 |                       | W006078 |         |  |
| V-groove, plain              |    | 2 | W006075 | W006077 | W004753 |                       | W006079 |         |  |
| Fc, Mc (Fe)                  | V≡ | 1 |         | W006080 | W006082 | W006084 (ø 1.4 - 1.6) |         | W006086 |  |
| V-groove, knurled            |    | 2 |         | W006081 | W006083 | W006085 (ø 1.4 - 1.6) |         | W006087 |  |
| Al, (Fc, Mc, SS, Fe)         | U  | 1 |         | W006088 | W006090 |                       | W006092 |         |  |
| U-groove (not Al with GT04)  |    | 2 |         | W006089 | W006091 |                       | W006093 |         |  |

1= lower feed roll, 2= upper feed roll

**Wire feed mechanism DuraTorque™ 400 / DT400 / DT400L / DT410 / MXF 63 -65 -67 / MSF 53 -55 -57 / MF 29 / Kempact MIG 2530 -Pulse 3000 -Pulse 3000MVU**

| Wire guide tube                                  |                         |         |         |         |         |                       |         |         |         |
|--------------------------------------------------|-------------------------|---------|---------|---------|---------|-----------------------|---------|---------|---------|
| Wire ø mm                                        |                         | 0.6     | 0.8/0.9 | 1.0     | 1.2     | 1.4                   | 1.6     | 2.0     | 2.4     |
| Wire guide tube IN: SS, Al (Fe, Mc, Fc) plastic  |                         | W007293 | W007294 | W007295 | W007296 | W007297               | W007298 | W007299 | W007300 |
| Wire guide tube IN: Fe, Fc, Mc metal             |                         |         | W007536 | W007537 | W007538 | W007539 (ø 1.4 - 1.6) |         | W007540 | W007541 |
| Wire guide tube MID: SS, Al (Fe, Mc, Fc) plastic | ref.<br>length<br>33 mm | W007429 | W007430 | W007431 | W007432 | W007433               | W007434 | W007435 | W007436 |
| Wire guide tube MID: Fe, Fc, Mc metal            |                         |         | W007465 | W007466 | W007467 | W007469 (ø 1.4 - 1.6) |         | W007470 | W007471 |
| Wire guide tube OUT: SS, Al (Fe, Mc, Fc) plastic | ref.<br>length<br>64 mm | W007437 | W007438 | W007439 | W007440 | W007441               | W007442 | W007443 | W007444 |
| Wire guide tube OUT: Fe, Fc, Mc metal            |                         |         | W007454 | W007455 | W007456 | W007458 (ø 1.4 - 1.6) |         | W007459 | W007460 |

**Wire feed mechanism GT04 / Fastmig MXP 37**

| Wire guide tube                                  |                   |         |         |         |         |                       |         |          |         |
|--------------------------------------------------|-------------------|---------|---------|---------|---------|-----------------------|---------|----------|---------|
| Wire ø mm                                        |                   | 0.6     | 0.8/0.9 | 1.0     | 1.2     | 1.4                   | 1.6     | 2.0      | 2.4     |
| Wire guide tube IN: SS, Al (Fe, Mc, Fc) plastic  |                   | W007293 | W007294 | W007295 | W007296 | W007297               | W007298 | W007299  | W007300 |
| Wire guide tube IN: Fe, Fc, Mc metal             |                   |         | W007536 | W007537 | W007538 | W007539 (ø 1.4 - 1.6) |         | W007540  | W007541 |
| Wire guide tube MID: SS, Al, Fe, Mc, Fc plastic  | ref. length 33 mm | W007273 | W007274 | W007275 | W007276 | W007277               | W007278 | W007279  | W007280 |
| Wire guide tube OUT: SS, Al (Fe, Mc, Fc) plastic | ref. length 64 mm | W007285 | W007286 | W007287 | W007488 | W007289               | W007290 | W0072491 | W007292 |
| Wire guide tube OUT: Fe, Fc, Mc metal            |                   |         | W007454 | W007455 | W007456 | W007458 (ø 1.4 - 1.6) |         | W007459  | W007460 |

# Consumable parts for wire feed mechanisms

| Wire feed mechanism DuraTorque™ 400 / Kempact 253R -253A -253RMV -253AMV -323R -323A -323RMV -323AMV |    |     |         |         |         |
|------------------------------------------------------------------------------------------------------|----|-----|---------|---------|---------|
| Wire feed mechanism GT02C / Kempact 181A -251R -251A                                                 |    |     |         |         |         |
| Feed rolls (plastic)                                                                                 |    |     |         |         |         |
| Wire ø mm                                                                                            |    | 0.6 | 0.8/0.9 | 1.0     | 1.2     |
| Fe,SS, (Al, MC, Fc)<br>V-groove, plain                                                               | V  | 1   | W001045 | W001047 | W000675 |
|                                                                                                      |    | 2   | W001046 | W001048 | W000676 |
| Fc, Mc (Fe)<br>V-groove, knurled                                                                     | V≡ | 1   |         |         | W001057 |
|                                                                                                      |    | 2   |         |         | W001058 |
| Al, (Fe, Fc, Mc, SS)<br>U-groove                                                                     | U  | 1   |         |         | W001067 |
|                                                                                                      |    | 2   |         |         | W001068 |

1= lower feed roll, 2= upper feed roll

| Wire feed mechanism DuraTorque™ 400 / Kempact 253R -253A -253RMV -253AMV -323R -323A -323RMV -323AMV |                   |         |         |         |         |
|------------------------------------------------------------------------------------------------------|-------------------|---------|---------|---------|---------|
| Wire guide tube                                                                                      |                   |         |         |         |         |
| Wire ø mm                                                                                            |                   | 0.6     | 0.8/0.9 | 1.0     | 1.2     |
| Wire guide tube MID: Fe,SS, (Al, MC, Fc) plastic                                                     | ref. length 33 mm | W007429 | W007430 | W007431 | W007432 |
| Wire guide tube MID: Fe, Fc, Mc metal                                                                |                   |         | W007465 | W007466 | W007467 |
| Wire guide tube OUT: Fe,SS, (Al, MC, Fc) plastic                                                     | ref. length 78 mm | W007448 | W007445 | W007446 | W007447 |
| Wire guide tube OUT: Fe, Fc, Mc metal                                                                |                   |         | W007461 | W007462 | W007463 |
| Wire guide tube Kempact RA                                                                           |                   |         |         |         | W006410 |
| WF Backsleeve 2.0 mm Kempact RA                                                                      |                   |         |         |         | W005784 |

| Wire feed mechanism GT02C / Kempact 181A -251R -251A |                    |         |         |         |         |
|------------------------------------------------------|--------------------|---------|---------|---------|---------|
| Wire guide tube                                      |                    |         |         |         |         |
| Wire ø mm                                            |                    | 0.6     | 0.8/0.9 | 1.0     | 1.2     |
| Wire guide tube OUT: Fe,SS, (Al, MC, Fc) plastic     | ref. length 106 mm | W007532 | W007533 | W007534 | W007535 |
| Wire guide tube Kempact RA                           |                    |         |         |         | W006410 |
| WF Backsleeve 2.0 mm GT02 Kempact RA                 |                    |         |         |         | W006019 |

| Wire feed mechanism GT02 / FitWeld 300                                                                                   |   |         |         |         |
|--------------------------------------------------------------------------------------------------------------------------|---|---------|---------|---------|
| Feed rolls (plastic)                                                                                                     |   |         |         |         |
| Wire ø mm                                                                                                                |   | 0.8/0.9 | 1.0     | 1.2     |
| Fe,SS, (Al, MC, Fc)<br>V-groove, plain  | 1 | W001047 | W000675 | W000960 |
|                                                                                                                          | 2 | W001048 | W000676 | W000961 |
| Fc,Mc (Fe)<br>V-groove, knurled         | 1 |         | W001057 | W001059 |
|                                                                                                                          | 2 |         | W001058 | W001060 |
| Al, (Fc, Mc, SS, Fe)<br>U-groove        | 1 |         | W001067 | W001069 |
|                                                                                                                          | 2 |         | W001068 | W001070 |
| 1= lower feed roll, 2= upper feed roll                                                                                   |   |         |         |         |

| Wire feed mechanism GT02 / FitWeld 300                                                                                     |           |         |         |         |
|----------------------------------------------------------------------------------------------------------------------------|-----------|---------|---------|---------|
| Feed rolls (metal)                                                                                                         | Wire ø mm | 0.8/0.9 | 1.0     | 1.2     |
| Fe,SS, (Al, MC, Fc)<br>V-groove, plain  | 1         | W006074 | W006076 | W004754 |
|                                                                                                                            | 2         | W006075 | W006077 | W004753 |
| Fc,Mc (Fe)<br>V-groove, knurled          | 1         |         | W006080 | W006082 |
|                                                                                                                            | 2         |         | W006081 | W006083 |
| Al, (Fc, Mc, SS, Fe)<br>U-groove        | 1         |         | W006088 | W006090 |
|                                                                                                                            | 2         |         | W006089 | W006091 |
| 1= lower feed roll, 2= upper feed roll                                                                                     |           |         |         |         |

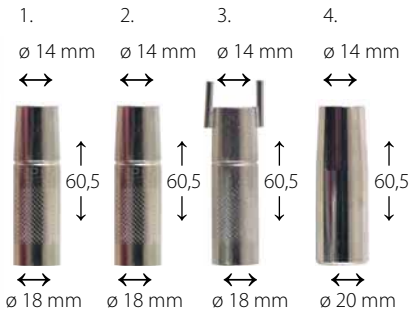
| Wire feed mechanism GT02 / FitWeld 300           |         |
|--------------------------------------------------|---------|
| Wire guide tube                                  |         |
| Wire guide tube IN: Al, SS (Fe, Mc, Fc) plastic  | W003962 |
| Wire guide tube IN: Fe, Fc, Mc metal             | W003536 |
| Wire guide tube OUT: Al, SS (Fe, Mc, Fc) plastic | W003963 |
| Wire guide tube OUT: Fe, Fc, Mc metal            | W003881 |

| Wire feed mechanism SuperSnake GT02S / GT02SW                                                                               |           |         |         |         |         |         |
|-----------------------------------------------------------------------------------------------------------------------------|-----------|---------|---------|---------|---------|---------|
| Feed rolls kit metal                                                                                                        | Wire ø mm | 0.8     | 1.0     | 1.2     | 1.6     | 2.0     |
| Fe, SS, (Al, MC, Fc)<br>V-groove, plain  |           | W004276 | W004277 | W004278 | W004279 |         |
|                                                                                                                             |           |         |         | W004281 | W006608 | W006609 |
| Fc, Mc (Fe)<br>V-groove, knurled         |           |         |         |         |         |         |
|                                                                                                                             |           |         |         | W004280 |         |         |
| Al, (Fe, Fc, Mc, SS)<br>U-groove         |           |         |         |         |         |         |
|                                                                                                                             |           |         |         |         |         |         |

| Wire feed mechanism SuperSnake GT02S / GT02SW |  |                      |
|-----------------------------------------------|--|----------------------|
| Wire guide tube OUT                           |  | 0.8-1.6              |
| Wire ø mm                                     |  |                      |
| SS, Al, (Fe, MC, Fc) plastic                  |  | W004185              |
| Wire guide tube OUT                           |  | 0.8-1.2      1.4-2.0 |
| Wire ø mm                                     |  |                      |
| Fc, Mc, Fe metal                              |  | W004083      W006617 |

| Wire feed mechanism SuperSnake GT02S / GT02SW |         |         |         |         |
|-----------------------------------------------|---------|---------|---------|---------|
| Wire liner DL-Teflon                          | 10 m    | 15 m    | 20 m    | 25 m    |
| Wire ø mm 0.8-1.6, SS, Al                     | W004145 | W004219 | W004220 | W004221 |
| Wire liner (Spiral)                           | 10.5 m  | 15.5 m  | 20.5 m  | 25.5 m  |
| Wire ø mm 0.8-1.6, Fe, Fc, Mc                 | W004214 | W004216 | W004217 | W004218 |
| Wire liner (Spiral)                           |         | 15.5 m  |         | 25.5 m  |
| Wire ø mm 1.4-2.0, Fe, Fc, Mc                 |         | 4308620 |         | 4308630 |

# FE 20, FE 25, MMT 25 , PMT 25



| Gas nozzle   |                      |
|--------------|----------------------|
| 1. 9580101*  | Standard             |
| 2. 958010101 | With insulating ring |
| 3. 4113470   | For spot welding     |
| 4. 9580101E  | Thick wall           |

| Insulating bush |  |
|-----------------|--|
| 9591010*        |  |

| Contact tip |             |       |
|-------------|-------------|-------|
| 9876635*    | 0,8 mm / M6 | FE 20 |
| 9876636*    | 1,0 mm / M6 |       |

Please see page 67 for a full listing of available contact tips.

| Contact tip adapter |  |
|---------------------|--|
| 9580173*            |  |

| Insulating ring |  |
|-----------------|--|
| 9591079*        |  |

| Locking spring |  |
|----------------|--|
| 4275240*       |  |

| Neck 45° |  |
|----------|--|
| 4153040* |  |

| Wire liners                                           |        |           |             |
|-------------------------------------------------------|--------|-----------|-------------|
| 4188573*                                              | Spiral | 0.6...0.8 | 3.5 m/white |
| 4188576*                                              | Spiral | 0.6...0.8 | 5 m/white   |
| 4188581*                                              | Spiral | 0.9...1.2 | 3m/red      |
| 4188582*                                              | Spiral | 0.9...1.2 | 4.5m/red    |
| W006453*                                              | Spiral | 0.9...1.2 | 3.5 m/red   |
| W006454*                                              | Spiral | 0.9...1.2 | 5 m/red     |
| Suitable liners: white, red, yellow, DL Chili-Teflon. |        |           |             |
| * Standard delivery                                   |        |           |             |

# FE 27, MMT 27, PMT 27, FE 32, MMT 32, PMT 32, MMT 30W, PMT 30W, WS 30W



## Gas nozzle

|             |               |
|-------------|---------------|
| 1. 4295760* | Standard / M8 |
| 2. 4295760L | Long          |
| 3. 4295760C | Conical       |
| 4. 4294970  | Standard / M6 |

## Contact tip

9580123\* 1.0 / M8

Please see page 67 for a full listing of available contact tips.

## Contact tip adapter

4295740\* M8

4294890 M6

## Gas diffuser

4294880\*

4294880CER



## 1. Neck 50°

3146800 MMT 30W/PMT 30W/WS 30W

## 2. Neck 50°

3146780 FE 27/MMT 27/PMT 27  
FE 32/MMT 32/PMT 32

## Wire liners

|          |        |           |           |
|----------|--------|-----------|-----------|
| 4188581* | Spiral | 0.9...1.2 | 3m/red    |
| 4188582* | Spiral | 0.9...1.2 | 4.5m/red  |
| W006453* | Spiral | 0.9...1.2 | 3.5 m/red |
| W006454* | Spiral | 0.9...1.2 | 5 m/red   |

Suitable liners: white, red, yellow, DL Chili-Teflon.

\* Standard delivery/WeldSnake according to filler wire.

# FE 35, MMT 35, PMT 35, WS 35, MMT 42W, PMT 42W, WS 42W



## Gas nozzle

|             |                    |
|-------------|--------------------|
| 1. 4307050* | Standard, isolated |
| 2. 4300260  | Standard           |
| 3. 4300260L | Long               |
| 4. 4300260C | Conical            |

## Insulating bush

4307020\*

## Contact tip

9580123\* 1.0 / M8

Please see page 67 for a full listing of available contact tips.

## Contact tip adapter

4295740\* M8 PMT/MMT/WS 35

## Contact tip adapter

W006183\* Brass PMT/MMT/WS 42W

W006182 Copper PMT/MMT/WS 42W

## Gas diffuser

W006146 PMT/MMT/WS 42W

W004390 FE/PMT/MMT/WS 35

## 1. Neck 50°

SP004539\* MMT 42W/PMT 42W/WS 42W

## 2. Neck 50°

SP004585\* FE 35/PMT 35/MMT 35

## 3. Neck 50° (temperature resistant)

SP600317 PMT 35/MMT 35

## Wire liners

|          |        |           |           |
|----------|--------|-----------|-----------|
| 4188581* | Spiral | 0.9...1.2 | 3m/red    |
| 4188582* | Spiral | 0.9...1.2 | 4.5m/red  |
| W006453* | Spiral | 0.9...1.2 | 3.5 m/red |
| W006454* | Spiral | 0.9...1.2 | 5 m/red   |

Suitable liners: white, red, yellow, DL Chili-Teflon.

\* Standard delivery/WeldSnake according to filler wire.

# FE 42, MMT 42, PMT 42, MMT 52W, PMT 52W



## Gas nozzle

|             |                        |
|-------------|------------------------|
| 1. 4307070* | Standard, isolated     |
| 2. 4300380  | Standard               |
| 3. 4300380L | Long                   |
| 4. 4300380C | Conical                |
| 5. 4308190  | Special long (89.5 mm) |

## Insulating bush

4307030\*

## Contact tip

9580123\* 1.0 / M8

Please see page 67 for a full listing of available contact tips.

## Contact tip adapter

|             |                     |
|-------------|---------------------|
| W004508 M8* | PMT 52W/MMT 52W     |
| 4304600 M8* | FE 42/PMT 42/MMT 42 |

## Gas diffuser

|         |                     |
|---------|---------------------|
| W004505 | PMT 52W/MMT 52W     |
|         | FE 42/PMT 42/MMT 42 |

## 1. Neck 50°

|          |                 |
|----------|-----------------|
| SP004563 | PMT 52W/MMT 52W |
|----------|-----------------|

## 2. Neck 50°

|          |                     |
|----------|---------------------|
| SP004578 | FE 42/PMT 42/MMT 42 |
|----------|---------------------|

## 3. Neck 50°

|          |               |
|----------|---------------|
| SP600316 | PMT 42/MMT 42 |
|----------|---------------|

## Wire liners

|                                                       |        |           |           |
|-------------------------------------------------------|--------|-----------|-----------|
| 4188581*                                              | Spiral | 0.9...1.2 | 3m/red    |
| 4188582*                                              | Spiral | 0.9...1.2 | 4.5m/red  |
| W006453*                                              | Spiral | 0.9...1.2 | 3.5 m/red |
| W006454*                                              | Spiral | 0.9...1.2 | 5 m/red   |
| Suitable liners: white, red, yellow, DL Chili-Teflon. |        |           |           |

\* Standard delivery



# PMT MN (ROOT pass welding, MIG/MAG welding)



|                              |                 |
|------------------------------|-----------------|
| <b>1. Neck 60° 168 RP</b>    | <b>SP007810</b> |
| Changeable neck liner 165 mm | W007798         |
| <b>2. Neck 60° 198 RP</b>    | <b>SP007811</b> |
| Changeable neck liner 195 mm | W007799         |
| <b>3. Neck 60° 198</b>       | <b>SP008006</b> |
| Changeable neck liner 195 mm | W007799         |
| <b>4. Neck 60° 168</b>       | <b>SP008007</b> |
| Changeable neck liner 165 mm | W007798         |

| Gas nozzle   |                   |
|--------------|-------------------|
| 1. W006181   | ROOT pass welding |
| 2. 4295760*  | Standard / M8     |
| 3. 4295760L* | Long              |
| 4. 4295760C* | Conical           |
| 5. 4294970*  | Standard / M6     |

| Contact tip |          |                   |
|-------------|----------|-------------------|
| 9876647     | 0.8 / M6 | ROOT pass welding |
| 9580124*    | 1.2 / M8 |                   |

Please see page 67 for a full listing of available contact tips.

| Contact tip adapter |    |
|---------------------|----|
| 4295740*            | M8 |
| 4294890             | M6 |

| Gas diffuser |  |
|--------------|--|
| 4294880*     |  |
| 4294880CER   |  |

| Wire liners |        |           |           |
|-------------|--------|-----------|-----------|
| W006453*    | Spiral | 0.9...1.2 | 3.5 m/red |
| W006454*    | Spiral | 0.9...1.2 | 5 m/red   |

Suitable liners: red, yellow, DL Chili-Teflon.  
Please see page 66 for a full listing of DL Chili liners.

\* Standard delivery

# PMT MN (MIG/MAG welding)



## Neck 45° L222

SP007229

Changeable neck liner 232 mm

W007800

## Gas nozzle

1. 4255530\*

2. 4255530E

3. 4273510

## Insulating bush

4248710\*

## Contact tip

9580124\*

1.2 / M8

Please see page 67 for a full listing of available contact tips.

## Contact tip adapter

4255421\*

M8

## Insulating ring, neck

4254670\*

## Wire liners

W006453\* Spiral 0.9...1.2 3.5 m/red

W006454\* Spiral 0.9...1.2 5 m/red

Suitable liners: red, yellow, DL Chili-Teflon.

Please see page 66 for a full listing of DL Chili liners.

\* Standard delivery

# MMT 42C



## Gas nozzle

|             |                        |
|-------------|------------------------|
| 1. 4307070* | Standard, isolated     |
| 2. 4300380  | Standard               |
| 3. 4300380L | Long                   |
| 4. 4300380C | Conical                |
| 5. 4308190  | Special long (89.5 mm) |

## Insulating bush

4307030\*

## Contact tip

9580123\* 1.0 / M8

Please see page 67 for a full listing of available contact tips.

## Contact tip adapter

4304600 M8\*

## Gas diffuser

W004505\*

## Insulating ring, neck

9591079\*

## Neck

SP006008\*

## Neck part

|         |            |    |
|---------|------------|----|
| 4302150 | 0.8–1.6 mm | Al |
| 4302740 | 0.8–1.0 mm | Ss |
| 4302750 | 1.2–1.6 mm | Ss |

## Wire liners

|          |        |           |          |
|----------|--------|-----------|----------|
| 4188581* | Spiral | 0.9...1.2 | 3m/red   |
| 4188582* | Spiral | 0.9...1.2 | 4.5m/red |

Suitable liners: white, red, yellow, DL Chili-Teflon.

\* Standard delivery

# MMG 20, MMG 22



| Gas nozzle  |            |  |
|-------------|------------|--|
| 1. 9580101* |            |  |
| 2. 9580101E | Thick wall |  |

| Insulating bush |  |
|-----------------|--|
| 9591010*        |  |

| Contact tip                                                             |  |
|-------------------------------------------------------------------------|--|
| 9876635* 0.8 / M6                                                       |  |
| <i>Please see page 67 for a full listing of available contact tips.</i> |  |

| Contact tip adapter |  |
|---------------------|--|
| 9580173* M6         |  |

| Insulating ring, neck |  |
|-----------------------|--|
| 9591079*              |  |

| Locking spring |  |
|----------------|--|
| 4275240*       |  |

| Neck 45° |  |
|----------|--|
| 4153040* |  |

| Wire liners         |        |           |     |  |
|---------------------|--------|-----------|-----|--|
| 4307650 *           | Fe     | 0.6...1.0 | 3 m |  |
| 4307660             | Ss, Al | 0.8...1.0 | 3 m |  |
| * Standard delivery |        |           |     |  |



## TIG welding torch range

### Welding craftsmen deserve the best tools

**Kemppi TIG torches just feel that little bit better in the hand for those quality welding tasks.** Kemppi TIG torches suit a variety of equipment and are available from 4 to 16 meters in length. Manufactured using the best materials, you can trust Kemppi TIG torches to perform, allowing you to concentrate on completing beautiful looking TIG welds.

**The TTM range** is equipped with manual gas valves to regulate the shielding gas flow, ensuring basic TIG welding tasks are easily completed. Use with MMA power sources for scratch and TouchArc TIG ignition.

**The TTK range** fits a wide range of industrial TIG welding machines. Standard thread terminations easily connect for power, gas and water (model dependent) and every model is fitted with an ignition switch, cable and plug as standard.

**The TTC range** is designed for use with specific Kemppi TIG machines and available in both air and water cooled models. TTC torches support RTC10 and RTC20 remote control units that replace the standard on/off switch with a convenient and precise remote current regulator for easy ignition and power control at distance.

### Technical specifications and Ordering information

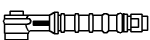
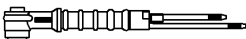
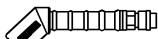
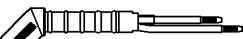
|                   | TTM 15V 4M  | TTM 15V BC 4M | TTC 220 GV 4M |
|-------------------|-------------|---------------|---------------|
| Output, DC TIG    | 140 A (35%) | 150 A (35%)   | 220 A (40%)   |
| Machine connector | R1/4        | R3/8          | R3/8          |
| Ordering code     | 6271432     | 627143201     | 627022304     |

## Technical specifications and Ordering information

| TTK                      |               | TTK 130   | TTK 130F  | TTK 160   | TTK 160S  | TTK 220   | TTK 220S  | TTK 300W  | TTK 350W  | TTK 250WS |
|--------------------------|---------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Output                   | DC 40 % ED    | 130 A     | 130 A     | 160 A     | 160 A     | 220 A     | 220 A     | 300 A     | 350 A     | 250 A     |
|                          | DC 100 % ED   | -         | -         | -         | -         | -         | -         | 200 A     | 250 A     | 200 A     |
|                          | AC 40 % ED    | 100 A     | 100 A     | 120 A     | 110 A     | 160 A     | 120 A     | 250 A     | 300 A     | 250 A     |
|                          | AC 100 % ED   | -         | -         | -         | -         | -         | -         | 140 A     | 200 A     | 140 A     |
| Electrodes               | ø mm          | 1.0...2.4 | 1.0...2.4 | 1.0...2.4 | 1.0...2.4 | 1.0...3.2 | 1.0...3.2 | 1.0...2.4 | 1.0...4.0 | 1.0...4.0 |
| Connection               | Gas/current   | R¼        | R¼        | R¼        | R¼        | R¼        | R¼        | -         | -         | -         |
|                          | Water/current | -         | -         | -         | -         | -         | -         | R3/8      | R3/8      | R3/8      |
|                          | Gas           | -         | -         | -         | -         | -         | -         | R¼        | R¼        | R¼        |
| Length/<br>Ordering code | 4 m           | 627063004 | 627063104 | 627066004 | 627066204 | 627072004 | 627072304 | 627080504 | 627085504 | 627075704 |
|                          | 8 m           | 627063008 | 627063108 | 627066008 | 627066208 | 627072008 | 627072308 | 627080508 | 627085508 | 627075708 |
|                          | 16 m          | 627063016 | 627063116 | 627066016 | 627066216 | 627072016 | 627072316 | 627080516 | 627085516 | 627075716 |

| TTC                      |             | TTC 130   | TTC 130F  | TTC 160   | TTC 160S  | TTC 220   | TTC 220S  | TTC 200W        | TTC 250W        | TTC 250WS       |
|--------------------------|-------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------------|-----------------|-----------------|
| Output                   | DC 40 % ED  | 130 A     | 130 A     | 160 A     | 160 A     | 220 A     | 220 A     | 300 A           | 350 A           | 250 A           |
|                          | 100 % ED    | -         | -         | -         | -         | -         | -         | 200 A           | 250 A           | 200 A           |
| Electrodes               | ø mm        | 1.0...2.4 | 1.0...2.4 | 1.0...2.4 | 1.0...2.4 | 1.0...3.2 | 1.0...2.4 | 1.0...2.4       | 1.0...4.0       | 1.0...4.0       |
| Connection               | Gas/current | R¼        | R¼        | R¼        | R¼        | R¼        | R¼        | R¼              | R¼              | R¼              |
|                          | Water       | -         | -         | -         | -         | -         | -         | Snap connection | Snap connection | Snap connection |
| Length/<br>Ordering code | 4 m         | 627013004 | 627013104 | 627016004 | 627016204 | 627022004 | 627022204 | 627020504       | 627025504       | 627025704       |
|                          | 8 m         | 627013008 | 627013108 | 627016008 | 627016208 | 627022008 | 627022208 | 627020508       | 627025508       | 627025708       |
|                          | 16 m        | 627013016 | 627013116 | 627016016 | 627016216 | 627022016 | -         | 627020516       | 627025516       | 627025716       |
|                          | 30 m        | -         | -         | -         | 627016230 | -         | -         | -               | -               | -               |

RTC 10 (6185477) and RTC 20 (6185478) remote control units are available as options

| TTC/TTK                  |                        |                                                                                     | TTC 130<br>TTK 130 | TTC 130F<br>TTK 130F | TTC 160<br>TTK 160 | TTC 160S<br>TTK 160S | TTC 220<br>TTK 220 | TTC 220S<br>TTK 220S | TTC 200W<br>TTK 300 W | TTC 250W<br>TTK 350 W | TTC 250WS<br>TTK 250 WS |
|--------------------------|------------------------|-------------------------------------------------------------------------------------|--------------------|----------------------|--------------------|----------------------|--------------------|----------------------|-----------------------|-----------------------|-------------------------|
| <input type="checkbox"/> | 4285650                |  | ■                  | ●                    | ●                  | ●                    | ●                  | ●                    |                       |                       |                         |
| <input type="checkbox"/> | 9878040 (Flex)         |  | ●                  | ■                    | ●                  | ●                    | ●                  | ●                    |                       |                       |                         |
|                          | 4270580                |  | ●                  | ●                    | ■                  | ●                    | ■                  | ●                    |                       |                       |                         |
| <input type="checkbox"/> | 4285660                |  |                    |                      |                    |                      |                    |                      | ■                     | ●                     | ●                       |
|                          | 4270600                |  |                    |                      |                    |                      |                    |                      | ●                     | ■                     | ●                       |
|                          | 4276530                |  | ●                  | ●                    | ●                  | ■                    | ●                  | ■                    |                       |                       |                         |
| <input type="checkbox"/> | 4276300                |  | ●                  | ●                    | ●                  | ■                    | ●                  | ●                    | ●                     | ●                     | ■                       |
|                          | 4276290                |  | ●                  | ●                    | ●                  | ●                    | ●                  | ■                    | ●                     | ●                     | ●                       |
|                          | 4276550                |  |                    |                      |                    |                      |                    |                      | ●                     | ●                     | ■                       |
| ■                        | Standard delivery      |                                                                                     |                    |                      |                    |                      |                    |                      |                       |                       |                         |
| ●                        | Accessory              |                                                                                     |                    |                      |                    |                      |                    |                      |                       |                       |                         |
| <input type="checkbox"/> | Small consumable parts |                                                                                     |                    |                      |                    |                      |                    |                      |                       |                       |                         |

# Consumable and replacement parts

Big torch head: TTK 160, 220, 220S, 350W, TTC 160, 220, 250W

| 1. Gas nozzle                                                  |                 | mm   |             |         |      |
|----------------------------------------------------------------|-----------------|------|-------------|---------|------|
| No.                                                            | Ordering number | a    | b           | c       | d    |
| 4                                                              | 7990766         | 18.0 | 11.5        | 6.5     | 47.5 |
| 5                                                              | 7990770         | 18.0 | 12.5        | 8.0     | 47.5 |
| 6                                                              | 7990771 *       | 18.0 | 14.5        | 9.5     | 47.5 |
| 7                                                              | 7990772         | 18.0 | 16.0        | 11.0    | 47.5 |
| 8                                                              | 7990773         | 18.0 | 18.0        | 12.5    | 47.5 |
| 10                                                             | 7990775         | 21.0 | 21.0        | 16.0    | 47.5 |
| 12                                                             | 7990776         | 24.0 | 24.0        | 19.0    | 47.5 |
| 2. Gas nozzle/lens                                             |                 | mm   |             |         |      |
| No.                                                            | Ordering number | a    | b           | c       | d    |
| 5                                                              | 7990783         | 25.0 | 12.5        | 7.5     | 42.0 |
| 6                                                              | 7990784         | 25.0 | 14.0        | 9.0     | 42.0 |
| 7                                                              | 7990785         | 25.0 | 15.5        | 11.0    | 42.0 |
| 8                                                              | 7990786         | 25.0 | 16.5        | 12.0    | 42.0 |
| 11                                                             | 7990787         | 25.0 | 22.0        | 17.0    | 42.0 |
| Housing for tightening bush                                    |                 |      |             |         |      |
| 1. standard                                                    |                 |      | 2. gas lens |         |      |
| ø 1.6                                                          | 7990681         |      | ø 1.6       | 7990711 |      |
| ø 2.4                                                          | 7990682 *       |      | ø 2.4       | 7990712 |      |
| ø 3.2                                                          | 7990683         |      | ø 3.2       | 7990713 |      |
| ø 4.0                                                          | 7990684         |      | ø 4.0       | 7990714 |      |
| Insulating ring                                                |                 |      |             |         |      |
| 1. 9580266 *                                                   |                 |      |             |         |      |
| 2. 9876860                                                     |                 |      |             |         |      |
| 3. 9580267                                                     |                 |      |             |         |      |
| Torch body                                                     |                 |      |             |         |      |
| Find codes of the torch body from the separate table, page 81. |                 |      |             |         |      |
| Tightening bush                                                |                 |      |             |         |      |
| ø 1.6                                                          |                 |      | 9876867     |         |      |
| ø 2.4                                                          |                 |      | 9876868 *   |         |      |
| ø 3.2                                                          |                 |      | 9876869     |         |      |
| ø 4.0                                                          |                 |      | 9876870     |         |      |
| Electrode shield including O-ring                              |                 |      |             |         |      |
| short                                                          |                 |      | 7990731     |         |      |
| medium                                                         |                 |      | 7990735     |         |      |
| long                                                           |                 |      | 7990741 *   |         |      |
| O-ring                                                         |                 |      | 7990791     |         |      |

\* Delivery equipment is for ø 2.4 mm electrode. Lens equipment is delivered as an accessory. The above mentioned dimensions are directive.



## Small torch head: TTK 130, 130F, 160S, 250WS, 300W, TTC130, 130F, 160S, 200W, 250WS

| 1. Gas nozzle |                 | mm   |      |      |    |
|---------------|-----------------|------|------|------|----|
| No.           | Ordering number | a    | b    | c    | d  |
| 4             | 7990760         | 14.5 | 10.0 | 6.5  | 30 |
| 5             | 7990761*        | 14.5 | 11.0 | 8.0  | 30 |
| 6             | 7990762         | 14.5 | 14.5 | 10.0 | 30 |
| 7             | 7990763         | 14.5 | 14.5 | 11.0 | 30 |

| Special gas nozzle |                 | mm   |      |     |    |
|--------------------|-----------------|------|------|-----|----|
| No.                | Ordering number | a    | b    | c   | d  |
| 4                  | 9878019         | 15.0 | 10.5 | 6.5 | 48 |
| 5                  | 9878020         | 15.0 | 11.5 | 8.0 | 48 |
| 6                  | 9878021         | 15.0 | 13.5 | 9.5 | 48 |

| 2. Gas nozzle/gas lens |                 | mm   |      |      |      |
|------------------------|-----------------|------|------|------|------|
| No.                    | Ordering number | a    | b    | c    | d    |
| 4                      | 7990779         | 18.5 | 10.5 | 7.0  | 25.5 |
| 5                      | 7990780         | 18.5 | 12.0 | 8.0  | 25.5 |
| 6                      | 7990781         | 18.5 | 13.5 | 9.5  | 25.5 |
| 7                      | 7990782         | 18.5 | 15.0 | 11.0 | 25.5 |

### Housing for tightening bush

| 1. standard |           | 2. lens |         |
|-------------|-----------|---------|---------|
| ø 1.0       | 7990660   | ø 1.0   | 7990700 |
| ø 1.6       | 7990661   | ø 1.6   | 7990701 |
| ø 2.4       | 7990662 * | ø 2.4   | 7990702 |

### Insulating ring

9878013 \*

### Torch body

Find codes of the torch body from the separate table, page 81.

### Tightening bush

| 1.    |           | 2. short |         |
|-------|-----------|----------|---------|
| ø 1.0 | 7990635   | ø 1.0    | 7990640 |
| ø 1.6 | 7990636   | ø 1.6    | 7990641 |
| ø 2.4 | 7990637 * | ø 2.4    | 7990642 |

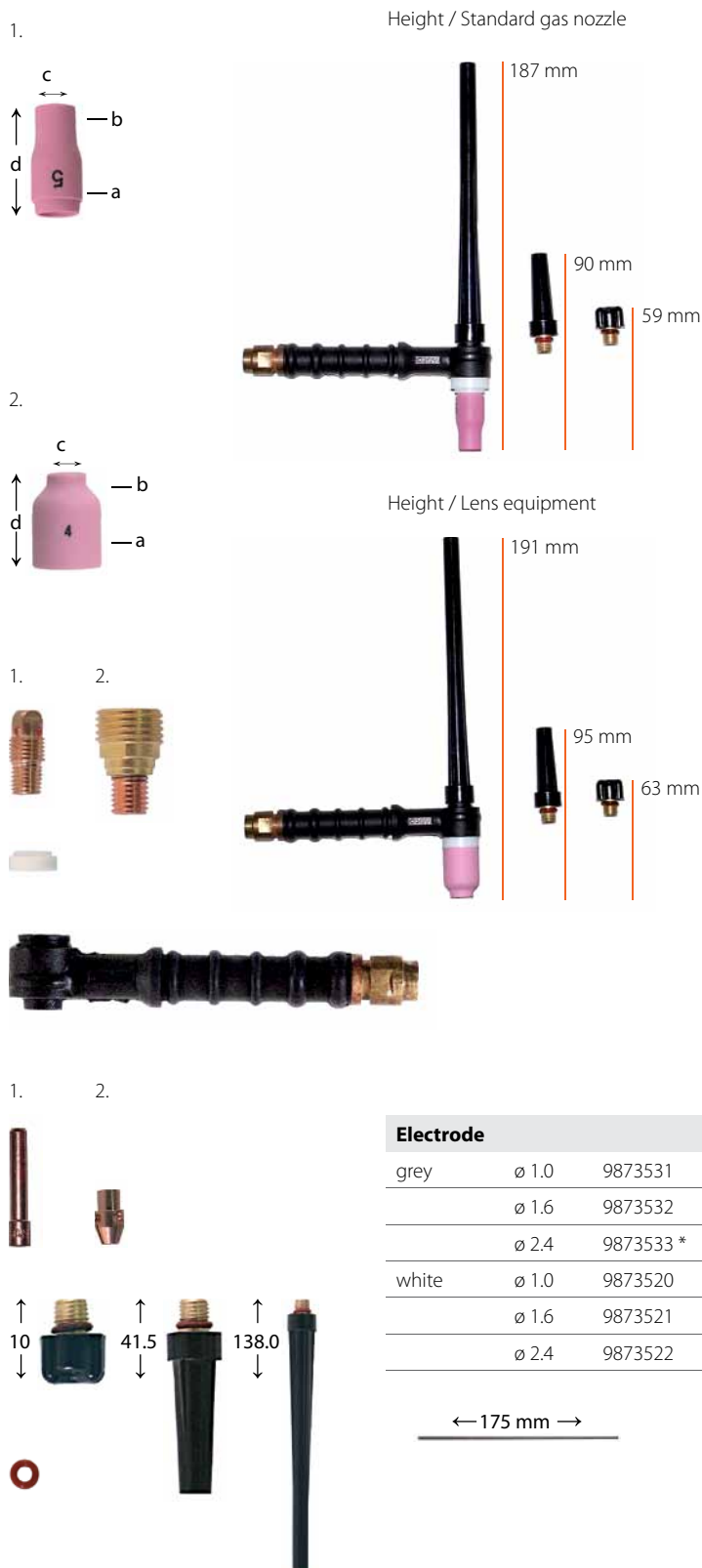
### Electrode shield including O-ring

|        |           |
|--------|-----------|
| short  | 7990730   |
| medium | 7990734 * |
| long   | 7990740   |

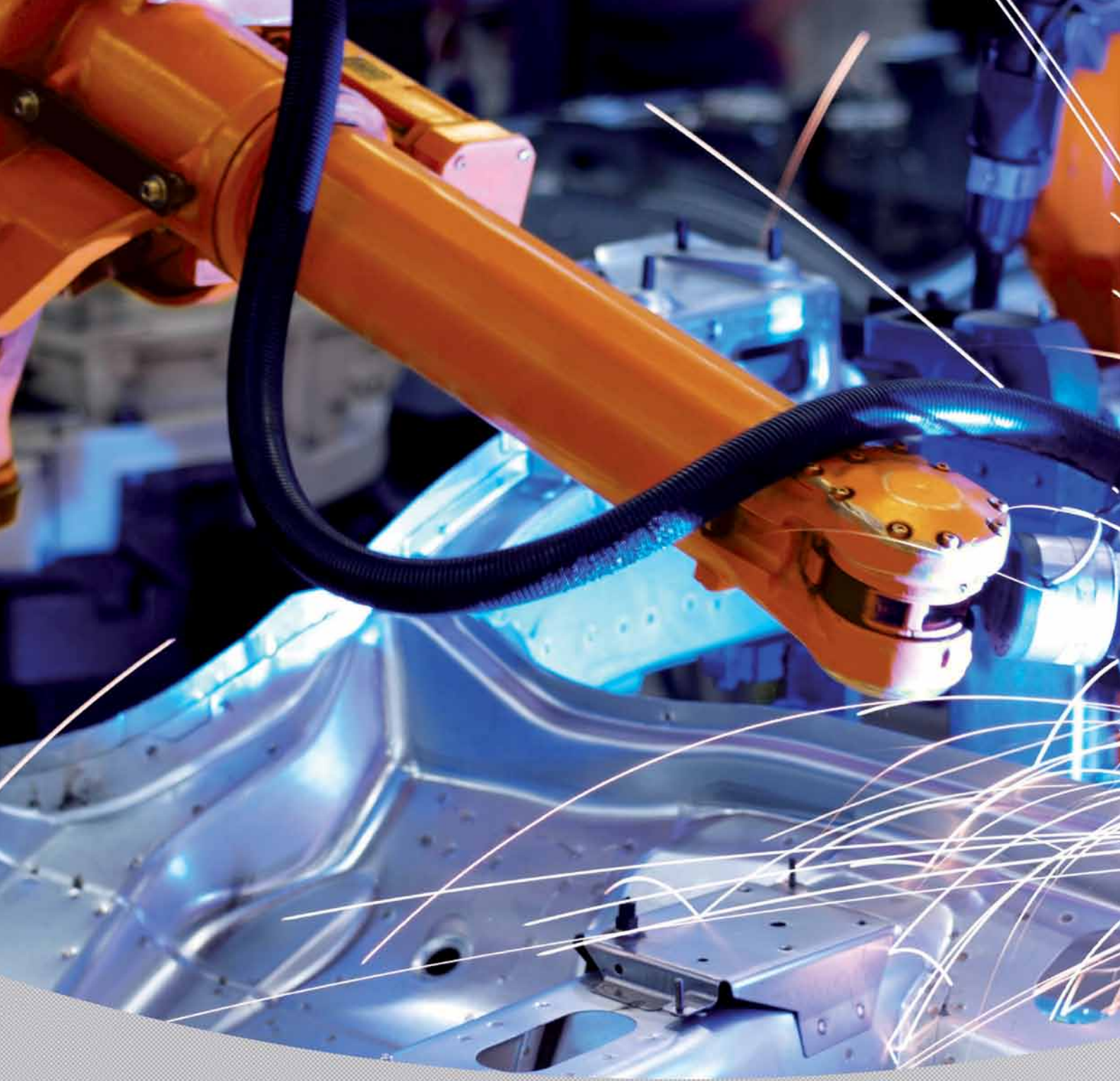
### O-ring

7990790

\* Delivery equipment is for ø 2.4 mm electrode. Lens equipment is delivered as an accessory. The above-mentioned dimensions are directive.



| Electrode |       |           |
|-----------|-------|-----------|
| grey      | ø 1.0 | 9873531   |
|           | ø 1.6 | 9873532   |
|           | ø 2.4 | 9873533 * |
| white     | ø 1.0 | 9873520   |
|           | ø 1.6 | 9873521   |
|           | ø 2.4 | 9873522   |



# **Welding automation and arc performance solutions**



|                             |           |
|-----------------------------|-----------|
| KempArc SYN / KempArc Pulse | <b>86</b> |
| MagTrac                     | <b>90</b> |
| KempArc Pulse TCS           | <b>92</b> |

Repetitive high volume welding is synonymous with automated welding systems.

Kemppi offers a range of equipment and software solutions, designed to increase arc welding productivity and quality for the wide ranging needs, applications and materials of automated welding industry.

# KempArc

SYN 300, 400, 500,  
Pulse 350, 450

Modular MIG/MAG welding  
systems for automation



## Why buy

- Synergic or pulsed MIG/MAG welding
- Digital or analogue models
- Compact, lightweight wire drive mechanism
- Wise welding solutions compatible
- KempArc browser robot interface

## Application

- Robotic welding
- Mechanised welding
- Automated systems

## Key features

**KempArc is specifically designed for MIG/MAG welding automation.** Synergic or pulsed welding process variants are available in either 300, 400 or 500 amp synergic models, or 350 or 450 amp pulsed models. Each range offers logical process adjustment, ensuring quick setup for busy industry.

**KempArc automation range allows standard or tailored welding packages** to suit your specific welding environment. For example KempArc Pulse range offers Work Pack, including welding software selections for steel, aluminium, and stainless steel filler wires, or Project Pack where you match your specific local welding needs perfectly. Either version can be upgraded at anytime.

**Choose either digital or analogue models** for integration with different robotic control systems. Digital process management ensures fast communication speeds for precise ignition and welding quality. Memory channels are available as standard for systems that demand independent parameter storage.

## Options

**Wise™ process functions for automation applications** offer additional choice and solutions that match welding in the real world, so you can be sure to cover your welding requirements now and far into the future.

**KempArc Browser robot interface** is an easy way to control the welding parameters of KempArc robotic welding equipment. Just take your teach pendant device and open the control panel with the KempArc Browser. You can also connect to it through intranet or with a laptop for easy maintenance and service of your KempArc system.

**DT400** wire feed unit mounts to the back of the robot arm or as a convenient integrated wire feed solution for any mechanised welding system. DT400 is compact and light in weight, incorporating a 4x4 drive mechanism and full metal feed rolls.

**The DT 410** is a wire feeder model designed specifically for use in welding robots with a hollow wrist. It is equipped with a power connector for welding gun connection. The design of this feeder allows easy connection of cables when used in the hollow wrist type of welding robot, where the wire feeder is installed inside the robot arm. Also changing the wire liner is much easier in this model compared to Euro connector version.

**KF 62 control pendant** offers remote welding control for KempArc Pulse power source.



*Robot control pendant displaying KempArc Browser interface.*



*DT 400 wire feed unit*



*KempCool 10 keeps a cool head in the heat of production welding with 1 kW of cooling power.*



*KempArc™ Synergic 500*

# KempArc SYN 300, 400, 500, Pulse 350, 450

## Technical specifications

| KempArc                      |           | SYN 300             | SYN 400             | SYN 500             | Pulse 350           | Pulse 450           |
|------------------------------|-----------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Connection voltage           |           | 400 V (-15...+20 %) | 400 V (-15...+20 %) | 400 V (-15...+20 %) | 400 V (-15...+20 %) | 400 V (-15...+20 %) |
| Rated power at max. current  |           | 13.9 kVA            | 19.5 kVA            | 26.1 kVA            | 16.0 kVA            | 22.1 kVA            |
| Connection cable             | HO7RN-F   | 4G6 (5 m)           | 4G6 (5 m)           | 4G6 (5 m)           | 4G6 (5 m)           | 4G6 (5 m)           |
| Fuse, delayed                |           | 25 A                | 35 A                | 35 A                | 25 A                | 35 A                |
| Output 40 °C                 | 60 % ED   | -                   | -                   | 500 A               | -                   | 450 A               |
|                              | 80 % ED   | -                   | 400 A               | -                   | 350 A               | -                   |
|                              | 100 % ED  | 300 A               | 380 A               | 430 A               | 330A                | 350A                |
| Open circuit voltage         |           | 50 V                | 50 V                | 50 V                | 50 V                | 50 V                |
| Power factor at max. current |           | 0.9                 | 0.9                 | 0.9                 | 0.85                | 0.9                 |
| Efficiency at max. current   |           | 0.87                | 0.87                | 0.87                | 0.88                | 0.88                |
| Dimensions, mm               | L x W x H | 590 x 230 x 500     | 590 x 230 x 500     | 590 x 230 x 500     | 590 x 230 x 430     | 590 x 230 x 430     |
| Weight                       |           | 34 kg               | 35 kg               | 36 kg               | 36 kg               | 37 kg               |

| Wire feeder                 |                   | DT 400             | DT 410             |
|-----------------------------|-------------------|--------------------|--------------------|
| Operating voltage           |                   | 50 V DC            | 50 V DC            |
| Rated power                 |                   | 100 W              | 100 W              |
| Output 40 °C                | 80 % ED           | 600 A              | 600 A              |
|                             | 100 % ED          | 500 A              | 500 A              |
| Operating principle         |                   | 4-wheel feed       | 4-wheel feed       |
| Wire feed speed             |                   | 0...25 m/min       | 0...25 m/min       |
| Filler wires                | ∅ Fe, Ss          | 0.6...1.6 mm       | 0.6...1.6 mm       |
|                             | ∅ Flux-cored wire | 0.8...1.6 mm       | 0.8...1.6 mm       |
|                             | ∅ Al              | 1.0...1.6 mm       | 1.0...1.6 mm       |
| Welding gun connector       |                   | Euro               | Power pin          |
| 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              |
| Dimensions                  | L x W x H         | 269 x 175 x 169 mm | 269 x 175 x 169 mm |
| Weight                      |                   | 4.5 kg             | 4.5 kg             |



KempArc Browser robot interface is an easy way to control the welding parameters of KempArc robotic welding equipment.

# KempArc SYN 300, 400, 500, Pulse 350, 450

## Ordering information

| KempArc™ power sources              |            |
|-------------------------------------|------------|
| SYN 300 (digital)                   | 6201300    |
| SYN 400 (digital)                   | 6201400    |
| SYN 500 (digital)                   | 6201500    |
| SYN 300 (analogue)                  | 6201300AN  |
| SYN 400 (analogue)                  | 6201400AN  |
| SYN 500 (analogue)                  | 6201500AN  |
| KempArc Pulse 350 (digital)         | 6200350    |
| KempArc Pulse 450 (digital)         | 6200450    |
| KempArc Pulse 350 (analogue)        | 6200350AN  |
| KempArc Pulse 450 (analogue)        | 6200450AN  |
| Wire feeders                        |            |
| DT 400                              | 6203400    |
| DT 400L                             | 6203400L   |
| DT 410                              | 6203410    |
| Gas Flow Sensor                     | SP600434   |
| KF 62 control pendant               |            |
| KF 62 remote panel                  | 6200800    |
| Remote panel cable, 10 m            | 4308370    |
| Motor gun support                   |            |
| MXF SYNC mounting kit KempArc Pulse | W005377    |
| Fieldbus cards                      |            |
| Interbus S, copper                  | 9774120IBC |
| Interbus S, optical                 | 9774120IBO |
| Profibus                            | 9774120PRF |
| Profinet                            | 9774120PRN |
| Can Open                            | 9774120CAN |
| Ethernet                            | 9774120ETH |
| Devicent                            | 9774120DEV |
| Control devices                     |            |
| KempArc Browser Synergic            | 6202100    |
| KempArc Browser Pulse               | 6202200    |

| Wise™ welding functions                      |         |
|----------------------------------------------|---------|
| WiseRoot-A                                   | 9991011 |
| WiseThin-A                                   | 9991013 |
| WisePenetration-A                            | 9991010 |
| WiseFusion-A                                 | 9991015 |
| Cooling unit                                 |         |
| KempCool 10                                  | 6208100 |
| Cables                                       |         |
| Interconnection cable 5 m, air cooled        | 6260441 |
| Interconnection cable 10 m, air cooled       | 6260445 |
| Interconnection cable 5 m, water cooled      | 6260461 |
| Interconnection cable 10 m, water cooled     | 6260465 |
| Cable clamps, jointless                      | W003210 |
| Cable clamps, ball-joint                     | W003211 |
| Earth return cable 70 mm <sup>2</sup> , 5 m, | 6184711 |
| Earth return cable 70 mm <sup>2</sup> , 10 m | 6184712 |
| Wire feeder brackets                         |         |
| Fanuc 100iC / DT 400                         | W003367 |
| Fanuc 100iC / DT410 / DT 400L                | W006213 |
| Kuka KR 125/3                                | W003114 |
| Kuka KR5HW                                   | W003696 |
| ABB IRB 2400L                                | W004135 |
| ABB IRB 1600                                 | W004137 |
| ABB IRB 1600ID                               | W004138 |
| Motoman EA 1400                              | W002450 |
| Motoman EA1900                               | W004107 |



# MagTrac F 61

## A quick way to welding mechanisation



### Why buy

- A magnetic carriage unit for MIG/MAG welding mechanisation
- Connects to Kemppi FastMig Synergic and Pulse models
- Extensive selection of functions
- Only the welding gun needed between carriage and wire feeder
- Welding values and memory channels selection at the carriage control panel
- Cycle Weld, Wire Inch and Gas Test functions
- Heat input and other welding statistics

### Applications

- Horizontal fillet weld mechanisation
- Shipyards and heavy metal industry

## An express carriage to higher welding productivity and quality

**Light mechanisation** is the most efficient way of improving welding productivity at shipyards and metal workshops. It has also a favourable effect on the safety and ergonomics of welding work. As welding carriage performs the heavy work, the welder can concentrate on monitoring the process and quality.

**Kemppi's MagTrac F 61** is a quick and easy way of changing from manual MIG/MAG welding to productive mechanisation. Operating MagTrac F 61 is similar to operating any ordinary welding machine, so there's no need for special expertise. With MagTrac F 61 you don't need auxiliary control cables or transformers, because everything is fully integrated in one cable.

## Productivity, quality, comfort

**MagTrac F 61** is sold in sales packages that contain everything you need for efficient welding mechanisation: the carriage unit, a synergic FastMig power source, an MXF wire feed unit, a special welding gun and the necessary cables. You can optionally select a package that includes a SuperSnake subfeeder to get up to 15 meters of extra reach.

**MagTrac F 61 is compatible with Kemppi's Wise™ welding processes and functions**, which allow you to further increase your welding productivity and quality. Full process control is enabled via Kemppi's LCD control panel, integrated to the MagTrac F 61 carriage. This new control system allows full operational control for both carriage drive and welding parameters alike. Combined with Kemppi high-quality process control and industrial welding systems, the MagTrac F 61 offers truly unique qualities.

## Technical specifications

| MagTrac F 61                    |                |                                                 |
|---------------------------------|----------------|-------------------------------------------------|
| Input power                     |                | 50 VDC / 1 A                                    |
| Data bus type                   |                | KempBus                                         |
| Travel speed                    |                | 150...1800 mm/min                               |
| Towing power                    |                | 16 kg                                           |
| Driving method                  |                | Rail-less drive with permanent magnetic suction |
| Wheels                          |                | 4 rubber wheels                                 |
| Tracing method                  |                | Guide rollers                                   |
| Guide roller height range       |                | 10...38 mm, 3 positions                         |
| Non-welding distance            | Start          | 127 mm                                          |
|                                 | End            | 127 mm                                          |
| Auto-stop function              |                | Limit switch on both sides                      |
| Torch model                     |                | Kemppi MMT 42C                                  |
| Torch angle adjustment range    |                | ±30°                                            |
| Torch distance adjustment range | up/down, fw/bw | 45 mm                                           |
| External dimensions             | L x W x H      | 259 x 259 x 285 mm                              |
| Weight                          |                | 6.9 kg                                          |
| Max surface temperature         |                | 150 °C                                          |

## Ordering information

| MagTrac F 61 package                               |       |          |
|----------------------------------------------------|-------|----------|
| MagTrac F61, FastMig KMS, air-cooled               |       | P08818   |
| MagTrac F 61 package with SuperSnake, air-cooled   |       | P08819   |
| MagTrac F61, FastMig Pulse, air-cooled             |       | P08822   |
| MagTrac F61, FastMig Pulse, SuperSnake, air-cooled |       | P08828   |
| MagTrac F61, FastMig KMS, liquid-cooled            |       | P08826   |
| MagTrac F61, FastMig Pulse, liquid-cooled          |       | P08827   |
| Welding guns                                       |       |          |
| MMT 42C, air-cooled                                | 3 m   | 6254205  |
| MT51MWC, liquid-cooled                             | 4.5 m | 6255162  |
| SuperSnake GT 02SC                                 | 15 m  | 61531501 |

## Features



*MagTrac F 61 is fully compatible with Kemppi's SuperSnake subfeeder, which gives you up to 15 meters of further reach.*



*The strong magnet keeps it on the right track even in demanding jobs.*



*Operation is easy to instruct, plus all welding regulation is set from the carriage unit, reducing set-up time and making distance work easy.*



Energy efficient

# KempArc Pulse TCS

## Increase productivity with TCS technology

### Why buy

- Increases productivity between 40 and 80 % over single wire process
- Easy process setting and parameter control
- Optional ON/OFF switching of either electrode during the weld cycle
- Suitable for both steels and aluminium applications
- Reduced heat input on thin sheet materials
- Tack welding selection with either electrode
- TCS process can be direction independent
- Connects to all robot brands

### Higher levels of productivity and quality

**Replacing single-wire welding** with dual-wire tandem welding is an efficient way to increase welding speed and productivity and reduce costs. However, early market models prevented users taking full advantage of the tandem process benefit. Parameter selection and adjustment was complicated, time consuming and unreliable, due to the complex synchronising of both leading and trailing arcs.

Today, **KempArc Pulse TCS** (Tandem Control System) delivers on its promise, opening the door to reliable dual arc welding. TCS smart software solutions provide easy system setup and automatic arc regulation, achieving significant welding speed increase and reliable welding quality.

**Intelligent TCS software** actively monitors and controls the arcs separately, making it possible to precisely adjust them independently from each other. The slave arc continuously monitors the master arc and adjusts itself accordingly, giving several performance benefits including:

- no system arc interference
- optimised, independent and real time arc length adjustment
- fast, flexible and easy parameter adjustment.

## Technical specifications

| KempArc Pulse TCS                                      |              |                    |
|--------------------------------------------------------|--------------|--------------------|
| Connection voltage                                     | 3~, 50/60 Hz | 400 V -15...+20 %  |
| Rated power                                            | 60 % ED      | 22.1 kVA           |
|                                                        | 100 % ED     | 17.8 kVA           |
| Connection cable                                       | HO7RN-F      | 4G6 (5 m)          |
| Fuse (delayed)                                         |              | 35 A               |
| Output 40 °C                                           | 60 % ED      | 450 A              |
|                                                        | 100 % ED     | 380 A              |
| Welding current and voltage range                      |              | 10...50 V          |
| Open circuit voltage                                   |              | 50 V               |
| Open circuit power                                     |              | 100 W              |
| Power factor at max. current                           |              | 0.9                |
| Efficiency at max. current                             |              | 88 %               |
| Operating temperature range                            |              | -20...+40 °C       |
| Storage temperature range                              |              | -40...+60 °C       |
| EMC class                                              |              | A                  |
| Minimum short circuit power $S_{SC}$ of supply network |              | 5.5 MVA            |
| Degree of protection                                   |              | IP23S              |
| External dimensions                                    | L x W x H    | 590 x 230 x 430 mm |
| Weight                                                 |              | 36 kg              |
| Voltage supply for auxiliary devices                   |              | 50 V DC / 100 W    |
| Fuse (delayed)                                         |              | 6.3 A              |
| Voltage supply for cooling unit                        |              | 24V DC / 50 VA     |

## Ordering information

| KempArc Pulse TCS                    |                 |            |
|--------------------------------------|-----------------|------------|
| KempArc Pulse TCS package Devicenet  |                 | P161       |
| KempArc Pulse TCS package Can Open   |                 | P162       |
| KempArc Pulse TCS package Ethernet   |                 | P163       |
| KempArc Pulse TCS package Profibus   |                 | P164       |
| KempArc Pulse TCS package Profinet   |                 | P165       |
| KempArc Pulse 450TCS Digital         |                 | 6200455    |
| KempArc DT 400 wire feeder           | Right hand side | 6203400    |
| KempArc DT 400L wire feeder          | Left hand side  | 6203400L   |
| Wise Fusion                          |                 | 9991015    |
| Match curve                          |                 | 9990401    |
| Interbus S, copper                   | Fieldbus card   | 9774120IBC |
| Interbus S, optical                  | Fieldbus card   | 9774120IBO |
| Profibus                             | Fieldbus card   | 9774120PRF |
| Profinet                             | Fieldbus card   | 9774120PRN |
| Can Open                             | Fieldbus card   | 9774120CAN |
| Ethernet                             | Fieldbus card   | 9774120ETH |
| Devicenet                            | Fieldbus card   | 9774120DEV |
| Tandem control cable                 |                 | W005451    |
| Interconnection Cable ROBOT 95-10-WH |                 | 6260466    |
| KempCool 40                          |                 | 6208400    |
| Binzel Tandem W 800 CAT torch        |                 | 204.Z000.1 |

## Architecture:



KempArc Pulse TCS can be delivered with a welding torch option of your choice, either normal or push-pull model.



DT 400 wire feeders are equipped with the reliable 4-roll DuraTorque wire feeding mechanism and full metal feed rolls with excellent wear resistance.



1. The welding power is delivered from two 450 amp KempArc Pulse power sources. Their settings can be controlled independently from each other.

2. KempCool 40 is an efficient water cooling device designed for use with KempArc Pulse TCS.



# Software products, online services and arc monitoring

|                                    |     |
|------------------------------------|-----|
| Wise performance software          | 96  |
| DataStore, DataGun                 | 98  |
| Kemppi Arc System 2.0 – ArcQuality | 100 |

Production demands can change over time and it's important to know that equipment will meet future requirements. Wise and Match is a welding software range designed to serve customer specific needs. DataStore offers you immediate access to these innovative software solutions for compatible Kemppi equipment. However, once you are welding you may wish to analyze your arc time performance or more detailed parameters concerning your operational welding fleet. Kemppi Arc System and Arc Timer serve these alternative ends of the monitoring scale.

# Wise decisions create a more productive result

## Manage welding skill, **productivity and quality**

Finding the best solutions to problematic welding cases, Wise™ software product family has been developed and tested together with industrial partners, and proved inside production environments.

Wise products are welding software solutions, enabling levels of welding performance that otherwise would be impossible to achieve with standard MIG/MAG welding process. Use Wise products for enhanced root closure, constant power management, automated arc length control and precise thin sheet welding.

Compatible with FastMig synergic, FastMig Pulse and KempArc automation equipment, Wise products can be tested in your local environment before or after your equipment purchase.

Contact your local Kemppi representative for further details, or visit [www.kemppi.com](http://www.kemppi.com)

|                   | Order code | KempArc Synergic | KempArc Pulse | FastMig Synergic | FastMig Pulse |
|-------------------|------------|------------------|---------------|------------------|---------------|
| WiseRoot          | 6265011    |                  |               | •                | •             |
| WiseRoot-A        | 9991011    | •                | •             |                  |               |
| WiseThin          | 9991013    |                  |               | •                | •             |
| WiseThin-A        | 6265013    | •                | •             |                  |               |
| WisePenetration   | 9991000    |                  |               | •                | •             |
| WisePenetration-A | 9991010    | •                | •             |                  |               |
| WiseFusion        | 9991014    |                  |               |                  | •             |
| WiseFusion-A      | 9991015    |                  | •             |                  |               |



WiseRoot is a highly efficient and unique tailored cold arc process for manual and automated root pass welding in ferrous and stainless steel materials. Designed for the effective closure of root joints and tolerance of gaps created by poor joint fit-up, WiseRoot is three times faster in root welding than TIG process, is easy to learn and use and saves time on rework costs. Traditionally, welding engineers have been reluctant to employ the standard MIG/MAG process for quality root welding, due to known quality issues. However Kemppi WiseRoot is everything but traditional and is now a proven and accepted root welding solution.



WiseThin is a tailored cold arc process for manual and automated thin sheet welding and brazing. Typical applications include automotive manufacturing and quality light plate fabrication in ferrous and stainless steel materials.



WisePenetration delivers consistent power to the weld pool regardless of distance changes and deviations between the welding gun nozzle and work piece. Suitable for both manual and automated synergic MIG/MAG welding, WisePenetration solves some age old problems.



WiseFusion creates and maintains an optimal short-circuit characteristic in pulsed MIG/MAG and spray-arc welding applications. Keeping the arc length optimally short for manual and automated welding, WiseFusion ensures consistent weld quality in all positions, and once set, eliminates the need for regular parameters adjustments.

## Why buy

- Produces high quality root welds
- Allows wide root gap tolerance
- No need for backing ring or ceramics
- Three times faster than TIG welding
- Easy to learn and use
- Saves rework costs
- Can decrease joint volume in thick materials, reducing filler materials volume and cost

## Why buy

- Reduces spatter with all materials including zinc-coated plates
- Provides 10–25 % lower heat input than normal MIG/MAG welding, reducing post weld material distortion
- Excellent weld pool control with varying joint geometry and fit-up
- Reduced post weld rework
- Increased welding speed in many applications

## Why buy

- Reduces the risk of lack of fusion
- Reduces the need for welding parameter adjustments
- Saves rework time and cost through reductions in weld defects
- Easy to use and deploy into production
- Suitable for use with long or short cable sets
- Can reduce welding time and filler materials costs

## Why buy

- Automatic arc length regulation for pulsed MIG/MAG and spray-arc welding
- Excellent weld pool control for out-of position welding
- Narrow and energy-dense arc
- Improved weld quality and appearance
- Increased welding speed

# DataStore, DataGun

## Online shopping for your welding machine



### Why buy

- Adapt equipment to specific needs
- Improve equipment utilisation
- Convenient self service equipment upgrades
- Online order system for Kemppe account customers
- Wise™ performance products
- Materials welding programs
- Operating system software
- Equipment performance upgrades
- Product and process information

### What you need, when you need it

**Kemppi DataStore and DataGun** have revolutionised industrial welding machine ownership. Customers can now purchase precisely customised welding machines that match existing local needs, safe in the knowledge that their changing circumstances are catered for with simple and cost effective software upgrades covering future projects requirements.

The imaginative new format also relieves the welders' need to search through superfluous welding programs, eliminating wasted time and incorrect welding program selection.

## A fast response to changing local needs

DataStore is an online store accessible to Kemppi dealers and registered customers through the Kemppi Channel portal. The DataStore includes downloadable welding processes, materials programs and equipment firmware updates. DataStore also provides details of the listed products, applications and video material.



*Never before has it been so easy to adapt a machine to customer needs*



*Kemppi account customers can purchase directly from DataStore.*



*DataGun device can also be used as a tool for backing up and restoring the settings of welding machines.*



*Welding programs are available at DataStore - <http://datastore.kemppi.com>*

## Select, confirm, install

Simply plug DataGun to a computer, access Kemppi DataStore via [www.kemppi.com](http://www.kemppi.com), select your chosen product and confirm the order. Your software purchase is then transferred via DataGun to your chosen welding machine and is ready to use. It only takes a few minutes to purchase a product and successfully install it to the welding equipment.

The user is guided with illustrations at every stage in this process, which can be performed from start to finish with fewer than ten mouse clicks. The DataStore service also records the customer's order history for return use when needed.



*DataStore helps to manage costs and equipment utilisation in a variety of welding environments*

# Kemppi Arc System 2.0 – ArcQuality



## System highlights

- Monitors compliance to the WPS
- Ensures welders hold valid qualification
- Creates non-conformance reports
- Automates data collection
- Reduces rework costs
- Supports the welder, quality and management personnel
- Reports arc and non-arc time
- Includes a welding fleet management tool
- Anticipates service needs and records service history
- Designed for monitoring MIG/MAG and TIG welding
- Web based reporting
- WLAN technology

## Advanced welding quality management

**Most welded objects carry little qualitative proof that the welding was completed using approved parameters, filler materials and qualified personnel.**

But until now there has been no system that can support these quality needs. Today, Kemppi Arc System 2.0, module ArcQuality (ArcQ), provides an accurate and formal solution to this quality problem.

**ArcQuality identifies WPS deviations and validates welding quality.** Measuring and recording welding parameters and consumables used, comparing the information collected against the qualified welding procedure specification, providing a formal solution that defines and verifies welding quality, avoiding deviations that can result in serious quality issues if left unchecked.



Scan or click to see the product video.

## How it works

**Before welding commences**, the operative's first task is to log into the ArcQ system using the ArcQuality Smart Reader. By scanning the bar code on their personnel identification name tag, the welders professional qualifications are identified.

**Scanning and recording the WPS bar code** ensures such variables as qualifications are suitable and in date. Filler material and shielding gas selection is also scanned, compared and verified.

**The ArcQuality Smart reader LCD screen** communicates WPS compliance or deviation using bright green or red screen alerts, ensuring the welder is reliably informed and able to take suitable corrective action if required before welding, avoiding wasted time and costly rework.

**Quality office reporting monitors welding activity** and WPS compliance from all ArcQuality active work stations, allowing swift supervisory intervention should local warnings have been missed or ignored.

## Validate welding quality

**An excellent solution for immediate, local quality control**, ArcQuality provides many practical advantages for both production, quality and managerial teams involved. ArcQuality supports both MIG/MAG and TIG welding process, where stringent demands for operator competence, parameter setting and materials conformity are extremely important. All data is recorded within the ArcQuality system, stored and available to support the combined welding quality records.

## Suits multiple site management

**ArcQuality provides beyond the immediate local team needs.** Multiple site businesses can specify remote read access using an innovative 'cloud' based information share system, allowing ArcQuality report activity to be viewed securely from any location worldwide. By simply logging into and reviewing any welding site connected to your network, ArcQuality will keep you up to date and help monitor and manage project quality and performance at distance.

## Standards conformance

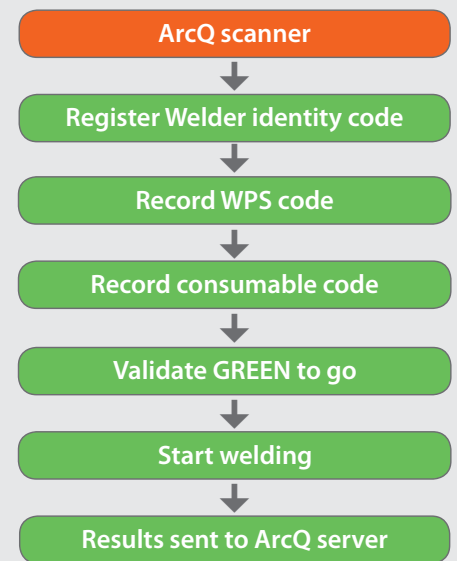
Kemppi Arc System and its module ArcQuality, provide the simple, but formal solution to ensure conformance to set welding quality standards. Of course customers may have slightly different demands in order to meet their local site needs and integrate ArcQuality to their existing quality system, so Kemppi project team can tailor most needs through client consultation and project development.

## Client consultation

If you would like more information and opportunity to evaluate Kemppi Arc System and its module ArcQuality, then contact Kemppi team on 00358 442 899 573 or email [wms@kemppi.com](mailto:wms@kemppi.com).

We will be pleased to discuss your requirements and prepare a project proposal specific to your business needs.

## ArcQuality work process



*View ArcQuality data records securely from any location worldwide.*



*ArcQuality Smart reader records and compares information to the WPS.*



# Safety products, accessories and process training

|                                               |            |
|-----------------------------------------------|------------|
| Beta 90 / 90A / 90X welding helmets           | <b>104</b> |
| Beta FreshAir, Delta FreshAir welding helmets | <b>106</b> |
| Remote controls                               | <b>112</b> |
| Ancillary products                            | <b>113</b> |
| 2-wheel transport units                       | <b>114</b> |
| 4-wheel transport units                       | <b>115</b> |
| ProTrainer                                    | <b>116</b> |

Kemppi offers a range of ancillary products to improve work safety, comfort and productivity.

Welding helmets, gas guards, earth return clamps, gun holders, remote power control and transport units are designed to compliment the use and efficiency of our equipment.

Training craft students is a costly exercise. Heavy increases in the cost of training materials and energy are impacting significantly to traditional training models. Kemppi ProTrainer helps to manage those costs, reducing material and power costs wastage per student, through a virtual welding and learning experience.

# Beta 90 / 90A / 90X

## Welding helmets



### Why buy

- Beta 90 standard glass lens model
- Beta 90A fixed shade EN3/11 electronic lens model
- Beta 90X variable shade and sensitivity EN4/9-13 electronic lens model
- Welding and grinding impact rated for eye and face protection to EN175
- Two stage pivoting filter glass including 'peep' position
- Deep cut design ensures additional face and neck protection

### Better visibility, better protection

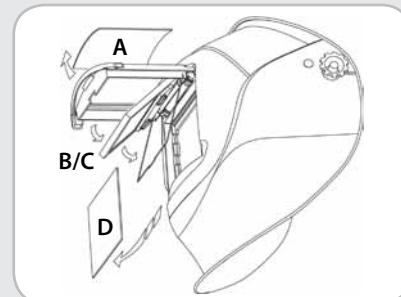
**Kemppi Beta welding helmets provide excellent protection for welding and post weld cleaning and grinding processes.** Equipped with either a standard glass filter or electronic arc sensitive lens, in fixed or variable filter shade specification. All Beta models feature the same lightweight shell that includes grinding impact rating. So whichever model you choose, you can be sure to enjoy the same safety protection.

### Technical specifications

| Beta                       |    | 90       | 90A       | 90X                |
|----------------------------|----|----------|-----------|--------------------|
| Filter lens dimensions     | mm | 90 x 110 | 90 x 110  | 90 x 110           |
| Viewing window             | mm | 90 x 110 | 46.5 x 95 | 46.5 x 95          |
| Shade range                |    | EN 8-14  | EN 3 / 11 | EN 4 / 9 - 13      |
| Sensitivity                |    |          | Fixed     | Adjustable         |
| Switching time             |    |          | 0.0005    | 0.00015            |
| Delay (dark → bright), (s) |    |          | 0.2       | 0.2-0.8 adjustable |

## Ordering information

| Welding helmet                             |                |         |
|--------------------------------------------|----------------|---------|
| Beta 90                                    |                | 9873045 |
| Beta 90 A                                  |                | 9873046 |
| Beta 90 X                                  |                | 9873047 |
| A. Protection plate                        |                |         |
| Beta 90, 90A, 90X                          | 90 x 110 x 1.0 | 9873253 |
| B. Filter glass                            |                |         |
| 90 x 110 mm EN 8                           |                | 9873241 |
| 90 x 110 mm EN 9                           |                | 9873242 |
| 90 x 110 mm EN 10                          |                | 9873243 |
| 90 x 110 mm EN 11                          |                | 9873244 |
| 90 x 110 mm EN 12                          |                | 9873245 |
| 90 x 110 mm EN 13                          |                | 9873246 |
| 90 x 110 mm EN 14                          |                | 9873247 |
| B. Auto-darkening welding filter lens      |                |         |
| Beta 90 A, DIN 3/11                        | 90 x 110       | 9873059 |
| Beta 90 X, DIN 4/9-13                      | 90 x 110       | 9873058 |
| C. Protection plate                        |                |         |
| Beta 90A, 90X                              | 52 x 96 x 1.0  | W007521 |
| D. Safety plate                            |                |         |
| Clear safety plate                         | 90 x 110 x 1.5 | 9873254 |
| Colored safety plate Beta, polycarb. DIN 3 | 90 x 110 x 1.5 | 9873255 |
| Magnifying filter glass                    |                |         |
| Beta (1,0)                                 | 51 x 108 mm    | 9873260 |
| Beta (1.5)                                 | 51 x 108 mm    | 9873261 |
| Beta (2.0)                                 | 51 x 108 mm    | 9873262 |
| Beta (2.5)                                 | 51 x 108 mm    | 9873263 |
| Glass support spring                       |                |         |
| Beta 90, 90 A, 90 X                        |                | 3149850 |
| Headband                                   |                |         |
| Beta                                       |                | 4306370 |
| Alfa                                       |                | 9873012 |
| Sweatband                                  |                | 9873018 |



A - Protection plate

B - Filter glass, auto-darkening welding filter

C - Protection plate

D - Safety plate



Beta 90



Beta 90A/90X



Pivoting filter glass including 'peep' position. Particularly useful with Beta 90 standard model.

## Degrees of protection for lenses

| Welding processes             | Current strength, A |    |    |     |     |     |     |     |     |     |    |  |
|-------------------------------|---------------------|----|----|-----|-----|-----|-----|-----|-----|-----|----|--|
|                               | 15                  | 30 | 60 | 100 | 150 | 200 | 250 | 300 | 400 | 500 |    |  |
|                               |                     | 20 | 40 | 80  | 125 | 175 | 225 | 275 | 350 | 450 |    |  |
| MMA Welding                   |                     |    | 9  | 10  | 11  |     | 12  |     | 13  |     | 14 |  |
| MIG, steels                   |                     |    |    |     | 10  | 11  | 12  |     | 13  |     | 14 |  |
| MIG, aluminium                |                     |    |    |     | 10  | 11  | 12  | 13  | 14  |     | 15 |  |
| TIG, all metals               | 9                   | 10 | 11 |     | 12  | 13  | 14  |     |     |     |    |  |
| MAG (CO <sub>2</sub> welding) |                     |    |    | 10  | 11  | 12  | 13  |     | 14  |     | 15 |  |
| Carbon arc gouging            |                     |    |    |     |     | 10  | 11  | 12  | 13  | 14  | 15 |  |
| Plasma cutting                |                     |    |    | 11  |     | 12  |     | 13  |     |     |    |  |

# Beta 90 FreshAir

## Welding helmets



### Why buy

- Protection for arc welding, plasma cutting, gouging and grinding operations
- Provides safe, clean and cool breathing air
- Positive pressure design makes breathing effortless
- Light-weight 900 g battery powered filter pack or airline supply
- Air flow reduces weld lens misting
- Three stage flip lens for welding, tacking and grinding operations
- Lightweight and comfortable
- Standard or automatic welding lens options
- Welding and grinding rated to EN175B
- Filter efficiency no less than 99.998 % of the airborne particles

### Respiratory protection for welding and grinding

**Beta 90 FreshAir is a lightweight head unit providing protection against welding, grinding and associated airborne fume and dust contamination.**

**Designed for welders working in all positions,** Beta 90 FreshAir provides improved protection for the eyes, face and lungs. The multi-point head harness ensures maximum adjustment and comfort, and the 3-stage flip lens makes welding, tacking and grinding operations effortless and safe. The shield design also incorporates a perimeter deflection rim, offering additional protection in overhead welding applications. Further protection and comfort is provided by the dual-skin hatch design, which reduces heat transfer to the welders face.

**Beta 90 FreshAir can be combined with either a battery powered FreshAir filter pack or locally supplied breathing air sources.** Cool and clean breathing air is channeled through a filter and directed over the welders face, and the adjustable fabric face seal creates a safe and easy breathing zone for all day welder comfort. Due to the 'positive pressure' principle, any harmful airborne welding fumes and dust contamination is eliminated, and this also prevents the welding lens from misting.

# Delta 90 FreshAir

## Welding helmets



### Respiratory protection for welding in hard hat work areas

**Delta 90 FreshAir is a robust unit providing all round protection for welding in extreme conditions, such as shipbuilding, mining and construction sites.**

**Delta 90 FreshAir integrates head, face and respiratory protection in one high strength unit,** providing welder's maximum protection and comfort. In addition, high quality hearing protection can also be integrated as an optional extra.

**Delta 90 FreshAir can be combined with either a rechargeable, battery powered FreshAir filter pack or locally supplied breathing air sources.** Cool, clean, filtered breathing air is channeled over the welders face, eliminating harmful airborne welding fume and dust contamination. The adjustable face seal, combined with the 'positive air pressure' design, creates a safe and easy breathing zone for all day welder comfort and prevents the welding lens from misting.

### Why buy

- Welding and hard hat protection
- Provides safe, clean and cool breathing air
- Positive pressure design makes breathing effortless
- FreshAir prevents welding lens misting
- Choose battery powered filter pack or airline supply
- Mounting for optional high quality ear defenders
- Choose from standard or automatic welding lens options
- Meets hard hat standard EN397 and welding certification EN175

# Beta 90 FreshAir/ Delta 90 FreshAir

**FreshAir Flow control with Alarm:** Battery powered / Filter pack / Blower unit / Comfort belt / Connection Hose / Mains battery charger



## Main filter cartridge, pre-filter and odour filter

- **Main particle filter PSL R**, provides protection against all types of particulate contaminants such as dusts, non-toxic and toxic fumes, solid and liquid aerosols, bacteria and viruses. The filter separates no less than 99.998 % of the airborne particles.
- **Certification:** EN 12941, type PSL R
- **Temperature range of storage and service:** 0...+ 40 °C
- **Dimensions:** (diameter / height): 132 / 55 mm
- **Filter weight:** 100 g
- **Optional pre-filter** prolongs the main filter life, preventing premature clogging by larger particles. Adhesive tapes placed on both sides of the pre-filter make fitting fast and easy. Made from 100 % PES and suitable for all filtration.
- **Odour filter** removes unpleasant odours and thus provides additional user comfort.

*FreshAir Flow control with alarm incorporates an intelligent warning system, including visual and acoustic signals if the battery is drained, the filter is clogged or the airflow is insufficient.*

## Efficient, intelligent, lightweight and compact

**The FreshAir Flow control with alarm** is a blower and filter unit designed to provide protection against particulate contaminant associated with welding and fabrication operations, such as dust, non-toxic and toxic fumes, solid and liquid aerosols, bacteria and viruses. Despite its compact shape and low weight, the unit is designed for long-term operation in welding environments.

**The rechargeable battery powered system provides total freedom of movement in the workplace**, when compared to the static, airline fed option. Reliable respiratory protection is based on the overpressure created in the breathing zone of the head top unit. The positive pressure and fresh, filtered air eliminates difficulty in breathing, prevents fogging of the welding lens and improves user comfort throughout the working day.

**The Flow control system automatically maintains the chosen air-flow rate** and the intelligent warning system provides both visual and acoustic signals if the battery is drained, the filter is clogged or the airflow is insufficient. The rechargeable NiMH battery ensures operations for up to 10 hours. The airflow is manually adjustable from 140 l/min up to 210 l/min, and the advanced flow control system allows the operator to manage airflow and battery life.

## Welding lens choice

Beta 90 FreshAir and Delta 90 FreshAir units are fitted as standard with an EW11 welding filter lens. You can upgrade either unit with Kemppi's optional automatic darkening filter (ADF) pack, for added welding safety and convenience. ADF packs are available in either fixed shade EW 11 or variable EW 9-13 with sensitivity and grinding mode settings.

## FreshAir supply choice

Choose either the battery powered PAPR filter pack unit (Powered Air Purification Respirator), which provides complete independence of movement in workshop or site, or the airline fed solution, which uses your local breathing air supply channeled through a FreshAir pre-filter to remove contaminants and odours before supplying the headtop via a FreshAir regulator valve.

## Respiratory protection factor

The protection factor provided from Beta 90 FreshAir and Delta 90 FreshAir positive pressure units meets the European TH2/SA2 standard levels under EN 12941/A2 and EN 14594:2005. The units provide respiratory protection against airborne contamination not exceeding 250 mg/m<sup>3</sup>, providing that 250 mg/m<sup>3</sup> is below the IDLH level (Immediate Danger to Life and health). The units are not designated for use in environments where the oxygen level is below 17 % by volume, or as respiratory devices for escape purposes.

## FreshAir PRESSURE flow control system

**FreshAir PRESSURE flow control system** provides an ideal solution for workplaces equipped with breathing quality, compressed air supplies and distribution systems, or a mobile compressor. In addition, the belt mounted FreshAir Flow Control valve is equipped with a pressure gauge for easy workplace airflow monitoring of the supply.

**FreshAir PRESSURE Flow control provides a high level of protection from a variety of airborne contaminants.** The adjustment valve on the belt unit enables the user to regulate the air flow between 170 and 400 l/min and therefore adapt the air flow to individual needs, providing comfortable and reliable respiratory protection in accordance with EN 14594.

**Beta 90 FreshAir and Delta 90 FreshAir head tops** can be connected in combination with the FreshAir PRESSURE Flow control system. Ideal for long work periods and more static work place locations where mobility is not a key requirement. FreshAir PRESSURE Flow control system benefits from lower initial purchase and operating costs.

**FreshAir PRESSURE Conditioner** is an in-line filter station designed for improving the quality of supplied air. The strong metal pressure container incorporates a high capacity combined filter. The FreshAir PRESSURE conditioner removes particles and unpleasant odours from airline supply systems, substantially improving the quality of the breathing air. The quick couplings allow single-handed assembly of the device and the outlet connection is prepared for two operators. A standard pressure gauge measures the outlet pressure.



*FreshAir flow control filter pack automatically regulates the fan motor speed to compensate filter clogging and battery state.*



*The comfort belt mounts the battery powered FreshAir filter pack and also provides additional back support throughout the working day.*



*FreshAir pressure flow control valve regulates supply air flow and includes an air supply monitoring gauge*



*The rechargeable NiMH 4.8/4.5Ah battery lasts up to 10 hrs of operation. Purchasing a second battery ensures you always have a back-up power supply ready charged.*



Kemppi FreshAir welding respirators provide an economic solution for high level personal protection.



Optical magnifying lenses can also be fitted for improved visibility and close, low current work.



Kemppi auto darkening welding filter (9873058) can be fitted to either Beta 90 FreshAir and Delta 90 FreshAir.

# Beta 90 FreshAir/ Delta 90 FreshAir

## Technical specifications

### FreshAir Flow Control

|                                                    |                                            |
|----------------------------------------------------|--------------------------------------------|
| Airflow                                            | 140 – 210 l/min at 8 adjustable flow rates |
| Weight of the blower unit incl. filter and battery | 900 g                                      |
| Noise level                                        | 55 – 61 dB                                 |
| NiMh battery lifetime                              | 500 – 700 charging cycles                  |
| One charging cycle                                 | 10 – 14 hours                              |
| Belt size                                          | 80 – 100 cm                                |
| Recommended temperature range                      | 10 – 40 °C                                 |
| Recommended humidity range                         | 20 – 80 % Rh                               |
| Certification                                      | EN 12 941 TH2                              |

### FreshAir Pressure Flow Control

|                                |                |
|--------------------------------|----------------|
| Minimum air flow               | 170 l/min-1    |
| Maximum air flow               | > 400 l/min-1  |
| Weight of unit                 | 250 g          |
| Inlet connection               |                |
| Outlet connection              | MINI DN 5      |
| Noise level                    | 61 dB          |
| Belt size                      | 60 – 150 cm    |
| Supply pressure range          | 300 – 1000 kPa |
| Recommended temperature range  | 10 – 60 °C     |
| Recommended air humidity range | 20 – 80 % Rh   |
| Certification                  | Class 2A       |

### FreshAir Pressure Conditioner

|                                |                                                                        |
|--------------------------------|------------------------------------------------------------------------|
| Maximum air flow               | 500 l/min                                                              |
| Weight without filter          | 6300 g                                                                 |
| Weight including filter        | 6800 g                                                                 |
| Inlet connection               | Compatible with RECTUS series 25, 26 a CEYN320                         |
| Outlet connection              | Compatible with RECTUS series 25, 26 a CEYN320                         |
| Recommended temperature range  | 10 – 60 °C                                                             |
| Recommended air humidity range | 20 – 80 % Rh                                                           |
| Certification                  | If the requirements of TP-610050-1 are met, it complies with EN 12 021 |

# Beta 90 FreshAir/ Delta 90 FreshAir

## Ordering information

| <b>Beta 90 FreshAir with Flow Control pack P1700</b>           |         |
|----------------------------------------------------------------|---------|
| BETA 90 FreshAir                                               | 9873065 |
| FreshAir Flow Control pack                                     | W007513 |
| <b>Delta 90 FreshAir with Flow Control pack P1701</b>          |         |
| Delta 90 FreshAir                                              | 9873066 |
| FreshAir Flow Control pack                                     | W007513 |
| <b>Beta 90 FreshAir with Pressure Flow Control pack P1702</b>  |         |
| BETA 90 FreshAir                                               | 9873065 |
| FreshAir Pressure Flow Control pack                            | W007515 |
| <b>Delta 90 FreshAir with Pressure Flow Control pack P1703</b> |         |
| Delta 90 FreshAir                                              | 9873066 |
| FreshAir Pressure Flow Control pack                            | W007515 |

| <b>Beta 90 FreshAir helmet 9873065</b> |             |
|----------------------------------------|-------------|
| Protection plate                       | x 1 9873253 |
| Hatch spring                           | x 2 4300700 |
| Safety plate (90x110x1.5)              | x 1 9873254 |
| Filter retaining spring                | x 1 3149850 |
| Face seal                              | x 1 W007523 |
| Hatch set Beta                         | 4301050     |
| Headband                               | 4306370     |
| Sweat band                             | 9873018     |
| Head cover                             | W007827     |
| Protective neck cover                  | W007828     |
| Flexi-hose protection cover            | W007788     |

| <b>Delta 90 FreshAir helmet 9873066</b> |              |
|-----------------------------------------|--------------|
| Face seal                               | x 1 W007516  |
| Ear muffs                               | x 1 W007517  |
| Fixing screws                           | x 2 W007518  |
| Headband                                | x 1 W007519  |
| Protection plate, outside               | x 10 W007520 |
| Welding visor                           | W007522      |
| Head cover                              | W007827      |
| Protective neck cover                   | W007828      |
| Flexi-hose protection cover             | W007788      |

| <b>Beta/Delta welding lens options</b> |       |         |
|----------------------------------------|-------|---------|
| <b>Glass welding filter lens</b>       |       |         |
| DIN 8 90x110                           |       | 9873241 |
| DIN 9 90x110                           |       | 9873242 |
| DIN 11 90x110                          |       | 9873244 |
| DIN 12 90x110                          |       | 9873245 |
| DIN 13 90x110                          |       | 9873246 |
| DIN 14 90x110                          |       | 9873247 |
| <b>Automatic welding lens</b>          |       |         |
| ADF 9-13 welding filter pack           |       | 9873058 |
| Inside protection plate 51x107 mm      | 5 pcs | W007521 |
| <b>Magnifying lenses for ADF pack</b>  |       |         |
| 51x108 mm                              | 1,0   | 9873260 |
| 51x108 mm                              | 1,5   | 9873261 |
| 51x108 mm                              | 2,0   | 9873262 |
| 51x108 mm                              | 2,5   | 9873263 |

| <b>FreshAir Flow Control pack W007513</b> |         |
|-------------------------------------------|---------|
| FreshAir Flow Control with alarm          | W007512 |
| FreshAir Battery charger Euro plug        | W007485 |
| FreshAir Flow Control Flexi hose          | W007487 |
| FreshAir Flow Control Flow indicator      | W007488 |
| Comfort belt                              | W007489 |
|                                           |         |
| Basic filter, 2 pcs, standard             | W007490 |
| Flow Control pre-filter 10 pcs            | W007492 |
| Basic odour prefilter 10 pcs              | W007494 |
| Heavy duty comfort belt                   | W007789 |
| Flow Control Sealing ring for filter      | W007491 |
| Battery pack, NIMH 4.8 V/4.5 AH           | W007493 |
| Flow Control Filter cover                 | W007495 |

| <b>FreshAir Pressure Flow Control pack W007515</b>  |         |
|-----------------------------------------------------|---------|
| FreshAir Pressure Flow Control set (valve and belt) | W007496 |
| FreshAir Pressure Flow Flexi hose                   | W007501 |
|                                                     |         |
| Pressure Noise silencer                             | W007498 |
| Pressure Control valve cap                          | W007499 |
| Pressure Air fitting                                | W007500 |
| Pressure Flow control belt                          | W007502 |
| Pressure Flow indicator RD40x1/7"                   | W007503 |
| Pressure CONDITIONER UNIT                           | W007504 |
| Pressure CONDITIONER FILTER                         | W007505 |
| Pressure FLOW SPIRAL HOSE 10m                       | W007506 |



Scan or click to see the product video.

# Remote controls



C100C

C100D

R10

R20

R11T

R30

Increase welding quality, work efficiency, comfort and safety with appropriate, easy to use remote controls. Gun remotes, hand-held and pedal control units reduce the need for movement between workplace and power source, increasing work efficiency and reducing fatigue.

| Remote controls    | C100C   | C100C   | C100D   | R10     | R10       | R20     | R11T    | R30     | R30       |
|--------------------|---------|---------|---------|---------|-----------|---------|---------|---------|-----------|
| Length (m)         | 5       | 10      | 5       | 5       | 10        | 5       |         | 5       | 10        |
| Order code         | 6185410 | 6185411 | 6185413 | 6185409 | 618540901 | 6185419 | 6185442 | 6185420 | 618542001 |
| FastMig Synergic   |         |         |         | •       | •         | •       |         | • (MXF) | • (MXF)   |
| FastMig Pulse      |         |         |         |         |           |         |         | •       | •         |
| Minarc 220         |         |         |         | •       | •         |         |         |         |           |
| MinarcTig          |         |         |         | •       | •         |         |         |         |           |
| MasterTig MLS      |         |         |         | •       | •         |         | •       |         |           |
| MasterTig MLS ACDC |         |         |         | •       | •         |         |         |         |           |
| MasterTig AC/DC    | •       | •       | •       |         |           |         |         |         |           |
| Master MLS         |         |         |         | •       | •         |         | •       |         |           |
| KempGouge ARC 800  |         |         |         | •       | •         |         |         |         |           |



C100F



R11F



C100T



RMT10



RTC10

RTC20

| Remote controls    | C100F   | R11F    | C100T   |
|--------------------|---------|---------|---------|
| Length (m)         | 5       | 5       |         |
| Order code         | 6185405 | 6185407 | 6185412 |
| MinarcTig          |         | •       |         |
| MasterTig MLS      |         | •       |         |
| MasterTig MLS ACDC |         | •       |         |
| MasterTig AC/DC    | •       |         |         |

| Gun/torch compatible remote controls | Order code      |
|--------------------------------------|-----------------|
| RMT 10                               | For PMT guns    |
| RTC 10                               | For TTC torches |
| RTC 20                               | For TTC torches |

# Ancillary products



| Earth clamps/Connection |                                                                                   | Order code |
|-------------------------|-----------------------------------------------------------------------------------|------------|
| Kemppi 200, 200A        | 25...35 mm, cable shoe connection ø 6 mm                                          | 9871531    |
| Kemppi 350, 350A        | 50...70 mm, cable shoe connection ø 6 mm, copper braid between the connector jaws | 9871540    |
| Kemppi 500, 500A        | 70...95 mm, cable shoe connection ø 8 mm, copper braid between the connector jaws | 9871541    |
| Kemppi G- 600, 600A     | 35...120 mm, cable connection with hex screw, brass frame, screw-type             | 9871560    |

| Gun holders | Order code |
|-------------|------------|
| GH 10       | 6256010    |
| GH 20       | 6256020    |
| GH 30       | 6256030    |

Gun holders are primarily intended to be attached to welding machines, but they can also be attached to transport units and welding tables.



| Electrode holders | 60/35 % ED, current rating | Weight (g) / cable size (mm <sup>2</sup> ) | Order code |
|-------------------|----------------------------|--------------------------------------------|------------|
| KEMPPI 300        | 150/200, 300 A             | 321/16–25                                  | 9871021    |
| KEMPPI 400        | 200/250, 400 A             | 421/16–25                                  | 9871031    |
| URANIA 5          | 250/300, 500 A             | 500/35–50                                  | 9871041    |
| URANIA 6          | 300/400, 600 A             | 855/50–70                                  | 9871051    |
| MYKING 200        | 200 A                      | 285/10–25                                  | 9871060    |
| MYKING 450        | 450 A                      | 485/35–70                                  | 9871070    |
| MYKING 600        | 600 A                      | 535/50–70                                  | 9871080    |

All have a copper alloy frame and cable connection with a hex screw

| Gas guards | Order code |
|------------|------------|
| GG 200/300 | 6237406    |



| Cable connectors                                   | Order code            | Order code      |
|----------------------------------------------------|-----------------------|-----------------|
| Current durability A                               | Cable mm <sup>2</sup> | Male Female     |
| 200                                                | 10...25               | 9771650 9771626 |
| 250                                                | 35                    | 9771671 9771628 |
| 315                                                | 50                    | 9771670 9771627 |
| 400                                                | 70                    | 9771680 9771629 |
| 500                                                | 95                    | 9771630         |
| 600                                                | 95                    | 9771681         |
| Branch connector (1 male and 2 female connections) | 70/90                 | 9771637         |

| ArcTimer technical data  |                         |
|--------------------------|-------------------------|
| Measured current range   | 20...500 A              |
| Cable diameter           | 50...95 mm <sup>2</sup> |
| Minimum battery lifetime | 5 years                 |
| Protection class         | IP23                    |
| Operating temperature    | -10...+50 °C            |
| Dimensions LxWxH         | 92 x 82 x 32 mm         |
| Weight                   | 215 g                   |

| ArcTimer order codes     |          |
|--------------------------|----------|
| ArcTimer                 | 6209200  |
| Protective plate         | W003231  |
| Timer card A001 ArcTimer | SP003238 |
| Magnetic locking plate   | SP003230 |

# 2-wheel transport units



MST 400\*



ST 7



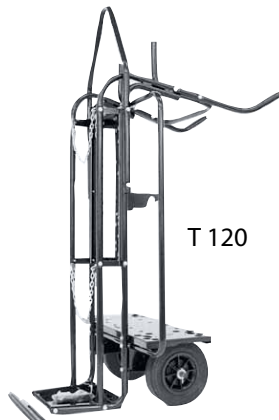
T 10



T 100



T 110\*



T 120



T 130



T 200

\* Recommended for smaller gas bottle sizes

|         | Order code | Weight, kg | Master MLS 2500, 3500 | MasterTig MLS 2000 | MasterTig MLS 3000, 4000 | MasterTig MLS 3000, 4000<br>MasterCool 10 | MasterTig AC/DC 3500W | MasterTig MLS 2300, 3000, 3003<br>ACDC | FastMig Basic + Synergic + Pulse *<br>(T 10 installation set W002085) | FastMig Basic + Synergic + Pulse<br>*(T 120 installation set W003053) | FitWeld 300 | Kempact Pulse 3000 | KempArc SYN 300, 400, 500<br>KempArc Pulse 350, 450 | MinarcMig and MinarcMig Evo | Minarc Tig and MinarcTig Evo | Minarc 220 |
|---------|------------|------------|-----------------------|--------------------|--------------------------|-------------------------------------------|-----------------------|----------------------------------------|-----------------------------------------------------------------------|-----------------------------------------------------------------------|-------------|--------------------|-----------------------------------------------------|-----------------------------|------------------------------|------------|
| MST 400 | 6185294    | 11.8       |                       |                    |                          |                                           |                       |                                        |                                                                       |                                                                       |             |                    |                                                     |                             |                              |            |
| ST 7    | 6185290    | 17         |                       |                    |                          |                                           |                       |                                        |                                                                       |                                                                       |             |                    |                                                     |                             |                              |            |
| T 10    | 6185231    | 18         |                       |                    |                          |                                           |                       |                                        |                                                                       |                                                                       |             |                    |                                                     |                             |                              |            |
| T 100   | 6185250    | 20         |                       |                    |                          |                                           |                       |                                        |                                                                       |                                                                       |             |                    |                                                     |                             |                              |            |
| T 110   | 6185251    | 18         |                       |                    |                          |                                           |                       |                                        |                                                                       |                                                                       |             |                    |                                                     |                             |                              |            |
| T 120   | 6185252    | 33         |                       |                    |                          |                                           |                       |                                        |                                                                       |                                                                       |             |                    |                                                     |                             |                              |            |
| T 130   | 6185222    | 23         |                       |                    |                          |                                           |                       |                                        |                                                                       |                                                                       |             |                    |                                                     |                             |                              |            |
| T 200   | 6185258    | 28         |                       |                    |                          |                                           |                       |                                        |                                                                       |                                                                       |             |                    |                                                     |                             |                              |            |

# 4-wheel transport units



|        | Order code | Weight kg | Kempact Pulse 3000 + KempactCool 10 | FastMig Basic + Synergic + Pulse | FastMig Basic + Synergic + Pulse auxiliary unit PSL 55 | KempoWeld | KempArc | MasterTig AC/DC 3500W |
|--------|------------|-----------|-------------------------------------|----------------------------------|--------------------------------------------------------|-----------|---------|-----------------------|
| P 20   | 6185261    | 25        | ●                                   |                                  |                                                        |           |         |                       |
| PM 500 | 6185291    | 23        |                                     | ●                                |                                                        |           | ●       |                       |
| PM 501 | 6185292    | 25        |                                     |                                  | ●                                                      |           |         |                       |
| PM 502 | 6185293    | 7.5       |                                     | ●                                |                                                        |           | ●       |                       |
| T 22   | 6185256    | 25        |                                     |                                  |                                                        |           |         | ●                     |

## Transport units for wire feeders and compact power sources



|       | Order code | Weight kg | KempoWeld/WIRE | Kempact MIG 2530/Pulse 3000 | Kempact Pulse 3000 + KempactCool 10 | FastMig MXF65, MXF67 | FastMig MF33 (with mounting kit 6185287) |
|-------|------------|-----------|----------------|-----------------------------|-------------------------------------|----------------------|------------------------------------------|
| P 250 | 6185268    | 7.2       |                | ●                           | ●                                   |                      |                                          |
| P 500 | 6185265    | 7.2       | ●              |                             |                                     |                      | ●                                        |
| P 501 | 6185269    | 6.5       |                |                             |                                     | ●                    |                                          |

Check mounting kit requirements for wire feed units

# ProTrainer

## Welding process training in a virtual environment



### Why buy

- Increase the speed of learning
- Reduce the cost of training
- Improve communication between student and trainer
- Suitable for new and experienced students
- Student tutorials
- Record and replay weld tests
- Teaching EN and IIW welding standards

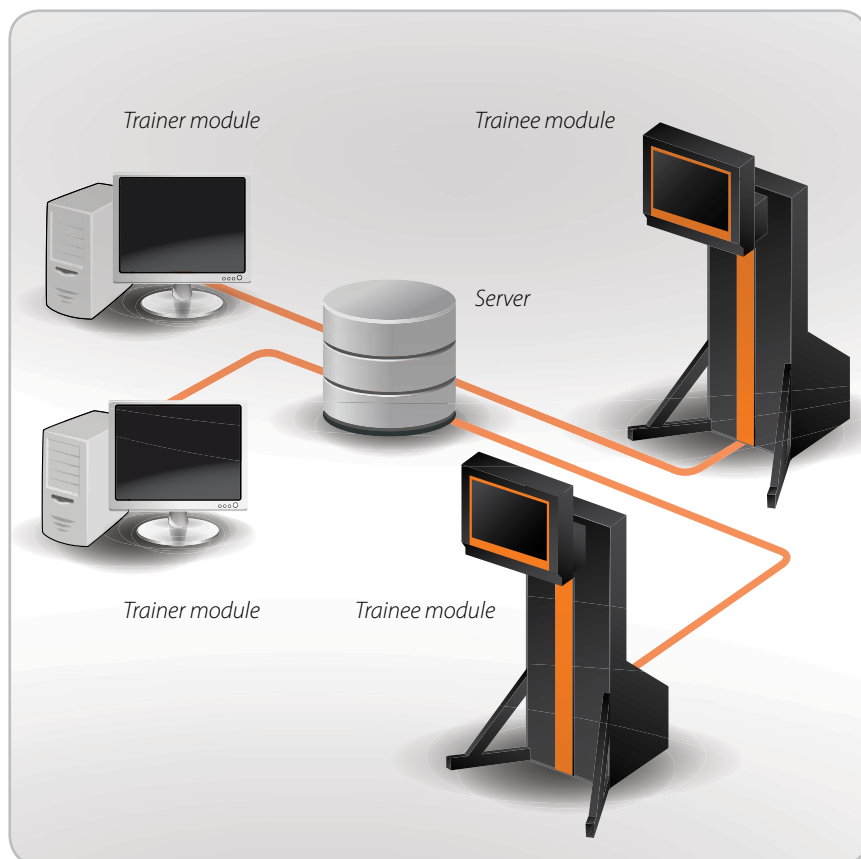
## A valuable asset to any welding learning environment

**Learning to weld can be a daunting exercise.** Initiating a live welding arc for the first time is certainly an exciting experience for students, but mastering the techniques of each welding process, including gun, torch and electrode angles, travel speeds and weld pool control, plus positional techniques, requires instruction and significant practice. Training costs can be high in both time and materials. Kemppi ProTrainer offers the solution to these problems, guiding students through the different welding processes and developing the fundamental skills required for professional welding, before progressing to live arc welding.

**Kemppi ProTrainer combines greater opportunity** for weld practice and increases the interaction between student and trainer, at a fraction of traditional costs. ProTrainer offers a realistic virtual welding environment that simulates the welding process, and parameters necessary for successful welding outcomes. Real welding guns and torches are used in hand, but there is no welding helmet restricting communication between student and trainer. Kemppi ProTrainer increases the speed of learning by up to 50 %, and significantly reduces the cost of student welder training by up to 40 %.

**NOTE:** ProTrainer is only available on Scandinavian market.

## Architecture



## The central server

The central server module manages communication between trainer module and trainee module, plus manages user profile information together with exercise description and test results data.

## The trainer module

The trainer module provides user management tools (add, remove, update), real-time follow-up for the monitoring and regulation of trainee progression. It also allows the trainee to visualise and analyse their personal performance and results.

## The trainee module

The trainee module allows each trainee to select and work through specified welding exercises and to visualise and analyse their personal results. Trainee modules are available in either WORKBENCH or a LITE variants.

## Workbench

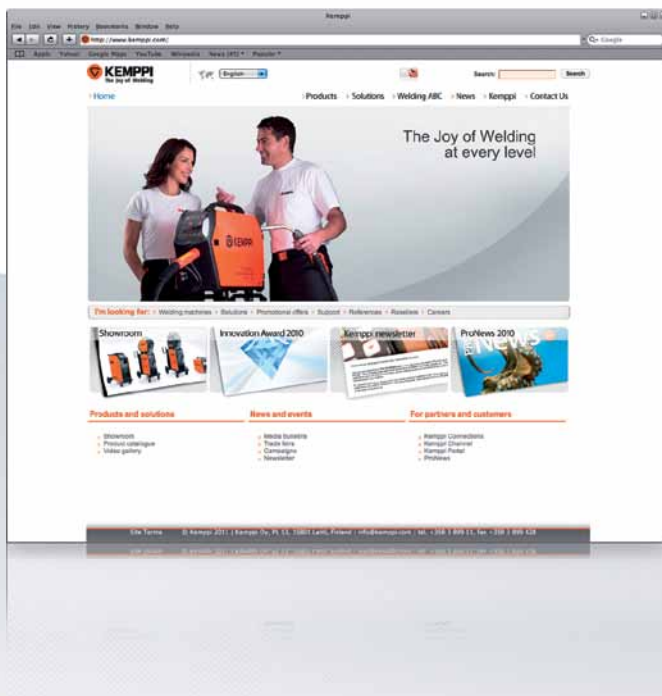
The welding WORKBENCH is the main hardware tool of ProTrainer. It is a robust motorised workbench providing a clear, high resolution, wide screen display and is equipped with real welding tools including gun/torch and an electrode holder. These tools are not only dedicated to the welding simulation but also the navigation tool through the workbench interface.



*ProTrainer LITE offers mobility between training sites.*



# Web space information



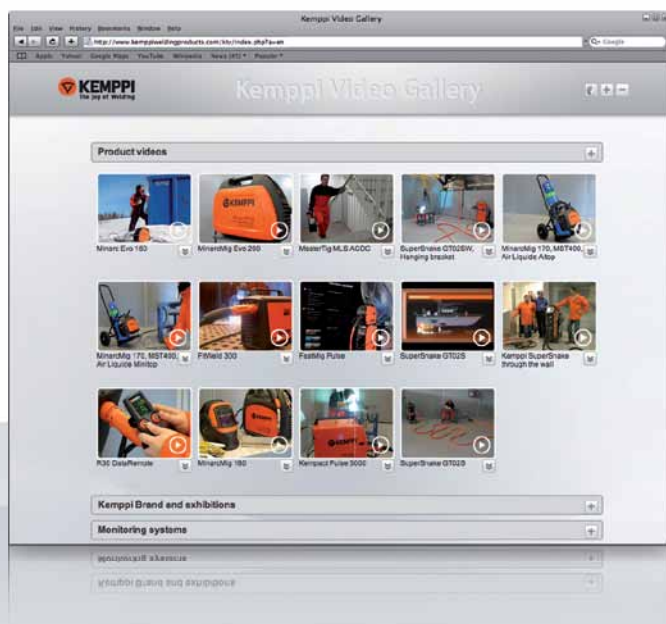
## Front Page

Kempki web site provides easy access for product information, news and events. You can also subscribe to Kempki's e-newsletter, 'The welding issue'. Following subscription, it will be conveniently sent to your designated email address. Kempki distributors and dealers can also use this site to access the Kempki Portal and Kempki Channel sites.



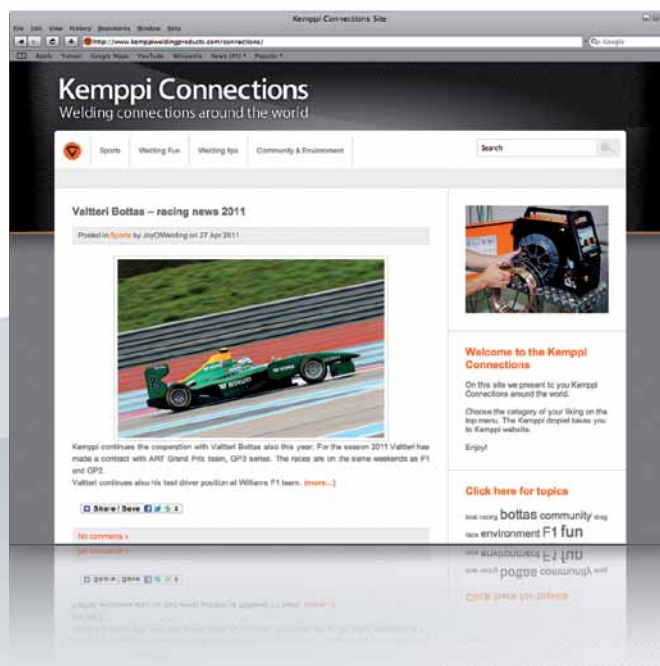
## Showroom

Click the Showroom banner on the home page to visit our virtual showroom. Here you can view our products range listed by image, name and process. Click through to find technical data, support information, images, video and downloads.



## Video gallery

Kemppi video content is presented at the video gallery. Located on the front page below the heading 'Products and solutions', the video archive includes product, brand and slow motion process film. All materials are available for download. Just click the image and view.



## Kemppi Connections

Kemppi Connections site contains information on subjects connected to Kemppi business. Listed on the front page below the heading 'For partners and customers', Kemppi Connections includes sections titled Sports, Welding fun, Welding tips and Community and Environment.

# Quality and standards

## ISO 9001/ISO 14001

Kemppi is committed to achieving technical excellence. Standards are compliant with ISO 9001 quality management system and ISO 14001 environmental management system. CE marking indicates that product complies with all European directives and essential harmonised standards.



## Kemppi products conform to the following international standards:

### Safety requirements for arc welding equipment

IEC / EN 60974-1 Part 1: Welding power sources  
IEC / EN 60974-2 Part 2: Liquid cooling systems  
IEC / EN 60974-3 Part 3: Arc striking and stabilising devices  
IEC / EN 60974-5 Part 5: Wire feeders  
IEC / EN 60974-7 Part 7: Torches  
IEC / EN 60974-10 Part 10: Electromagnetic compatibility (EMC) requirements  
IEC / EN 60974-11 Part 11: Electrode holders  
EMC classification according to CISPR 11: Class A. Kemppi's arc welding devices are designed for industrial Applications.

### Degree of protection and operating temperature

Degree of protection for Kemppi machines is IP23S, indicating protection against impact and outside storage. Welding equipment is not intended for use in the rain or in wet conditions. The operating temperature for Kemppi equipment is -20...+40 °C, making them suitable for extreme conditions. The storage temperature is -40...+60 °C.

### Load capacity and duty cycle

The load capacity of Kemppi welding machines is given as amperage based on the duty cycle percentage. The duty cycle indicates the proportion of a 10 minute cycle that you can weld with the given current without the device overheating. Because the duty cycle has been given for the temperature of +40 °C, performance is normally higher in many ambient temperatures.

# Environment

## The Joy of Welding

Kemppi's development and commercialisation of inverter welding technology during the 1970's dramatically reduced power source electrical consumption. Today, so called green technology features strongly in our business model. Product life cycle impact, power consumption, materials selection and product disposal are all considered factors by design.

Joy and welding? We believe there is a powerful connection, and it is our role to make sure that welders get their job done just the way they wanted it. Technology matters, but business is still between people – our customers and partners know what "dealing with the human touch" really means.

**Kemppi is dedicated to the Joy of Welding at every level.**



Energy efficient

## Please note!

Whilst every effort has been made to ensure that the information contained in this catalogue is accurate and complete, no liability can be accepted for any errors or omissions. Kemppi reserves the right to change the specification of the product described at any time without prior notice.



# Kemppi **Warranty 2+**



Kemppi has harmonised its global warranty promise. The new 2+ warranty cover includes all welding equipment manufactured and sold by Kemppi after 1st July 2010 (excluding the wearing parts) for two years starting from the date of sale. Local warranty service is available in any country where Kemppi has representation, irrespective of the original country of purchase. Cover includes parts and labour.



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