

# Kempoweld | WIRE 400, 550



Operating manual • English *EN*

Käyttöohje • Suomi *FI*

Bruksanvisning • Svenska *SV*

Bruksanvisning • Norsk *NO*

Brugsanvisning • Dansk *DA*

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Инструкции по эксплуатации • По-русски *RU*



# **OPERATING MANUAL**

**English**

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# 1. PREFACE

## 1.1 GENERAL

Congratulations on choosing the Kempoweld WIRE equipment. Used correctly, Kemppi products can significantly increase the productivity of your welding, and provide years of economical service.

This operating manual contains important information on the use, maintenance and safety of your Kemppi product. The technical specifications of the equipment can be found at the end of the manual.

Please read the manual carefully before using the equipment for the first time. For your own safety and that of your working environment, pay particular attention to the safety instructions in the manual.

For more information on Kemppi products, contact Kemppi Oy, consult an authorised Kemppi dealer, or visit the Kemppi web site at [www.kemppi.com](http://www.kemppi.com).

The specifications presented in this manual are subject to change without prior notice.

### **Important notes**

Items in the manual that require particular attention in order to minimise damage and personal harm are indicated with the 'NOTE!' notation. Read these sections carefully and follow their instructions.

### **Disclaimer**

While every effort has been made to ensure that the information contained in this guide 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. Do not copy, record, reproduce or transmit the contents of this guide without prior permission from Kemppi.

## 1.2 PRODUCT INTRODUCTION

Kempoweld WIRE 400 and WIRE 550 wire feeders belong to the KEMPOWELD product range, designed for demanding professional use, both with water-cooled or air cooled MIG guns.

Synchronization unit KMW sync for push-pull guns can be easily mounted to the wire feeder unit. Units have 4-roll drive.

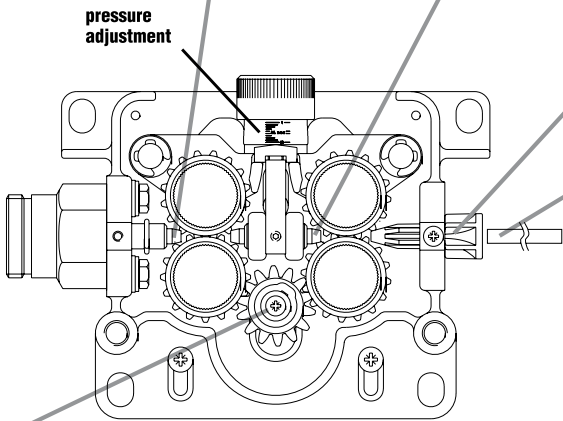
You can also equip the Kempoweld power source and the wire feeder unit with air- or water-cooled interconnection cable. You can hang the wire feeder unit onto boom with a specially-designed lift hook.

## 2. PARTS OF WIRE FEED MECHANISM WIRE

### WIRE 400 and WIRE 550

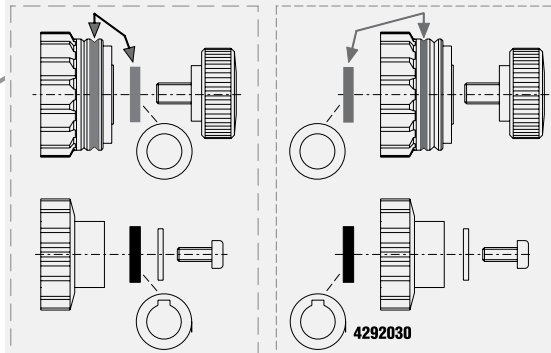
#### 4-roll wire feed mechanism

Wire guide tubes									
Fe	0,6...0,8 mm	1,0 mm white	3134140	2,0 mm orange	3134120	2,0 mm plastic	4267220	2,4 mm yellow	4268210
						2,0 mm plastic	4266970		
Mc	0,9...1,6 mm	2,0 mm orange	3133700	4,0 mm blue	3134110	4,0 mm plastic	4270180	Promig 511	
						4,0 mm brass	4267030		
Fc	1,6...2,4 mm	4,0 mm blue	3134130	2,5 mm silver	3134300	2,0 mm plastic	4267220	3,0 mm yellow	4268560
						4,0 mm plastic	4270180		
Ss	0,8...1,6 mm	2,5 mm silver	3134290	3,0 mm yellow	3134720	4,0 mm plastic	4270180		
Al	1,6...2,4 mm	3,0 mm yellow	3134710						



pressure adjustment

Syöttöpyörän uran valinta, val av matarhjulspår, valg av matehjul spor, valg af spor i tråd hjul, selection of feed wheel groove, Auswahl der Transportrollennut, selectie van de draaddiameter groef, sélection de la gorge du galet



Vetoratas, drivhjul, trekkanttannhjul, drivhjul, gearwheel, Aufziehrad, aandrijfrol, galet d'entraînement

Ø 28 mm (0 - 18 m/min) 4265240, Ø 40 mm (0 - 25 m/min) 4265250  
Muovi, plast, plastic, Kunststoff, plastique

Ø 28 mm (0 - 18 m/min) 4287860, Ø 40 mm (0 - 25 m/min) 4297270  
Teräs, stål, steel, Stahl, acier

Vetorataan valintalevyn siirto, flytning av distansbricka, flytning av avstandsskive for matehjul, hvordan flytter man justerskiven, relocation of selection plate, Versetzen der Wahlschalterplatte, verplaatsing van selectie plaat, remise en place de la rondelle de sélection

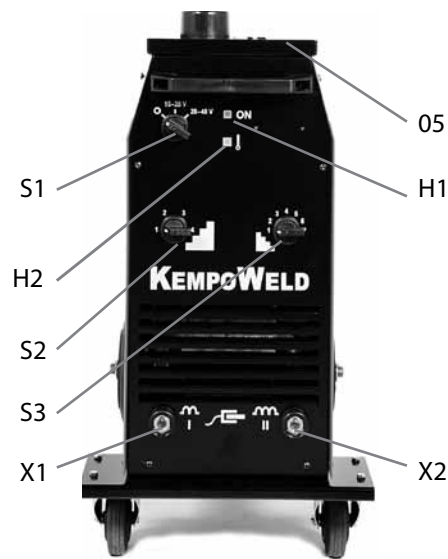
Feed rolls											
Fe Ss Al	Plain		Ø 0,6/0,8	3133810	1,0/1,2	3133210	1,4-1,6/2,0	3133820	2,4	3133880	
			Ø 0,8/0,8 (L)	3143180	red	1,0/1,0 (L)	3138650	1,6/1,6 (L)	3141120	black	
			white		orange	1,2/1,2 (L)	3137390	yellow		Ø 3,2	3138910
Fe Fc Mc	Knurled				1,0/1,2	3133940	1,4-1,6/2,0	3133990	2,4	3134030	
					red	1,2/1,2 (L)	3137380	1,6/1,6 (L)	3141130	black	
					orange			yellow		Ø 3,2	3134060
Fe Fc Mc Ss Al	Trapezoid				1,2/1,2 (L)	3142210	1,4/1,4 (L)	3142220	2,0/2,0 (L)	3142230	
					orange		brown	1,6/1,6 (L)	3142200	grey	
							yellow		black	Ø 2,4 (L)	3142240

(L) = Ball race

W000574

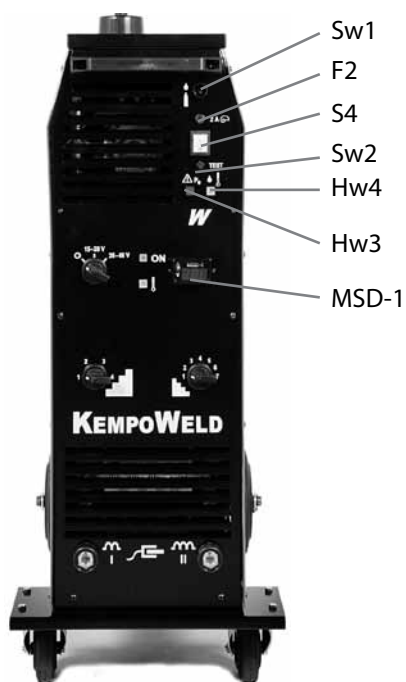
### 3. KEMPOWELD PANELS

#### 3.1 OPERATION CONTROL AND CONNECTORS



- S1 Main switch (voltage range)
- S2 Voltage selecting switch (coarse grading)
- S3 Voltage selecting switch (fine grading)
- H1 Pilot lamp for main switch
- H2 Pilot lamp for overheating (power source)
- X1 Return current connector (coarser arc)
- X2 Return current connector (softer arc)
- 05 Accessory drawer
- MSD-1 V/A metering unit (accessory for 4200 and 4200W)
- MSD-1 V/A metering unit (included in delivery of 5500W)

### 3.2 PARTS OF COOLING UNIT KEMPOWELD 4200W AND 5500W

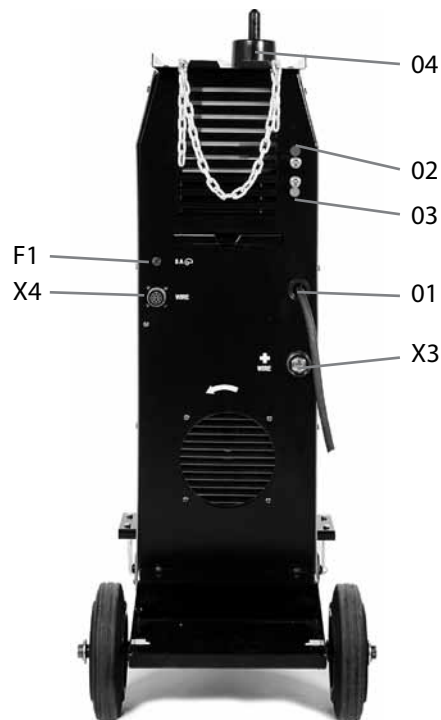


- S4 Main switch of cooling unit
- Sw1 Selecting switch for gun´s cooling mode
- Sw2 Water cooling test switch
- Hw4 Pilot lamp for overheating
- Hw3 Pilot lamp for lacking water pressure
- F2 Fuse for cooling unit (2 A delayed / 4200W)
- F2 Fuse for cooling unit (4 A delayed / 5500W)
- 02 Water circulation return connector
- 03 Water circulation output connector
- 04 Filler hole for water tank

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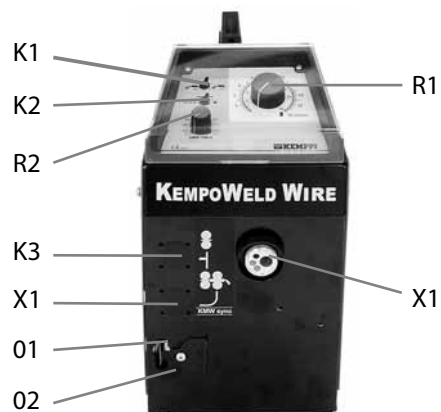


**Rear plate of Kempoweld  
4200, 4200W and 5500W**



- 01 Inlet of mains cable
- F1 Fuse of auxiliary transformer (8 A delayed)
- X3 Welding current connector for wire feeder unit (+ pole)
- X4 Control connector for wire feeder unit

**3.3 WIRE FEEDER PANELS**



**Front panel**

- R1 Adjustment for wire feed
- X1 Welding gun connector (EURO)

## Accessories

### KMW timer

Accessory for Kempoweld WIRE 400

Included in delivery of Kempoweld WIRE 550

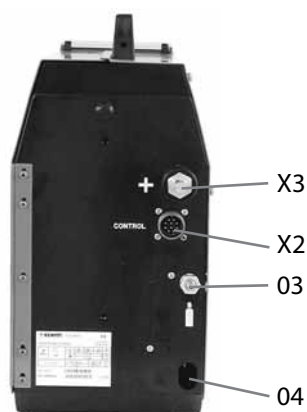
- K1 Trigger function mode (continuous/hold)
- K2 Welding mode selection (continuous/spot/cycle arc)
- R2 Adjustment for welding mode timing (spot or cycle time)

### KMW sync (Accessory)

- K3 Wire feed adjustment selection (panel or push-pull gun)
- X1 Control connector for push-pull gun (Binzel / Hulftegger)

### Cooling unit connections

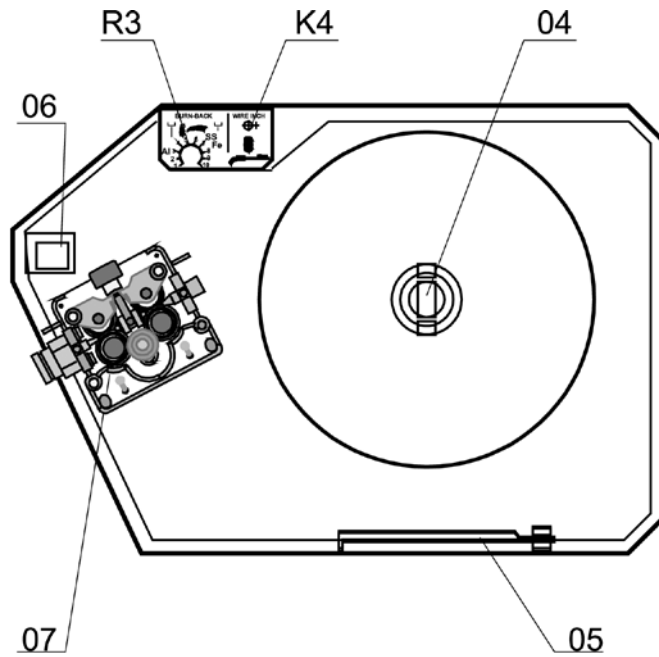
- 01 Return water connector for gun
- 02 Feed water connector for gun
- 04 Inlet of water hoses



### Rear panel

- 03 Shielding gas connector
- X2 Control cable connector (Kempoweld or interconnection cable)
- X3 Welding current connection (Kempoweld or interconnection cable)

### 3.4 INSIDE WIRE FEEDER UNIT



- K4 Wire inch switch (wire feed into gun)
- R3 Burn back time adjustment (according to filler material and wire feed)
- 04 Locking device for wire reel
- 05 Box door latch
- 06 Box door lock
- 07 Wire feed mechanism

## 4. ASSEMBLY OF KEMPOWELD EQUIPMENT

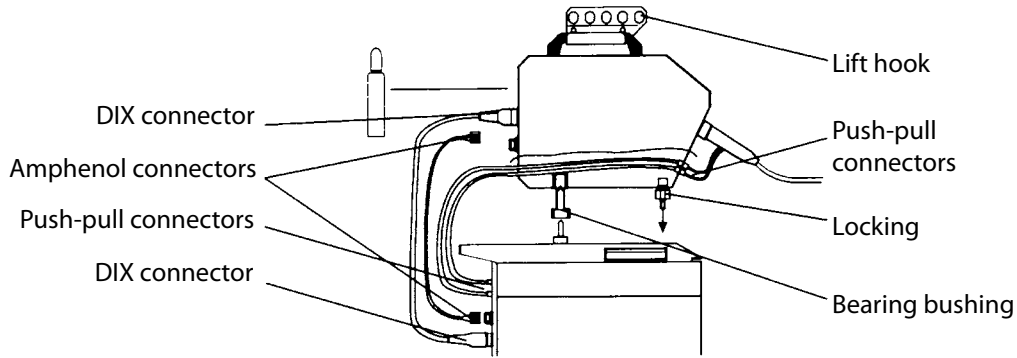
Kempoweld power source: Read the paragraph INSTALLATION in the operation instructions for the power source.

### Wire feeder:

1. Mount the wire feeder unit into pin on the power source's cover. When necessary you can lock the wire feeder to the support piece on the power source's cover.
2. Mount the control cable and welding current cable to connectors on the rear walls and the return current cable to the connector on Kempoweld's front panel.
3. Welding current polarity: By the connection made according to markings, the gun has positive voltage. In order to change the polarity interchange the welding and return current cable ends connected to the power source with each other.
4. If the MIG gun is water-cooled, mount the water hoses to the wire feeder unit.
5. Mount the interconnection cable to the same connections.

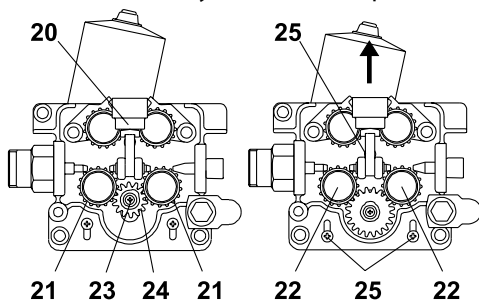
*NOTE! The hoses of the water-cooled interconnection cable go also through the wire feeder unit.*

6. The wire feeder must be mounted to boom without galvanic contact to lift hook and boom. See the paragraph ACCESSORIES.
7. The MIG gun is mounted to the EURO connector. Use guide tubes and contact tips according to manufacturer's operation instructions. Accessories which are too narrow or otherwise unsuitable for the wire type used by you, will cause disturbances and excessive wear for accessories.



#### 8. Max. wire feed speed

When the unit is delivered the max. wire feed speed is 18 m/min, which is enough for most welding jobs. If you need a higher speed, you can increase the max. wire feed speed to 25 m/min by replacing the gear wheel on motor shaft to a bigger one. The big gear wheel D40 is delivered in accessory drawer of the power source.



#### When necessary speed is changed according to following:

- Open tightening lever (20). Remove lower feed rolls (21). Release screw (23) and its washer. Remove gear wheel D28 (24) from motor shaft.
- Loosen screws (25) (3 pc) 1 twist. Mount the D40 gear wheel onto motor shaft. Screw the screw (23) with its washer back.
- Put feed rolls (21) back to their axles, however don't fasten yet fastening screws of feed rolls (22).
- Lift the motor so that the tooth gap between gear wheel and both lower feed rolls is approx. 0,2 mm.
- Tighten screws (25). Check gear teeth gaps, when necessary put the motor into a better position. Screw on the mounting screws of feed rolls (22)

**NOTE!** Too small gap between gear wheel and feed rolls will overload motor. Too big gap for its part might cause too rapid wearing for teeth of feed rolls and gear wheel.

9. The shielding gas hose is mounted to the rear wall of the wire feeder. Mountings to the gas bottle and the shielding gas flow adjustment, see the paragraph Shielding gas.

KMW sync, see the paragraph ACCESSORIES.

## 5. INSTALLATION

### 5.1 ACCESSORIES CORRESPONDING TO WIRE DIAMETER

The wire feed rolls are available with plain groove, knurled groove and with trapezoidal groove for different purposes. All rolls and accessories in tables fits both WIRE 400 and WIRE 550 wire feeders.

Feed rolls	
colour	filler wire $\varnothing$ mm (inch)
white	0.6 and 0.8 (0.030)
red	0.9/1.0 and 1.2 (0.035, 0.045 and 0.052)
orange	1.2 (0.052)
brown	1.4
yellow	1.4, 1.6 and 2.0 (1/16 and 5/64)
grey	2.0 (5/64)
black	2.4 (3/32)
Guide tubes	
colour	filler wire $\varnothing$ mm (inch)
orange	0.6 – 1.6 (0.024-1/16)
blue	over 1.6 (over 1/16)

#### Feed rolls with plain groove:

1. Universal feed roll for welding of all kinds of wires.
2. Special feed rolls for heavy duty use

#### Feed rolls with knurled groove:

Special feed roll for cored wires and steel wires.

#### Feed rolls with trapezoidal groove:

Special feed roll for aluminium wires.

The wire feed rolls have two grooves for different filler wire diameters. Correct wire groove is selected by moving selecting washer (28) from one side to another in feed roll.

Feed rolls and wire guide tubes of wire feeder unit have colour codes in order to make identification easier (see table on page 4).

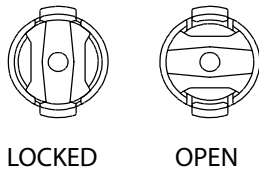
In delivery the Kempoweld WIRE 400 is equipped with red feed rolls with plain groove and with orange wire guide tubes for welding filler wires of 0.9 – 1.2 mm (0.035", 0.045" and 0.052"). Kempoweld WIRE 550 is equipped with ball beared orange feed rolls with plain groove and with orange wire guide tubes for welding filler wire of 1.2 mm (0.052")

### 5.2 MOUNTING OF MIG WELDING GUN

In order to ensure trouble-free welding check in operation instructions of gun used by you that wire guide tube and contact tip of gun are according to manufacturer's recommendation suitable to be used for wire feed diameter and type in question. Too tight a wire guide tube might cause for wire feeder unit a bigger stress than normally as well as disturbances in wire feed.

Screw snap connector of gun tight that there won't come any voltage losses on connecting surface. Loose connection will heat gun and wire feeder unit. When you are using liquid-cooled gun, mount water hoses according to ASSEMBLY OF KEMPOWELD EQUIPMENT.

### 5.3 MOUNTING AND LOCKING OF WIRE REEL



- Release locking nails of wire reel hub by turning locking knob a quarter round.
- Mount the reel at its place. Note rotating direction of reel!
- Lock the reel with locking knob, locking nails of hub remain to outside position and will lock the reel.

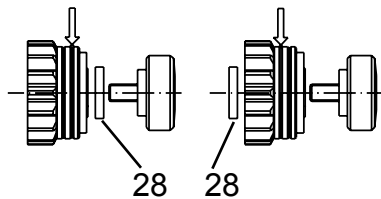
*NOTE!* Check that in filler wire reel are no parts sticking out, which could e.g. chafe against chassis or door of wire feeder unit. Dragging parts might expose chassis of wire feeder unit under voltage.

### 5.4 ACCESSORY DRAWER

In the accessory drawer in the cover part of the power source there are in delivery Teflon guide tubes, needed for welding of aluminium and stainless wires. In the drawer are there also screw and insulation bushings designed for locking of rotation of the wire feeder unit, as well as big gear wheel D40.

### 5.5 AUTOMATIC WIRE FEED TO GUN

Automatic wire feed in wire feeder unit makes change of wire reel more rapid. In reel change the pressure of feed rolls need not released and filler wire goes automatically to correct wire line.



- Make sure that groove of feed roll match the diameter of welding wire used. Feed roll groove is selected by moving the groove selecting washer (28). Also the selector plate for changing the feed roll groove has to be moved similarly. (see table on page 4).
- Release the wire end from reel and cut off the bent length. Be careful that the wire does not spill from the reel to sides!
- Straighten about 20 cm of the wire and see that the end of it has no sharp edges (file off if necessary). A sharp edge may damage the wire guide tube and contact tip of the welding gun.
- Draw a bit of loose wire from wire reel. Feed wire through back liner to feed rolls. Don't release pressure of feed rolls!
- Press the gun switch and feed a bit wire until wire goes through feed rolls to gun. See that wire is in grooves of both feed roll pairs!
- Press still the gun switch until wire has come through contact tip.

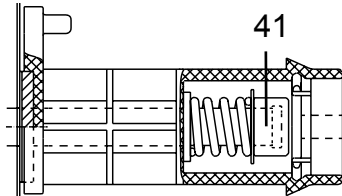
Automatic feed may sometimes fail with thin wires (Fe, Fc, Ss: 0,6 – 0,8 mm, Al: 0,8 – 1,0 mm). Then it might be possible that you must open feed rolls and feed wire manually through feed rolls.

## 5.6 ADJUSTMENT OF PRESSURE

Adjust the pressure of feed rolls with the control screw (20) so that the wire is fed into the wire guide tube evenly and allows a little braking when coming out from the contact tip without slipping at the feed rolls.

*NOTE! Excessive pressure causes flattening of the filler wire and damage to the coating. It also causes undue wear of the feed rolls as well as friction.*

## 5.7 ADJUSTMENT OF TIGHTNESS OF REEL BRAKE



Brake force is adjusted through hole in locking device of reel hub by screwing the control screw (41) with screwdriver.

Adjust brake force as so big that the wire is not allowed to become too loose on the reel so that it would spill from the reel when the rotation of the reel stops. Need for brake force is increased with increase of wire feed speed. Since the brake loads for its part the motor, you shouldn't keep it unnecessarily tight.

## 5.8 RETURN CURRENT CABLE

Fasten earthing press of return current cable carefully, preferably direct to welding piece. Contact surface of press always should be as large as possible.

Clean the fastening surface from paint and rust!

Use in your Kempoweld equipment copper cables. Too small cross-sectional area might cause overheating of connectors and insulations. Make sure that the welding gun in your use is designed for max. welding current needed by you! Never use a damaged welding gun!

## 5.9 COOLING UNIT

The cooling unit is built in the power source. All settings and operations needed for cooling are incorporated in the power source. Read in the operation instructions the paragraph COOLING UNIT.

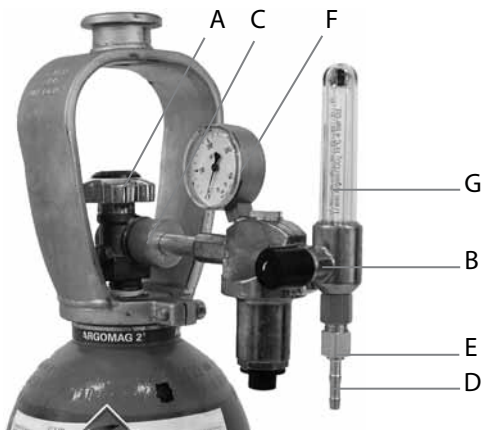
## 5.10 SHIELD GAS

*NOTE! Handle gas bottle with care. There is a risk for injury if gas bottle or bottle valve is damaged!*

For welding stainless steels, mixed gases are normally used. Check that the gas bottle valve is suitable for the gas. The flow rate is set according to the welding power used in the job. A suitable flow rate is normally 8 – 10 l/min. If the gas flow is not suitable, the welded joint will be sporous. Contact your local Kemppe-dealer for choosing gas and equipment.

### 5.10.1 Installing gas bottle

**NOTE!** Always fasten gas bottle properly in vertical position in a special holder on the wall or on a carriage. Remember to close gas bottle valve after having finished welding.



#### Parts of gas flow regulator

- A. Gas bottle valve
- B. Press regulation screw
- C. Connecting nut
- D. Hose spindle
- E. Jacket nut
- F. Gas bottle pressure meter
- G. Gas hose pressure meter

The following installing instructions are valid for most of the gas flow regulator types:

1. Step aside and open the bottle valve (A) for a while to blow out possible impurities from the bottle valve.
2. Turn the press regulation screw (B) of the regulator until no spring pressure can be felt.
3. Close needle valve, if there is one in the regulator.
4. Install the regulator on bottle valve and tighten connecting nut (C) with a wrench.
5. Install hose spindle (D) and jacket nut (E) into gas hose and tighten with hose clamp.
6. Connect the hose with the regulator and the other end with the wire feed unit. Tighten the jacket nut.
7. Open bottle valve slowly. Gas bottle pressure meter (F) shows the bottle pressure.

**NOTE!** Do not use the whole contents of the bottle. The bottle should be filled when the bottle pressure is 2 bar.

8. Open needle valve if there is one in the regulator.
9. Turn regulation screw (B) until hose pressure meter (G) shows the required flow (or pressure). When regulating flow amount, the power source should be in switched on and the gun switch pressed simultaneously.

Close bottle valve after having finished welding. If the machine will be out of use for a long time, unscrew the pressure regulation screw.



## 6. CONTROL PANELS AND ADJUSTMENTS

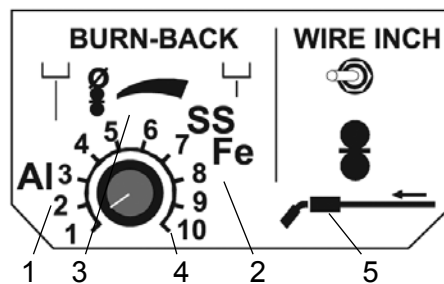
### 6.1 WIRE FEED SPEED POTENTIOMETER (R1)

The wire feed speed is adjusted steplessly with the potentiometer on the front panel, see the paragraph PANELS. The potentiometer has the memory scale for max. speeds of 18 m/min and 25 m/min.

### 6.2 BURN BACK TIME

Different filler materials and shielding gases behave in different ways in the welding end, so that you should switch off the welding current with a delay, which is suitable for wire feed stopping according to the welding case.

If you try to end welding with an unsuitable burn back time, the wire will burn in the contact tip, there will be too big drop at the wire end, or the wire will stick at the ending point.



#### Factors influencing on the delay:

1. Melting of aluminium is much quicker than by the other material, so that the burn back time is clearly shorter.
2. Steel and especially filler wires require longer time than the stainless materials.
3. Thicker filler wires require longer time. Also by increase of wire feed speed the required time should be longer. In the instructions label are given points for starting with different materials. The fine-adjustment should be carried out according to each case in question.
4. Memory scale for potentiometer.

#### Wire inch

5. The wire inch starts the wire feed motor and mechanism, but not the power source. The filler wire can be driven to the feeder unit, gun and interconnection cable also with the welding gun's switch, but then also the power source will get started and the wire becomes live (gets voltage), and this can cause a danger situation by accidental contact to dangerous objects!

### 6.3 KMW TIMER FUNCTIONS

#### 2 / 4-sequence procedure

##### The welding with the 2-sequence procedure.

1. Switch pressed: welding starts
2. Switch open: welding stops

##### The welding with the 4-sequence procedure.

1. Switch pressed: shielding gas is flowing
2. Switch open: welding starts
3. Switch pressed: welding stops
4. Switch open: gas flow stops after the burn back time

## Spot, cycle arc and continuous welding (is operating only in the 2-sequence procedure position)

### Spot welding ●

1. Set the spot time with the potentiometer R2.
2. The gun switch pressed: welding starts
3. Welding ends automatically after the set time

### Cycle arc welding — — — —

1. Set the welding cycle time with the potentiometer R2. The pause time is adjusted automatically.
2. The gun switch: cycle welding is continued for so long as the switch is pressed.

## 6.4 KMW SYNC

The push-pull gun is most often used for feed of thin aluminium wires, when over 5 m reach is required. You can connect the gun equipped with the EURO adaptor to the KMW sync unit. The push-pull gun's potentiometer is connected to amphenol connector, mounted onto front wall of the wire feeder. You can connect to this connector also some other potentiometer, which has suitable values for it. With the unit's switch you can select the normal operation or the push-pull gun operation. For right connections in the gun, contact your KEMPPI dealer.



### Installation and mounting

In the KMW sync accessories are included the electronics card, switch, protective cap of switch, insulation bushings, fastening screws and cable set.

1. Remove the side plate.
2. Fasten the electronics card with screws and insulation bushings to fastening holes of the wire feeder unit's intermediate wall.
3. Remove protection knob from cover plate by side of gun adaptor on front wall of feeder and its underside cover plate totally.
4. Mount the amphenol connector to lower fastening place and the switch to hole, which has left on the upper cover plate.
5. Connect the connector for wiring from the card to the control card A001 to connector KMW sync, from which you have first removed the jumper piece.
6. Mount the push-pull gun to the feeder adaptor. In order to verify the operation, you can use even an ordinary welding gun.
7. Connect the push-pull gun's connector or a potentiometer, which has been connected on a corresponding way, to the amphenol mounted to the feeder.
8. Test with the switch that the enclosed control is changed according to the enclosed operation description.
9. Fasten the side plate back at its place.

### Hanging onto the boom

The lift hook is fastened to the handle on the cover of the feeder. The wire feeder unit's position depends on the hole position.

## 7. OPERATION DISTURBANCES

The amount of use and the working environment should be taken into consideration when planning the frequency of maintenance of the wire feeder unit. Careful use and preventive maintenance will help to ensure trouble-free operation.

The following maintenance operations should be carried out at least every six months:

### Check:

- The wear of the grooves of the feed rolls. Excessive wear of grooves causes problems in wire feed.
- The wear of the wire guide tubes of the wire feeder unit. Badly worn feed rolls and wire guide tubes should be discarded.
- The wire guide tube in the gun should be set as near the feed rolls as possible, but not touching them and the wire must follow a straight line from the end of the tube to the groove of the feed roll.
- Reel brake adjustment.
- Electric connections
- Oxidized couplings must be cleaned
- Loose couplings must be tightened

Clean dust and dirt from the equipment.

In case of problems contact your Kemppe dealer.

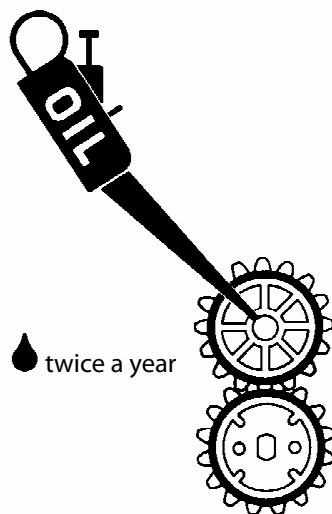
*NOTE! When using compressed air, always protect your eyes with proper eye protection.*

### 7.1 REGULAR MAINTENANCE OF EQUIPMENT

Kemppe service repair shops make regular maintenance according to agreement.

**The major points in the maintenance procedure are listed as follows:**

- Cleaning of the equipment
- Checking and maintenance of the welding tools
- Checking of connectors, switches and potentiometers
- Checking of electric connections
- Metering units checking
- Checking of mains cable and plug
- Damaged parts or parts in bad connection are replaced by new ones
- Maintenance testing. Operation and performance values of the equipment are checked, and adjusted when necessary by means of test equipment.



### 7.1.1 DISPOSAL OF THE MACHINE



Do not dispose of electrical equipment with normal waste!

In observance of European Directive 2002/96/EC on waste electrical and electronic equipment, and its implementation in accordance with national law, electrical equipment that has reached the end of its life must be collected separately and taken to an appropriate environmentally responsible recycling facility.

The owner of the equipment is obliged to deliver a decommissioned unit to a regional collection centre, per the instructions of local authorities or a Kemppi representative. By applying this European Directive you will improve the environment and human health.

## 8. ORDERING NUMBERS

<b>Wire feeder units</b>		
Kempoweld WIRE 400		621740001
Kempoweld WIRE 550		621755001
<b>Units</b>		
Kempoweld 3200	230/400 V	621532002
Kempoweld 3200W	230/400 V	621632002
Kempoweld 4200	230 V	6215422
Kempoweld 4200	400 V	6215424
Kempoweld 4200W	230 V	6216422
Kempoweld 4200W	400 V	6216424
Kempoweld 5500W	400 V	6216554
<b>Accessories:</b>		
KMW timer		6219200
KMW sync 2		6219150
MSD-1		6185666
Hub for wheel reel		4289880
Branche cable KMP/Kempoweld		3151360
<b>MIG guns</b>		
<b>Air-cooled:</b>		
MMT 32	3 m	6253213MMT
MMT 32	4.5 m	6253214MMT
MMT 35	3 m	6253513MMT
MMT 35	4,5 m	6253514MMT
WS 35 (Al 1.2)	6 m	6253516A12
WS 35 (SS 1.0)	6 m	6253516S10
MMT 42	3 m	6254213MMT
MMT 42	4,5 m	6254214MMT
KMP 300	6 m	6257306
KMP 300	10 m	6257310

<b>Liquid-cooled:</b>		
MMT 30W	3 m	6253043MMT
MMT 30W	4,5 m	6253044MMT
MMT 42W	3 m	6254203MMT
MMT 42W	4,5 m	6254204MMT
MMT 52W	3 m	6255203MMT
MMT 52W	4,5 m	6255204MMT
MT 51W	3 m	6255046
MT 51W	4,5 m	6255047
KMP 400W	6 m	6257406
KMP 400W	10 m	6257410
WS 30W (AI 1.2-1.6)	6 m	6253046A12
WS 30W (SS 1.0)	6 m	6253046S10
WS 30W (SS 1.2)	6 m	6253046S12
WS 30W (AI 1.2-1.6)	8 m	6253048A12
WS 30W (SS 1.0)	8 m	6253048S10
WS 30W (SS 1.2)	8 m	6253048S12
WS 42W (AI 1.2-1.6)	6 m	6254206A12
WS 42W (SS 1.0)	6 m	6254206S10
WS 42W (SS 1.2)	6 m	6254206S12
WS 42W (AI 1.2-1.6)	8 m	6254208A12
WS 42W (SS 1.0)	8 m	6254208S10
WS 42W (SS 1.2)	8 m	6254208S12
<b>Air-cooled interconnection cables</b>		
<b>Mounting cables for short distance:</b>		
KW 50-1.3-K		6260350
<b>Interconnection cables for long distance:</b>		
Multimig 50-5-K		6260104
Multimig 50-10-K		6260106
Multimig 50-5-KH		626010401
Multimig 50-10-KH		626010601
<b>Liquid-cooled interconnection cables</b>		
<b>Mounting cables for short distance:</b>		
KW 50-1.5-W		6260352
KW 95-1.5-W		6260391
<b>Interconnection cables for long distance:</b>		
KW 50-5-W		6260354
KW 50-10-W		6260356
KW 50-5-WH		626035401
KW 50-10-WH		626035601
KW 95-5-WH		6260393
KW 95-10-WH		6260394
<b>Return current cable</b>		
5 m – 50 mm <sup>2</sup> (part 7)		6184511
5 m – 95 mm <sup>2</sup> (part 7)		6184921

## 9. TECHNICAL DATA

		WIRE 400	WIRE 550
<b>Working voltage (safety voltage)</b>		30 VAC	30 VAC
<b>Connection power</b>		150 VA	150 VA
<b>Loading capacity (nominal values)</b>	40 % ED	400 A	---
	60 % ED	---	550 A
	100 % ED	260 A	430 A
<b>Operation principle</b>		4-roll drive	4-roll drive
<b>Diameter of feed roll</b>		32 mm	32 mm
<b>Wire feed speed</b>	I	0 – 18 m / min	0 – 18 m / min
	II	0 – 25 m / min	0 – 25 m / min
<b>Filler wires</b>	∅ Fe, Ss	0,6 – 1,2 mm	0,6 – 2,4 mm
	∅ Filler wire	0,8 – 1,6 mm	1,0 – 1,6 mm
	∅ Al	1,0 – 1,6 mm	1,0 – 1,6 mm
<b>Wire reel</b>	max. weight	20 kg	20 kg
	max. size	∅ 300 mm	∅ 300 mm
<b>Gun connector</b>		Euro	Euro
<b>Operation temperature range</b>		-20 ... +40 °C	-20 ... +40 °C
<b>Storage temperature range</b>		-40 ... +60 °C	-40 ... +60 °C
<b>Degree of protection</b>		IP 23C	IP 23C
<b>Dimensions</b>	length	570 mm	570 mm
	width	210 mm	210 mm
	height	440 mm	440 mm
<b>Weight</b>		12 kg	13 kg



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