

ENGLISH

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Introduction

Thank you for purchasing one of our products. Please read instructions on use in this manual **as well as the safety rules given in the attached booklet** and follow them carefully to get the best performance from the equipment and be sure that the parts have the longest service life possible. In the interest of customers, you are recommended to have maintenance and, where necessary, repairs carried out by the workshops of our service organisation, since they have suitable equipment and specially trained personnel available. All our machinery and systems are subject to continual development. We must therefore reserve the right to modify their construction and properties.

IMPORTANT: *The wire feeder must only be used together with the welding generator and not for any other use.*

Description

Professional large diameter 4-roller wire feeder that guarantees precise and constant feeding of the wire. This wire feeder's principal characteristics are:

- Designed for use with all types of solid and core type wire.
- 42 V D.C. geared motor with electronic control of wire speed.
- 4 roll wire drawing unit.
- A gas solenoid valve.
- An electronic control board with the following externally controlled functions:
 - A switch for selecting 2-step and 4-step modes.
 - Potentiometer for the wire speed adjustment.
 - Potentiometer for "Burn back" with external adjustment.
 - Potentiometer for motor start-up adjustment.
 - Gas and wire test button.
- Graduated knobs for precise adjustment of the wire pressure that stays unvaried when the arms open and close.
- The feeder rollers can be replaced without using any tools.

Technical data

The general technical data of the system are summarized in table 1.

Table 1

Model	WF 5	
Input voltage of wire feeder	V	48
Rated frequency	Hz	50 - 60
Power output of feeder motor	W	100
N° rollers		4
Wires diameter	mm	0,6 - 2,4
Rated wire feeding speed	m/min	0,5 - 20
Compatible wire types		<ul style="list-style-type: none"> • Carbon steel • Stainless steel • Aluminium magnesium • Aluminium silicon • Basic and rutile cored wires
Spool	Diameter Weight	Ømm kg
		300 20 (max)
Protection gas		<ul style="list-style-type: none"> • Carbon dioxide • Pure Argon • Argon-Carbon dioxide-Oxygen • Argon and Carbon dioxide blends
Coolant		20%-30% antifreeze 70%-80% distilled water
Duty cycle at 60%	A	600
Duty cycle at 100%	A	460
Insulation class		F
Motor and control protection class		IP 23
Dimensions   	mm	570 - 400 - 275
Weight	kg	17



How to lift up the system

The wire-feeder has a handle and a hook so that it can be hung up.

WARNING: For safety's sake, add an extra attachment to the handle when hanging up the wire-feeder by its hook.

NOTE: The lifting and transporting devices conform with European regulations. Do not use other equipment to lift or transport the feeder.



Opening the packaging

The system essentially consists of:

- **WF 5** wire-feeder unit.
- Separately:
 - MAXI weld unit (supplied separately).
 - MIG-MAG welding torch (optional).
 - Wire-feeder/generator interconnection cable (supplied separately).
 - IR 14 coolant unit for welding torch (optional).



Fixing the handle

Fix the handle to the feeder using the 2 screws contained in the relevant bag positioned inside the movable cover part of the feeder (Fig. A).



Installation and connections

CONNECTION OF THE INTERCONNECTING CABLE BETWEEN WIRE FEEDER AND GENERATOR

The extension between the generator and wire feeder consists of a power cable, a multipolar cable for auxiliary power supply and a gas hose which are to be connected to the rear of the wire feeder (see, Fig. B).

- The auxiliary cable must be fixed to the special connector (Pos. 1, Fig. B).
- The gas tube must be connected to the quick-fit connector (Pos. 2, Fig. B).
- The power cable must be fixed to the quick-fit connector (Pos. 3, Fig. B).



CONNECTING THE TORCH

Screw the torch onto the middle connection located on the front panel.



Loading wire

- Fit the reel (diam. 300 mm) on the support so that the wire unrolls clockwise, and center the projecting reference on the support with the relative hold on the reel.
- Thread the end of the wire into the back guide (Pos. 1, Fig. C) on the drawing mechanism.
- Lift up the idle rolls (Pos. 4, Fig. C) releasing the roll pressure device (Pos. 2, Fig. C). Make sure that the drive rolls (Pos. 7, Fig. C) have the diameter corresponding to the wire being used stamped on the outside.
- Insert the wire into the wire guide on the centralised connection (Pos. 5, Fig. C) by a few centimetres. Lower the idle roll-holder arm making sure the wire goes into the slot of the drive roll. If necessary, adjust the pressure between the rollers with the screw provided (Pos. 2, Fig. C). The correct pressure is the minimum that does not allow the rollers to skid on the wire. Excessive pressure will cause deformation of the wire and tangling on the entrance of the sheath; insufficient pressure can cause irregular welding.

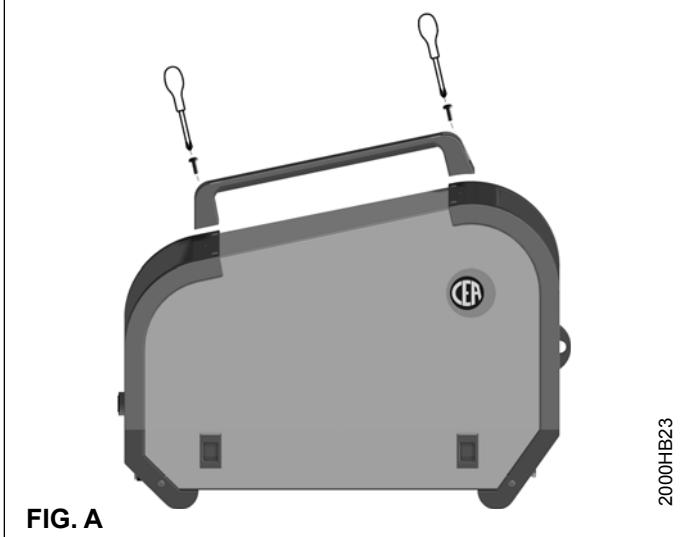


FIG. A

2000HB23

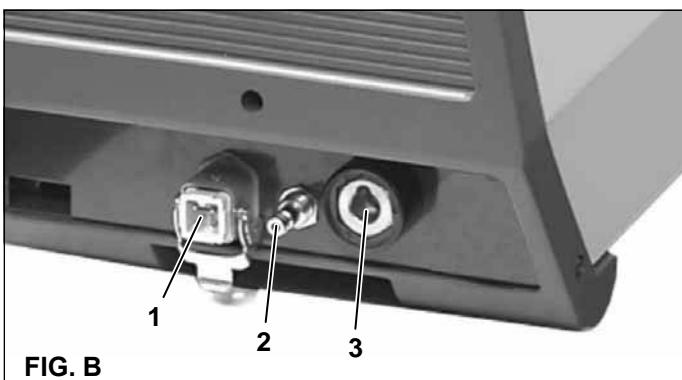


FIG. B

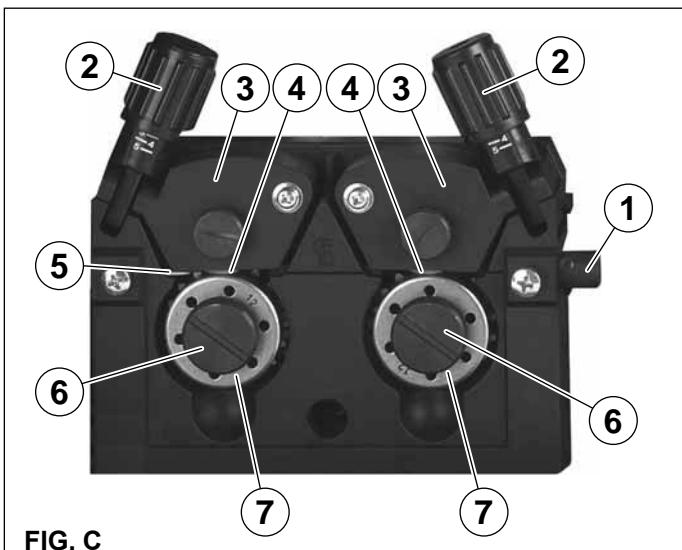


FIG. C



Assembly of drive rollers

Unscrew the two screws (Pos. 6, Fig. C). Lift up the idle roll-holder arm (Pos. 3, Fig. C) and proceed as follows:

- Each roller shows the type of wire and diameter on the two external sides.
- Install the right rolls (Pos. 7, Fig. C) making sure the groove is in the correct position for the diameter of the wire being used.



Instructions for use

COMMAND AND CONTROL UNITS (Fig. D)

- Pos. 1** Potentiometer for wire speed adjustment.
- Pos. 2** Wire - gas test switch.
- Pos. 3** Potentiometer for adjusting motor startup (RAMP).
- Pos. 4** Green indicator light. When this light is on it means the welder is powered and ready to work.
- Pos. 5** Potentiometer for adjusting "Burn back".
- Pos. 6** Welding process switch. It can be set to the following positions:
 - **2 strokes** - In position the torch key must be kept pressed down throughout the entire welding procedure.
 - **4 strokes** - In position you only have to press and then release the torch key to start welding; press again to stop.



Before welding

IMPORTANT: Before welding, check that the data on the power source plate correspond to the supply voltage and frequency.

- Make sure that the wire feeder is correctly connected to the power source through the interconnecting cable and that the ground cable is connected to the piece to be welded.
- Turn on the power source by turning the main switch. The pilot lamp will turn on.
- Pre-set the welding parameters by turning the voltage adjusting potentiometer.
- Remove the contact tip from the torch so that the end of the wire can freely come out. Remember that the contact tip must correspond to the wire diameter.
- Set the wire speed potentiometer on position 3.
- Push the torch push button or the motor check push button until the wire end comes out from the torch.
- Tighten the contact tip on the torch. Protect the torch head from weld spatter by using siliconefree antispatter spray.
- Open the gas cylinder valve slowly and adjust the pressure regulator to obtain about 1 - 1,5 bar.
- The welding machine is now ready to be used.



Aluminum welding

To weld with aluminum wire proceed as follows:

- Replace the drive rolls with special ones for aluminium wire.
- Use a torch with a hollow of 3 m and sheath in plastic material.
- Set the pressure between the drive rollers at the minimum, by turning the screw provided.
- Use argon gas at a pressure of 1 - 1.5 bar.



Maintenance and trouble shooting

SUPPLY WIRE FEEDER

The maintenance of this equipment is limited to the cleaning of the inside of the frame and periodic inspection of worn cables or loose connections. At regular intervals disconnect the welder from the mains, take off the cover and use dry compressed air to remove possible accumulations of dirt and dust. During this operation do not direct the jet of air onto electronic components. Check, that the gas circuit is completely free from impurities and that the connections are tight and that there are no leaks. Carefully check that the electric valve does not leak. Check the wire feeder rolls periodically and replace them when wear impairs the regular flow of the wire (slipping etc.).

TORCH

The torch is subjected to high temperatures and is also stressed by traction and torsion. We recommend not to twist the wire and not to use the torch to pull the welder. As a result of the above the torch will require frequent maintenance such as:

- Cleaning welding splashes from the gas diffuser so that the gas flows freely.
- Substitution of the contact point when the hole is deformed.

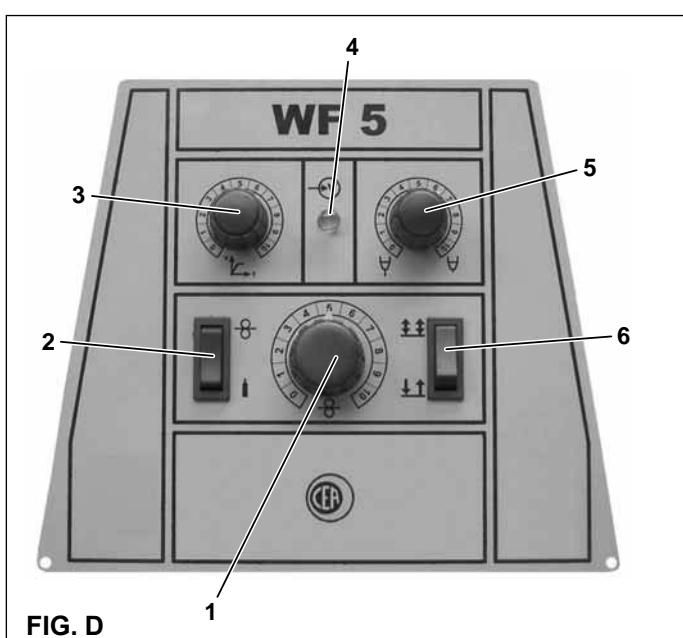


FIG. D

- Cleaning of the wire guide liner using trichloroethylene or specific solvents.
- Check of the insulation and connections of the power cable; the connections must be in good electrical and mechanical condition.

Replacement of the PCB

Proceed as follows:

- Unscrew the 2 screws on the sides of the panel to loosen it.
- Extract the panel pulling it towards you with a gentle movement.
- Extract the back connectors.
- Unscrew the 4 nuts at the sides of the PCB.
- Remove the faulty card.
- Proceed the other way round for reassembly.



Welding defects

Problem	Cause	Remedy
The welder does not supply current	• No power	• Check that the power cable from the generator to the line and repair if necessary
	• Torch button does not work	• Check that the torch switch gives consensus; if not, replace the torch button or the central connection
	• Faulty microprocessor circuit	• Replace
The wire does not come out	• Burned fuse on generator	• Replace
	• Faulty motor control circuit	• Replace
	• Motor reducer failure	• Check and replace if necessary
	• Worn wire-feeder rollers	• Replace
	• Wire guide sheath dirty	• Clean and replace if necessary
	• Worn contact prod	• Replace
Poor welding (porous, splashes, etc)	• Faulty gas circuit	• Check that the valve on the gas cylinder is open. Check the electric valve and replace if necessary. Tighten all the connections. Free the holes in the gas diffuser of foreign material.
	• Poor quality wire or gas	• Change the filter or gas
	• Parts to be welded are dirty or rusty	• Clean the parts
	• Rusty or incorrectly connected ground wire	• Check the ground terminal and check that the cave is not damaged and is well connected
	• Incorrect adjustment of welding voltage or speed of wire	• Increase or reduce the settings until correct
	• Faulty torch	• Check torch components and replace faulty parts if necessary

IT Lista ricambi**EN** Spare parts list**FR** Liste pièces de rechange**DE** Ersatzteilliste**ES** Lista repuestos**NL** Onderdelenlijst**PT** Lista de substituições**DA** Liste over reservedele**SV** Reservdelslista**FI** Varaosaluettelo**N** Reservedelliste**EL** Κατάλογος ανταλλακτικών**RU** Список запчастей

Pos.	Cod.	Descrizione	Description
1	352405	Pannello frontale	Front panel
2	439342A	Pannello rack	Rack panel
3	438889	Manopola con indice Ø29mm	Ø29mm Knob with index
4	454508	Pulsante	Push button
5	454512	Deviatore	Bipolar switch
6	438845	Manopola con indice Ø22mm	Ø22mm Knob with index
7	420492	Coperchio parte mobile con adesivo logo CEA	Movable cover with CEA logo sticker
8	414326	Chiavistello	Lock
9	466975	Tappo	Hole cover
10	236641	Attacco Euro con tubetto guidafilo	Euro connection with wire guide tube
11	434247	Tubetto guidafilo 61mm	61mm Wire guide tube

IT	Lista ricambi
EN	Spare parts list
FR	Liste pièces de rechange
DE	Ersatzteilliste
ES	Lista repuestos
NL	Onderdelenlijst
PT	Lista de substituições

DA	Liste over reservedele
SV	Reservdelslista
FI	Varaosaluetello
N	Reservedelliste
EL	Κατάλογος ανταλλακτικών
RU	Список запчастей



Pos.	Cod.	Descrizione	Description
12	352408	Pannello posteriore	Rear panel
13	438191	Maniglia	Handle
14	420491	Coperchio parte fissa con adesivo logo CEA	Fixed cover with CEA logo sticker
15	403617	Attacco rapido	Quick connection
16	403935	Attacco gas	Gas connection
17	461232	Spina pannello 4 poli	4 Pin panel plug

IT **Lista ricambi**

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DA **Liste over reservedele**

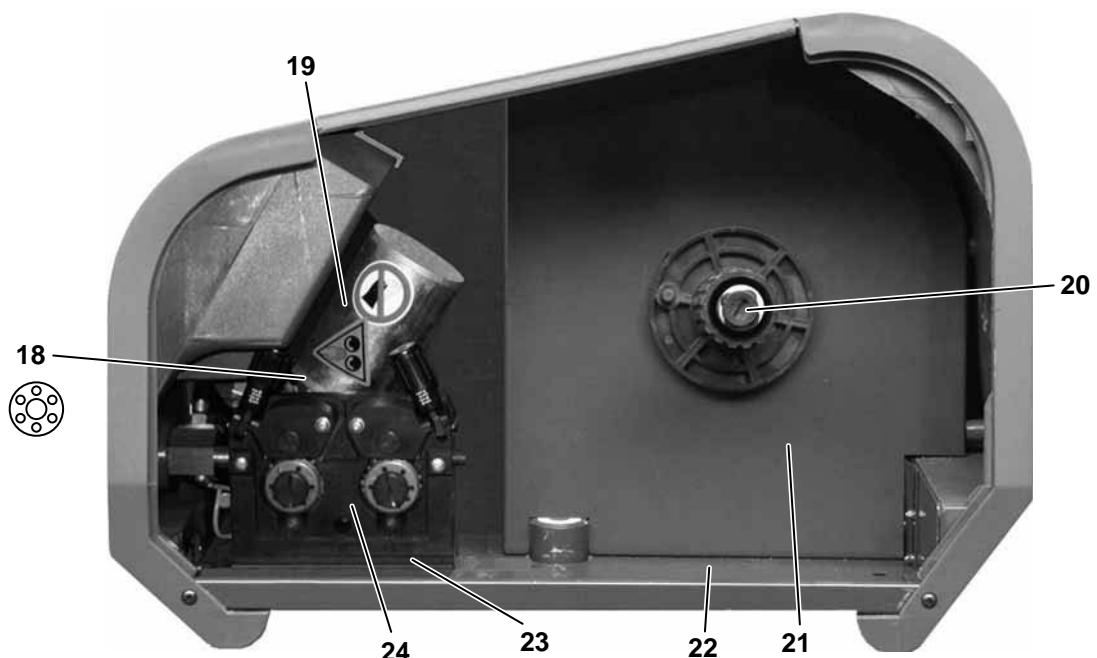
SV **Reservdelsslista**

FI **Varaosaluetello**

N **Reservedelliste**

EL **Κατάλογος ανταλλακτικών**

RU **Список запчастей**



Pos.	Cod.	Descrizione	Description
18	400000	Adattatore	Adaptor
19	444465	Motoriduttore	Drive motor
20	241840	Mozzo bobina	Spool holder
21	443104	Montante	Separation
22	404979	Basamento	Base
23	424041	Distanziale meccanismo di trascinamento	Wire feed mechanism assembly spacer
24	Pag. 64	Meccanismo di trascinamento	Wire feed mechanism assembly

IT Lista ricambi

EN Spare parts list

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PT Lista de substituições

DA Liste over reservedele

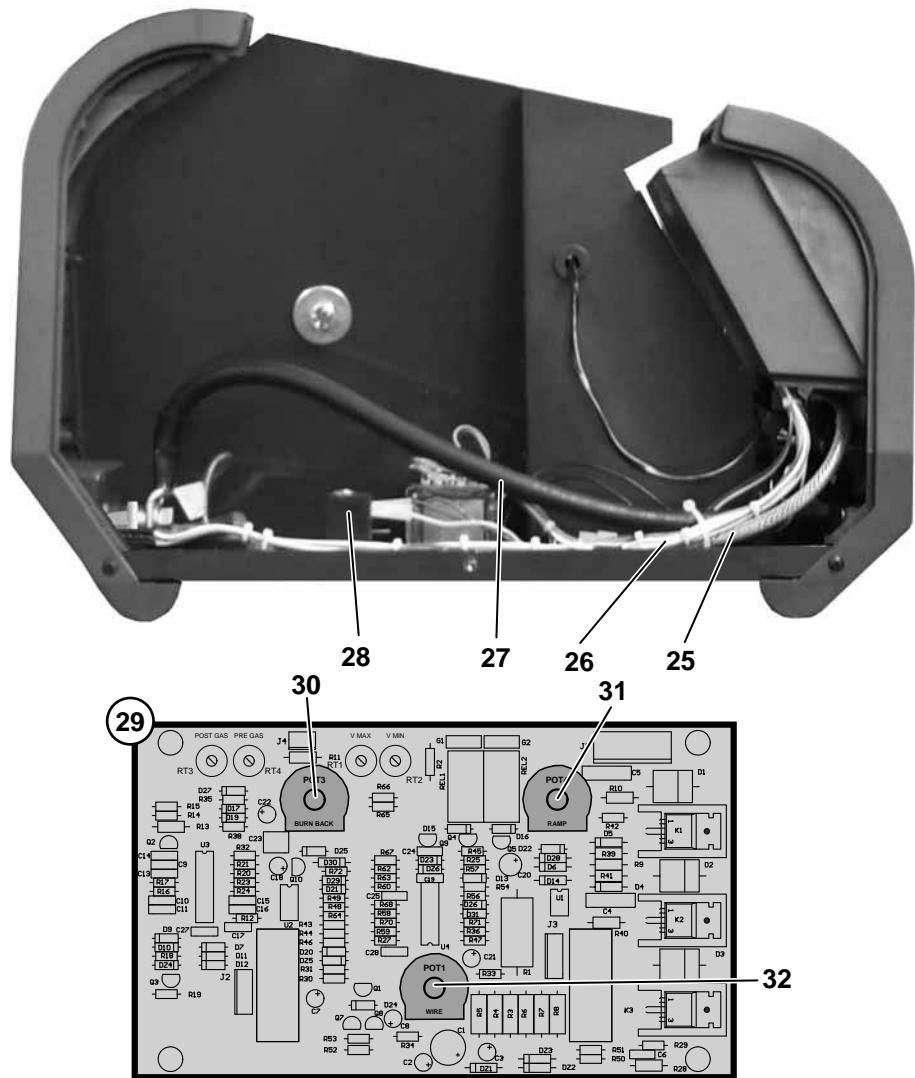
SV Reservdelsslista

FI Varaosaluettelo

N Reservedelliste

EL Κατάλογος ανταλλακτικών

RU Список запчастей



Pos.	Cod.	Descrizione	Description
25	485040	Tubo gas	Gas tube
26	413465	Cablaggio ausiliario	Auxiliary wiring
27	413771	Cavo di potenza	Power cable
28	425984	Elettrovalvola	Solenoid valve
29	376764	Scheda elettronica	Electronic PCB
30	452996	Potenziometro 1MOhm	1MOhm Potentiometer
31	452994	Potenziometro 100kOhm	100kOhm Potentiometer
32	452993	Potenziometro 1kOhm	1kOhm Potentiometer

IT Complessivo meccanismo di trascinamento a 4 rulli

EN Complete entrainment mechanism with 4 rolls

FR Mécanisme d'entraînement global à 4 rouleaux

DE Inklusive Schleppmechanismus mit 4 Drahtrollen

ES Grupo mecanismo de arrastre 4 rodillos

NL Samenbouw sleepmechanisme 4 rollen

PT Complexo mecanismo de tração a 4 rolos

DA Fuldstændig trækmekanisme 4 ruller

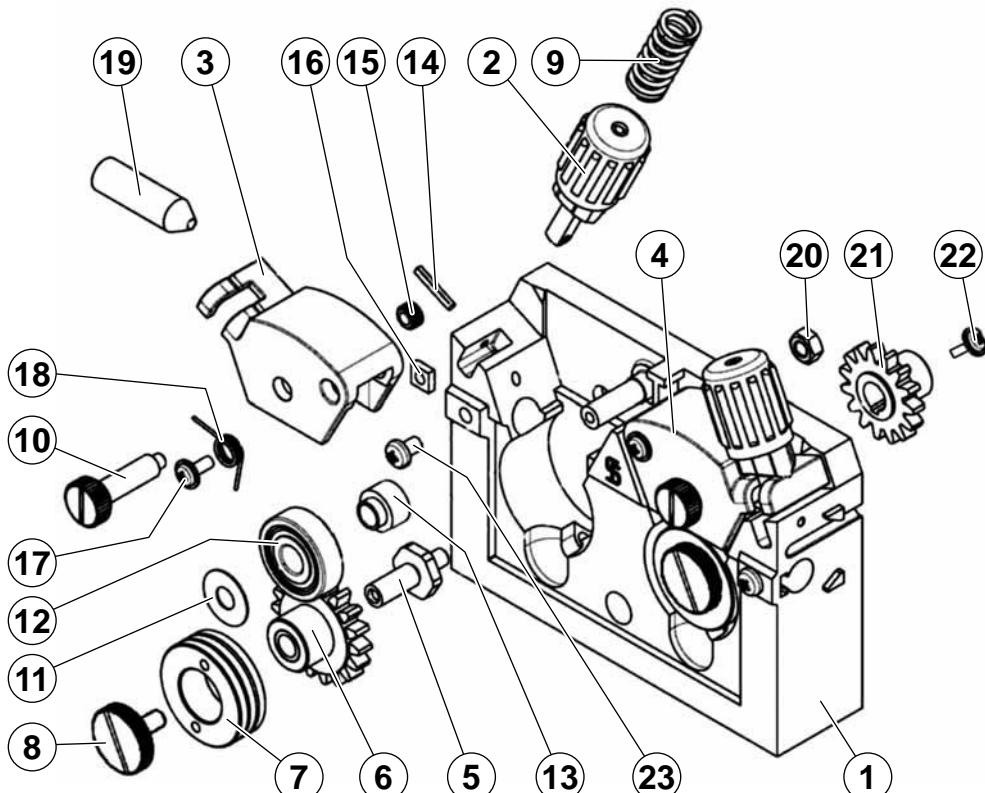
SV Total dragmekanism 4 rullar

FI Koko hinausmekanismi käsittää 4 rullaa

N Koko hinausmekanismi käsittää 4 rullaa

EL Συνολικός μηχανισμός τραβήγματος,
με 4 κυλίνδρους

RU 4-х роликовый механизм подачи



2050H944

Pos.	Cod.	Descrizione	Description
1	307271	Base meccanismo di trascinamento	Wire feed mechanism base
2	437075	Dispositivo di pressione rulli	Pressure device
3	356963	Complessivo leva di pressione sinistra	Pressure arm left complete
4	356964	Complessivo leva di pressione destra	Pressure arm right complete
5	449038	Perno fissaggio ingranaggio	Axle to geared adapter
6	435070	Complessivo ingranaggio	Geared adapter complete
7	Tab. A	Rullo inferiore Ø37mm	Feed roll Ø37mm
8	487805	Vite di fissaggio ingranaggio	Fixing screw gear
9	441210	Molla di pressione	Pressure spring
10	487897	Perno per meccanismo 4R	Axle shaft for 4R mechanism
11	424042	Rondella anteriore 8x20x0,5mm	8x20x0,5mm Front spacer
12	458902	Rullo superiore Ø30mm	Pressure roll Ø30mm
13	424051	Distanziale posteriore	Rear spacer
14	676510	Spina elastica	Pin pressure device
15	435294	Inserto in ottone M5	Brass insert M5
16	423135	Dado ad incasso M5	4 Cornered nut M5
17	487808	Vite di fissaggio M4x8mm	Fixing screw M4x8mm
18	441207	Molla per leva di pressione	Spring pressure arm
19	434275	Guida filo entrata	Inlet wire guide
20	612083	Dado M6	Nut M6
21	435065	Ingranaggio principale	Main gear
22	487807	Vite di fissaggio ingranaggio principale	Fixing screw main gear
23	690398	Vite di fissaggio M5x10mm	Fixing screw M5x10mm

IT Rulli di trascinamento**EN** Drive mechanism**FR** Galets d'entraînement**DE** Mitnehmerrollen**ES** Rodillos de arrastre**NL** Voortsleeprollen**PT** Rolos de tracionamento**DA** Fremførervalser**SV** Matarrullar**FI** Vetorullat**N** Slepemekanisme**EL** Ροδάκια τροφοδοσίας**RU** Ролики подачи**A**

IT FILO EN WIRE FR FIL DE DRAHT ES HILO NL DRAAD PT ARAME DA SVEJSETRÅD SV TRÅD FI LANKA N TRÄD EL ΣΥΡΜΑ RU ПРОВОЛОКА	IT Diametro filo EN Wire diameter FR Diamètre du fil DE Leitungsdurchmesser ES Diámetro del hilo NL Draaddiameter PT Diâmetro arame DA Ledningsdiameter SV Trådens diameter FI Johtimer halkaisija N Sveiseträddia EL Διάμετρος σύρματος RU Диаметр проволоки	IT Rullo inferiore (doppia cava) Ø37 mm EN Lower roller (double slot) Ø37 mm FR Galet inférieur (double gorge) Ø37 mm DE Untere Rolle (Doppelnut) Ø37 mm ES Rodillo inferior (doble ranura) Ø37 mm NL Onderrol (dubbele groef) Ø37 mm PT Rolo inferior (sulco duplo) Ø37 mm DA Nederste valse (fordoblet rille) Ø37 mm SV Rulle mindre (dubbel spår) Ø37 mm FI Alemanan rullan (tuplaurilla) Ø37 mm N Nedre rull (dobbelt sjakt) Ø37 mm EL Κάτω ελεύθερο ροδάκι (αυλάκι διπλό) Ø37 mm RU Нижний ролик (двойная канавка) Ø37 mm	IT Rullo superiore (cava singola) Ø30 mm EN Upper roller (single slot) Ø30 mm FR Galet supérieur (une gorge) Ø30 mm DE Obere Rolle (Einzelnut) Ø30 mm ES Rodillo superior (ranura individual) Ø30 mm NL Hogerrol (enkele groef) Ø30 mm PT Rolo superior (sulco simple) Ø30 mm DA Øverste valle (enkelt rille) Ø30 mm SV Rulle topp (singel spår) Ø30 mm FI Ylätasón rullan (yksirilla) Ø30 mm N Topp rull (enslig sjakt) Ø30 mm EL Κορυφή ελεύθερο ροδάκι (αυλάκι ανύπαντρος) Ø30 mm RU Верхний ролик (одиночная канавка) Ø30 mm	IT TWIN kit EN TWIN kit FR TWIN kit DE TWIN kit ES TWIN kit NL TWIN kit PT TWIN kit DA TWIN kit SV TWIN kit FI TWIN kit N TWIN kit EL TWIN kit RU TWIN kit комплект
IT Acciaio FR Acier ES Acero PT Aço SV Stål N Stål RU Сталь	EN Steel DE Stahl NL Staal DA Stål FI Teräs EL Ατσάλι	0,6 ÷ 0,8 mm 0,8 ÷ 1,0 mm 1,0 ÷ 1,2 mm 1,2 ÷ 1,6 mm	458903 458905 458915 458925	458902 458902 458902 458902
IT Alluminio "TWIN" EN "TWIN" aluminum FR Aluminium "TWIN" DE Aluminium "TWIN" ES Aluminio "TWIN" NL Aluminium "TWIN" PT Alumínio "TWIN" DA Aluminium SV Alluminium FI Alumiini N Aluminium EL Αλουμίνιο RU Алюминий "TWIN"		0,8 ÷ 1,0 mm 1,0 ÷ 1,2 mm 1,2 ÷ 1,6 mm	458968 458970 458975	- - -
IT Filo animato EN Cored wire FR Fil animé DE Fülldraht ES Hilo con núcleo NL Draad met stalen hart PT Arame tubular DA Kerneträd SV Kärnträd FI Ontto lanka N Tråd med kjerne EL Σύρμα RU Порошковая проволока		1,0 ÷ 1,2 mm 1,2 ÷ 1,6 mm	458950 458955	458902 458902

IT Ordinazione dei pezzi di ricambio

Per la richiesta di pezzi di ricambio indicare chiaramente:

- 1) Il numero di codice del particolare
- 2) Il tipo di impianto
- 3) La tensione e la frequenza che rileverete dalla targhetta dei dati posta sull'impianto
- 4) Il numero di matricola

ESEMPIO

N° 2 pezzi, codice n. 352408 - per l'impianto WF 5 - 48 V - 50/60 Hz - Matricola n°

EN Ordering spare parts

To ask for spare parts clearly state:

- 1) The code number of the piece
- 2) The type of device
- 3) The voltage and frequency read on the rating plate
- 4) The serial number of the same

EXAMPLE

N. 2 pieces code n. 352408 - for WF 5 - 48 V - 50/60 Hz
Serial number

FR Commande des pièces de rechange

Pour commander des pièces de rechange indiquer clairement:

- 1) Le numéro de code de la pièce
- 2) Le type d'installation
- 3) La tension et la fréquence que vous trouverez sur la petite plaque de données placée sur l'installation
- 4) Le numéro de matricule de la même

EXEMPLE

N. 2 pièces code 352408 - pour l'installation WF 5 - 48 V - 50/60 Hz - Matr. Numéro

DE Bestellung Ersatzteile

Für die Anforderung von Ersatzteilen geben Sie bitte deutlich an:

- 1) Die Artikelnummer des Teiles
- 2) Den Anlagentyp
- 3) Die Spannung und Frequenz, die Sie auf dem Datenschild der Anlage finden
- 4) Die Seriennummer der Schweißmaschine

BEISPIEL

2 Stück Artikelnummer 352408 - für Anlage WF 5 - 48 V - 50/60 Hz - Seriennummer

ES Pedido de las piezas de repuesto

Para pedir piezas de repuesto indiquen claramente:

- 1) El número de código del particular
- 2) El tipo de instalación
- 3) La tensión y la frecuencia que se obtien de la chapa datos colocada sobre la instalación
- 4) El número de matrícula de la soldadora misma

EJEMPLO

N. 2 piezas código 352408 - para instalación WF 5 - 48 V - 50/60 Hz - Matrícula N.

NL Bestelling van reserveonderdelen

Voor het bestellen van onderdelen duidelijk aangeven:

- 1) Het codenummer van het onderdeel
- 2) Soort apparaat
- 3) Spanning en frequentie op het gegevensplaatje te vinden
- 4) Het serienummer van het lasapparaat

VOORBEELD

N. 2 stuks code 352408 - voor apparaat WF 5 - 48 V - 50/60 Hz
Serie Nummer

PT Encomenda das peças de reposição

Ao pedir as peças de substituição indique claramente:

- 1) O número de código da peça
- 2) O tipo de equipamento
- 3) A tensão e a frequência indicadas na la placa de dados do equipamento
- 4) O número de matrícula da própria máquina de soldar

EXEMPLO

N° 2 peças código n. 352408 - para o equipamento WF 5 - 48 V - 50/60 Hz
Matrícula n.

DA Bestilling af reservedele

For at bestille reservedele skal man nøjagtigt angive:

- 1) Reservedelens kodenummer
- 2) Anlæggets type
- 3) Spænding og frekvens, som står på anlæggets typeskilt
- 4) Selve svejsemaskinens registreringsnummer

EKSEMPEL

2 stk. nummer 352408 - til anlæg model WF 5 - 48 V - 50/60 Hz
Registreringsnummer Nr.

SV Beställning af reservdelar

Vid förfrågan av reservdelar ange tydligt:

- 1) Detaljens kodnummer
- 2) Typ av apparat
- 3) Spänning och frekvens - den står bland tekniska data påapparatens märkplåt
- 4) Svetsens serienummer

EXEMPEL

2 st. detaljer kod 352408 - för apparat WF 5 - 48 V - 50/60 Hz
Serienummer

FI Varaosien tilaus

Tiedustellessanne varaosia, ilmoittakaa selvästi:

- 1) Osan koodinumero
- 2) Laitteiston tyyppi
- 3) jäännite ja taajuus, jotka on ilmoitettu laitteistolle sijoitetusta tietokylistä
- 4) Hitsauskoneen sarjanumero

ESIMERKKI

2 osaa, koodi 352408 - laitteistoon WF 5 - 48 V - 50/60 Hz
Sarjanumero