



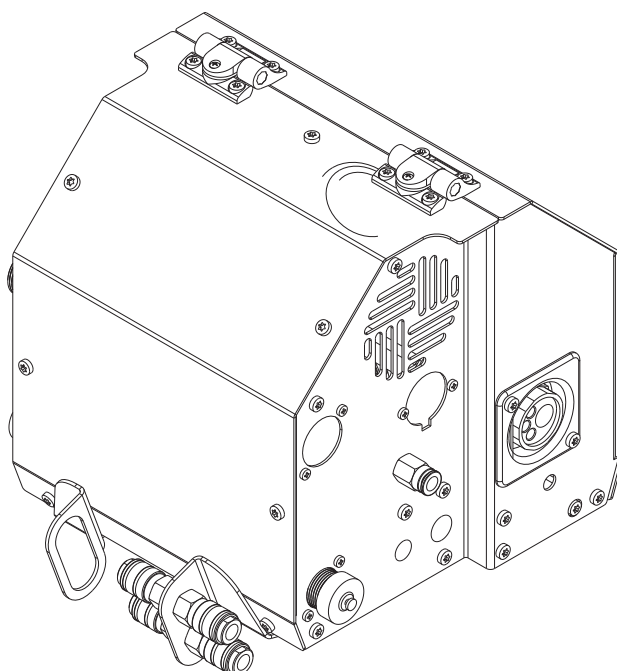
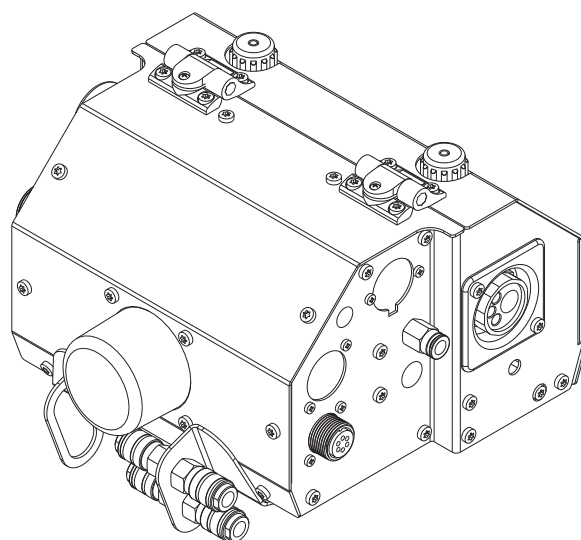
WELD THE WORLD

WF-206 WF-207

Instruction Manual

ENGLISH

Translation of original instructions





ENGLISH

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1 GENERAL OVERVIEW



IMPORTANT! For your safety

This handbook must be handed over to the user prior to installation and commissioning of the unit.

 **Read the "GENERAL PRESCRIPTIONS FOR USE" handbook supplied separately from this manual before installing and commissioning the unit.**

The meaning of the symbols in this manual and the associated precautionary information are given in the "GENERAL PRESCRIPTIONS FOR USE".

If the "GENERAL PRESCRIPTIONS FOR USE" handbook is not available, it is mandatory to request a replacement copy from the manufacturer or from your dealer.

Retain these documents for future consultation.

Explanation of symbols



DANGER!

This pictogram warns of danger of death or serious injury.



WARNING!

This pictogram warns of a risk of injury or damage to property.



CAUTION!

This pictogram warns of a potentially hazardous situation.



WARNING!

This pictogram gives important information concerning the execution of the relevant operations.



Information

This pictogram identifies additional information or a reference to a different section of the manual containing the associated information.

- **Note:** The figures in this manual are purely guideline and the images may contain differences with respect to the actual equipment to which they refer.

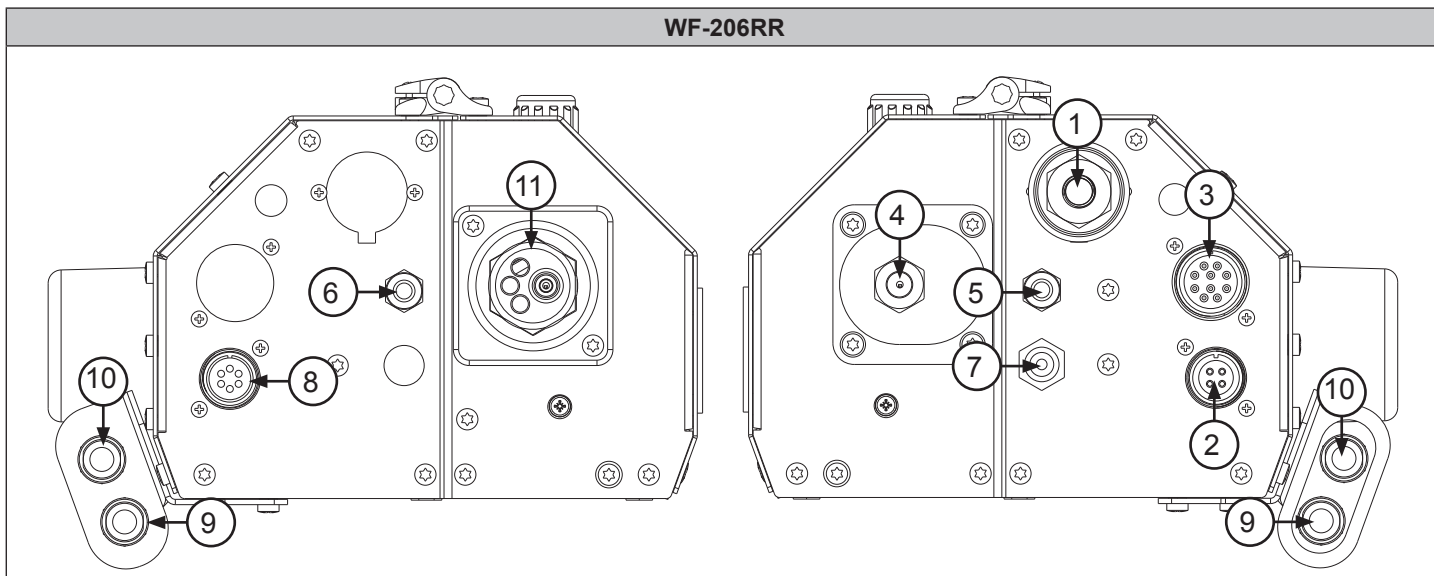
1.1 INTRODUCTION

WF-206/207 is an external wire feeder provided to be assembled and used on robot arms for welding.

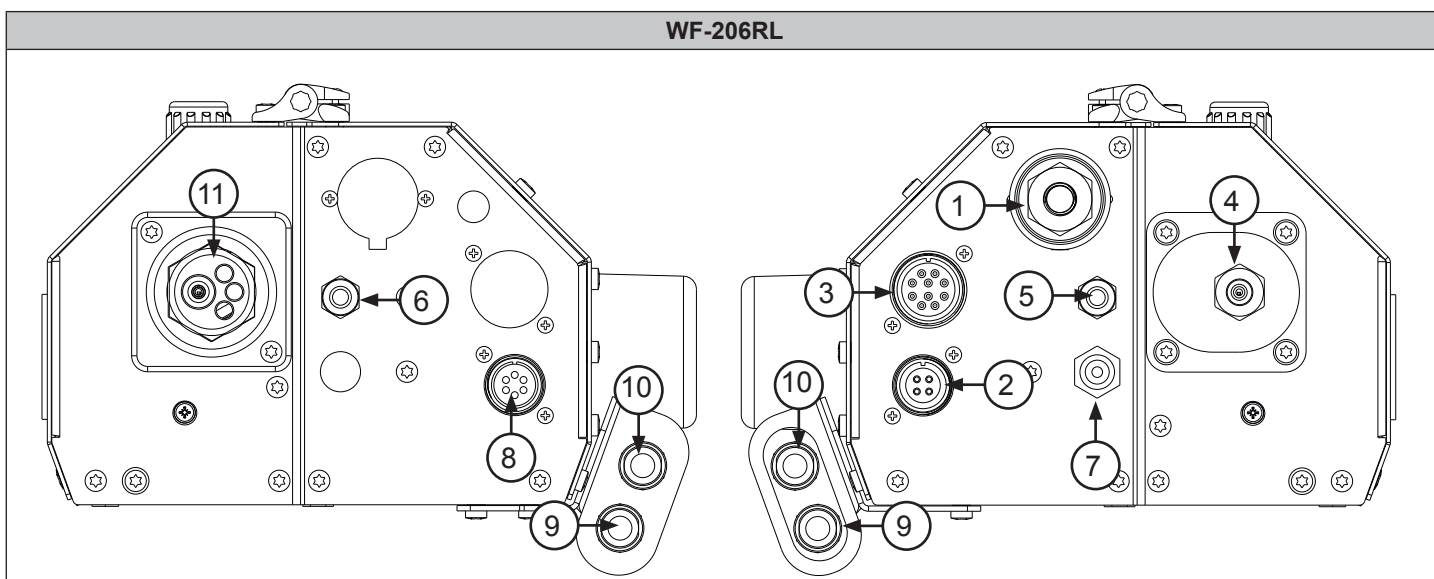
2 INSTALLATION AND ASSEMBLY

2.1 CONNECTIONS AND SOCKETS

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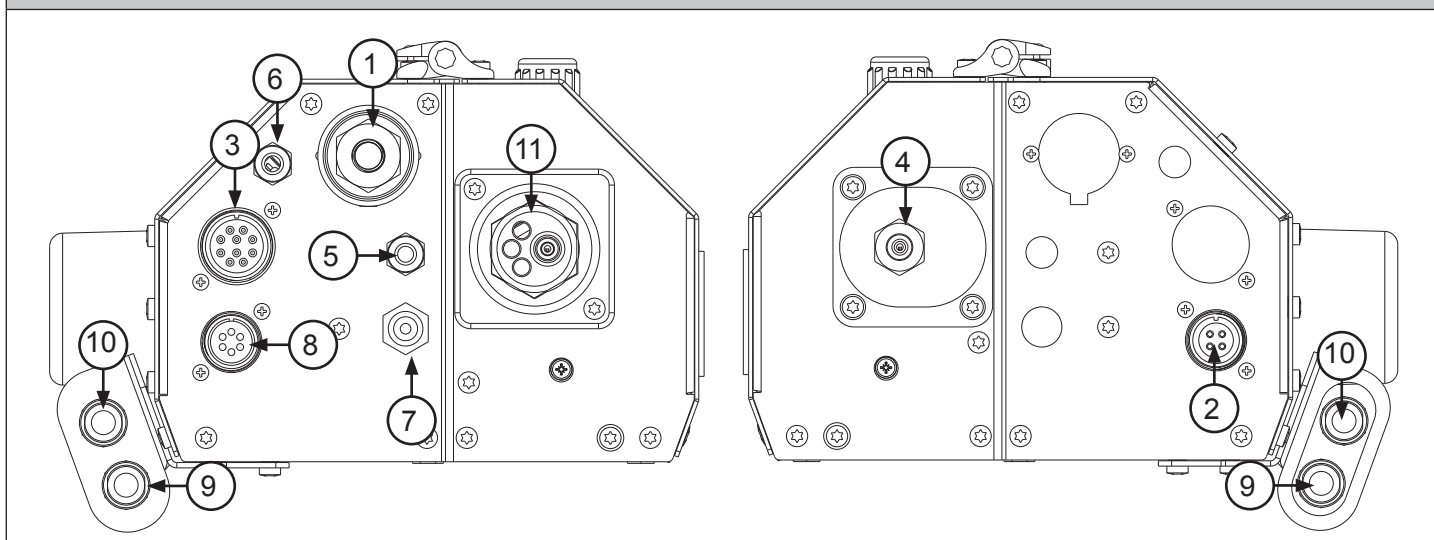


WF-206RL

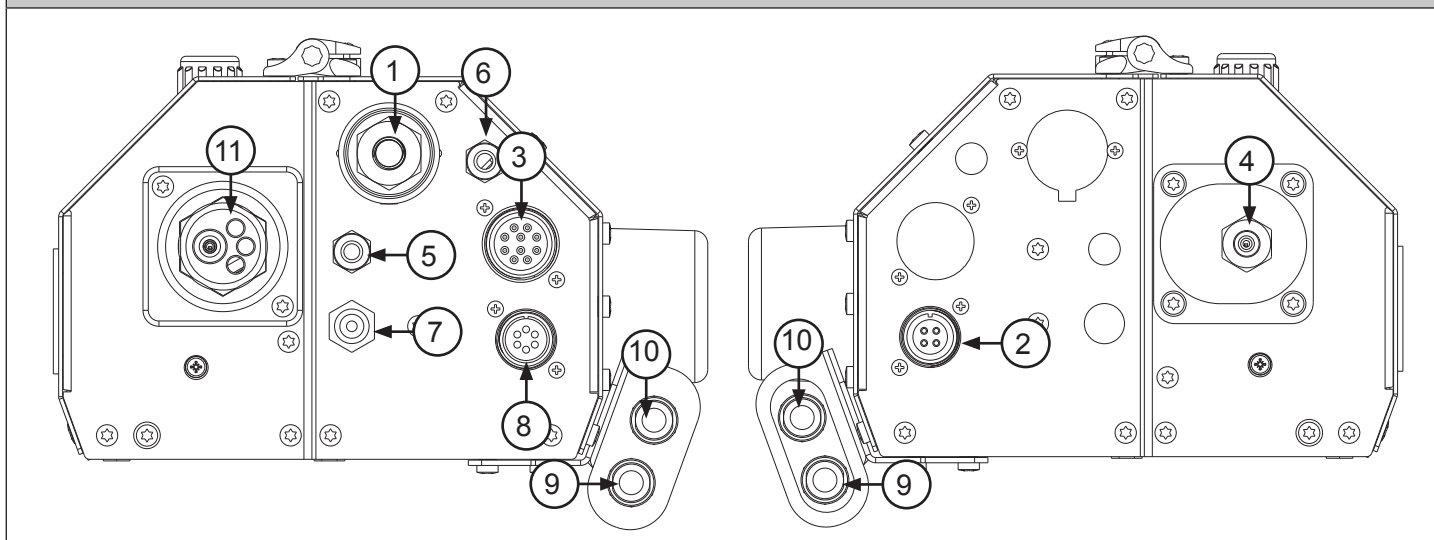


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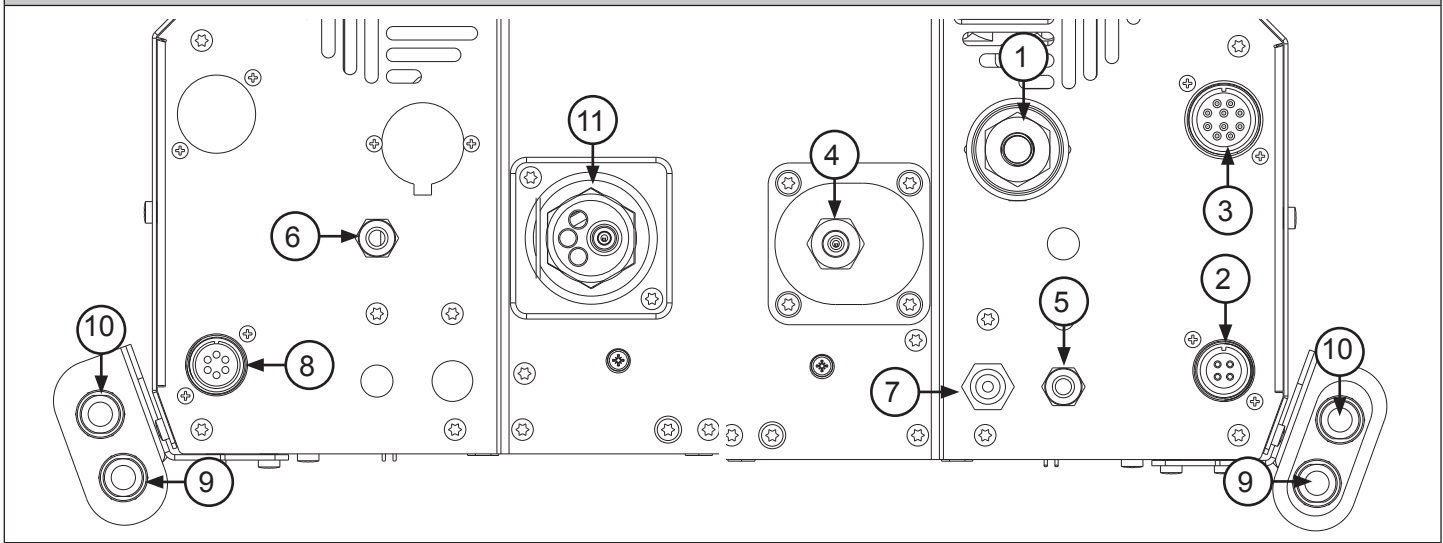
WF-206FR



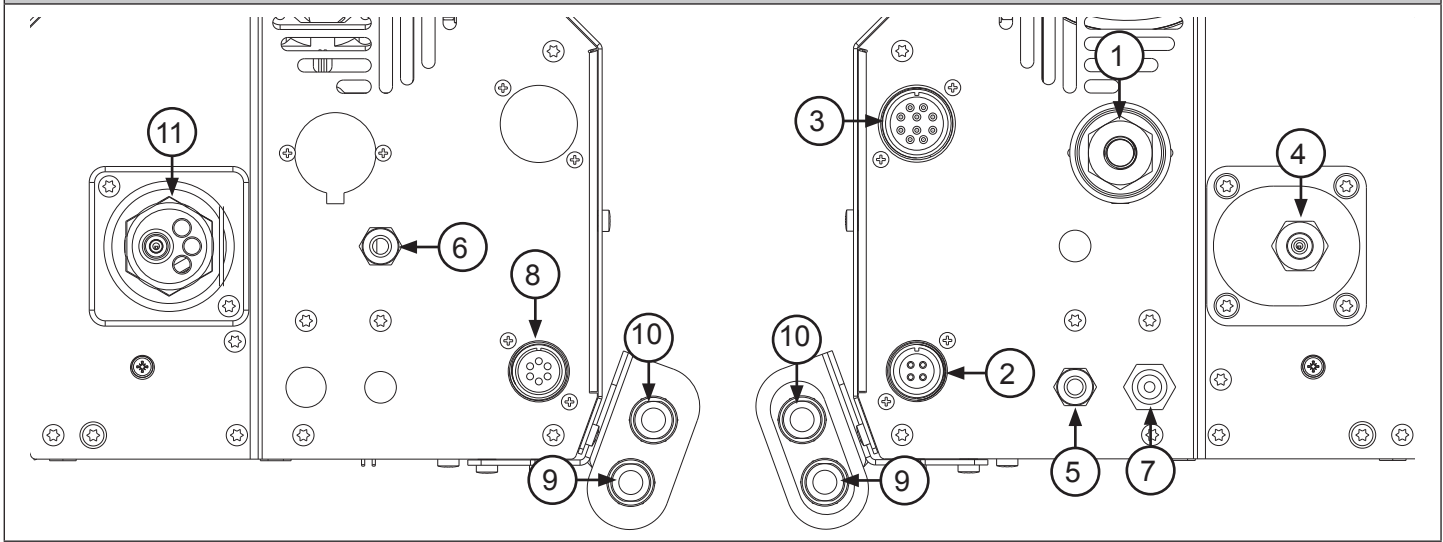
WF-206FL



WF-207RR

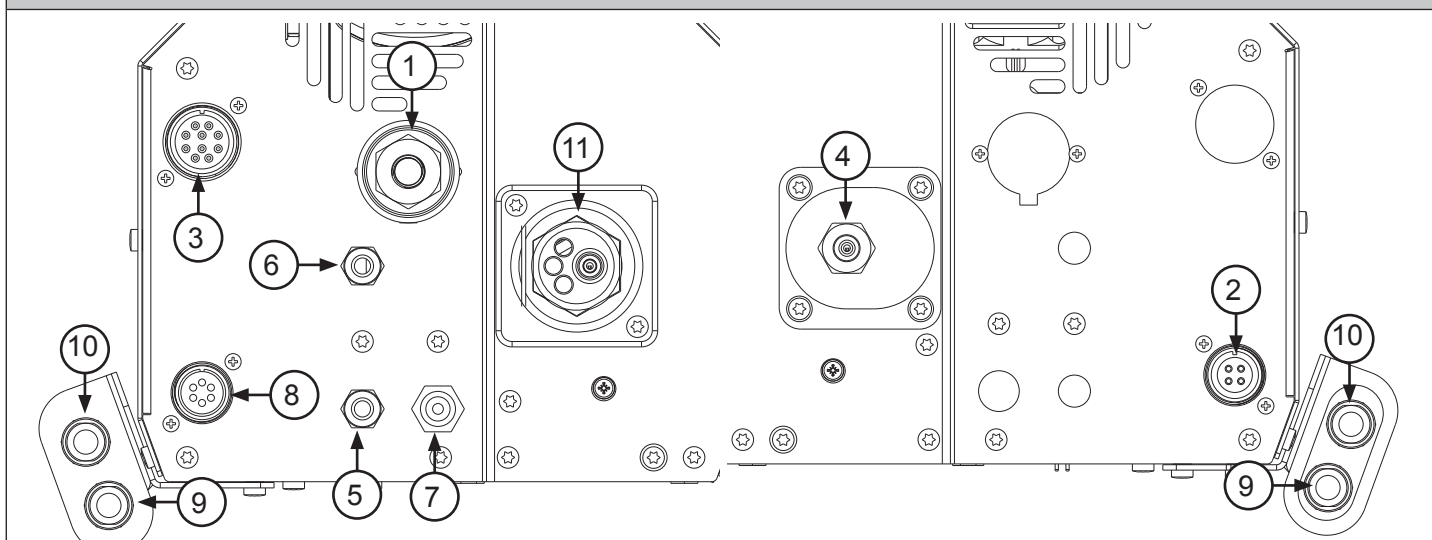


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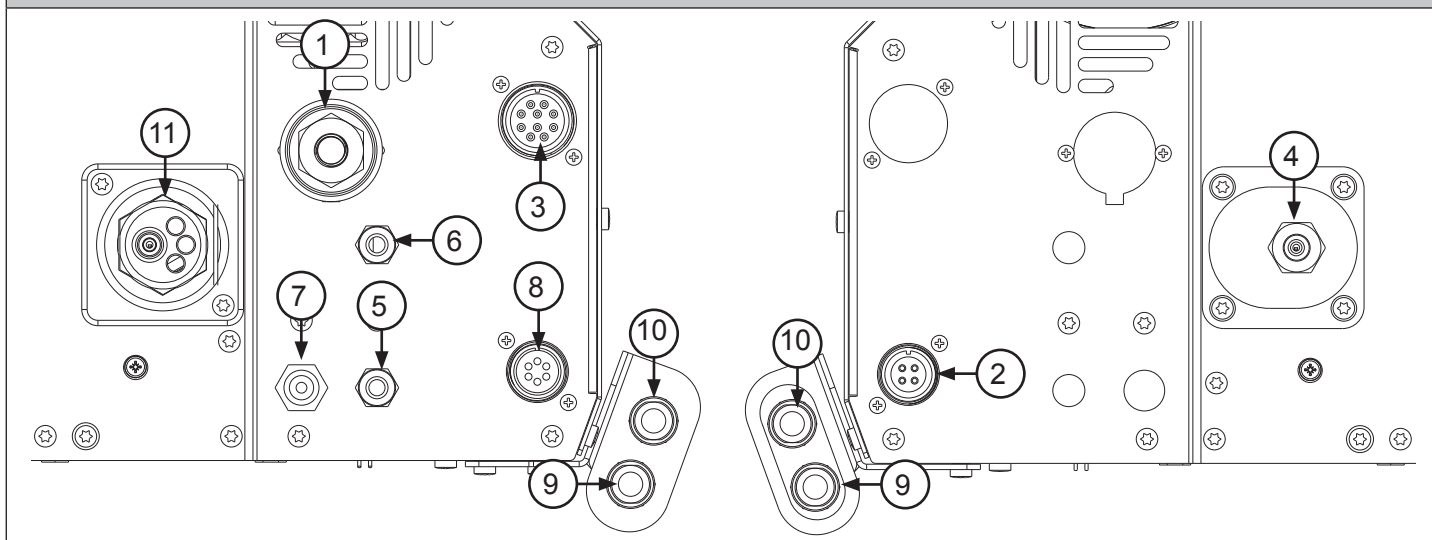


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WF-207FR

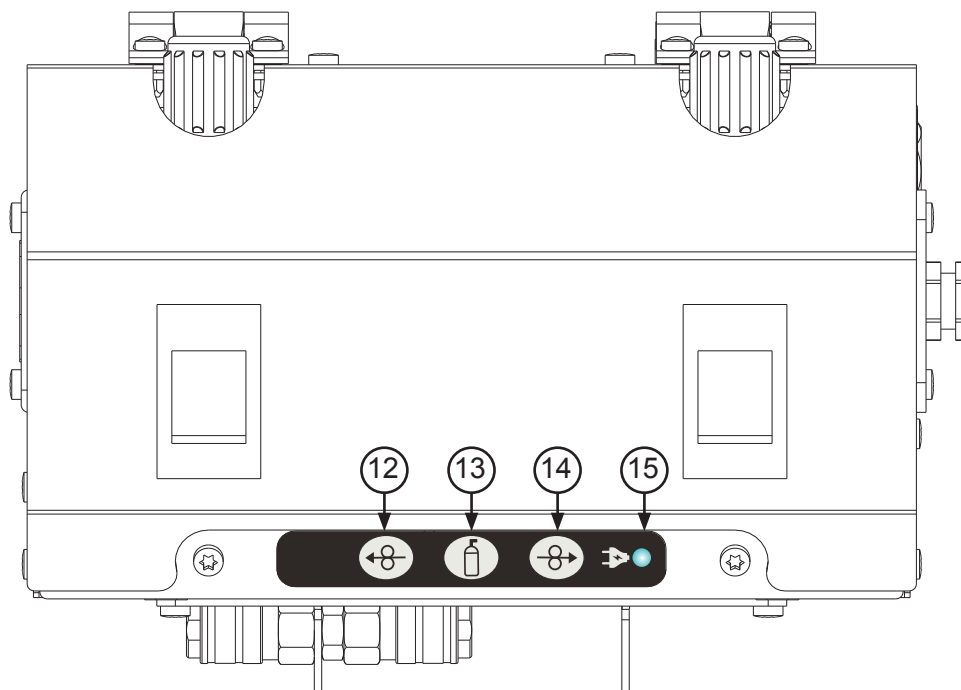


WF-207FL

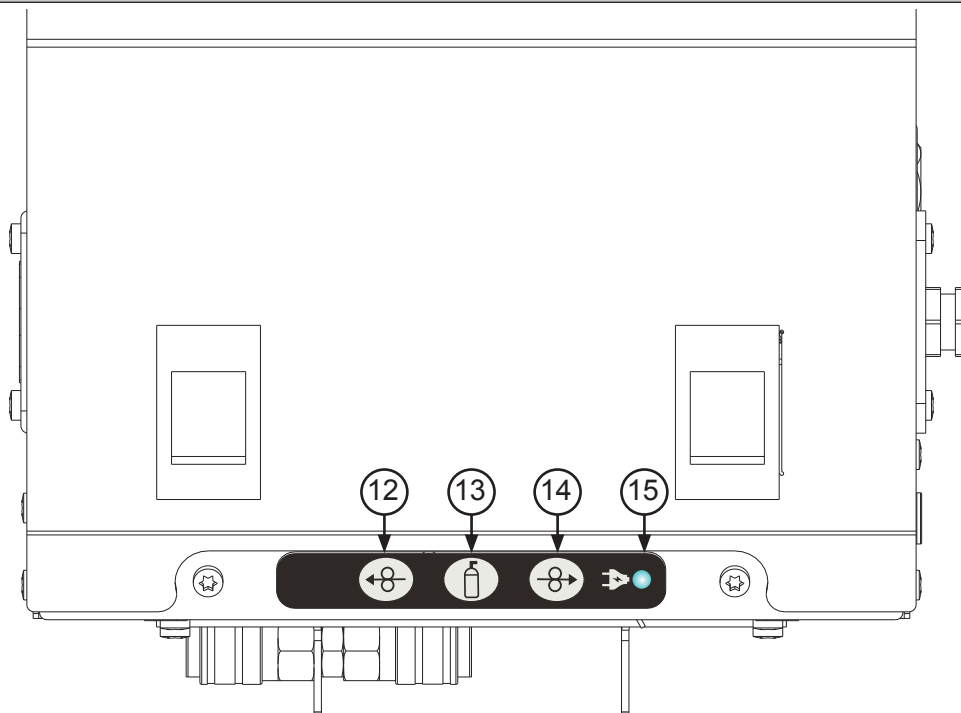


- [1]  Socket provided to connect the power cable coming from the cable harness.
- [2]  External sensor signal connector (wire end).
- [3] Cable harness signal connector.
- [4]  Welding wire inlet hole.
- [5]  Air hose connector (inlet).
- [6]  Air hose connector (outlet).
- [7]  Gas connector. Provided to connect the gas pipe coming from the cable harness.
- [8]  Remote control connector.
- [9] Connector for torch coolant return hose.
- [10] Connector for torch coolant delivery hose.
- [11] Torch socket with EURO connector.

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- [12]  Key to move the welding wire forward in the torch.
- [13]  Key to open the solenoid valve and load the gas circuit.
- [14]  Key to move the welding wire backward from the torch.
- [15]  Illumination shows that the device is powered.

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2.2 INSTALLATION



DANGER!

Lifting and positioning

Read the warnings highlighted by the following symbols in the “General prescriptions for use”.



DANGER!

Disconnect the equipment from the mains power supply before performing any assembly procedures. Switching off the power supply switch does not guarantee the disconnection from the mains power supply.



 **WARNING!** The wire feeder installation method differs according to the type of equipment (robot type, setup). Please refer to the ROBOT implementation manual.

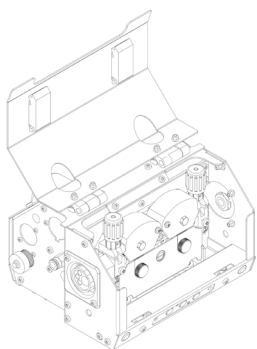
Inserting the wire into the wire feeder



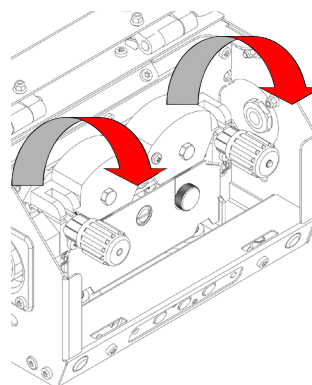
WARNING!

Mechanical Hazards

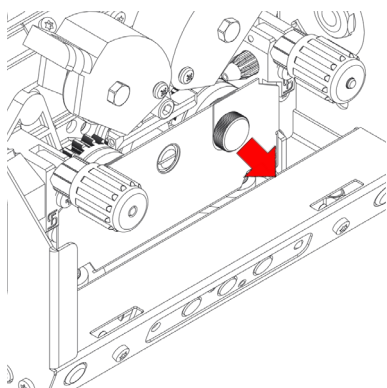
Read the warnings highlighted by the following symbols in the “General prescriptions for use”.



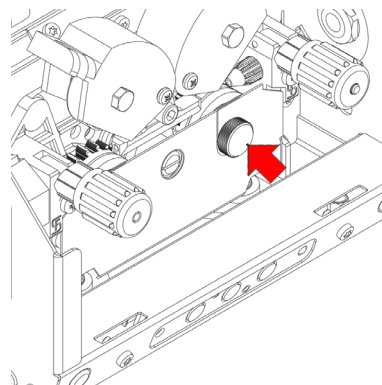
1. Open the unit side door to gain access to the motor compartment.



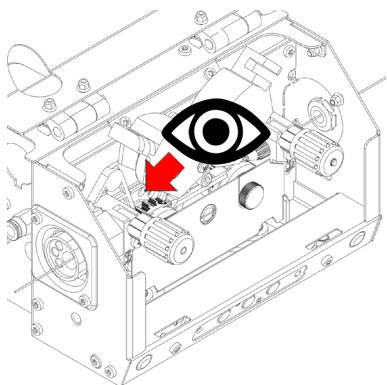
2. Lower the wire feeder pressure devices.



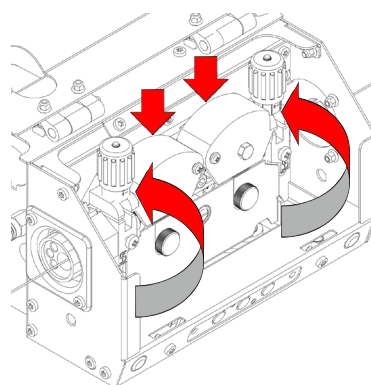
3. Remove the protective cover.
4. Check that the feed rolls are suitable for the wire gauge. **i Information** follow the instructions on page [27](#).



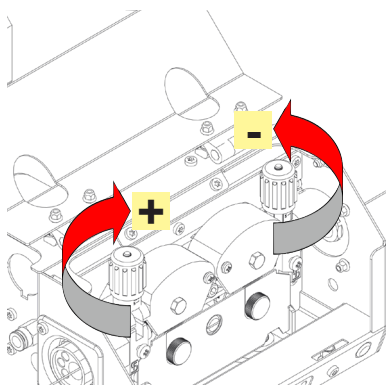
5. Refit the protective cover.



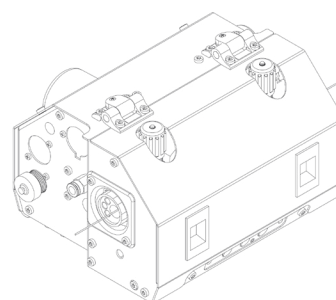
6. Feed the wire between the wire feeder rolls and insert it into the MIG/MAG TORCH connector plug. Make sure the wire is located correctly in the roll grooves.



7. Close the wire feeder pressure arms.



8. Adjust the pressure system so that the arms press the wire with a force that does not deform it while also ensuring constant feed rate without slipping.



9. Close the spool compartment door in the side of the unit.

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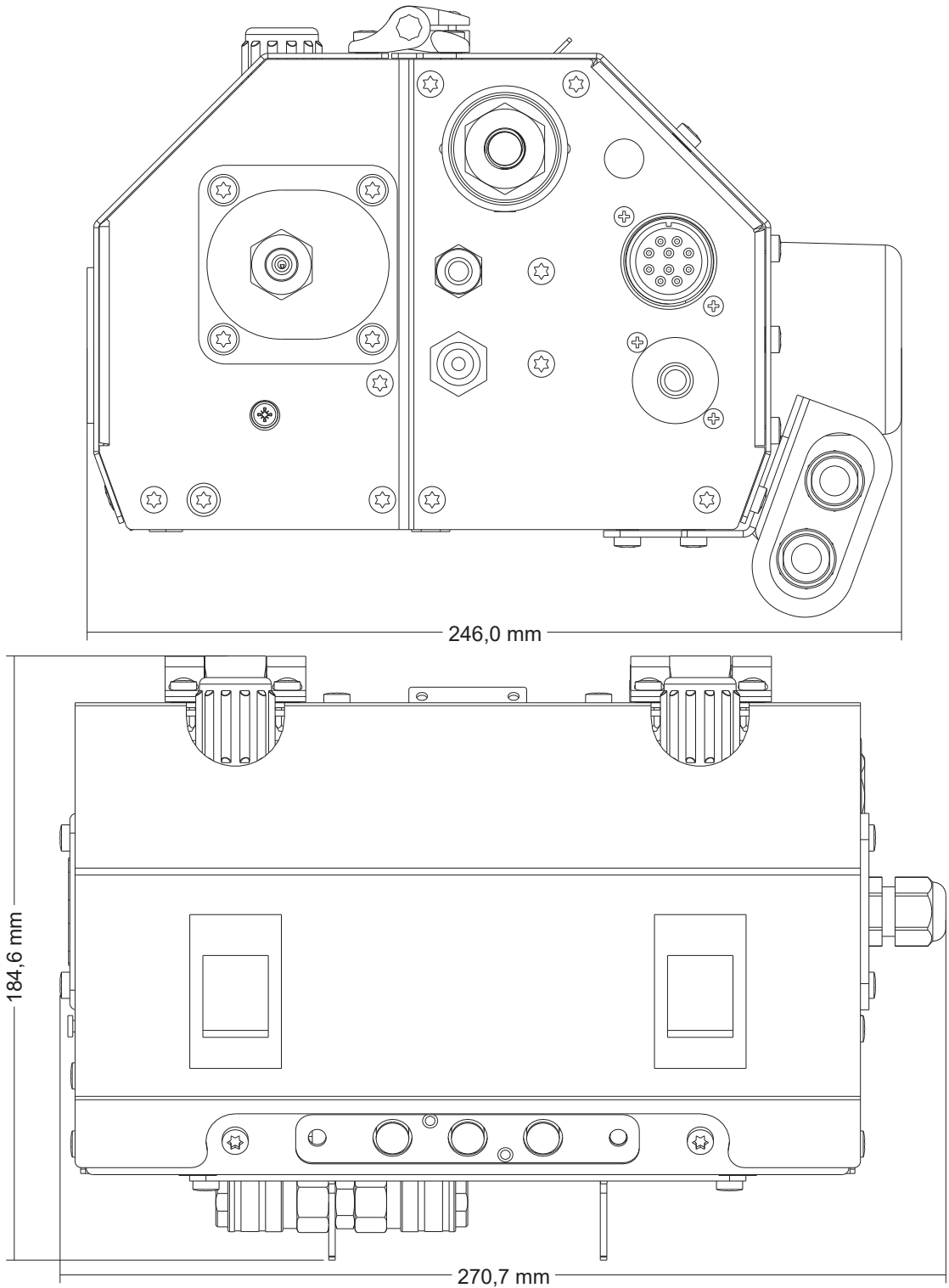
3 TECHNICAL DATA

Directives applied	Waste electrical and electronic equipment (WEEE)
	Electromagnetic compatibility (EMC)
	Low voltage (LVD)
	Restriction of the use of certain hazardous substances (RoHS)
	Ecodesign of energy-related products (Eco Design)
Construction standards	EN 60974-5; EN 60974-10 Class A
Conformity markings	 Equipment compliant with European directives in force
	 Suitable in an environment with increased hazard of electric shock
	 Compliant with WEEE directive
	 Equipment compliant with RoHS directive

WF-206/WF-207 Technical Data

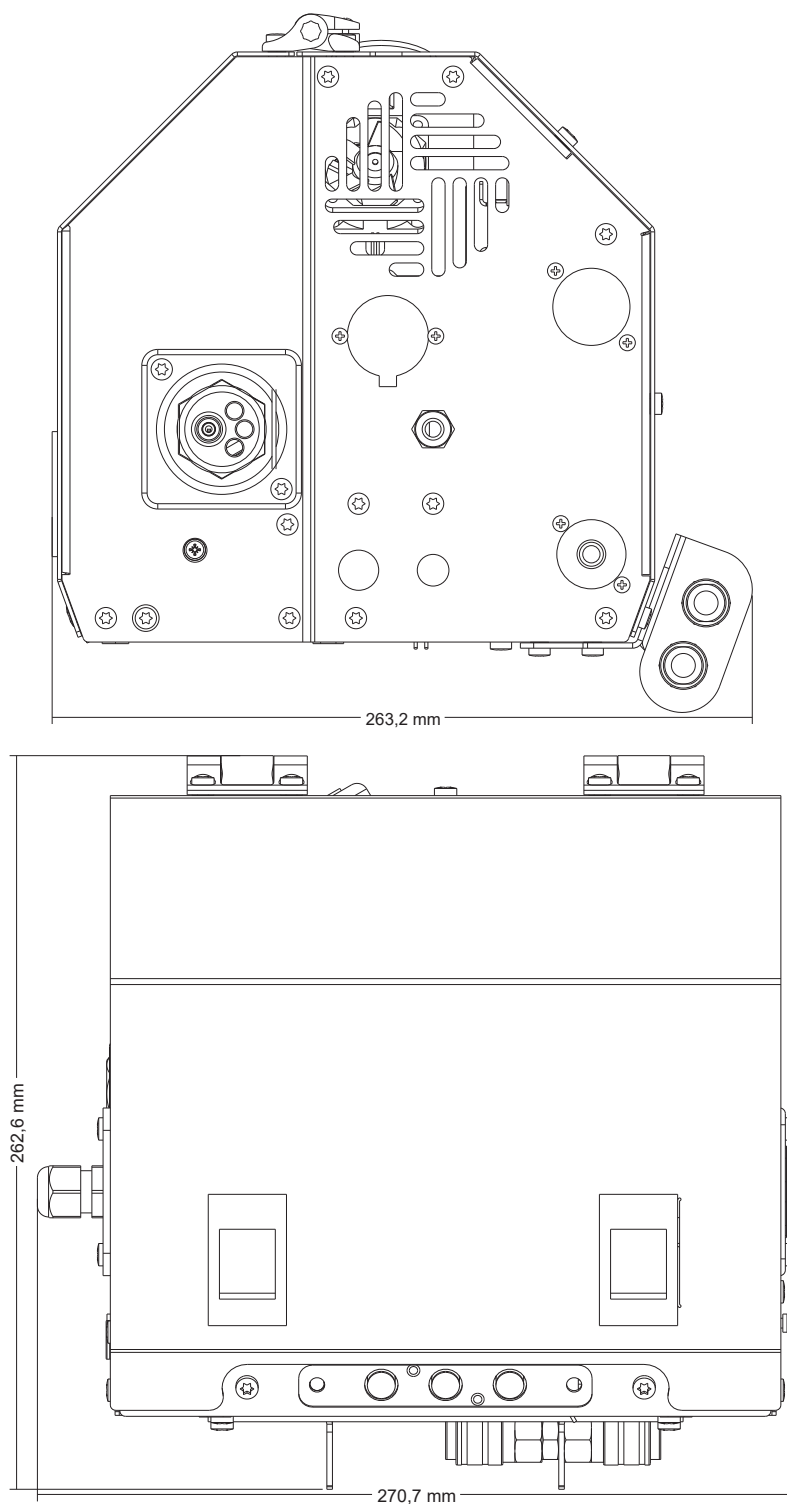
Supply voltage	48 V a.c.	
Weight	11.5 kg	
Protection rating	IP23	
Maximum gas pressure	0,5 MPa (5 bar)	
Motor speed	1.0-25.0 m/min	
Static characteristic	MIG: ☐ Flat characteristic	
Welding mode		MIG
Current and voltage adjustment range		10 A - 14.5 V 500 A - 39.0 V
Welding current/operating voltage (at an ambient temperature of 40°C)	60% (40 °C)	450 A - 36.5 V
	100% (40 °C)	400 A / 34.0 V
Essential raw materials	According to information provided by our suppliers this product contains no essential raw materials in quantities exceeding 1 g per component.	

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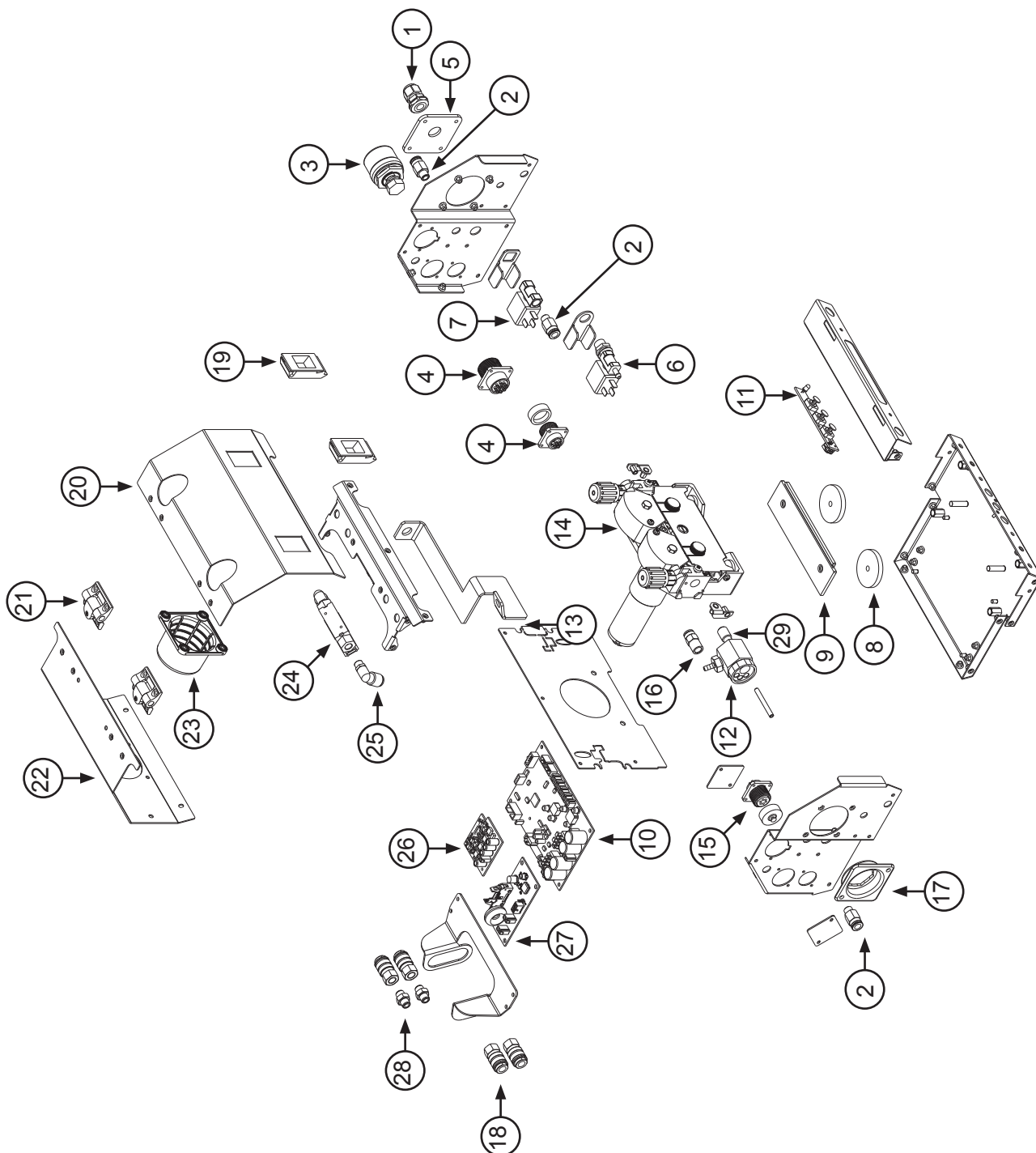
ENGLISH

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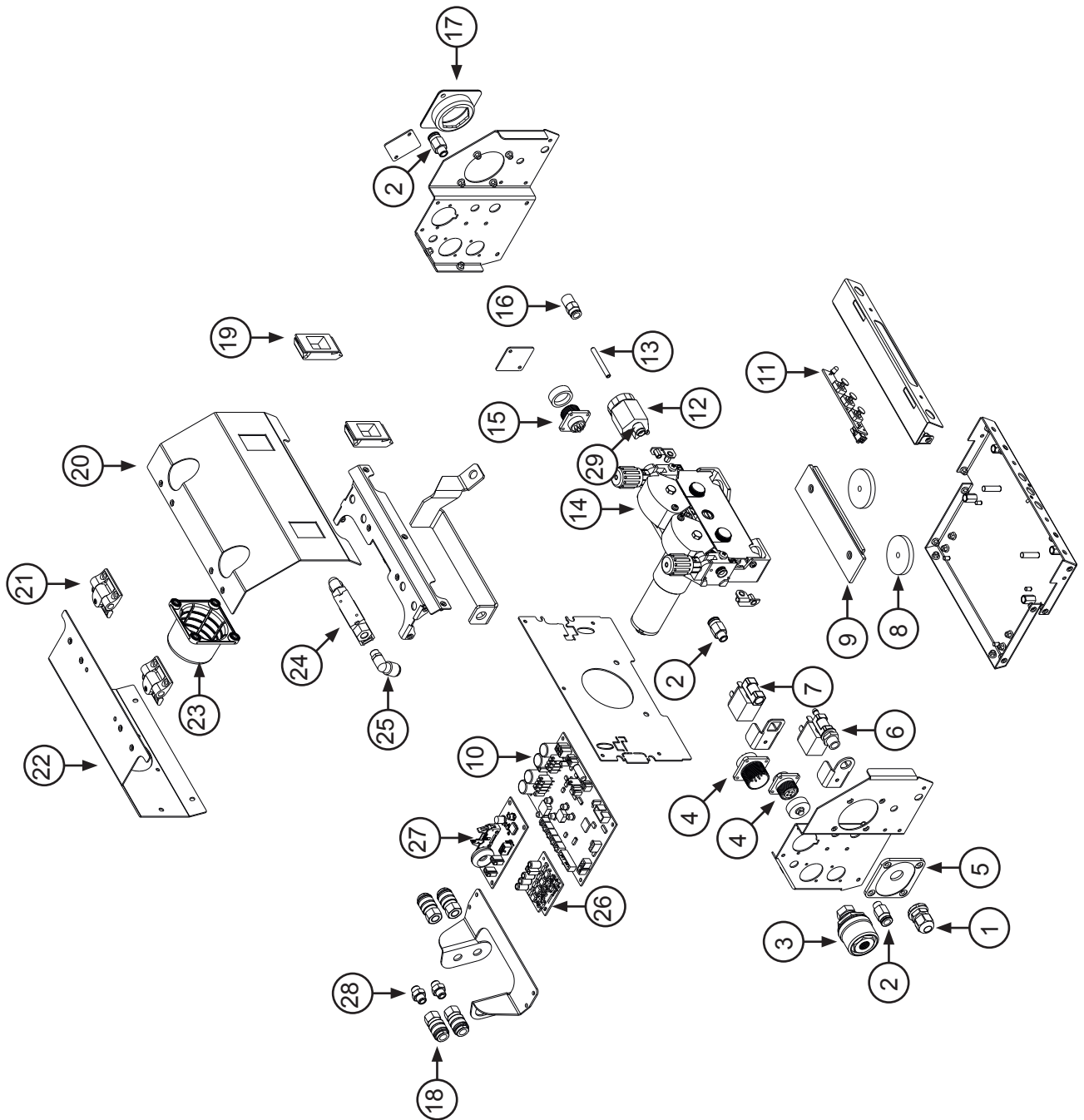
4 SPARE PARTS

WF-206RR

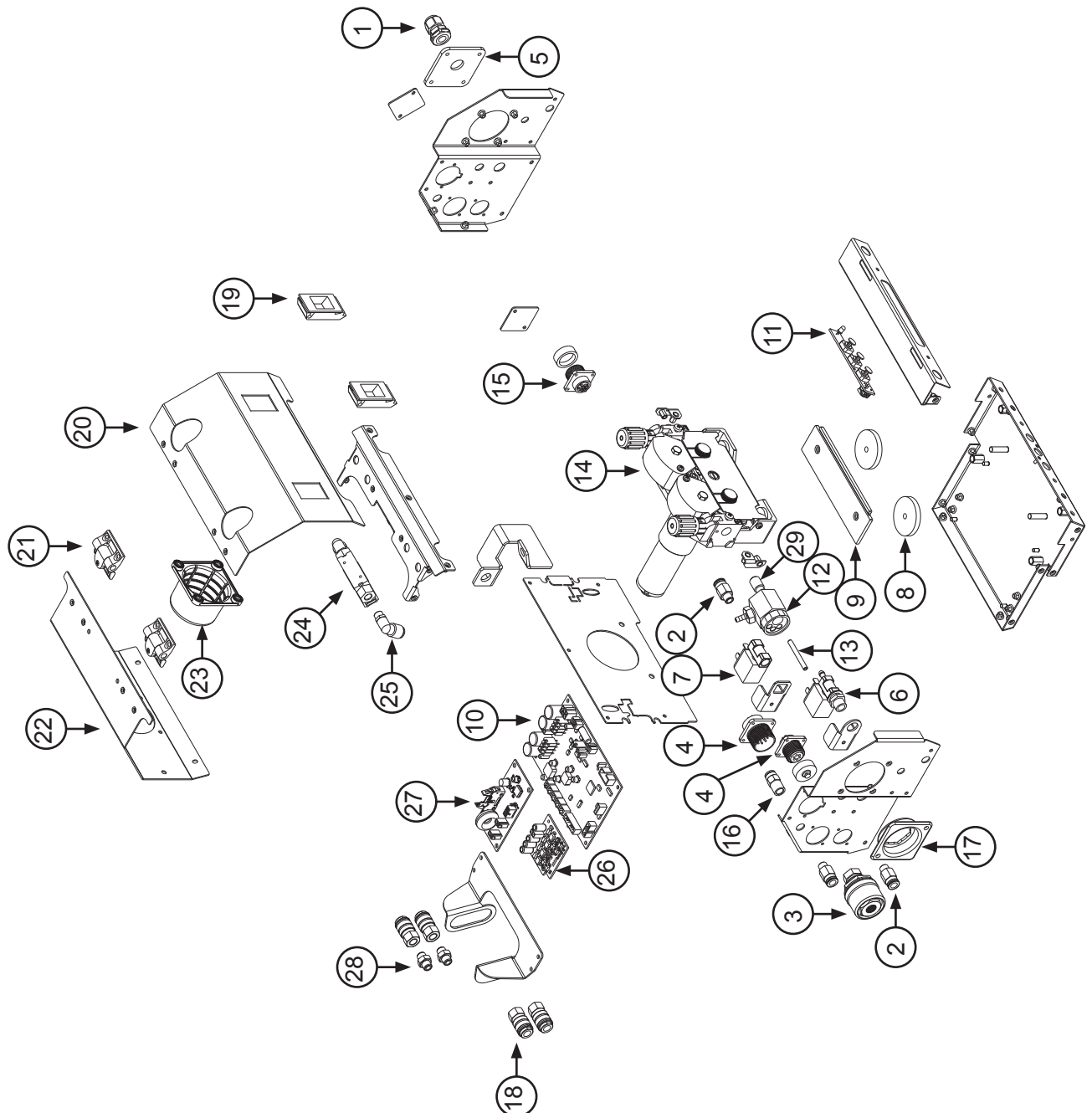


ENGLISH

WF-206RL

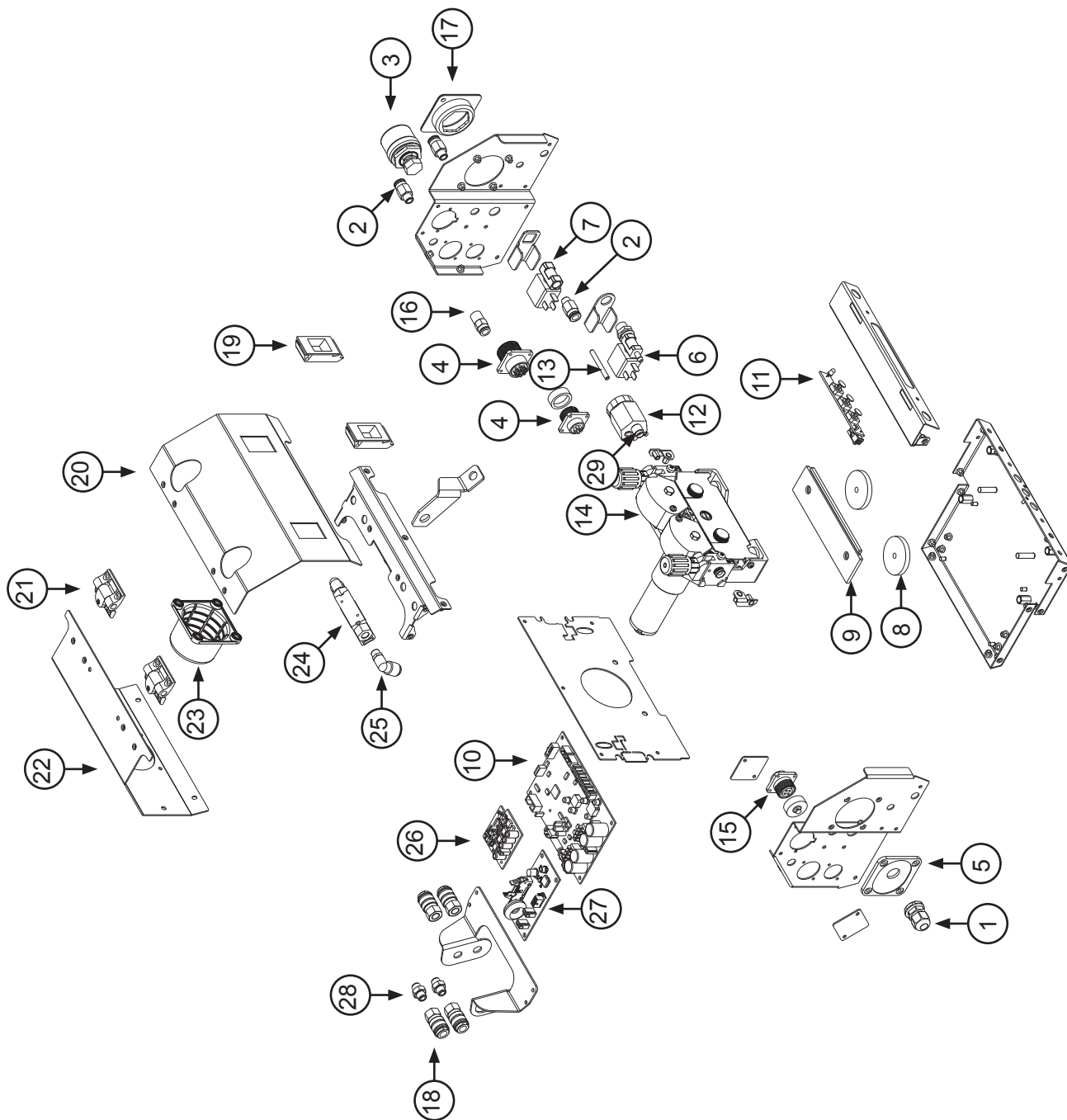


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ENGLISH

WF-206FL

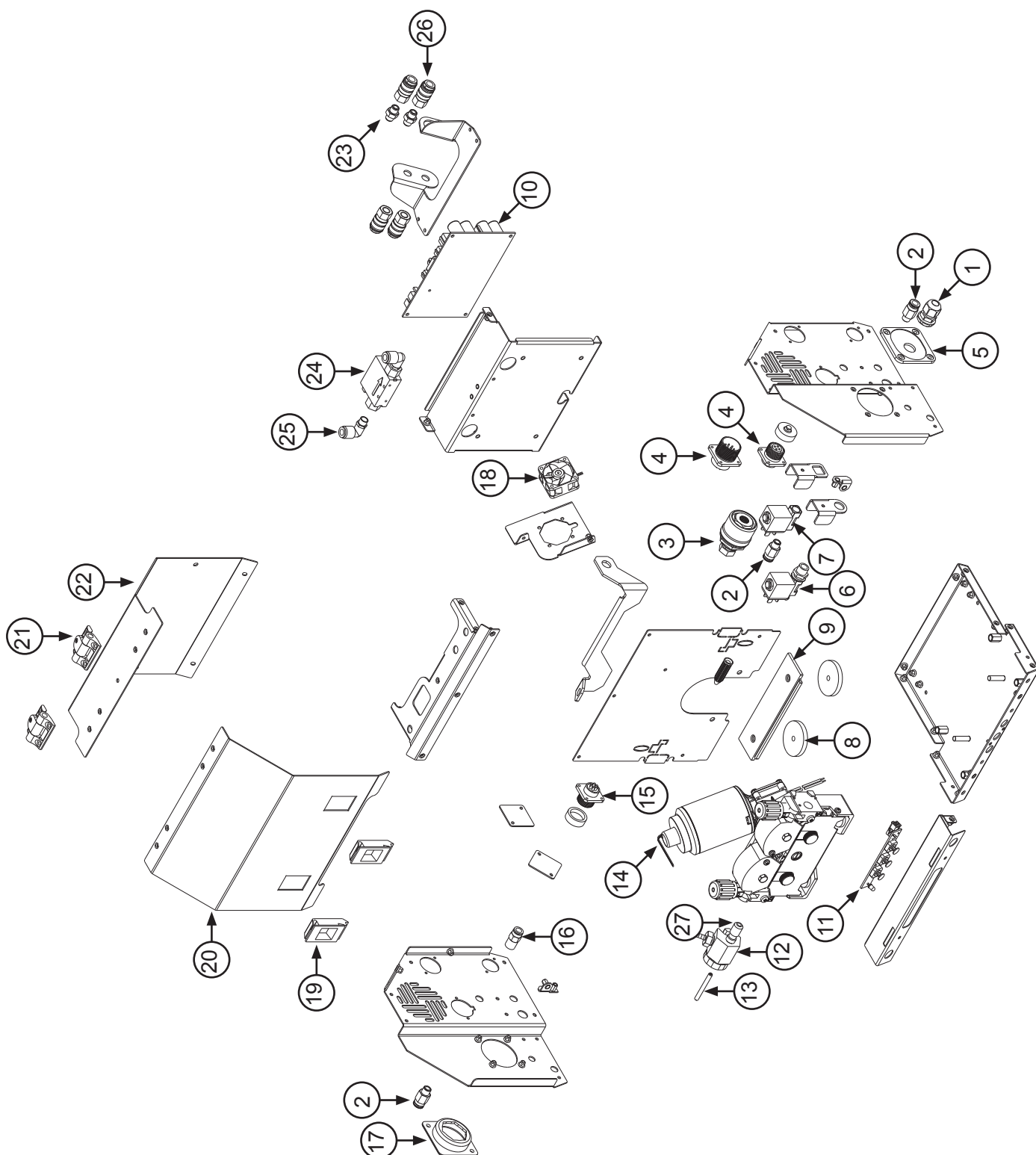


No.	CODE	DESCRIPTION
1	045.0000.0012	PG9 CABLE CLAMP, BLACK
2	017.0003.0007	AUT. CONNECTOR D=8mm ATT.M=1/8
3	021.0001.0479	FIXED SOCKET 500A 95mmq M12, COMPL.
4	022.0002.0400	WF-206 INNER CABLING
5	046.0004.0029	PLASTIC SUPPORT WIRE SHEATH WF206
6	017.0001.5543	SOLENOID VALVE 5541 B=24Vac D=2.0mm
7	017.0001.5514	SOLENOID VALVE 5511 B=24Vac D=1.5mm
8	046.0004.0030	PLASTIC INSULATION Ø=45 X6mm
9	046.0004.0028	PLASTIC SUPPORT FEEDER WF206
10	050.0002.0131	WIRE FEEDER 4Q BOARD DIGITAL INVERTER
11	050.0002.0193	WF-206 BUTTONS BOARD
12	021.0001.2006	EURO CONNECTOR F. GAS BODY 42mm, COMPLETE
13	021.0001.2029	CAPILLARY TUBE L=50mm d=2mm D=5mm
14	002.0000.0026	SF 47038/MAXON B7A223B4739A MOTOR DRIVE
15	022.0002.0402	WF-206/207 SENSORS CABLING
16	017.0003.0011	AUT. CONNECTOR D=8mm ATT.F=1/8
17	021.0001.2008	EURO CONNECTOR F. INSULATING GAS BODY
18	018.0002.0004	QUICK COUPLING F. 1/8 NT GAS
19	011.0006.0002	SLIDE CLOSURE 1.6mm
20	011.0000.1312	WF206 DOOR PLATE, RAL9005 BLACK, WRINKLE
21	011.0006.0007	180° PLASTIC HINGE, FOLD. 31.8X25.4mm M4
22	011.0000.1302	WF-206 SIDE PLATE, RAL9005 BLACK, WRINKLE
23	012.0000.0021	WF206 MOTOR SPOOL COVER
24	017.0006.0009	PFM5 1/8 GAS FLOWMETER (OPTIONAL)
25	017.0003.0002	AUT. CONNECTOR D=8mm ATT.M=1/8 90°
26	050.0001.0121	PUSH-PULL BOARD 4Q
27	050.0001.0203	WF SENSOR POWER SUPPLY
28	017.0003.0008	NIPPLE FITTING ATT.M=1/8 ATT.M=1/8
29	021.0001.2019	STING L=13+60+28 D=16 D=M12x1

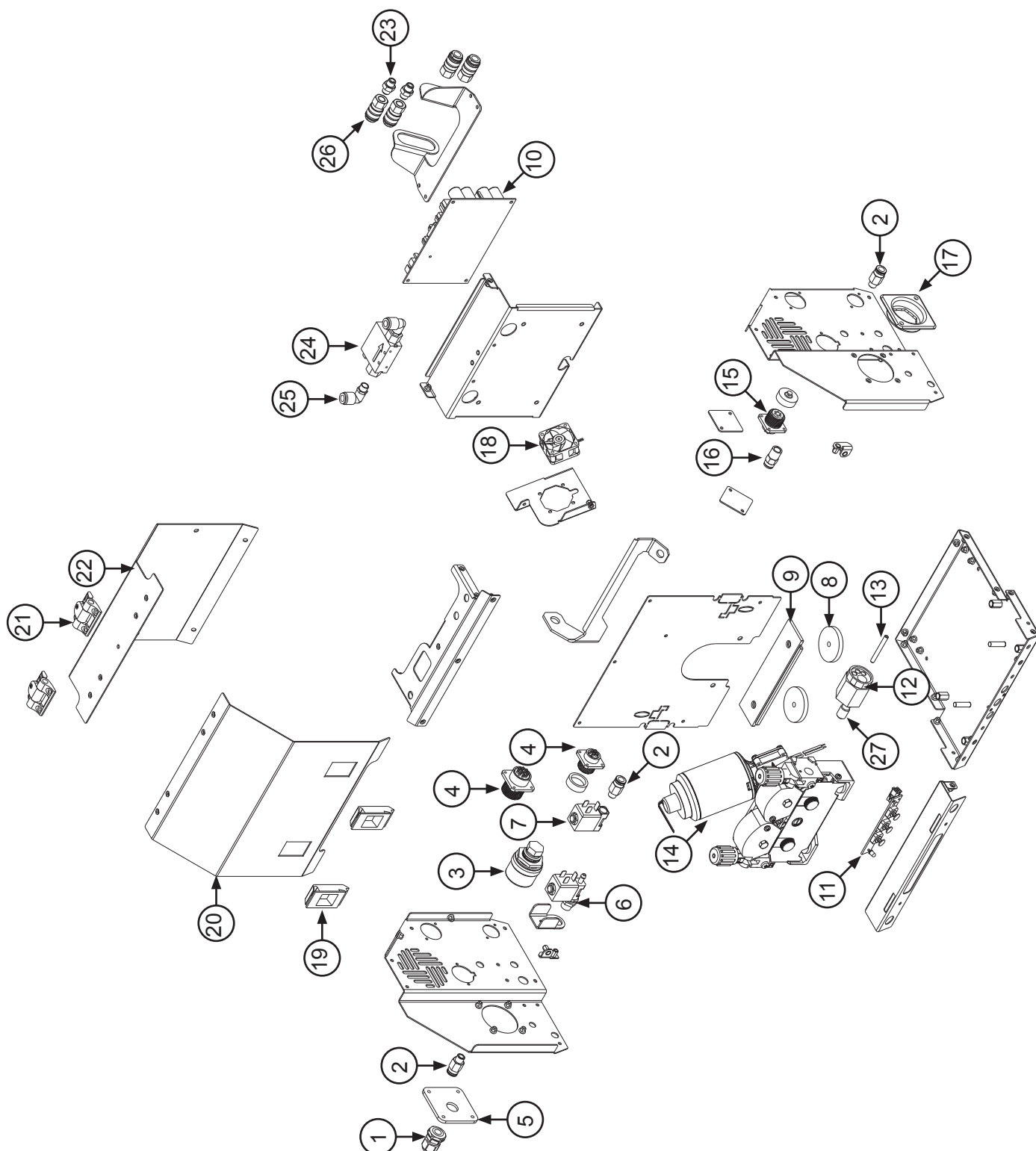
- The codes for ordering the internal wiring of the equipment can be found in the circuit diagram.
- To order a spare part please provide:
 - machine model;
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 - numbering of the part and its code.

ENGLISH

WF-207RR

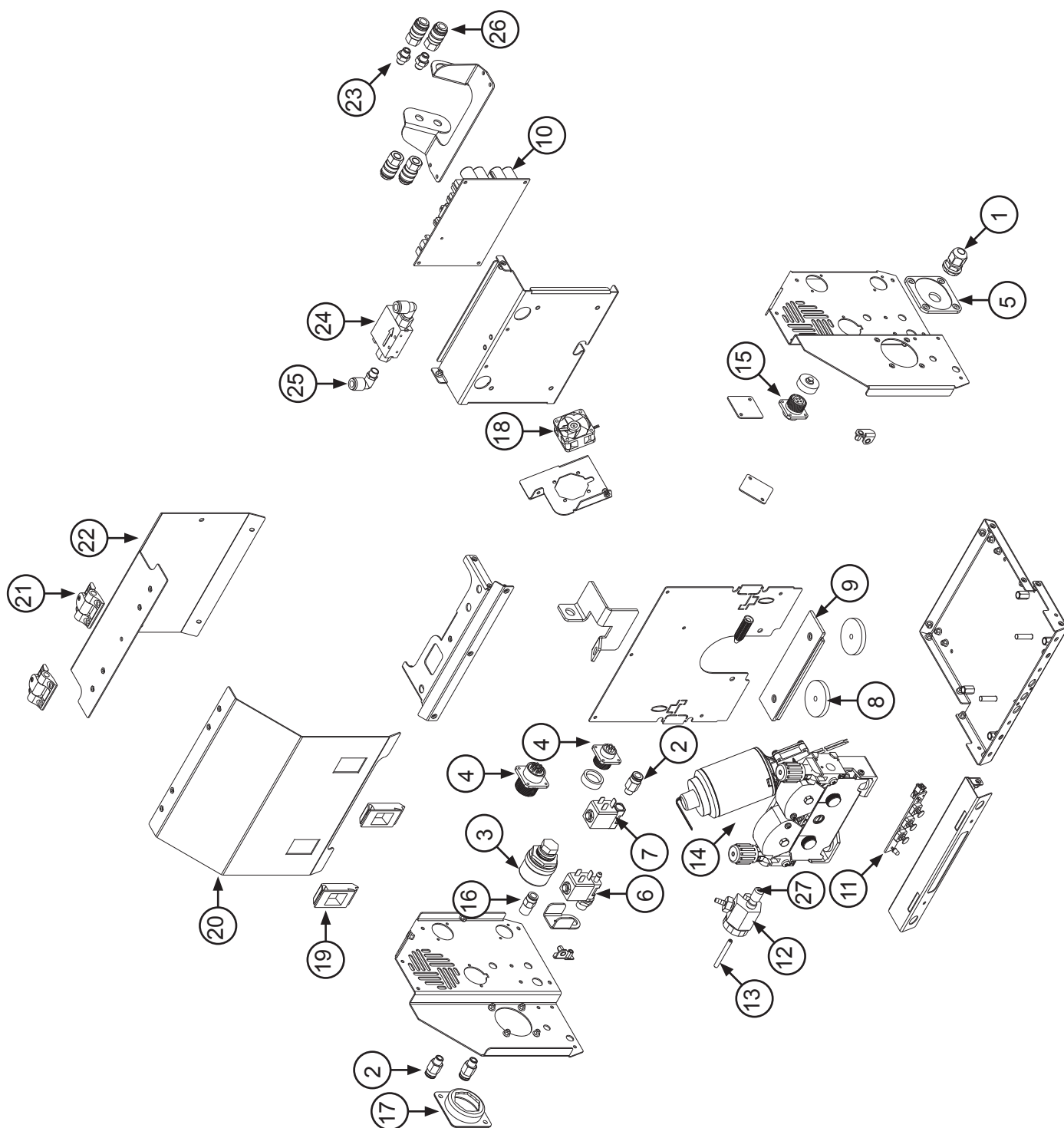


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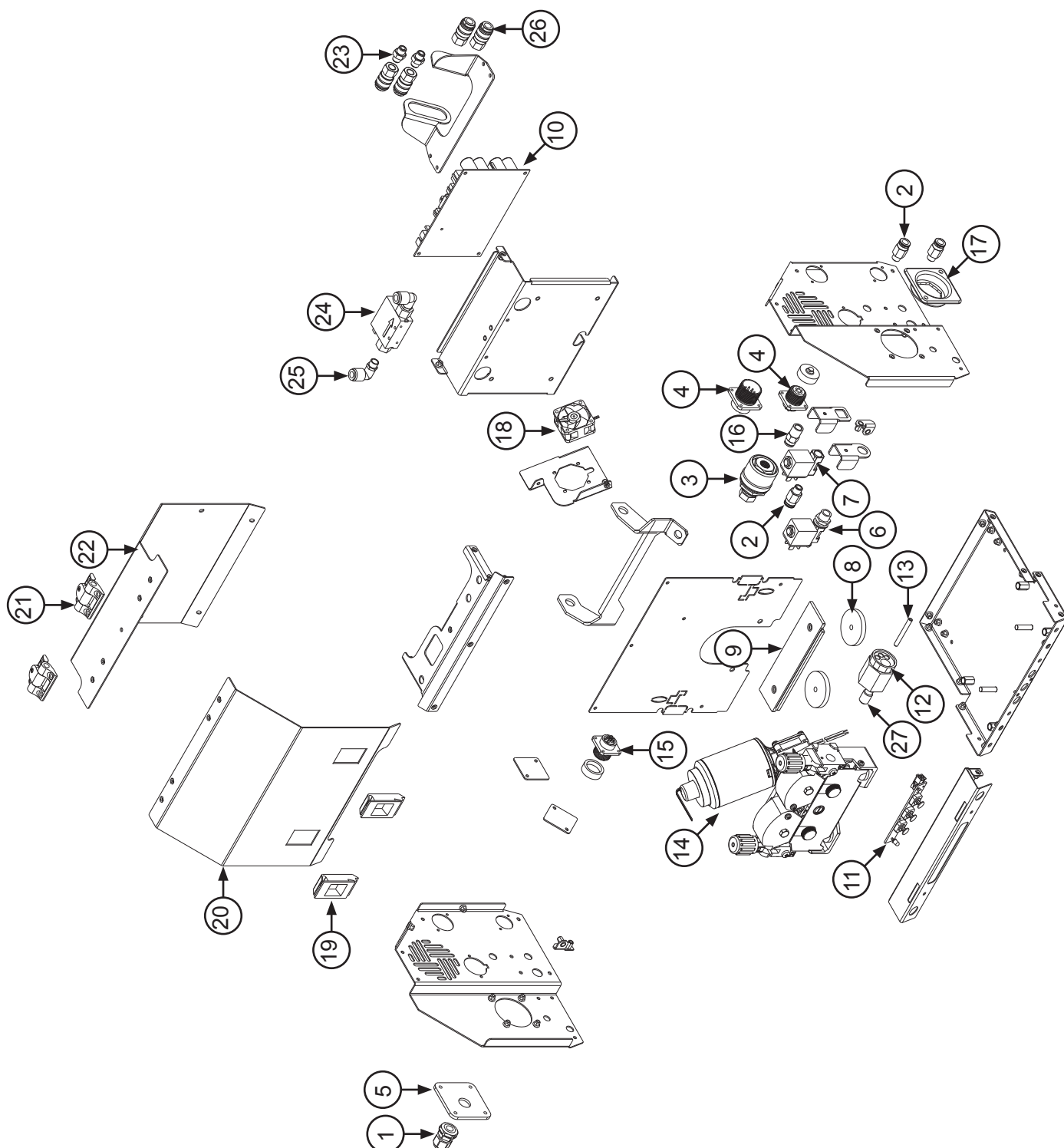


ENGLISH

WF-207FR



WF-207FL

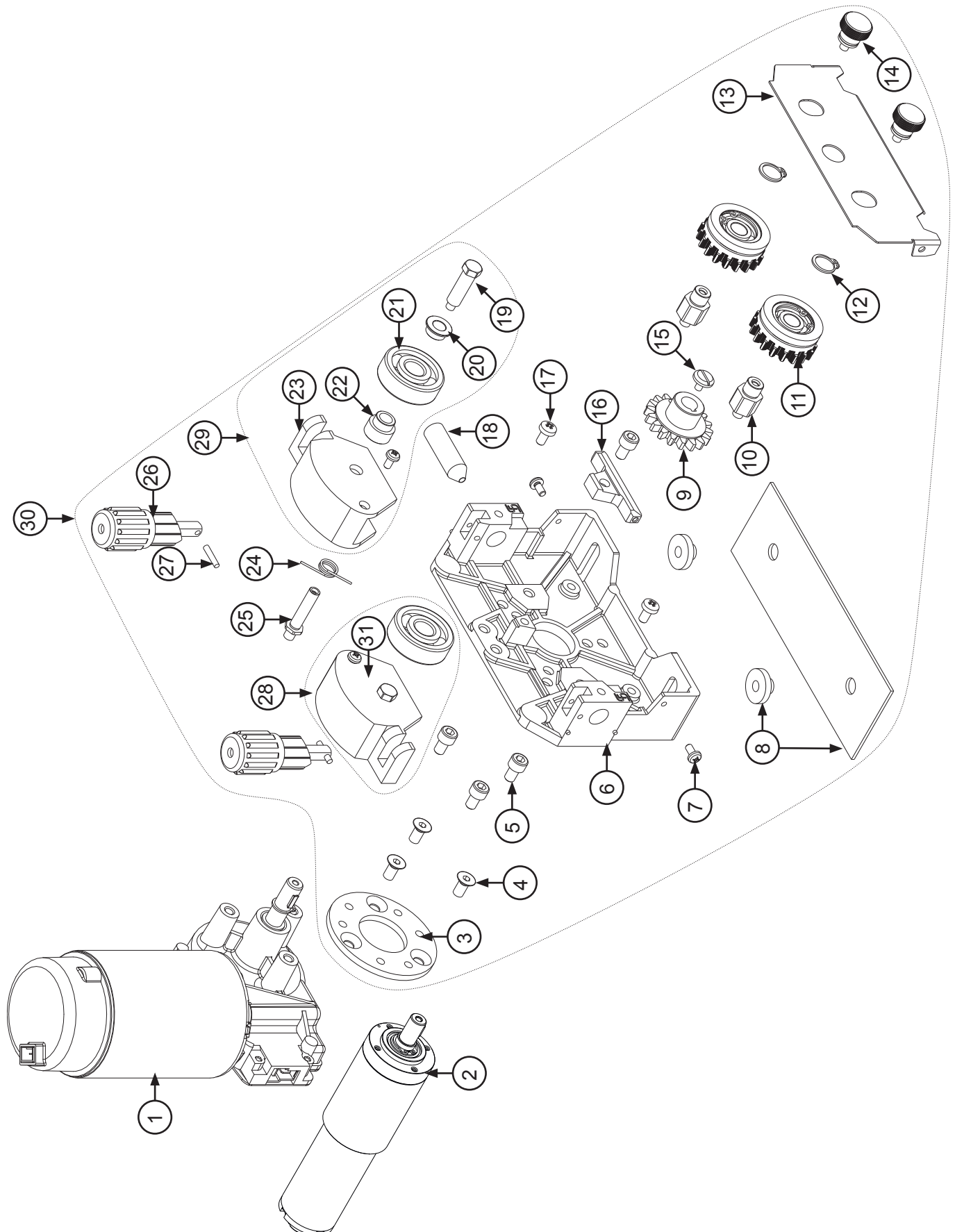


ENGLISH

No.	CODE	DESCRIPTION
1	045.0000.0012	PG9 CABLE CLAMP, BLACK
2	017.0003.0007	AUT. CONNECTOR D=8mm ATT.M=1/8
3	021.0001.0479	FIXED SOCKET 500A 95mmq M12, COMPL.
4	022.0002.0400	WF-206 INNER CABLING
5	046.0004.0029	PLASTIC SUPPORT WIRE SHEATH WF206
6	017.0001.5543	SOLENOID VALVE 5541 B=24Vac D=2.0mm
7	017.0001.5514	SOLENOID VALVE 5511 B=24Vac D=1.5mm
8	046.0004.0030	PLASTIC INSULATION Ø=45 X6mm
9	046.0004.0028	PLASTIC SUPPORT FEEDER WF206
10	050.0002.0131	WIRE FEEDER 4Q BOARD DIGITAL INVERTER
11	050.0002.0193	WF-206 BUTTONS BOARD
12	021.0001.2006	EURO CONNECTOR F GAS BODY 42mm, COMPLETE
13	021.0001.2029	CAPILLARY TUBE L=50mm d=2mm D=5mm
14	002.0000.0027	MOT.DRIVE SF 47038/ELVI 108620
15	022.0002.0402	WF-206/207 SENSORS CABLING
16	017.0003.0011	AUT. CONNECTOR D=8mm ATT.F=1/8
17	021.0001.2008	EURO CONNECTOR F. INSULATING GAS BODY
18	003.0002.0021	003.0001.0022 FAN CABL L=250 MCT, 2-WAY
19	011.0006.0002	SLIDE CLOSURE 1.6mm
20	011.0000.1312	WF206 DOOR PLATE, RAL9005 BLACK, WRINKLE
21	011.0006.0007	180° PLASTIC HINGE, FOLD. 31.8X25.4mm M4
22	011.0000.1302	WF-206 SIDE PLATE, RAL9005 BLACK, WRINKLE
23	017.0003.0008	NIPPLE FITTING ATT.M=1/8 ATT.M=1/8
24	017.0006.0009	PFM5 1/8 GAS FLOWMETER (OPTIONAL)
25	017.0003.0002	AUT. CONNECTOR D=8mm ATT.M=1/8 90°
26	018.0002.0004	QUICK COUPLING F. 1/8 NT GAS
27	021.0001.2019	STING L=13+60+28 D=16 D=M12x1

- The codes for ordering the internal wiring of the equipment can be found in the circuit diagram.
- To order a spare part please provide:
 - machine model;
 - series number;
 - numbering of the part and its code.

4.1 WIRE FEEDER MOTOR

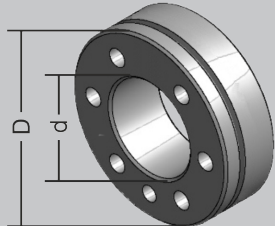
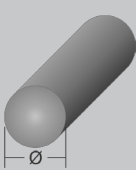
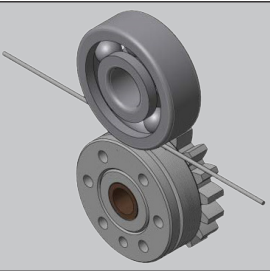
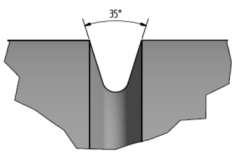
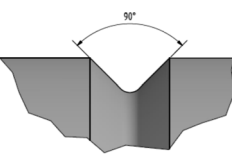
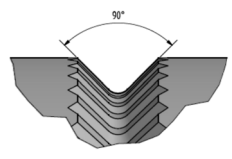
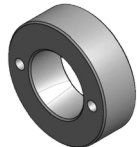
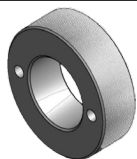
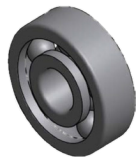


ENGLISH

No.	CODE	DESCRIPTION
1	002.0000.0418	WF-206 MOTOR SPOOL
2	002.0000.0392	WF-207 MOTOR SPOOL
3	002.0000.0308	DISTANCE RING
4	002.0000.0306	COUNTERSUNK SCREW M6x12
5	002.0000.0307	SCREW M6x10
6	002.0000.0295	FEED PLATE
7	002.0000.0318	SCREW M4x8
8	002.0000.0291	INSULATION MOUNTING KIT
9	002.0000.0300	MAIN GEAR DRIVE
10	002.0000.0354	SHAFT
11	002.0000.0159	FEED ROLL
12	002.0000.0356	SNAP RING
13	002.0000.0355	INTERNAL PROTECTION PLATE
14	002.0000.0357	RETAINING SCREW M5x6
15	002.0000.0304	SCREW M4x10
16	002.0000.0294	INTERMEDIATE GUIDE
17	002.0000.0324	SCREW M5x10
18	002.0000.0297	INLET GUIDE WITH SOFT LINER
19	002.0000.0316	PRESSURE ROLL AXLE
20	002.0000.0315	DISTANCE RING 1
21	002.0000.0303	KNURLED DRIVE ROLL
22	002.0000.0314	DISTANCE RING 2
23	002.0000.0313	RIGHT PRESSURE ARM
24	002.0000.0317	SPRING
25	002.0000.0311	JOINT AXLE
26	002.0000.0290	COMPLETE PRESSURE DEVICE
27	002.0000.0319	PIN
28	002.0000.0301	COMPLETE LEFT PRESSURE ARM
29	002.0000.0302	COMPLETE RIGHT PRESSURE ARM
30	002.0000.0059	WIRE FEEDER BODY COMPLETE
31	002.0000.0312	LEFT PRESSURE ARM

- The codes for ordering the internal wiring of the equipment can be found in the circuit diagram.
- To order a spare part please provide:
 - machine model;
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 - numbering of the part and its code.

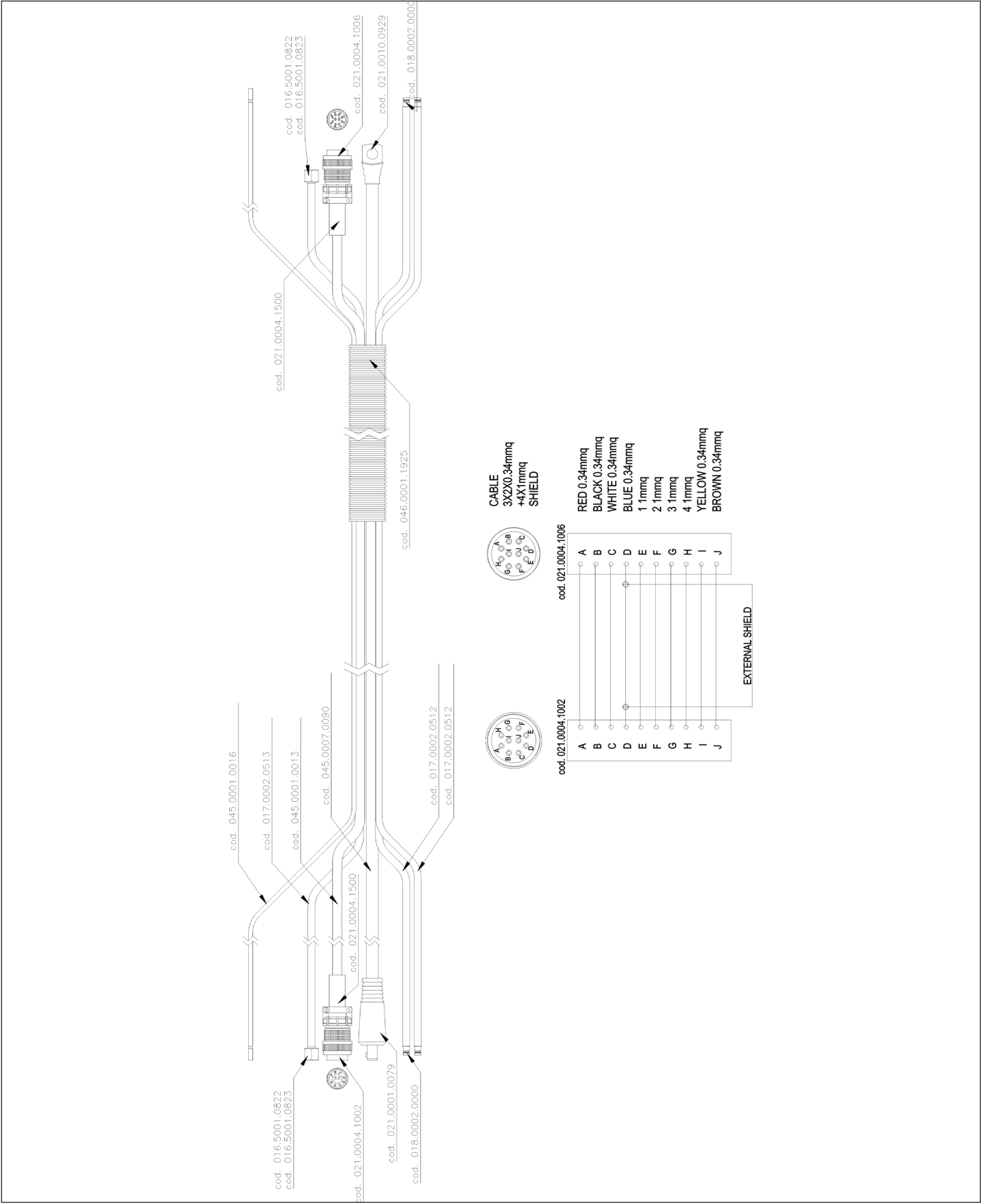
4.2 WIRE FEED ROLLERS

			
CODE	DESCRIPTION	WIRE Ø	TYPE
002.0000.0157	ROLLER WITH 0.8 D=37/V 35° GEAR	0.8	  35° V-groove for solid wires (steel, stainless steel)
002.0000.0158	ROLLER WITH 1.0 D=37/V 35° GEAR	1.0	
002.0000.0159	ROLLER WITH 1.2 D=37/V 35° GEAR	1.2	
002.0000.0160	ROLLER WITH 1.6 D=37/V 35° GEAR	1.6	
002.0000.0161	ROLLER WITH 1.0 D=37/U GEAR	1.0	  90° V-groove for aluminium wires
002.0000.0162	ROLLER WITH 1.2 D=37/U GEAR	1.2	
002.0000.0163	ROLLER WITH 1.6 D=37/U GEAR	1.6	
002.0000.0164	ROLLER WITH 1.6 D=37/KV GEAR	1.6	  VK 90° knurled groove for tubular wires
002.0000.0152	SMOOTH ROLLER D=37x12/d=19		
002.0000.0153	KNURLED ROLLER D=37x12/D=19		
002.0000.0303	SMOOTH ROLLER		

- The diameter of the roll groove must be compatible with the diameter of the welding wire.
- The roll must be of suitable shape in relation to the composition of the wire material.
 - The groove must feature a "V 35°" profile for harder materials (SG2-SG3, stainless steels).
 - The groove must feature a "V 90°" profile for soft materials (Aluminium and its alloys, CuSi3).
 - The groove must feature a "VK 90°" knurled profile for flux-cored wire

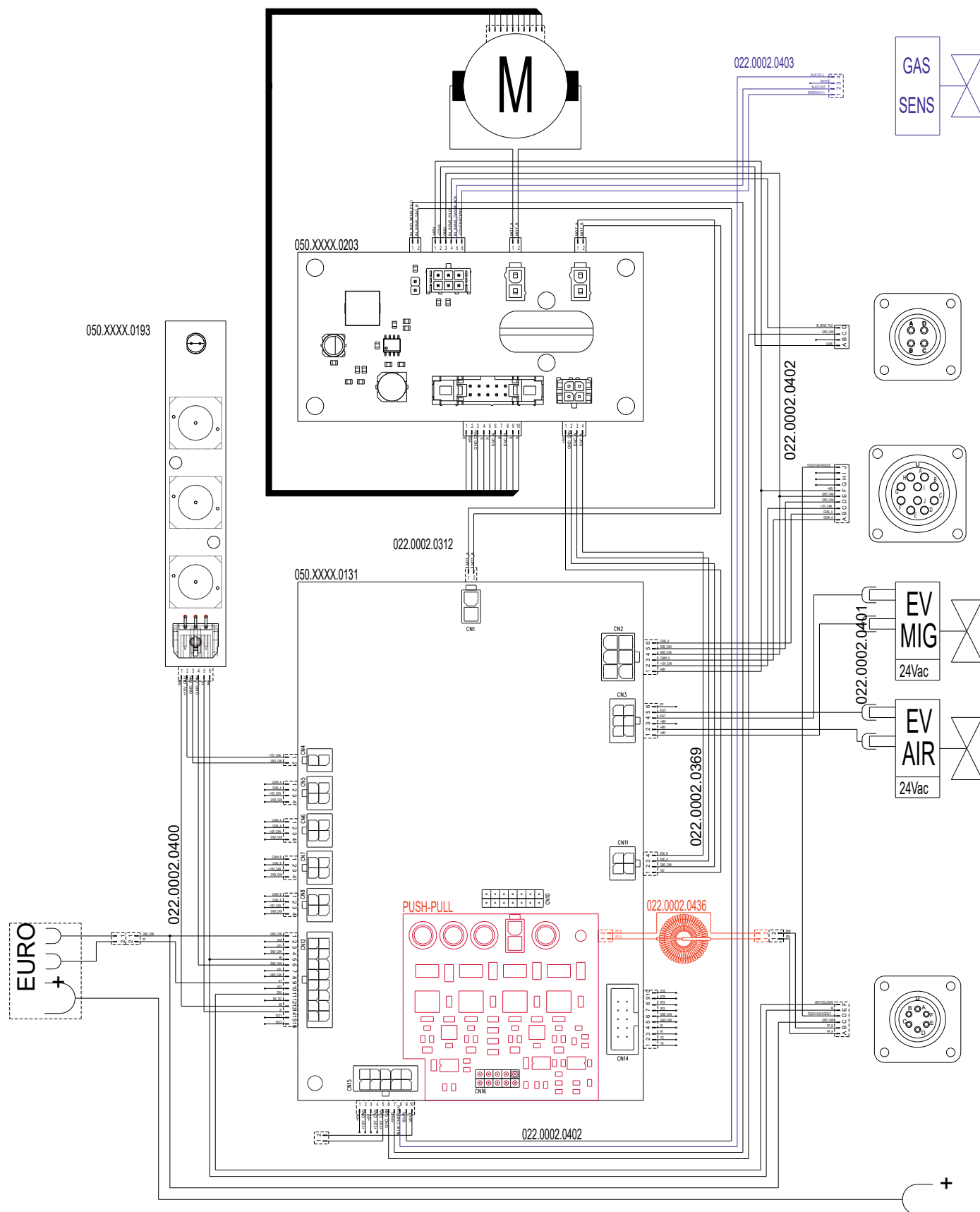
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4.3 CABLE HARNESS: POWER SOURCE - WIRE FEEDER



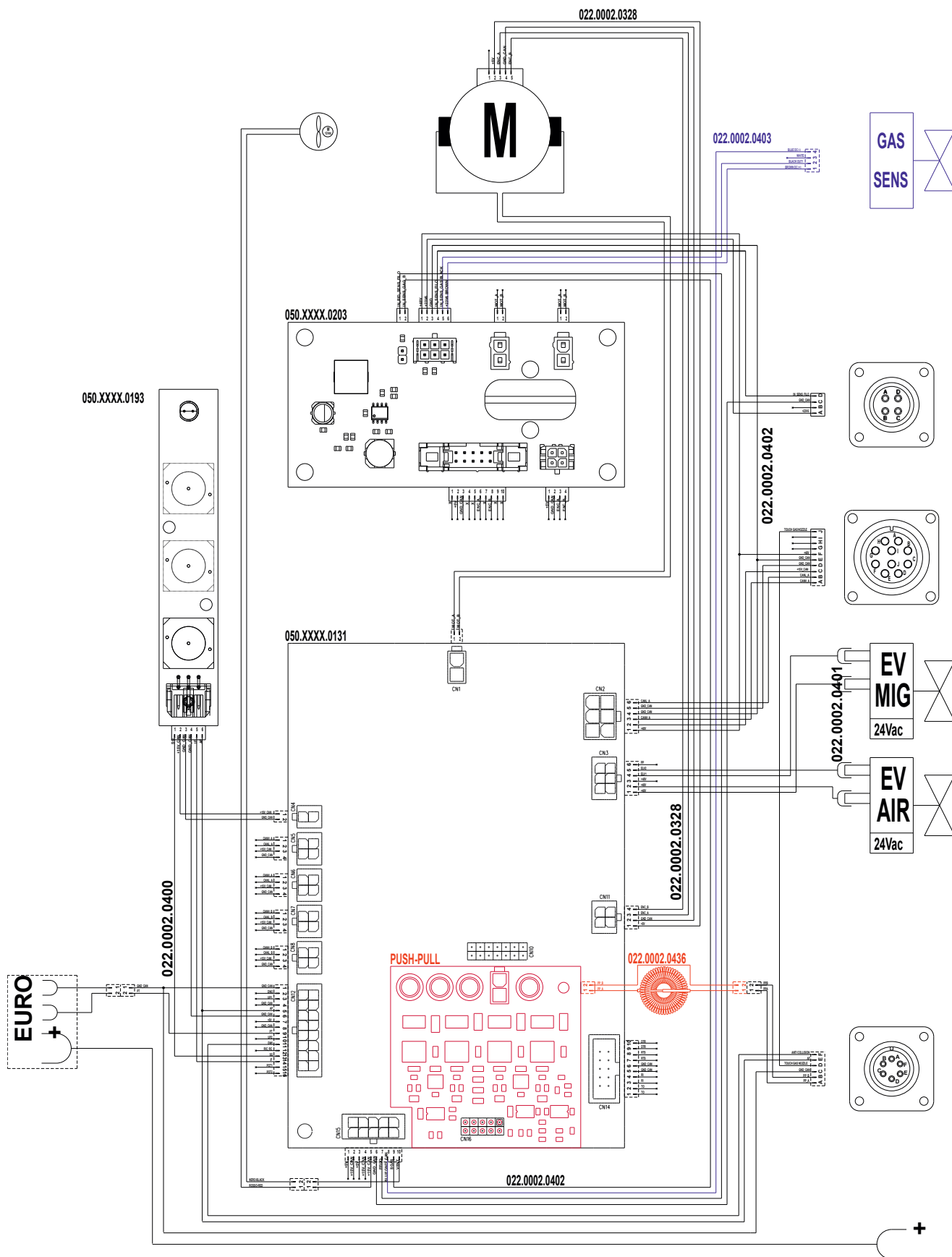
5 WIRING DIAGRAM

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WF-207







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WECO srl
www.weco.it

Cod.006.0001.2260
06/11/2025 R2

