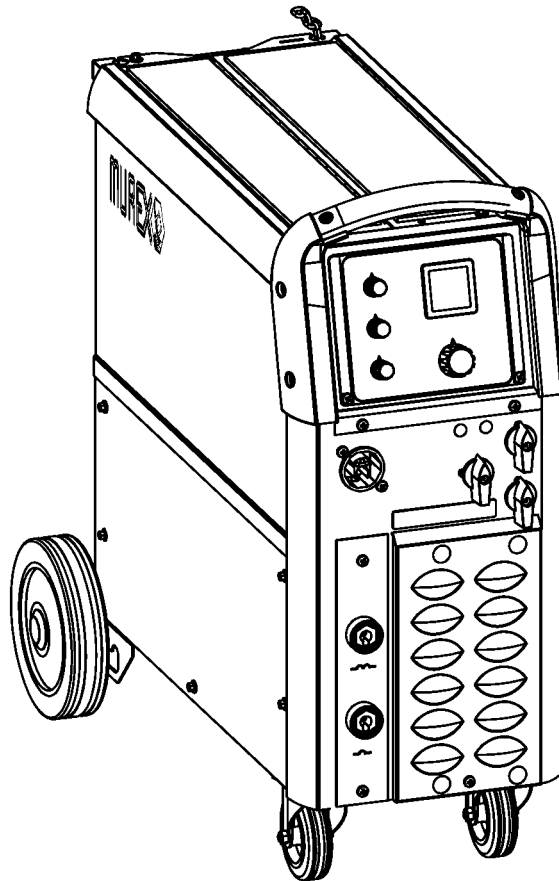


Transmig 300C

Transmig 350C



Instruction manual



DECLARATION OF CONFORMITY

Murex Welding Products Ltd.

Declare hereby that:

Murex Transmig 300C/350C

Part No. 0349 307 690, 0349 307 660

Manufactured after 1st May 2005

- conform with the requirements of Council Directive 72/23/EEC, amended by Council Directive 93/68/EEC, relating to electrical equipment designed for use within certain voltage limits.
- conform with the requirements of Council Directive 89/336/EEC, amended by Council Directive 93/68/EEC, relating to electromagnetic compatibility.
- are manufactured in accordance with EN60974-1 Safety Requirements for Arc Welding Equipment.
- are manufactured in accordance with EN50199 Electromagnetic Compatibility for Arc Welding Equipment.

On behalf of Murex Welding Products Ltd.
Hanover House, Queensgate
Britannia Road, Waltham Cross
Herts. EN8 7TF
England

A handwritten signature in black ink, appearing to read "H. Selenius".

Henry Selenius
Vice President
ESAB Welding Equipment AB
695 81 LAXA
SWEDEN

Manufactured by Esab Welding Equipment AB.

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1 SAFETY

Users of welding equipment have the ultimate responsibility for ensuring that anyone who works on or near the equipment observes all the relevant safety precautions. Safety precautions must meet the requirements that apply to this type of welding equipment. The following recommendations should be observed in addition to the standard regulations that apply to the workplace.

All work must be carried out by trained personnel well-acquainted with the operation of the welding equipment. Incorrect operation of the equipment may lead to hazardous situations which can result in injury to the operator and damage to the equipment.

1. Anyone who uses the welding equipment must be familiar with:
 - its operation
 - location of emergency stops
 - its function
 - relevant safety precautions
 - welding
2. The operator must ensure that:
 - no unauthorised person is stationed within the working area of the equipment when it is started up.
 - no-one is unprotected when the arc is struck
3. The workplace must:
 - be suitable for the purpose
 - be free from draughts
4. Personal safety equipment
 - Always wear recommended personal safety equipment, such as safety glasses, flame-proof clothing, safety gloves.
 - Do not wear loose-fitting items, such as scarves, bracelets, rings, etc., which could become trapped or cause burns.
5. General precautions
 - Make sure the return cable is connected securely.
 - Work on high voltage equipment **may only be carried out by a qualified electrician.**
 - Appropriate fire extinguishing equipment must be clearly marked and close at hand.
 - Lubrication and maintenance must **not** be carried out on the equipment during operation.



WARNING



ARC WELDING AND CUTTING CAN BE INJURIOUS TO YOURSELF AND OTHERS. TAKE PRECAUTIONS WHEN WELDING. ASK FOR YOUR EMPLOYER'S SAFETY PRACTICES WHICH SHOULD BE BASED ON MANUFACTURERS' HAZARD DATA.

ELECTRIC SHOCK – Can kill

- Install and earth the welding unit in accordance with applicable standards.
- Do not touch live electrical parts or electrodes with bare skin, wet gloves or wet clothing.
- Insulate yourself from earth and the workpiece.
- Ensure your working stance is safe.

FUMES AND GASES – Can be dangerous to health

- Keep your head out of the fumes.
- Use ventilation, extraction at the arc, or both, to take fumes and gases away from your breathing zone and the general area.

ARC RAYS – Can injure eyes and burn skin.

- Protect your eyes and body. Use the correct welding screen and filter lens and wear protective clothing.
- Protect bystanders with suitable screens or curtains.

FIRE HAZARD

- Sparks (spatter) can cause fire. Make sure therefore that there are no inflammable materials nearby.

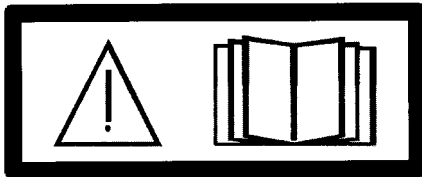
NOISE – Excessive noise can damage hearing

- Protect your ears. Use earmuffs or other hearing protection.
- Warn bystanders of the risk.

MALFUNCTION – Call for expert assistance in the event of malfunction.

READ AND UNDERSTAND THE INSTRUCTION MANUAL BEFORE INSTALLING OR OPERATING.

PROTECT YOURSELF AND OTHERS!



WARNING!

Read and understand the instruction manual before installing or operating.



WARNING!

Do not use the power source for thawing frozen pipes.



This product is solely intended for arc welding.

2 INTRODUCTION

Transmig 300C & Transmig 350C are step controlled power sources in a compact design, intended for welding with solid steel, stainless steel or aluminium wire as well as tubular wire with or without shielding gas.

The possibility of welding with homogeneous wire/shielding gas and welding with gasless tubular wire is obtained by switching the + and – connections on the switching terminal above the wire feed unit.

2.1 Equipment

Both power sources are supplied with:

- Return cable 3,5m with return clamp
- Shelf for gas cylinder
- Instruction manual

3 TECHNICAL DATA

3.1 Transmig 300C

Voltage	400–415 V, 3~ 50/60 Hz
Permissible load at 100% duty cycle	150 A/22 V
60 % duty cycle	190 A/24 V
30 % duty cycle	280 A/28 V
Setting range (DC)	30A/15V–280A/28V
Open circuit voltage	15–38 V
Open circuit power	190 W
Efficiency	69%
Power factor	0.97
Control voltage	42 V, 50/60 Hz
Wire feed speed	1,9 – 19m/min
Burnback time	0 – 0,25s
Spot welding	0,2 – 2,5s
Welding gun connection	EURO
Dimensions lwxhxh	840x425x830
Weight	91 kg
Operating temperature	–10 to +40°C
Enclosure class	IP 23
Application classification	S

3.2 Transmig 350C

Voltage	400–415 V, 3~ 50/60 Hz
Permissible load at 100% duty cycle	195 A/24 V
60 % duty cycle	250 A/27 V
30 % duty cycle	340 A/31 V
Setting range (DC)	40A/16V–340A/31V
Open circuit voltage	16–40 V
Open circuit power	240 W
Efficiency	77%
Power factor	0.95
Control voltage	42 V, 50/60 Hz
Wire feed speed	1,9 – 20m/min
Burnback time	0 – 0,5s
Creep start	OFF / ON
2/4 stroke	2 / 4
Welding gun connection	EURO
Dimensions lxxh	840x425x830
Weight	114 kg
Operating temperature	–10 to +40°C
Enclosure class	IP 23
Application classification	S

Duty cycle

The duty cycle refers to the time as a percentage of a ten-minute period that you can weld at a certain load without overloading.

Enclosure class

The **IP** code indicates the enclosure class, i. e. the degree of protection against penetration by solid objects or water. Equipment marked **IP23** is designed for indoor and outdoor use.

Application class

The symbol **S** indicates that the power source is designed for use in areas with increased electrical hazard.

4 INSTALLATION

The installation must be executed by a professional.



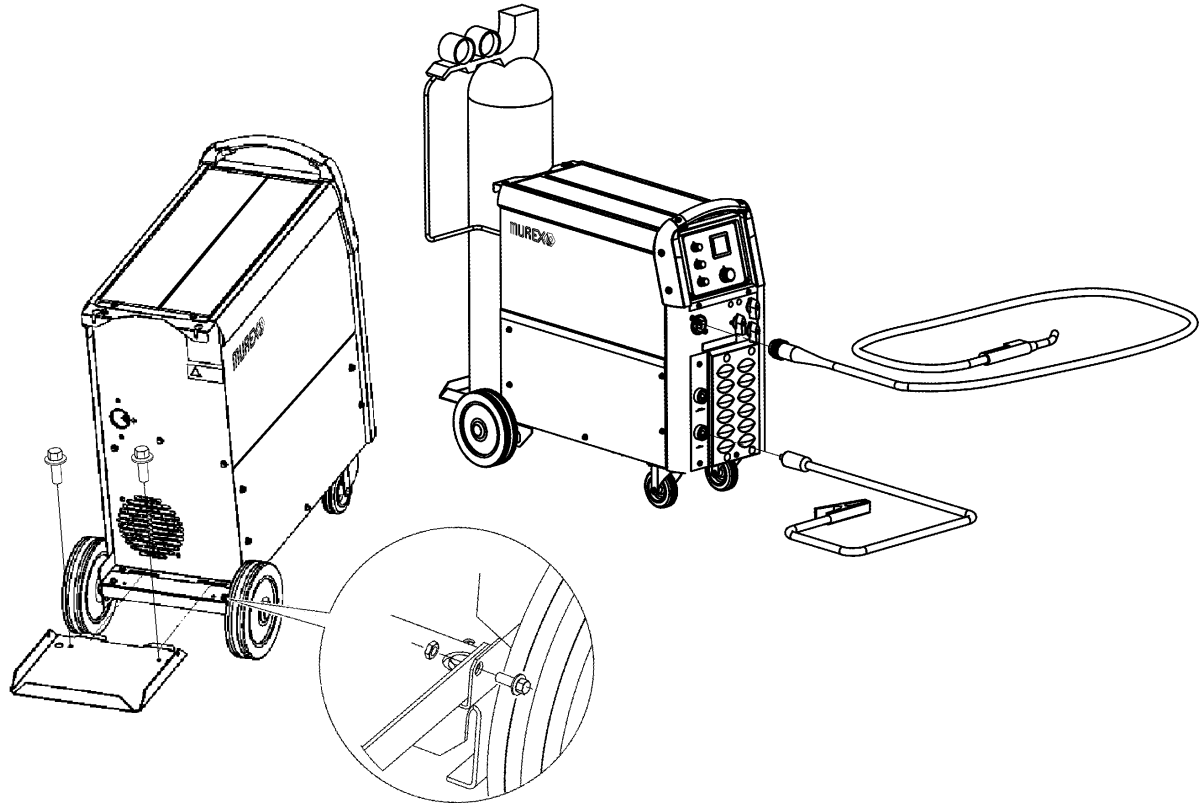
WARNING!

This product is intended for industrial use. In a domestic environment this product may cause radio interference. It is the user's responsibility to take adequate precautions.

4.1 Placing

Position the welding power source such way that its cooling air inlets and outlets are not obstructed.

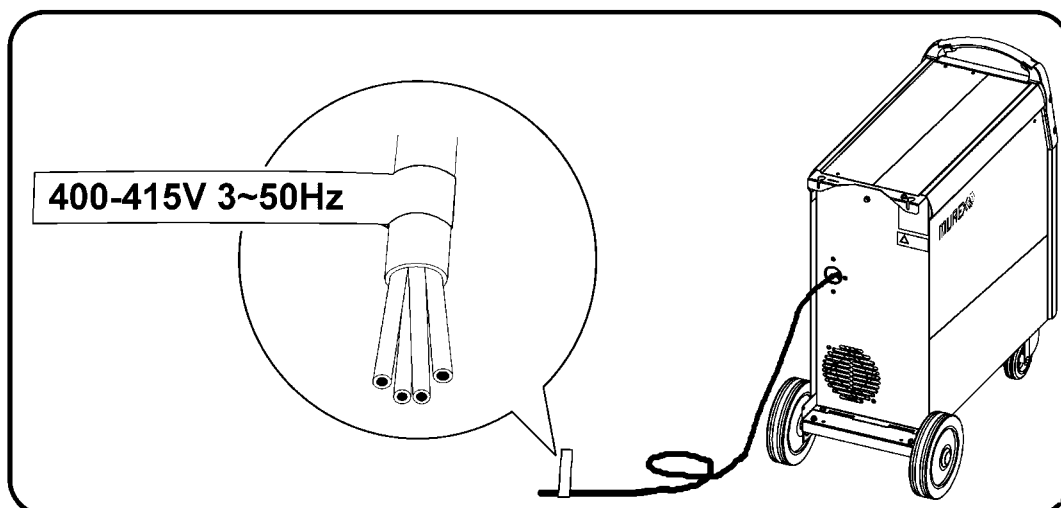
4.2 Assembly of components

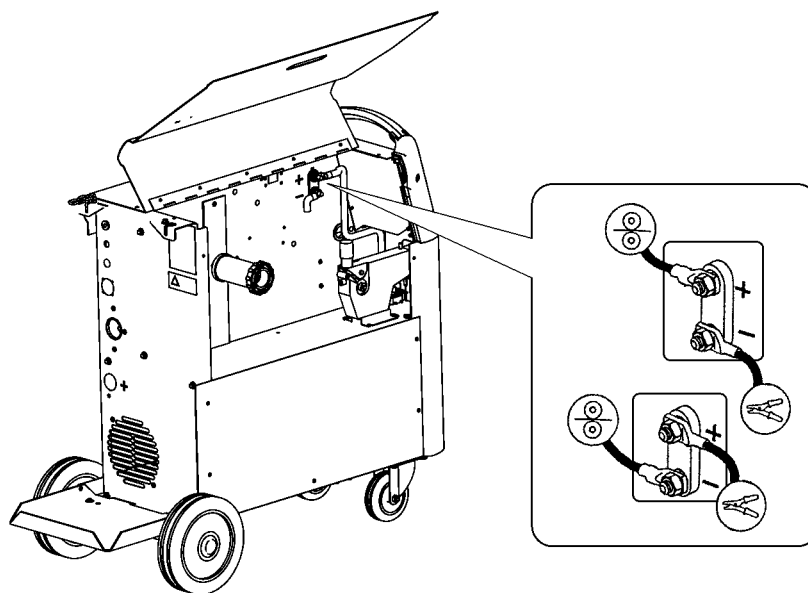


WARNING!

During transport, the rear wheels of the power source are in their forward position. Before use, place the wheels in their rear position.

4.3 Electrical installation

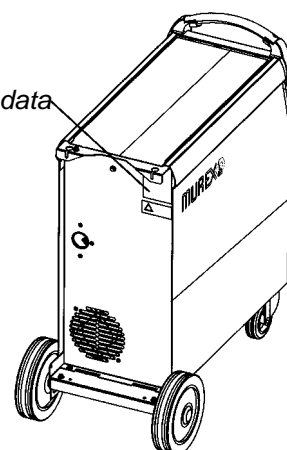




4.4 Mains power supply

Check that the unit is connected to the correct mains power supply voltage, and that it is protected by the correct fuse size. A protective earth connection must be made, in accordance with regulations.

Rating plate with supply connection data



Transmig 300C	3~ 50/60 Hz
Voltage V	400/415
Current A	
at 100% duty cycle	7
at 60% duty cycle	10
at 30% duty cycle	18
Cable area mm²	4 x 1.5
Fuse slow A	16

Transmig 350C	3~ 50/60 Hz
Voltage V	400/415
Current A	
at 100% duty cycle	9
at 60% duty cycle	14
at 30% duty cycle	21
Cable area mm²	4 x 2.5
Fuse slow A	16

5 OPERATION

General safety regulations for the handling of the equipment can be found on page 4. Read through before you start using the equipment!



WARNING!

Rotating parts can cause injury, take great care.

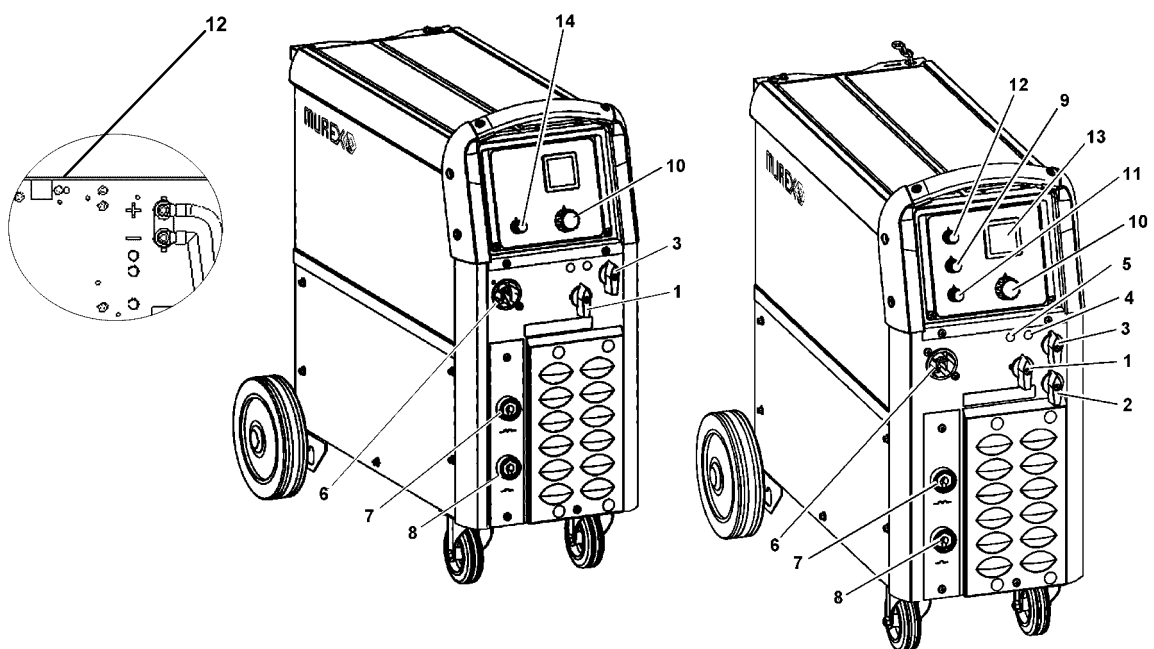


WARNING – TIPPING RISK!

There is a risk of tipping while transportation and operation, if the welding machine leans more than 10°. In that case appropriate securing has to be provided !

5.1 Connection and control devices

- | | | | |
|---|--|----|--|
| 1 | Mains supply switch | 8 | Connection for return cable (-), low inductance |
| 2 | Switch, coarse control | 9 | Knob for selecting – creep start – ON/OFF |
| 3 | Switch, precise control | 10 | Knob for wire speed setting |
| 4 | Indicating lamp, power supply ON | 11 | Knob for selecting 2/4–stroke control mode |
| 5 | Orange indicating lamp, overheating | 12 | Knob for burn–back time setting |
| 6 | EURO – connector (for welding gun) | 13 | Digital instrument – V / A (option, see page 18) |
| 7 | Connection for return cable (-), high inductance | 14 | Knob for spot welding – ON/OFF and time setting |



5.2 Function explanation

5.2.1 Overheating protection

A thermal overload cutout protects against overheating. The cutout resets automatically when the unit has cooled.

5.2.2 Inductance connection

Higher inductance produces a more flowing weld and fewer spatters. Lower inductance produces a harsher sound and a stable, concentrated arc.

6 MAINTENANCE

Regular maintenance is important for safe, reliable operation.

Note!

All guarantee undertakings from the supplier cease to apply if the customer himself attempts any work in the product during the guarantee period in order to rectify any faults.

6.1 Inspection and cleaning

Check regularly that the power source is free from dirt.

The power source should be regularly blown clean using dry compressed air at reduced pressure. More frequently in dirty environments.

Otherwise the air inlet/outlet may become blocked and cause overheating. To avoid this you can use an airfilter.

The airfilter is an accessory. Ordering number can be found on page 18.

Welding gun

- Cleaning and replacement of the welding gun's wear parts should take place at regular intervals in order to achieve trouble-free wire feed. Blow the wire guide clean regularly and clean the contact tip.

The brake hub

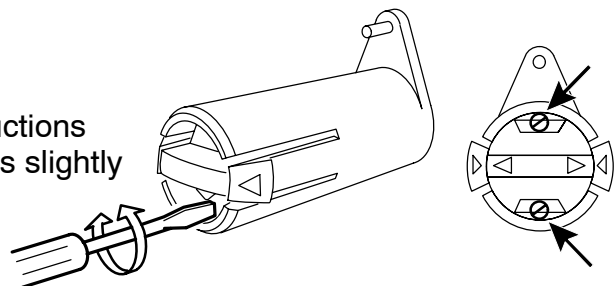
The hub is adjusted when delivered, if readjustment is required, follow the instructions below. Adjust the brake hub so that wire is slightly slack when wire feed stops.

- **Adjusting the braking torque:**

- Turn the red handle to the locked position.
- Insert a screwdriver into the springs in the hub.

Turn the springs clockwise to reduce the braking torque

Turn the springs anticlockwise to increase the braking torque. **NB:** Turn both springs through the same amount.



7 FAULT TRACING

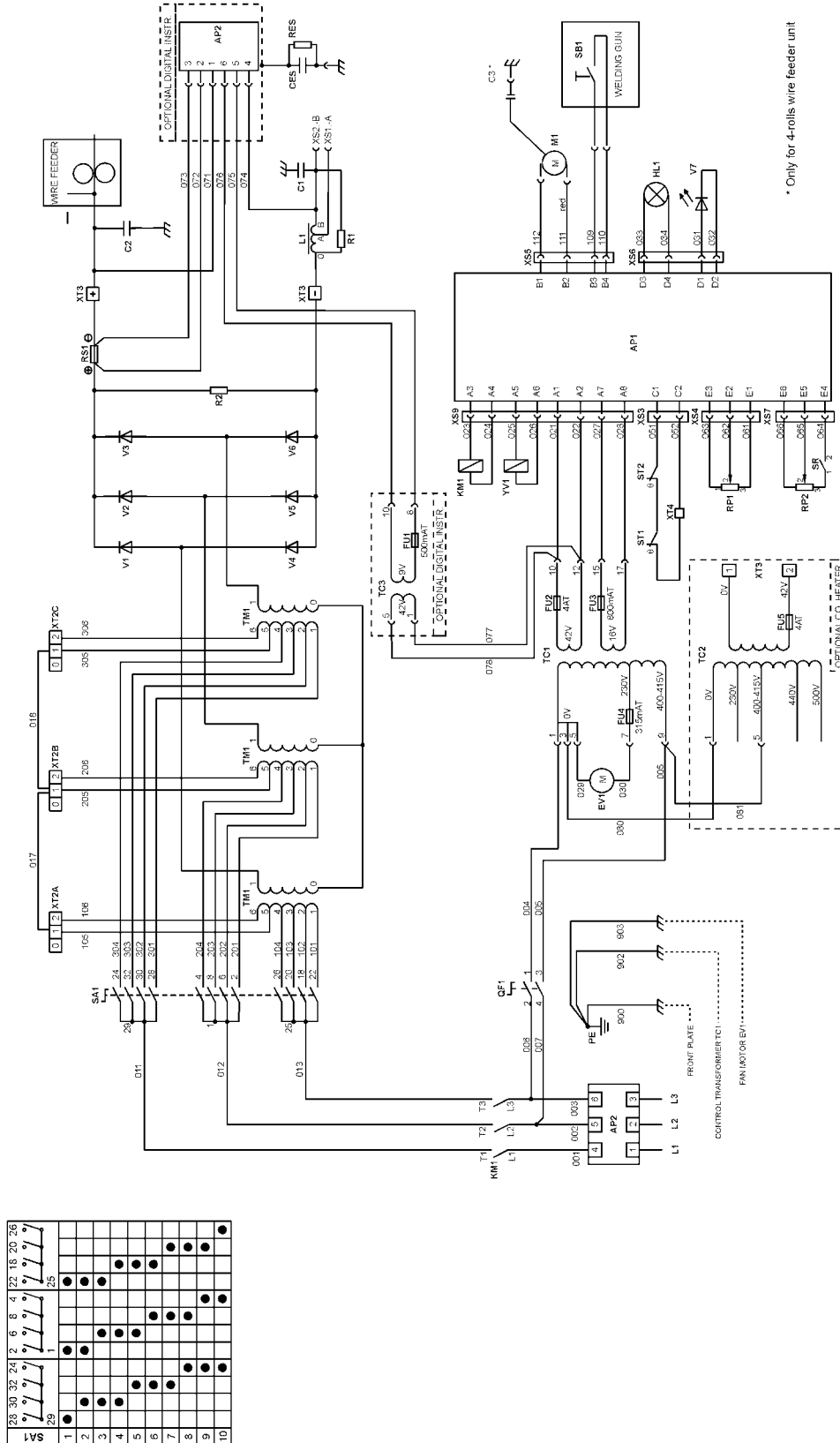
Try these recommended checks and inspections before sending for an authorised service technician.

Type of fault	Actions
No arc	<ul style="list-style-type: none">• Check that the mains power supply switch is turned on.• Check that the welding current supply and return cables are correctly connected.• Check that correct current value is set.
Welding current is interrupted during welding	<ul style="list-style-type: none">• Check whether the thermal overload trip has operated (indicated by the orange lamp on the front).• Check the main power supply fuses.
Thermal overload trips operate frequently	<ul style="list-style-type: none">• Check to see whether the air filters are clogged.• Make sure that you are not exceeding the rated data for the power source (i.e. that the unit is not being overloaded).
Poor welding performance	<ul style="list-style-type: none">• Check that the welding current supply and return cables are correctly connected.• Check that the correct current value is set.• Check that the correct welding wires are being used.• Check the main power supply fuses.• Check the wire feed unit – if proper rolls are applied and properly set the pressure of the wire feeder's pressure rollers

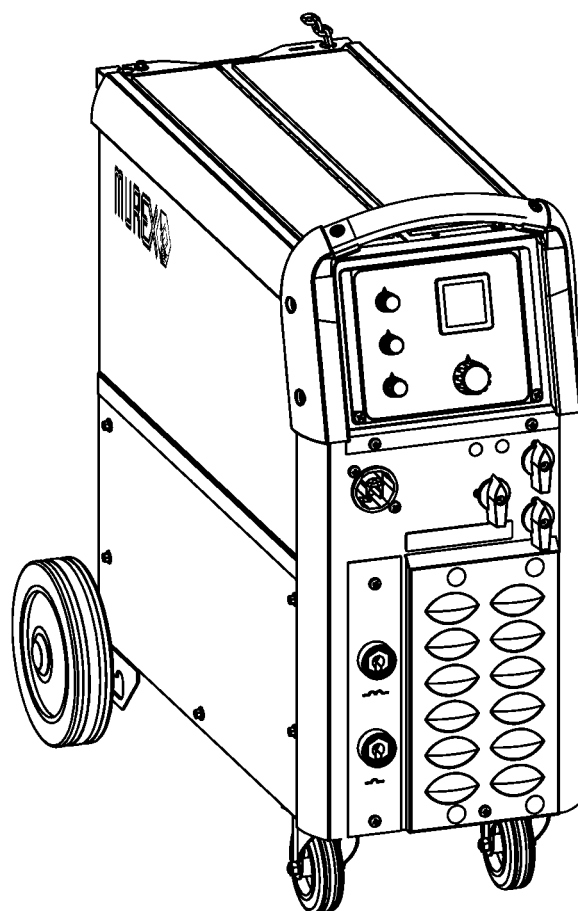
Transmig 300C, Transmig 350C is designed and tested in accordance with the international and European standards IEC/EN 60974-1 and EN 50199. It is the obligation of the service unit which has carried out the service or repair work to make sure that the product still conforms to the said standard.

Diagram

Transmig 300C, 400-415V



Transmig 300C/350C



Valid for serial no. 439, 438-XXX-XXXX

Ordering numbers

0349 307 690	Transmig 300C	400-415V 3~50/60Hz
0349 307 660	Transmig 350C	400-415V 3~50/60Hz

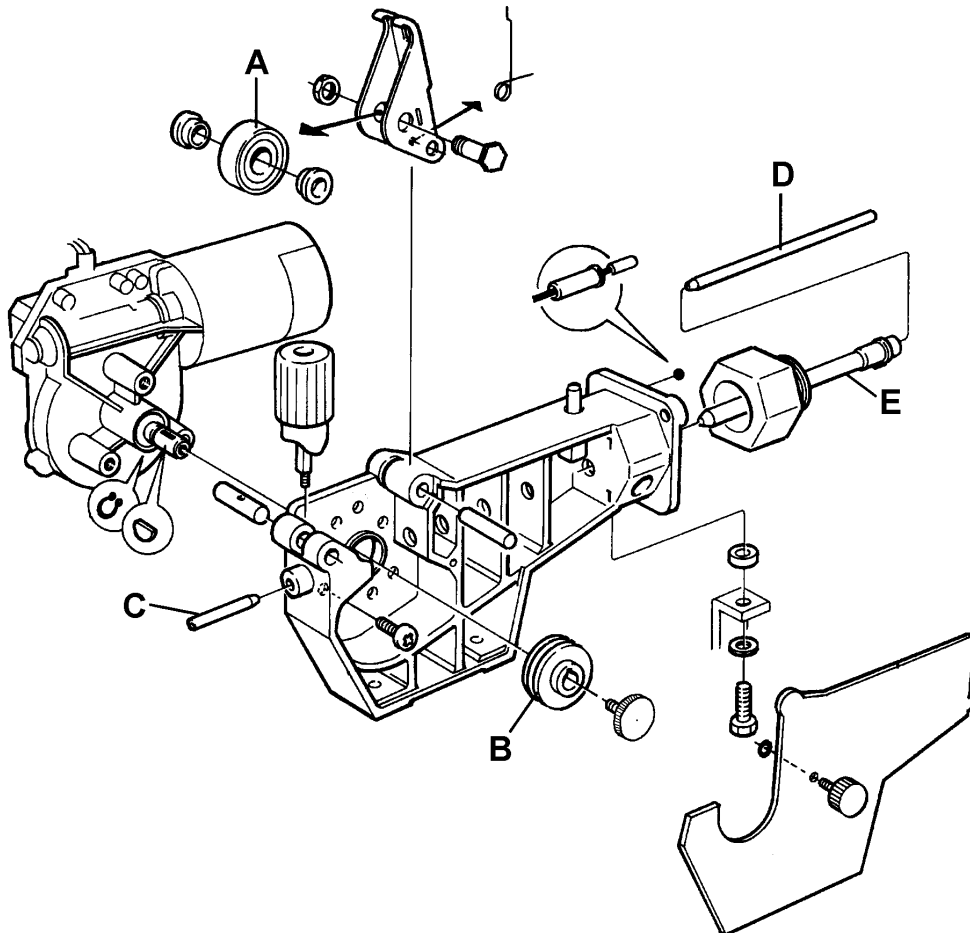
Transmig 300C

Wear components

(W. F. Mechanism 0455 890 888)

Item	Denomination	Ordering no.	Notes
A	Pressure roller	0455 907 001	
B	Feed roller	0367 556 001	Ø 0.6–0.8mm Fe, Ss, cored wire.
		0367 556 002	Ø 0.8–1.0mm Fe, Ss, cored wire.
		0367 556 006	Ø 1.0–1.2mm cored wire.
		0367 556 004	Ø 1.0–1.2mm Al wire.
C	Inlet nozzle	0466 074 001	
D	Insert tube	0455 894 001	Plastic, must be used together with item 0455 885 001, for welding with Al wire.
		0455 889 001	Steel, must be used together with item 0455 886 001.
E	Outlet nozzle	0455 885 001	Must be used together with item 0455 894 001, for welding with Al wire.
		0455 886 001	Must be used together with item 0455 889 001.

The rollers are marked with wire dimension in mm, some are also marked with inch.



Welding with aluminium wires.

In order to weld with aluminium wires, proper rollers, nozzles and liners for aluminium wires **MUST** be used. It is recommended to use 3m long welding gun for aluminium wires, equipped with appropriate wear parts.

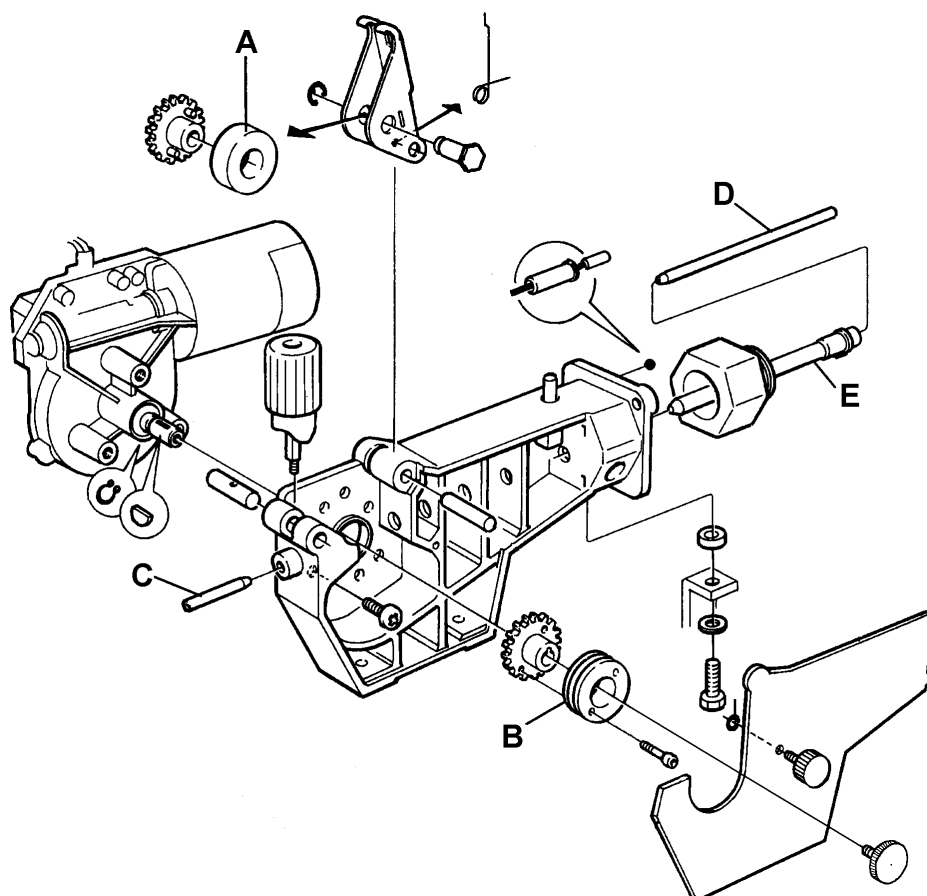
Transmig 350C

Wear components

(W. F. Mechanism 0455 890 881)

Item	Denomination	Ordering no.	Notes
A	Pressure roller	0369 728 001 0466 262 001	Knurled
B	Feed roller	0369 557 001 0369 557 002 0369 557 003 0369 557 004 0369 557 006	Ø 0.6–0.8mm Fe, Ss, cored wire. Ø 0.8–1.0mm Fe, Ss, cored wire. Ø 1.0–1.2mm Fe, Ss, cored wire. Ø 1.0–1.2mm cored wire, knurled. Ø 1.0–1.2mm Al wire.
C	Inlet nozzle	0466 074 001	
D	Insert tube	0455 894 001 0455 889 001	Plastic, must be used together with item 0455 885 001, for welding with Al wire. Steel, must be used together with item 0455 886 001.
E	Outlet nozzle	0455 885 001 0455 886 001	Must be used together with item 0455 894 001, for welding with Al wire. Must be used together with item 0455 889 001.

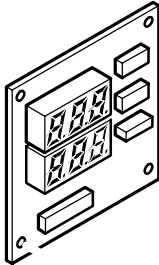
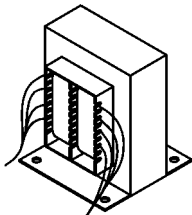
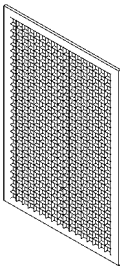
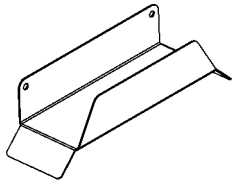
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Welding with aluminium wires.

In order to weld with aluminium wires, proper rollers, nozzles and liners for aluminium wires **MUST** be used. It is recommended to use 3m long welding gun for aluminium wires, equipped with appropriate wear parts.

Accessories

	<p>Digital meter 0349 308 400</p>
	<p>Transformer kit for CO₂ heater 0349 308 890</p>
	<p>Filter 0349 302 599</p>
	<p>Cable holder 0349 303 362</p>