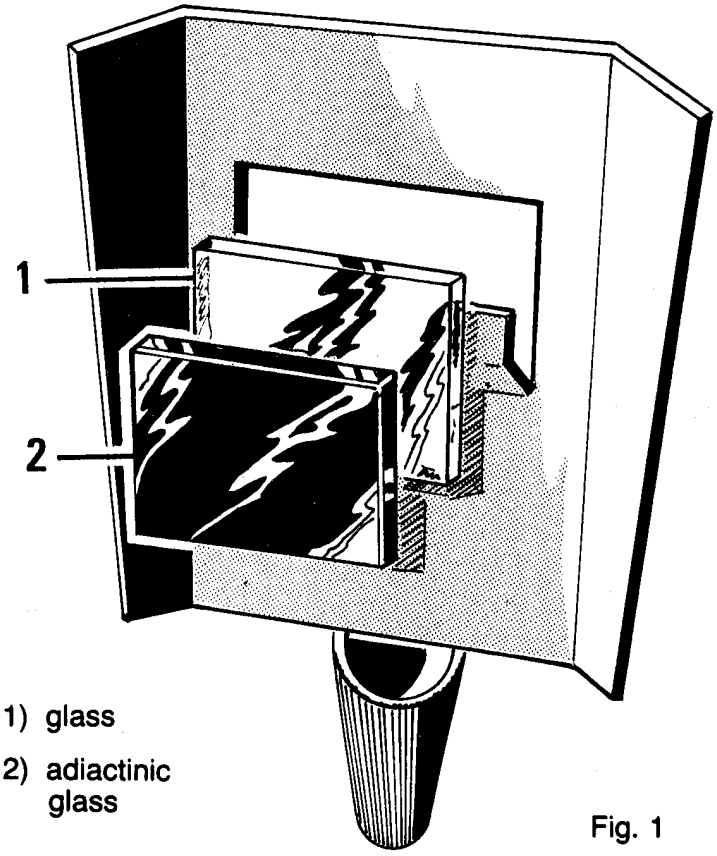
# INSTRUCTIONS MANUAL FOR MIG WELDERS Art. 880

## GENERALITIES

This manual is meant to describe the correct use of the welder and to inform you about the rudiments of welding techique. Therefore please read the following directions carefully.
One of the best known systems which has made it possible for users, even for unskilled ones, to make excellent welds as well as to join thin gauge materials with ease is the process based on a continuously fed wire with gas shielding commonly known as MIG/MAG.
The welder you have bought works with the above system and bas been conceived and simplified in such a way as to be practical, easy to operate, light and transportable with one hand only together with the gas bottle; moreover it enables you to weld MILD STEEL, STAINLESS STEEL AND ALUMINIUM.
The welder we supply is prepared and equipped with what is necessary to weld mild steel.




1) glass
2) adiactinic glass

Fig. 1

## INSTALLATION AND MILD STEEL WELDING

Screw carbon dioxide cylinder in the flowmeter (12) and tighten it only with the hands. Place the cylinder in its housing. Insert gas hose (13) in the flowmeter coupling (14) all the way.
Press torch push button (37) and by means of the knob (15) regulate gas flow at 2 litres per minute (in airy places it is a good thing to increase to 3 ÷ 4 litres per minute).
Make sure that mains voltage corresponds to that one which is indicated on the rating plate of the welder and then connect supply cable to current socket (PROVIDED WITH EARTH WIRE IN PERFECT WORKING ORDER).
Connect earth clamp (27) to workpiece and make sure that there is a good contact.
Make sure that the workpieces are clean and well approached.
Switch on the switch (20).

THE MACHINE IS READY TO WELD!!!

Set switch (19) on MIN for welding plates which are used in body shops or in carpentry for metallic furniture or on MAX for welding plates in light steel works.
The steel wire (suitable for welding mild steel) is already inserted in the torch. Approach the torch to the welding point.
Bring the mask (prepared as shown in fig. 1) before the eyes.
Press push button (30) all the way to strike the welding arc.
For greater stability of the arc:

1) keep the tip of the torch as near as possible to the workpiece.
2) regulate wire speed by means of the knob (18) so as to get an arc with regular and constant noise. If speed is too high, wire tends to push against the workpiece causing the torch to jump back; if speed is too low, wire melts with desultory drops or arc goes out.
   B.B. - For the welding of mild steel, this welder con also be used with a mixture of argon + carbon dioxide.

## STAINLESS STEELL WELDING

The welder has to be prepared as described in MILD STEEL WELDING section and following accessories have to be used:

1) Cylinder containing Argon + oxygen
2) Reel of 0,6 mm Ø stainless steel wire

The inclination of the torch and the direction of the motion we recommend are shown in fig. 2.

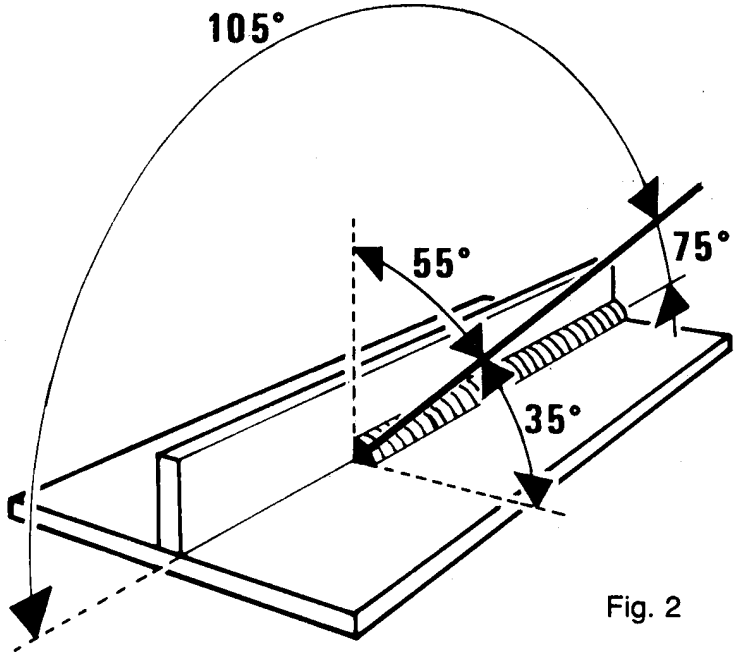



Fig. 2

## ALUMINIUM WELDING

For the welding of aluminium it is necessary to ask for the following accessories:

1) reel of 0,8 mm Ø aluminium wire
2) cylinder containing pure argon
3) aluminium kit containing a wire pulling roller and a 1 mm Ø current nozzle.

Setting of the welder. **Fig. 3**

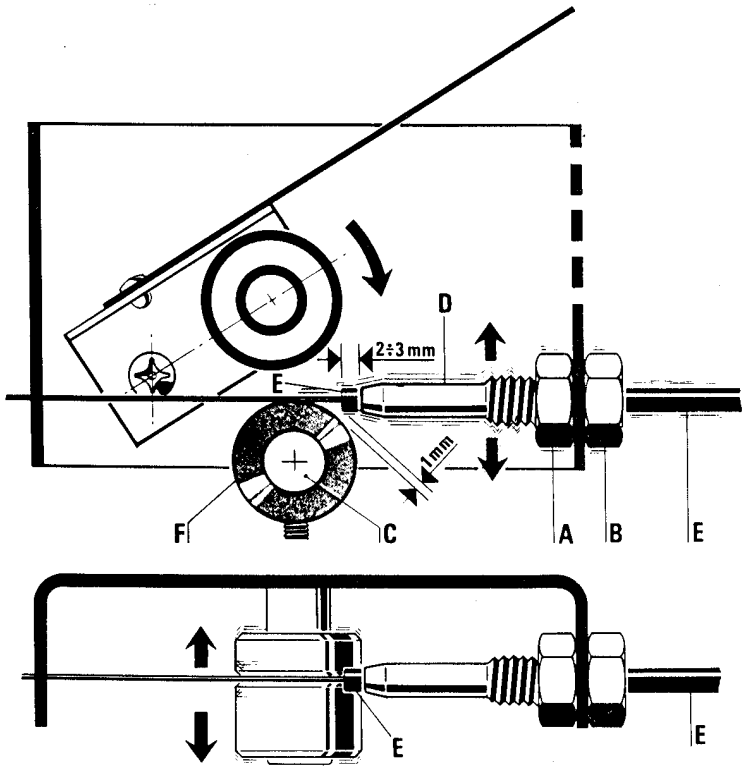



Fig. 3

Loosen nuts A and B. Insert the wire pulling roller F supplied with the aluminium kit in the shaft C and tighten by means of the wrench supplied with the welder. Set device D so that sheath E is in the position shown in fig. 3 and tighten with nuts A and B. Fit the reel of aluminium wire on the welder as indicated in WIRE REEL REPLACEMENT section.
Insert 1 mm Ø current nozzle.
Fit on the cylinder of pure argon as indicated in CYLINDER REPLACEMENT SECTION.
The inclination of the torch and the direction of the motion must be the same ones as shown in fig. 2.

## INSTRUCTIONS FOR CYLINDER REPLACEMENT

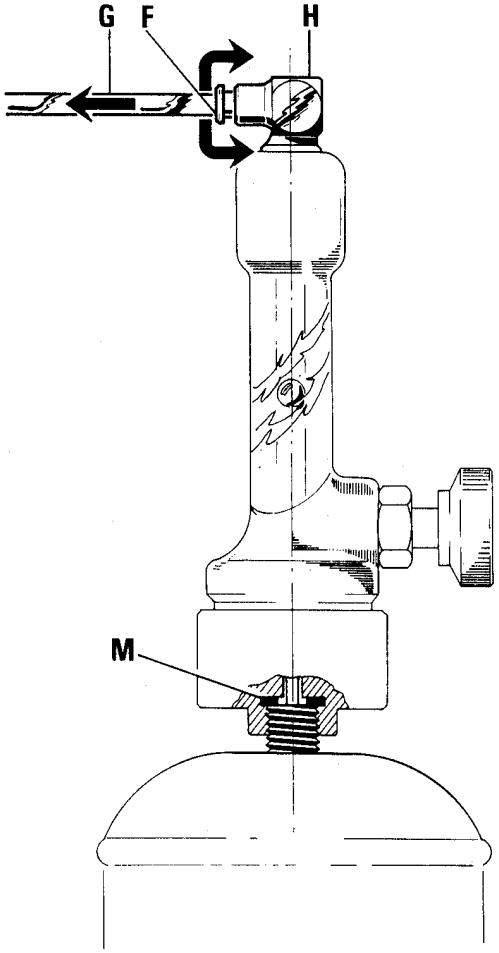



Fig. 4

Compress ring F according to arrow direction (Fig. 4) and remove gas hose G from quick coupling H.
Unscrew cylinder from flowmeter, carry out the replacement and retighten with the hands only.
Insert gas hose G in the coupling H all the way.

N.B. - Check every now and then whether packing M is worn out and, if necessary, replace

it with the spare packing supplied with the welder.
ATTENTION!!! THE CYLINDERS CANNOT BE REFILLED.

## INSTRUCTIONS FOR WIRE REEL REPLACEMENT

Switch off the switch (20).
Remove the plastic case (5).
Cut the end of the wire which comes aut of the current nozzle (31).
Release the spring and lift the wire pressing device (9).
Wind the wire by turning the reel anti-clockwise.
Fix the end of the wire in the side-hole of reel spool.
Remove the nut, replace the reel, insert the spring (7) and tighten the nut.
Remove the wire from the hole of the spool and cut as much of it as it is necessary for the end of the wire to be straight.
Slip the wire into the hole of the support (8), pass it on the shaft of the motor and insert it at least 50/60 cm. in the sheath (34).
Remove the gas nozzle (32).
Unscrew the current nozzle (31).
Lower the wire pressing device (9) and lock the spring making sure that the wire stays in the groove of the shaft.
Make sure that the wire is set as shown in fig. 5.

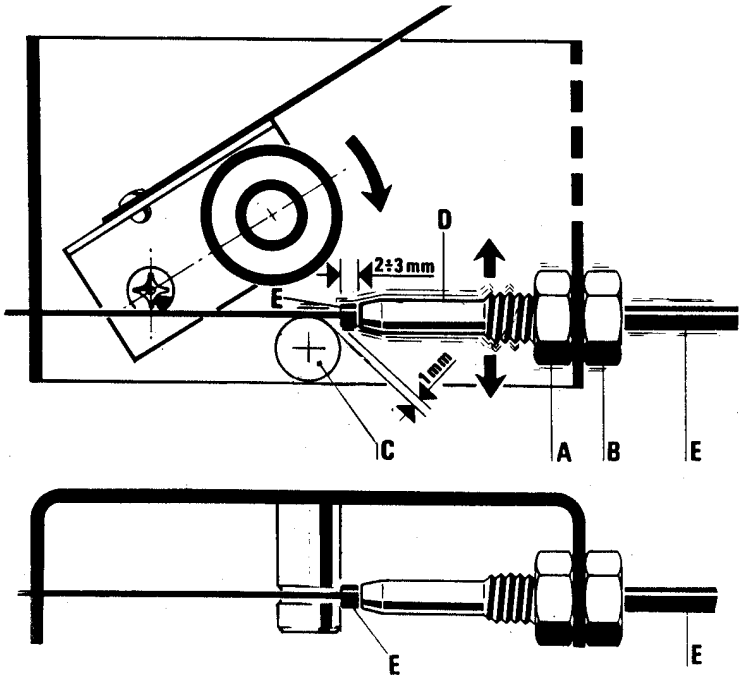



Fig. 5

Set switch (19) on MIN.
Switch on the switch (20).
Hold taut and without curves the sheath of the torch.
CAUTION!!! Do not bring the torch near the face.
Press torch push button till wire has come out of swanneck a few cm.
Insert the coil spring (38) if it has come out during this operation.
Screw the current nozzle in (31).
Insert cone-shaped gas nozzle (32).
Fit the plastic case (5) on the welder.

## SERVICING AND USEFUL SUGGESTIONS

CAUTION!!! Before starting inspection disconnect the welder from the mains.
DO NOT BRING THE TORCH NEAR THE FACE TO CHECK WHETHER GAS OR WIRE COME OUT.
Always switch off the welder after the use to avoid useless waste of power.
If gas does not come out or comes out badly, unscrew and screw in again the cylinder.
Always shut off the gas after the use.
The welder is provided with a termal protection. Should the thermal protection be activated, wait a few minutes as to let the generator cool down.
When any extension cable is used, its cross section must be the same or greater that the existing cable on the welder
Cut the welding wire with tools which do not bend it.
During the welding very small drops of molten metal make a deposit inside the gas nozzle and therefore it is a good thing to detach the slag in case it should have formed.
After cleaning make sure that the gas outlets are not stopped up.
Every now and then make sure that the hole of the current nozzle has not become too large.
Inside the torch hose (35) there is a wire guide sheath (34) that we recommend to clean every now end then by blowing a jet of dry and clean air.
Never knock he torch nor hit it strongly against other objects.
Check electric and gas connections every now and then.
it is possible to use the welder even with big cylinders if you ask for the special coupling.