



# AVCPLC

Arc control  
for TIG - Plasma - MIG

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## Arc control for TIG – Plasma – MIG

### **AVC PLC will grant several benefits to your welding**

- high uniformity and quality of welding/cutting
- considerable increasing of process speed
- great reduction of plant starting up and joint preparing time
- decreasing of consume of torches spare parts
- low-skilled operators required

### **Most frequent applications:**

- on manipulators for circle welding of tanks
- on seamers for longitudinal welding
- on turntable positioners and on lathes for welding of pipes
- on pantograph
- on lathes for pipe cutting

**Useful anyhow for any application in which torch changes its distance from work-piece during welding process.**

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With AVC PLC **Carpano Equipment** offers to its Customers a product provided with lots of features:

**The same machine can be employed in each of the following welding processes:**

- TIG DC
- Pulsed TIG, minimal frequency 2Hz
- TIG AC
- "Hot wire" TIG and "cold wire" TIG
- MIG and pulsed MIG

**PLC allows integration with other systems as:**

- Oscillator
- Cold wire feeder
- Linear or rotating axes
- 3 axes max. In this case there are only one control panel and only one control box

**AVC PLC can be coordinated with:**

- Any kind of Carpano motorized slide
- AI Power manipulators

**Basic version, with carrying capacity 10Kg motorized slide model MINI or with carrying capacity 60Kg motorized slide model MIDI. Two configuration examples.**



#### **AVCPLC80mini**

- 02. Motorized slide MINI80
- 03. Remote control
- 04. 10m cable for standard slide.  
Other length upon request
- 05. 5m feeding cable
- 06. 1,5m nr. 2 cables for connection to power source



#### **AVCPLC250MIDI**

- 02. Motorized slide MIDI250
- 03. Remote control
- 04. 10m cable for standard slide. Other length upon request
- 05. 5m feeding cable
- 06. 1,5m nr. 2 cables for connection to power source

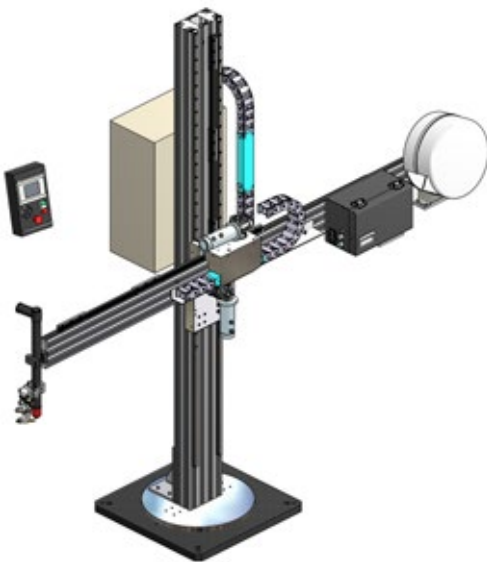
## Two special configuration examples



### AVC + Oscillator integration

Vertical slide and horizontal slide are managed respectively as AVC and as oscillator by only one control box and only one remote control pendant. For a brief description of control panel see page 6.

Motorized slides can be chosen with the desired stroke and carrying capacity.



### AI Power Micro manipulator, with AVC and VPR-4WD integrated

In the case of step cladding plant for cylinders, AVC is integrated on manipulator's vertical axis and by the remote control can be operated:

- Step movements of the boom at any round of the table with preset of the complete stroke
- Cold wire feeder, managed by the same control panel

## Technical data

- Feeding
  - 5m cable, 230V, mono
  - Power 300VA (100VA with MINI slides)
- Current range 30 to 300Amp
- Sensibility: 0,1V
- Minimum admitted pulse frequency: 2Hz
- Maximum speed: see standard slides here beside

### Processes

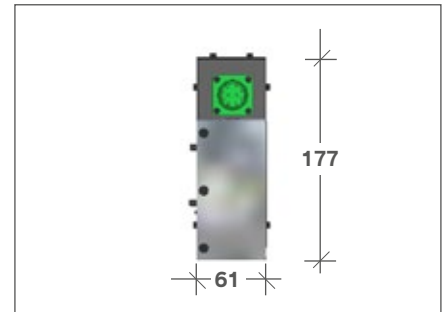
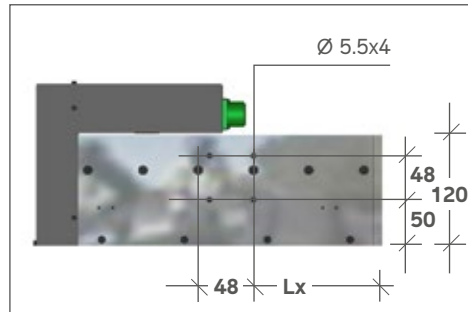
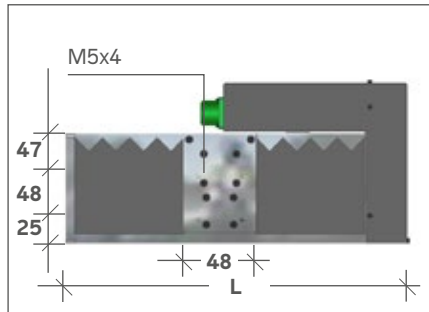
- Pulse MIG and traditional MIG
- TIG DC and pulse DC
- TIG AC
- Plasma DC and pulse



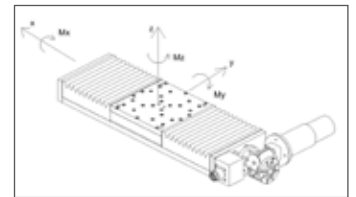
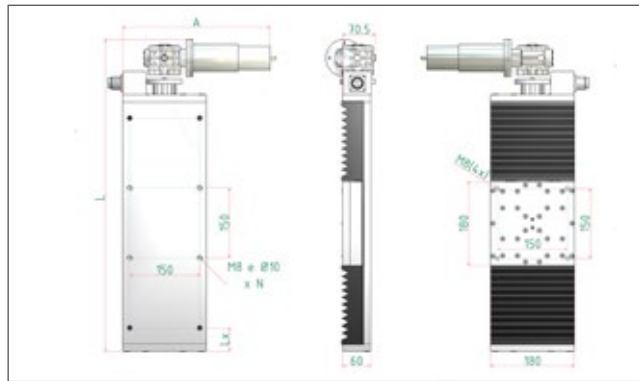
## Standard slides

MM MINI	80	180	250	300
L (mm)	256	376	476	536
Lx (mm)	80	140	196	226
P Motor power (w)	31	31	31	31
Payload (Kg)	10	10	10	10
Speed range (mm/min)	50/2300	50/2300	50/2300	50/2300
Mx (Kgm)	4	4	4	4
My (Kgm)	3	3	3	3
Mz (Kgm)	3	3	4	4
Weight (kg)	4,6	5,6	6,5	7

- Frame in machined aluminum
- One linear guide with one runner
- Ball-screw with belt&pulleys transmission
- DC motor with encoder with cover and MIL connector
- PVC bellows
- Inductive limit-switches



- Frame in machined aluminum
- Two linear guides with four runners
- Ball-screw with worm gearbox transmission
- DC motor with tacho generator, with MIL connector
- PVC bellows
- Inductive limit-switches

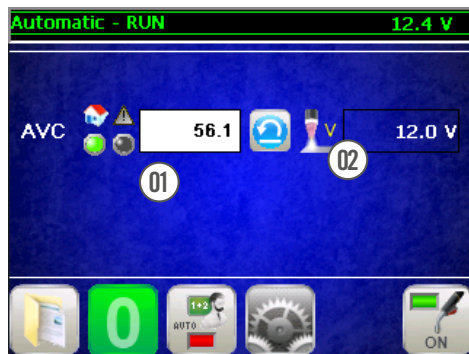


Slides MD	100	250	400	600
L (mm)	490	665	890	1155
A (mm)	330	330	330	330
Lx (mm)	110	50	160	140
Fixing holes	4	8	8	20
Motor power (W)	200	200	200	200
Payload (Kg)	70	70	70	70
Speed range (mm/min)	50/1500	50/1500	50/1500	50/1500
Mx (Kgm)	24	24	24	24
My (Kgm)	26	26	26	26
Mz (Kgm)	26	26	26	26
Weight (kg)	13,3	14,4	18,9	22,3

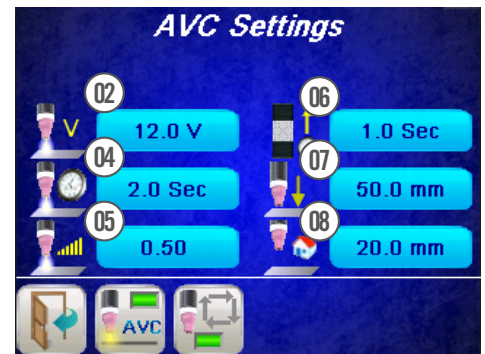


## Control panel, basic model

There are lots of screen shots, here below you can see the ones containing the principal functions:

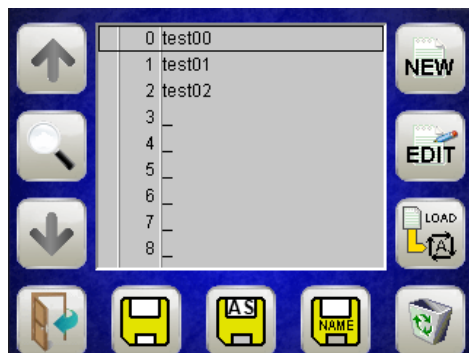


- 01. work position visualization
- 02. arc voltage set
- 03. actual arc voltage
- 04. intervention delay
- 05. reactivity
- 06. slide going up delay after arc off
- 07. work position
- 08. rest position



## Control panel, model with oscillator

There are lots of screen shots, here below you can see the ones containing the principal functions:



Page that allows to memorize the programs, recall and deletion



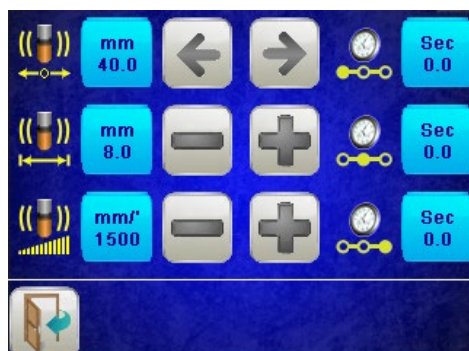
Page that allows to set AVC



Page that allows to set the oscillator. It is also possible to set up a multipass program



Page that allows to visualize the principal parameters while working



Page that allows to change the oscillation parameters in the quickest way



Remote control with 3.5" touchscreen and 10m cable



**PASSERINI**  
AUTOMATING WELDING SINCE 1962

# GENERAL SUPPLY CONDITIONS

## 1. SUPPLY OBLIGATION ARRANGEMENT

The following general terms of business are always to be considered applicable to every order made by the buyer. Therefore, any supply clause written by the buyer on his orders or any other document given to the seller, which may result to be conflicting with the present general conditions, will be considered not written. The buyer has to forward the orders to the seller in writing. The seller reserves the authority to accept telephone and verbal orders. The order is to be considered executed when the buyer receives the written acceptance of the same (order confirmation) by the vendor or, in the absence thereof, automatically 15 days after the order receipt by the seller. All offers and prices are just an indication and are not binding. Therefore the seller considers himself to be bound only to what is declared in his order confirmations.

## 2. TERMS FOR DELIVERY

The delivery dates indicated by the seller as well as the ones written on the buyers' orders have to be considered just as an indication and are not binding and are subject to the punctual supply by the buyer of all the specifics, to the variations due to the availability of the goods with the suppliers or to reasons of force majeure: delays in the delivery due to said availability variations are not attributable to the seller, who is not in duty bound to the compensation for damages suffered by the buyer. Reasons of force majeure have also to be considered the accidents (industrial injury, disease, etc) and any other circumstances which may cause a total or partial job reduction, as well as the lack of raw materials, troubles with transportation, etc. The seller reserves the authority to suspend the delivery of the goods if the buyer has not seen to the payment of the invoices relative to other supplies whose terms of payment are overdue. The goods are understood as being delivered for all intents and purposes to the buyer from the time they were picked up by the carrier or the buyer himself at the seller's warehouse.

## 3. PAYMENT AND TERMS OF PAYMENT

The payments have to be made to the seller's domicile and in accordance with the established conditions. In the event of a delay, the due amounts of money will automatically imply the charge of interests based on the official discount rate plus 5 points. In the event of a non-payment, the buyer is to be considered in default without the necessity of any formal notice by the seller. The presence of possible faults and/or defects in the products does not excuse the buyer for suspending the payment of the invoices. Should the client suspend and/or delay the payments, the seller may suspend the supplies, with the authority to consider the contract automatically terminated by rights and to demand for damages.

## 4. WARRANTY

CARPANO EQUIPMENT guarantees the products for a period of 24 months starting from the delivery date, for a daily work cycle of 8 hours. The warranty is intended ex works CARPANO EQUIPMENT. CARPANO EQUIPMENT guarantees the performance of its products in accordance with the instructions written in the relative manuals. For the products based on job orders, the warranty is pertaining to the specifics agreed with the client.

## 5. VOID WARRANTY

In case of any tampering or unauthorized intervention the warranty shall be deemed void.

## 6. LIABILITY FOR DAMAGE

The seller's liability is limited only to the obligations above and it's expressly agreed that the seller does not accept any liability for damages resulting from any cause connected with the use and utilization of the sold products.

CARPANO EQUIPMENT is not responsible and for no reason whatsoever may the expenses be charged for:

- Machine downtime.
- Direct or indirect damage due to the non-operation of the equipment.
- Working hours spent to solve possible problems on the equipment.

## 7. RESERVATION OF OWNERSHIP

Until the payment in full of any credit resulting from business relations has taken place, included any additional credit and until the payment of bills and cheques has been made, the property in the goods remains in the seller.

## 8. COMPETENT COURT

It's established that the court of Bologna will be the sole competent court for every dispute relative to this contract.

## 9. APPLICABLE LAWS

The applicable law is the Italian law.

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