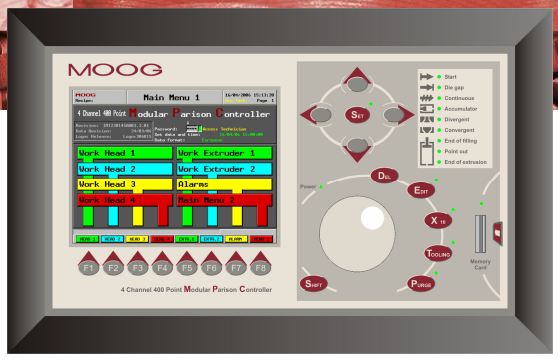
Getting Started IMI220-145B001

4 Channel 400 Point Modular Parison Controller



OVERVIEW

CE

The Terminals described herein comply with the EMC directives.

1. General Warnings

IMPORTANT BEFORE OPERATING:

IT IS MANDATORY TO READ ALL THE DOCUMENTATION AND CLEARLY UNDERSTAND ITS CONTENTS

DANGER

Electronics cannot be used for active or passive safety of the controlled system; therefore it is necessary to use other types of safety devices (mechanical, electrical, electromechanical, hydraulic, pneumatic, etc.) that can guarantee safety of people and objects that interact with the equipment the PLC is installed on.

The PLC must be used in accordance with the procedures described in the documentation.

CAUTION

Installation, programming, startup and use of the PLC must be carried out by qualified personnel.
As qualified personnel, with reference to safety skills contained in this documentation or the same product, we mean personnel that:
- As project staff, are familiar to safety concepts in automation technology.
- As operating staff are in charge of automation equipment and are aware of the contents of this documentation about use.
- As startup or service staff they have the skills necessary to repair automation equipment or are authorized to start-up, ground and identify electrical circuits and automation equipment in accordance with safety standards.
- As staff familiar with safety regulation for measurement with electronic instruments, machine equipment, electrical installation and control instruments.

WARNING

RESPONSIBILITY DISCLAIMER
Even though documentation and on-line help issues are still preliminary, we regularly check that what is described therein actually corresponds to hardware and software specifications of described products: in any case any difference should be excluded.
Moog Italiana declines any responsibility for any error or omission in contents and for any damage arising from manual and on-line help use.

The PLC manual contains various types of **warnings** for the user that are different according to the damage caused by failure to comply with them. There are three main types of warnings:

CAUTION

(TEXT FOLLOWS)

Ignoring what is described in the text box can jeopardize people and things **safety**, or in any case can cause even **serious** damage.

WARNING

(TEXT FOLLOWS)

Ignoring what described in the text box can involve PLC malfunctions with consequent even **serious,** damage to people and things.

WARNING

(TEXT FOLLOWS)

What is described in the text box should be considered as a good hint for to correct PLC use.

2. General Information

General information about leads and terminals used:

SCREW TERMINALS PITCH 5.08:

Clamping range (min/max)	0.08...2.5 mm²

CONNECTABLE LEADS:

Material	Copper
Rigid H05(07) V-U	0.5...2.5 mm²
Flexible H05(07) V-K	0.5...2.5 mm²
Flexible with terminal according to DIN 46228/1	0.5...2.5 mm²
Flexible with insulating collar according to DIN 46228/4	0.5...1.5 mm²

SCREW TERMINALS PITCH 3.5:

Clamping range (min/max)	0.08...1.5 mm²

CONNECTABLE LEADS:

Material	Copper
Rigid H05(07) V-U	0.5...1.5 mm²
Flexible H05(07) V-K	0.5...1.5 mm²
Flexible with terminal according to DIN 46228/1	0.5...1.5 mm²
Flexible with insulating collar according to DIN 46228/4	-

WARNING

PARTICULAR CASES:

In some cases it is possible to connect leads made of a material different from copper: it is the case of thermocouples. Please refer to temperature module to know allowed thermocouple types.

WARNING

SHIELDED CABLES:

Should shielded cables be needed, these must be connected in accordance with information given for the module being used.
The shield may be made of red or tin-coated copper and is to be connected to the special terminals on module front connectors.
Whenever those terminals do not exist, the shield should be grounded by means of a bar or ground collectors as close as possible to the equipment concerned.
The shield of these cables should be considered as a signal shield, instead of a protection shield.

CAUTION

GROUND TERMINALS:

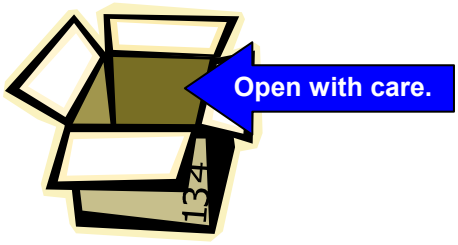
The ground terminal on the frame should be considered as protection ground; so it should be connected in accordance with current safety regulations.

3. Start up

The Box of IMI220-145A003/103 contains:

Total box weight: Kg 7

Dimension(H x W x D):330x485x355 mm



n. 1 Terminal Modular Parison Control.

n. 1 Memory card (Model: Secure Digital or Multimedia Memory Card).

n. 1 CD contains all the documentation.

	n. 4	Fixing tool (already mounted).
	n. 1	Connector 5 pins M, 5.08 mm power supply (Already connected on the equipment).
	n. 1	Connector 3 pins M, 5.08 mm electronic transducer (Already connected on the equipment).
	n. 2	Connector 13 pins M, 3.5 mm 24 Digital input (Already connected on the plc).
	n. 1	Connector 20 pins M, 5.08 mm 16 Digital output (Already connected on the plc).
	n. 1	Connector 18 pins M, 3.5 mm 4 Analog input (Already connected on the plc).
	n. 1	Connector 9 pins M, 3.5 mm 4 Analog output (Already connected on the plc).

4. Mechanical fixing of the Modular Parison Controller

After having carefully unpacked the Parison controller, proceed using the following drawing to make a cut out for the fixing on the panel.

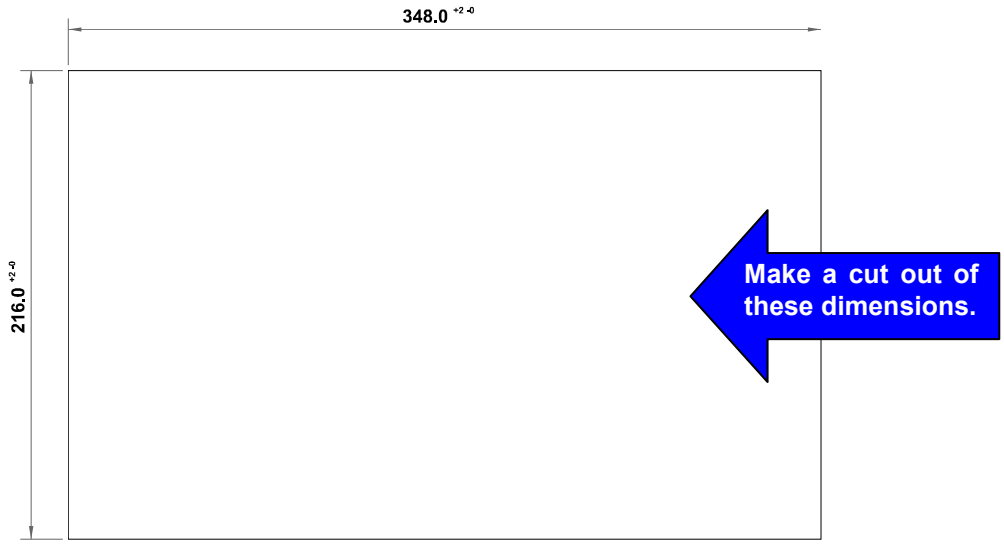


Figure 4-1: Cutout Measures.

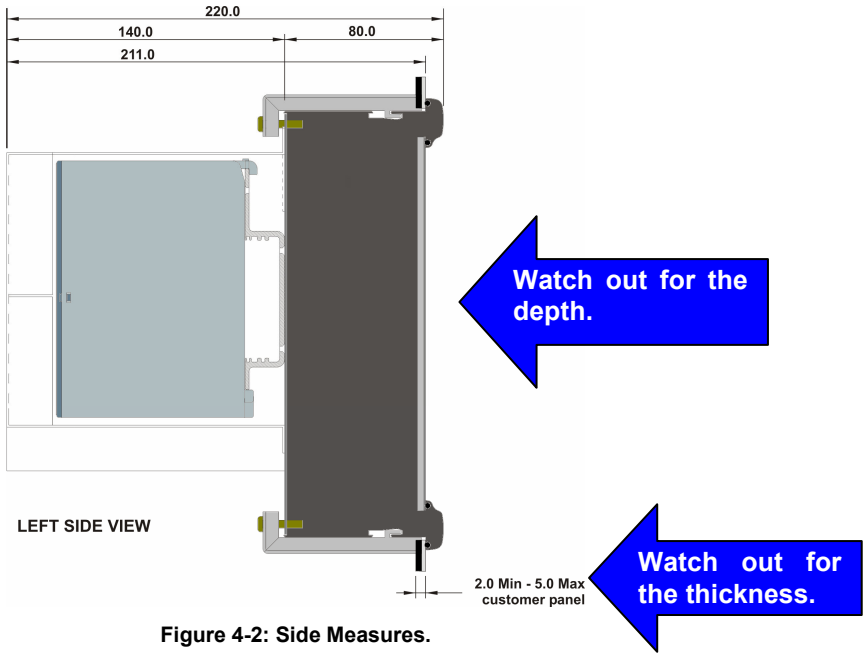


Figure 4-2: Side Measures.

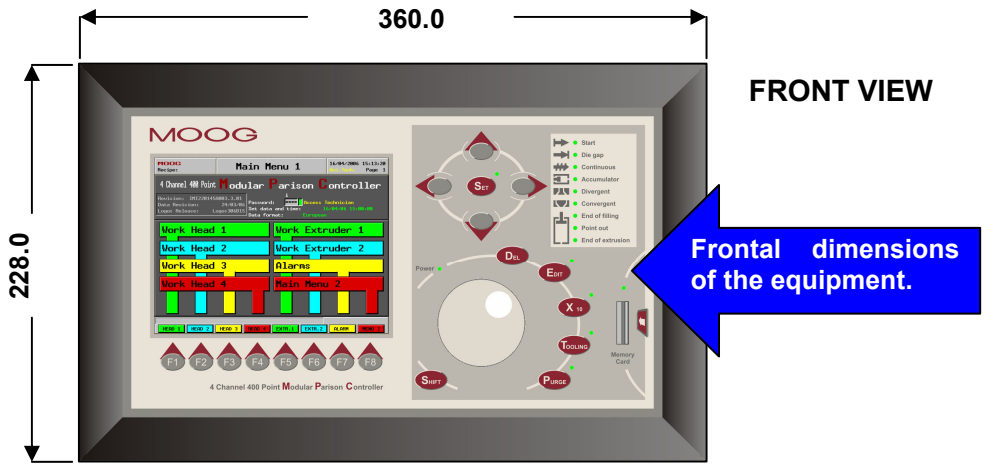


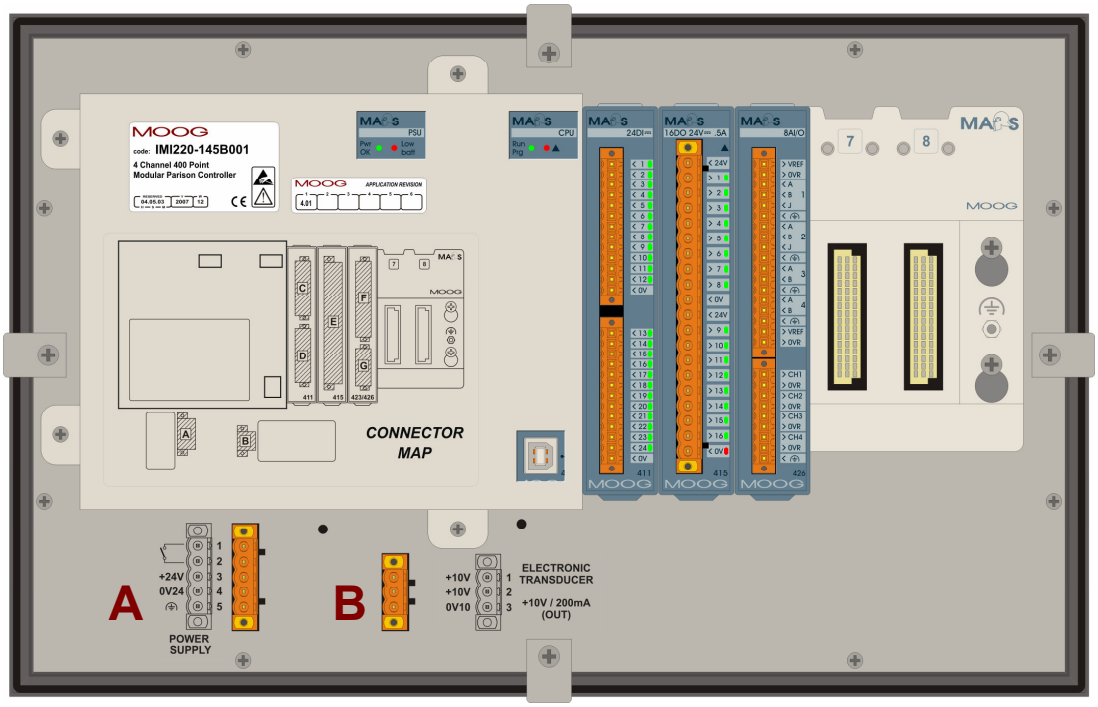
Figure 4-3: Frontal Measurements.

Figure 4-4: Panel fixing.

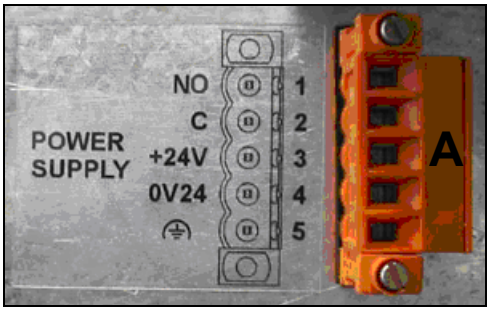
Figure 4-5: Screw detail of fixing.

Figure 4-6: Profile of fixing tool.

5. Electric connections of the Modular Parison Controller

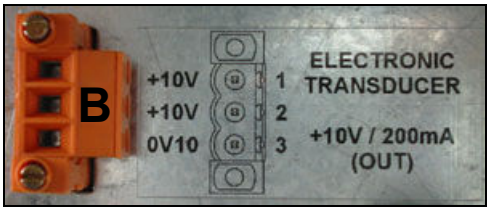


Place 1 **Card IMI220-405A001** (Power Supply Unit).
Place 2/3 **Card IMI220-436A001** (CPU cold fire + Video card).
Place 4 **Card IMI220-411A001** (24 Digital Input card).
Place 5 **Card IMI220-415A001** (16 Digital Output 24V 0.5A card).
Place 6 **Card IMI220-426A001** (8 Analog Input/Output 16/16 Bit).



A

N°	Signal	Description
1	NO	Normally open contact.
2	C	Common of the normally open contact.
3	+ 24V	General power supply 24V.
4	0V24	General power supply 0V.
5	GROUND	Connect at the ground machine.



B

N°	Signal	Description
1	+ 10V (out)	Utility aux for electronic transducer 10V.
2	+ 10V (out)	Utility aux for electronic transducer 10V.
3	0V10 (out)	Utility aux for electronic transducer 0V.

Digital Input (Card IMI220-411A001)

Pin n°	Name	Description
1	Start profile group 1	Profile start signal for group 1 regulators
2	Photocell parison group 1	Measure signal of parison length for group 1 regulators
3	Mould ready group 1	Signal for mould ready to collect group 1 parisons
4	Purge group 1	External enable for group 1 purge
5	Start profile group 2	Profile start signal for group 2 regulators
6	Photocell parison group 2	Measure signal of parison length for group 2 regulators
7	Mould ready group 2	Signal for mould ready to collect group 2 parisons
8	Purge group 2	External enable of group 2 purge
9	Stand by die gap	Die gap closing signal during accumulation phases
10	Temperature OK	Operation enable of regulators and extruders
11	Emergency	Operation enable
12	Presence alarm in machine	Indication of machine alarm pieces
13	**< 0V**	
14	Machine in automatic	Indication of machine in automatic or manual mode
15	Piece discard	Decrease of produced pieces caused by a rejection
16	-	Not used.
17	-	Not used.
18	-	Not used.
19	-	Not used.
20	-	Not used.
21	-	Not used.
22	-	Not used.
23	-	Not used.
24	**< 0V**	

Digital Output (Card IMI220-415A001)

Pin n°	Name	Description
1	**< 24V**	Supply voltage +24V.
2	End filling	Indication of reached accumulator end of filling quota
3	End extrusion	Indication of reached end of extrusion quota
4	Synchronism 1	Sync command n°1 of first thickness regulator
5	Synchronism 2	Sync command n°2 of first thickness regulator
6	Synchronism 3	Sync command n°3 of first thickness regulator
7	Synchronism 4	Sync command n°4 of first thickness regulator
8	Synchronism 5	Sync command n°5 of first thickness regulator
9	Serial marker	Command of serial marker actuator
10	**< 0V**	Supply voltage 0V.
11	**< 24V**	Supply voltage +24V.
12	Increment extruder 1	Increase command for extruder 1
13	Decrement extruder 1	Decrease command for extruder 1
14	Increment extruder 2	Increase command for extruder 2
15	Decrement extruder 2	Decrease command for extruder 2
16	Enable timer switch	Enable command from timer switch
17	End production	End of product signal
18	Alarm	Alarm signal
19	Head in calibration	Head number 1 in calibration mode
20	**< 0V**	Supply voltage 0V.

6. First startup of the Modular Parison Controller.

After having connected the Modular Parison Controller give it 24 volts and see the LCD display the following page:

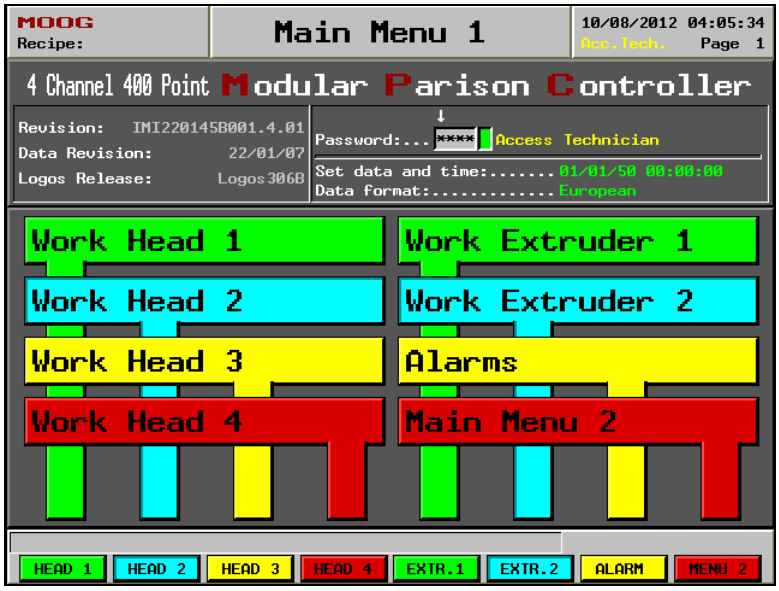


Figure 6-1: Main Menu page.

Insert the password that has been communicated previously by **Moog**. (more information on the cd) If you have forgotten the password, please contact the **Moog** of reference. Insert the password in this way: first digit and press SET, second digit and press SET and so on.
After this operation the setup machine page appears:

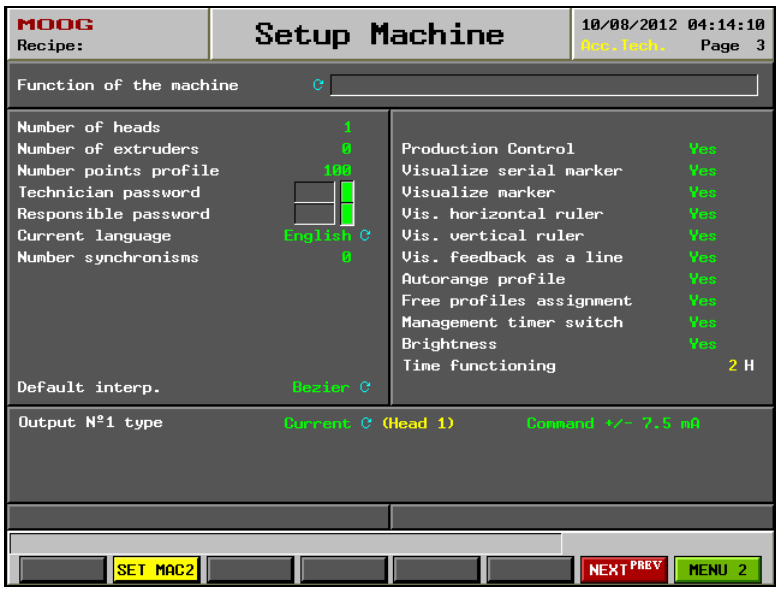
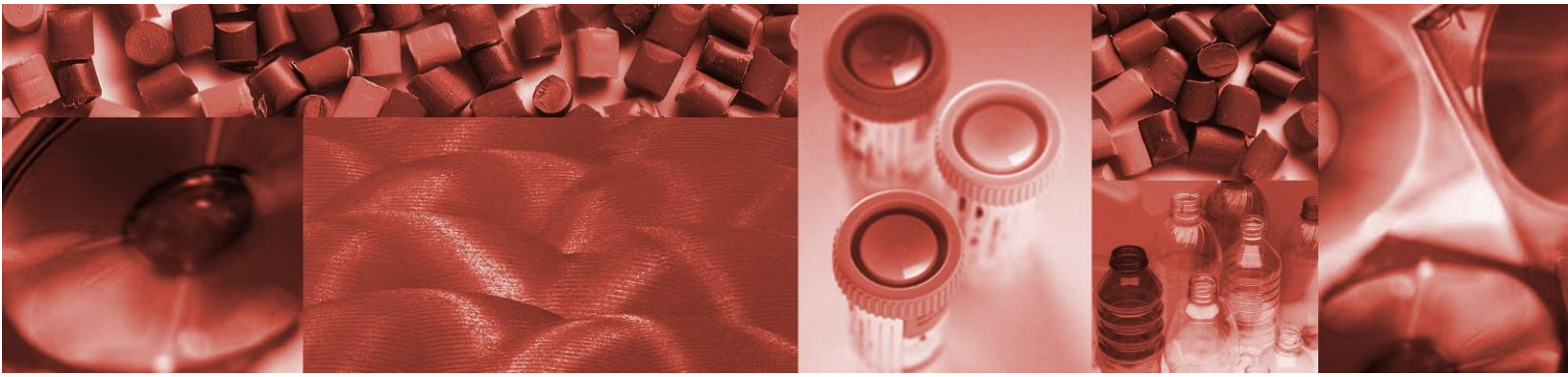


Figure 6-2: Setup Machine page.

At this point please refer to the Manual to setup the machine.

GENERAL INDEX

Argentina
Australia
Austria
Brazil
China
Finland
France
Germany
India



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