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To:	**To whom it may concern**	Company:	**SIMPLOT**
From:	**Spare Parts**	Date:	**17/11/2010**
Fax N°:		Pages:	**1**
Cc:		Ref.:	

ELECTRICAL SCHEME FOR MACHINE A/10/A-00164

Dear Sirs,

We would like to inform you that together with the machine A/10/A-00164 we are sending the provisional electrical scheme. Please note that this is the provisional one and that the definitive scheme will be sent as soon as possible with all the other manuals.

Always at your disposal for any further information you may require, we send you our best regards.

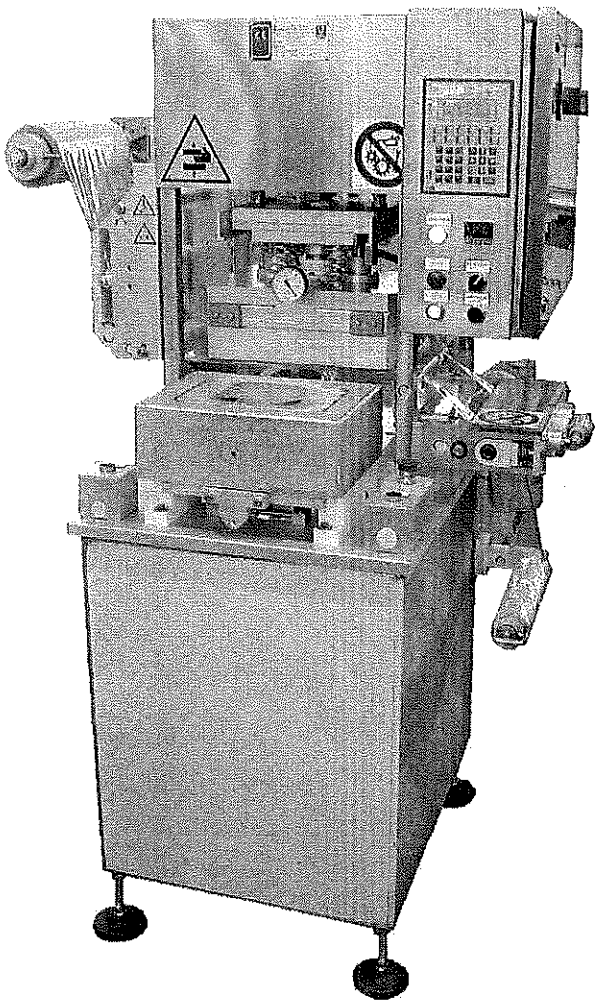
G. Mondini Spa

G. MONDINI
DOSATRICI - CONFEZIONATRICI AUTOMATICHE

CE

G. MONDINI S.p.A.
Via Brescia, 5-7
25033 COLOGNE (BS) – ITALIA

CLOSING MACHINE
TYPE CV/VG-S



User and Maintenance Manual

Construction year: 11/2010

Serial number: A/10/A-00164

1 FOREWORD

CONTENTS

1.1 OVERVIEW

This handbook contains all the information needed for correct installation and use, and appropriate maintenance of the line involved.

G.MONDINI S.p.A. insists that this document be read by the persons assigned to the running and the maintenance of the machine, as well as by the persons executing the transport and assembly operations.

This document is the instructions handbook for the **closing machine type CV/VG-S** and has been drawn up in conformity with directive EEC 98/37 annex I paragraph 1.7.4. The Use and Maintenance Handbook is to be considered an integral part of the line and is to be kept until the final dismantling. The handbook is to be kept by the person in charge of the system after its installation.

The handbook reflects the technical state at the time of the line marketing and shall not be considered inadequate if later versions are updated on the basis of new experience, furthermore G.MONDINI S.p.A. reserves the right to update production and handbooks with no obligation to update previous production or handbooks.

The drawings and other documents that accompany the system are the property of G.MONDINI S.p.A. that reserves the rights and underlines that these documents are not to be handed over to third parties. It is therefore forbidden to duplicate them in any way, either electronically or mechanically, for any type of use, without first receiving the written permission from G.MONDINI S.p.A.

G.MONDINI S.p.A. shall not be held in any way liable for any direct or indirect damage to persons, goods or animals caused by the use of this documentation and/or the line under any conditions that differ from those foreseen.

1.1.1 Spare parts

It is recommended to use only ORIGINAL SPARE PARTS.

To order spare components send a form like that shown in figure A to G.MONDINI.

The system is marked with a code and a serial number, indicated on the ID plate.

The component description and code, as well as the number of the assembly and the table the component belongs to can be traced in the lists attached to the handbook.

MODULO ORDINAZIONE RICAMBI

Spett.le: **G.MONDINI S.p.A.**

Dosatrici - confezionatrici automatiche
- 25033 COLOGNE (Brescia) ITALIA, Via Brescia 5/7 -
Tel. +39 030 705600 - Fax +39 030 7056250
E-mail: - info@gmondini.com - www.gmondini.com - spare_parts@gmondini.com.

Richiediamo la spedizione dei seguenti ricambi:

N° MATRICOLA: **TIPO DI MACCHINA:**

Q.tà	N° codice pezzo	N° gruppo	N° tavola	Descrizione pezzo

DITTA: ..... p.I.V.A. N°.....

Via: ..... N°: .....

Loc.: ..... Città: ..... C.a.p.:..... Prov.: .....

INVIO A ½: ☐ Corriere ☐ Corriere espresso ☐ Posta
☐ .....

PAGAMENTO: ☐ Contrassegno ☐ Bonifico bancario (v. ricevuta allegata)
☐ .....

La richiesta è stata compilata da: COGNOME ..... NOME .....

In qualità di: .....

Le richieste non saranno evase se mancanti di tutte le indicazioni della ditta richiedente nonché delle generalità complete e di firma del compilatore. La merce viaggia a rischio del committente. Non si accettano restituzioni di materiale in caso di errori di compilazione del modulo.

TIMBRO e FIRMA

Figure A: Spare parts order form.

1.1.4 System marking

CE Marking **Manufacturer**

Identification data

Figure B: CE Plate.

1.1.5 Reference standards

DIRECTIVE/ STANDARD	EDITION	TITLE
2006/42	29-12-2009	Machines Directive
2004/108/EEC	DEC. 2004	Concepts relating to electromagnetic compatibility problems.
2006/95/EEC	JAN 2007	Low voltage Directive
UNI EN ISO 12100-1	DEC. 2009	Safety of machinery – Basic concepts: general principles for design. Basic terminology, methodology.
UNI EN ISO 12100-2	DEC. 2009	Safety of machinery – Basic concepts: general principles for design. Technical principles and specifications.
UNI EN ISO 13857	MAY 2008	Safety of machinery – Safety distances to prevent danger zones being reached by the upper limbs .
UNI EN349	NOV. 2008	Safety of machinery – Minimum gaps to avoid crushing of parts of the human body.
UNI EN ISO 13850	FEB. 2007	Safety of machinery – Emergency stop equipment - Functional aspects – Principles for design.
UNI EN547-1	MAR. 2009	Safety of machinery – Human body measurements – Principles for determining the dimensions required for opening for whole body access to machinery.
UNI EN547-2	MAR. 2007	Safety of machinery - Human body measurements- Principles for determining the dimensions required for access openings.
UNI EN842	MAR. 2009	Safety of machinery – Visual danger signals. General requirements, design and testing.
UNI EN953	MAY 2009	Safety of machinery. Guards. General requirements for the design and construction of fixed and movable guards.
UNI EN13849-1	NOV. 2008	Safety related parts of control systems. Part 1: General principles for design.
UNI EN981	MAR. 98	Safety of machinery. System of danger signals with sound or light.

Foreword

DIRECTIVE/ STANDARD	EDITION	TITLE
UNI EN983	JULY 1997	Safety of machinery. Safety requirements for fluid power systems and their components. Pneumatics.
UNI EN 999	NOV. 2008	Safety of machinery. The positioning of protective equipment in respect of approach speeds of parts of the human body .
UNI EN1037	SEPT. 2008	Safety of machinery. Prevention of unexpected start-up.
UNI EN 14121-1	DEC. 2007	Safety of machinery. Principles for risk assessment.
UNI EN1088	NOV. 2008	Safety of machinery. Interlocking devices associated with guards. Principles for design and selection.
UNI EN ISO 11161	OCT. 2007	Industrial automation systems. Safety of integrated manufacturing systems. Basic requirements.
UNI EN ISO11202	OCT. 1997	Acoustics – Noise emitted by the machines and equipment – Measurement of sound pressure levels at the work place and in other specific positions – Checking method on site.
IEC EN60204-1	SEPT. 2006	Safety of machinery – Electrical equipment of the machines. Part 1: basic requirements.

1.2 HANDBOOK STRUCTURE

This handbook is divided into 9 chapters.

CHAPTER 1 – GENERAL INFORMATION

This chapter contains the general descriptions regarding the structure of the handbook, the topics dealt with, the symbols, guarantee and responsibilities.

CHAPTER 2 – DESCRIPTION

This chapter contains the description of the system operating principles, the general technical data and the description of the mechanical, electrical and fluidic assemblies that it comprises.

CHAPTER 3 – SAFETY

This chapter contains a description regarding the standards, working environment conditions, ergonomics, accident prevention devices used, residual risks, warning plates on the system and the Manufacturer's Declaration of Conformity .

CHAPTER 4 – INSTALLATION

This chapter contains the instructions for correct packing, handling, transport, unloading, installation in the user's plant, connections to the plant energy sources, checks, controls and any adjustments to be made before the start-up.

CHAPTER 5 – CONTROL SYSTEM

This chapter contains the description of all the controls available for the operator.

CHAPTER 6 –OPERATION

This chapter is addressed to those running the system and contains the instructions for the start-up, use and stopping of the system in the different operating cycles. It also describes all the video pages displayed on the control panel.

CHAPTER 7 –DIAGNOSTICS

This chapter describes all the alarms of the system, the causes that generated them and the procedures to solve them .

CHAPTER 8 – MAINTENANCE

This chapter is for the maintenance technicians and contains the machine maintenance schedule. It includes the warnings, precautions and instructions to carry out the maintenance operations correctly on the system.

CHAPTER 9 – DISPOSAL

This chapter describes how to dispose of the system and how to dismantle it.

1.3 SAFETY STANDARDS CONTAINED IN THIS HANDBOOK

The instructions, indications, standards and safety notes described in the various chapters of the handbook have the purpose of defining how to behave and the obligations to be respected when carrying out the various activities. They form the methods of use for the line, so as to operate under safe conditions for the personnel, the fixtures and the surrounding environment. The safety standards contained are directed to all the skilled persons who are authorised and assigned to carry out the various operations that include:

- transport
- installation
- operation
- use
- management
- maintenance
- cleaning
- putting out of service and dismantling

that constitute the methods of use foreseen for the system.

IMPORTANT NOTE

The system must not be modified in any way and the safety guards must not be removed or disactivated without first informing the Manufacturer. If these instructions are not complied with, the Manufacturer DECLINES ALL RESPONSIBILITY for any situations that might occur. The Manufacturer cannot be held liable for:

A) THE USER'S SAFETY.
B) PROPER OPERATION of the machine supplied.

- IMPORTANT: If the system supplied is to be linked to an existing installation, the costumer must - unless agreed otherwise - provide adequate protection for the area where the two systems are linked. Mondini S.p.a. declines all liability if damage or injury is caused bacause this protection has not been provided.

1.4 SYMBOLS USED IN THIS HANDBOOK

This handbook uses certain symbols to call the attention of the reader and point out some particularly important features.

The table below contains a list of the different symbols used in the handbook and describes their meaning.

SYMBOL	MEANING	NOTES
	Danger	Indicates a hazard with accident risk, even death, for the user. Pay very careful attention to the texts indicated by this symbol.
	Warning	A warning of possible downgrading or damage to the line, and/or the fixtures. Pay attention to the texts indicated by this symbol.
	Warning Note	A warning or note regarding key functions or useful information. Pay attention to the texts indicated by this symbol.
	Additional information	Texts that contain additional information are indicated by this symbol. This information does not relate directly to the description of an operation or to the development of a procedure.. It may give reference to other supplementary documentation such as attached instructions for use handbooks, technical documentation or other sections of this handbook.
	Avoid damage to material	Indicates there is a high risk of damaging a part, for example using a wrong tool or assembling following an incorrect procedure
	Special tool	Indicates that for this operation a special tool or fixture is necessary.
	Visual check	Informs the reader that a visual check is to be made. This symbol will also be found in the instructions for use. The user is told to read a measure value, to check an indication, etc.
	Sound check	Informs the reader that a sound check is to be made. This symbol will also be found in the instructions for use. The user is told to listen to an operating noise.
	See the maintenance charts	Indicates that a special maintenance chart is to be consulted.

1.5 RESPONSIBILITIES OF THE MANUFACTURER

G. MONDINI S.p.A. shall not be held liable for situations deriving from the incorrect or improper use of the system described herein or any damage caused by the use of spare parts other than those recommended, by maintenance operations not carried out correctly or by tampering with circuits, components and/or system software.

The responsibility to ensure that the safety instructions indicated in this handbook are applied is assigned to the technical supervisor responsible for the foreseen activities on the line. He shall ascertain that the operatives authorised to carry out the required activities are qualified , that they respect and are aware of the requirements contained in this handbook and the general safety standards applied to the system.

Not observing the safety standards could cause injuries to the personnel and damage to the fixtures.

1.6 GUARANTEE

For the construction of the system G. MONDINI S.p.A. has used materials deemed most suitable in their final judgement.

G. MONDINI S.p.A. guarantees that the system is free of machining flaws and ensures the quality of the material for a period of time and in accordance with the conditions agreed upon when drawing up the con tract with the customer.

1.7 LINE MANAGEMENT

The system management is only allowed to authorised operators who have received sufficient instruction, or who have appropriate technical experience.

The operators assigned to the running and the maintenance of the system are to be aware that the knowledge and application of the safety standards is an integrating part of their job.

Operators who are not assigned to activities on the system are not to have access to the operating area and/or the control panels.

Before starting up the system carry out these operations:

- read this handbook carefully
- know which protections and emergency stop devices are installed on the line, where they are located and how they function.

It is forbidden to remove, even only partially, protections and safety devices installed to safeguard the personnel in the system hazardous zones.

The same regulation applies to the warning plates.

It is strictly forbidden to open the doors of the electric cabinet when the system is running and immediately after it has stopped.

The protections and safety devices are to be kept in perfect order to ensure the correct functioning. In the case of malfunctioning or failure on these devices, they are to be immediately repaired or replaced.

The use of commercial components that are not those specified for safety devices and protections could cause malfunctioning or the generation of hazardous situations for the operators working on the line.

1.7.1 Plates on the system

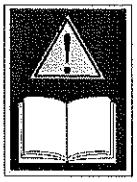
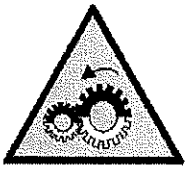
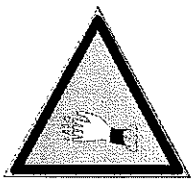
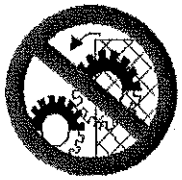
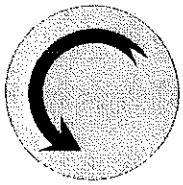
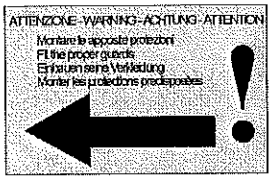
PLATE 1	
	Use gloves to protect from cuts and burns.
PLATE 2	
	Wear safety shoes.
PLATE 3	
	See the use and maintenance handbook.
PLATE 4	
	**Warning!** Mechanical parts in motion.
PLATE 5	
	**Warning!** In this zone of the system parts are operating that could cause deep cuts and serious amputations.
PLATE 6	
	**Warning!** Hazardous voltages present; Danger of fulguration.

PLATE 7	
	**Warning!** In this zone there are parts that work at high temperatures.
PLATE 8	
	Do not remove the safety devices and protections.
PLATE 9	
	Do not operate on moving parts.
PLATE 10	
	This symbol indicates the direction of rotation of the part .
PLATE 11	
	**Warning!** Danger of limbs being crushed.
PLATE 12	
	Constant hazard pay attention when handling.
PLATE 13	
	This indication is usually placed near the closing zone of the protective casing, where its closure affects the resumption of production.

1.7.2 Glossary and symbols

Some terminology and symbols are used in this handbook to call the attention of the reader and to emphasise certain aspects of particular importance .

The tables that follow list them and describe their significance.

Table 1 - Glossary

Term	Description
Emergency stop function	Function to: - prevent, upon occurrence, hazards for persons, damage to machines or machining in progress, or otherwise reduce them. - be activated by a single human action when the normal stop function is inadequate for the purpose. In accordance with this standard, the hazards are those that could arise from: - operation irregularities (machine fault, inadequate processing material, human error, ...) - normal operation Note – *Functions such as inversion, limiting movements, deviation, shielding, braking, sectioning, etc, may be part of emergency stop functions. This standard (EN 13850) does not cover these functions.* (Item 3.1 of EN 13850)
Machine actuator	A power mechanism used to start the movement of a machine. (Item 3.3 of EN 13850)
Control circuits	Circuit used to control the machine operation and to protect the power circuits.
Manual control (actuator)	The component of the control device that, when activated, activates the actual control device, and is designed for actuation by a person (see item 4.4.1 of EN 13850). (Item 3.2 of EN 13850)
Customer/ Purchaser	The person who orders and/or purchases.
Machines directive	The machines Directive is the ruling indicated with the Executive Order of the President of the Republic 459/96.
Emergency stop device	Together with the components designed to execute the emergency stop (see fig. 2 of EN 13850, that shows the parts of a machine to which these components may belong). (Item 3.2 of EN 13850)
Enable device (control	Additional control device activated manually and used together with a start command, to permit the machine to operate permanently when activated. (Item 3.26.2 of EN 12100-1)

Term	Description
Control device	Component of the emergency stop device that generates an emergency stop signal when the associated manual control (actuator) is activated. (Item 3.2 of EN 13850)
Interlock device (interlock)	Mechanical, electrical or other type of device that has the purpose of preventing machine parts operating under certain conditions (usually before the guard is closed). (Item 3.26.1 of EN 12100-1)
Safety device	Device (not a guard) that eliminates or reduces the risk, either alone or associated to a guard. (Item 3.26 of EN 12100-1)
Limiting device	Device that prevents the machine or its parts from exceeding the set limit (distance, pressure, etc.). (Item 3.26.8 of EN 12100-1)
Bill of Materials	List of the components that are part of the mechanical assemblies, fluidic or electrical systems, indicated with the quantity, code and name of supplier.
Manufacturer	Manufacturer of the machine
Supplier	Body (for example, manufacturer, installer agent, system integrator) that supplies the equipment or associated services of the line (the user may also act as his/her own manufacturer).
Automatic operation	Mode in which the entire system executes its operations autonomously, with gates and barriers closed and inserted in the safety circuits.
Manual operation	Operating mode that cuts out automatic running and that allows manual handling activities under the control of the operator.
Installation	Installation is the mechanical and electrical integration of the machine in a production system, in conformity with the Directive safety requirements.
Instructions for use	Safety measures that consist of a set of information, such as texts, words, signs, symbols or diagrams that are used either separately or in combination, to convey the instructions to the user. They are intended for professional and/or non professional users. Note – *Item 6 of EN 12100-2 deals with instructions for use.* (Item 3.21 of EN 12100-1)

Term	Description
Machinery/ Machine	A group of parts or components, of which at least one is movable, connected together with appropriate actuators, control and power circuits etc. of the machine, integrally connected for a specific application, in particular for conversion, treatment, handling or packaging of a material. The term "machinery" also covers a group of machines that, to obtain the same result, are arranged and controlled so as to have an integrated operation. Appendix A of EN 12100-1 contains a general schematic diagram of a machine. (Item 3.1 of EN 12100-1)
Maintenance and Repair	Maintenance and repair operations are periodical checking activities and/or replacement of mechanical, electrical parts, software or machine components that serve to identify the cause of a fault, that terminate with the machine being returned to the project functioning condition.
Marking	Signs or writing that identify the type of component or equipment, applied by the manufacturer of the component or equipment.
Commissioning or Putting into service	Commissioning is the functional checking activity on the installed system.
Safety measures	A means that eliminates or reduces a hazard.
Operator	Person or persons assigned to the installation, operation, regulation, maintenance , cleaning, repairing or transport of the machine (EN 12100-1).
Exposed person	Any person that is completely or partially in a hazardous zone (Annex 1 - 1.1.1.2. .Executive Order. DPR 459/96).
Skilled person	A person with sufficient technical knowledge or experience to be able to avoid hazards that could be present.
Protections	Safety measures that consist in the use of specific technical measures called protections (guards, safety devices) to protect persons against hazards that cannot be reasonably eliminated or sufficiently limited by design. Note – *Item 5 of EN 12100-2 deals with protections.* (Item 3.20 of EN 12100-1)
Contact person	Person responsible for the running of certain operations or assessments that could arise during work or maintenance .
Redundancy	Application of more than one device or system, or part of a device or system, so as to ensure that in the case of a failure in the functioning of one of them, another is available to execute that function.

Term	Description
Guard	A part of a machine used in a specific manner to give protection by means of a physical barrier. According to its construction, a guard may be called hood, cover, shield, screen, door, fencing, enclosure, etc. Note 1 – *A guard may act:* - *alone; it is therefore effective only when it is closed,* - *associated to an interlock device with or without locking of the guard; in this case the protection is insured whatever the position of the guard.* Note 2 – *"Closed" means, for the fixed guard, "kept in position".* (Item 3.25 of EN 12100-1)
Fixed guard	Guard kept in position (closed): - either permanently (by welding, etc.), - or by fastening elements (screws, bolts, etc.) that make it impossible to remove/open it without the use of tools. (Item 3.25.1 of EN 12100-1)
Movable guard	Guard usually mechanically connected to the frame of the machine or to a fixed element nearby (for example by hinges or guides), and that can be opened without the use of tools. (Item 3.25.2 of EN 12100-1)
Interlocked guard	Guard associated to an interlock device (see item 3.26.1 of EN 12100-1), so that: - the hazardous functions of the machine "involved" with the guard cannot be carried out until the guard has been closed, - if the guard is opened while machine hazardous operations are running, the order to stop is given, - the closing of the guard allows the machine to run the hazardous operations with which the guard is "involved", but does not give the start commands. (Item 3.25.4 of EN 12100-1)
Risk	Combination of probabilities and seriousness of possible injuries or harm to health in a hazardous situation. (Item 3.11 of EN 12100-1)
Machine safety	Capability of a machine to carry out its functions, to be transported, installed, adjusted, serviced, dismantled and removed under the foreseen use conditions (see Item 3.22 of EN 12100-1) specified in the instructions handbook (and, in some cases, in a certain time indicated in the handbook) without causing injuries or harm to health. (Item 3.19 of EN 12100-1)

Term	Description
Dismantling	Dismantling is the demolition and disposal of the parts constituting the machine.
Protected space	Protected space is the area limited off by the protection barriers and assigned for the installation of the machine.
Environment temperature	Temperature of the air or other agent where the equipment is used.
Transport	The series of operations to transfer the work centre from the assembly site of the manufacturer to the final work site of the customer .
Foreseen use of a machine	Use for which a machine has been designed, in conformity with the indications supplied by the manufacturer, or that is considered standard in relation to its design, construction and function. Foreseen use implies also the observance of the technical instructions contained in the instructions handbook (see Item 6.5 of EN 12100-2), and taking into consideration the incorrect use that it is feasible to foresee. Note – *Regarding incorrect use in the assessment of risks, these types of behaviour should be given particular consideration:* - *incorrect behaviour that results from normal negligence and not a deliberate intention to use the machine improperly,* - *the instinctive reaction of a person during use, in the case of malfunctioning, accidents, failures, etc.* - *behaviour that derives from "the line of least resistance" when performing a task,* - *probable behaviour of some persons, such as children or disabled persons for certain machines (especially those not for professional use).* *See also* Item *3.21 of EN 12100-1.* (Item 3.22 of EN 12100-1)
Incorrect or improper use	Use of the machine out of the limits specified in the technical specifications .
User	Body that uses the machine and the associated equipment.
Hazardous zone	Any zone inside and/or near to a machine in which a person is exposed to the risk of injuries or harm to health. Note – *The hazard that causes the risk considered in this definition:* - *permanent presence during the foreseen use of the machine (motion of hazardous moving parts, electric arc during welding, etc.), or* - *that can unexpectedly occur (sudden /unexpected start, etc.)* (Item 3.10 of EN 12100-1)