

Sirio HH



Use and maintenance manual



Contents

1	Gene	RAL INFORMATION	4
	1.1	MANUFACTURER IDENTIFICATION	4
	1.2	PRODUCT IDENTIFICATION	4
	1.3	CE DECLARATION	5
	1.4	Reference standards	6
	1.5	WARRANTY	6
2	Equii	PMENT DESCRIPTION	7
3	SAFET	8	
	3.1	SAFETY RULES	8
	3.2	ELECTRICAL POWER SUPPLY	8
	3.3	WORKING ZONES	9
	3.4	COMPONENTS AND SAFETY DEVICES	9
	3.5	RESIDUAL RISKS	9
	3.6	SYMBOLS SHOWN ON THE EQIUPMET	10
	3.7	INTENDED USE OF THE EQUIPMENT	10
	3.8	Non intended use	10
4	TRAN	SPORT AND HANDLING	11
5	INSTA	ALLATION	12
6	Use		18
	6.1	OPERATION INSTRUCTION AND ELECTRICAL PANEL SETTINGS	18
	6.2	COSTUMIZED AGITATION AND PAUSE SETTINGS	19
	6.3	LOADING AND UNLOADING OF CANS	19
7	MAIN	20	
	7.1	ORDINARY MAINTENANCE	20
	7.2	Non use periods	20
8	Trou	BLESHOOTING	21
9	Тесн	NICAL FEATURES	22
	9.1	TECHNICAL FEATURES OF THE STANDARD MODEL	22
	9.2	TECHNICAL FEATURES OF THE ATEX MODEL	23
10	WIRI	24	
	10.1	WIRING ELECTRICAL PANEL STANDARD MOTOR SINGLE PHASE	24
	10.2	WIRING ATEX SINGLE PHASE MOTOR	25
11	DISPO	DSAL	26

° UEMIUE N		8	Sirio HH Use and maintenance manual	Page 3 of 28	
			Instruction n° 192 - Rev. 02 of 06/07/2016	EN	
12	SPARE	PARTS		27	
	12.1	STANDARD BASE	MENT	27	
	12.2	ATEX BASEMENT		27	
	12.3	MODULE		28	
	12.4	TRANSMISSION S	HAFT	28	



1 GENERAL INFORMATION

1.1 Manufacturer Identification

TECMEC S.r.l. Località Faustina, 63 20080 Albairate (MI) – Italy Tel: +39 02 9469871 Fax: +39 02 94698741 e-mail: tecmec@tecmec.com web: www.tecmec.com

1.2 Product identification

The identification label, is located on the left side of the structure, with the below mentioned data:

- Safety and Health Requirements Symbols
- Manufacturer Data
- CE Mark
- Production Year
- Serial Number
- Univocal Machine Code
- Motor Protection Class
- Electrical Characteristics

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TEOMEO [®] srl	Loc. Faustina, 63 20080 ALBAIRATE (Milano) ITALY Tel. 0039.2.946987.1 Fax 0039.2.946987.41	CE
Anno di costruzione Manufacture year Baujahr Annee de fabrication Año de fabricación	Matricola N° Serial number Matricule N° Matricula N°	
Codice Code Kodex Code Código	Tipo motore Type motor Typ motor Type moteur Tipo motor	
Caratter, elettriche Elektrical features Elektrische daten Caract, electriques Caract, electriche	Hz	Kw



Instruction nº 192 - Rev. 02 of 06/07/2016

1.3 CE Declaration



DICHIARAZIONE "CE" DI CONFORMITÀ "CE" CONFORMITY DECLARATION CERTIFICAT DE CONFORMITÉ "CE" DECLARACIÓN "CE" DE CONFORMIDAD "CE" ÜBEREINSTIMMUNGERKLÄRUNG "EU" OVERENSSTEMMELSESERKLÆRING

Si dichiara che i macchinari di nostra fornitura si intendono progettati e costruiti in conformità ai reguisiti essenziali di sicurezza e salute dettati dalla Direttiva Europea sulla Sicurezza delle Macchine. Rammentiamo che la presente dichiarazione perde validità in caso di modifiche sui macchinari eseguite senza il nostro consenso

It is hereby certified that the equipment we supply are designed and manufactured according to the safety and welfare essential requirements prescribed by the European Direction on Machines Safety. We remind that the present declaration loses validity in case of modifications on machinery carried out without our consent.

Nous déclarons que la machine de notre fourniture spécifiée ci-dessous a été conque et construite en conformité aux normes essentielles de santé et de sécurité requises par la Directive Européenne pour la Sécurité des Machines. Cette déclaration perdra sa validité au cas où la machines aurait subit des modifications sans notre autorisation

Se declara que las máquinarias de nuestro suministro han sido proyectadas y construidas en conformidad con los requisitos esenciales de seguridad y salud dictadas por la...Norma europea sobre la...Seguridad de Máquinas. Recordamos que la presente declaración pierde validez en caso de modificaciones sobre las maquinarias ejecutadas sin nuestro consentimiento.

Es ist hier erklärt, das die von uns hergestelleten Maschinen in Übereinstimmung mit den wesentlichen Sicherheitsund Gesundheitserfordemissen nach der Europäischen Richtlinie über die Maschinensicherheit geplant und aufgebaut sind. Wir erinnem Sie daran, daß die vorliegende Erklärung ihre Gültigkeit im Fall von Änderungen auf die Maschinen verliert, die ohne unsere Zustimmung gemacht werden.

Vi erklærer hermed, at det udstyr vi leverer, er designet og produceret i overensstemmelse med de vigtigste sikkerheds- og sundhedskrav fastsat i det europæiske direktiv om maskinsikkerhed. Vi minder om, at denre erklæring mister sin gyldighed, hvis der bliver udført ændringer på maskiner uden vort samtykke

Identificazione della macchina, Machine identification, Identification de la machine, Identifikation der Maschine, Maskinidentifikation :

Codice, Code, Maschinenummer, Tipo, Kode Descrizione, Description, Schilderung, Beskrivels : SIRIO HH xxxx Matricola, Type, Modell, Matricola, Model Anno di costruzione,Year of manufacture, Année de construction, Baujahr, Fecha, Produktionsår

- : 012xxx : SNxxxxxx
- : 20xx 100

Direttive di riferimento, Reference directions, Directives de référence, Normas de referencia, Beziehungsrichtlinie Henvisning til direktiver:

Direttiva Bassa Tensione (2006/95/CE) Directive Basse Tension (2006/95/CE) Low Tension Direction (2006/95/CE) Norma Baja Tensión (2006/95/CE) Niederspannung Richtlinie (2006/95/CE) Direttiva Macchine (2006/42/CE) Machines Direction (2006/42/CE) Directive Machine (2006/42/CE) Directivas Máquinas (2006/42/CE) Maschinen Richtlinie (2006/42/CE)

Norme applicate, Applied regulations, Normes appliquées, Normas aplicadas, Angewandte Anweisungen, Anvendte normer :

CEI EN 60204-1

Compatibilità elettromagnettica 2004/108/CE Compatibilité électromagnétique 2004/108/CE Electromagnetic compatibility 2004/108/CE Compatibilidad electromagnética 2004/108/CE 2004/108/CE Elektromagnetische Kompatibilität UNI EN ISO 12100:2010

data: xx/xx/xxx

Firma del fabbricante, Manufacturer signature, Signature du fabriquant, Firma del fabricante, Herstellerunterschrift, Underskrivers navn

Identificazione del firmatario, Signer identification, Identification du signataire, Identificación del firmante, Unterzeichner Identifizierung, Stilling i

linenalamp

IL LEGALE RAPPRESENTANTE Laura Desinano

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Sirio HH Use and maintenance manual

Instruction nº 192 - Rev. 02 of 06/07/2016

ΕN

1.4 Reference standards

2006/42/CE	Machine Directive
2014/95/CE	Low Voltage Directive
2014/30/UE	Electromagnetic Compatibility Directive
UNI EN ISO 12100:2010	Safety Machinery - General Principles for Design - Risk reduction and assessment
CEI EN 60204-1	Electrical Equipment of Machines

1.5 Warranty

The warranty covers free of charge the repair or replacement of the components with manufacturing defects.

For the warranty conditions, please refer to the document containing the warranty terms inside the CD supplied with the equipment.

In particular, the warranty will not cover any damage due to the transport, or non compliance with the installation and operating instructions, or usage by unauthorized personnel, or for reasons not caused by the manufacturer.



2 EQUIPMENT DESCRIPTION

The timed dispenser Sirio HH, is an equipment designed for the professional sector.

The unique feature of this equipment is to maintain homogeneous, over time, the colorants contained in the cans (provided with suitable lids provided separately from Tecmec).

In order to avoid accidents or injury to person, or and things, the equippment have to be used by trained personnel.



Instruction nº 192 - Rev. 02 of 06/07/2016

3 SAFETY

3.1 Safety rules

The products of the series Sirio HH, must be included in the assessment of company risk and requires the applicable laws on safety at work to be complied.

To ensure the highest possible degree of safety in the correct use of the machine, all measures deemed necessary in the design, construction, testing and installation have been adopted.

For a proper use, the machin has to be used by trained personnel, in order to avoid accidents.

The used components is in accordance with the applicable standards.

The dispenser Sirio HH Compact must be located in a special tank / container, suitable to contain any accidental products leaks.

To avoid that the equipment have instability issues, it's necessary to verify both the perfect leveling of the feets locaded in the bottom part of the structure and the fixing to the wall, as per the assembly instructions.

3.2 Electrical power supply

Determined the installation area, the following prerequisites have to be implemented:

- The main power supply have to be provided through an electrical panel, placed on the wall close to the equipment.
- The maximun expected power is 0.75Kw.
- The section of each conductor must be a minimum of 1,5 mm².
- The main power supply line, must be fitted with an efficient ground connection, and complies with all the requirements in force.
- The electrical power supply panel have to consist in a residual current device ($I\Delta n=0.03A$) with voltage and phase compatible with the agitation motor (single phase).

To ensure a complete safe operation for the operator and the equipment, it's very important, during the assembly of the electrical panel, to use the above mentioned type of switch, due to the fact that the switch will have a protective function against possible direct or accidentals voltage hazard down to ground.

It's important to make the necessary assessment of the site, and follow the requiring and characteristic rules of the electrical system, to ensure that they are not a cause of accidents or injuries.



Instruction nº 192 - Rev. 02 of 06/07/2016

3.3 Working zones

UEMUEN

The zones where improper use and not allowed intervention may present risks are the below mentioned :

- Operator Zone
- Maintenace Zone



3.4 Components and safety devices

The machine is equipped with an red emergency button, placed on the control panel.

A pressing action of this button cause an immediately emergency stop, classified as category 0, the power to the motor will be interrupted, and will interrupt the agitation movement.

Once the emergency situation is resolved, release the emergency button to restore the normal operation:

- Release the emergency button
- Press the START button

3.5 Residual risks

In spite of precaution adopted in the design of the equipment, to ensure safe use there may be reasonably foreseeable situation for which it has only been possible to reduce the risk without completely eliminating it.

Risk	Precaution
Injuries and or crushing during the loading and or unloading of the cans.	Use protective gloves and safety shoes during loading and unloading of the cans.
Eyes damage due to paint splashes.	Use protective glasses.
	Don't load or unload cans during the agitation.
Improper actions during the agitation cycle.	Don't put your hands, or tools / items, in the agitation zone during the normal operation cycle.

The dispenser is designed to handle colorant / pastes of various types. Prior to their use, follow the instructions warning and safety instruction on each individual can / package, and on the data sheet issued by the producer.



3.6 Symbols shown on the eqiupmet

	Danger electrical hazard.
230 VOLT	Is forbidden to carry out work on the equipment under voltage.
	Is forbidden to operate on the electrical system without authorizations.
	Danger gear in movements.
	Forbidden to load or unload the cans during the agitation cycle.
	It is mandatory to read carefully the instruction manual, before carry out any operations on the equipment.
	It is mandatory to provide the grounding of the electrical system.

3.7 Intended use of the equipment

The unique feature of this equipment is to maintain homogeneous, over time, the colorants contained in the cans (provided with suitable lids provided separately from Tecmec).

3.8 Non intended use

Any other use of this equipment that are not described in this manual are considered improper and therefore prohibited.

In particular it is forbidden:

• Load or unload the cans during the agitation cycle / process.

During this process the Led warning is clearly visible on the control panel.

- Any kind of manumission or unauthorized intervention on the electrical control panel.
- Access the motor compartment by unauthorized personnel, and in any case when the plug for the main power is connected.
- Removing the protection from the motor compartment, if so only during the maintenance phase done only by expert personnel.

In any case it is absolutely mandatory to remove the plug from the main electrical /power line before executing any kind of maintenance.



4 TRANSPORT AND HANDLING

The equipment are packed in special cardboard boxes and transported on pallets.

Each box is labeled with: type of module, code, production order.

The identification label with the symbols, and the risks and residual risks is located on the front side of the motor module panel.

In case of needs to move an operating equipment please follow the below points:

- Always operate by following the instruction provided by existing accident prevention regulation.
- Remove the shelf's, and place all the colorants cans in a appropriated place.
- Place the dispenser on a pallet.
- Move the pallets with appropriated means to the new destination.
- Install the equipment by following the instructions.

For obvious safety reason it is forbidden to move the assembled equipment.

For movement over long distance, the equipment MUST be packed and secured on pallets, as when it was delivered.



5 **INSTALLATION**

Warning

Consider the size and weights of the various components that will be moved. Is fundamental constraint that the below mentioned installation steps are carried out by two (2) person.









Instruction nº 192 - Rev. 02 of 06/07/2016





Page **15** of 28

Instruction nº 192 - Rev. 02 of 06/07/2016







Sirio HH Use and maintenance manual

Page 17 of 28

ΕN

Instruction nº 192 - Rev. 02 of 06/07/2016



6 USE

6.1 Operation instruction and electrical panel settings

The mixing machine is controlled by a electrical panel with internal CPU, that will generate the signal / input to the agitation motor. The control panel is located in the right shoulder of the machine.

Led Red		— Led Green	START BUTTON Enables to start the motor in the cyclical function based on the setted time (default: 20 min. ON, 240 min OFF)
Start —		Stop	STOP BUTTON
			Stops the motor and the cyclical function.
Emer		Emergency	EMERGENCY BUTTON
			Will stop the motor, but will maintain the electrical panel powered. To restart the motor and the cyclical function, turn the emergency button clockwise, and press the start button.
Light India	CATION		
Green Led		= Dis	penser powered (tension present)

Red Led flashing and Green Led off	=	Motore in rotazione e macchina in fase di agitazione
Red and Green Led fixed light	=	Cycle mode active (agitation motor off ready to start)

Note:

To restart the motor during the pause period, press the red STOP button, wait a few seconds and press the green START button.

Sirio HH Use and maintenance manual

Instruction nº 192 - Rev. 02 of 06/07/2016

6.2 Costumized agitation and pause settings

The factory setting is setted as follow: 20 minutes agitation 240 minutes pause.

In case of necessity to modify the jumper on the electrical board see below

Availables agitation times ÷ 10-15-25 min

Availables pauses times

•

60-120-180-300-360-420-480 min



6.3 Loading and unloading of cans

Add or remove the cans from the respective location only when the machined is turned off.

When placing the can make sure that the lid is properly positioned. The reference point are 2: the spout against the anti rotation "nail", and the fork against the reference points.





Instruction nº 192 - Rev. 02 of 06/07/2016

7 MAINTENANCE

7.1 Ordinary maintenance

To extend the life time of the equipment, the Siro HH needs some flew precaution:

- Verify every morning that the power lights in **ON**.
- Verify that all the lids of the cans / tins are properly placed in the agitation zone.
- In case of liquids spill, disconnect the equipment from the main electrical line, clean immediately the area by using the proper products.
- Leave the equipment in always operation mode, even during the evening and weekends, in order to keep the products always ready to be used.
- Verify every six months the correct tightening of the transmission, transmission joints, and the proper tension of the motor belt.
- Verify every months the functionality of the emergency button by following the below steps:
- 1- Press the button during any operation phase, verify that the lights on the control panel are switched off, and in case of agitation that the motor will stop.
- 2- Once the procedure is done, restore the equipment by pressing the START button.

For any other kind of issues, or doubts, please contact the Customer Service Dep. in Tecmec.

7.2 Non use periods

In case that the equipment will be switched off, due to a prolonged period of non-use, to avoid a overload issues on the motor it is necessary to proceed as follow:

- Remove all the cans/tins from the shelf's, execute a mixing trough a mixer / shaker or in alternative a manual mixing, and verify any eventual consistency problem.
- In group of 2-3 locate the cans on the equipment, and mix them for at least 5 minutes.
- Stop the agitation, and add other cans/tints for the mixing cycle.

Proceed as above until all the cans/tins are stored in the equipment.

In case of power failure, verify the reason, once restored the situation, restart the agitation cycle by pressing the START button, in order to always ensure a good homogenization of the product.

During the loading and unloading of the cans, stop the agitation cycle by pressing the red STOP button.

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8 TROUBLESHOOTING

Problem	Possible cause	Possible solution
	No power.	Verify that the power cord is connected and intact.
The motor is turning, but the electrical panel is switched off.	The internal thermal protection of the motor have been activaded.	Unplug the unit, wait an hour before connecting again, verify the functioning. If not working change the motor.
	Emergency button pressed.	Relase the button, and press the start button.
The electrical panel is not working in all or in some of the	Possibile tension overload.	Remove the power plug, wait a couple of minutes before reinsert the plug, and operate the equipment.
buttons.	Failure on the electrical panel.	Replace the electrical panel.
	Loose belt.	Adjust the belt tension.
The motor is turning, but dose not transmit the rotation to the	Feather key missing or broken on the reducer shaft.	Replace /insert the feather key.
vertical shaft.	Transmission joint broken or unhooked.	Verify the connection between the various joints.
	Belt to tight.	Ajust the belt tession.
Noise machine.	Machine not correctly positioned. The feets are not adjusted correctly.	Adjust the feets.
The panel is on, but the motor is not working.	Fuse blown.	Change fuse.

For any other kind of issues, or doubts, please contact the Customer Service Dep. in Tecmec.



9 **TECHNICAL FEATURES**

9.1 Technical features of the STANDARD model

Feature		Value	U.M.
Dimension	Hight	Modular	mm
	Width	760 / 1125 / 1500 / 1850	mm
	Depth column	240	mm
	Depth basement	370	
Net (without colorrants)	Minimum	36 (bas. 760 + 3L)	Kg
	Maximum	n.d.	Kg
Operating temperature		10÷40	°C
Power supply		220 ±15%	V
Frequency		50 Hz (60Hz)	Hz
N° Phase		1Ph+N+TERRA	
Maximum Absorbed Power		0,75	kW
Protection class		IP54	
Noise		<70db	

Electrical panel

Dimensions :	15 x 7 x 5 cm
Protection class:	IP54
Electrical panel protection:	Internal fuse 10 A
Power suplly:	220V 50/60Hz
Keyboard:	Membrane type with raised buttons and emergency button
Indications:	Red led - Green led

Motor

Asynchronous single phase – 4P B3 power 0,75 kW (1hp).		
Rated data:	type MEC 80–0,75kW 4 poli 220/240V–50Hz	
Construction:	B3	
Thermal protection:	Thermal probe inside the winding NC-250V-25A	
Capacitor:	40µF inside the terminal box	
Reference standards:	IEC 34-1 - 73/23 CEE - 89/336 CEE	



9.2 Technical features of the ATEX model

Feature		Value	U.M.	
Dimensions	Height Modular		mm	
	Width	760 / 1125 / 1500 / 1850	mm	
	Depth	240	mm	
		370		
Net (without color rants)	Minimum	39 (bas. 760 + 3L)	Kg	
	Maximum	n.d.	Kg	
Operating temperature		10÷40	°C	
Power supply		220 ±15%	V	
Frequency		50 Hz (60Hz)	Hz	
N° phase		1Ph+N+TERRA		
Maximum Absorbed Power		0,75	kW	
Noise		<70db		

Electric panel

Dimensions:	12x9x12 cm
Protection class :	IP67
Power supply:	220V 50/60Hz
Keyboard:	ON button - Emergency button

Motor

Asynchronous single phase:	ATEX – 4P B3 power 0,75 kW (1hp).
Rated data:	type II 2G Ex d IIB T4 -RL M80 B3 0,75kW V230 50/60Hz.
Construction:	B3
Thermal protection:	Thermal probe inside the winding PTC 120°C
Capacitor:	$2x12,5 \ \mu\text{F}$ inside the terminal box
Reference standards:	EN 60079-0 2004; EN60079-1 2004; EN60079-4 2003; EN61241-0 2006;EN61241-12004;EN60529 Ottobre 1991; EN 60034-5 Ottobre 1991



10 WIRING DIAGRAMS

10.1 Wiring electrical panel standard motor single phase





Instruction n° 192 - Rev. 02 of 06/07/2016

ΕN

10.2 Wiring ATEX single phase motor





Instruction nº 192 - Rev. 02 of 06/07/2016

11 DISPOSAL

Before starting any operation, disconnect the power cable.

This machine can't be disposed as domestic waste.

For its disposal, disassemble the parts of machine, separating them for type (e.g.: tubes, rubber parts, lubricants, solvents, paints, aluminium, ferrous material, copper, etc.).

Dispose the parts following the regarding applicable laws. These standards can require written communications or requests for permission to responsible entities.

The accidentally leaked paints from cans and the products used for cleaning (e.g. paper/rags) must be disposed following the regarding current standards as their dispersion causes damage to people and environment.

For the disposal of colorants, or parts of machine contaminated by them, see to the safety data sheets of the respective products.



12 **SPARE PARTS**

12.1 **Standard Basement**

012245	Electrical Panel IP54 20on/240off	
101997	MOTOR M80B-220V-50HZ	
103503	Reducer U40FP 7.5/1	
103571	Reducer U40FP 10/1	
102527	Toothed Belt A18	
102001	Toothed Belt A19	
017312	Joint Ø14/ESAG. 12	

12.2 **Atex Basement**

O	103832	Start BUTTON	
	103831	EMERGENCY BUTTON	
	103833	MOTOR ADPE V220 ATEX	
	103584	REDUCER U40FP 7,5/1 ATEX	
	103613	REDUCER U40FP 10/1 ATEX	
	102527	TOOTHED BELT A18	
	102001	TOOTHED BELT A19	
	017312	JOINT Ø14/ESAG. 12	



12.3 Module

	001213	Idle Gear Ø60	
	001212	Gear with pin Ø60	
	008194	Central Gear Ø60 FORO ESAG 12	
Cathering	008202	Idel Gear Ø124	
	008912	Hook Fork HH	
SOD	017971	Hexagon Coupling 12/12	

Transmission shaft 12.4

019581	Shaft Al L=323,5	
019582	Shaft Al L=658,5	
019583	Shaft Al L=248,5	
019584	Shaft Al L=508,5	
019585	Shaft Al L=767	
019586	Shaft Al L=841.5	0
019587	Shaft AI L=993.5	
019588	Shaft Al L=1025	
019589	Shaft Al L=258	