

*OPERATION MANUAL*

*ENGLISH*

*Translated from the original language Italian*



**SINGLE-PHASE  
COMPRESSED AIR  
FEEDER**

**Type FSC**

MUI FSC Rev 2

# OPERATION MANUAL

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## WARRANTY

The Selling Company gives warranty to the Purchaser for its machineries manufactured, object of the Deed of Sale. The warranty is not extended to the Purchaser's assignees. The Purchaser has a period of one-year-warranty from the date of the invoice.

Warranty consists in repairing or replacing services free of charge of useless parts, whose faults derive from the Seller's responsibility, such as:

- Defects or faults in the material and their assembling or manufacturing process;
- Terms of Use described in the Operation Manual;
- Proper usage of the machinery.

The Selling Company is not responsible:

- For faults due to causes arising after delivery;
- For damages caused by third persons;
- For defects arising from materials or projects supplied by the Purchaser;
- For faults or breaks due to fatigue, careless maintenance, incompetence, negligence or an improper use of the machinery by the Purchaser;
- For usage not foreseen by the Operation Manual;
- For a wrong usage of the machinery by the Purchaser;
- For modifications or repair operations of the machinery, or of parts of it, are carried out without permission by the Selling Company.

Warranty of electrical and electronic components supplied with the machinery expires after its first running.

If the Purchaser does not respect the expiry dates for payments, the warranty will be not considered valid any longer.

Repairing and replacing operations:

- If they take place at the Sellers' factory, costs for transporting the goods will be on charge of the Purchaser.
- If they take place on the installation place and are due to reasons not depending on the Seller, operator's and technician's expenses for travelling and accommodation will be on charge of the Purchaser, according to the rates published by ASSOCOMAPLAST for this purpose (visit [www.assocomoplast](http://www.assocomoplast) for further information).

The Selling Company has no other obligations except the repairing and replacing duties mentioned above, and in particular the Buyer will not have the rights of the Contract of Purchase or any other damage claim.

In any case, each Arbitration about faults, defects, lack of quality, performance or requirements, for any other reasons or claims, without affecting the law (art.1495 Italian Civil Code), shall be proposed by the Purchaser within 12 months from date of invoice to be valid. It can not be proposed when the Purchaser is in arrears, even for a single instalment. Any dispute shall be submitted to the court of justice in Padua (Italy).

# OPERATION MANUAL

## INTRODUCTION

This Operation Manual aims:

- To be the correct guide for installation, use, maintenance and disinstallation of the machinery concerned.

IRV Systems will not be responsible for damages connected with installation, use, maintenance and disinstallation when they are not done following the instructions given in this Operation Manual.

In particular, the company will not be responsible for an improper use of the Operation Manual.

- To safeguard the user's safety preventing from improper actions and/or operations.

IRV Systems will not be responsible for to injuries to people or damages to things due to incompetence and/or when the safety instructions contained in the Operation Manual will not be followed.

In particular, the company will not be responsible for an improper use of the Operation Manual.

- To be an integral part of the machinery for its whole life cycle.

Each machinery sold by IRV Systems comes along with an Operation Manual that contains instructions about installation, use, maintenance and disinstallation of the machinery itself. The content of the Operation Manual is valid for the whole life cycle of the machinery: the Purchaser must keep the Operation Manual from the moment of installation till the moment of disinstallation of the machinery. The content of the Operation Manual is valid for the whole life cycle of the machinery: the Purchaser must keep the Operation Manual from the moment of installation till the moment of disinstallation of the machinery.

Moreover, the Operation Manual must be given to any other possible purchaser or owner of the machinery.

Important Notes:

- in case of doubts or uncertainty about the interpretation of words, passages, sections, schemes and/or pictures contained in the Operation Manual IRV Systems places its Technical Support at your own disposal for any further explanation.
- In this way IRV Systems declines any responsibility deriving from an improper use of the Operation Manual.
- Some of the pictures included in the Operation Manual, meant to detect the parts described easily, can be not the same as the corresponding parts of the machinery purchased: this is due to the need of generalisation.
- Finally, IRV Systems reserves the right to make the necessary modifications without notice in order to improve its machineries.

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## DECLARATION OF "CE" CONFORMITY

THE MANUFACTURER:

IRV Systems Srl  
Via G. Marconi, 42  
35010 Villanova di Camposampiero (PD)  
Italy



STATES THAT:

The product: AIR-COMPRESSED HOPPER LOADER

Type: FSC

Serial number: \_\_\_\_\_

Is in compliance with the directives:

- 2006/42/EC of the European Parliament and of the Council of 17<sup>th</sup> May 2006 on machinery and amending directive 95/16/EC,
- 2004/108/EC of the European Parliament and of the Council of 15<sup>th</sup> December 2004 on the approximation of the laws of the Member States relating to electromagnetic compatibility and repealing Directive 89/336/EEC,
- 2006/95/EC of the European Parliament and of the Council of 12<sup>th</sup> December 2006 the approximation of the laws of the Member States relating to electrical equipment designed for use within certain voltage limits,

Is in compliance with the harmonized Regulations:

- UNI EN ISO 12100-1,
- UNI EN ISO 12100-2,
- CEI EN 60204-1,
- UNI EN 1050,
- UNI 75454,
- CEI EN 60529/A1
- UNI EN ISO 13849-1

A person authorized to keep the relevant technical documentation is:

Mr. Schiavolin Christian, Via G. Marconi, 42 – 35010 Villanova di Camposampiero (PD) – Italy

Villanova di Camposampiero (PD), il 01/07/2011  
Christian Schiavolin, Managing Director (Signature)

# OPERATION MANUAL

## GLOSSARY

Skilled Operator:	Person(s) appointed to install, operate, regulate, maintain, clean, repair, or transport the machinery. This kind of operator has technical knowledge or is experienced enough in order to avoid dangers connected with the operations to be done, also when parts are under tension.
PSA	Bulk Specific Gravity ( <i>Peso Specifico Apparente</i> ): the weight of a litre of granular plastic material. the weight of a litre of granular plastic material.
UNI	Italian National Board for Unification ( <i>Ente Nazionale Italiano di Unificazione</i> ).

## SYMBOLS

The column on the left in the following table contains symbols which refer to a specific dangerous situation. Their respective meaning is described in the column on the right.

Symbol	Description
	<b>Do not remove safety equipment</b>
	<b>Generic Danger Sign</b>
	<b>Danger of Death</b>
	<b>High Voltage Danger</b>
	<b>Mandatory warning sign: safety shoes must be used.</b>
	<b>Mandatory warning sign: safety gloves must be used.</b>
	<b>Mandatory warning sign: safety glasses/visors must be used.</b>
	<b>Respect the environment.</b>

Symbols do not substitute danger warnings written in the column on the right; they are meant to emphasize them.  
Symbols are taken from Directive 77/576/CEE.

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## PROTECTION AND SAFETY DEVICES

**GENERIC CONSIDERATIONS:** MACHINERIES HAVE BEEN ENGINEERED SO THAT OPERATING, SETTING AND MAINTAINING THEM DOES NOT REPRESENT ANY RISK FOR PEOPLE, IF SUCH OPERATIONS WILL BE CARRIED OUT FOLLOWING THE INDICATIONS GIVEN.

**CONTROL DEVICES:** CONTROL DEVICES HAVE BEEN ENGINEERED SO THAT THEY ARE SAFE AND RELIABLE. EVERY DANGEROUS SITUATION IS AVOIDED. IN CASE OF LOGISTICS MISTAKES WHEN OPERATING THE MACHINERY, DANGEROUS SITUATIONS CAN NOT OCCUR.

**STARTING:** A MACHINERY CAN BE STARTED BY A VOLUNTARY ACTION THROUGH THE SWITCH PROVIDED ONLY. THE SAME IS TRUE WHEN THE MACHINERY WILL BE STARTED AGAIN AFTER IT HAS BEEN STOPPED.

**RISKS OF MACHINERY BREAKDOWN DURING THE WORKING PROCESS:** BOTH THE COMPONENTS OF OUR MACHINERIES AND CONNECTIONS DEVICES HAVE BEEN ENGINEERED TO RESIST THE FATIGUE THEY MUST UNDERGO DURING THE WORKING PROCESS. . DIRECT RISKS FOR PEOPLE OR THINGS CAN NOT OCCUR IN CASE THE MACHINERY OR PARTS OF IT BREAK DOWN

**WARNING:** ALL OPERATORS USING THE DEVICE MUST READ THE OPERATION MANUAL CAREFULLY. IN PARTICULAR THEY MUST BE ACQUAINTED WITH ITS DANGEROUS PARTS, ITS CONTROL BUTTONS, THE COMMON SAFETY REGULATIONS IN ORDER TO PROTECT ALL OPERATORS FROM ACCIDENTS AND THE MACHINERY FROM DAMAGES THAT MAY OCCUR.

**WARNING:** POSSIBLE UNAUTHORIZED MODIFICATIONS TO THE DEVICE MAY CAUSE SUDDEN DANGERS AND OUR COMPANY WILL NOT BE RESPONSIBLE FOR THEM; IT SHALL ASSUME NO LIABILITY AS REGARDS CIVIL AND PENAL RESPONSIBILITY.

**WARNING:** WEAR CLOTHING IN CONFORMITY WITH SAFETY REGULATIONS 89/656/CE AND 89/868/CE ABOUT PERSONAL PROTECTION WHEN OPERATING NEARBY THE MACHINERY.

**WARNING:** THE AREA WHERE THE DEVICE HAS BEEN INSTALLED MUST ALWAYS BE FREE OF HINDRANCES, SO THAT OPERATORS CAN HANDLE QUICKLY IN CASE OF GENERIC ALARMS.

**WARNING:** THE DEVICE HAS BEEN ENGINEERED IN ORDER TO BE OPERATED WITH THERMOPLASTIC MATERIALS AND WITH QUANTITIES GIVEN. ANY USE OF THE MACHINERY THAT SHOULD NOT BE IN COMPLIANCE WITH THE RULES AND REGULATIONS MENTIONED ABOVE HAS TO BE CONSIDERED NOT PROPER AND OUR COMPANY DOES NOT ASSUME LIABILITY AS REGARDS CIVIL AND PENAL RESPONSIBILITY

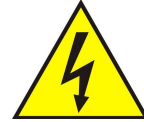
**WARNING:** IT IS EXPRESSLY FORBIDDEN TO REMOVE OR TO MODIFY ANY MECHANICAL OR ELECTRICAL SAFETY ON THE DEVICE; THE COMPANY WILL ASSUME NO LIABILITY IN CASE OF OPERATIONS NOT ALLOWED IN THIS MANUAL.



**WARNING:** IT IS NECESSARY TO FOLLOW THE ORDINARY MAINTENANCE PROGRAMM EXPLAINED TO LET THE DEVICE WORK PROPERLY.

# OPERATION MANUAL

**WARNING:** THE ELECTRICAL SYSTEM TO WHICH THE DEVICE WILL BE CONNECTED MUST BE IN COMPLIANCE WITH THE REGULATIONS IN FORCE AND MUST BE CHECKED BY QUALIFIED TECHNICIANS PERIODICALLY.




**WARNING:** IT IS NECESSARY TO SWITCH OFF THE ELECTRIC POWER USING THE LINE ARRESTER ON THE FRONT SWITCHBOARD BEFORE CARRYING OUT OPERATIONS ON ANY PART OF THE DEVICE THAT DO NOT CONCERN THE NORMAL WORKING PROCESS.

**WARNING:** IT IS NECESSARY TO CHECK IF THE GROUNDING SYSTEM WORKS PROPERLY BEFORE CONNECTING THE DEVICE TO THE POWER LINE.

**WARNING:** IT IS NECESSARY TO SWITCH OFF THE ELECTRIC POWER OF THE DEVICE IN CASE OF FAULTS OR DAMAGES OF ITS CONTROL SYSTEM AND TO CONTACT OUR TECHNICAL SUPPORT; POSSIBLE UNAUTHORIZED MODIFICATIONS MAY NOT BE CORRECT AND THE DEVICE MAY NOT WORK PROPERLY; IN THIS CASE OUR COMPANY WILL ASSUME NO LIABILITY.

## UNPACKING OPERATIONS


	<p>During unpacking operations workers must wear safety gloves in order to avoid possible injuries due to contacts with steel strips, splinters or any other element that can cause cuts or grazes.</p>
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## TRANSPORT AND HANDLING

Handling the device when packed or unpacked is an operation that can be carried out easily, as its weight never exceeds 25 kg.

Use proper means of transport that can protect the package and the machinery integrity when transporting the machineries for a long distance.

## INSTALLATION AND CONNECTIONS

	<p>Installation operations must be carried out in safe conditions for the workers involved and for other people who may be nearby at the moment.</p> <p>To limit the occurrence of risks and accidents, operators must be equipped personally with all necessary safety means, according to the kind of activity involved (for example: safety gloves, safety glasses, safety shoes, etc.).</p> <p>Moreover, working areas must be marked out by means of signal bands; proper danger warning signs must be placed in all strategic areas concerned during installation operations.</p>
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**LIGHTING** When operating the device in normal conditions, it is necessary that lighting in the room where the machinery has been installed can allow the immediate localization of safety devices and in particular of the control panel. If supplementary maintenance operations have to be carried out, a stronger light is necessary so that maintenance operations can be carried out without danger. Handle in compliance with the Regulations in force as regards lighting quantity and intensity both in the room and on the device.



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**VIBRATIONS** Even when the device operates at high working schedule, vibrations do not cause dangers to users nor do they to the surrounding equipments. If anomalous vibrations are noticed, the first thing the user must do is to switch off the mains through the line arrester in front of the control panel.

**NOISE LEVELS** As regards noise levels, the machinery has been engineered to reduce noise pollution. As one can see in the table of technical data, noise pressure in db nearby the device is not high and, moreover, the users spend most of the time of their daily work not necessarily near the machinery.

**RESIDUES AND ENVIRONMENTAL POLLUTION** Materials usually handled with this kind of machineries are in compliance with prEN626-1 and are not considered harmful. Moreover, our machineries are provided with a filter for the treatment of the material with an open circuit, so the room in which the device is placed must be dimensioned and ventilated properly so that the limit of 3 g/m<sup>3</sup> of concentration of thin dusts in the air will be never exceeded; beyond this limit there could be serious consequences for operators health.

**INSTALLATION PLACE** In order to get the device full functionality, following requirements must be fulfilled before installing the machinery:

- Unload the machinery by means of a pallet truck. Remove the package by opening the cardboard and removing the layer: be careful in this phase that operators do not get hurt. Place the device so that there is at least 1,0 m. distance on every side around its perimeter and from the machinery to the roof. On the front side, where the control panel can be found, the distance from possible hindrances must be at least 2,5 m..
- The room where the device will be placed shall be protected by the action of atmospheric agents such as rain, hail, snow, and so on.
- The environment must be free from corrosive substances that can cause damages to the electrical equipment and thus to the whole safety system.
- Installation can not be carried out in environments where explosives are at hand.
- Installation must not be carried out near devices that can issue electromagnetic radiations

**SAFETY REGULATIONS FOR INSTALLATION** Handle in compliance with following Regulations to install the machinery without dangers for the operators concerned.

The device must be placed in a room with proper lighting in compliance with Regulation CEI EN 60204-1. The device must be placed in a room with grounding system in compliance with Regulation CEI 64-8. The device must be placed in a room with electrical wiring in compliance with the Regulations in force.

## ELECTRICAL CONNECTIONS

The connection of the device to the electrical power supply must be carried out by a specialized technician (electrician) in compliance with the regulation CEI 64-8. Do following before connecting the machinery:

- Check the power socket potential (single-phase – neutral – grounding) di alimentazione che dovrà avere i seguenti ampere: vedi tabella dati tecnici
  - that must be of following Ampere: see Table Technical Data.
  - Check if the tension and frequency of the power transmission system correspond to that on the machinery identification label;
  - Check the grounding efficiency;
  - Check the tension variation that must be within the value of  $\pm 10\%$ ;
  - Check the frequency variation that must be within the value of  $\pm 2\%$ ;
  - Use a power cable (single-phase ) with section in compliance with the Regulations in force;
  - The cables connections on the terminal board must be in compliance with the Regulations in force;
  - It is important to protect the device from overvoltage and overload current of the power line by using automatic switches.

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**MECHANICAL CONNECTIONS:** The mechanical connections of the device must be carried out by a specialized technician (mechanic).

- Put the feeder onto the hopper of the machinery. The pipe transporting the material should be just as short as possible: in this way you can avoid losses of material.
- Fix the feeder to the hopper through the holes at the bottom of the feeder. If the hopper should not be equipped with a cover, do use the universal support SU-series, which can be fixed to the hopper by means of clamps.

**PNEUMATIC CONNECTIONS:** The pneumatic connections of the device must be carried out by a specialized technician (pneumatic operator).

- Be sure that the compressed air used for the machine is filtered, without oil content and dry and its pressure shall be between 6 - 8 bars.
- Connect the compressed air of the main line to the quick-connecting fitting of the feeder. The quick-connecting fitting of the feeder is to be used with a plastic pipe, diameter 8 mm. Increase the pipe diameter if distances are higher than 10 m from the point where high-pressure air is taken.
- Connect the "Jet-drill" to the body of the device by means of the corrugated pipe (for transport of the material) and to the valve by means of the smooth pipe (for drill feeding).

## MACHINERY DISINSTALLATION AND DISPOSAL

Follow the indications described in the previous section 'INSTALLATION AND CONNECTIONS' carefully to carry out all disinstallation and disposal operations of the machinery. Disconnect the power supply and dispose the machinery.

Be careful not to scatter solids, fluids or gases into the environment in order to avoid damages to people and to things; convey them into proper containers and dispose them according to the Regulations in force in your country.

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## MACHINERY DESCRIPTION

The only use allowed with feeders is to transport granular plastic material by vacuum from an intake point to the spot it has to be used

## GETTING STARTED

To start the feeder set the switch on the side of the electrical box on "ON".  
**The device can now operate correctly.**

## PROGRAMMING THE DURATION OF THE ASPIRATION PROCESS

To set the aspiration time of the feeder of the economic series you must manage the DIP-SWITCHES within the electrical box

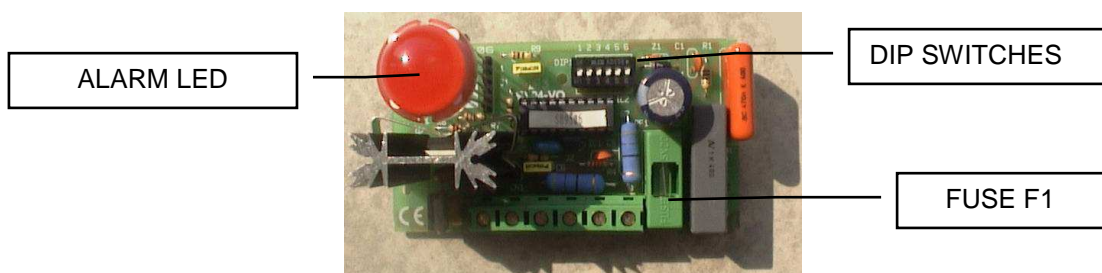
DIP-SWITCHES n. 1-2-3 set the loading time (rispettivamente di 10-15-35 seconds respectively, they are summed altogether if DIP-SWITCHES 1-2-3 are on ON )

N. 4 on ON: after 2 idle loading operations, the feeder will be in alarm condition and after 3 minutes it will repeat the loading operation. The cycle will be repeated till the loading operation will be carried out.

N. 4 on 'OFF': to reset the alarm for lack of loaded material you must turn off the machinery and then turn it on again

DIP-SWITCH n. 5 is DISABLED.

N. 6 on ON: pause between loading operations will be 15 seconds; N. 6 on 'OFF': pause 5 seconds.



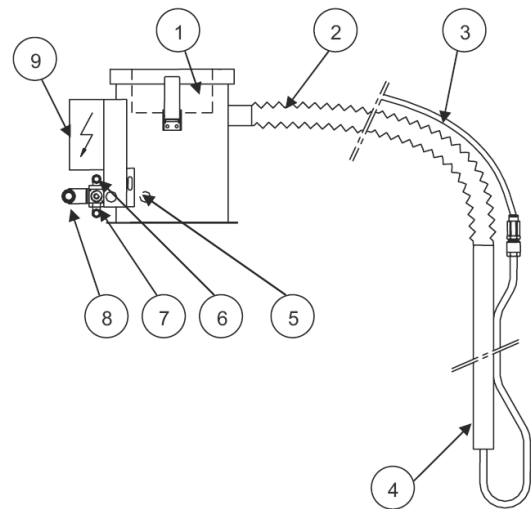
DIP-SWITCH		DESCRIPTION	
1	ON	Activates	Duration: 10 Seconds
	OFF	Deactivates	
2	ON	Activates	Duration: 15 Seconds
	OFF	Deactivates	
3	ON	Activates	Duration: 35 Seconds
	OFF	Deactivates	
4	ON	Activates	Retentive Alarm
	OFF	Activates	Blocking Alarm
5	ON	<b>DISABLED !!!</b>	
	OFF		
6	ON	Activates	15 Seconds Pause between aspiration processes
	OFF	Deactivates	5 Seconds Pause between aspiration processes
<b>The duration times set through dip-switches 1-2-3 can be summed, too</b>			
EXAMPLE: 1-2-3	ON	ACTIVATED	Duration: 60 Seconds
EXAMPLE: 1-2	ON	ACTIVATED	Duration: 25 Seconds

# OPERATION MANUAL

## WORKING CYCLE (Fig.2)

[Switch on ON].

- a) The device will start with:
- the duration times set before stopping it;
  - the hopper below is empty and so the sensor (5) is not covered
- b) The loading cycle will begin:
- the compressed air (3) will move the material within the drill (4) and push it towards the contenitor; this process will last 25 minutes ("control time")
  - the material will enter the contenitor through the pipe (2), while the filter (1) will separate the transport air from the material.
- c) during the control time:
- > If the sensor detects the presence of the material:
    - the aspiration time will begin ( dip switches 1/2/3 see par. "PROGRAMMING THE DURATION OF THE ASPIRATION PROCESS"); the duration of such process shall be set so that the body of the feeder gets full up to the level of the loading pipe and not beyond it.
    - The period of pause set will begin (dip switch 6 see par. "PROGRAMMING THE DURATION OF THE ASPIRATION PROCESS").
    - When the material is used up by the device fed (press or extruder), the sensor will get uncovered; the cycle will begin from step b) again.
  - > If the contenitor does not aspire material enough
    - It will repeat the cycle a second time.
    - If the material is available at the end of the cycle, the device will be in stand-by and wait for the signal of the sensor for the material.
    - If the material has not covered the sensor at the end of the cycle, a signal for lack of material will signalise that there is an anomaly. To start anew: check the cause for that alarm, turn the device off and then on.



See the functionalities of dip switch n. 4 for the management of the alarm for lack of material.


## ALARM TYPES

During the working process it may happen that, for accidental reasons, the material will not be aspirated in sufficient quantity. The red lamp on the front of the container electrical box will turn on signalling "Lack of Material". The feeder will stop 3 minutes long and then it will try to load the material again. The warning sign will turn off automatically as soon as the normal operating status of the feeder will be restored, otherwise the alarm cycle will be repeated (the feeder will repeat the the loading operation only if DIP SWITCH n. 4 is set on ON, otherwise it will be stopped (see par. "PROGRAMMING THE DURATION OF THE ASPIRATION PROCESS").

## MAINTENANCE

Maintenance operations must be carried out by qualified technicians.

Maintenance and inspection operations carried out carefully and at regular intervals are necessary to remove failures before they can cause worse damages.

	<p><b>All maintenance operations, except when it is expressly required, must be carried out only when the device is not supplied with electric power totally, that is, only after having turned off the main switch of the feeder and that between the mains and the device itself.</b></p>
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## FILTER:

To clean the filter manually:

- Open the lever lock of the cover.
- Tilt the cover.
- Draw the filter out from its seat.
- Clean it using compressed air.
- Replace the filter.
- Close the cover.

# OPERATION MANUAL

## TROUBLESHOOTING


	Cause	Solution
<b>the feeder does not aspirate</b>		
1	The cover is not placed properly	Check the lever locks on the cover
2	Faulty-worn out-obstructed compressed air pipe	Replace the compressed air pipe
3	The hand wheel that blocks the filtering cartridge is not tightened	Tighten the hand wheel properly
4	Faulty electrovalve	Replace the electrovalve
5	Faulty main board fuse	Replace the fuse
6	Faulty capacitive sensor	Replace the sensor
7	Faulty main board	Call our Technical Support
8	No material in the drill	Add material
9	Pipe for transporting the material worn out	Replace the pipe
10	Filter obstructed	Clean the filter
11	Faulty fuse	Replace the fuse
12	Compressed air not connected	Connect compressed air
13	Duration not coherent	Modify the duration on the main board
	Faulty main board relay	Replace the main board
<b>The feeder aspirates continuously even if it is full of material</b>		
1	Faulty main board	Replace the main board
2	Faulty electrovalve	Replace the electrovalve
3	Faulty main board relay	Replace the main board
4	Faulty capacitive sensor	Replace the sensor
1	Faulty main board	Replace the main board
<b>The Feeder Operates with Different Durations as those set on the electrical box</b>		
1	Problems with the main board	Call our Technical Support

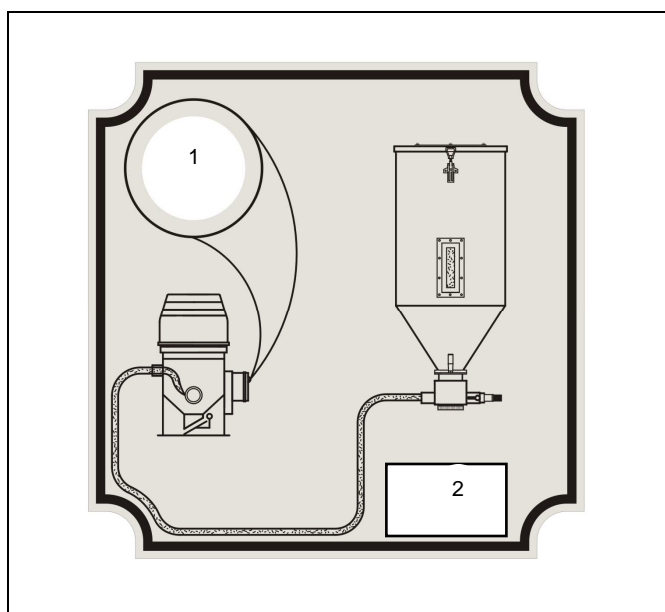
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Alarm for Lack of Loaded Material		
1	Lack of material / Obstructed drill	Add material / Check the drill
	The device stops after two idle loading operations	check dip switch n. 4 on the main board
	The device is in alarm condition but it starts after 3 minutes	check dip switch n. 4 on the main board
The Feeder is in Alarm Condition because of lack of material but the Lamp does not Turn On		
1	Faulty Lamp	Replace the Lamp

# OPERATION MANUAL

**TABLE 1 - IDENTIFICATION LABEL**

		Serial Number		M/A - M/Y	
Codice / Code		Descrizione / Description			
Kw	Volt	Hz	A	Phase	Kg.
IRV SYSTEMS SRL - Via G. Marconi, 42 - Villanova di Camposampiero (PD) ITALY - Tel. +39 049 88 43 047 - Fax +39 049 88 43 604					

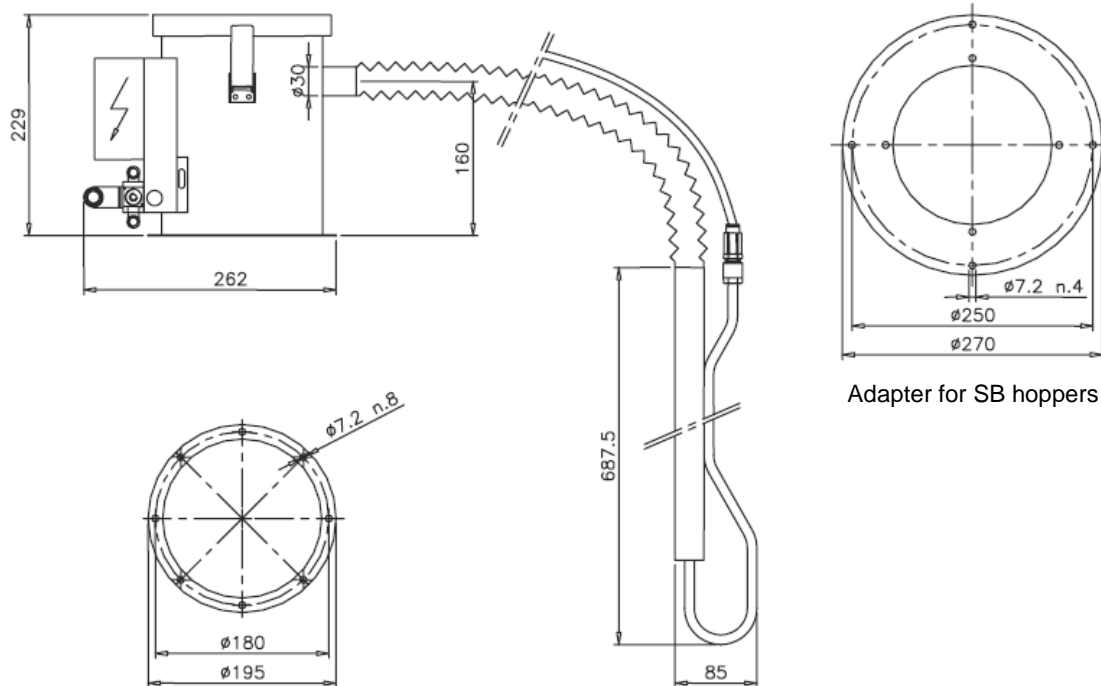
**TABLE 2 - CONTROL PANEL**


1. Alarm Led for lack of loaded material (see par. ALARM TYPES).
2. ON/OFF switch



# FSC

**TABLE 3 - TECHNICAL DATA**



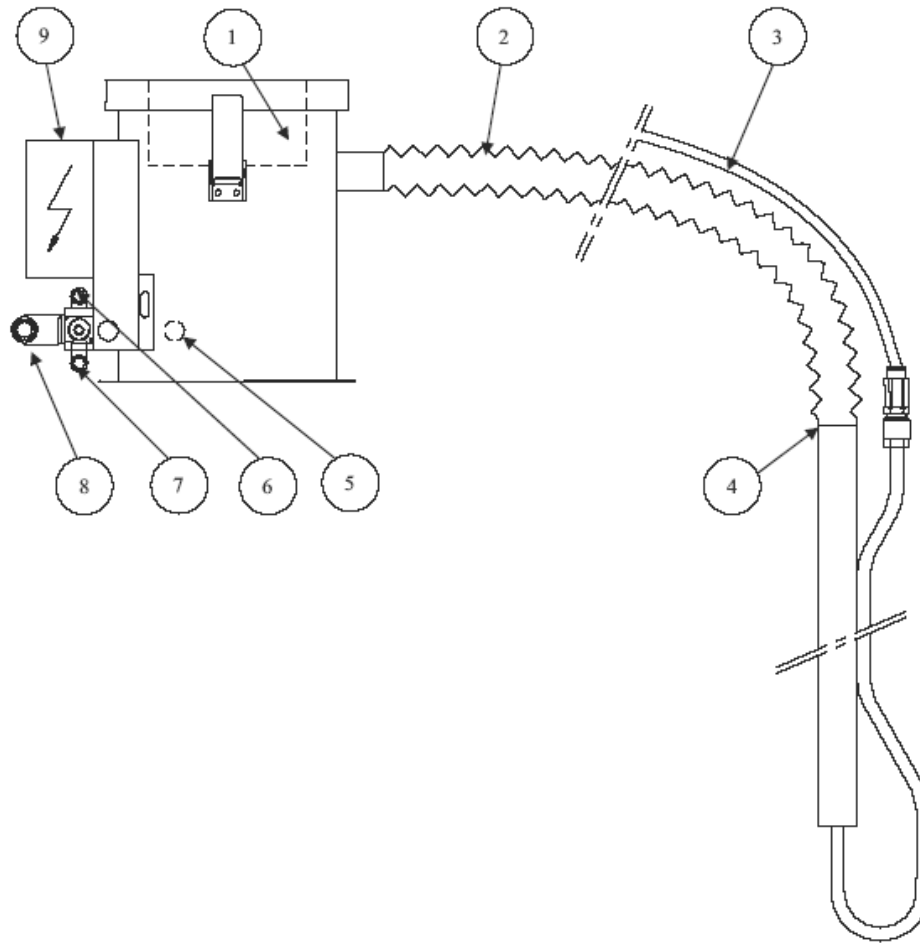
Adapter for SB hoppers

<b>Type</b>		<b>FSC</b>
Power supply	V/Hz	230 / 50-60
Cable section	mm <sup>2</sup>	3x1
Power	VA	30
Contentor capacity	dm <sup>3</sup>	3
Compressed air	bar	6 – 8
Loading capacity*	Kg/h	145 (Max)
Compressed air consumption	NI/Kg	250 (Max)
Weight	Kg	5
Noise Levels	dB	<65

# OPERATION MANUAL

**TABLE 4 - SPARE PARTS**

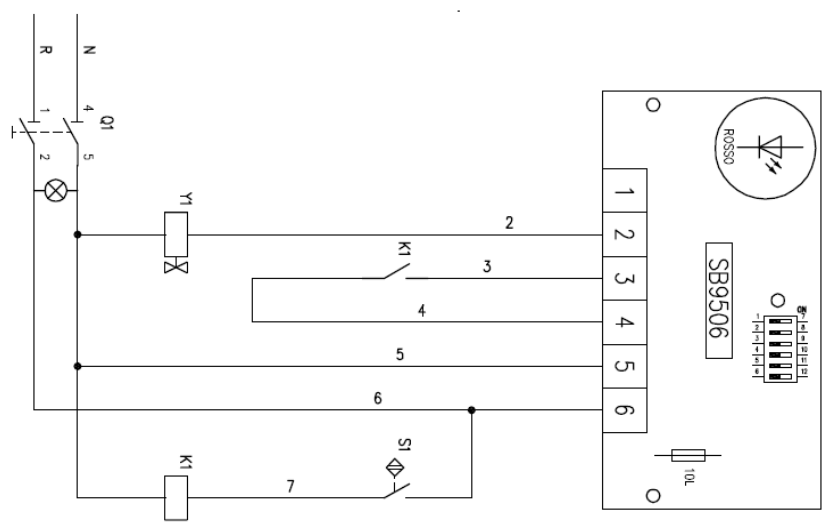
NOTICE: Specify the machine Serial Number and the year of purchasing when applying for spare parts.



<b>Nº</b>	<b>Table</b>	<b>Description</b>
1	4	Complete Filtering Cartridge
2	4	Flexible Pipe for Material
3	4	Flexible Pipe for Compressed Air
5	4	Sensor for Presence of Material
8	4	Electrovalve + Bobbin
9	4	Inner Relay for electrical box
11	2	ON-OFF Light Switch
13	2	Main Board
14	2	Main Board Fuse

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TABLE 5 - ELECTRICAL DIAGRAMS



ASPIRATION TIMES*		
1	ON	10"
2	ON	15"
3	ON	35"
4	ON	RETENTIVE ALARM
	OFF	BLOCKING ALARM
5	DISABLED	
6	ON	15" PAUSE
	OFF	5" PAUSE

# OPERATION MANUAL

