



SWISS
MADE

User manual

6100-110 & 6100-230

Electronically controlled motor, constant torque with intermediate reverse



BERGEON

SWISS MADE SINCE 1791

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1 INTRODUCTION

1.1 GENERAL INFORMATION

With this manual we want to provide all the important information concerning the safety of personnel on the use and maintenance of the COMPRESSOR + VACUUM.

This manual, is an integral part of the pump and must be carefully maintained throughout the life of the pump; in case of resale, rental, or loan of the unit, the manual must be given to the new user with the EC Compliance Certificate. It is prohibited to carry out any operation on the unit, prior to having carefully read and understood all instructions contained in this manual.

The images contained in this manual serve as an example and do not bind the manufacturer who reserves the right to make changes to components, with the aim of making improvements or any other reason without updating this manual if these changes do not alter the operation and safety of the unit.

1.2 DISTRIBUTOR DATA

Bergeon SA

Allée des Défricheurs 4
CH-2300 La Chaux-de-Fonds
info@bergeon.swiss
www.bergeon.swiss

For all communication concerning this device, please always provide the following information:

- Item number and compressor serial number;
- Year of manufacture;
- Purchase date;
- Detailed explanation of the problems encountered.

1.3 PERSONAL SAFETY EQUIPMENT

This instruction manual assumes that the compressor is installed in workplaces where all mandatory safety requirements are met. Personnel must wear appropriate personal safety equipment, if necessary, for the activities they are required to perform.

2. SAFETY

2.1 GENERAL WARNINGS

It is important to read this manual prior to performing any operation on this machine. We recommend that you always follow the safety standards of the country where the unit is used and always use specialized personnel for the various maintenance, use, installation and other operations which are necessary throughout the life of the unit. The following rules must be followed in order to ensure a good safety level:

- **Installation, use, maintenance and other operations must always be performed by qualified and/or trained personnel.**
- **It is imperative to wear the personal safety equipment provided.**
- **Always make sure that the power supply is disconnected before any cleaning, adjustment or maintenance operation.**
- **Never direct jets of water towards electrical parts, even if they are protected by jackets.**
- **Do not damage the nameplates and pictograms attached to the compressor. If they are inadvertently damaged, replace them immediately with identical ones.**

The BERGEON SA company disclaims any responsibility in case of damage to persons or property due to improper use of the compressor, to improper handling of its safety devices or non-compliance of the workplace safety standards.



Pressure-related hazards

Avoid any handling while the air tank is under pressure. Rupture of a piece under pressure can cause accidents.



Emission of harmful substance hazard

Air discharged by the compressor during draining of the tank contains traces of mineral oil. Ensure that the site's ventilation allows regular renewal of the ambient air.



Slipping and/or falling hazard

Failure to comply with the provisions of this manual may damage the compressor and cause oil leakage. Oil thus spread on the ground creates a risk of personnel slipping and falling.



Electrical hazard

Some parts of the compressor's electrical equipment are high voltage. Contact with these parts may cause serious injury and damage. All work on the electrical installation must be performed by qualified personnel only.



Fire hazard

Inappropriate use, or against as suggested by this manual, can cause malfunctions with a risk of overheating and fire.

In case of fire, use dry-chemical or CO₂ or other means compatible with the presence of electronic equipment. Do not use water to extinguish the flames.

3. USE

3.1 INTENDED USE AND CONTRAINDICATIONS

3.1.1 INTENDED USE



The silent aggregate that allows production of compressed air up to 8 bars is a bubble-lubricated piston compressor.

Running time must not exceed 15 minutes. With each use, the pause time must be equal to the running time.



The vacuum pump which allows vacuum production up to 200 [kbar] (absolute pressure) is a dry vane pump.

Running time must not exceed 15 minutes. With each use, the pause time must be equal to the running time.



These machines for vacuum and compressed air were designed expressly to work with clean dry air, inert gases whose suction temperature must be between 0° C and 35° C.

3.1.2 CONTRAINDICATIONS

Any use other than that for which the compressor was built may cause damage to the unit and constitute a serious hazard to the operator.

- **Do not operate the machine in an explosive or corrosive atmosphere, or with a strong concentration of powder or oily substances in the air.**
- **Never try to compress gases or liquids. Compression of gas may cause injury, explosions, fires or serious failure of the compressor.**
- **Do not use spare parts that are not original or intended by the manufacturer.**
- **Do not expose the compressor to rain, steam or excessive humidity.**
- **Do not set up or store the compressor near flammable substances or fuels.**

4. RECEIPT AND INSTALLATION

4.1 RECEIPT AND VERIFICATION OF CONTENT

- Upon receipt, verify that the packaging is intact and that it doesn't show evident signs of damage due to transport or storage conditions. If everything is intact, proceed with unpacking and checking.
- If the packaging is damaged, immediately alert the transport agent and the manufacturer.

4.2 SHIPPING AND HANDLING

- The transport, lifting and handling must be performed by expert and qualified personnel.
- The crate must be lifted and handled with forklifts or with hoisting equipment (cables, hooks, etc.) adjusted for its weight.
- The device must remain vertical, never tilt or lie down.
- The air filter must be replaced by the transport plug when travelling.

4.3 PACKING

The unit, according to the dimensions and means of transport, is packaged in the following manner:

- Wood crates are specially designed to transport these machines.
- The unit must absolutely be transported in this crate.
- They are designed by the manufacturer.

4.4 STORAGE

- For storage, close the outlet fitting with the protections provided for this purpose.
- The unit must be stored in the original packing and kept in an open, dry area protected and not exposed to direct sunlight. The storage temperature must not be lower than 0°C or more than 40°C.
- To maintain the effectiveness and functionality of the unit, it is recommended that the unit be switched on for at least 30 minutes every 2 months in accordance with the instructions and suggestions provided in this manual.

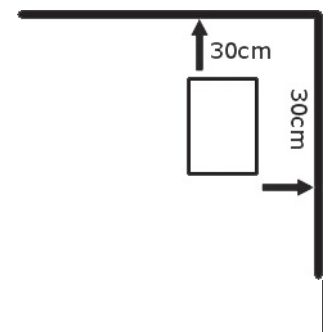
4.5 INSTALLATION OF COMPRESSOR

In order to ensure proper operation, place the compressor in accordance with the following conditions:

- Leave sufficient space around the unit's outer sides.
- Verify that the free space permits easy access to parts for verification and maintenance and allows, among other things, access for appropriate hoisting equipment.
- The compressor is lubricated by bubbling, which is why it must be installed in a vertical position (casters to the ground) and level. Never tilt or lay him down.

4.6 AMBIENT CONDITIONS

- The unit must be installed and used in a sufficiently lighted and covered area.
- The location of the unit must meet the height and air renewal requirements in order to allow good ventilation of the machine.
- A distance of 30 cm, free of any obstacle must be left around the machine for intake of fresh air and outtake of hot air.



4.7 CONNECTIONS

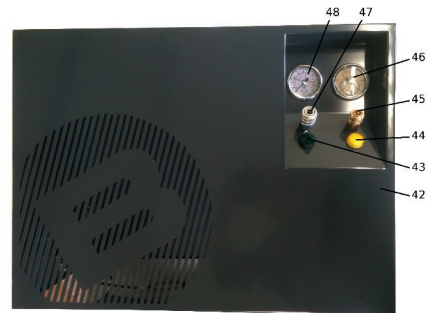


The compressor connections must be made exclusively by qualified and specially trained personnel.

4.7.1 PNEUMATIC CONNECTIONS

Connections to output fittings must be performed with hoses having a diameter equal to or greater than that indicated below.

- 45** Output fitting **Vacuum**
- 46** Gauge - Value display **Vacuum**
- 47** Output fitting **Compressed air**
- 48** Gauge - Value display **Compressed air**

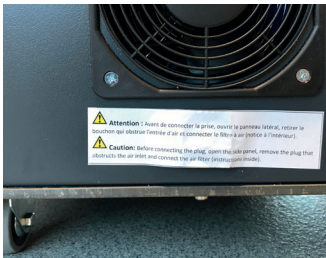


Compressed air Interior diameter: minimum 4 mm
Vacuum Interior diameter: minimum 6 mm

It is important that all hoses and various joints are watertight.

4.7.2 ELECTRICAL CONNECTION

Before powering up, it is essential to replace the transport plug **(a)** with the air filter **(b)**.



Verify that the voltage and network frequency correspond to the values mentioned on the unit information plate.

Always connect the compressor ground.

BERGEON Swiss made	
N° article	6100
Tension	230V / 50Hz
Puissance	1000 W
Pression	8 bar / 8 bar
Débit	1 min
Date de fabrication	2016
N° de série	

The electrical connection of this unit is made by means of a C14 type « appliance plug » which is found on one of the unit side walls. The male connector found on the front panel is equipped with a TT 10A delayed-action fuse.



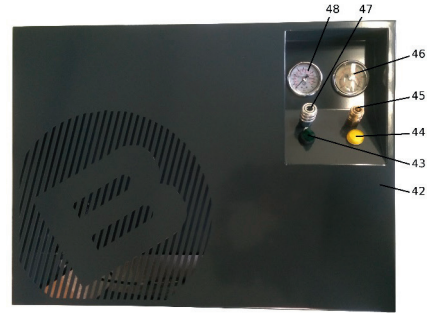
5. INSTRUCTIONS FOR USE

5.1 OPERATION

5.1.1 FIRST START-UP

43 Switches **Start/Stop**

44 Indicator **On**



Prior to initial operation, it is imperative to check the following points :



Checking to be done with power off!

- The unit is installed according to the instructions listed above.
- The input and output hoses are connected properly.
- The switch-on knob is in the « 0 » position.
- The oil level is higher than the indicator light :



- After checking the oil level, the access door has been closed.



Checking to be done with power on!

- After turning the switch-on knob to the right, in the «on» position, the unit starts.
- The vacuum is formed in the vacuum tank, this value is visible on the right display.
- At the same time, pressure is formed in the air tank.
- The pressure value can be read on the left display.
- After the set-point has been reached (the vacuum forms more quickly) the pump switches off. The noise level decreases slightly.
- After the set-point has been reached the compressor switches off. The remaining noise is that of the exhaust fan.
- When one or the other of the fluids reaches the minimum value defining the restart threshold, the unit switches on again.

5.1.2 SHUTDOWN

The compressor must be shut down by turning the switch-on knob to the left, to the « stop » position. It is important to not cut the power feed while the compressor is running.

Note: The vacuum setting is relative to the altitude, this is set by the Vacuum switch.

6. MAINTENANCE

6.1 GENERAL WARNINGS

In case of doubt about the information or procedures contained in this chapter, contact BERGEON SA to obtain additional information.



Use all documentation provided by the manufacturer (operating manuals, wiring diagrams, etc.).



All maintenance operations must be performed when the compressor is disconnected from energy sources. Do not operate until it has reached a safe temperature for the operator.



Pay particular attention to safety measures. Wear appropriate protection before working on the device.



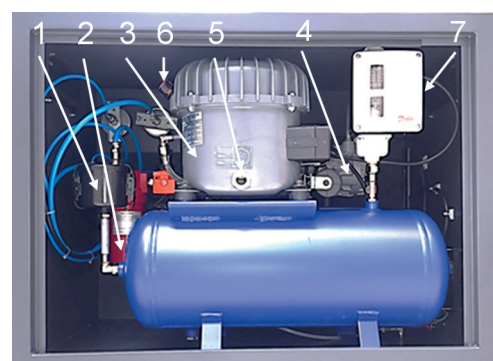
- Do not perform any type of maintenance, modification and/or repair of any kind other than what is indicated in this manual.
- Only trained or authorised personnel have the necessary experience to perform any type of maintenance with the appropriate technique.
- If maintenance of the unit is performed in a manner that does not comply with the instructions provided and/or with non-original spare parts and/or is performed in such a way that it affects the integrity of the compressor or that it modifies its features, BERGEON SA shall be deemed to be relieved of any responsibility inherent in the safety of individuals and the defective operation of the unit.

Before any maintenance



- Remove the plug
- Empty the compressed air tank using the tap located under the unit (see p.9).
- Empty the vacuum tank using vacuum plug no. 45 (p. 6) by disconnecting the fitting without the hose.

- 1 Vacuum Filter - Vacuum Filtration
- 2 Micro filter - Compressed Air Filtration
- 3 Compressor Block
- 4 Vacuum Pump
- 5 Compressor oil warning light
- 6 Breather - Filling the Oil
- 7 Vacuum Switch



6.2 REGULAR CHECKS

Before each use or at least once per week :

- Bleed the tank by opening the tap on the underside of the unit, between the casters **(a)**
- Bleed the micro filter by opening the tap located under the red reservoir: **(b)**
- Check the compressor oil level **(c)**

6.3 MAINTENANCE AND REVISIONS

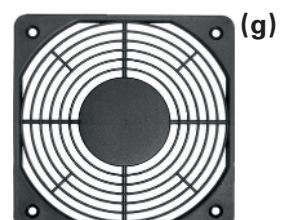
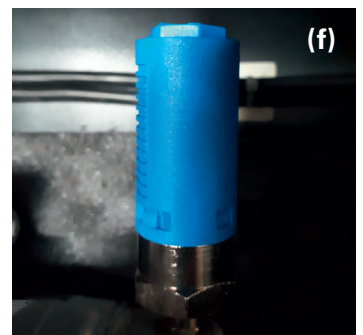
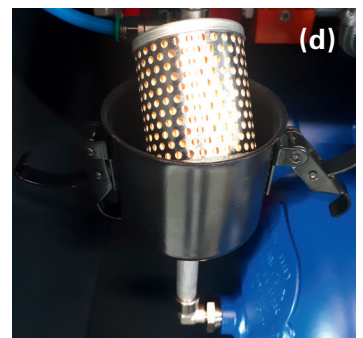
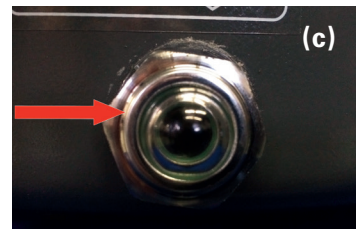
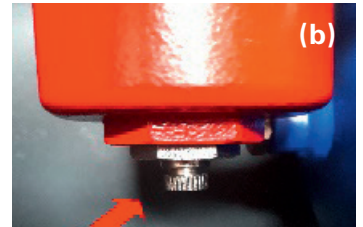
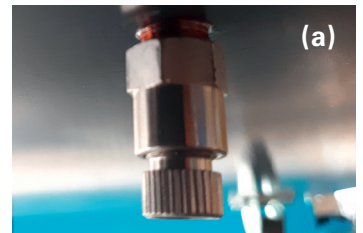
At least once every 6 months :

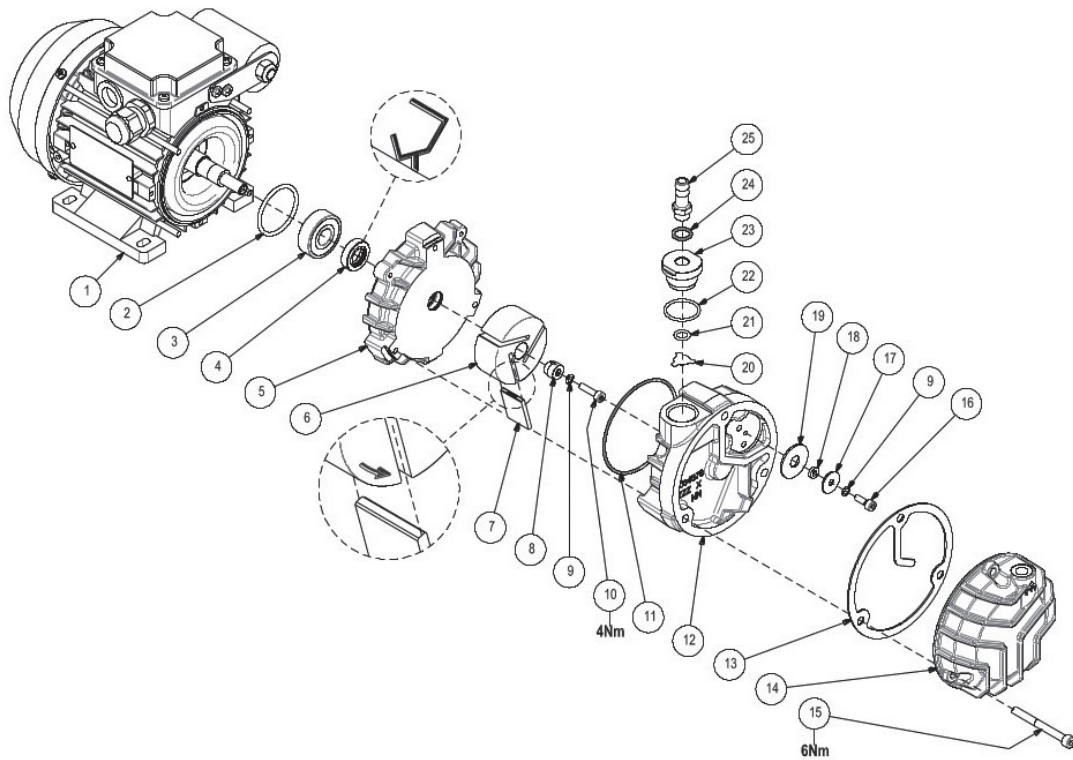
- Clean/Replace the vacuum filter **(d)**
- Clean or replace the micro filter **(e)**
- Clean or replace the degassing filter **(f)**
- Cleaning the ventilation grille **(g)**

At least once per year :

- **Operation to be done by a specialised technician !**
- Replace the oil in the compressor block

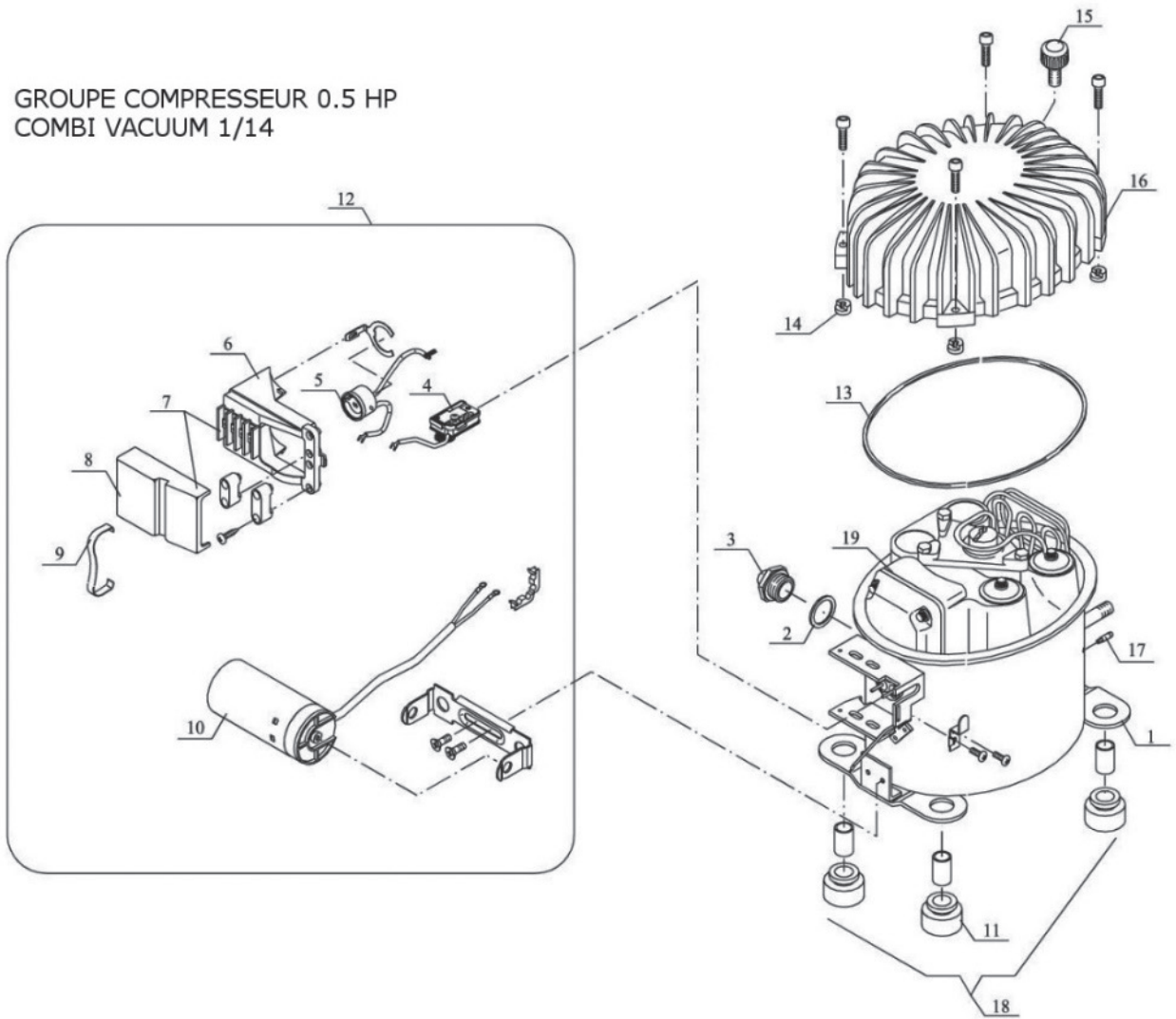
All of these operations are described in detail in the instructions provided with the parts, art. 6100-KIT-MAINT, to be purchased separately.





	Qté	Numéro	Pos.	KIT
Electric motor	1	4402067 (*)	1	
O-ring 3131 FKM	1	1001100	2	X
Bearing 6201-ZZ	1	2401015	3	
Shart seal GP 12-22-6 KFM HP	1	907002	4	X
Motor flange	1	4301088	5	
Rotor	1	3102029	6	
Vane	3	3301024	7	X
Conical ring	1	4807010	8	
Schnorr washer 04	2	303008	9	
Screw cylindric head M4x16 12.9 UNI 5931	1	113006	10	
O-ring 2262 FKM	1	001037/V	11	X
Body pump	1	3001152	12	
Gasket	1	4901079	13	X
Pump cover	1	3202071	14	
Screw cylindric head M5x50 UNI 5931	3	101020	15	
Screw cylindric head M4x12 UNI 5931	1	101004	16	
Washer	1	302001	17	
Washer	1	4001031	18	
Check valve rubber FKM	1	4505032	19	X
Plate	1	4505031	20	X
O-ring 2031 FKM	1	1001042	21	X
O-ring 2087 FKM	1	1001044/V	22	X
Inlet fitting	1	4508063	23	
Alluminium washer 1/8''G	1	304008	24	
Hose fitting Ø 9x 1/8''G	1	2103003	25	

GRUPE COMPRESSEUR 0.5 HP
 COMBI VACUUM 1/14



	Qté	Numéro	Pos.
Valves and cylinder head gasket kit	1	MGF-VA-PV-001	19
O-Ring head seal	1	OR 548x3.57	13
Silentbloc	4	PRE-MT 3/1/03	22
Breather	1	TA-FL-014	135
Oil Indicator Light	1	RA-SP-002	3
Capacitor	1	ME-CD-002	10
Bi-metal contact (thermal)	1	ME-TH-020	4
Start Relays	1	ME-RE-002	5

7. PRODUCT RETURN

The product may not be returned without prior written agreement from the manufacturer, which shall communicate the procedure and documents which must accompany the equipment.

8. DISPOSAL

Disposal of the unit must be performed by authorised technicians.

The metal parts can be handled with metal waste.

In all cases, all equipment destined for demolition must be handled in compliance with the regulations in force in the country in which the unit will be demolished.



DANGER

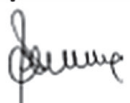
During waste handling operations, there remains the risk of cuts, splinters, snagging, contact with moving parts, and contact with chemicals Operators must use appropriate personal safety equipment.

9. COMPLIANCE CERTIFICATE

Déclaration CE de conformité		FR
<p>Nous, Bergeon SA, déclarons par la présente que le produit "COMPRESSEUR + VACUUM V.2017" type 6100-230+115 numéro de série de 1 à 9999 satisfait toutes les exigences essentielles des directives suivantes :</p> <p style="text-align: right;">2006/42 CEE - Directive CE pour machines 2006/95 CEE - Directive CE pour basse tension 2004/108 CEE - Directive CE de compatibilité électromagnétique 2009/105 CEE - Directive CE pour équipement sous pression</p> <p>Normes harmonisées utilisées :</p> <p>Autres normes et spécifications techniques utilisées : 2002/95/EC ROHS / 2002/96/EC DEEE/WEEE</p>		
EG-Konformitätserklärung		DE
<p>Wir, Bergeon SA, erklären hiermit, dass das Produkt "COMPRESSEUR + VACUUM V.2017" Typ 6100-230+115 Seriennummer de 1 à 9999 allen grundlegenden Anforderungen der nebenstehenden Richtlinien entspricht :</p> <p style="text-align: right;">2006/42 CEE - EG-Maschinenrichtlinie 2006/95 CEE - EG-Niederspannungrichtlinie 2004/108 CEE - EG-Richtlinie über elektromagnetische 2009/105 CEE - EG-Druckrichtlinie</p> <p>Angewendete harmonisierte Normen :</p> <p>Angewendete sonstige technische Normen und Spezifikationen : 2002/95/EC ROHS / 2002/96/EC DEEE/WEEE</p>		
EC Declaration of Conformity		EN
<p>We, Bergeon SA, hereby declare that the product "COMPRESSEUR + VACUUM V.2017" type 6100-230+115 serial number de 1 à 9999 satisfies all the essential requirements of the following Directives :</p> <p style="text-align: right;">2006/42 CEE - EC machinery directive 2006/95 CEE - EC low voltage directive 2004/108 CEE - EC electromagnetic compatibility directive 2009/105 CEE - EC pressure equipment directive</p> <p>Harmonised standards applied :</p> <p>Other technical standards and specifications applied : 2002/95/EC ROHS / 2002/96/EC DEEE/WEEE</p>		
Dichiarazione CE di conformità		IT
<p>La ditta, Bergeon SA, dichiara che il prodotto "COMPRESSEUR + VACUUM V.2017" tipo 6100-230+115 numero di serie de 1 à 9999 è conforme a tutti i requisiti essenziali previsti dalle direttive riportate a lato :</p> <p style="text-align: right;">2006/42 CEE - Direttiva CE per machine 2006/95 CEE - Direttiva CE per tensione bassa 2004/108 CEE - Direttiva CE di compatibilità elettromagnetica 2009/105 CEE - Direttiva CE per attrezzatura sotto pressione</p> <p>Norme armonizzate applicate :</p> <p>Altre norme e specificazioni tecniche applicate : 2002/95/EC ROHS / 2002/96/EC DEEE/WEEE</p>		
Declaración de conformidad CE		ES
<p>Nosotros, Bergeon SA, declaramos por la presente que el producto "COMPRESSEUR + VACUUM V.2017" Tipo 6100-230+115 número de serie de 1 à 9999 satisface todas las exigencias esenciales de las directivas siguientes :</p> <p style="text-align: right;">2006/42 CEE - Directiva CE para máquinas 2006/95 CEE - Directiva CE para baja tensión 2004/108 CEE - Directiva CE de compatibilidad electromagnética 2009/105 CEE - Directiva CE para equipamiento baja presión</p> <p>Normas armonizadas aplicadas</p> <p>Otras normas y especificaciones técnicas utilizadas : 2002/95/EC ROHS / 2002/96/EC DEEE/WEEE</p>		
<p>Personne autorisée à constituer le dossier technique conformément à l'annexe VII A de la directive 2006/42/CE Bevollmächtigte Person für die Zusammenstellung der technischen Unterlagen gemäß Anhang VII A der Richtlinie 2006/42/EG Person authorised to compile the technical file in accordance with Annex VII A of Directive 2006/42/EC Persona autorizzata a compilare la documentazione tecnica secondo l'allegato VII A della Direttiva 2006/42/CE Persona autorizada a constituir el expediente técnico de acuerdo con el anexo VII A de la Directiva 2006/42/CE</p> <p>O. Gigandet</p>		

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2400 Le Locle, 04.04.2017


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Directeur


S. Lanza
Resp. Qualité



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