

USER MANUAL

JUMBO SERIES



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This manual is for the JUMBO series. The general instructions apply to the models in this category. Henkelman B.V. cannot be held responsible for any damage caused by deviating machine specifications.

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2. Our liability shall never exceed the total amount of the order in question.
3. Barring the generally applicable legal rules of public order and good faith we are not liable to pay for any damage of any sort whatsoever, directly or indirectly, including business losses, to movable or immovable property, or to persons, either at the opposing party as at third parties.
4. We are in any case not liable for damages arising from or cause by the use of the product supplied or by the unsuitability of it for the goal for which the other party purchased it.

WARRANTY

Subject to the following limitations, the warranty period for products supplied by Henkelman is at least 12 months, as of the date indicated on the purchase document. This warranty is limited to manufacturing and machining defects and does therefore not cover breakdowns involving any part of the product that is exposed to any form of wear and tear. Normal wear and tear that can be expected with the use of this product is therefore hereby excluded.

1. Henkelman's responsibility is limited to replacing parts found to be defective; we shall not acknowledge claims for any other kind of damage or costs.
2. The warranty does not apply if the defect is the result of incorrect or negligent use, or maintenance that is contrary to the instructions given in this manual.
3. The warranty lapses if repairs or modifications on the product have been carried out by third parties.
4. Defects due to damage or accidents deriving from outside factors are excluded from the warranty.
5. If we replace parts in compliance with the obligations of this warranty then the replaced parts become our property.
6. If the other party does not, not sufficiently, or not in an acceptable period of time, fulfils the obligations to the agreement between the parties, we are not obliged to provide this warranty as long as the situation is occurring.

The stipulations of the warranty and liability are part of the general terms and conditions of sales, which we can send to you if requested.

CONTENT USER MANUAL

INTRODUCTION / LIABILITY / WARRANTY	2
CONTENT USER MANUAL	3
MACHINE REGISTRATION	4
IMPORTANT FOR INSTALLATION – READ THIS FIRST !!!!	5
IMPORTANT FOR OPERATION – READ THIS FIRST !!!!	6
WARNING LABELS	7
IMPORTANT MACHINE PARTS	8
START UP AND OPERATION	9
<i>Start the machine</i>	9
<i>Standard user operations</i>	10
OPERATING PANEL	11
<i>Control panel description</i>	11
<i>Control panel layout</i>	11
<i>Control panel use</i>	12
MACHINE MAINTENANCE	14
<i>General</i>	14
<i>Important before and during maintenance</i>	14
<i>Standard maintenance schedule</i>	15
<i>Vacuum pump maintenance</i>	15
<i>Seal system maintenance</i>	18
<i>Silicone holder and lid gasket maintenance</i>	20
<i>List of maintenance parts</i>	21
TECHNICAL SPECIFICATIONS	22
ELECTRICAL DIAGRAMS	23
<i>Error code</i>	24
PNEUMATIC DIAGRAMS	25
PROBLEM SOLVING	26
SPECIAL APPLICATIONS	28
<i>Packaging liquid products</i>	28
<i>External vacuuming of food containers</i>	29
EEC DECLARATION OF CONFIRMITY	30
MAINTENANCE SCHEDULE / NOTES	31
REMOVAL FRONT PANEL	32



**PRIOR TO STARTING TO USE THE MACHINE,
MACHINE REGISTRATION TO BE COMPLETED BY THE USER**

Please register the machine using the following data. This information will be needed by the supplier or Henkelman BV in case of questions or references about the specific machine.

DATA ON MACHINE TAG

Relevant data for answering questions can be found on the machine tag. The machine tag is located at the rear of the machine. Please note down the following data:



1. MACHINE TYPE

2. MACHINE NUMBER (MACHINE NO.)

3. VOLTAGE (TENSION)

CONTROL PANEL DATA

When starting the machine, two codes appear on the display consecutively, before the control switches to user mode. The first code indicates the software version of the control software and the second code indicates the active options. Please write down the codes below:



4. CODE 1



5. CODE 2



IMPORTANT FOR INSTALLATION!!! READ THIS FIRST!!!

GENERAL

- Congratulations on the purchase of your Henkelman machine. In case of any problems or questions please contact your supplier or Henkelman BV.
- Please take the time to read through this manual carefully before starting the machine. This manual contains relevant information and instructions for starting up, maintenance and applications. The warranty cannot be applied when problems occur that could have been avoided by reading this manual.

ENVIRONMENT

- The machine must be moved or transported in an upright position. The machine may NOT be tilted because this can cause damage to the pump.
- Place the machine on a flat, level floor. This is necessary for the machine to be able to function without any problems.
- Enough space must be left around the machine for good ventilation. The space must be at least 5 centimetres.
- The ambient temperature in which the machine is operating must be between 10 °C and 30 °C. When using the machine in areas with other ambient temperatures the user must contact the supplier for advice.
- NEVER place the machine directly next to a heat source or a steaming device (for example a combi-steamer, dishwasher or stove).

POWER / EARTH

- Make sure that the voltage indicated on the machine tag matches the mains.
- Always connect the machine correctly to an earthed socket to avoid danger of fire or electrical shocks (earth connection is green/yellow).
- The power cable must always be cleared and no objects can be placed on it.
- Replace the power cable immediately if damaged.
- Always disconnect the power if there are problems with the machine or during maintenance, before starting to work on the machine.
- When the machine is not being used for a long period, the power cable should always be disconnected.

VACUUM PUMP

- Check before starting the machine if there is oil in the pump (see page 16). NEVER start the machine without oil in the pump.
- Use the right type of oil corresponding to the pump (see page 17).
- After moving and/or transporting the machine, always first check the oil level before re-starting.
- When starting the machine for the first time or after a long period, first run the conditioning programme before working with the machine (see page 15).



IMPORTANT FOR OPERATION !!! READ THIS FIRST !!!

GENERAL

- Never pack products that can be damaged during or after vacuum packaging. Living beings may never be vacuumed.
- In case of any doubt about the operation and/or functioning of the machine, please refer to this manual. If the manual is not helpful to your problem do not hesitate to contact the supplier.
- The warranty and/or liability expire if damage is caused by self-made repairs and/or modifications. In case of malfunctioning or a defect you can contact the supplier.
- In case of malfunctioning: always stop the machine and remove the power cable from the wall socket.
- Avoid packing warm products to reduce condensation and corrosion risks for the pump.
- Avoid packing liquid products to prevent pump spoiling.

GENERAL MAINTENANCE

- The machine needs to be serviced regularly to guarantee the functioning and to keep the machine in optimal condition. The maintenance schedule is clearly defined on page 15. The warranty automatically expires when the maintenance is overdue or inaccurate.
- Always remove the power cable from the wall socket during maintenance; the machine must be completely disconnected.
- If there are doubts about the maintenance activities or if the machine fails to work correctly always contact the supplier.

TRANSPARENT LID

- Never locate the machine near a heat source. This can cause damage to the lid (cracks).
- Never place hot, sharp, or heavy objects on the lid. These can cause damage to the cover (cracks) in the long run.
- Always clean the cover with solvent detergent. Solvents can damage the lid.
- Check at least once a week if there are cracks in the lid. If cracks are visible in the lid then the machine must IMMEDIATELY be turned off and not used again until the lid has been replaced. Continuing to work with a cracked lid can cause implosion of the lid. The warranty and/or liability expire in case of accidents and/or damage caused by working with a cracked lid.
- Replace the transparent cover every 4 years as a precaution and standard service interval.

VACUUM PUMP

- Regularly check the level and quality of the oil in the pump. If the level of oil is too low or the quality of the oil is bad (turbid), replace or top up the oil before using the machine (see page 16). Let the pump conditioning program run at least one full cycle before replacing the oil (see page 15).
- Use the right type of oil for the pump when replacing or topping up (see page 17).
- Use the conditioning program at least once a week to enhance good and prolonged pump- operation (see page 15).

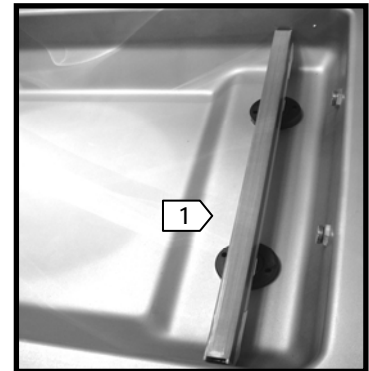


WARNING SIGNS ON THE MACHINE !!!

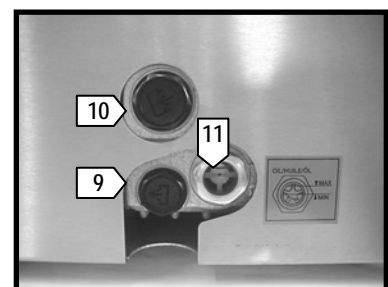


- ONLY use the prescribed power supply voltage.
- Insert the plug firmly into the mains wall socket.
- Always connect the machine to an earthed wall socket.
- Always remove the plug during maintenance or when the machine is not in use for long periods.

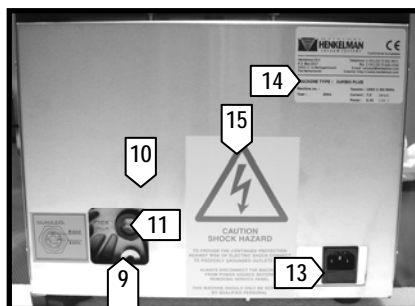
IMPORTANT MACHINE PARTS



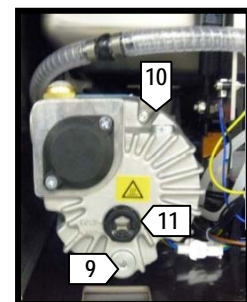
Vacuum chamber



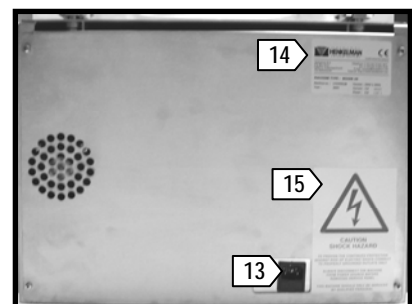
Side view JUMBO 35 / 42 /50



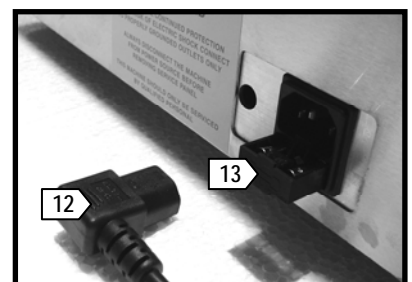
Rear view MINI JUMBO / JUMBO PLUS



Rear view MINI JUMBO / JUMBO PLUS underneath left (cover removed)



Rear view JUMBO 35 / 42



Fuse holder / Power cable

1. Sealing bar in vacuum chamber mounted sealing supports with a click system
2. Silicone holder mounted on transparent lid
3. Lid gasket in lid for hermetic seal
4. Gas springs for opening lid after machine cycle (MINI JUMBO / JUMBO PLUS 1 gas spring in the middle)
5. Vacuum / Ventilation opening
6. Control panel
7. Vacuum pressure meter
8. ON/OFF Switch
9. Oil drain plug
10. Oil fill plug
11. Oil inspection window
12. Power cable
13. Fuse holder with fuses
14. Machine tag
15. Warning stickers

Appearance of parts and machines can deviate per model from illustrations

STARTING AND OPERATING THE MACHINE



ON/OFF SWITCH

The ON/OFF switch is used to turn the machine on and off before and after operation.

CAUTION – The ON/OFF switch does not completely remove all power from the machine. The power cable must be unplugged from the wall socket to remove all power from the machine. Ensure that the machine is completely without power during maintenance and repair activities is.

When the machine is turned on (with the ON/OFF switch), the pump only runs during the vacuum cycle.

STARTING THE MACHINE

When the machine is connected, the machine can be turned on using the ON/OFF switch. When starting the machine two codes appear on the display before the control switches to the user mode.



The first code indicates the control software version. The second code indicates the machines active options. Please write down both codes on page 4 of this manual as they are important for the supplier and Henkelman BV in case of questions and/or if any problems occur.



After switching to user mode the machine is ready for use. If the machine is new or has not been used for a long period, it is important to run the conditioning program for the pump (15 minutes) to preserve the pump. For instructions about the conditioning program, see page 15.



After switching to the user mode it is possible that [OIL] appears on the display . This means that the operating hours counter is turned on and the number of operating hours that has been set has elapsed. The hour counter is turned off by default but can be set by the customer or supplier to be used as a reminder for regular maintenance activities.

When [Oil] is displayed the machine can still be used as usual but we advise to change the oil and reset the warning function.

Please contact your supplier for more information about setting or turning off the operating hours counter.

STANDARD USER OPERATIONS FOR THE MACHINE

1. Turn the machine on with the ON/OFF switch. Warm up the pump with the condition program if the machine has not been used for a while (instructions page 15).
2. Fill the vacuum bag with a product. Select the correct size of the bag. The bag has to fit easily around the product but should not be too large. Make sure you respect hygienic conditions during this operation. Packaging materials, product and hands must be clean and dry if possible.
3. Place the vacuum bag in the chamber. The open end must be placed over the sealing bar. The bag should not be outside the chamber. If the product is much lower than the height of the sealing bar you should use the black insert plates that are delivered with the machine. This makes the operation easier and reduces the cycle time.
4. The vacuum bag must be placed over the sealing bar without any folds.
5. Multiple vacuum bags can be placed over the sealing bar if the sealing bar is longer than the opening of the vacuum bags. Vacuum bags may not however be laid on top of each other on the bar.
6. Set the correct value for vacuum and sealing functions. See page 13 for setting the function values.
7. Close the lid and the machine automatically runs through the full cycle of installed functions. The lid opens automatically when the last function "ventilation" has finished.
8. If necessary the cycle can be fully or partially interrupted by pressing the [VACUUM STOP] key or the [STOP] key.

The [VACUUM STOP] key interrupts the active function (vacuum or sealing) and automatically continues with the next function.

The [STOP] key interrupts the entire cycle and goes immediately to the ventilation function.
9. The packed product can be removed from the machine.



SAFETY and PRODUCT PROTECTION

The packaging process can be partially or fully interrupted at all times:

- Stop active function, press on [VACUUM STOP] key
- Stop full machine cycle, press [STOP] key

OPTIMAL AND EFFICIENT PACKAGING RESULT

- Use the correct size and good quality of vacuum bags
- Maximum 75% product filling in the vacuum bag
- Place the vacuum bag without any folds over the seal bar (use the correct number of inlay plates in the chamber)
- To pack liquid and hot products requires special attention (please read page 28)

OPERATING PANEL

CONTROL PANEL VERSION

Digitale time control The digital control is implemented with a function program that can be set with different function values per cycle (to pack different products). A program cycle is the complete program of set functions (vacuum and seal) that the machine runs through to pack a product.

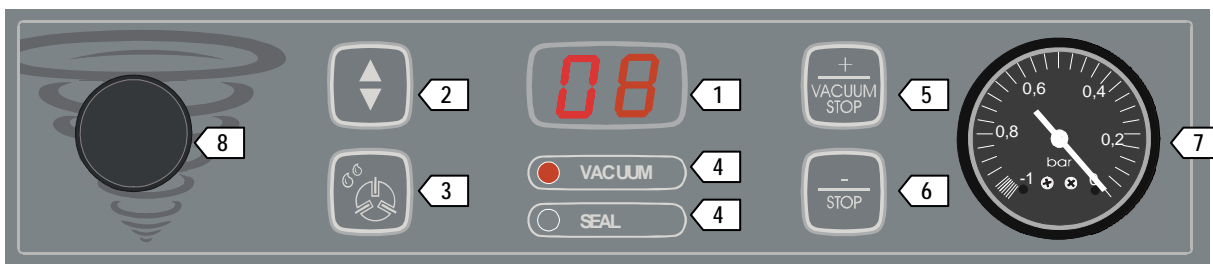
The control panel has a standard implementation with a conditioning program for the regular maintenance of the pump and two STOP keys for complete function interruption or for active function interruption only. A number of built-in service programs is available. Contact your supplier for more information about these functions.

The value of the functions can be set for a certain period of time.

The vacuum function can be set in entire seconds with a maximum of 99 seconds.

The seal function can be set with an interval of 0.1 seconds and a maximum of 6.0 seconds.

CONTROL PANEL LAYOUT



1. Display

The display shows the status of the active function during the run of the program cycle, or the set value of the selected function when the machine is not running.

2. FUNCTION SELECTION KEY

With this key you can select the function (vacuum or seal) for viewing or changing function values. The function is selected if the function light is burning on the left side of the function description in the display.

3. CONDITIONING PROGRAMME KEY

Start the conditioning program for pump (duration 15 minutes). For instructions about the program, see page 15.

4. FUNCTION Lights

A burning light of the function indicates that the function is active during the program cycle or that the function is selected for view or change.

5. + / STOP VACUUM Key

Function during cycle

Interruption of the active function during the program cycle. The cycle immediately continues with the next function.

General function.

Increments the value of the selected function.

6. - / STOP Key

Function during cycle

Terminates the program cycle completely. The cycle immediately switches into the ventilation function.

General function

Decrements the value of the selected function.

7. Vacuum meter

Displays the pressure in the vacuum chamber.

8. ON/OFF Switch

The ON/OFF switch is used to turn the machine on and off before and after operation. The switch turns on all units in the machine. Caution, the switch does not completely remove all power from the machine.

CONTROL PANEL USE

When the machine is turned on it is ready for use after the two operating codes have been displayed.

Description of the program cycle for digital time control

1. Functions (vacuum and sealing) are set with the correct values (see page 13 for settings)

2. Close the lid.

3. Vacuum function

The machine starts to extract air from the chamber.

The light in front of [VACUUM] starts to burn.

Display: decrementing time per second starting at the time set (max. 99 sec.).

Vacuum meter starts increasing to the left.

4. Sealing function

Once the vacuum function has finished, the sealing function starts to seal the vacuum bag(s).

The light in front of [SEAL] starts to burn.

Display: decrementing time per 0.1 second starting at the time set (max. 6.0 sec.).

The value on the vacuum meter stays the same.

5. Ventilating function

After ending the seal function the ventilating function starts ventilating the chamber to 1 atmosphere/ATO and the lid opens.

There are no longer any function lights burning.

Display: lines moving up and down until the lid has opened.

The vacuum meter runs back to the right to zero and the lid opens automatically.

6. The product is packed and ready to remove.

Set/change function values

Please follow the steps below to change the function values for vacuum and/or seal:

Press the FUNCTION SELECT Key to select the required function. The function light will light up when the function is selected.

Press the [+ / STOP VACUUM] or [- / STOP] keys for incrementing or decrementing the function values. It takes 0.5 seconds before the value begins to change.

After changing the value(s), the machine must run through the cycle one time (see previous page) to record the values.

Vacuum function

The vacuum function value can be incremented or decremented per second with a maximum of 99 seconds and a minimum of 2 seconds.

When you keep pressing the [+ / STOP VACUUM] or [- / STOP] key, during the setting of the vacuum function, the first 5 seconds will be incremented or decremented per second. After 5 seconds, intervals of 10 seconds will appear. If the key is released, the setting can be changed per second again.

Sealing function

The seal function setting can be increased or decreased with a maximum of 6.0 sec. and a minimum of 0.5 sec.

When you keep pressing the [+ / STOP VACUUM] or [- / STOP] key, during the setting of the sealing function, the first 5 seconds will be incremented or decremented per second. After 5 seconds, intervals of 10 seconds will appear. If the key is released, the setting can be changed per second again.

Service programs control panel

The control panel is equipped with a number of service programs that can be useful during regular maintenance or repairs. The conditioning program for the pump is a service program that has to be used regularly (see explanation on page 15).

Contact your supplier for more information about the use of other service programs.

MACHINE MAINTENANCE

GENERAL

A regular and complete maintenance is required for long usage of the machine, to avoid malfunctioning and to achieve an optimal packaging result. If the machine is used intensively (more than 5 hours per day), we recommend professional servicing every 6 months. For normal use of the machine, complete servicing once a year should be sufficient (depending on location, environment and products).

However, there are small maintenance activities that must be carried out regularly. These maintenance activities can be done by the user. The following page contains an overview of these activities.



IMPORTANT BEFORE AND DURING MAINTENANCE

- The machine must always be completely voltage free before any maintenance is carried out on it. Always remove the plug from the wall socket.
- If the machine is not functioning properly or if it produces strange noises, turn it off immediately with the ON/OFF switch and contact your supplier.
- When cleaning transparent lids **NEVER** use cleaning products containing solvents. Check at least once a week if there are no cracks in the lid. In case of cracks, turn off the machine immediately and contact your supplier.
- High pressure cleaning is not permitted for cleaning the machine. High pressure cleaning can cause considerable damage to the electronic and other parts of the machine.
- Water may never be permitted to enter either the extraction nozzle of the chamber or the blow-off hole of the pump. This will cause irreparable damage to the pump.
- Completer servicing must always be carried out by an authorised supplier.
- The JUMBO machines are designed for a maximum of 5 hours per day. The supplier or Henkelman BV cannot be held responsible for any malfunctioning or defects if these operating limits are being exceeded without consultation.
- The machine must be moved or transported in an upright position. The machine may **NOT** be tilted because this can cause damage to the pump.
- The supplier or Henkelman BV cannot be held responsible for any malfunctioning or defects if the maintenance instructions in this manual have not been respected.

STANDARD MAINTENANCE SCHEDULE FOR THE MACHINE

- | | |
|-------------------------|---|
| Daily | <ul style="list-style-type: none"> ▪ Clean the vacuum chamber, lid and housing after use with a damp cloth. ▪ <i>Be careful that no cleaning products containing solvents are used.</i> ▪ <i>Make sure that no high pressure cleaner is used.</i> |
| Weekly | <ul style="list-style-type: none"> ▪ Check the oil level and replace or top up oil if the oil is turbid or the oil level is too low. For instructions, see page 16. ▪ Activate the conditioning program for the pump at least once a week. ▪ Check the sealing bar for damage. Replace Teflon tape or seal wire if the seal quality is no longer sufficient or if the Teflon tape or seal wire is no longer taut on the bar. For instructions, see page 18-19. ▪ Check the lid gasket and replace it if the gasket is damaged or stretched. For instructions, see page 17-18. ▪ Inspect the transparent lid for cracks. If cracks are visible, turn off the machine immediately and contact your supplier. |
| Every Six Months | <ul style="list-style-type: none"> ▪ Replace oil at least once every 6 months. |
| Yearly | <ul style="list-style-type: none"> ▪ Inspect the oil exhaust filter for saturation. If saturated, replace the filter. For instructions, see page 17-18. ▪ Contact the supplier for professional servicing. |
| Four-yearly | <ul style="list-style-type: none"> ▪ Replace transparent lid and the gas springs ▪ Replace seal cylinder membranes. |



Special attention: When the machine is expected to not be used for more than 1 month we strongly advise to drain the oil to prevent any pump corrosion risks

VACUUM PUMP MAINTENANCE

It is very important to regularly service the pump to ensure long and correct operation. The following activities are essential for correct maintenance. If the machine is used regularly, we advise a complete inspection of the pump by the supplier at least once a year, to ensure long use without any problems. Do not hesitate to contact your supplier for more advice or information.



Conditioning program

The conditioning program provides a good flush of the pump. During the program, the pump and oil reach the operating temperature which improves the absorption and filtering of moisture and contaminants. The high temperature enables any moisture in the pump to evaporate, minimising the risk of corrosion in the pump.

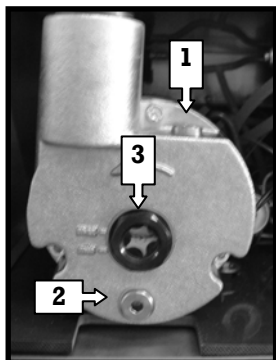
The program lasts 15 minutes, we advise to run it at least once a week. Turn on the machine, press the key [conditioning program], and close the lid. The program runs automatically. During the program moving dots will appear on the display.

The program can be interrupted at any time using the [STOP] key. It is however important for the sake of good maintenance that the program completes a full 15 minute cycle and we therefore advise not to interrupt the cycle, or only in case of urgent matters.

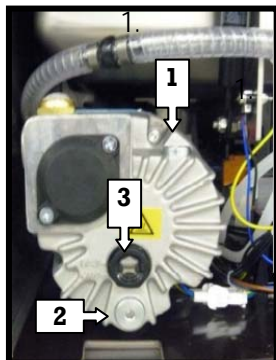
We also advise to run the program before using the machine for the first time, after the machine has not been used for a long time, and especially before changing the oil.

Changing Oil / Filling Up

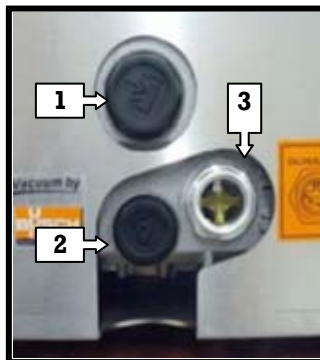
The oil level and oil quality must be checked at least once a week. U can use the oil inspection window in this purpose. Top up the oil level if it is too low. Replace the oil if it is turbid. Oil must be replaced at least once every 6 months.



Rear view MINI JUMBO after opening rear end.

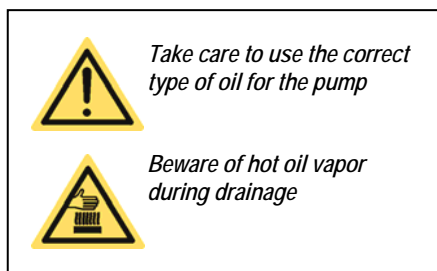


Rear view JUMBO PLUS after opening rear end.



Side view JUMBO 35 / 42 / 50

- 1 Oil fill plug
- 2 Oil drain plug
- 3 Oil inspection window



Draining oil

If the oil is white or turbid when checked then it must be replaced. Before draining off the oil, let the conditioning program run a full cycle. The dirt and moisture is absorbed by the oil and the oil becomes thinner making draining easier.

After the program has ended the drainage plug can be removed.

CAUTION. During unscrewing the oil drain plug, hot oil vapor can escape. The oil now drains from the drain hole (an oil pan must be placed underneath). When the oil has drained, tilt the machine slightly so that all residual oil can drain off. After draining the oil drain plug can be placed back.

Filling up oil

After draining or if the oil level has dropped, oil needs to be filled up. The oil fill plug must be removed with the correct Allen key. The pump can now be filled with oil. Make sure that you add the correct quantity of oil (see table on page 24). For the models MINI JUMBO and JUMBO PLUS, slide the component plate backwards to facilitate filling.

NOTE to fill up with small amounts and with intervals. Fill up the oil to the top of the oil level indicator sticker.

Oil types and amounts

It is important to use the correct type and quantity of oil for the pump. The wrong type or too much oil could damage the pump. The ambient temperature of the area where the machine is operating is also important for the type of oil. You can find the amounts and types of oil in relation to the ambient temperatures, in the table on the next page.

Examples of supplier brands for the standard types of oil are: Shell Vitrea, Aral Motanol GM, BP Energol CS, or Texaco Regal R+ O with related viscosity numbering. If the machine is used outside normal specifications regarding ambient temperature, please contact your supplier for advice.


Machine Type	Pump Capacity	Filling (litres)	Ambient temperature		
			Standard Oil type 10 - 30 °C	"Cold" Oil type 5 - 10 °C	"Hot" Oil type 30 - 40 °C
MINI JUMBO	004 m ³ /h	0.06	Viscosity VG 22	VM 22	VS 32
JUMBO PLUS	008 m ³ /h	0.25	Viscosity VG 32	VM 22	VS 32
JUMBO 30	008 m ³ /h	0.25	Viscosity VG 32	VM 22	VS 32
JUMBO 35 / 42/ 42XL / 50	016 m ³ /h	0.30	Viscosity VG 32	VM 22	VS 32

Machines are supplied with standard type oil


Inspect and change oil exhaust filter

There is an oil exhaust filter in the pump that absorbs and filters oil vapors. The filter will become saturated after a period of time and needs to be replaced. This is in general between 9 and 18 months of use of the machine. When the filter is saturated it is no longer possible to achieve a maximum vacuum and the machine starts smoking.


Oil exhaust filter housing types



MINI JUMBO



JUMBO PLUS/ 30






JUMBO 35 / 42/ 42XL

- Filter housings are at the rear of the machine.

Change oil exhaust filter MINI JUMBO / JUMBO PLUS




MINI JUMBO



*Note that the filter gasket does not remain behind when removing the filter.
Take care that the filter gasket is correctly placed on the new filter.*


JUMBO PLUS


*Open the back
Slide the component board to the back
Unscrew the filter*

Remove the old filter from the housing. Place the new filter in the housing.


Change oil exhaust filter other JUMBO models



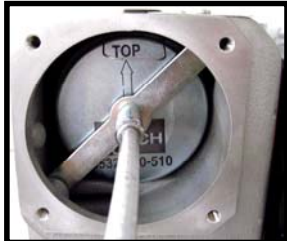
Open the rear of machine for the pump




Unscrew the cover from the filter housing




The filter is visibly clamped behind a tensioner



Release the tensioner with a key



Remove tensioner and filter from the housing



Make sure that the sealing ring does not stay behind when removing the filter

- Position and clamp the new filter (ensure that the seal ring is in position) in the housing.
- Screw the cover back onto the housing.
- Screw the back plate back onto the machine.

- Pumps and housing can have a different appearance but the principle of replacing them remains the same.
- Make sure that the correct type of filter is used for the pump type, see page 29 for correct type of filter for the type of pump.
- It is advisable to have the supplier do this service.

SEAL SYSTEM MAINTENANCE

The seal quality partially depends on the maintenance of the sealing bar and the silicone holder. The main maintenance activities are the daily cleaning of the sealing bar and silicone holder with a damp cloth and weekly inspection of the bars. Replacement of the sealing wire, Teflon tape or silicone rubber need to be done if irregularities appear on top of the bar or the seal quality is insufficient.



DOUBLE SEAL
2 x 3,5 mm seal



CUT OFF-SEAL
1 x 3,5 mm seal
1 x 1,1 mm cut

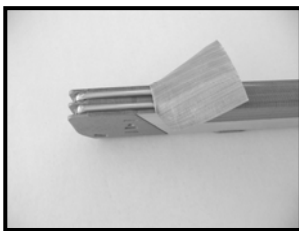
All JUMBO models are equipped with either double or cut off-seal.

The steps for replacing the sealing wire and Teflon tape are described on the following page. The view may be different but the procedure remains the same.

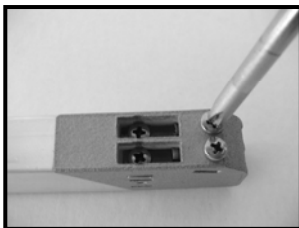
The Teflon tape / sealing wire should be replaced at **least once every 3 months**.

(This indication refers to regular use of the machine and packaging standard products with standard vacuum packaging materials. No rights can be derived from this indication)

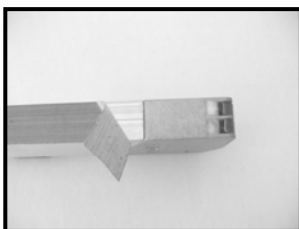
Replace wires and Teflon tape



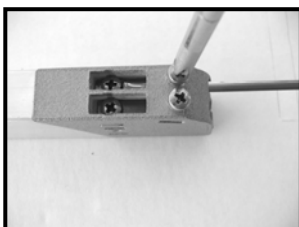
Remove teflon tape



Unscrew and remove the wires



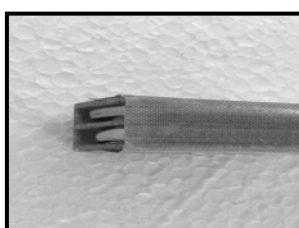
Replace the teflon tape



Screw down new wires onto clamping plate



Pull wires tight using a pair of pliers and a vice and screw the wires down on the clamping plate.



Cut off the ends of the sealing wire and stick Teflon tape over the sealing beam without folds

1. Remove the sealing bar from the holder by releasing the click system.
2. Remove the Teflon tape from the sealing bar.
3. The old sealing wires and cut-off wires (if applicable) can be removed by unscrewing the clamp (see illustration) and pulling the wires from the grooves.
4. Remove the Teflon tape that is attached to the top of the sealing bar and stick a new piece of Teflon tape to the bar of the same length after having degreased and cleaned the bar with a dust free cloth.
5. Cut new peaces of sealing wire or cut-off wire to the size of the sealing beam plus about 15 cm (\pm 6 inches).
6. Place the end of the wires through the grooves on the side of the sealing bar and screw the wires to the bottom.
7. Place the sealing bar top down in a vice and pull the sealing wires through the other side of the grooves on the sealing beam.
8. Tighten the wires with a pair of pliers and screw them down at the same time. Make sure that the wires are taut and straightened with the help of a pair of pliers before the wires are screwed down.
9. It is useful to use a pair of adjustable pliers as a lever for optimal wire tension. Place one end of the sealing bar in the vice and stretch the wires by pressing down the bar.
10. Cut off the extruding wire ends on both ends after having screwed it tight.
11. Cut a piece of Teflon tape as long as the sealing bar plus about 5 cm (\pm 2 inches).
12. Stick the new Teflon tape straight over the new wires. Make sure that the Teflon is straight on the sealing bar and that the sticky part is stuck on the side. Make sure that the Teflon is stuck on the bar smoothly and without folds.
13. Cut off the Teflon tape so that the sticky part does not get stuck on the sides of the clamps but that the Teflon extends over the top of the clamps.
14. Place the sealing bar back in the machine. Ensure that the sealing bar is properly clicked onto the holders or that the screws are firmly screwed in.

*See page 21
for correct parts and quantities*

SILICONE HOLDER AND LID GASKET MAINTENANCE

Replace the rubber silicone holder

The silicone holder must be inspected weekly for roughness on the silicone rubber (mainly caused by burning of the sealing wire). If irregularities appear, the silicone rubber must be replaced.

Average replacement cycle for silicone rubber is **at least once every 6 months**

(This indication refers to regular use of the machine with standard products. No rights can be derived from this indication)

1. Remove the old silicone rubber from the holder.
2. Cut a new piece of silicone rubber the same size as the old one. The same size is very important, too short or too long will cause problems with sealing.
3. Place the new piece in the silicone holder. Ensure that the silicone rubber is completely and evenly placed in the groove. It is also important that the surface of the silicone rubber is smooth after it is in place and is shows no signs of tension.



Appearance may differ per model but principle remains the same.

Replace lid gasket

The lid gasket ensures that the vacuum chamber is completely sealed during the machine cycle. This is essential to achieve a maximum vacuum. The lid gasket wears due to the extreme pressure differences and must be replaced regularly. Inspect the lid rubber weekly for tears or damage.

Average replacement cycle for silicone rubber is **at least once every 6 months**

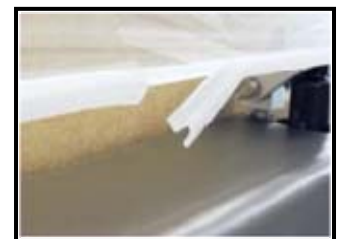
(this indication refers to regular use of the machine, on average 5 hours a day and with standard products. No rights can be derived from this indication)

The length of the new lid gasket is measured next to the old rubber. If the lid gasket is too short or too long it can cause problems when closing the lid or it can leak.

The gasket must be placed evenly and without tension in the holder. The ends must be cut straight and must be placed tightly against each other to avoid leakage.



Ensure that the ends of the lid gasket line up accurately



LIST OF SERVICE PARTS

VACUUM PUMP PARTS

BUSCH VACUUM PUMPS	HENKELMAN MODELS
004m ³ /h	MINI JUMBO
008m ³ /h	JUMBO PLUS / JUMBO 30
016 m ³ /h	JUMBO 35 / 42/ 42XL / 50

BUSCH	STANDARD OIL			OIL EXHAUST FILTER		
	Type	Henkelman Reference	Litres	Type	Henkelman Reference	amount
004 m ³ /h	VG 22	0439500	0.06	50-60Hz	0939160	1
008 m ³ /h	VG 32	0439502	0.25	50-60Hz	0939162	1
016 m ³ /h	VG 32	0439503	0.30	50-60Hz	0939163	1

SEAL SYSTEMS

PARTS	SPECIFICATIONS	HENKELMAN REFERENCE	QUANTITY
Teflon tape	46 mm Teflon tape	0305515	length sealing bar + 5 cm
Double seal	2 x 3.5 mm concaved shape wire	0305000	2 wires length of sealing bar + 15 cm
Cut-off seal	1 x 3.5 mm concaved shape wire	0305000	1 wire length of sealing bar + 15 cm
	1 x 1.1 mm round wire	0305010	1 wire length of sealing bar + 15 cm
Silicone Rubber	Silicone 17 x 8	0320200	length silicone holder

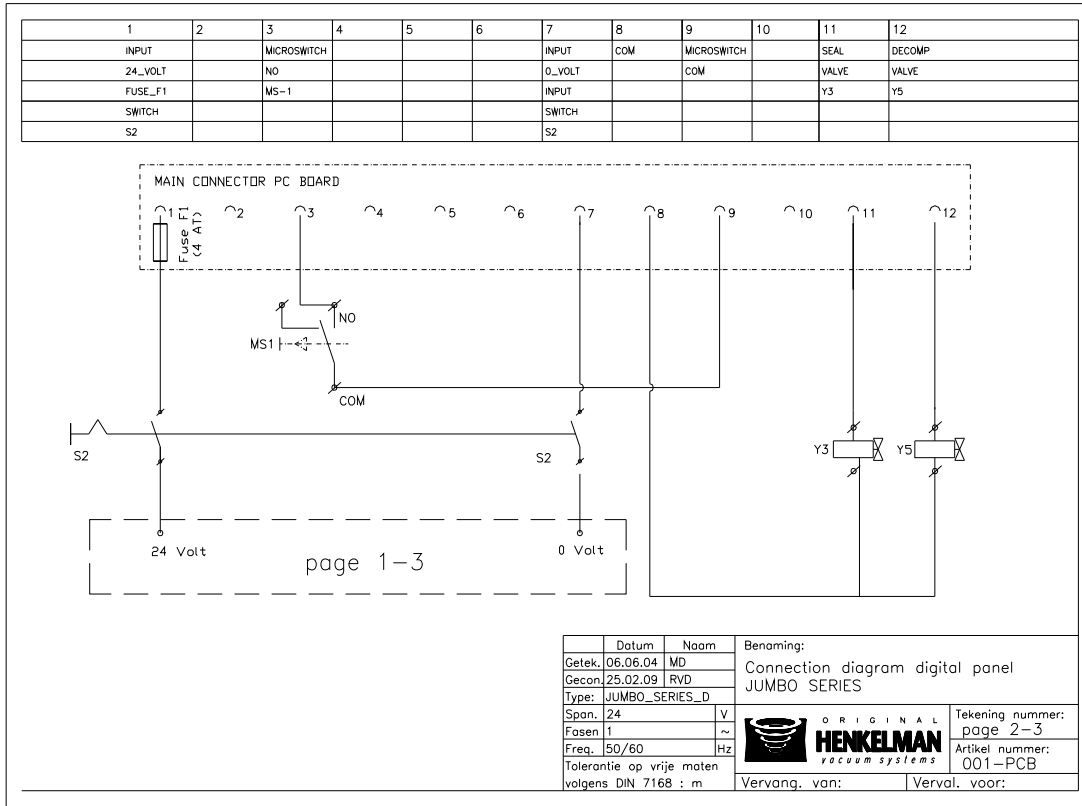
LID GASKET

HENKELMAN REFERENCE	LENGTHS PER MODEL (in cm)	
0320215	MINI JUMBO / JUMBO PLUS/ JUMBO 30	140
0320215	JUMBO 35	175
	JUMBO 42	190
	JUMBO 42XL/ 50	210

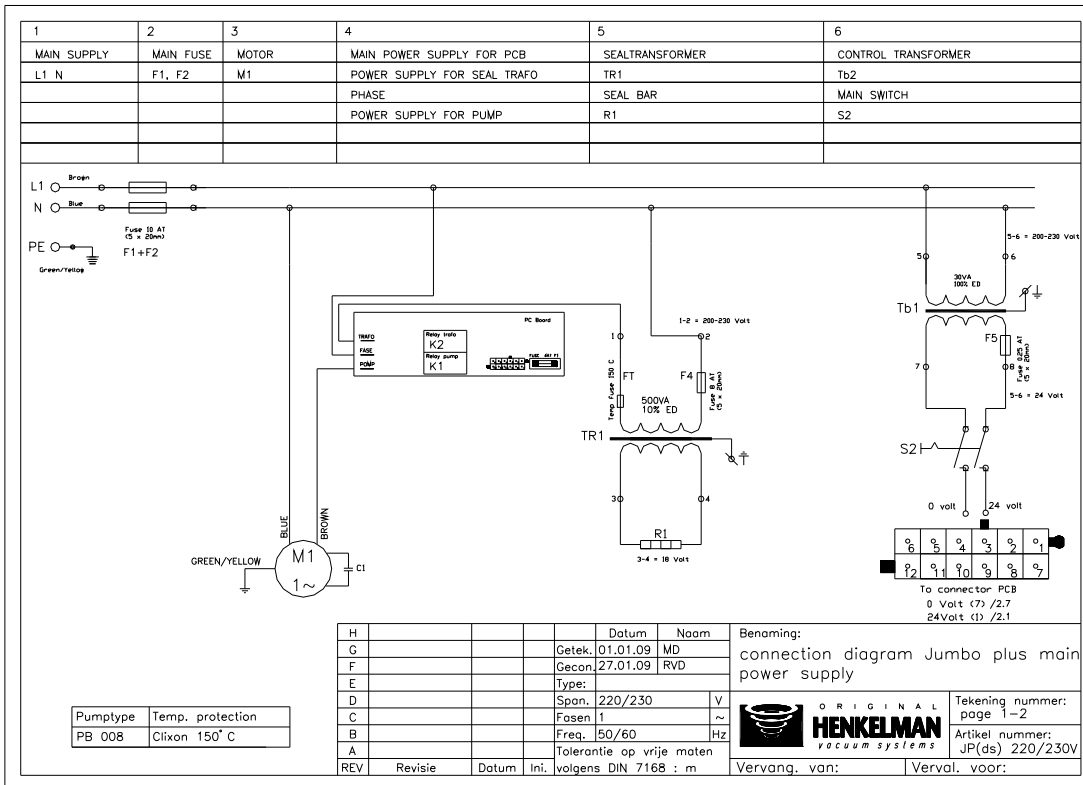
Lengths specified are always a little longer and must be cut to the correct length.

ELECTRICAL DIAGRAMS

Control Current Diagram



Main Current Diagram



The shown Diagrams are for standard configurations.

List of fuses

- Fuses are placed at the entering of the power onto the component board.
- Fuses are placed on transformers (control and seal).
- Two fuses are placed on the control circuit.

Due to different main voltages and machine models there is a variety of fuse types that can be present in the machine. Refer to the specifications of the relevant component for the correct types and values of fuses for replacement, or contact your supplier.



Caution, to avoid fire and/or other irreparable damage to the machine, the replacement fuses must always be of the same type with the same value as the fuses being replaced !!

Tension



Caution, the maximum allowable voltage fluctuation is $\pm 10\%$ of the official voltage stated on the type tag.

ERROR CODES

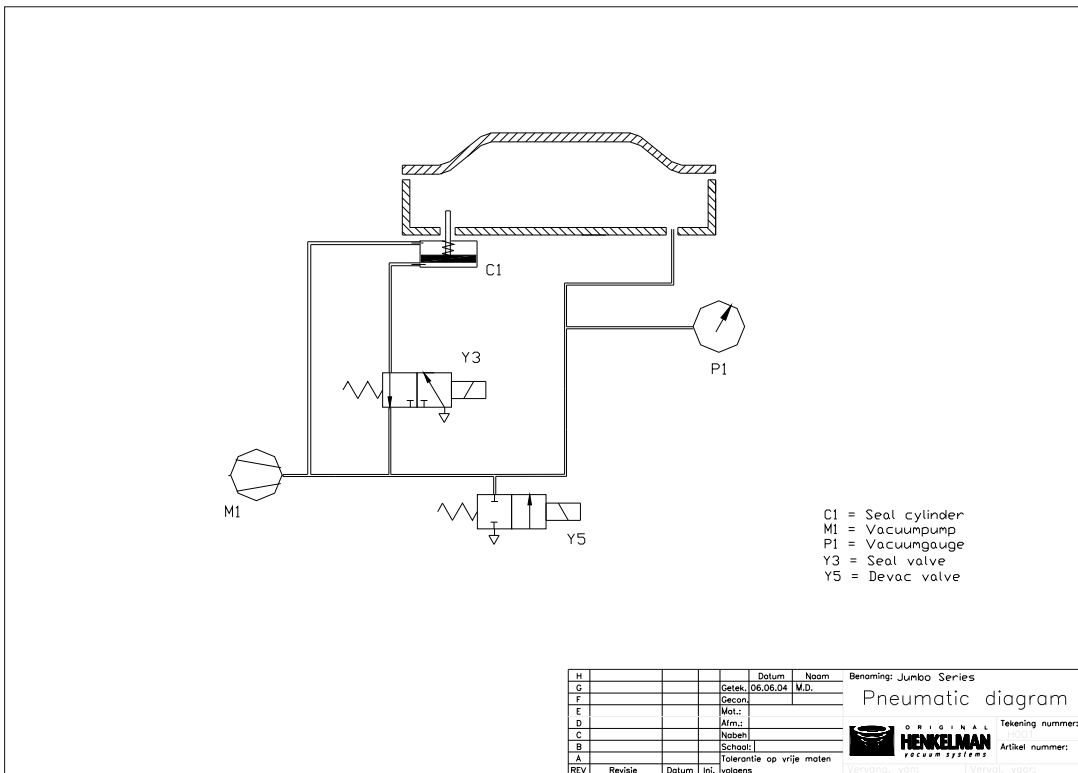
The control is programmed with an error code. This error code gives an indication of the problem when starting up the machine is not working as expected.

F1: This code indicates that the cycle (lid switch) is being interrupted prematurely.

Example: the cover of the machine closes after starting, but before sufficient vacuum has been reached in the chamber to keep the cover closed the operator lets go of the cover. The F1 code will now show on the display.

If this keeps happening please contact your supplier.

PNEUMATIC DIAGRAM



The shown Diagrams are for standard configurations.

PROBLEM SOLVING

PROBLEM	CAUSE	SOLUTION
Machine does not work	<ul style="list-style-type: none"> • The plug is not plugged into the wall socket. • The main fuse has been burned. • The circuit board fuse has been burned. 	<ul style="list-style-type: none"> • Plug the plug into the wall socket. • Replace the fuse (Make sure you use the correct value). • Disassemble the front panel and replace the fuse.
Machine does not work Operating panel is on	<ul style="list-style-type: none"> • The control transformer fuse has been burned. • The micro-switch that is activated when the lid is closed is disordered or faulty. • There is an internal malfunction. 	<ul style="list-style-type: none"> • Check this and if necessary replace it. • The micro-switch must be properly adjusted or replaced • Consult your supplier.
Transparent lid does not open automatically	<ul style="list-style-type: none"> • The gas spring is faulty 	<ul style="list-style-type: none"> • Consult your supplier.
Final vacuum is insufficient	<ul style="list-style-type: none"> • The set vacuum time is too short. • There is too little oil in the vacuum pump. • The extraction hole at the back of the vacuum chamber is partially covered by the vacuum bag during extraction • The lid gasket is worn. • The oil is contaminated • The oil exhaust filter is saturated. 	<ul style="list-style-type: none"> • Extend the vacuum time. • Check the oil level and top up if necessary (Note the type and quantity). • Place the vacuum bag closer to the sealing bar. • Replace the lid gasket. • Replace the oil (Note the type & amount). • Replace the oil exhaust filter / Consult your supplier.
The machine extracts the air too slowly	<ul style="list-style-type: none"> • The pump's extraction filter is blocked. • The oil exhaust filter is saturated. 	<ul style="list-style-type: none"> • Consult the supplier. • Replace the oil exhaust filter / Consult the supplier.

PROBLEM	CAUSE	SOLUTION
<p>The vacuum bag is not properly and/or correctly sealed.</p>	<ul style="list-style-type: none"> • The vacuum bag is being placed incorrect on the sealing bar. • The sealing time is too long or too short. • The silicone rubber in the silicone holder is damaged or worn. • The Teflon tape is damaged. • The inside of the vacuum bag opening is contaminated or greased. 	<ul style="list-style-type: none"> • Place the vacuum bag neatly and smoothly on the sealing bar. Ensure that the opening of the bag is always within the vacuum chamber. • Adjust the sealing time longer or shorter. • Replace the silicone rubber. • Replace the Teflon tape • Clean the vacuum bag's opening.

In case of other problems or questions please contact your supplier..

SPECIAL APPLICATIONS

PACKAGING LIQUID PRODUCTS

The machines can also be used for packaging liquid products like soups or sauces. During this process the vacuum process must be carefully monitored through the lid. The [STOP VACUUM] key must be pressed as soon as bubbles appear in the product; the saturation point (same as boiling point) has then been reached.

The saturation point of liquids is reached at a certain ratio of low pressures and high temperatures (see the example table for water below). The saturation point will be reached sooner in the vacuum process when packaging liquids with a high temperature (the amount of vacuum will therefore be less).

Henkelman recommends therefore to first cool liquid products before packaging. This way an optimal vacuum of the product can be reached.

Saturation point of water – relation between the pressure and temperature of the water

Vacuum pressure [mbar]	1000	800	600	400	200	100	50	20	10	5	2
Boiling Point Temperature [°C]	100	94	86	76	60	45	33	18	7	-2	-13

A useful tip when packaging liquid products is to use the inclined plate so that the product remains at the bottom of the packaging during the vacuuming process. There will be less risk of liquid splashing out of the packaging. The inclined plate can be ordered as an accessory for the machine. Contact your supplier for more information about the liquid inclined plate, or check our site: www.henkelman.com (Options & Accessories).



HOT PRODUCTS:

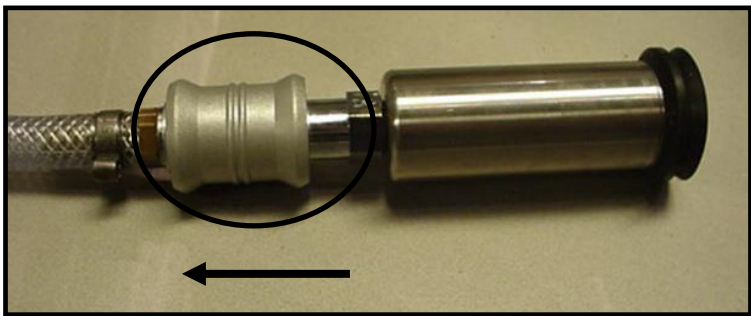
We advise to refrain to pack hot products. Hot products may generate condensation, which could damage the inside of the pump.

EXTERNAL VACUUMING OF FOOD CONTAINERS (if applicable)

The JUMBO series can be equipped with an option for external vacuuming of special food containers. This system can extract air out of special containers to extend the sustainability of the product in the container. The container has a special lid with a valve. Please contact your supplier for more information about the containers. The system that comes with the machine has a hose with vacuum applicator.

Operation External Vacuum Food Containers

1. Start the machine
2. Place the hose connector over the extraction opening of the chamber of the machine



3. Make sure that the sliding valve on the vacuum applicator is on the side of the hose (closed position).



4. Press the conditioning key, C appears in the display. Press the SELECTOR key until [E] (External vacuuming) appears on the display.

5. Place the vacuum applicator over the valve of the container and slide the sliding valve towards the lid to open the valve.



6. Press the + Key. The vacuum pump starts to run and the air in the container is being extracted.

7. When the vacuum meter reaches -1, the optimal vacuum in the container has been reached.



8. Press the - Key to stop the vacuum pump.

9. The vacuum applicator can now be removed from the lid by sliding back the slider.
10. The container is now ready for storage in the refrigerator.
11. If the machine needs to be used for normal applications, the hose can be removed from the extraction opening. The normal program mode can be selected by pushing the SELECTOR key twice.

EEC DECLARATION OF CONFIRMITY

Concept of an EEC Declaration of Conformity

Henkelman B.V.
Titaniumlaan 10
5221 CK 's-Hertogenbosch
Netherlands

Declare that the machine complies
with the machine directive 2006/42/EC, the low voltage
directive 2006/95/EEG and the EMC-directive
2004/108/EG.

Machine-Type:
Machine number:
Year of construction of the machine:

The machine and the belonging documentation is in accordance
with the following standards or other normative documents.

NEN-EN 60204-1, NEN-EN IEC 61558-1,
NEN/ EN IEC 61558-2-6
NEN 5509, NEN-EN –ISO 12100-1
NEN-EN-ISO 12100-2, NEN-EN-ISO 13732-1,
NEN-EN-ISO 13857, RoHS 2002-95-EG

If modifications are made to this machine without written
permission, these modifications fall entirely outside our
responsibility and this declaration will be considered
dissolved.

's-Hertogenbosch,
Henkelman BV

MAINTENANCE SCHEDULE/ NOTES

Date	Company	Operations/ Maintenance	Remarks

REMOVAL TOOLS FRONT PANEL

With every machine we enclose two special tools to remove the front panel.
You can slide the tools into the slots at the bottom side of the front panel.
Lift them a little and pull them towards you.

