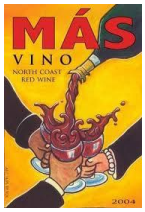
# USERS GUIDE FOR

## PART 1

Type **COMPACT 235**
Serial number **B15551**
Building year **2011**


**CUSTOMER:**

Mas Wine Company.
14945 Coleman Valley Rd.
CA95465 – OCCIDENTAL.
U.S.A.



 - ACHTUNG!

LESEN SIE UNBEDINGT DIE GEBRAUCHSANWEISUNG VOR AUFSTELLUNG-INSTALLATION-LNBETRIEBNAHME. DADURCH SCHÜTZEN SIE SICH UND VERMEIDEN SCHÄDEN AN IHREM APPARAT.

 - OPGELET!

LEEST U IN ELK GEVAL DE GEBRUIKSAANWIJZING, VOORALEER DE MACHINE WORDT OPGESTELD, GEÏNSTALLEERD EN IN GEBRUIK GENOMEN WORDT. DAARDOOR ZORGT U VOOR UW EIGEN VEILIGHEID EN VERMIJDT U SCHADE AAN UW MACHINE.

 - OBS!

DE BØR ABSOLUT LÆSE BRUGANVISNINGEN, INDEN MASKINEN OPSTILLES, INSTALLERES OG TAGES I BRUG. DERVED BESKYTTER DE DEM SELV OG UNDGÅR SKADER PÅ MASKINEN.

 - ATENCION!

RESULTA IMPRESCINDIBLE LEER LAS INSTRUCCIONES DE MANEJO ANTES DE PROCEDER AL EMPLAZAMIENTO/ INSTALACION/PUESTA EN SERVICIO DEL APARATO, CON OBJETO DE PROTEGERSE A SI MISMO Y EVITAR EL DETERIORO DE LA MAQUINA DEBIDO A UN MANEJO INCORRECTO.

 - ATTENTION!

LISEZ IMPERATIVEMENT LE MODE D'EMPLOI AVANT 1'INSTALLATION/LA MISE EN SERVICE.
VOUS VOUS PROTEGEREZ AINSI ET EVITEREZ DES DETERIORATIONS SUR VOTRE APPAREIL.

 - IMPORTANT!

READ THE OPERATING INSTRUCTIONS CAREFULLY BEFORE INSTALLATION AND BEFORE USING THIS MACHINE FOR THE FIRST TIME.
YOU WILL AVOID THE RISK OF CAUSING HARM TO YOURSELF OR TO YOUR MACHINE IN THIS WAY.

 - ATTENZIONE!

LEGGERE ASSOLUTAMENTE LE INSTRUZIONE D'USO PRIMA DI PROCEDERE A POSIZIONATURA – INSTALLATIONE - MESSA IN FUNZIONE. IN QUESTO MODO CI SI PROTEGGE E SI EVITANO DANNI ALL'APPARECCHIO.

 - NB!

DE MÅ LESE BRUKSANVISNINGEN FØR OPPSTILLNING, INSTALLASJON OG START AV MASKINEN!
GJØR DET FOR Å UNNGÅ SKADE PÅ DEM SELV OG MASKINEN.

 - ATENÇÃO!

LEIA AS INSTRUÇÕES DE UTILIZAÇÃO ANTES DA MONTAGEM - INSTALAÇÃO E - PRIMEIRA UTILIZAÇÃOÃ ASSIM EVITA AVARIAS NO APARELHO.

 - OBS!

LÄS BRUKSANVISNINGEN NOGA FÖRE UPPSTÄLLNING, INSTALLATION OCH ANVÄNDING. NI FÖREBYGGER DÄRMED OLYCKSRISKER OCH UNDVIKER SKADOR PÅ MASKINEN.

 - HUOMIO!

TUTUSTUKAA HUOLELLISESTI KÄYTTÖOHJEESEEN ENNEN LAITTEEN ASENNUSTA JÄ KÄYTTÖÖNOTTOA.
NÄIN VÄLTYTTE MAHDOLLISILTA VAHINGOILTA KÄYTTÄESSÄNNE KONETTA.

 - ВНИМАНИЕ!

ПЕРЕД УСТАНОВКОЙ И ЭКСПЛУАТАЦИЕЙ МАШИНЫ ВНИМАТЕЛЬНО ПРОЧИТАЙТЕ ИНСТРУКЦИЮ.
ТЕМ САМЫМ ВЫ НЕ ПРИЧИНИТЕ УЩЕРБА НИ СЕБЕ, НИ ОБОРУДОВАНИЮ

# CONTENTS LIST

# 1. INTRODUCTION

We are delighted that you've chosen a product from the Lambrechts-Group. The Lambrechts-Group has been manufacturing machines and installations for the beverage and dairy industries from 1961.

Our machines and installations are continuously adapted to incorporate new technology; they fulfill all requirements of reliability, operational safety, control – and maintenance and this with the lowest possible footprint.

For each application we offer the optimal solution.

# 2. CONTACT

For any questions, you can turn in confidence to:

e-mail: sales@lambrechts-group.be

lambrechts
keeping your production in line
Gansbroekstraat 25
2870 Puurs | Belgium
T +32 3 886 79 65
F +32 3 886 79 69
www.lambrechts-group.be

All our machines are provided with a manufacturer's plate. In case of questions, kindly refer to the data on this plate.

What should you mention:

- Serial number,
- Type of machine and year of construction!

**YOU CAN FIND THIS DATA ALSO ON THE MAIN PAGE!**

# 3. INDICATIONS USERS GUIDE(S)

Pay special attention to the safety regulations and respect the local regulations!
The user's guide must be available at all times with the machine so it can be consulted when needed.
We ask you to hand over the users guide(s) to actual or new users that need to perform work or operating the machine.

**BEFORE INSTALLING AND COMMISSIONING THE MACHINE, READ AND MAKE SURE YOU UNDERSTAND THE COMPLETE USERS GUIDE.**

For trainings or update trainings you can contact us for information!



The Lambrechts-Group is continuously occupied with the development of its machines and installations. Therefore we reserve ourselves the right of adjustments regarding technology, design and equipment.

Please be aware that no claims will be accepted based on this information, data or illustrations.

## 4. INSTRUCTIONS USERS GUIDE(S)

In order to contribute to a better environment, the digital information carrier (CD-Rom, USB-stick) may contain more (not printed) information than the paper version.

Technical documentation (maintenance, conditions ...) of the components can be found on the CD-Rom!

Part 2 operating instructions (operators guide) of the users guide will be delivered separately!
Chapters that are not of use will not be filled in!

| CHAPTERS | DESCRIPTION CONTENTS |
|---|---|
| Safety regulations | ▪ General obligated safety regulations prescribed by Lambrechts-Group |
| General description machine/installation | ▪ General priciple description<br>▪ Technical specifications machine or installation |
| Layout machine/installation | ▪ Erection instructions machine or installation<br>▪ Assembling instructions machine or installation |
| Switching machine | ▪ Switching type of kegs – adapters<br>▪ Switching for CIP |
| P&ID – Flowdiagram | ▪ Technical machine details of the flow components (pumps, valves ...) + drawing(s)<br>▪ CIP (Cleaning In Place)<br>▪ Specifications requirements for service media's; liquids, air, detergent … (Requirements for Service Media) |
| Electric | ▪ Technical drawings with BOM (Bill Of Material = part lists)<br>▪ Other electric documentation |
| Pneumatic | ▪ Technical drawings with BOM (Bill Of Material = part lists)<br>▪ Other mechanic documentation |
| Mechanic | ▪ Technical drawings with BOM (Bill Of Material = part lists)<br>▪ Spare parts indication with identification numbers for order<br>▪ Other mechanic documentation |
| Added documentation | ▪ General added documentation<br>▪ Test results, reports etc.<br>▪ Maintenance schemes when applicable |

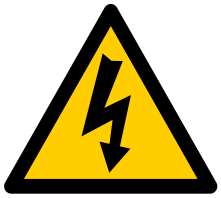
# 5. CE CERTIFICATION (CE MANUFACTURER DECLARATION)

# 6. SAFETY REGULATIONS

## 6.1. DESCRIPTION SYMBOLS

### 6.1.1. CAUTION

General notification for danger or attention



Danger electrical voltage

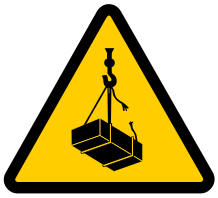
Danger heat surfaces

Extremely flammable

Danger corrosive

Danger clamping rotating or mechanical parts

Danger clamping for the hands



Danger hanging load

Danger fork truck

## 6.1.2. ALERTS & OBLIGATIONS

Wear safety helmet

Wear goggles

Wear safety helmet & goggles

Wear ear protection

Wear safety helmet, goggles & ear protection

Wear goggles & ear protection

Wear safety gloves

Wear safety shoes

Wear safety clothes

Obligated to use platform

Obligated to use the foreseen cover

## 6.2. FUNDAMENTALS REGULATIONS

**IGNORING THE REGULATIONS OR USERS GUIDE CAN BRING DAMAGE OR EVEN DEAD, AS WELL AS SERIOUS MATERIAL DAMAGE!**

### 6.2.1. REMARKS

- To respect the safety of the user of the machine, you need to respect the user's guide.
- Non qualified persons may not install the machine, nor operate or maintain it!
- Before start up of machine, control the machine's condition and get familiar with it in order to recognize faults better.
- Never work with the machine on your own!
- You should know the place of the safety – and first aid devices.
- The working area must be cleared of dangerous devices!
- Colleagues working in the same area may not be endangered.
- Colleagues entering the working area must be informed with warning symbols and information.
-

### 6.2.2. QUALIFICATION OF THE MACHINE OPERATOR

Only persons that can be trusted and have been trained to work with the machine are permitted!
The circumstances/responsibilities for operation, maintenance and service must be determined unambiguously.

Only qualified persons may work with the machine! Persons, in training, must be under the supervision of a qualified person at all times.

**QUALIFIED PERSONS**

**=**

**PERSONS THAT HAVE READ THE USERS GUIDE AND UNDERSTAND IT!**

**PERSONS THAT ARE QUALIFIED, AS PER THIS MANUAL DESCRIPTIONS!**

### 6.2.3. ELECTRO-ENERGY

Electro-technical parts of the machine may only be repaired or replaced by an electrician or a trained person under the supervision and accompanied by him.

Before starting any maintenance or other kind of work, you always need to cut-off the machine from electricity and all other supplies that can bring potential danger.

Machine and plant parts, where inspection, maintenance and repair works take place, must – unless otherwise specified- be powerless.

In case of working with machine under tension, a second person has to be available to control the ON/OFF switch in case of emergency.

The working-area must be surrounded by a safety barrier and warning signs, before entering the work area the dangers must be signed.

Use only isolated and other qualified equipment for electric parts.

Use only fuses that have the regulated current intensity!

When you notice any unusual disruption in the power supply, immediately switch off the machine!

Electrics need being checked on a regular base.
Should a defect appear (e.g. disabled cable connections) it needs to be solved immediately!

### 6.2.4. PNEUMATICS

Air pressure pipes must be erected competently!
All fittings as well as length and quality of piping have to be following requirements!

All pipes, connections and fittings have to be checked frequently for leaks and damages. Defects have to be solved immediately!

Before starting any maintenance or other kind of work, you always need to cut-off the machine from air pressure and all other supplies that can bring potential danger. Close the main supply of the machine/installation.

Machines using compressed air have a pneumatic air group with a main shut off valve.
You can consult the technical documentation or contact us.

Do always check if pressure is gone, by activating a cylinder or another pneumatic part and this always under safe circumstances!

## 6.2.5. LUBRICANTS, GREASE, CLEANING AGENTS

When using lubricants like grease and oil or using cleaning agents like detergents and acids, you need to follow the regulations of the used products

**CAUTION WHEN USING FLAMMABLE SUBSTANCES!**
**THIS MIGHT CAUSE FIRE!**

**CAUTION WHEN USING ACIDS AND DETERGENT!**

**WHEN REMOVING CLEANING PRODUCTS, ESPECIALLY DETERGENTS AND ACIDS, THE GENERAL REGULATIONS AND PRESCRIPTIONS ARE TO BE COMPLIED WITH.**

**WEARING PROTECTIVE CLOTHING (GLOVES, GOGGLES, AND SAFETY SHOES) IS OBLIGED!**

**DO NOT LET DETERGENTS RUN TO WASTE UNCONTROLLED!**

## 6.2.6. DUST, GAS, STEAM, SMOKE

Welding-, flame cutting- and grinding works only to be carried out if you have special permission!

For the execution of such works the machine and its environment have to be cleared from dust and inflammable substances, there has to be sufficient air supply and - removal.

**DANGER FOR EXPLOSION!**

In general for such works the national and local regulations have to be followed.

## 6.2.7. NOISE

Soundproof provisions on the machine must be in safety position during operation of machine.

## 6.2.8. NORMAL OPERATION

All safety facilities such as EMERGENCY STOP, facilities that can be loosened by hand, exhaust systems, acoustic facilities ..., must be installed, ready for working and in safety position.

**IF THERE IS ANY DOUBT ABOUT THE OPERATION PROCEDURE STOP IMMEDIATELY AND PREVENT ANY INSECURITY!**

For all works of maintenance, service, repair and works for production adaption or production operation and adaption of the machine and its safety technical facilities, the relevant advices, prescriptions and information of this manual count. All measures have to be taken, in order the machine could only work in a sure and working-safe condition.

Note that the machine doors and other parts/installations that can be opened are closed. Also foresee that the safety fences etc. are always positioned in the prescribed safety position.

**DO NOT ADAPT THE MACHINE!**
**USE ONLY ORIGINAL SPARE PARTS FOR THE MACHINE/THE SYSTEM.**

Control at least once per shift the machine on visible damages/faults!
Defects have to be reported immediately to the responsible.
If necessary stop the machine.

Take care of changes to the working conditions of the machine!

Check before production start (shift-start) and during production whether the foreseen working method of the machine runs smoothly and failure free (use inspection keg).

In case of function failures, stop machine immediately!
The failures have to be corrected.

Before switching on the machine, one has to make sure nobody can be brought in danger by the machine!

Switch on and off procedures and control-indications have to be followed in accordance with manual.

## 6.2.9. MAINTENANCE, SERVICE, SOLVING MALFUNCTIONS

The prescribed user's guide set up, maintenance and inspection regulations have to be followed. Also for the spare parts, the user's guide has to be followed.

**ONLY QUALIFIED TECHNICAL PERSONS AND TOOLS MAY BE USED FOR WORKING ON THE MACHINE!**

The operational staff needs to be informed of the special actions and maintenance works before operating the machine!

**INDICATE A RESPONSIBLE!**

The maintenance and service-area must be outlined.

When executing work for which the machine must be shut down, you must insure that the main power supply can't be switch on again until the works are completed.

When changing any parts and/or particles with the support of lifts you must insure that these objects are carefully fasten up and secured.

**DO NOT STAND STILL UNDER FLOATING OBJECTS! ONLY THE THEREFORE QUALIFIED TECHNICAL LIFTS MUST BE USED!**

For the removal of charges and the operation of the lifts, only use qualified staff!
Persons that have to give indications, have to be at visual and voice distance of the operator.

When performing work above body height there must be used safety-objects, like safety-cables, ladders, and steps, etc.

**MACHINE AND MACHINE PARTS MAY NOT BE USED AS STEPS/PLATFORMS.**

For working at body height, safe ladders for reaching platforms have to be used.
Machine and machine parts may not be used as ladders!
For working at higher heights, fall down safeties have to be worn!

The safety ladders, platforms... and also their rails and grips have to be kept free of dirt.

Machines, machine parts and especially the connections and attachments must be cleared of oil and other dirt that can harm the work before maintenance. Clean this carefully with qualified cleaning agent

Use non-fluff cleaning cloths!

**USE NO AGGRESSIVE CLEANSING AGENTS!**

To clean the machine you must cover or close all openings/parts to prevent any harm to the machine or the handled product afterwards in the operation. These are mainly openings/parts where from safety or functionalities no water, cleaning agents nor steam may come into.

After cleaning, all covers must be removed before operating the machine!

Make sure to fasten any loose bolts etc. before operating the machine again.

**CONVINCE YOURSELF OF THIS!**

All the parts that have been taken off or shut down by cleaning, maintenance, service-works, safety-services etc. need to be brought back in their original state before starting up the machine.

**ALL SAFETY-SERVICES MUST BE DOUBLE CHECKED BEFORE START UP!**

Please make sure to remove all work-, cleansing products and changed spare parts in an ecologically sound way!

### 6.2.10. PURPOSEFUL USE

Although the machine is built in accordance with the state of technology and technical safety regulations, there is always a possibility that the use could bring danger to the users/others and the surrounding area or to the machine itself.

The machine may only be used in its proper technical state. Follow the regulations of the users guide and the safety regulations. Please always be aware of possible danger!

**MALFUNCTIONS THAT APPEAR, ESPECIALLY THOSE INTERRELATING WITH THE SAFETY, MUST BE RESOLVED IMMEDIATELY.**

**THE MACHINE IS EXCLUSIVELY DESIGNED FOR ITS PURPOSE!**
**BY IGNORING THIS REGULATION THE MANUFACTURER/SUPPLIER CANNOT BE HELD RESPONSIBLE AND THE CLIENT ACCEPTS FULL RESPONSIBILITY!**

## 6.2.11. ORGANIZATIONAL MEASURES

The user's guide, mainly the shortened version, must be at all times in hand reach with the machine! Further general legal measurements/regulations have to be taken into account to avoid accidents also the environmental regulations need to be followed up.

The users guide needs to be completed with the company's regulations, comments and duty reports, specifications, work organizational measurements, recommendations for work development, etc.

Persons that continually or temporarily work on/with the machine need to be trained by using the user's guide (especially on the safety regulations) before starting the actual work.

**CHECKS ON A REGULAR BASE THE SAFETY AND DANGEROUS WORKS ON AND WITH THE MACHINE!**
**TAKE ALL SAFETY AND DANGER COMMENTS INTO ACCOUNT!**

All safety and danger comments need to be fully readable attached on or near the machine.

By changes at the machine regarding safety and/or work situation, the machine must be shut down at once and the changes have to be reported to the responsible.

Don't make changes on and to the machine! This can/will influence the safety of the work/machine.
This is only allowed by the Lambrechts Konstruktie N.V. organization or with permission given by Lambrechts to some persons/companies.

This also complies for the incorporation or adjusting of safety technical devices, etc.

**DO NOT WELD ON SUPPORTING PARTS!**

Use original spare parts from our company or spare parts that we agreed on.
Only these parts will guarantee a correct work with the machine and the safety services!

See attached spare parts list, electrical, mechanical drawings, diagrams etc for more information!

When installing non original spare parts or parts we did not agree on, there is a possibility that certain parts will influence the machine and will have unexpected effects or bring unexpected insecurity along for its surrounding, work-situation, machine, persons etc.

**FOR ANY DAMAGE COMING FROM USING NOT ALLOWED SPARE PARTS, LAMBRECHTS - GROUP CANNOT BE HELD RESPONSIBLE!**

**DO NOT CHANGE THE PROGRAM (SOFTWARE) NOR THE PROGRAMMABLE SYSTEMS!**
**THE CLIENT TAKES FULL RESPONSIBILITY!**

Please follow the in the user's guide prescribed period for machine inspection.
Wearing safety clothes for operating and maintenance personnel is obliged.

**WEAR SAFETY GLOVES FOR HANDLING THE FILLED KEGS. KEGS ARE WARM.**
**DANGER FOR BURNING!!**

**USE QUALIFIED EQUIPMENT THAT IS ALLOWED.**

## 6.3. ARRIVAL OF THE MACHINE - GENERAL

The packaging contents have been checked on completeness and correct operation.

When receiving the machine please check the completeness of the contents at once!
Contact us when the contents have possible damage or incompleteness before installing the machine!

When transport damage occurs, you need to contact at once the carrier, or our company, for insurance registration.

The shipping documents, the product number and further information included with the machine must be added to the insurance registration.

## 6.4. OFFLOADING, SET UP, REMOVAL OF THE PACKAGING

Before offloading and placing the machine in position you must make sure that the used equipments and transportation devices comply with the needed capacity or request.

**THE MACHINE MUST ALWAYS BE MOVED LIKE IT WIL BE INSTALLED. NOT UNDER A DIFFERENT ANGLE ALWAYS LINEAR.**

The right measurements of the machine can be found as attachment inside the users guide under mechanical drawings.

**FOLLOW THE OBLIGED SAFETY INDICATIONS AND THE REGULATIONS TO PREVENT ACCIDENTS AND OTHER DANGER.
THE MACHINE MAY ONLY BE MOVED WITH EMPTY TANKS (WATER, DETERGENT, ETC.).
CONTROL THE TRANSPORT EQUIPMENTS BEFORE USE SO THAT THEY CANNOT DAMAGE THE MACHINE.**

Never use lifting gears of which the capacity is smaller than the total weight of the machine and package.

**NEVER USE LIFTING DEVICES THAT HAVE A SMALLER CAPACITY THAN THE MACHINE AND ITS PACKAGING!
THE MACHINE MAY NOT SWING DURING TRANSPORTATION.**

### 6.4.1. REMOVEL OF THE PACKAGING

The machine needs to be unpacked nearby the installation place. To prevent damage during the installation please be careful with the tools used (hammers, bars, etc.)!

Attention with the following:

- The delivered machine needs to be compared with a packing list.
- Check first if the number, type of product, tension, etc. of the required product is in accordance with the packing list.
- Control the machine on possible damage caused by the transport.
- Remove all strengthened parts and other objects used for the transport.

- Delivered parts that are not used for immediate erection such as spare parts, have to be put in stock for future use.

Set up of the machine

### 6.4.2. SET UP PLACE

Before installing the machine on its place, this place must be prepared to receive the machine! (Bottom, foundations, etc. have to be finished before erection of the machine)

The necessary utilities like electricity, water, detergent/acid, steam supply etc. must be provided in accordance with the flow diagrams.

### 6.4.3. INSTALLATION OF THE MACHINE

Make sure the bottom where the machine will be installed is smooth.
Put the machine in its position by using qualified lift tools.

You can adjust the height with the screws at the machine feet.
Don't forget to tighten up the counter-screw!

**MAKE SURE MACHINE IS NOT UNDER TENSION! DANGER FOR DAMAGING!**

## 6.5. ASSEMBLING OF THE MACHINE - GENERAL

The correct erection, installation and commissioning are from great importance and must be executed by qualified personnel. When having question or troubles you can always contact us and we will support you to solve your problems.

For damage/malfunctions because of incompetent erection, installation and commissioning the full responsibility lies with the client.

### 6.5.1. MEDIA-CONNECTIONS

With the media-treatment-connections you need to follow the international and local standardizations or specifications given.

Our firm advice is to use material 1.4301 or even higher quality.
The installation of the machine may only be done by qualified persons of Lambrechts-Group or in consultation with our company.

The utility connections are prescribed.
The standard connections are with flanges, they belong to the supply of the machine.
Control the connections and measurements in your customer info brochures.

Take care not to join the supply and drain pipes. This could influence the processes mutually.

Take care that the media pipes have the right closing parts for each line.

The pressures prescribed for the media have to be respected.
If necessary install pressure regulating parts.

**PLEASE CHECK THE QUALITY OF THE MEDIA! INSTALL STERILE FILTERS WHERE NECESSARY.
RINSE ALL MEDIA-PIPES BEFORE CONNECTING THEM.**

### 6.5.2. ELECTRICAL CONNECTIONS

**ALL ELECTRICAL-CONNECTIONS MUST COMPLY WITH THE LEGAL REGULATIONS (DIN VDE 100, 103, 293)**

The general power supply must be connected following the electrical schematics inside the electrical panel. Fore more specifications please consult the user's guide.

## 6.6. COMMISSIONING

### 6.6.1. FIRST START UP

Before using the machine for the first time, you must make sure following items are finished under the prescribed regulations.

- All erection, assembling and installation work is finished
- Control the assembling and installation workout:
  - All media-connections must be installed and connected
  - Control of the seals
  - All pressure switches must be set on the prescribed working pressure
  - Sterile filters must be correctly mounted, filter cartridges in place
  - All pneumatic pipes must be fastened up and connected
  - All electrical wiring installed as per electrical documentation
  - All media must be connected to the machine
  - All user customized settings must be set and secured
  - No unsecure situation may occur when starting up

**TURN THE MAIN SWITCH ONLY IF YOU HAVE FOLLOWED THE CHECKLIST ABOVE AND ALL ITEMS HAVE BEEN DONE AND CHECKED.**

# 7. GENERAL DESCRIPTION MACHINE/INSTALLATION

## 7.1. ALGEMENE PRINCIPEBESCHRIJVING

The machine is manufactured for internal washing and racking of:

- Kegs 10l – 60l content
- Soft drinks kegs 10l – 20l content
- Keggy's 12,5l content

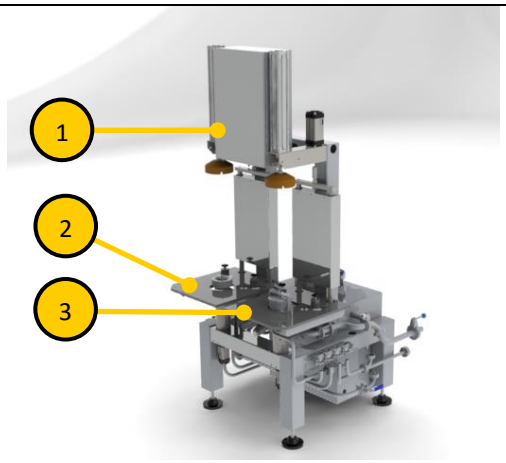
You can use the machine to fill kegs wit beer, lemonade, coke (postmix & premix), water and wine.

The machine is build in stainless steal, compact form and easy to use for starters and advanced brewers.

You put the kegs manually on the tables.
Optional conveyors or lifting tools!

The water with a detergent from the tank is used to wash and rinse the machine.

Cleaning in place (CIP) is done by manually switching the CIP connections.




1 - Operator panel
2 - Washing station
3 - Filling station

The electrical and pneumatic control unit are in operator panel above the treatment station housed.

Operating the machine is done via the operator panel. All processes in the machine are automatically.

## 7.2. PROCEDURE

### 7.2.1. CLEANING

In the cleaning station following processes run automatically after each other

- Checking the tightness between the washing head seal and spear.
- Acquisition of the residual pressure in the vessel
- Emptying rest
- Interior cleaning with cold water, detergent, hot water
- Steam sterilization
- If machine is equipped for cleaning and filling keggy's, the gas cartridge is simultaneously emptied

### 7.2.2. FILLING

At the filling station following processes run automatically after each other

- Checking the tightness between filling head seal and spear.
- Sterilization time
- gas – preload prepressure.
- Add product to Full signal

## 7.3. OPERATION DESCRIPTION OF THE MACHIE.

### 7.3.1. TRANSPORTATION

The machine 235 is a compact semi-automatic washing and filling keg machine.

The kegs are manually put on the treatment stations by the operator.
Through the stops on the treatment table, the kegs are manually centered.
This ensures that the keg is centered below the treatment head.

**ATTENTION! CHECK IF THE CENTER RINGS CORRESPOND WITH THE TREATED VESSEL SIZE AND THAT THEY ARE TIGHT!**

After the start of the washing process the treatment head automatically comes down.
Simultaneously the clamp moves pneumatic down end presses the keg on the treatment head.

Note that both clamps come down.
If there is no keg on the treatment station, the clamp raises again.

**ATTENTION!**

**THERE IS NO DANGER TO THE OPERATOR!**

All moving parts, to the extent possible constructive, are covered.
The spaces with movable parts are chosen so large that there is no risk of injury!
It is not possible to start both wash and filling head with one hand. As a consequence there is no risk of injury between clamp and keg on the treatment table!

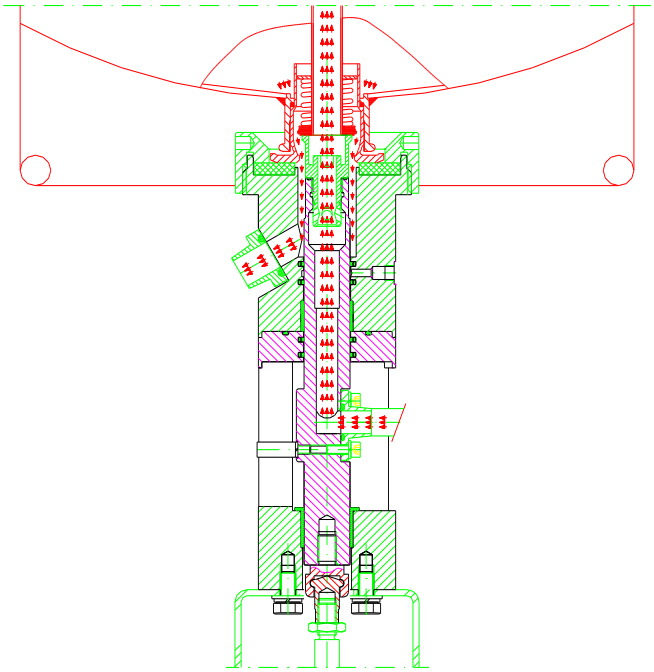
### 7.3.2. WASCHING.

#### 7.3.2.1. GENERAL.

The machine Compact 235 washes the keg sterile by interval cleaning!

Washing media in the standard version with the following:

- water
- detergent
- cold water
- acid
- hot water
- steam



Sterile air and $CO_2$ are used for venting.

### 7.3.2.2. MEDIA VALVES

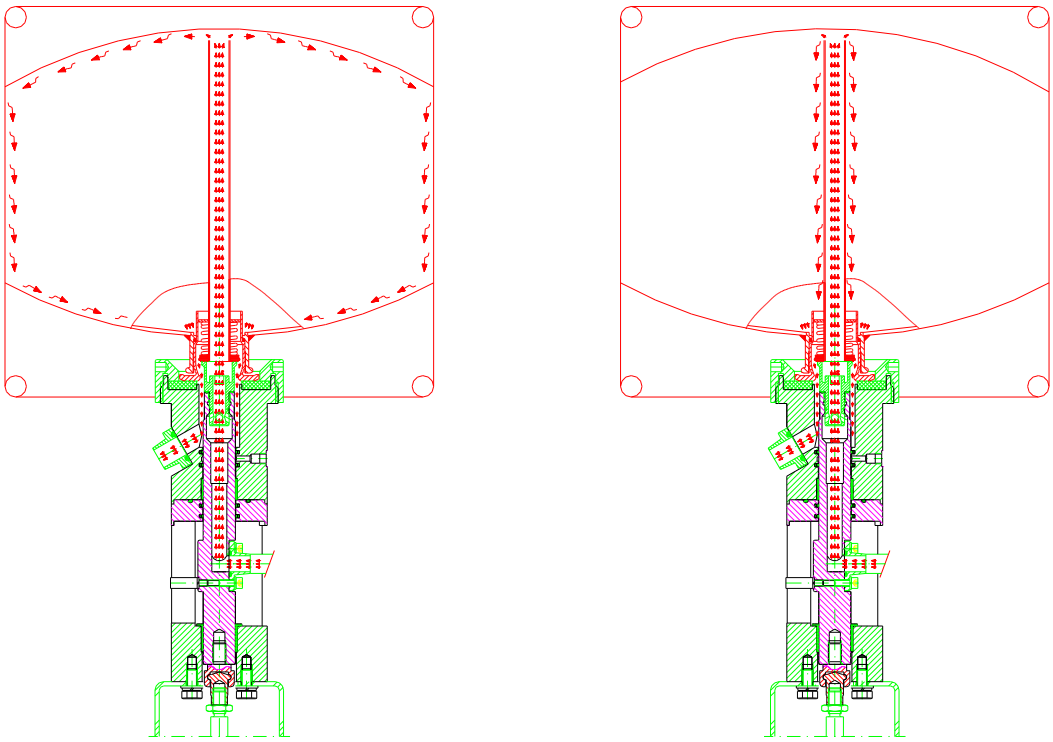
All media are conducted, according the washing steps, on appropriate valves to the treatment head.
The media valves are switched and monitored by providing guidance that the media will be sent to the cleaning head in the correct order and at the right time.
The actuators are activated by the PLC to guide the flow of the return media.

### 7.3.2.3. WASHING HEAD.

The washing station is equipped with a washing head.
The washing head serves to open the keg and the inlet and outlet of the cleaning media of the keg.
By pneumatically operated clamp, the keg is opened.
One magnet switch attached to the pneumatic cylinder is monitoring the movements of the clamp.
The adaptor allows the cleaning agents to move into the spear of the keg. The return media is leaving the keg through the beer opening.

## 7.3.2.4. CLEANING INTERVAL.

Cleaning the inside of the keg is through “Cleaning Interval”

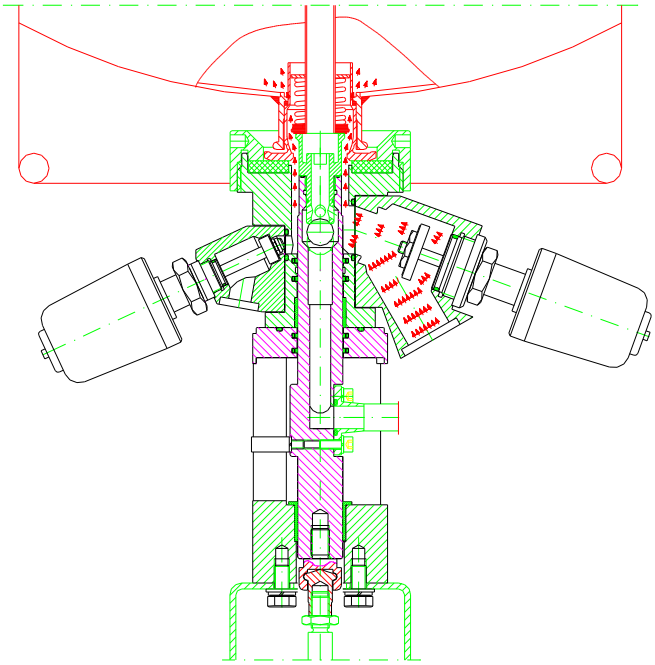


In the inlet valve to the washing head is an integrated bypass valve.
This opens and closes at intervals.
Is the bypass valve open, the full flow of cleaning media will be carried in the keg.
There is a cleaning of the interior walls and bottom.
With closed bypass valve is only a small amount of cleaning media carried in the keg. The spear of keg is cleaned on the outside in this way.
The bypass valve is ready to use.
Check however the adjustment, with first commissioning, through a test keg.
The setting is correct, as with closed bypass valve the media flows over the spear.

## 7.3.3. FILLING

## 7.3.3.1. GENERAL

The machine Compact 235 ensures efficient filling of product into the keg.



At the filling station the following processes are started:

- Sterilization time
- Blowing of steam/ condensate with gas
- pressurize
- filling
- rinsing head and fitting with hot water

## 7.3.3.2. MEDIA VALVES

All media are conducted on appropriate valves to the treatment head.
The media valves are switched and monitored by providing guidance that the filling head will be provided with media in the correct order and at the right time.
The actuators are activated by the PLC to guide the flow of the return media.

### 7.3.3.3. FILLING HEAD

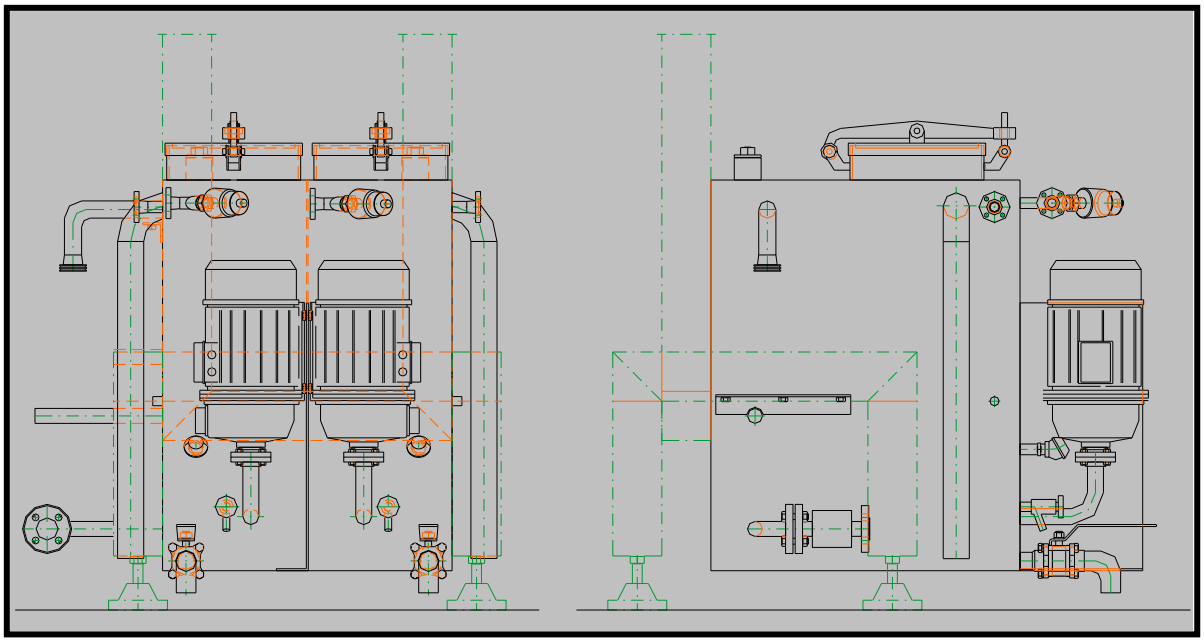
The filling station is equipped with a filling head.
The filling head opens the keg and the inlet and outlet of the media in and out the vessel.
By means of pneumatically actuated pusher, the keg is opened.
One mounted magnetic switch attached on the pneumatic cylinder monitors the movements of the spear.
Through the inner bore of the pusher, the pressurize gas comes over the spear in the keg.
The wine enters the keg through the wine opening of the spear and simultaneously the pressurized gas leaves the keg.
Pressurizing: well defined difference with the medium pressure (Medium pressure. /. 0,1 bar).
The return of the gas is leaving the keg through a diaphragm.

In the filling head is a locking system with spring.
This system is open as long as the pressured gas flows out.
Once there is enough wine in the spear, the spear is closed; the return piping becomes pressure less.
The pressure switch in the return piping activates the plc once no pressure is measured. This commands the valve at the filling head to close (end of the filling cycle).

Subsequently, the remaining product in the head will be blown out with gas; head and fitting are rinsed out with hot water and blown out.

## 7.3.4. DETERGENTTANK.

Under the frame of the machine Compact 235 the detergent and acid are integrated.



They consist of following parts:

- Housing stainless steel
- Pump
- Heating
- Heating control
- Temperature control mode
- Level control

The level control is equipped with 3 switching points:

- maximum
- minimum
- pump protection

- Tank cover

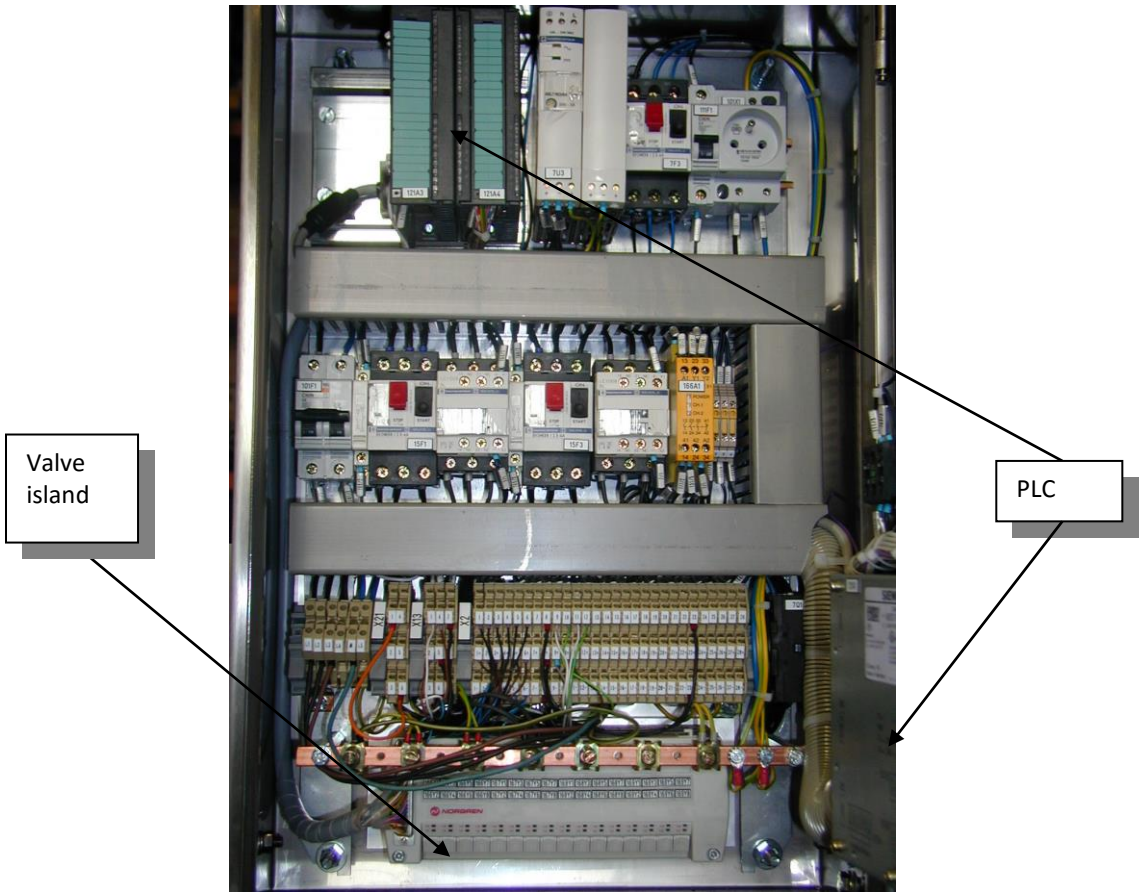
The tank is equipped with a lockable cover, to be able to clean the tank.

**ATTENTION! EMPTY TANK ONLY IF THE MACHINE IS TURNED OFF!**
**KEEP COVER CLOSED DURING OPERATION!**

## 7.3.5. STEERING.

### 7.3.5.1. GENERAL.

The steering systems (electric, pneumatic) are in a protected water control unit at the machine.




### 7.3.5.2. PLC OPERATION.

The machine Compact 235 is controlled and monitored by PLC.
The programs of the various treatment stations run independently of each other.

The monitoring of the process steps are done through probes, pressure switches and power switches.
All sensors that are installed to monitor the process, are carried out in IP 65 and mounted so that they are protected from mechanical damage.
A detailed description is contained in the following chapters.

### 7.3.5.3. PNEUMATIC CABINET

On the left side of the machine, on the upper part of the frame, the pneumatic cabinet is installed, including a service unit. At this cabinet the main supply of air is connected.
The service unit is used to control, filtering and dewatering of the air.
For visual inspection of the main pressure a manometer is fitted.

### 7.3.5.4. PNEUMATIC CYLINDERS.

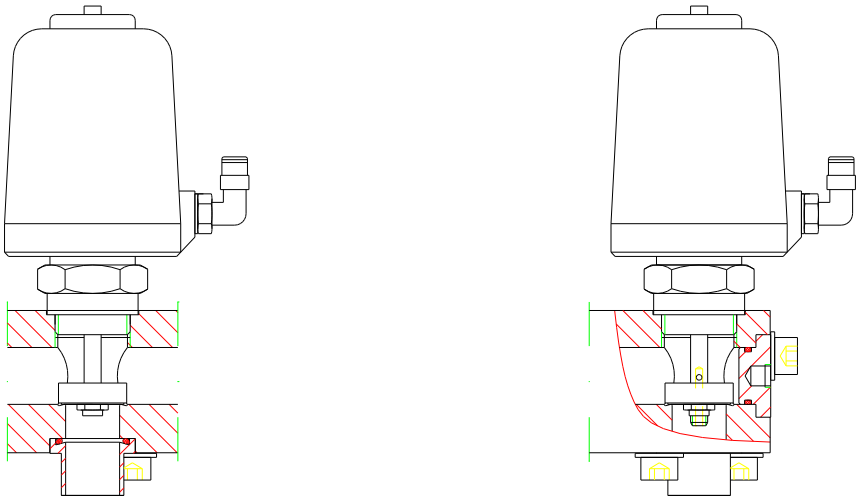
The pneumatic cylinders are integrated into the machine to move the table, clamps, axes of the washing and filling head. Reed contacts control the movements of the pneumatic cylinders.

Correct setting of the reed contacts a red LED light up, when the piston is at the same height as the initiator.

### 7.3.5.5. MEDIA VALVES

The media valves are used to steer the various media.
They are attached in a compact design left and right of the machine and assigned to the treatment heads.

The valves are closed at rest and opened with air.



The air connection is located in the upper part of the machine.

The media valve opens when the signal “keg is at treatment station” appears.

At the top of the valve a plastic cap indicated weather the valve is open (red pin is in upper position) or closed (red pin in down)

### 7.3.5.6. WET-DRY ALERT.

The dry-wet control is activated by means of a capacitive level switch at the entrance of the medium valves.

### 7.3.5.7. PRESSURE CONTROL.

Pressure switches monitor the pressure at both sides of the heads.

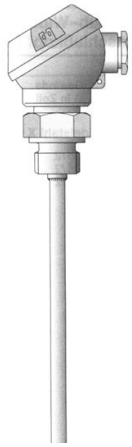
The cleaning head is controlled by means of a pressure switch:

- - residual pressure in the keg
- - density
- - media pressure

The filling head is controlled by means of a pressure switch:

- - density
- - steam pressure
- - gas pressure

### 7.3.5.8. TEMPERATURE SENSOR



In the detergent tank is a temperature sensor installed.
Through this sensor, the temperature of the detergents is monitored in the tank.
A signal is send to the plc of the machine that opens or closes the temperature control valve.
The washing process can only be started if the proper temperature in the tank is reached.

- For temperatures from -40 ° C to +400 ° C
- With protection sleeve in various materials
- Both single-or dual sensor.

### 7.3.5.9. STATE LEVEL CONTROL

In the detergent tank is a level control.
This control realized 3 operating modes:

- Maximum = closing the tank filling system
- Minimum = opening the tank filling system
- Pumpprotection

When the lowest level switch is activated the pump stops to run and a signal is send to the cabinet.

### 7.3.6. CIP.

The CIP cleaning (Cleaning In Place) is used for cleaning and sterilization of the filling head and all pipes and pieces in contact with the filling product on the machine.

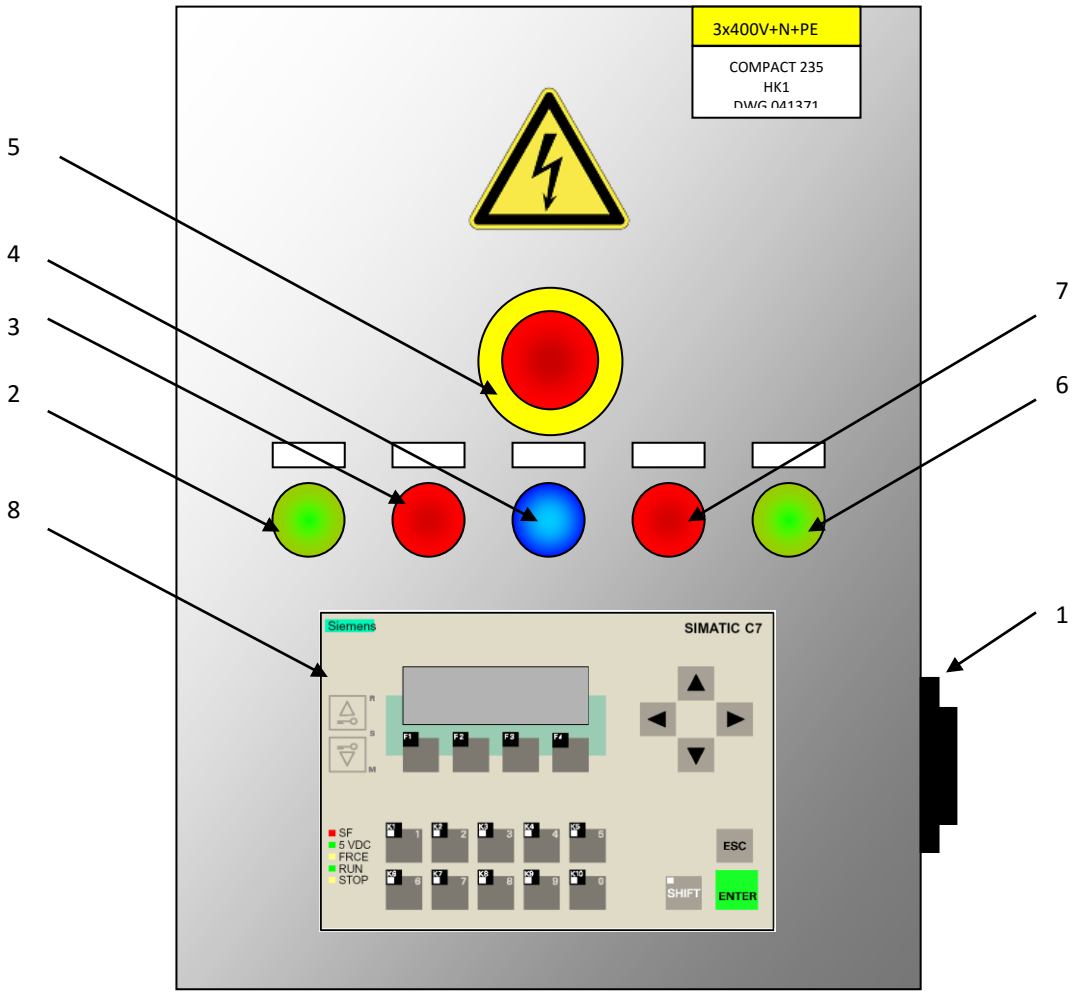
Cip can either by done using the liquid of the detergent tank or using an external cip from the customer.

## 7.4. PANEL DESCRIPTION.

The control box includes all necessary operating controls and buttons.

The following elements are in the panel:

1. Master switch
2. Start button wash cycle
3. Stop button wash cycle
4. Reset button
5. Emergency stop
6. Start button filling cycle
7. Stop button filling cycle
8. Visualization window C7-613




### 7.4.1. MAIN SWITCH.

The main switch (1) is on the right side of the cabinet.

### 7.4.2. FUNCTION KEYS.

#### 7.4.2.1. "START" BUTTON.

By pressing the two "Start" (2-6) buttons together, the cleaning and filling processes will start.
No process will start by pressing just one button.

Both cylinders of the clamp are activated (washing and filling station). Is there no keg on the station, the matching cylinder will go back up and the process is not started on this station.

### 7.4.2.2. "STOP" BUTTON.

With the "Stop" button (3-7), the process for the cleaning or filling can be interrupted.

**ATTENTION ! FOR A RESTART ALWAYS PRESS RESET BUTTON (4)!**

### 7.4.2.3. EMERGENCY OFF SWITCH.

The EMERGENCY OFF switch (5) must be operated in case of immediate danger.
By operating this switch, the machine is immediately out of action.
By removing the interference and control of risk, the EMERGENCY OFF switch can be turned off.
For a new start, press the "Reset" button (4)!

### 7.4.2.4. "RESET" BUTTON.

The "Reset" button (4) should be activated after a production interruption, before the machine is in operation again.

### 7.4.2.5. ERROR REPORTING.

On the "error message" (8) are malfunctions immediately shown.
Using the error list, the operator has the ability to recognize and solve the error quickly.
After resolving the error, always press the "Reset" button (4) for a fresh start.

### 7.4.2.6. TEMPERATURE SENSOR DETERGENT AND ACID TANK.

The temperature control is integrated into the PLC.

# 8. LAYOUT MACHINE/INSTALATION

## 8.1. BUILD UP INSTRUCTIONS

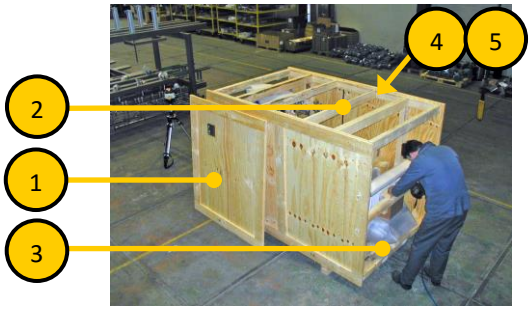
### 8.1.1. OFFLOADING AND INSTALLING

**STEP 1**

Place the package with a fork truck as close as possible to its location.

- Remove the package and contents as described:

**THE MACHINE CAN ALSO BE DELIVERD WRAPPED IN PLASTIC OR INSIDE A CONTAINER WITH OTHER MACHINES!**



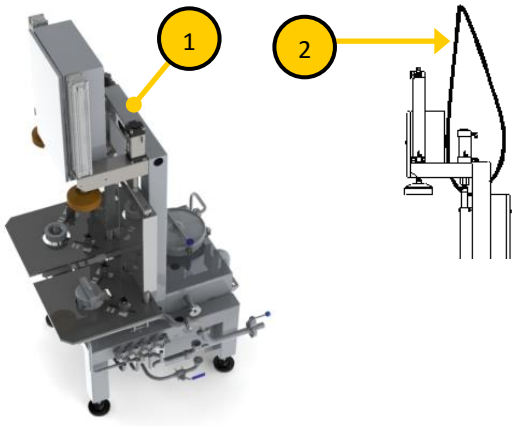

1 - Crate panels ( leave bottom )
2 - All panels supports
3 - Remove plastic covers
4 - Users guide – send the receipts to us
5 - Spare parts if include

**STEP 2**

Lift the machine with a qualified lifting belt that is fastened to the frame support

- Place it on the shop floor
- Adjust the machine horizontal on the floor by adjusting the feet

**CAUTION THAT NO PARTS ARE BEEN DAMAGED BY THE LIFTING BELT!**




1 - Frame support
2 - Lifting belt

## STEP 3

The media care connections must be done under international and local standards.

Lambrechts recommends producing the lines from material 1.4301 or higher quality.

The installation must be done by qualified staff only, in consultation with Lambrechts.

The supply terminals are characterized by the company Lambrechts.

Flange connections are provided as standard connections, these are part of the machine.

Make sure not to merge the drains and pipes together. It may be interrelated processes.

Ensure that the correct lines in your media shut-off valves are provided for each conduit.

The pressures off the different media indicated in the information sheets have to be respected. Install if necessary pressure control fittings.

| Pos. | Medium | Nominal pass |
|---|---|---|
| 1 | CIP return | DN25 |
| 2 | Beer | DN25 |
| 3 | Air | DN25 |
| 4 | Water | DN25 |
| 5 | Gas | DN25 |
| 6 | Steam | DN25 |
| 7 | Hot water | DN25 |
| 8 | Condensate | DN25 |

**TIP!**
**PLEASE NOTE ALSO THE QUALITY OF THE MEDIA! INSTALL STERILE FILTERS IF REQUIRED!**
**WASH ALL MEDIA PIPES BEFORE ATTACHING ON THE MACHINE!**
**THEN RUN A COMPLETE CIP COURS BY (SEE SECTION 11.4 CIP)!**

## 8.2. FIRST COMMISSIONING.

Before using the machine for the first time, following points should be guaranteed and finished:

- Completing all construction and installation works
- Checking the assembly and installation works
- All media connections must be properly installed and secured
- Checking seals
- All pressure regulators must be set according to the prescribed pressure
- Sterile filters must be properly fitted, filter cartridges at place
- All pneumatic hoses should be put in place and attached
- All electric lines, as described in the electrical documentation, installed
- Connect all media to the machine
- The keg centering devices on the table must be, according the size of the vessel, correctly secured and installed

**TIP!**
**ONLY TURN ON THE MACHINE BY THE MAINSWITCH IF ALL ABOVE ITEMS ARE COMPLETED AND CHECKED!**

The machine Compact 235 is set to work properly. It is not necessary to change this!

## 8.3. SWITCHING ON THE MACHINE.

After all the necessary media is on the machine and all the necessary controls are done, you can switch on the machine.

To do this, follow these steps:

- Turn on the main switch on the control panel
- Chose the operation type
- Place the test keg on the cleaning station
- Use both hands to press the button “Start” on the control panel
- Check the cleaning cycle on the test keg

**ATTENTION ! THE VESSEL IS HIGHLY HEATED BY THE WASHING PROCESS! WEAR PROTECTIVE GLOVES AND SAFETY CLOTHING!**

When the washing cycle is correctly finished the same steps can be followed on the filling station, using the test keg.

You can start producing when cleaning- and filling cycles are approved.

# 9. MAINTENANCE INSTRUCTIONS

## 9.1. GENERAL

**TO MAINTAIN A GOOD OPERATION AND LONG LIFETIME OF THE MACHINE IT IS FROM IMPORTANCE TO MAINTAIN THE MACHINE PROPERLY! WHEN TROUBLE IS CONTINUING OR ADDITIONAL INFORMATION IS REQUIRED CONTACT US!**

**CHECK THE MAINTENANCE REQUIREMENTS OF THE ACCOMPANYING TECHNICAL DOCUMENTATION!**

## 9.2. BEFORE FIRST USE

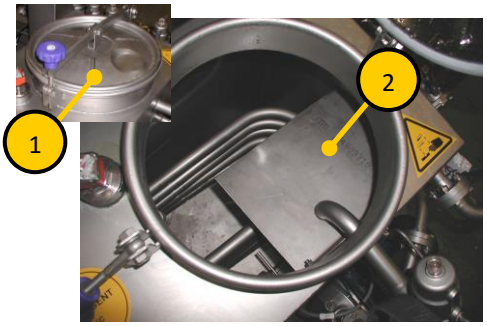
### CLEANING THE TANK – STEP 1

**DO NOT CONNECT THE SERVICE SUPPLIES (ELECTRICAL & MEDIA) BEFORE THE TANK HAS BEEN CLEANED!**

Open the manhole on top of the tank (1).

- Check if the tank and the washing and filling head are clean
- Remove the cover plate if needed (2)

**DON'T FORGET TO REPLACE THE COVER PLATE AT THE END OF THE WORK!**




### STEP 2

Open the drain valve (1).

- Clean the water tank with a water hose
- Close the drain valve
- Replace the cover plate inside the tank
- Close the manhole using the hand wheel
- Check all mechanical and electrical components on wear and function

## 9.2.1. REGULAR, WHEN NECESSARY OR BY A LINE STOP

- Remove strange objects in the entire machine and around (bottles, cords, plastic bags, etc…)
- Check all mechanical and electrical components on wear and function
- Check valves and seals on leaks
- Check the fluid reservoir and filter of the control air supply
- Check the air supply on the main control air (recommend 5,5 bar) and the cylinders (recommend 3 bar)
- CIP (cleaning in place) the machine before and after use of the machine see part 2 operator part for the procedures

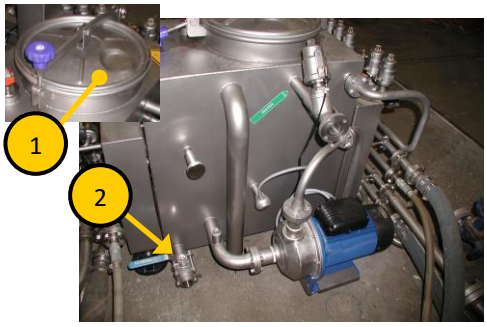
## 9.3. EVERY DAY

### CLEANING THE TANK – STEP 1

Shutdown the main switch and air supply.

- Shutdown the media supplies
- Open the manhole (1)
- Open the drain valve (2)

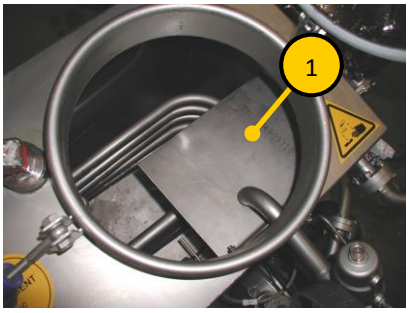
**CHECK IF THE STEAM TO THE SPIRALSTEAM IS CLOSED!**




### STEP 2

Remove the cover plate if needed (1).

**DON'T FORGET TO REPLACE THE COVER PLATE AT THE END OF THE WORK!**

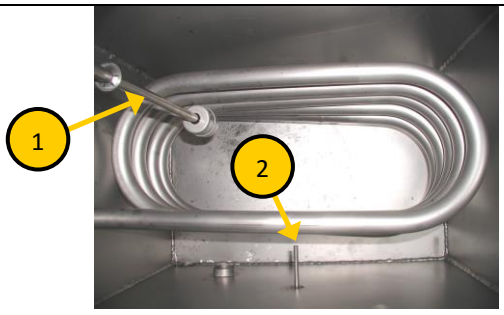



### STEP 3

**MAKE SURE THAT THE TANK AND THE SPIRAL IS COLD!**

- Clean the level switch & level indicator
- Clean the temperature probe
- Clean the tank with a water hose

**CHECK IF THE PUMP SUCTION ENTRANCE OF THE TANK IS FREE OF GARBAGE!**



## STEP 4

Close the drain valve (1).

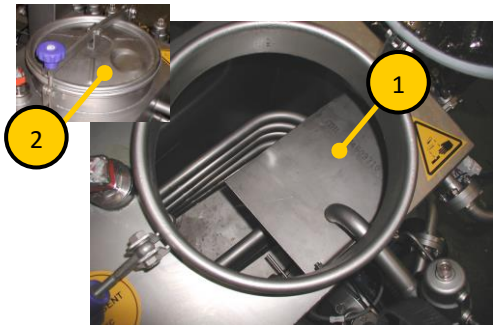
- Add a detergent if necessary

**SEE FOR DOSING % "REQUIREMENTS FOR SERVICE MEDIA'S"**


## STEP 5

Replace the cover plate (1).

- Close the manhole (2)
- Open all media services for normal use
- check all mechanical en electrical components on wear and function



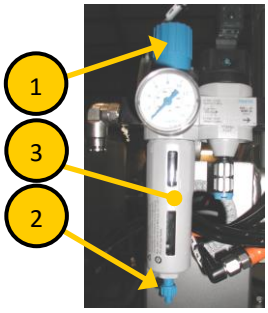
## 9.4. WEEKLY

- Control all mechanical and electrical components on wear and function.
- Control the sealing of the cylinders.
- Control the adapters on wearing. (Part 2 for more information).

### AIR GROUP

Shutdown the air filter regulator by turning the regulating button (1).

- Turn open the nipple at the bottom of the bowl until no fluid is flowing (2)
- Check the filter on pollution and replace if required (3)
- Set the air filter regulator to a max of 6 bar




### PRESSURE CONTROL PNEUMATICAL CYLINDERS

- Set the pressure to a max of 6 bar

## 9.5. MONTHLY

- Replace al the sealing's if required (cylinders, media connections (flange), etc.)

# 10.SWITCHING MACHINE

## 10.1. SWITCHING BARREL TYPE - ADAPTERS

### STEP 1

Take all assembly tools and adapters ready to be used.

**THE SUPPLIED COMPONENTS CAN CHANGE OF THE IMAGES IN THIS MANUAL.**
**THE PRINCIPLE REMAINS THE SAME.**

1 2 3

4 - Assembly tool for the specific adapter
5 - Adapter type (see mechanical drawings)
6 - CIP cap
**USED FOR THE CIP PROCES AND FOR THE PROTECTION FOR TRANSPORT OR WORKS.**

### STEP 2

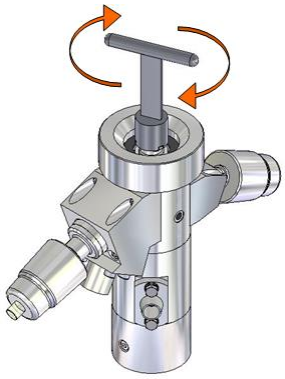
Place the adapter in the mounting device and screw it into the head of the filling – or washing head.

**CLEAN THE THREADED WITH DRY WIPING CLOTH!**

### STEP 3

Turn adapter clockwise fixed.

**HAND TIGHTEN – DON'T USE STRONG FORSE!**



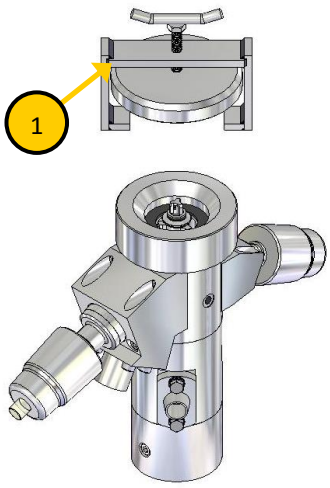
## 10.2. SWITCHING FOR CIP – FILLING HEAD

### STEP 1

Before and after production, you must install CIP (cleaning in place)!

- Place the CIP cap (1) on the filling head

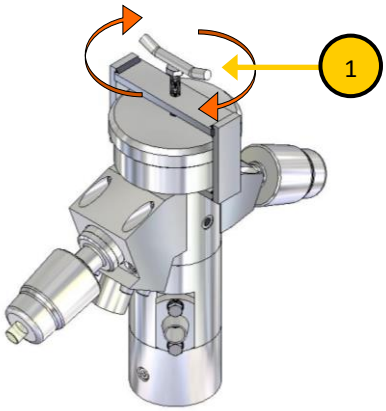
**CHECK THE CORRECT INSTALLATION OF SEAL ON THE HOOD**




### STEP 2

Turn the handle(1) of the CIP cap clockwise fixed;

**HAND TIGHTEN – DON'T USE STRONG FORSE!**



## 10.3. SWITCHING FOR CIP – PIPEWORK CONNECTIONS

### 10.3.1. GENERAL LINKS PIPEWORK

GENERAL INSTRUCTIONS

The connections are identified by numbers.

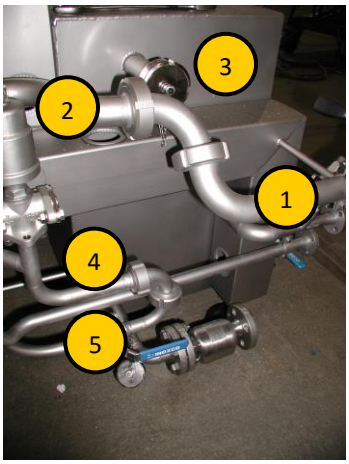
The possible connections are explained in the following chapters.

**SEE FOR THE CIP*/PRODUCTION FLOW DRAWINGS NR. 22429.**

**DO NOT MAKE CHANGES ON THE PIPEWORK IF YOU DO NOT HAVE READ THE WHOLE CHAPTER "SWITCHING THE MACHINE"!**

**YOU FIND A SUMMARY ON THE MACHINE.**

**CLEAN THE TANK BEFORE CARRY OUT THE CIP PROCESS, EXCEPT FOR EXTERNAL CIP.**




1 - Product
2 - Filling head
3 - Tank
4 - FOB* drain
5 - Pump tank

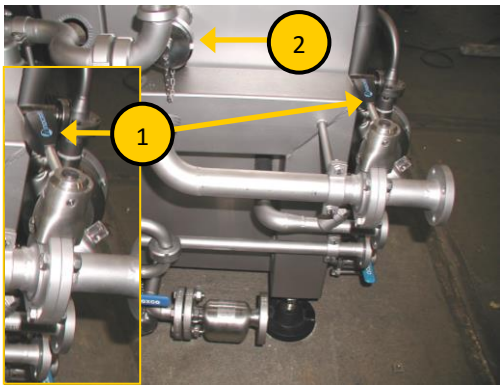
*FOB (foam of beer), *CIP(Cleaning in place)

## 10.3.2. PRODUCTION

### STEP 1

The standard operating mode, the production.

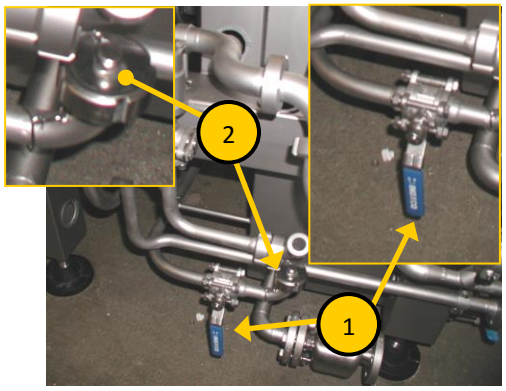
- Close the valve (1) of the product
- Place the end cap(2)




### STEP 2

Close the return valve (1).

- Place the end cap (2)

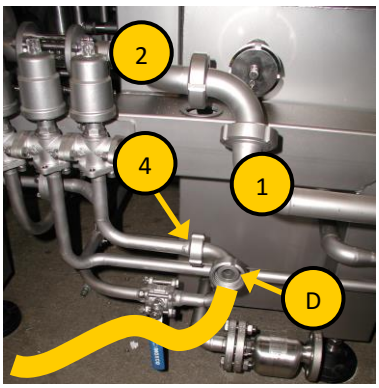



### STEP 3

Connect the 1st connection to 1+2.

- Connect the 2nd connection to 4+D (drain)

**USE A FLEXIBLE HOSE TO CONNECT THE DRAIN**

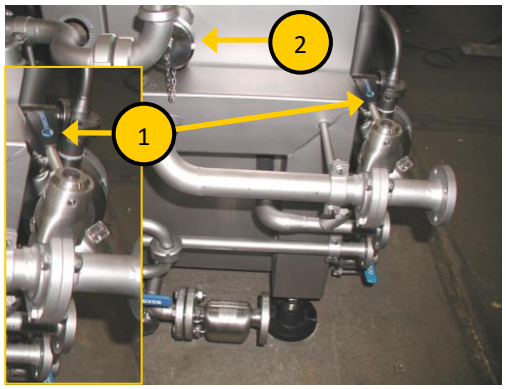


## 10.3.3. CIP – HOT WATER

### STEP 1

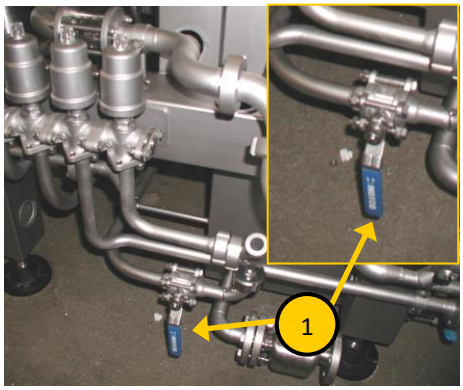
**DO NOT ADD DETERGENT IN THE TANK!** The machine will heat up the water at a temperature of 80°C.

- Close the valve (1) of the product
- Place the end cap(2)




### STEP 2

Close the return valve(1).

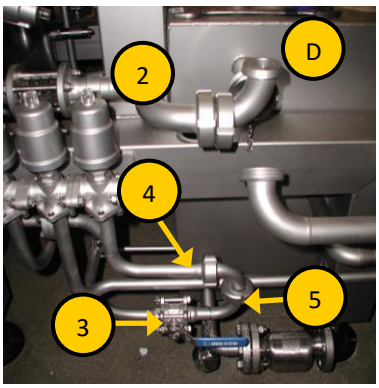



### STEP 3

Connect the 1st connection to 2+D (drain).

- Connect the 2nd connection to 4+5
- Open the return valve when all connections are made and verified(3)

**USE A FLEXIBLE HOSE TO CONNECT THE DRAIN**



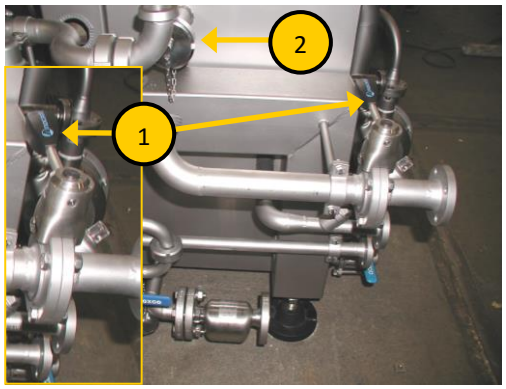
## 10.3.4. CIP - DETERGENT

### STEP 1

Fill with water and the detergent required percentage (see manual part 1 – P&ID).

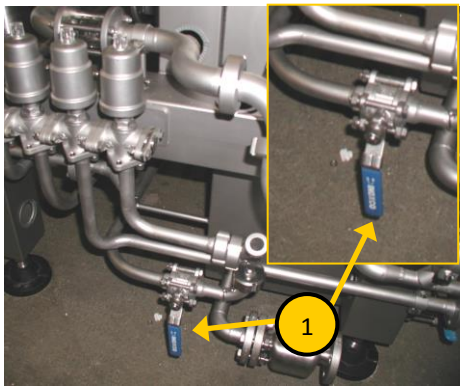
**USE CAUSTIC OR ACID!**

- Close the valve (1) of the product
- Place the end cap(2)



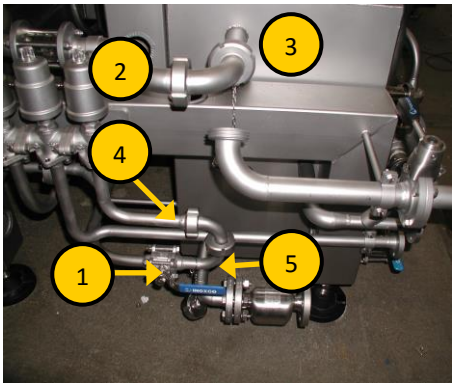

### STEP 2

Close the return valve (1).




### STEP 3

- Connect the 1st connection to 2+3
- Connect the 2nd connections to 4+5
- Open the return valve when all connections are made and verified(1)

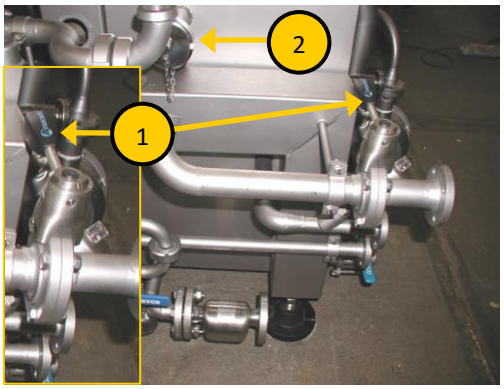


## 10.3.5. CIP - EXTERN

### STEP 1

CIP the external product line.

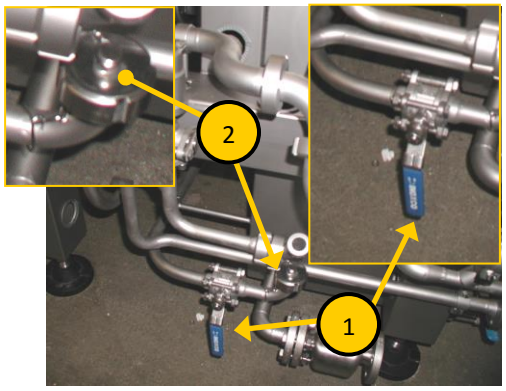
- Close the valve (1) of the product
- Place the end cap (2)




### STEP 2

Close the returnvalve (1).

- Place the end cap (2)

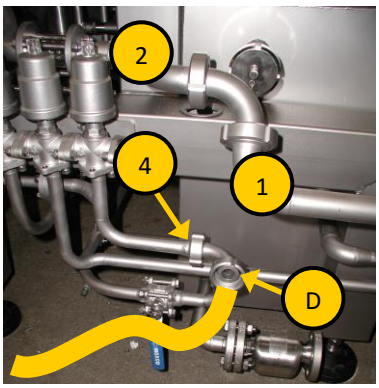



### STEP 3

Connect the 1st connection to 1+2.

- Connect the 2nd connections to 4+D (drain)

**USE A FLEXIBLE HOSE TO CONNECT THE DRAIN**



# 11. P&ID – FLOWDIAGRAM

## 11.1.1. REQUIREMENTS FOR SERVICE MEDIA'S

### 11.1.1.1. ELECTRICAL CONNECTIONS

You can find this information into the wiring diagrams on the first page.

Compact 235:

- Voltage 3 x 480 V + 120 V (to make 24V)
- Frequency 60 Hz
- Voltage deviation ± 5 %
- Zeroconductor Yes
- Special regulations IEC 204

VERIFY WITH THE DIAGRAMS

### 11.1.1.2. MEDIA SPECIFICATIONS CONNECTION

These are shown on the P&ID diagrams (flow chart), can be found in the general manual.

### 11.1.1.3. CONSUMPTION

| | PER HOUR FOR 50L/30L/20L | PER BARREL FOR 50L/30L/20L | WITH A PRESSURE |
|---|---|---|---|
| ▪ Hot water | 570 l | 9,5 l | 2,5-3 bar |
| ▪ Cold water | 300 l | 5 l | 2,5-3 bar |
| ▪ Sterile air | 15 - 20 Nm3 | 0,3-0,4 Nm³ | 2-4 bar |
| ▪ Gas by 2,5 bar | 20/18/16 kg | 0,33/0,3/0,26 kg | 2-3 bar |
| ▪ Sterile steam | 20/16/14 kg | 0,3/0,25/0,22 kg | 1,5-3 bar |
| ▪ Wine | 17,5/10,5/7 hl | 50/30/20 l | 2,5-0,1 bar |
| ▪ Air | 3 Nm3 | 83 Nl | 6 bar |
| ▪ Heating steam det. tank | 36 kg | | 6 bar |
| ▪ Heating | 17,5 kg | 0,5 kg | 6 bar |
| ▪ Acid circulation | 1140 l | 19 l | 3 bar |
| ▪ Tank capacity | ±50l | | |
| ▪ Voltage | 3 x 480 V | 2 KW | |
| ▪ Sound | < 75 dB A | | |

NOTE: ALL KEG TYPES MINIMUM 35 KEGS/HOUR

## 11.2. PROCESS CYCLE DIAGRAMS - COMPACT 235

### 11.2.1. WASHING HEAD PROCESS

### 11.2.2. FILLING HEAD PROCESS

### 11.2.3. CIP PROCES

# 12. ELECTRIC

# 13. PNEUMATIC

# 14. MECHANICAL

## 15. ADDED DOCUMENTATION