

# Manual



Above-counter dispenser  
for hot drinks **OTHG 105**

**It is in your own interests to observe all the hazard and safety information. This helps you to prevent accidents and technical malfunctions.**

**Only allow employees who have read this manual and familiarised themselves with the machine to operate the machine.**

**Keep this manual near the machine. This will allow your service personnel to consult the manual and proceed correctly in the event of malfunctions.**

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1.0 Device details




- 1 Tap
- 2 Tap
- 3 Tap
- 4 Heating indicator lights (orange) Mains indicator light (green)
- 5 Switches for electrical beverage pumps
- 6 Temperature adjustment
- 7 Overheating protection (on the base plate in several models)
- 8 Drip tray
- 9 Mains cable
- 10 Beverage input 1
- 11 Beverage input 2
- 12 Beverage input 3
- 13 Pressure input

## 2.0 Hazard information

We pride ourselves on providing the best possible device safety, among other outstanding product characteristics.

Despite all the safety precautions, however, there are always potential hazards with even the best devices if they are not handled properly.

For this reason and in your own interests, we have summarised the potential hazards below.

<p><b>Important information for your safety that you should always observe:</b></p> 	<ul style="list-style-type: none"><li>▪ The machine must only be connected and started up for the first time by customer service.</li><li>▪ Maintenance and repair work <b>may only be performed by customer service using original spare parts.</b></li><li>▪ The built-in safety equipment <b>must never be modified.</b></li><li>▪ <b>Caution! Risk of scalding!</b> There is a <b>risk of scalding</b> in the mulled wine dispensing area.</li><li>▪ <b>Caution! Health hazard!</b> When using cleaning agents, observe the <b>precautions on the cleaning agent packaging</b>. During the cleaning procedure, cleaning fluid flows out of the mulled wine outlet.</li></ul>
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## 3.0 Safety information

### General information

Maintenance work on the mulled wine device may only be performed by trained customer service personnel.

### Stoppage

1. If the machine is not used for a longer period of time, it must first be cleaned thoroughly. If there is a risk of freezing, the machine must be drained first to avoid frost damage.
2. After a stoppage of several weeks, we recommend cleaning the machine before starting it up again.

### Preventive measures against consequential damage

Every technical device is fundamentally a source of operational risks, particularly during unsupervised operation.

For consequential damage of any kind outside the device, all claims against the manufacturer and customer service are excluded unless liability is expressly prescribed by law.

We therefore recommend that the owner of the device take suitable measures to prevent damage, in accordance with the specific local application and operating conditions.

## 4.0 Safety functions

The Selbach OTHG is protected by overheating protection. When the block temperature reaches 105°C, the power supply switches off. The device can only be switched on again after the overheating protection is activated manually.

## 5.0 Technical data

Electrical output	8400 W/ 400 V 50 Hz
Control system	Thermostatic control
	Control range: 35°C-85°C
	Safety sensor: 105°C
	Frost protection
Power consumption	12.50 A
Fuse protection	16 A
Tap output	100 l/h
Tap ready	5 minutes after switching on
W/H/D (without taps)	275/463/350 mm
W/H/D (with drip tray)	275/463/520 mm
Weight	30 kg

## Noise emission data

70 dB (A)\*

\* Specification in accordance with EN 292 Part 2 A1  
At a noise level lower than or equal to 70 dB (A), the specification  
"70 dB (A)" is sufficient.

## Intended use

Selbach hot beverage devices are intended for use in the hospitality industry and at outdoor events. Selbach hot beverage devices are the ideal solution when it comes to effortless and clean heating up of mulled wine, fortified tea etc.

The hot beverage device is only approved for the aforementioned range of uses and is not suitable for heating up liquids with a high alcohol content, chemicals etc.

## 6.0 Installation

### Installing the machine

To ensure trouble-free operation, the mulled wine heater must be positioned on a level surface. Make sure that there is sufficient space available to connect the beverage lines. Select an installation site where the equipment is protected against wet conditions. Also make sure that the connection cable is not kinked or pinched and goes straight to the socket. The mains plug must be easily accessible at all times.

### Preparing for installation

Route the mulled wine supply line (G 5/8") and the power connection directly to the machine. This preliminary work is to be arranged by the customer: the owner of the machine shall commission a state-licensed dispensing equipment technician to perform the work, taking into consideration general provisions and local requirements. Feedthroughs and drilled holes in counters or worktops for the machines must be positioned so that live parts cannot be touched.



**Caution!** Do not alter the hose materials and hose lengths in the device.

## 7.0 Electrical connection

All machines are electrically heated. The 8.4kW machine is connected to 400 V three-phase alternating current with a neutral line (N). The socket or three-phase outlet with easily accessible master switch is included in the scope to be provided by the customer and must be executed in accordance with DIN VDE 100. To improve safety, the device should be protected by an upstream ground fault circuit interrupter with 30 mA rated fault current (DIN VDE 0664). No additional appliances may be connected to the supply lines.

## 8.0 Initial start-up

- 1) Connect the beverage lines, check for any leaks.
- 2) To operate the built-in gas pumps, connect the pressure lines (see page 12). Make sure to handle the cylinder pressure reducer correctly if using CO<sub>2</sub> or nitrogen. Alternatively, you can also use dry, clean compressed air.

To ensure optimum beverage delivery, set a pressure of **approx. 1.5 – 3 bar**, depending on the length of the beverage line (max. 8 m). The maximum flow rate is 0.2 l in 5-6 seconds.

To operate the pump, you can choose from:

- CO<sub>2</sub>
- Nitrogen
- Compressed air

- 3) Connect to the mains.
- 4) Switch on device, set the desired temperature.
- 5) To operate the built-in electric beverage pumps, switch on the switches for the corresponding beverage lines (1, 2 and/or 3).

**When setting the temperature, note that an excessively hot dispensing temperature can cause spray at the tap.**

### **Risk of scalding!**



**Caution!** There is a risk of scalding in the dispensing area of the beverage outlets. When the beverage containers are empty, there is a risk of spraying.

**The maximum dispensing temperature depends on the alcohol content and the altitude.**

Once the operating temperature is reached, the device is ready for use. (Heating switches off, orange indicator light off).

## 9.0 Frost level

To prevent frost damage in the mulled wine heater, you can set a frost level on the thermostat. To do so, turn the thermostat to the lowest temperature (do not switch it off). Switch off the electric pumps at the corresponding switches.

## 10.0 Shutdown

- 1) Switch off device
- 2) Pull out mains plug
- 3) Switch off pressure supply
- 4) Open taps until pressure equalises
- 6) Remove the beverage lines



## 11.0 Cleaning

In any hospitality situation, hygiene depends on three components: food hygiene, workplace hygiene and personal hygiene. To ensure an unadulterated, pristine product quality, all three components must interact seamlessly.

To ensure appropriate cleanliness and sterility when cleaning the OTHG 105 above-counter heating device, always use a chemical cleaning method. Cleaning with water only does not eliminate microbes.

### Cleaning and disinfection intervals

- Immediately after first start-up
- Immediately before and after interrupting operation for a week or more
- Immediately when changing beverage types
- The parts that come into contact with beverage and air should be cleaned once a day (e.g. part of the tap fitting/outlet valves, drip tray)
- When in operation, no later than after 7 to 14 days

### Outlet spouts on the taps

The outlet spouts are flushed with a cleaning ball. This prevents foam and beverage residue from drying out and keeps the ventilations holes in the taps free and functioning. This measure means, for example, that there are no nutrients for insects to consume, thus preventing transmission of undesired contamination.

We recommend flushing at the end of operation, as well as before and after longer breaks in operation.



Check the cleaning ball at regular intervals for internal contamination.  
Beverage lines

### Beverage lines

In the device version with a beverage pump, the device can only be cleaned chemically. Mix the cleaning agent as per the manufacturer's instructions and pump it through the pumps like a normal dispensing operation. Leave it for the time specified in the manufacturer's instructions. After cleaning, rinse the system with drinking water (min. 5 l per line) until all the cleaning agent has been flushed out. If possible, check that there is no more cleaning agent using suitable tests (e.g. pH indicator test strips).

## **Housing**

Before cleaning the equipment, disconnect the mains plug!

Do not allow the device to come into direct contact with water, simply clean it with a damp cloth and a little dishwashing detergent.

## **Cleaning agent and disinfectant requirements**

The cleaning agents and disinfectants used must not attack the surface finish of components and lines.

Use only suitable alkaline cleaning agents, not agents containing chlorine (if possible, with SK mark or clearance certificate).

The agents used must not affect the beverage.

The devices and beverage lines must be cleaned in accordance with the applicable cleaning regulations (DIN 6650-6).

## 12.0 Troubleshooting

<b>Fault</b>	<b>Possible cause</b>	<b>Trouble-shooting</b>
Device does not switch on	No mains connection	Connect to mains
	Device switched off	Switch on device
	Overheating protection has triggered	Switch on overheating protection
(Some) indicator lights(s) do not light up	One or more fuses have tripped	Check fuses and mains connection*
	Lamps faulty	Replace lamps*
	Thermostat faulty	Replace*
Heating output low (beverage too cold)	One or more fuses have tripped	Check fuses and mains connection*
	Temperature set too low	Adjust
	Flow rate too large	Check, max. output 0.2 l in 5-6 sec.
Flow rate too low	Beverage line kinked, pinched or blocked, pressure set too low	Check beverage line Check pressure
No beverage flow	Pump switch switched off Indicator light off	Switch on switch Indicator light on
No beverage flow Pump switch switched on Indicator light off	Mains unit faulty	Replace mains unit*
No beverage flow Pump switch switched on Indicator light on	Electric pump faulty	Replace electric pump*

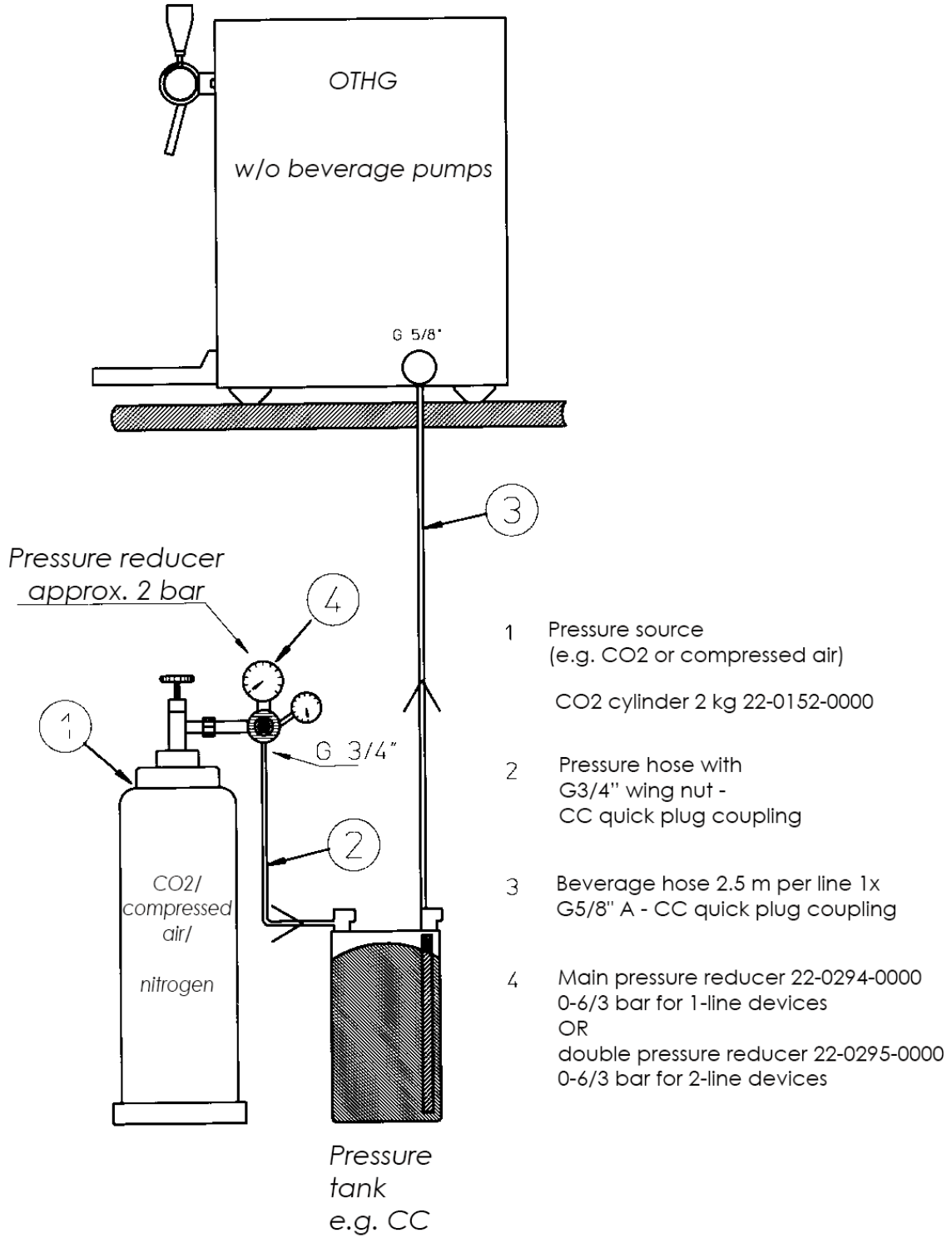
\* This work may only be performed by a trained electrician.

### 13.0 Spare parts list

<b>Order number</b>	<b>Components</b>	<b>Additional designation</b>
23-0179-0000	Ball valve 7 mm i.D. VA	
50-0016-0000	Overheating protection f. OTHG	
50-0121-0000	Capillary tube controller	55.34012.600
50-0191-0000	Button for capillary tube controller	524.803
50-0122-0000	Switch for capillary tube controller	49.41015.500
50-0028-0000	Gas diaphragm pumps	
51-1841-0000	Rocker switch 1-pole with indicator light 12V	
50-0339-0000	Electric diaphragm pumps 12V	
52-0153-0000	Mains unit 230V 50Hz / 12V DC 5A	

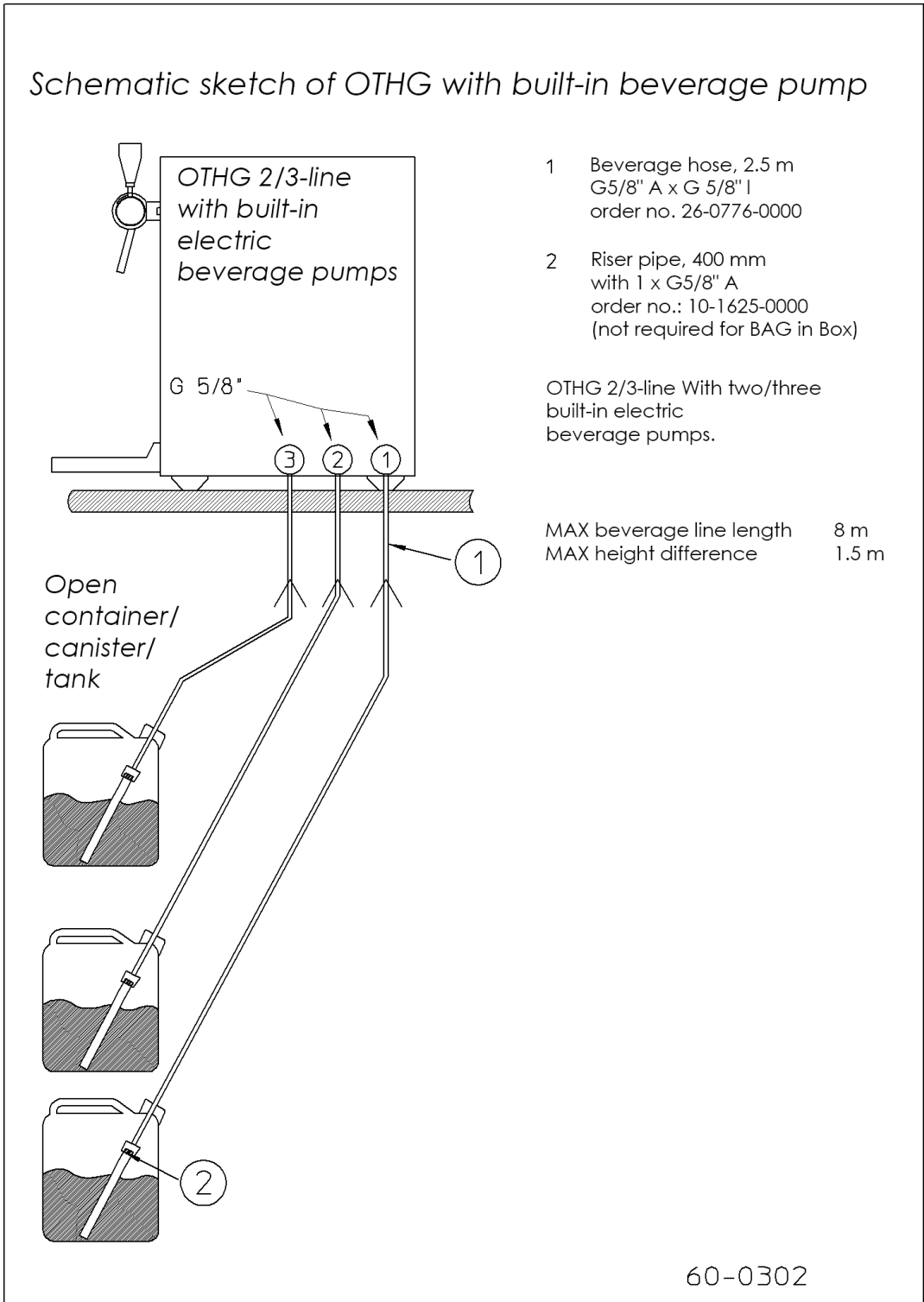
14.0 Schematic sketch of OTHG without beverage pump

*Schematic sketch of OTHG w/o beverage pump*

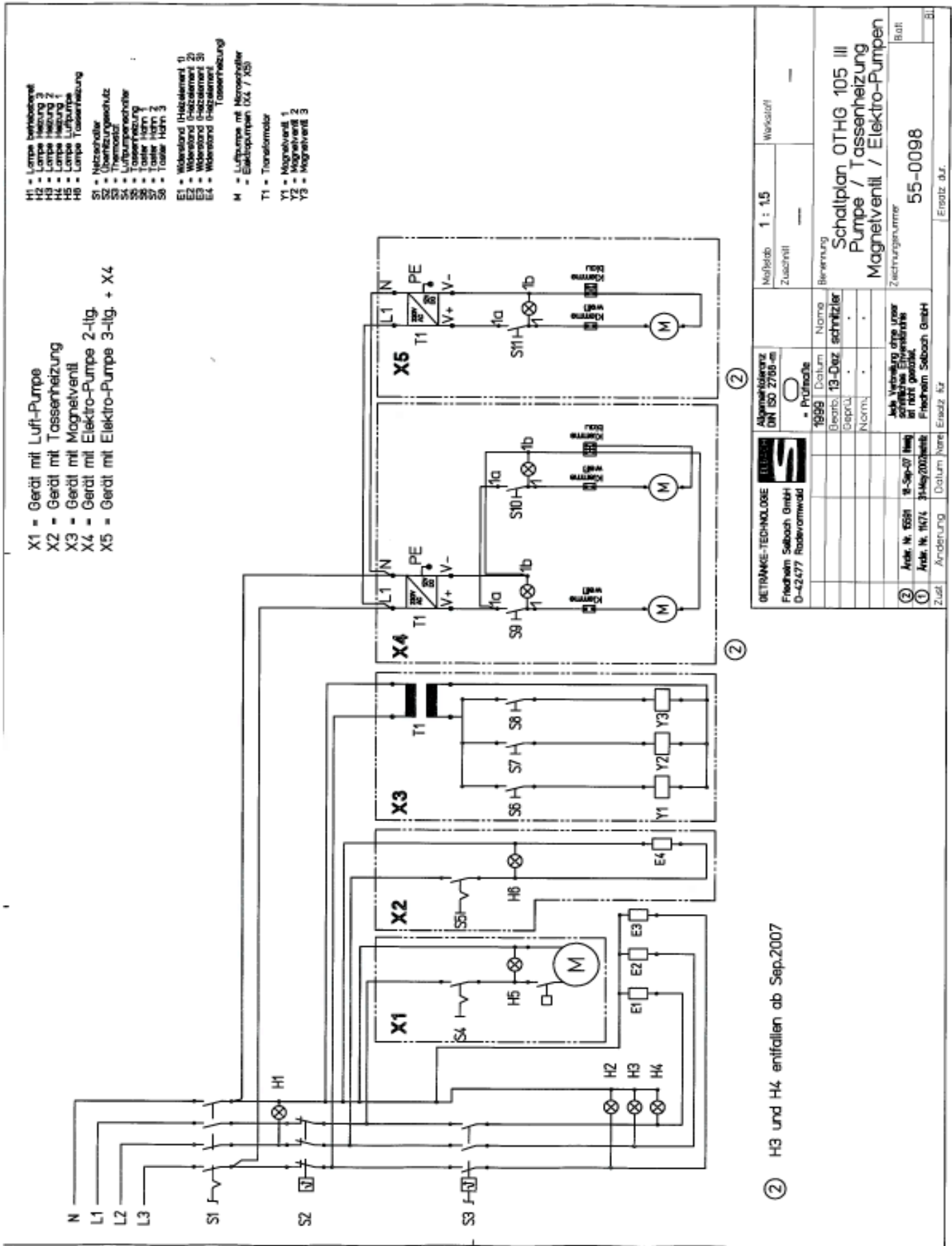




16.0 Schematic sketch of OTHG with built-in electric beverage pump



17.0 Circuit diagram for OTHG 105



- H1 = Lampe Betriebszustand
- H2 = Lampe Heizung 3
- H3 = Lampe Heizung 2
- H4 = Lampe Heizung 1
- H5 = Lampe Luftpumpe
- H6 = Lampe Tassenheizung
- S1 = Netzschalter
- S2 = (Über)Heizungsschutz
- S3 = Thermost.
- S4 = Luftpumpenschalter
- S5 = Luftpumpenschalter
- S6 = Tassenheizung
- S7 = Taster Horn 1
- S8 = Taster Horn 2
- S9 = Taster Horn 3
- E1 = Widerstand (Heizelement 1)
- E2 = Widerstand (Heizelement 2)
- E3 = Widerstand (Heizelement 3)
- E4 = Widerstand (Heizelement Tassenheizung)
- M = Luftpumpe mit Motorschalter
- T1 = Transformator
- Y1 = Magnetventil 1
- Y2 = Magnetventil 2
- Y3 = Magnetventil 3

- X1 = Gerät mit Luft-Pumpe
- X2 = Gerät mit Tassenheizung
- X3 = Gerät mit Magnetventil
- X4 = Gerät mit Elektro-Pumpe 2-ig.
- X5 = Gerät mit Elektro-Pumpe 3-ig. + X4

Maßstab 1 : 1,5 Werkstatt	
Zeichnung	
Benennung <b>Schaltplan OTHG 105 III</b> <b>Pumpe / Tassenheizung</b> <b>Magnetventil / Elektro-Pumpen</b>	
Zeichnungsnummer <b>55-0098</b>	
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## 18.0 Type examination certificate

ZERTIFIZIERUNGSSTELLE FÜR GETRÄNKESCHANKANLAGEN  
68136 MANNHEIM



Zertifizierungsstelle  
für Getränkeschankanlagen

Firma  
Friedhelm Selbach GmbH  
Heisenbergstr. 5  
42477 Radevormwald

Original  
Registriernummer: Z 1033/0812  
SK 269-012

### ***BAUMUSTERPRÜFBESCHEINIGUNG***

nach DIN 6650 Teil 5

für verwendungsfertige Getränkeschankanlagen oder Bauteile

**Neuantrag**

für Firma (Antragsteller)

Friedhelm Selbach GmbH  
Heisenbergstr. 5  
42477 Radevormwald

für das

**Oberthekeheissgerät,  
verwendungsfertige Schankanlage mit Elektropumpen**

Hersteller/Lieferer: Friedhelm Selbach GmbH, 42477 Radevormwald  
Herstelljahr: 2012  
Bezeichnung: OTHG 105

von dem

**Prüflaboratorium für Getränkeschankanlagen  
Werner Körner in 63322 Rödermark**

der Baumusterprüfung in folgendem Umfang unterzogen:

**Prüfung der Herstellunterlagen** (nach DIN 6650-5 Punkt 7.2)  
**Prüfung der Bauausführung** (nach DIN 6650-5 Punkt 7.3).

Über das Ergebnis der Prüfungen wurde vom Prüflaboratorium für Getränkeschankanlage;  
Werner Körner in 63322 Rödermark am **15. August 2012** ein Prüfbericht erstellt.

**Prüfbericht-Nr.: KöLab 2153**

**Die Prüfungen ergaben, dass das Oberthekeheissgerät dem Stand der Technik entspricht,  
z.B. den DIN-Normen 6650 Teil 1 bis 5.**

**1. Gültigkeitsdauer der Baumusterprüfbescheinigung**

Die Gültigkeitsdauer der Baumusterprüfbescheinigung und des nachfolgend aufgeführten  
Baumusterkennzeichens beträgt **5 Jahre**.

**2. Baumusterkennzeichen (SK-Zeichen)**

2.1 Jedes Oberthekeheissgerät dieser Bauart ist mit folgendem Kennzeichen zu versehen:

**SK 269-012**

2.2 Jedes Oberthekeheissgerät dieser Bauart muss mit dem Baumusterkennzeichen, deutlich  
sichtbar und dauerhaft gekennzeichnet sein. Die Größe der Buchstaben und Ziffern muss  
mindestens 4 mm betragen.

**Bitte beachten Sie die Hinweise in der Anlage zu dieser Baumusterprüfbescheinigung.**

Mannheim, den 20. August 2012

# Beverage technology

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