7 Connection 7

7.2 Lines and Pipelines 7.2

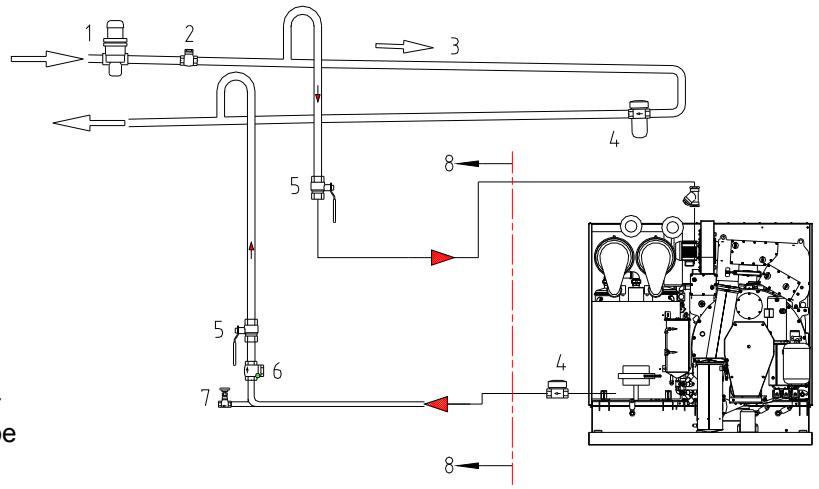
Connect the customer-supplied supply and drain lines according to the information in the dimensioned drawing. Steam, condensate, compressed air and water must be equipped with stop valves. Follow DIN 1988 when connecting the water. To avoid transmission of structure-borne noise, you can connect the pipelines with a spacer of flexible metal tubing and insulate the pipe holders.

7.2.1 Steam

Install the wiring system and connections in such a way that they are insulated.
Operating pressure 4 - 5 bar (58 - 72.5 psi) saturated steam.
If the admission pressure is more than 5 bar (72.5 psi), build in a reducing valve with pressure gauge and safety valve.
The steam pressure reducer on the distillation system is adjusted to 3.0 bar (43.5 psi)

Peak steam demand (large steam generator):

M21, M26, M30	
Drying	0.6 kg/min (1.3 lb/min)
Distillation	0.6 kg/min (1.3 lb/min)



1 = Reducing valve
2 = Vacuum breaker
3 = Descending slope
4 = Steam trap
5 = Stop valve
6 = Non-return valve
7 = Drain
8 = Customer side

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7.2.2 Condensate

Install condensate line so that it slopes away from the machine, if possible. If there is an ascending slope, provide a non-return valve and drain at the lowest point.

Attention:
Condensate counter-pressure must be at least 1.5 bar (21.8 psi) under the incoming steam pressure.

7 Connection 7

7.2.3 Cooling Water Supply

7.2.3.1 M ains water supply

The cross-sections of the lines to the machine should not get smaller and should be without bends and curves, if possible. The heat balance of the machine has been optimally designed for cooling water with an inlet temperature of 12 °C (53.6 °F) and uniform pressure of 2 - 4 bar (29 - 58 psi). (Minimum pressure 2.0 bar (29 psi), maximum pressure 6.0 bar (87 psi)

A manually operated stop valve should be fitted.

Peak cooling water demand 2 - 4 bar (29 - 58 psi) (12 °C/53.6 °F):

M21, M26, M30	
Drying/detergent solution cooler	6 l/min (1.6 US gal/min)
Distillation	14l/min (3.7 US gal/min)

According to DIN 1988, a water flowback stop and venting device must be installed on machines in the Federal Republic of Germany.

7.2.3.2 Cooling Tower Operation

For cooling tower or recooling operation, the nominal width of the feeding and drain lines must be dimensioned to be larger than the nominal width of the circulation pump or must be dimensioned according to the pump.

Inlet temperatures are not allowed to exceed 24 °C/ (75.2 °F) because otherwise the solvent consumption increases and the drying times are also longer.

Cooling water inlet temperatures that are too high can also overload the refrigeration unit.

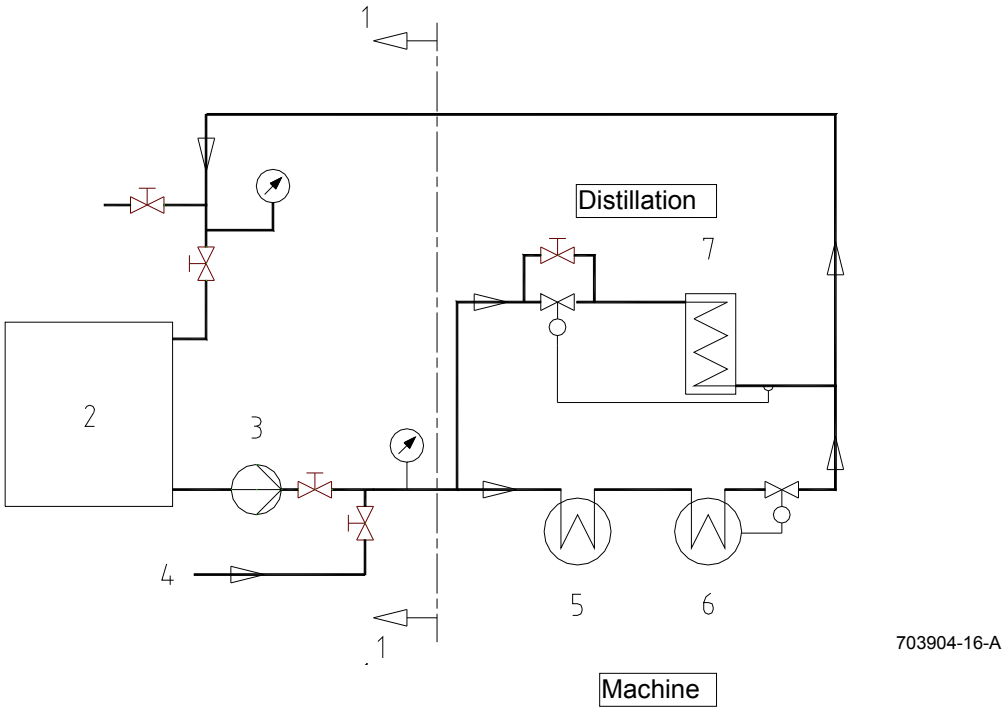
The water pressure must be adapted to the high inlet temperature, up to double the peak demand.

In cooling tower or recooling operation, correct installation is especially important. Consequently, some of the things that must be kept in mind are the cooler capacity, mains water supply switch-over, stored cooling capacity, pump size and cooling water by-pass.

The cooling water regulator (water economizer valve) for the machine and distillation system must be corrected or avoided with a bypass (manual valve) (= continuous water flow).

The cooling water supply or the backfeeding to the recooling unit must come from the mains water system or from a soft water system.

7 Connection 7



1 = Customer side
2 = Cooling tower
3 = Circulation pump
4 = Mains water supply
5 = Undercooler cooling agent
6 = Refrigeration unit
7 = Condenser

Data for temperatures up to 24 °C (75.2 °F)
(Nominal width NW at least 32 mm /1 1/4“):

Pump throughput	m^3/h (US gal/h)	3.2 * (845) *
Pump pressure	bar (psi)	4-6 (58 - 87)

Heat to be dissipated over cooling water* :

		M21	M26	M30
k	J/cycle	41400	51100	59300

* refers to water without additives

Also refer to the separate installation and operating instructions for the rechilller.

7 Connection 7

7.2.4 Cooling Water Outlet

The cooling water leaving the system can be directed to the sewer system, reused and recooled because it circulates through the machine in a closed system and does not come into contact with the solvent. You should endeavor to reuse the cooling water.

7.2.5 Compressed Air

The operating pressure is 6 bar (87 psi). The machine is equipped with a compressed air reducing valve, pressure gauge and compressed air water separator. The line pressure should be 10 - 12 bar (145 - 174 psi).

7.2.6 Process Water

Empty the process water collecting tank daily.
Dispose of the contents according to the regulations for your country.

7.2.7 Aeration Lines

The venting ducts of the machine must lead without diminished cross section into the open or via open funnel and cock valve to the room venting system (if existing).

It must be ensured that the venting does not lead to areas with high explosion risks or to ignitation sources.

7 Connection 7

7.3 Electrical Connection 7.3

Caution

Only trained electricians are permitted to work on the electrical system.

Note the supply voltage (on the nameplate). Connect L1 /L2 /L3, neutral and ground wires with the appropriate cross section and fusing. Pass the cable into the switch panel through the PVC screwed union provided and connect to terminal.

Main switch connection

The main switch must be connected at the customer with an approved cable. Strip the cable right before the main switch only. Do not lay stripped cable in the cable trunking.

Attention: Supply voltage must be present even when the machine's main switch is turned off in order to guarantee the function of the crankcase heating in the refrigeration unit.

Ground-fault circuit interrupter at the customer
In case of a fault current breaker integratred in the building it is recommandable to make sure,if it is applicable to the machine with variable speed drive.

M 21	Operating load kW	Max. current A	Fuse A
400 V, 50 Hz			
Steam /electric without distillation	12	26	35
Steam /electric with distillation	13	29	35
230 V, 60 Hz			
Steam /electric without distillation	12	47	50
Steam /electric with distillation	13	51	63

Attention: The electric model is implemented with a separate steam generator. This steam generator must have separate fusing.

M 21	Operating load kW	Max. current A	Fuse A
400 V, 50 Hz			
Steam generator	30	44	50
230 V, 60 Hz			
Steam generator	30	74.8	80

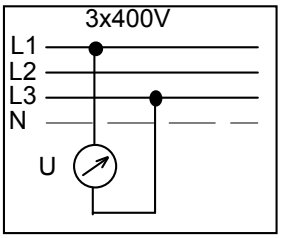
7 Connection 7

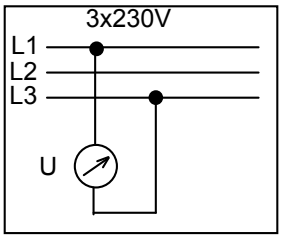
M 26 /M30 heated with external steam	Operating load kW	Max. current A	Fuse A
400 V, 50 Hz			
Steam without distillation	12	26	35
Steam with distillation	13	29	35
230 V, 60 Hz			
Steam without distillation	12	47	50
Steam with distillation	13	51	63

7 Connection 7

7.3.1 Permissible Voltage Range

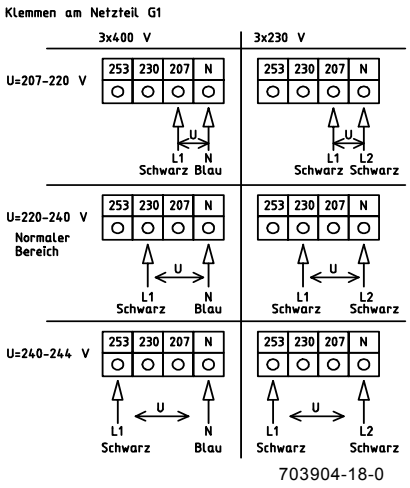
Attention:
The power supply must be measured at the machine before you turn the machine on. If it deviates from the standard voltage, you must adapt the machine to the local voltage with an autotransformer.





When making the electric connections for a drycleaning machine, you must observe the following voltage ranges:

1. Main supply (according to DIN IEC 38):		
Range Prim	arily 400-V power system	Primarily 230-V power system
Not allowed; requires external adjustment	< 360 V	< 207 V
Normal working range MIN: -10.0 % MAX: + 6.0 %	360 V to 424 V	207 V to 244 V
Not allowed; requires external adjustment	> 424 V	> 244 V

Range	Primarily 230-V power system
Not allowed; requires external adjustment	< 207 V
Normal working range 207 V to 244 V	
Not allowed; requires external adjustment	> 244 V

7 Connection 7

7.3.2 Control of Room Ventilation

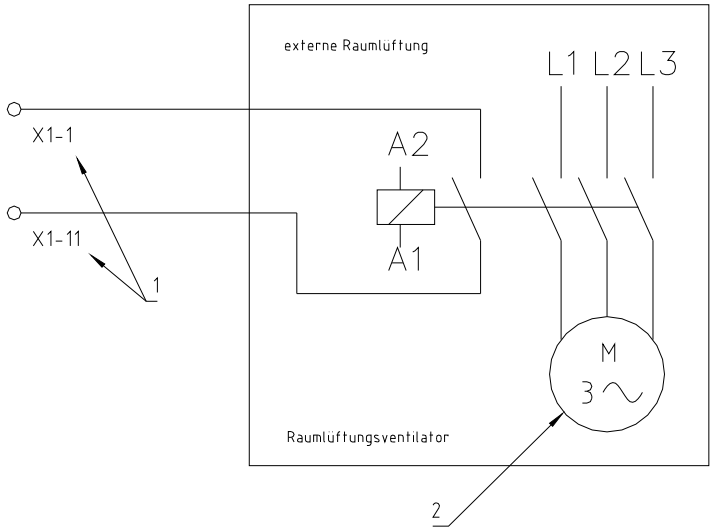
If there is already a room ventilation system, you can couple the automatic machine actions with the ventilation system.

In this case, the machine starts only when the room ventilation has been turned on.

Recommendation for renewing the room air:
The room ventilation must be sufficient to meet the requirements for your country.

Example: BGR 500 chapter 2.14:

The minimum requirement for renewing the room air is achieved when the dissipated amount of air in m^3 /h is equal to 60 times the numerical value of the standard loaded amount in garments in kg. The air renewal rate can be limited to 5 per hour if the calculation results in a larger numerical value.



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1 = Terminals in switch panel
2 = External room ventilation - room ventilation fan

8 Important Information 8

8.1 First Startup 8.1

The BÖWE Customer Service department is responsible for carrying out the first startup.

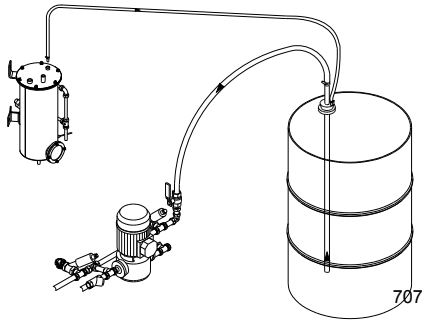
	**<u>Attention:</u> Before opening the switch panel or removing paneling, set the main switch to "0".**

8.1.1 Preparatory Work

Set up the supply systems (electrical current, cooling water, compressed air, steam and condensate lines).

8.1.2 Filling Machine With Solvent

(When filling the machine using the gas pendulum process, refer to diagram)



You must use solvents that have a flash point that is higher than the temperature stated on the machine nameplate.

The amount of solvent needed is:

Machine M21 tank l:	approx.110 l / 29.0 US gal
Machine M26 tank l:	approx.135 l / 35.6 US gal
Machine M30 tank l:	approx.155 l / 40.9 US gal
Total filling amount M21:	approx. 445 l * / 117.5 US gal *
Total filling amount M26:	approx. 510 l * / 134.6 US gal *
Total filling amount M30:	approx. 565 l * / 149.2 US gal *

	**<u>Attention:</u> This solvent is a powerful fat solvent. Wear gloves when handling solvent and apply protective skin ointment to hands when done. Do not smoke.** **Immediately change any clothing that is wet with solvent.** **If you get solvent in your eyes,:** • **rinse them thoroughly with water** • **and see a doctor.**

	**If there is no suction from the pump, pour about 5 liters (1.3 US gal) of solvent into the button trap. Check that the direction of rotation is correct.**

* Machine with 1 economy filter.
For machines with 2 economy filters: + 50 l (13.2 US gal)
For machines with 2 economy filters and 1 cartridge filter: + 75 l (19.8 US gal)
For machines with 2 economy filters and 2 cartridge filters: + 90 l (23.8 US gal)

8 Important Information 8

To fill without emissions, proceed as follows:

- Remove the screw cap on the pump line.
- Connect a hose between the barrel and pump suction side.
- Connect gas displacement line between the barrel and water separator.
- Open the ball valve.
- Start program P51
- The tanks fill up, with one overflowing into the other.
- Watch the level of the liquid in the tanks and stop program P51 when the tanks are full or when enough solvent has been filled in.
- Close the ball valve.
- Remove the connecting lines to the barrel.
- Screw the cap back on to the pump line.
- Remove the gas displacement line.

If may be necessary to refill with solvent after the filter is filled each time you replace a filter.

8.1.3 Refilling Solvent

Follow the procedure given in Point 8.1.2 for routine refilling of solvent.

Attention: Even empty containers can still hold solvent residues. Therefore tightly seal the container (barrel) again and store or dispose of in accordance with regulations!

8 Important Information 8

8.1.4 Filling Extraction Tank Using Program P54

- Enter P54 and press the "Hold" button
- Press the ↑ button until you reach step n11
- Press the "Start" button

8.1.5 Manually Filling the Vacuum Pump Operating Material Tank

- Open the screw cap.
- Fill container with approximately 5 liters (1.3 US gal) of solvent. (Use funnel)
- Close the screw cap.

The vacuum pump is now ready for operation.

8.1.6 Vacuum Pump

The yellow ball valve between the operating material tank and the cooling coil is not permitted to be completely closed at any time during operation.

The black needle valve in the venting line (ø 6mm (approx. 1/4 in)) between the operating material cooler and the vacuum pump must be open.

Never allow the vacuum pumps to run when dry; never allow them to run in the wrong direction of rotation.

8.2 Refrigeration Unit 8.2

	**Attention:** **No cooling agent is allowed to escape into the atmosphere during operation, servicing work and decommissioning of refrigeration units.** **You must keep a record of the quantities of cooling agent used and present this record to the authorities upon demand.** **Only people who have the necessary special knowledge and technical equipment are authorized to service and decommission refrigeration units.**

9 Technical Specifications 9

M 21

Heating		**Steam**	**Electric**
Filling quantity	kg (lb)	21 (46.3)	21 (46.3)
Cage volume	l/ US gal	420 (110.9)	420 (110.9)
Cage diameter	mm (in)	1000 (39.4)	1000 (39.4)
Cage depth	mm (in)	535 (21.1)	535 (21.1)
Cleaning speed/drying speed	RPM	35	35
Spinning speed:	RPM	600	600
Max. g-factor.		200	200
Low level	l/ US gal	52.5 (13.9)	52.5 (13.9)
High level	l/ US gal	105 (27.7)	105 (27.7)
Operating load (max. at 400 V,50Hz)			
Without distillation	kW	12	42
With distillation	kW	13	43
Connected loads:			
Compressor capacity	kW	5.0	5.0
Fan capacity	kW	1.5	1.5
Solvent pump capacity	kW	1.1	1.1
Cage drive capacity	kW	5.5	5.5
Filter drive capacity	kW	0.55	0.55
Vacuum pump capacity	kW	1.1	1.1
Steam generator capacity	kW	-	30
Dimensions:			
Machine dimensions:			
Width with distillation	mm (in)	2200 (86.6)	2200 (86.6)
Depth	mm (in)	1500 (59.1)	1500 (59.1)
Height without cartridge filter	mm (in)	2180 (85.8)	2180 (85.8)
Height with cartridge filter	mm (in)	2340 (92.1)	2340 (92.1)
Floor space	m^2 (ft^2)	3.3 (35.5)	3.3 (35.5)
Filling volumes:			
Tank I filling	l/ US gal	200 (52.8)	200 (52.8)
Tank II filling	l/ US gal	125 (33.0)	125 (33.0)
Tank III filling	l/ US gal	200 (52.8)	200 (52.8)
Economy filter 1	l/ US gal	75 (19.8)	75 (19.8)
Economy filter 2		50 (13.2)	50 (13.2)
Distillation filling	l/ US gal	220 (58.1)	220 (58.1)
Cartridge filter 1 (long)	l/ US gal	25 (6.6)	25 (6.6)
Cartridge filter 2 (short)	l /US gal	15 (4.0)	15 (4.0)
Jumbo Cartridge Filter	l /US gal	40 (10.5)	40 (10.5)

The dimensions given may differ if special options are used

9 Technical Specifications 9

M21

Heating		**Steam**	**Electric**
Consumption for drying:			
Drying time inc. reduction	min.	26	26
Elec. energy drying	kWh	3.1	7.7
Saturated steam drying	kg (lb)	8.0 (17.6)	-
Cooling water dr.(12 °C/53.6 °F)	l (US gal)	130 (34.3)	130 (34.3)
Consumption for distillation(1x at low level):			
Elec. energy distillation	kWh	0.45	8.6
Saturated steam distillation	kg (lb)	12.0 (26.5)	-
Cooling water for dist. (12 °C/53.6 °F)	l (US gal)	170 (44.9)	170 (44.9)
Consumption per cycle: *			
Elec. energy, total	kWh	4.05	16.8
Saturated steam, total	kg (lb)	20.0 (44.1)	-
Cooling water, total (12 °C(53.6°F)	l (US gal)	300 (79.2)	300 (79.2)
Compressed air (6 bar/87 psi)	l (US gal)	6 (1.6)	6 (1.6)

9 Technical Specifications 9

M21

Heating		**Steam**	**Electric**
Other:			
Dist. throughput (DIN 11916) max.	l/h (US gal/h)	180 (47.5)	180 (47.5)
Filter throughput	l/h (US gal/h)	5000 (1321)	5000 (1321)
Filter surface, economy filter 1	m^2 (ft^2) 5.0	(53.8)	5.0 (53.8)
Filter surface, economy filter 2	m^2 (ft^2) 3.5	(37.7)	3.5 (37.7)
Weight without solvent (with 2 economy filters, 2 cartridge filters)	kg (lb)	2120 (4674.6)	2120 (4674.6)
Weight with solvent (with 2 economy filters, 2 cartridge filters)	kg (lb)	2500 (5512.5)	2500 (5512.5)
Floor space	m^2 (ft^2) 3.3	(35.5)	3.3 (35.5)
Floor surface **	m^2 (ft^2) 2.3	(24.8)	2.3 (24.8)
Cage centrifugal force	N (lb)	18100 (4070)	18100 (4070)
Floor load, stat. and dyn.	N/m^2 (lb/ft^2)	18500 (386)	18500 (386)
Noise level	dB (A)	62	62
Heat balance: *			
Heat to dissipate via cooling water ***:			
k	J/cycle	41400	41400
Heat dissipated to the surroundings:			
k	J/cycle	11000	11000

* Values apply to a standard 2-bath load, 1st bath low level for distillation at cooling water inlet temperature + 12 °C (53.6 °F), steam supply 4 – 5 bar (58.0 - 72.5 psi) overpressure saturated steam, ambient temperature +5 °C to + 40 °C (5 to 104 °F)

** For portion of the floor surface for force transmission, see Installation Instructions, Point. 5.3.1

*** Refers to water without additives

Subject to change!

9 Technical Specifications 9

Machine		**M26**	**M30**
Heating		**Steam**	**Steam**
Filling quantity	kg (lb)	26 (57.3)	30 (66.2)
Cage volume	l (US gal)	520 (137.3)	600 (158.4)
Cage diameter	mm (in)	1000 (39.4)	1000 (39.4)
Cage depth	mm (in)	665 (26.2)	770 (30.3)
Cleaning speed/drying speed	RPM	35	35
Spinning speed:	RPM	600	600
Max. g-factor.		200	200
Low level	l (US gal)	65 (17.2)	75 (19.8)
High level	l (US gal)	130 (34.3)	150 (39.6)
Operating load (max. at 400 V, 50 Hz)			
Without distillation	kW	12	12
With distillation	kW	13	13
Connected loads:			
Compressor capacity	kW	5.0	5.0
Fan capacity	kW	1.5	1.5
Solvent pump capacity	kW	1.1	1.1
Cage drive capacity	kW	5.5	5.5
Filter drive capacity	kW	0.55	0.55
Vacuum pump capacity	kW	1.1	1.1
Steam generator capacity	kW	-	-
Dimensions:			
Machine dimensions:			
Width with distillation	mm (in)	2200 (86.6)	2200 (86.6)
Depth	mm (in)	1630 (64.2)	1735 (68.3)
Height without cartridge filter	mm (in)	2180 (85.8)	2180 (85.8)
Height with cartridge filter	mm (in)	2340 (92.1)	2340 (92.1)
Floor space	$m^{2\,(ft2)}$ 3.	6 (38.7)	3.8 (40.9)
Filling volumes:			
Tank I filling	l/ US gal	225 (59.4)	250 (66.0)
Tank II filling	l/ US gal	140 (37.0)	155 (40.9)
Tank III filling	l/ US gal	225 (59.4)	250 (66.0)
Economy filter 1	l/ US gal	75 (19.8)	75 (19.8)
Economy filter 2	l/ US gal	50 (13.2)	50 (13.2)
Distillation filling	l/ US gal	220 (58.1)	220 (58.1)
Cartridge filter 1 (long)	l/ US gal	25 (6.6)	25 (6.6)
Cartridge filter 2 (short)	l/ US gal	15 (4.0)	15 (4.0)
Jumbo Cartridge Filter	l /US gal	40 (10.5)	40 (10.5)

The dimensions given may differ if special options are used

9 Technical Specifications 9

Machine		**M26**	**M30**
Heating		**Steam**	**Steam**
Consumption for drying:			
Drying time inc. reduction	min.	31	36
Elec. energy drying	kWh	3.6	4.1
Saturated steam drying	kg (lb)	10.0 (22.0)	12.0 (26.5)
Cooling water dr.(12 °C/53.6 °F)	l (US gal)	150 (39.6)	170 (44.9)
Consumption for distillation(1x at low level):			
Elec. energy distillation	kWh	0.6	0.75
Saturated steam distillation	kg (lb)	15 (33.1)	18 (39.7)
Cooling water for dist. (12 °C/53.6 °F)	l (US gal)	220 (58.1)	260 (68.6)
Consumption per cycle: *			
Elec. energy, total	kWh	4.7	5.35
Saturated steam, total	kg (lb)	25.0 (55.1)	30.0 (66.2)
Cooling water, total (12 °C(53.6°F)	l (US gal)	370 (97.7)	430 (113.5)
Compressed air (6 bar/87 psi)	l (US gal)	6 (1.6)	6 (1.6)

9 Technical Specifications 9

Machine		**M26**	**M30**
Heating		**Steam**	**Steam**
Other:			
Dist. throughput (DIN 11916) max.	l/h (US gal/h)	180 (47.5)	180 (47.5)
Filter throughput	l/h (US gal/h)	5000 (1321)	5000 (1321)
Filter surface, economy filter 1	m^2 (ft^2) 5.0	(53.8)	5.0 (53.8)
Filter surface, economy filter 2	m^2 (ft^2) 3.5	(37.7)	3.5 (37.7)
Weight without solvent (with 2 economy filters, 2 cartridge filters	kg (lb)	2270 (5005)	2390 (5270)
Weight with solvent (with 2 economy filters, 2 cartridge filters	kg (lb)	2700 (5955)	2850 (6285)
Floor space	m^2 (ft^2) 3.6	(38.7)	3.8 (40.9)
Floor surface **	m^2 (ft^2) 2.6	(28.0)	2.8 (30.1)
Cage centrifugal force	N (lb)	22400 (5036)	25900 (5822)
Floor load, stat. and dyn.	N/m^2 (lb/ft^2) 1	8800 (390)	19200 (400)
Noise level	dB (A)	62	62
Heat balance: *			
Heat to dissipate via cooling water ***:			
k	J/cycle	51100	59300
Heat dissipated to the surroundings *:			
k	J/cycle	14000	18000

* Values apply to a standard 2-bath load, 1st bath low level for distillation at cooling water inlet temperature + 12 °C (53.6 °F), steam supply 4 – 5 bar (58.0 - 72.5 psi) overpressure saturated steam, ambient temperature +5 °C to + 40 °C (41 to 104 °F)

** For portion of the floor surface for force transmission, see Installation Instructions, Point 5.3.1

*** Refers to water without additives

Subject to change!

10 Settings and Optimum Operating Values 10

Machine		M21	M26	M30
Basic values:				
Steam pressure (saturated steam)	bar (psi)	4 - 5 (58 - 72)	4 - 5 (58 - 72)	4 - 5 (58 - 72)
Steam temperature (max. permitted)	°C (°F)	150 (302)	150 (302)	150 (302)
Cooling water pressure	bar (psi)	2 - 4 (29 - 58)	2 – 4 (29 - 58)	2 – 4 (29 - 58)
Low cooling water level switch	bar (psi)	2 (29)	2 (29)	2 (29)
Cooling water temperature, max.	°C (°F)	25 (77)	25 (77)	25 (77)
Compressed Air	bar (psi)	6 (87)	6 (87)	6 (87)
Low air pressure switch (if present)	bar (psi)	4 (58)	4 (58)	4 (58)
Cage speeds:				
Cleaning /drying	RPM	35	35	35
Spinning	RPM	400 /600	400 /600	400 /600
Reversing cycle (cleaning)	sec.	10 /5 /10	10 /5 /10	10 /5 /10
Low level	l (US gal)	52.5 (13.9)	65 (17.2)	75 (19.8)
High level	l (US gal)	105 (27.7)	130 (34.3)	150 (39.6)
Pump pressure (max.)	bar (psi)	1.5 (21.7)	1.5 (21.7)	1.5 (21.7)
Filter surface, economy filter	m^2 (ft^2)	5.0 (53.8)	5.0 (53.8)	5.0 (53.8)
Tank I: Optimum filling volume (high level)	l (US gal)	110 (29.0)	135 (35.6)	155 (40.9)
Detergent solution cooler:				
Detergent solution thermal sensor: Detergent solution cooler ON	°C (°F)	40 (104)	40 (95)	40 (95)
Alarm value	°C (°F)	45 (113)	45 (113)	45 (113)
Refrigeration technology:				
Filling capacity, cooling agent R 404A	kg (lb)	5.2 (11.4)	5.2 (11.4)	5.2 (11.4)
Expansion valve :				
Nozzle size: solvent cooling	No.	03	03	03
Drying /reduction	No.	01	01	01
High pressure control ON	bar (psi)	21 (304.6)	21 (304.6)	21 (304.6)
High pressure control OFF	bar (psi)	25(362.6)	25(362.6)	25(362.6)
Low pressure control	bar (psi)	2 (29)	2 (29)	2 (29)

10 Settings and Optimum Operating Values 10

Machine		**M21**	**M26**	**M30**
Drying:				
Cooling water regulator setting:				
Adjust 4 – 6 min. after start of drying	bar (psi)	18 (261)	18 (261)	18 (261)
Thermal sensor cage entry *	°C (°F)	75 (167)	75 (167)	75 (167)
Temp. sensor after cooler:				
Alarm value 1	°C (°F)	30 (86)	30 (86)	30 (86)
Alarm value 2	°C (°F)	35 95	35 95	35 95
Safety temperature limiter after cooler *	°C (°F)	45 (113)	45 (113)	45 (113)
Safety temperature limiter, cage inlet *	°C (°F)	100 (212)	100 (212)	100 (212)
Distillation				
Cooling water regulator condenser	°C (°F)	45 (113)	45 (113)	45 (113)
Thermal sensor:				
Cycle distillation OFF	°C (°F)	133 (271)	133 (271)	133 (271)
Still stripping OFF	°C (°F)	138 (280)	138 (280)	138 (280)
Residue draining	°C (°F)	55 (131)	55 (131)	55 (131)
Thermal sensor, distilled solvent *	°C (°F)	45 (113)	45 (113)	45 (113)
Restrictor in steam feeder	mm (in)	6 (.24)	6 (.24)	6 (.24)
Vacuum pressure control	kPa	minus 75	minus 75	minus 75

* at flash point >55°C (131 °F)

11 Safety Remarks Located on the Machine 11

Gemäß EN ISO 8230 befinden sich an der Maschine nachfolgende Sicherheitshinweise:

In accordance with EN ISO 8230 the machine is fitted with safety hints as given below:

Conforme à EN ISO 8230 les indications de sécurité suivantes se trovent à la machine:

Kontaktwasser kann geringe Spuren von Lösemittel enthalten.
Vorschriftsmäßig entsorgen!

Contact water may contain small quantities of solvent.
Please dispose of according to the regulations in your country!

L'eau de contact peut contenir une petite quantité de solvant.
Evacuer l'eau de contact conformément à la réglementation.

SN 708073

Nadelfänger täglich bzw. bei Bedarf öfter reinigen
(Nur bei ausgeschalteter Maschine und nach beendeter Trocknungsphase).

Clean button trap if necessary but at least once a day
(only if machine is switched off and the drying phase has been finished).

Nettoyer le filtre à épingle tous les jours et si nécessaire plus souvent
(seulement hors fonctionement de la machine et après une opération de séchage).

SN 708074

Reinigen der Destillation nur bei
- ausgeschalteter Maschine und
- kalter Destillierblase durchführen

Clean still only if
- machine is switched off and
- distillation is cold

Nettoyer l'alambic seulement si:
-La machine est hors de fonctionement
- Le distillateur est revenu à température ambiante

SN 708075

11 Safety Remarks Located on the Machine 11

Vorsicht!
Heiße Oberflächen

Attention!
Hot surfaces

Attention!
Surface chaude

SN 708076

Zulässige Füllmenge

Max. filling capacity

Capacité admissible

SN 708086

Filter täglich bzw. bei Bedarf öfter reinigen
(nur bei ausgeschalteter Maschine und nach beendeter Trocknungsphase)

Clean lint filter if necessary but at least once a day
(only if machine is switched off and the drying phase has been finished.)

Nettoyer le filtre tous les jours et si nécessaire plus souvent
(seulement hors fonctionement de la machine et après une opération de séchage).

SN 708087

Filter und Wasserabscheider dürfen manuell
nur bei leerer Destillation abgelassen werden.

Filter and water separator must only be drained manually
if the distillation is empty.

La vidange manuelle du filtre à solvant et du séparateur d'eau
est seulement permise quand le distillateur est vide.

SN 708077

21 kg /46 lbs **Zulässige Füllmenge** ***Max. filling capacity*** **Capacité admissible** SN 800195	**26 kg /57 lbs** **Zulässige Füllmenge** ***Max. filling capacity*** **Capacité admissible** SN 800196
30 kg /66 lbs **Zulässige Füllmenge** ***Max. filling capacity*** **Capacité admissible** SN 800197	

11 Safety Remarks Located on the Machine 11

For cleaning machines that operate with combustible solvent

Hazardous to humans and the environment:

- Risk of fire or explosion if any contact with open flames, embers or sparks
- Damages the skin, risk of eczema formation
- Serious damage to the lungs is possible if vapor is inhaled

Safety precautions:

- No source of fire near the solvent, absolutely no smoking
- Avoid skin contact, use protective gloves if possible
- No direct contact with the solvent

- Use protective skin cream regularly
- **Do not eat or drink in the work area**

What to do in case of fire:

- In case of fire, extinguish with a carbon dioxide or foam fire extinguisher
- If you spill solvent, use a suitable bonding agent

First aid:

- Immediately remove clothing wet with solvent
- If you inhale concentrated vapor, go out into the fresh air immediately
- If you get solvent in your eyes, rinse with water and contact a physician immediately

Disposal:

When stored, the solvent must be kept in closed containers and must be disposed of by experts only.

Changings in this issue

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