

P540

**Ready for the 3rd millennium!
– 5th Generation PERC systems
for every dry cleaning shop!**

PERC

BÖWE P 540

– the 5th Generation, individually extendable

It grows by its demands

With the 5th Generation into the new millennium

With the introduction of the 5th Generation BÖWE has set new standards in cleaning technology! Many competitors had to match with these standards – still an insoluble task for many of them. After the change into a new millennium the requirements are just as high as ever – BÖWE P 540 machines set standards:

- regarding capacity and economy
- regarding environmental protection and safety
- regarding application and quality!

BÖWE customers do not have to be satisfied with less and express their thanks with years of loyalty.



BÖWE P 540 with a cage capacity of 400l and a load of 20 kg

You save money!

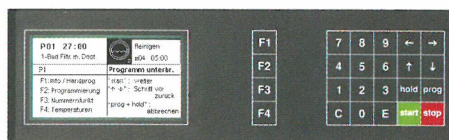
With competence and technical know-how we set standards for your economic advantage.

- shorter cycle times due to a modified air ducting
- an optimized cooling unit
- considerable reduction of the current costs
- reduction of the cooling water and energy consumption by cooling technique

- cooling unit with heat recovery
- decrease of the consumption values
- optimization of the drying by P.M.S.2000 and AIRTOX GWP
- ECO-filter replaces filter powder
- the emission-free BÖWE still rake out system reduces the evacuating costs considerably
- energy-saving still and drying system
- heat reuse during drying- an efficient

You are in control!

The phrase "pure machine control" does not do justice to the new BÖWE CS 3000 computer control. With its clear text display (different languages possible) it is child's play to operate your machine. Easily understood notations describe each program process and give information about the machine status.



In addition the CS 3000 serves as an interface to your EDP. Via PC you can control and record the operational data of one or more machines.

With this system you can have work flow and machine utilisation under control all the time.

BÖWE P540

(fig.: 3-tank version)

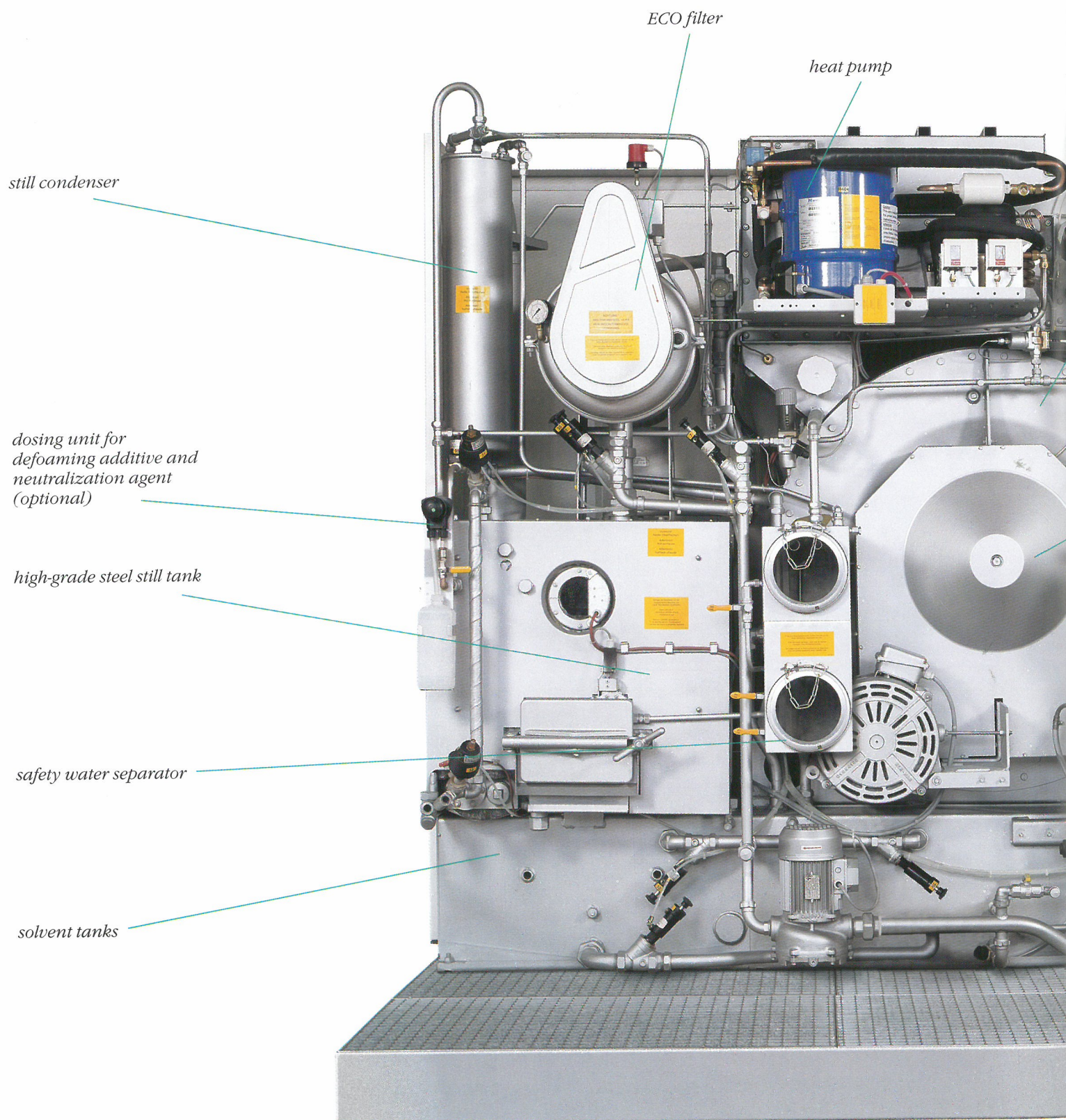


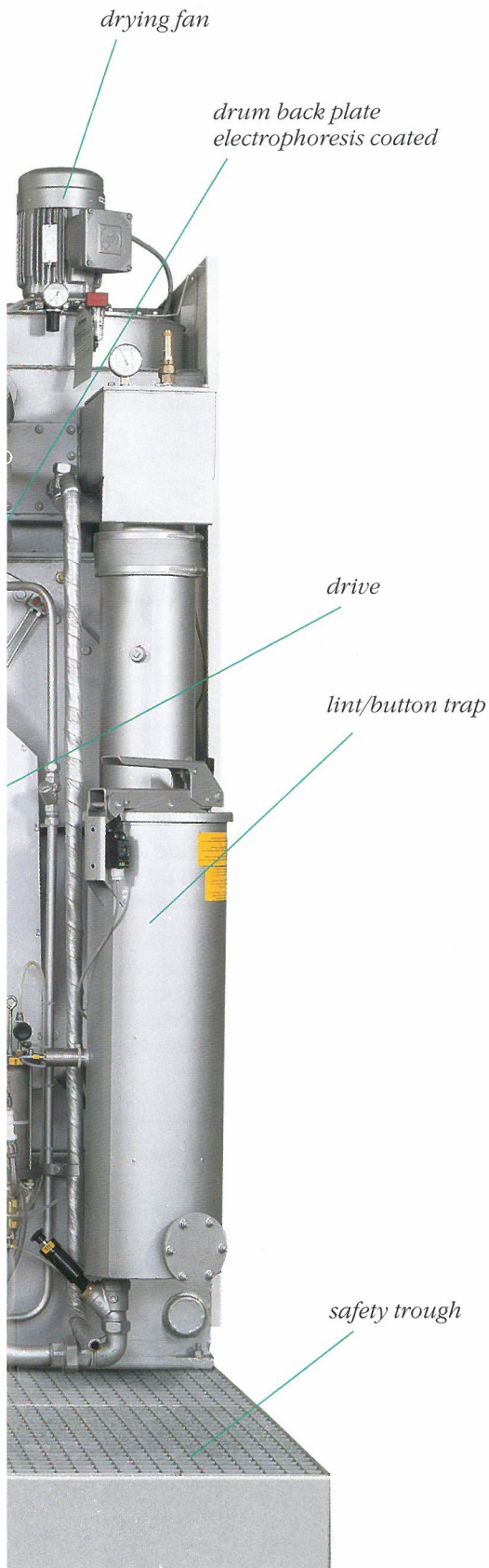
You save the environment!

We transpose our responsibility for environmental protection into next millennium technology:

- Hermetically sealed process
- Fluctuations in pressure during the operating cycle are fully contained by the machine
- Virtually no solvent emission to atmosphere or residue in the processed garments
- BÖWE CONSORBA adsorber
- PERC monitoring systems
- BÖWE P.M.S.2000 und AIRTOX GWP
- Emission-free still rake out
- ECO-filter
- Lint drying
- Emission-free solvent filling
- Integrated process water separator
- Safety limit switches
- Solvent safety trough
- Emission-free SPRAYMATIC SPP
- Still tank rinsing
- Back plate flushing
- Overflow-preventer for the still

Compact construction
- extensive equipment





The BÖWE drying concept

The complex process of drying and recovering solvent has been optimized using the latest scientific methods. With the integrated *CONSORBA* the emission problem is being solved at the same time.

The up-to-date drying system of the 5th Generation meets the four main requirements perfectly:

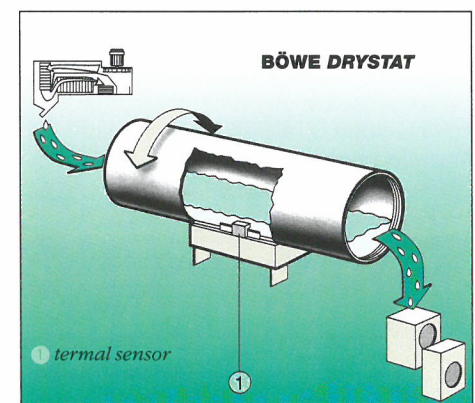
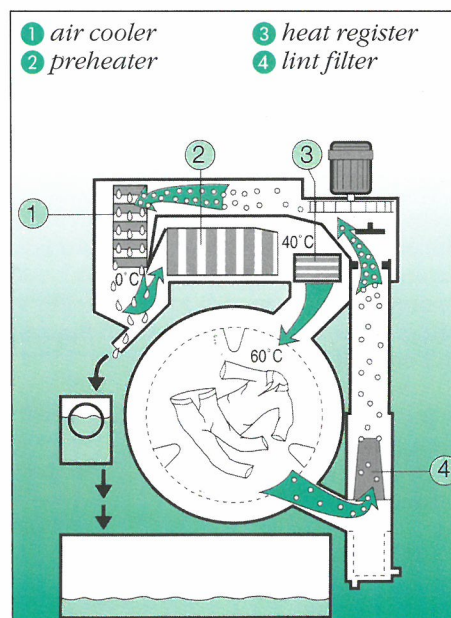
- The energy and cooling water consumption is kept low.
- The garment temperature is optimized.
- The moisture loss of the garments is lower than ever.
- The remnant solvent concentration in the garments at cycle end corresponds to the legal requirements.

Constructive changes of the air ducting and the arrangement of the heat exchangers are the reason for these improvements. The proven heat pump principle was kept.

The diagonal air flow down through the garments enables an easier evacuation of the heavier, solvent-containing air. Additionally, the preheater is bypassed during the second drying phase causing the optimal garment temperature. The moisture loss of the garments is low, as there is no refrigeration below 0°C despite using the cooling technique. The result is considerably less ironing and saves personnel costs.

If the machines are furnished with the integrated BÖWE *CONSORBA*, the remnant gas concentration is reduced below 2g/m³ at cycle end. Therefore, the remnant solvent concentration in the garments is also very low. Especially high air capacities ensure the best possible solvent removal from the garments.

The Perc monitoring system *P.M.S.2000* (or *AIRTOX GWP*) control the drying time in connection with the electronic drying control system *DRYSTAT*.



The DRYSTAT drying time controller

By means of sensor technique this device reliably supervises and controls the drying time depending on type and quantity of garments.

Options and variations

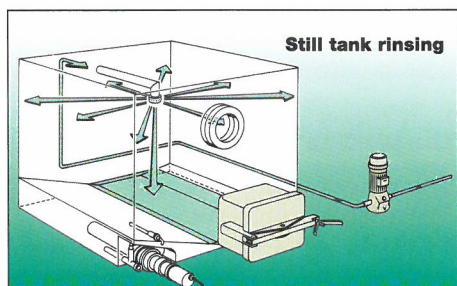


The BÖWE CONSORBA

The integrated BÖWE *CONSORBA* adsorption installation enables a safe working and absolutely odourless garments.

Unlike many so-called "closed circuit" drycleaning systems the BÖWE machines of the 5th Generation fitted with a *CONSORBA* are totally hermetically sealed.

The BÖWE *CONSORBA* works on the single charge principle and regenerates in every single load. This means that the carbon bed cannot become inefficient due to oversaturation with solvent. What is more, there is no loss of production time because the process runs parallel to garment drying. As the computer-controlled regeneration is done with hot air, no process water is produced! The adsorber is completely integrated in the machine, therefore, no additional space is necessary. The *CONSORBA* can be retrofitted at any time, no matter how the machine is heated - with separately supplied steam or electrically.



Energy-saving high-performance still

The still always provides enough pure solvent. This guarantees clean and fresh garments. Selected high-quality materials such as special high-grade steel, large filling volume, high still capacity with low energy consumption are typical features of the still. Important innovations offer additional advantages: integral, energy-saving electric heater, new developed condensers with sensor control ensure low condensing temperatures with most efficient cooling water consumption.

To avoid lints the still tank is automatically rinsed during each load.

To avoid solvent decomposition the temperature in the still room is permanently controlled. The direct steam addition is carried out automatically which has a very positive effect on the quality of the still.

Possible foam development during distillation is reliably avoided by dosing an antifoam agent. This dosing unit can also be used for dosing neutralization agents. The bottom inclining to the large still rake-out door, the large illuminated sight glass and the new fluid supply facilitate and shorten the emptying.

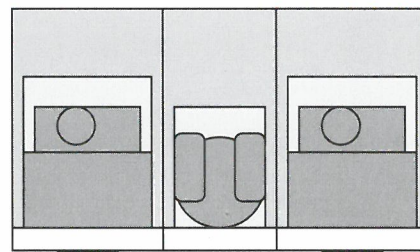
The closed water separator has a large sight glass. As additional protection for the environment the water separator is furnished with a safety separator. In connection with the ECO filter BÖWE offers a fully automatic, emission-free still evacuation. The almost solvent-free residues are directly pumped into the evacuation tank. Solvent steams are led back into the machine via a gas displacement line.

You stay flexible!

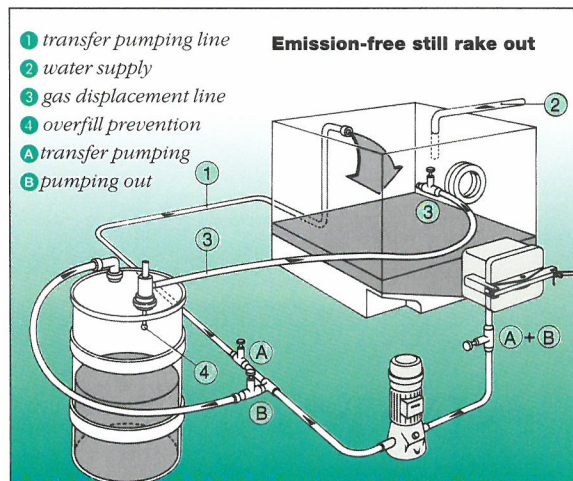
The modular extension system offers you a variety of individual arrangements. You can choose the optimal arrangement depending on space, local conditions and economical requirements.

For example: our c+o option. With one still and two machines each at 20kg you are processing the capacity of 40kg per cycle, at the same time you can separate the garments into light/dark cycles, i.e. the operation becomes easier, the ways shorter and your work more efficient.

c+o-version: 2 machines
1 still



The connections at site also provide any retrofitting so that nothing will stand in the way of the profitable extension of your drycleaning shop.



The BÖWE DIRECT CONNECT

At your request BÖWE can take over the online maintenance of your machine. Our high-skilled technicians can correspond with your machine via monitor at fixed maintenance intervals. This guarantees higher operational safety and reliability of your machine, potential down times are reduced and service costs are decreased.

With PC, modem and telephone line you are in constant contact with your machine or externally with your shop - you can call for operational data at any time and stay permanently informed about the procedures. Easy installation is guaranteed with a »RS 232«-serial port - ready for plug'n'play.

All-electric version

All machines are available in the all-electric version. They offer advantages in certain locations as well as independence from centralised steam supply.

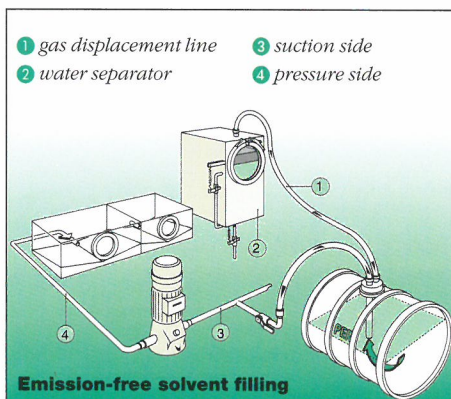
Variable speed drive

Free choice of the ideal speed precisely matched to the type of garments being cleaned results in more gentle treatment of garments, quiet machine running and reduced current peaks.



Emission-free still rake out

To prevent emission while cleaning the still the solvent contents of the still residue are first considerably reduced by transfer pumping in the closed system during fully automatic cycle. Finally the still residue is pumped emission-free into a sealed waste drum.



Emission-free solvent filling

To prevent high solvent emissions during filling, the machines offer filling from the barrel with a gas displacement pipe via the machine's own integral pump.

Second dosing unit

The unit expands the number of process options. It can be used to reduce or eliminate prespotting altogether. Most additives in common use can be injected.

BÖWE P.M.S. 2000/AIRTOX GWP PERC monitoring system

This device monitors and measures solvent concentrations. The dry cleaning machine's door can only be opened when solvent concentration falls below 2g/m³.

The Spraymatic SPP

A computer controlled system for the automatic addition of product additives straight from the pack. For spray finishing products an impregnation program is available in the computer control. A special BÖWE maintenance program makes it easier to rinse the SPP.



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Technical data



Maschinen und Geräte
für die Textilpflege

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Solvent		Perchlorethylene	Perchlorethylene
Drum			
Load	kg	20	20
Cage capacity	l	400	400
Cage diameter	mm	970	970
Cage depth	mm	540	540
Cleaning speed	1/min/rpm	36	36
Extraction speed	1/min/rpm	360	360
Tank volume			
Tank I	l	175	-
Tank II	l	240	240
Still	l	310	-
ECO-Filter/RA-Filter	l	75	75
Operating load max.			
Steam heating	kW	7,3	7,3
- with „Piggy Back“ CONSORBA	kW	7,7	7,7
Electric heating	kW	23,3	13,3
- with „Piggy Back“ CONSORBA	kW	29,7	18,7
Still capacity			
Steam heating	l/h	200	-
Electric heating	l/h	200	-
Machine dimensions			
Width	mm	2.110	2.110
Depth	mm	1.385	1.385
- with CONSORBA	mm	1.485	1.485
Height with solvent safety trough	mm	2.340	2.340
Height without solv. safety trough	mm	2.463	2.463
Safety trough			
Width	mm	2.114	1.324
Depth	mm	1.973	1.973
Height	mm	123	123
Weight			
Without solvent	kg	1.400	1.060
- with CONSORBA	kg	1.520	1.180
With solvent	kg	2.015	1.410
- with CONSORBA	kg	2.135	1.530
Floor load	N/m ²	15.815	19.540

Owing to our commitment to innovation and improvement, we reserve the right to update the above specification without notice.

BÖWE
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