

WE  
BO  
M

70<sup>th</sup>  
Anniversary  
Quality & Competence since 1945

# FACTBOOK



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# History

The history of the company BÖWE – located in the Black Forest in Germany – started in 1945 with the foundation by Max Böhler and Ferdinand Weber after the end of the Second World War.

As a supplier for several companies they had the idea of developing dry cleaning machines.

Five years later Böhler and Weber presented the first dry cleaning machine for garments.

From that point a success story started and until today BÖWE delivers innovative and high quality machines to the global market.

Benefit from more than 70 years' experience in the field of dry cleaning machinery.



## 70 YEARS COMPETENCE & QUALITY

BÖWE's innovative ideas and continuous developments are key elements of the company and have ensured its excellent reputation throughout the world.

Nowadays, BÖWE delivers high quality PERC and Multisolvent® dry cleaning machines all over the world.

# PremiumLine

**WITH THE PREMIUM LINE ASSEMBLY IT IS POSSIBLE TO CHOOSE BETWEEN TWO DESIGNS IN P/M12-18 MACHINES.**

The versatile design of P/M 12-18 machines offers the possibility to choose between a Slim- or CrossLine configuration.

## MACHINE WEIGHT (without solvent)

<b>M12/27, P12</b> 1155 kg   2546 lb	<b>M21/46, P21</b> 2025 kg   4465 lb
<b>M15/33, P15</b> 1255 kg   2767 lb	<b>M26/57, P26</b> 2175 kg   4795 lb
<b>M18/40, P18</b> 1355 kg   2987 lb	<b>M30/66, P30</b> 2325 kg   5005 lb



# Premium CrossLine

## LOADING CAPACITY

M12/27 | P12 : 12 kg/27 lb

M15/33 | P15 : 15 kg/33 lb

M18/40 | P18 : 18 kg/40 lb

M21/46 | P21 : 21 kg/46 lb

M26/57 | P26 : 26 kg/57 lb

M30/66 | P30 : 30 kg/66 lb



Premium

Photo of M18 for demonstration only  
P/M 21-30: 2200 mm (86.6")

The dimensions given may differ if special options are used

# Premium CrossLine

M12/27, P12 | M15/33, P15 | M18/40, P18

M21/46, P21 | M26/57, P26 | M30/66, P30

## DISTILLATION BESIDE THE MACHINE

### DEPTH (mm, inch)

M12/27   P12	]	1410 (55.5")
M15/33   P15		
M18/40   P18 :		1540 (60.63")
M21/46   P21 :		1500 (59.1")
M26/57   P26	]	1735 (68.3")
M30/66   P30		



The most compact dry cleaning machine worldwide

- ⊕ fits through every door
- ⊕ 18 kg capacity within 2m<sup>2</sup>
- ⊕ distillation behind the machine



## Premium SlimLine

M12/27, P12 | M15/33, P15 | M18/40, P18

### DISTILLATION BEHIND THE MACHINE

#### DEPTH (mm, inch)

M12/27   P12	} 2165 mm (85.23")
M15/33   P15	
M18/40   P18 :	2275 mm (89.56")

### REMOVABLE LEGS

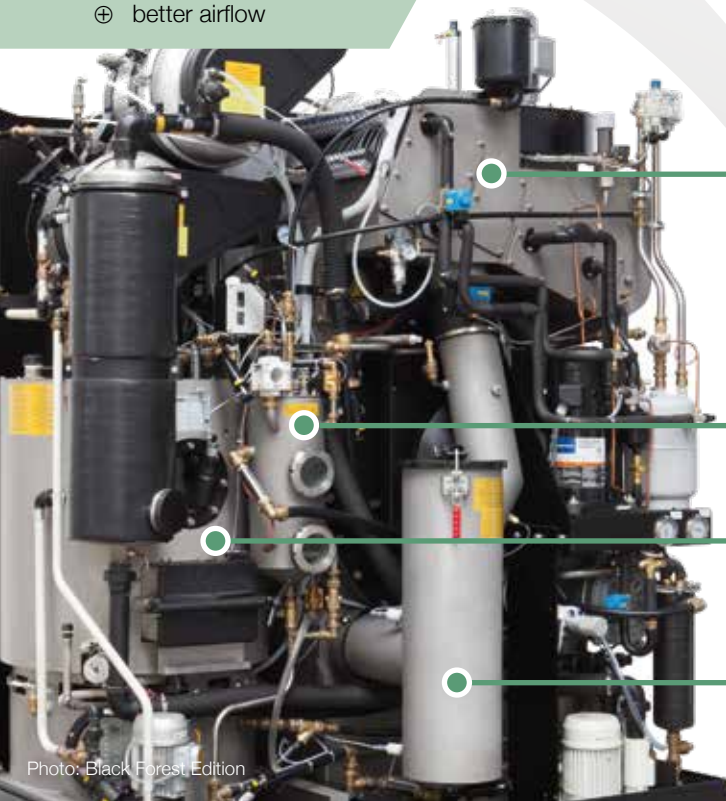


## ROUND SHAPES

- ⊕ less welds
- ⊕ less fatigue breaks
- ⊕ no lint balls
- ⊕ no corners and edges
- ⊕ better airflow

# The BÖWE Philosophy

**THE ROUND SHAPE OF THE COMPONENTS IS A CLEAR BENEFIT FOR THE OPERATION OF THE MACHINES AS WELL AS FOR THE DAILY MAINTENANCE.**



Round air duct

Round water separator

Round distillation

Round lint filter and button trap



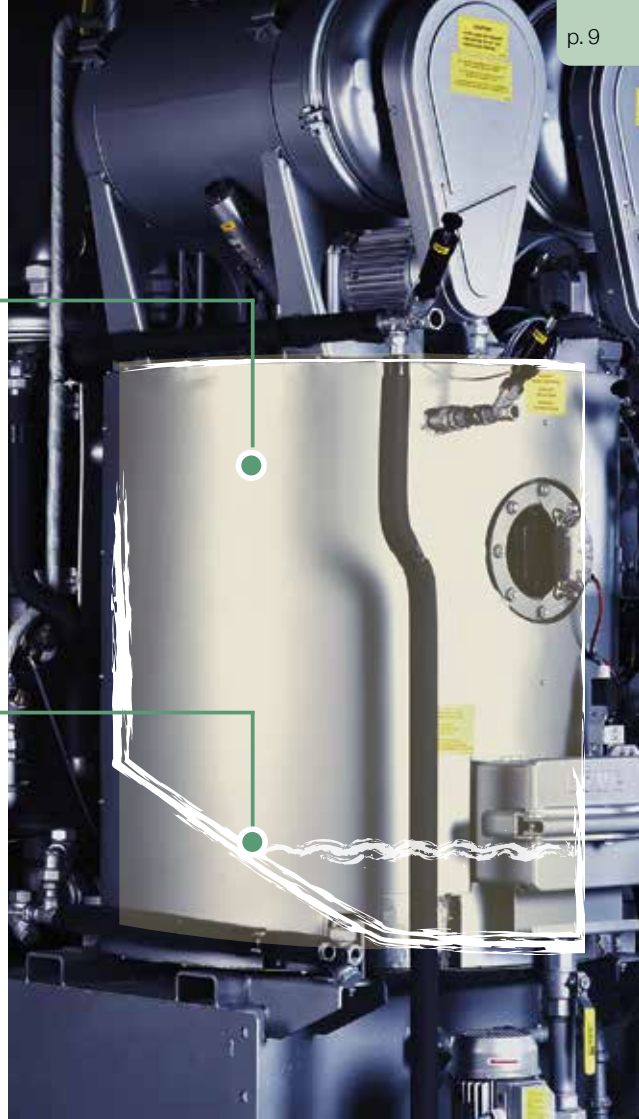
# Sophisticated Design

## ROUND DISTILLATION

Using the pump circuit of the sludge pump in the distillation process with the addition of a steam injection, this azeotropic mixture that is created helps reducing the percentage of solvent in the disposal waste.

## SLOPING DISTILLATION BASE

The sloping bottom of the distillation simplifies the transport of the sludge to the rake out door. As sludge creates an insulating layer, the sloping bottom of the distillation means that you can keep your distillation surface clean and save energy.





- ⊕ very quiet
- ⊕ no lint balls
- ⊕ short drying times
- ⊕ no corners and edges

### STAINLESS STEEL AIR DUCT

Round, efficient and aerodynamic  
Developed with the aviation industry

### DETERGENT STROKE PUMP WITH VITON® SEALS

Regulates the dosage from 50-150ml



# Service friendly

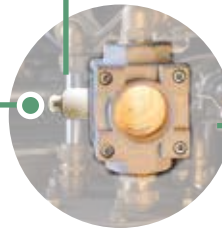
BÖWE Drystat Drying controller

Capacitive sensors used only in BÖWE machines.



## NEW CAPACITIVE SENSORS

New level sensors for checking the filling level for distillation, Drystat drying controller, the water separator and the sludge barrel. The sensors are maintenance and wear-free.



## SELF-CLEANING WATER SEPARATOR

The water separator is made of high quality stainless steel together with big sight glasses so that manual cleaning is avoided.



## STAINLESS STEEL PIPES WITH CONEX UNIONS

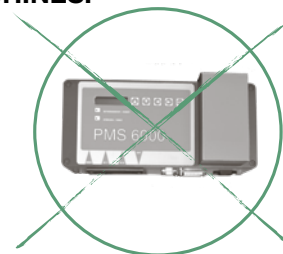
## Security – 100% save



Independent tests conducted by the former TBBG Institute in Germany certify that BÖWE Multisolvant® machines can be installed and used without the need of nitrogen. Consequently, as defined in ISO/WD 8230-3.2, dry cleaning machines can be operated with flammable solvents.

In BÖWE PremiumLine machines, the control systems serve as explosion protection and perform automatic checks so that failures are not attributable to unsafe conditions and explosions. This unique system also makes arrangements against unintended maladjustments or manipulation of sensors and other devices during the cleaning and drying phase. Electrical devices in these machines are checked in accordance with the EN 50014 – EN 50039.

**NO PPM MEASURING DEVICE REQUIRED  
IN BÖWE MULTISOLVENT® MACHINES.**



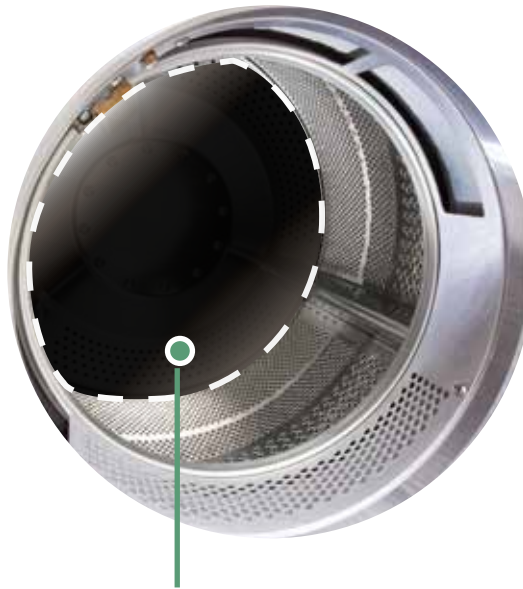
# Special coatings

BÖWE created a very smooth surface by using a special coating by ion addition in a galvanic process. Thereby, lint at the flange, back plate, cooler and fan housing, etc. are prevented. The results are shorter cycle times and less energy consumption.

Button trap basket



Cooler



**DRUM HOUSING**





# Lint filter



Photo: Black Forest Edition



## LINT FILTER AND BUTTON TRAP IN ONE UNIT

BÖWE machines are equipped with the biggest lint filter worldwide. The large lint filter only has to be cleaned once a day after eight cycles. The lint filter as well as the button trap unit can be reached by the maintenance door. The button trap has an additional mesh to protect the solvent pump for coins, needles, buttons etc.

## CATAPHORESIC COATED BUTTON TRAP BASKET

## LOW-LEVEL SENSOR IN THE BUTTON TRAP

- ⊕ less cooling water, steam and energy consumption
- ⊕ machine starts spinning, if solvent is drained completely
- ⊕ possibility of controlled pumping time
- ⊕ new developed sensor for low level in the button trap
- ⊕ capacitive, wear and maintenance-free

# Condenser | Viton® flaps and gaskets



## 8 YEARS WARRANTY ON COMPLETE CONDENSER AND HOUSING

- ⊕ stainless steel condenser housing in 316 TI stainless steel
- ⊕ cooling coil fixed with metal strips, thereby no vibration, noise and fatigue breaks
- ⊕ cooling coil with 70 µm zinc coating, industry standard is 7 µm
- ⊕ big condenser from P/M30 also in P/M12 – 18, giving cooler solvent



## 8 YEARS WARRANTY ON LONG LASTING, PRECISE SEALING FLAPS MADE OF VITON®

Further Viton gaskets for

- ⊕ drum housing
- ⊕ stainless steel air duct
- ⊕ gasket for loading door
- ⊕ maintenance doors
- ⊕ sight glasses
- ⊕ button trap
- ⊕ distillation
- ⊕ airduct seal
- ⊕ seal ring for main bearing



Viton® is a high value material made of fluor and caoutchouc. The expensive Viton® is well known as a technical seal with high thermal and chemical resistance. Different from other elastomers, it is resistant to hydro-carbons like oil and petrol, also at higher temperatures, it does not swell or dissolve.

# Maintenance & Hygiene

## SPECIAL TANK OUTLET DESIGN

- ⊕ self-cleaning solvent tanks

## AUTOMATIC MAINTENANCE FOR

- ⊕ distillation
- ⊕ spin filter
- ⊕ Slimsorba (active carbon unit)
- ⊕ water separator
- ⊕ post water separator and
- ⊕ cleaning of tanks

## PREVENTING BACTERIA AND ODOUR

Sloping tank bottoms prevent dirt and water accumulation in the tank.



# Direct Connect | PLC Control

## PLC CONTROL

Plain text display and advice to guide the operator. Equipped with large numbers for the time specification display, they can be seen from a distance. Several maintenance programs are combined with the multi maintenance program.

Automatic multi maintenance for distillation, spin filter, Slimsorba (active carbon unit), water separator, post water separator and cleaning of tanks working at the same time.

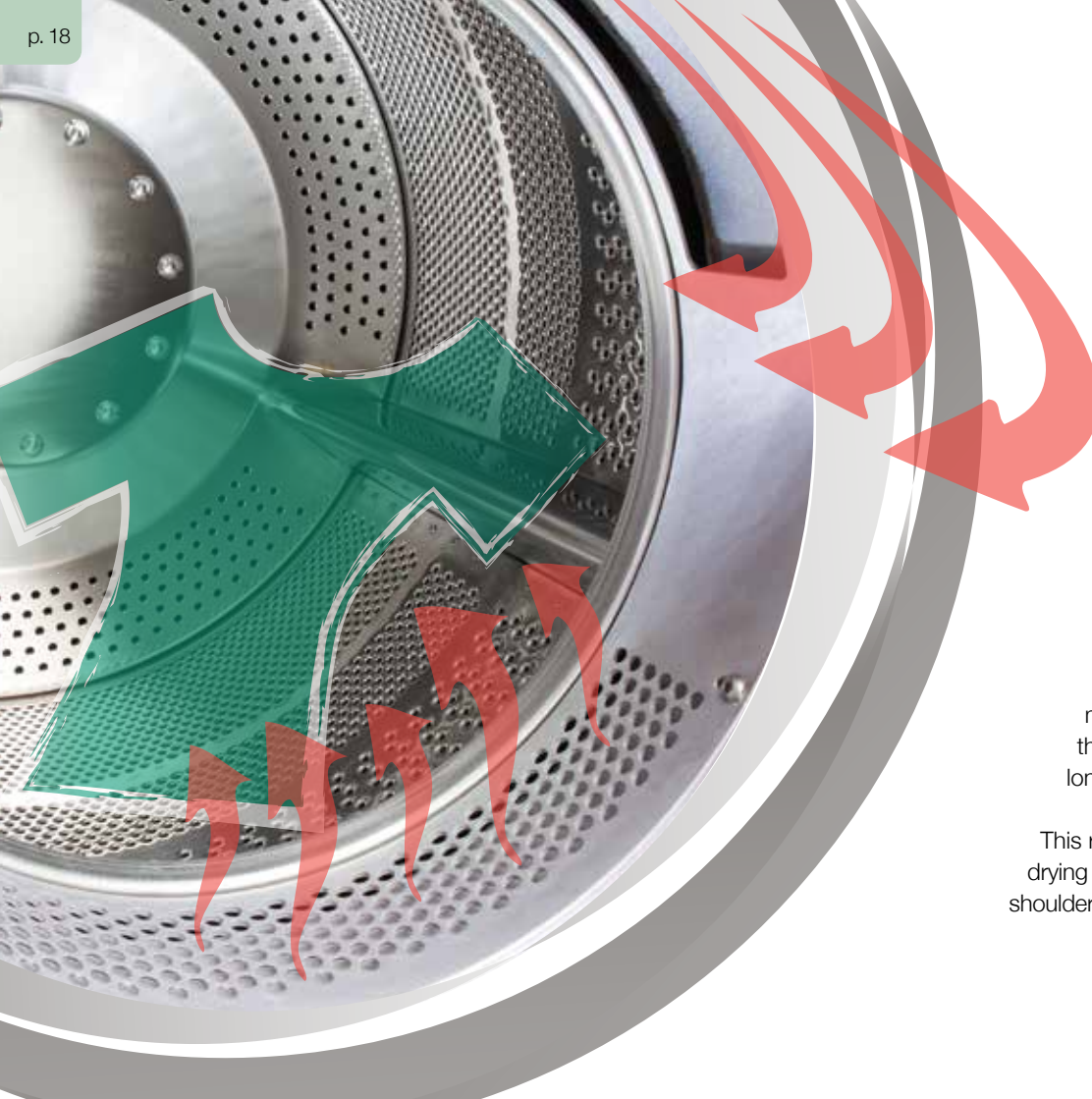
Freely programmable and compatible to Siemens.

BÖWE dry cleaning machines are available in many control languages.

## DIRECT CONNECT

- ⊕ quick fault diagnostic without service technician at site
- ⊕ spare parts can be ordered directly
- ⊕ service avoidance in case of operator or maintenance error
- ⊕ router LAN connection required





### **DYNAMIC AIRFLOW DRYING SYSTEM**

The patented stainless steel drum with dynamic drum perforation, meaning less holes in the front area of the drum and more holes in the back area as well as in the back plate, forces the air to use the longest way through the garments.

This results in shorter and more efficient drying in problem zones, for example on shoulder pads.

# Drum & Loading doors

## LOADING DOOR

A big loading door is not only a question of comfort but also one of efficiency when loading and unloading.



# Multistage Distillation in BÖWE Multisolvent®

THE FRACTIONAL DISTILLATION PREVENTS WATER ACCUMULATION IN THE SOLVENT TANK.  
BY AVOIDANCE OF DIRT AND WATER IN THE TANK, NO CULTURE MEDIUM FOR BACTERIA IS FORMED.

Distillation



solvent

water

sludge

Condenser



Flashtank



waste barrel

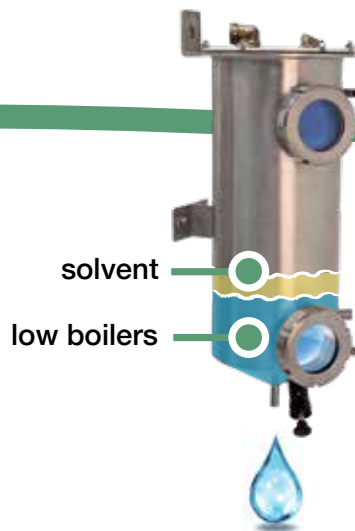


sludge pump

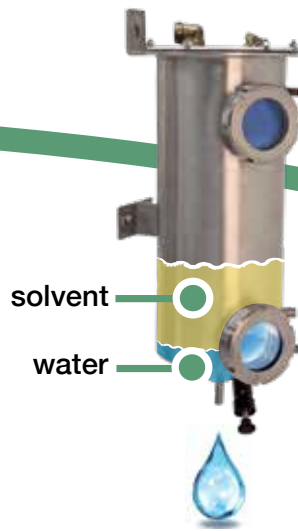
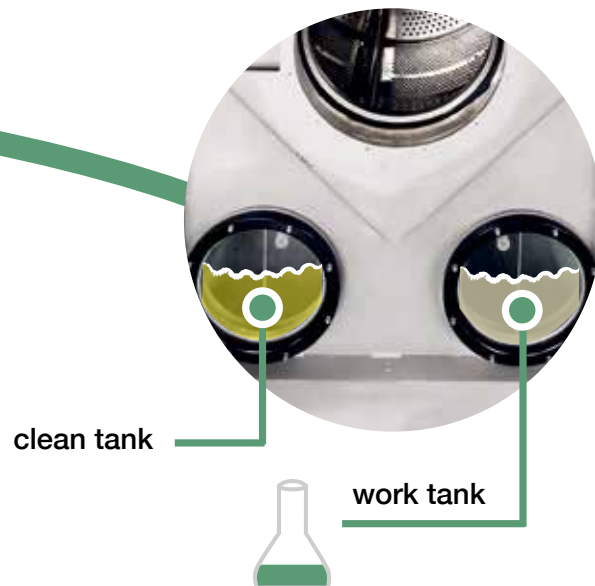


**Water separator 1**

-950 mbar, 90°C (194 °F) → low boilers

**Safety water separator 2**

-950 mbar, 133°C (271.4 °F) → pure solvent

**Clean solvent  
back to tank**

# Turbidity Measurement. A global novelty.

BÖWE continuously strives for improving the energy efficiency of its already world class machines. Besides the low-level sensor, adapting the solvent quantity to the amount of garments, BÖWE developed another new energy-reduction feature in the area of environmentally friendly energy management:

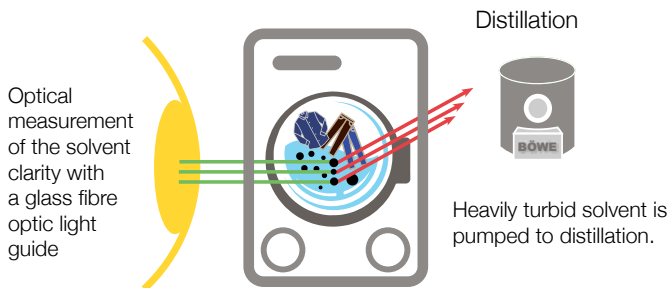
## AUTOMATIC TURBIDITY MEASUREMENT

Combined with the Siemens control the degree of contamination of the garments and the solvent is measured optically with a glass fibre light guide. With the aid of the measured contamination, the solvent of the first bath is pumped to distillation in the case of strong turbidity (first picture). At low turbidity, the machine decides independently to pass on to the second bath (second picture). In this case, additional solvent is pumped up to a high level and then passed back through filters into the work tank. The dry cleaner can himself set the degree of contamination of the solvent via the computer control and thus determine when the machine is supposed to pump to distillation.

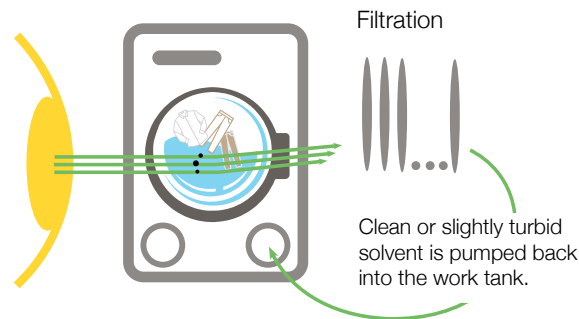
Up to 40%  
Energy Saving  
(standard garments)

- ⊕ Reduced cycle time
- ⊕ Decrease of energy consumption and cooling water
- ⊕ Reduced environmental impact

### SOLVENT: HEAVILY CONTAMINATED GARMENTS



### SOLVENT: SLIGHTLY CONTAMINATED GARMENTS



# Siemens computer control with touch screen

## NEW SIEMENS CONTROL WITH 12" COLOR-TOUCH-DISPLAY

In the course of industrialization 4.0, BÖWE has set new standards by collaborating with Siemens and developing its new touch screen control. The new PLC computer control has a 12" color touch screen, integrated circuit diagrams and spare parts catalogs, an energy clamp for digital recording of energy consumption, new remote maintenance capabilities and control by smartphone and tablet.







THESE ARE SOME RECENT INSTALLATIONS IN THE USA, GREAT BRITAIN, SWITZERLAND, GERMANY,



THE PHILIPPINES, INDIA, THE UNITED ARAB EMIRATES, THAILAND, MOZAMBIQUE, SRI LANKA,



THE MALDIVES ETC... WITH PREMIUM LINE, COMET LINE MACHINES & INDUSTRIAL INSTALLATIONS.





# Customers | Partner

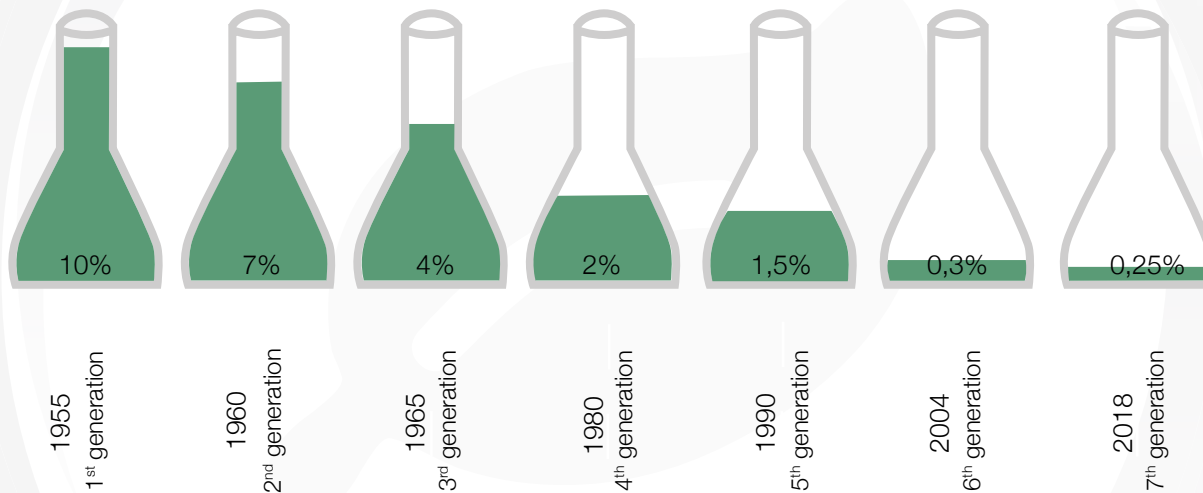
Worldwide over 6000 satisfied customers rely on BÖWE machines

AIDA CRUISES | P & O CRUISES | LÜRSSSEN YACHTS | ROYAL CARIBBEAN CRUISE LINE  
 | HILTON | SHERATON | LAGUNA PHUKET | INTERCONTINENTAL | JEBEL ALI GOLF RESORT |  
 SHANGRI-LA | HYATT | LE MERIDIEN | ROYAL PHUKET | KEMPINSKI | MARRIOT | SKI DUBAI  
 | KINGDOM OF BAHRAIN MINISTRY OF INTERIOR | HERMÈS | EMIRATES AIRLINES |  
 BALAKOVSKYA | NUCLEAR POWER PLANT RUSSIA | REGAL DRY CLEANERS | SPARKLE DRY-  
 CLEANERS | LUFTHANSA | MARC CAIN FASHION CLOTHES | HOHENSTEIN INSTITUTE | etc.

## POWERED BY









# Solvent consumption



**Lowest solvent consumption on the market. Approx. 0.25%**  
(100 kg garments = 250 g solvent consumption)

# Solvent comparison

	PERC	HC						
Characteristic	Perchlor-ethylen	Hydrocarbon	Silicone D5 GreenEarth	Solvon K4	SENSENE	Intense	HIGLO	Water
Density (kg/dm³)	1.62	0.7-0.8	0.95	0.835	0.84	0.79	0.78	1
Boiling point (°C)	121	170-195	210	180.5	180	183	184	100
Evaporation heat (kJ/kg)	209.8	265	N/A	246.6	266	250	250	2257
Flash point (°C)	not flammable	55-65	77	62	65	64	62	not flammable
Explosion limit	-	0.6 - 7.0 %	0.7 % (LEL)	0.65   23 %	0.6 - 7.0 %	0.6 - 7.0 %	0.6 - 7.0 %	-
Kauri-Butanol value	90	22-30	13	75	161	73	43	N/A
Legal requirement	2. BlmschV/ VOC	31. BlmschV/ VOC	31. BlmschV/ VOC	31. BlmschV/ VOC	31. BlmschV/ VOC	31. BlmschV/ VOC	31. BlmschV/ VOC	N/A
<b>BÖWE machine type</b>	P-series	M-series	M-series	M-series	M-series	M-series	M-series	laundry machines, wet cleaning

(no responsibility is taken for the validity of this information)

# Multisolvent®

## MULTISOLVENT® - EASY CONVERSION TO OTHER SOLVENTS

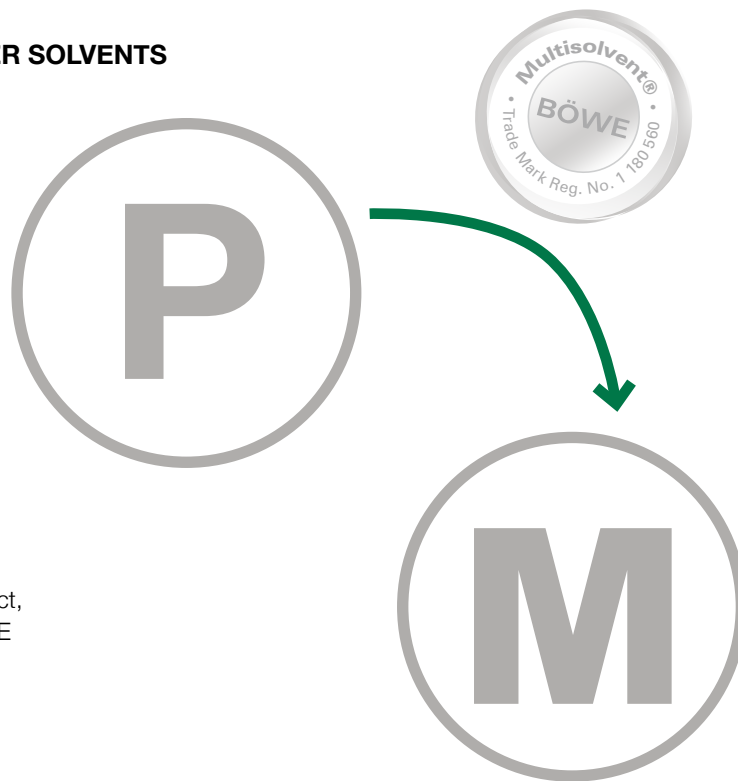
By using the parts kit, BÖWE PremiumLine machines can be converted from PERC to Multisolvent®.

After the conversion the below-mentioned solvents are suitable:

- ⊕ Hydro Carbon (HC)
- ⊕ Silicone (GreenEarth®), D5
- ⊕ Solvon K4
- ⊕ SENSENE
- ⊕ HIGLO
- ⊕ Intense
- ⊕ GenX etc.

BÖWE PremiumLine machines work with many alternative solvents in several countries. By efficient drying, round airduct, dynamic drum perforation and cataphoresis coating a BÖWE M-machine is suited to use solvent lighter than water.

**The conversion to other solvents in PremiumLine Multisolvent® machines only requires a free software update without mechanical conversions.**



# BÖWE Showroom | Academy



## BÖWE APP

The BÖWE App serves for providing all information a professional dry cleaner must know. Here you will find useful as well as practical things for your daily business, including technical data of fibres, garments, solvents etc.. The App is available for Android and APPLE.



APPLE



ANDROID



## BÖWE ACADEMY

For customers, service technicians and business partners we brought the BÖWE showroom and academy to life. You can visit regularly workshops and education courses.



PANORAMA  
VIEW

## BÖWE SHOWROOM

In our Showroom you have the possibility to test various BÖWE dry cleaning machines in combination with different solvents. Thanks to digital electricity and water meters, the current consumption values of all machines can be read in a real working environment.



# BÖWE Black Forest Edition

## SPECIAL EDITION BÖWE PREMIUMLINE – HIGH QUALITY

The BÖWE Black Forest Edition is a special model of the BÖWE Premium-Line series with additional equipment features. The high-quality machines are electric or steam heated, with loading capacities of 12-30 kg and available in PERC and Multisolvent® versions.

### The following unique selling points must be highlighted

- ⊕ high end technology
- ⊕ low solvent consumption
- ⊕ service friendly due to smoother surfaces
- ⊕ self-cleaning water separator
- ⊕ complete stainless steel piping (without painting)
- ⊕ special coating of e.g. back plate
- ⊕ paintless stainless steel parts
- ⊕ automatic solvent adjustment
- ⊕ electro-phoresic metal surface coating on e.g. button trap basket, cooling unit console, fan housing, etc.

Moreover the special edition possesses perl grey glass bead blasted stainless steel parts such as air duct, water separator, distillation, button trap and solvent tanks.



# BÖWE and innovation

**THREE CONVINCING ARGUMENTS AT A GLANCE:  
SHOWROOM, INSPIRING SOLUTIONS &  
ALL IN ONE SHOP CONCEPT  
BÖWE OFFERS TWO OWN PRESENTATION FACILITIES  
TO TEST MACHINES IN REAL-TIME.**

BÖWE is the only manufacturer in the field of dry cleaning machinery offering its customers the possibility of testing eight types of BÖWE dry cleaning machines with six different solvents in the in-house showroom. After choosing the desired combinations, the customers can read on digital meters the environmentally friendly consumption values in real-time.

The new BÖWE Showroom "Inspiring Solution", providing laundry equipment, and the ALL IN ONE BÖWE shop concept with a special emphasis on environmentally friendly energy management, will assist customers in selecting the right machine and features. A steam meter is depicting the actual consumption values of each machine in real-time.

In the new BÖWE Showroom, the customer will find a wide range of machines and equipment for textile care, ironing and spotting solutions, conveyor systems, packaging solutions and all other accessories with the possibility to test them.



# BÖWE iLine PERC & Multisolvent® Dry Cleaning Machines



The new iLine series of dry cleaning machines sets a new standard in the range of products BÖWE can offer to customers worldwide. This new range combines and shares the same technology used in the well-known PremiumLine. However, a specific emphasis was put on costs and well proven BÖWE quality when developing the iLine series. Due to its cost-effectiveness as well as high quality, these machines are a new option for the dry cleaning industry. The new iLine machines are available in three sizes from 12, 15 till 18 kg drum capacity.

Thanks to a mix of implemented components used in the PremiumLine series, the new iLine is a great solution for every need in the middle-price range.





# Eco friendly

**TAKE CARE OF YOURSELF, YOUR EMPLOYEES AS WELL AS THE ENVIRONMENT – WITH THE BÖWE ILINE YOU WILL EASILY COMPLY WITH THE STRICT REQUIREMENTS OF ENVIRONMENTAL REGULATIONS.**

## FILTER



Eco-Filter and Safety - Each unit is comprised of special BÖWE filter discs made of PETEX material that has a filtration density of 30 µm and a strong supporting tissue. A genuine BÖWE Eco filter disc is only made in Switzerland and patented on-site.

## DISTILLATION SYSTEM



The round shape without corners or edges at the heating surface allows residue-free emptying of all sludge. In conjunction with the distillation rinsing, the heating surface and the sight glass are kept clean and sludge cannot burn into the heating surface.

## SELF-CLEANING TANK



All BÖWE PremiumLine and iLine machines are supplied with three tanks as a standard version. This solution permits the dry cleaner extreme flexibility, especially when cleaning different types of garments. The geometrical shape and sloping bottom end of the tanks make sure the solvent is collected from the lowest dip point, allowing no deposits.

## CAPACITIVE SENSORS



The capacitive sensors like the BÖWE Drystat for drying enable a computer control by measuring the effective loads of garments into the machine. The aim is avoiding an overdrying which results in shorter cycle times and energy efficiency.

# SI70 / M70 Industrial solutions for all solvents

**Loading capacity: 70 kg / 154 lb**

**Heating: steam**

**Free programmable control**

**Options: double distillation,  
self-cleaning button trap etc.**

## RANGE OF APPLICATION

- ⊕ work wear
  - ⊕ cleaning clothes, rags
  - ⊕ gloves
  - ⊕ fur degreasing
  - ⊕ carpets
- ⊕ textile production
  - ⊕ aviation, seat covers
  - ⊕ tannery
  - ⊕ etc.



Abb.: SI70



Abb.: M70 Multisolvant®

**SOLVENTS:** PERC

HC

**SYSTEMK4**  
developed made by Intense



# Industrial machines

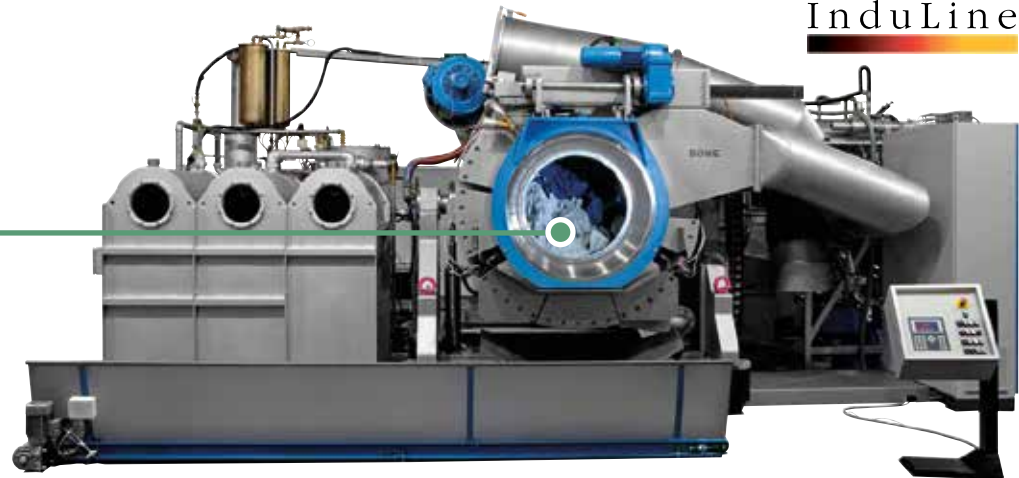
**BIGGEST AND LATEST DRY CLEANING MACHINE WORLDWIDE**

**UNIQUE AND MODULAR**

**100 - 200 KG / 220 - 440 LB LOADING CAPACITY**

**PERC AND MULTISOLVENT®**

100 - 200 kg / 220 - 440 lb  
loading capacity



InduLine

**SOLVENTS:** PERC

HC

**SYSTEMK4**  
Selected model by IndusLine





## **BÖWE Textile Cleaning GmbH**

Lochmatt 1A - Industriegebiet West  
77880 Sasbach - Germany

T +49 7841 60 02-200 | F +49 7841 60 02-230  
info@bowe-germany.de | www.bowe-germany.de

