

## PRINTING CHEMICALS



Discover systematically new perspectives  
for a modern press room.

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## PRINT + SYSTEMS

**Böttcher's hallmark is not product A or product B  
but complete solutions from A to Z.**

Böttcher is more than just rollers. It is also more than the sum of all individual parts.

Böttcher is the perfect synergy for printing blankets, printing rollers and printing chemicals. Each of these is engineered and designed from the outset to optimize the interplay of components in its specific area of application. On rollers, on printing blankets or in fountain solutions. But modern offset printing requires much more today: perfect harmony of all influencing factors within a highly effective system.

The individual elements are not only "fine-tuned" for optimum interaction during the development phase in our laboratories, but also designed to optimize the entire production process on a sustained basis. Our aim is to achieve the best performance for rollers, blankets and printing chemistry, each optimized to give the best solution in support of the printing process as a whole. Our development laboratories also work in close cooperation with press manufacturers, ink and paper producers etc. to optimize all production variables. To recognize the different parameters and to offer different solutions, mark our obligation towards customers and partners.



# Print Systems



All of these are technical issues for which Böttcher already provides successful, system-based solutions. Washes and maintenance products meet the highest technical standards with respect to environmental safety, physical and chemical influence on our roller compounds and effective washing power. The BöttcherTOP printing blanket line ensures optimum print results and is available in a wide range of surface qualities and carcasses for every conceivable kind of print substrate. Exchange rollers can be delivered to you within a matter of hours. The large volume of original equipment rollers we fill is a clear sign of the confidence all press manufacturers place in our unique service and product quality.

In order to keep this promise, we test and analyze if necessary all influencing variables in your press. Thus, our performance is always aiming at a definite solution, even if we should produce an individual solution to your problem. Consult your local Böttcher office for further support.



## FOUNTAIN SOLUTIONS

### Optimum solutions for a reliable printing process

Böttcher has great experience in developing dampening rollers. Based on this, a new generation of fountain solutions has been developed with a wide range of application for all lithographic offset presses. With Böttcher's guiding principle of "PRINT + SYSTEM" these fountain solutions have been adapted to meet the requirements of the various materials in the press.

#### Fountain solutions for newspaper printing



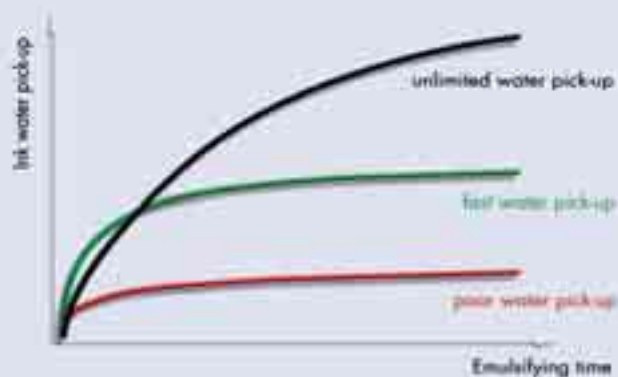
**BöttcherFount N-1002** Fountain solution additive for a broad range of applications, especially if strong emulsifying inks are used. In solutions with a concentration of 2 – 3 %, it can be used for water hardnesses of 4 – 20° dH. The product is corrosion inhibited and approved by press manufacturers.

**BöttcherFount N-1004** Fountain solution additive for a broad range of applications in all kinds of dampening units and press types. In solutions with a concentration of 2 – 3 %, it can be used for water hardnesses of 4 – 20° dH. The product is corrosion inhibited and meets the requirements of the „Corrosion Certificate of Fountain Solution Additive“, approved by press manufacturers and FOGRA.

**BöttcherFount N-1004 G** Fountain solution additive with improved plate protection for a broad range of applications in all kinds of dampening units and press types, especially for turbo dampening units. In solutions with a concentration of 2 – 3 %, it can be used for water hardnesses of 5 – 20° dH. The product is corrosion inhibited and meets the requirements of the „Corrosion Certificate of Fountain Solution Additive“, approved by press manufacturers and FOGRA.

## Emulsifying graphs by Surland:

- unlimited water pick-up leads to increase of dot gain, toning and unequal printed areas
- very fast ink-water-balance, therefore sharp dot and fast start-up of plates
- poor water pick-up leads to bad ink transfer, decrease of ink density, to sharp dot gain and partly blinding of the plate

**Böttcher****Molex**

Electrochemical process for an effective reduction of the formation of bio films/ algae build-up in fountain circulation systems. Does not change the printing characteristics of the fountain solution. The Böttcher-Molex equipment has no influence on the pH-value or conductivity.

**BöttcherFount****H-2010**

Fountain solution additive for fast running heatset presses. Ideally suited for reduction of alcohol to 6 – 8 % (vol.). In solutions with a concentration of 2 – 3 %, it can be used on water hardnesses of 4 – 20° dH.

**BöttcherFount****H-2003**

Fountain solution additive for fast running heatset presses, ideally suited for reduction of alcohol to < 5 % (vol.) and for IPA-free printing. In solutions with a concentration of 2 – 3 %, it can be used on water hardnesses of 5 – 15° dH.

### Fountain solutions for heatset presses



## Fountain solutions for sheet-fed offset printing



**BöttcherFount S-3010** Fountain solution additive for a broad range of applications in sheet-fed offset printing. Ideally suited for reduction of alcohol to 6 – 8 % (vol.). In solutions with a concentration of 2 %, it can be used for medium to hard water. Reduces build-up of paper dust on ink rollers and improves drying. The product is corrosion inhibited and approved by press manufacturers.

**BöttcherFount S-3020** Fountain solution additive, particularly for soft water, otherwise comparable to BöttcherFount S-3010.

**BöttcherFount S-3011** Like BöttcherFount S-3010, additionally with improved plate protection, particularly for use with CTP plates. Ideally suited for metallic pigment inks. In solutions with a concentration of 2 %, it can be used for medium to hard water.

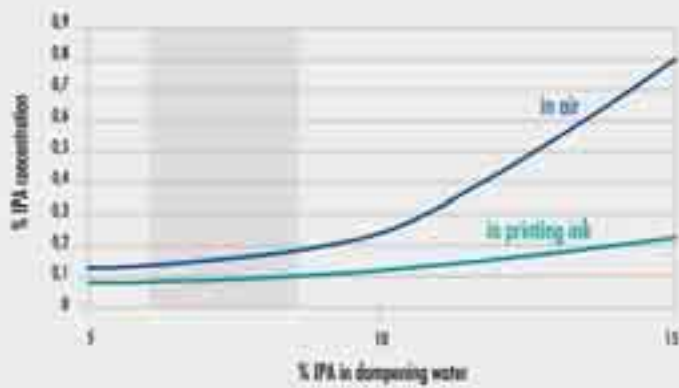
**BöttcherFount S-3021** Fountain solution additive, particularly for soft water, otherwise comparable to BöttcherFount S-3011.

**BöttcherFount S-3012** Fountain solution additive for a broad range of applications at a standard alcohol concentration of 6 – 8 % (vol.). Ideally suited for presses with copper rollers. In solutions with a concentration of 3 – 4 %, it can be used for soft and hard water.

**BöttcherFount S-3004** Fountain solution additive ideally suited for reduction of alcohol and for IPA-free printing. In solutions with a concentration of 2 %, it can be used for medium to hard water. The product is corrosion inhibited and approved by press manufacturers.

**BöttcherFount S-3006** Fountain solution additive ideally suited for reduction of alcohol and for IPA-free printing. In solutions with a concentration of 3 – 4 %, it can be used for soft to medium water. Reduces glazing and deposits on ink rollers and improves drying. The product is corrosion inhibited and approved by press manufacturers.

A fifty-per-cent reduction of IPA concentration of 10 – 15 % (vol.) in dampening water still in common use today to 6 – 8 % (vol.) makes a major contribution to the reduction of IPA emissions into the air. The impact on emissions achieved by further reduction of the alcohol concentration to < 5 % is significantly lower.



**Böttcherin  
IPA**

Isopropyl alcohol of high purity and quality (min. 99.8 %) as additive to dampening water.

**BöttcherPro  
Calcit**

Re-hardening solution for use in Reverse Osmosis systems. A concentration of 0.5 % raises water hardness to 10° dH.

**BöttcherPro  
Hydroclean**

Cleaning concentrate for regular cleaning of dampening water circulation systems in all types of offset printing presses.

**BöttcherPro  
Antifoam**

Anti-foaming agent used to combat heavy foam formation within dampening water.

**Feboclean  
EW**

De-mineralized water used for dampening water; optimum performance when used in combination with BöttcherPro Calcit.

**Araeometer**

For hand-made calibration on spindle with measuring cylinder to determine IPA concentration in dampening water. High measuring precision, also for low IPA concentrations, range of 0 – 15 %. Enlarged scale, calibrated to 15 °C.

**Other recommended  
products**





## WASHES

**Perfectly adapted to the requirements of users, presses and the environment**

Printing blankets, rollers and impression cylinders in modern sheet-fed offset presses are cleaned by various types of automatic washing units. Böttcher washes are specifically designed for this purpose. They offer strong cleaning action and outstanding reliability. These products have been tested and approved by press manufacturers.

**Washes for automatic washing units in sheet-fed offset printing**



- |                        |  |
|------------------------|--|
| <b>Böttcherin 60</b>   | Standard wash for automatic washing units; mixes well with water; low evaporation rate; very economical. (flash point > 60 °C)   |
| <b>Böttcherin 6003</b> | Improved cleaning properties, with good run-off characteristics in printing blanket washing units, thus longer cleaning intervals for drip trays. (flash point > 60 °C)  |
| <b>Böttcherin 6004</b> | Improved cleaning properties, with good run-off characteristics in washing units, thus longer cleaning intervals. (flash point > 60 °C)  |
| <b>Böttcherin 100</b>  | VOC-free wash, water miscible, for economical use in automatic washing units. High flash point (> 100 °C) reduces storage safety requirements.   |
| <b>Böttcherin C-29</b> | VOC-free wash, water miscible, with improved cleaning properties and very good wetting of the blanket surface. Suitable for automatic blanket washing units in sheet-fed offset printing. Very economical in use. (flash point > 100 °C) |

Drops form, especially along the edge of the cylinder gap. The use of water additives such as Böttcher Aqualux improves wetting behaviour and prevents drop formation.

Poor, spotty wetting leads to drop formation



Good, uniform wetting with Aqualux



**Böttcherin Aqualux**

Water additive in 5-% solution to water in automatic washing units, results in improved wetting of blankets - prevents residues in the water circulation tank. Must not be used in combination with filtration/recycling processes.

**Feboclean UV**

Standard wash for UV printing; low evaporation rate; economical consumption. (flash point approx. 70 °C)

**Böttcherin Offset-UV**

Enhanced cleaning power for UV printing; viscosity adapted for jet nozzle washing units for an optimum spray pattern. (flash point > 80 °C)

**Böttcherin UV-60 S**

Enhanced cleaning power for UV printing. Suitable for Baldwin washing units. (flash point approx. 70 °C)

**Böttcherin UV-60**

Wash for UV and hybrid inks with increased cleaning power and low evaporation rate. Reduces build-up of dirt on brush rollers in automatic washing units. (flash point > 80 °C)

**Böttcherin UV-Elettra**

Enhanced cleaning power for UV printing. Suitable for Elettra washing units. (flash point > 60 °C)

**Böttcherin Hybrid**

VOC-free wash for hybrid inks, also suitable for conventional inks. Very low evaporation rate, and economical in use. (flash point approx. 130 °C)

**Other recommended products**

**Washes for UV inks**

**Washes for use  
in automatic washing units  
in sheet-fed offset presses  
built before 1995**



**Washes for use  
in automatic washing units  
in heatset presses**



Many presses built before 1995 are equipped with washing units, which require washes with higher volatility. In many cases, rinsing with water is possible only to a limited extent or not at all. Böttcher offer proven products for these presses as well.

**Böttcherin  
GTW** Water-miscible wash with moderate drying time.  
(flash point > 40 °C)

**Böttcherin  
Orange** Non-water-miscible wash with moderate drying time.  
(flash point > 40 °C)

Washes used in heatset operations must meet stringent safety requirements due to the danger of explosion. Böttcher products offer strong cleaning power, short cleaning times and a low initial print-run discard rate. They have been approved by press and washing unit manufacturers and are suitable for use in all types of washing units.

**Böttcherin  
HS** VOC-free wash with low evaporation rate; water-miscible with strong cleaning power; short washing times and less start-up waste.  
(flash point approx. 110 °C)

**Feboclean  
BIO-3** 100-% vegetable-based, VOC-free, water-miscible wash with very strong cleaning power and a minimum evaporation rate; economic consumption, short washing times. (flash point approx. 180 °C)

The filtration of washes used in automatic washing units requires that the water and the wash separate as completely as possible after leaving the press. Thus no water additive may be used in wash filtration.



The process of recycling dirty blanket wash solutions through filtration systems poses special requirements with respect to water-miscibility and waste-water treatment. Böttcher products are designed to mix with water during the washing cycle, after which the dirty solution separates completely into water, waste and wash phases. No water additives except BöttcherPro Calcit rehardener may be used in this process. These products have been approved and recommended by manufacturers of presses, washing units and filtration systems.

**Böttcherin 60-F** Filterable wash with low evaporation rate; ideally suited for combined filtration unit and rinsing system. (flash point > 60 °C)

**Böttcherin 100-F** Filterable, VOC-free wash with very low evaporation rate; improved cleaning power. (flash point > 100 °C)

**Böttcherin 60-F WEB** Filterable wash with low evaporation rate; very good wetting of brush-rollers and high washing performance; especially for use in Contex brushroller washing units. (flash point > 100 °C)

**Böttcherin 100-F WEB** Filterable, VOC-free wash with very low evaporation rate; otherwise comparable to Böttcherin 60-F WEB. (flash point > 100 °C)

## Filtration washes

in sheet-fed offset presses

in newspaper presses

**Washes for use  
in automatic washing units  
in newspaper printing**



**Washes for daily  
manual cleaning  
in sheet-fed offset**



Böttcher products have been used effectively in automatic washing units in newspaper printing for many years. These washes are presently in use at numerous newspaper printing operations all over the world. They have been approved and recommended by press manufacturers.

**Böttcherin 60-N** Wash with high washing performance and a good wetting of surfaces. Approved by press manufacturer MAN. (flash point > 60 °C)

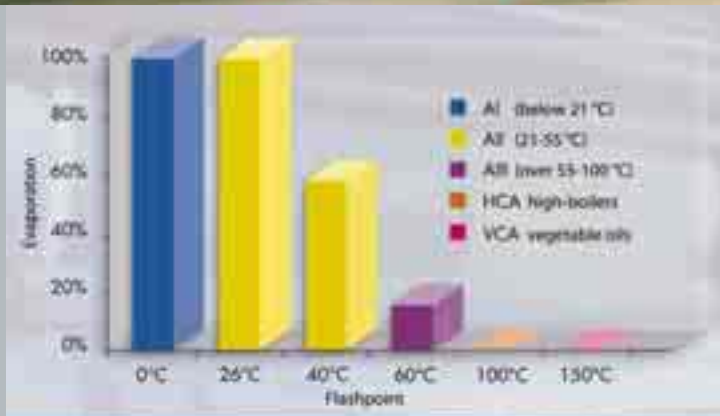
**Böttcherin 100** VOC-free wash, water miscible, for economical use in automatic washing units. High flash point (> 100 °C) reduces storage safety requirements.

The following products are suitable for manual cleaning. They are safe to use and pose no serious environmental or health hazards.

**Böttcherin 60** Standard wash; mixes well with water; low evaporation rate; economical consumption for sheet-fed and newspaper printing (flash point > 60 °C)

**Böttcherin Blue** Proven, non-water miscible roller wash with low evaporation rate; economical. Suitable for use in sheet-fed, heatset and newspaper printing. (flash point > 60 °C)

The wash evaporation rate decreases markedly as flash points increase. Thus the use of AIII products, high boilers and vegetable oils reduce wash consumption as well as environmental and health hazards.



**Feboclean  
BIO-3**

100-% vegetable-based, VOC-free, water-miscible wash with very strong cleaning power and a minimum evaporation rate; low volume consumption, short washing times. Easy manual application to clean printing blankets and rollers. (flash point approx. 180 °C)

**Feboclean  
UV**

Standard wash for UV printing; low evaporation rate; economical. (flash point approx. 70 °C)

**Böttcherin  
Offset-UV**

Enhanced cleaning power for UV printing; viscosity adapted for jet nozzle washing units for an optimum spray pattern. (flash point > 80 °C)

**Böttcherin  
UV-60**

Wash for UV and hybrid inks with increased cleaning power and low evaporation rate. Reduces build-up of dirt/debris on brush rollers in automatic washing units. (flash point > 80 °C)

**Böttcherin  
Hybrid**

VOC-free wash for hybrid inks, also suitable for conventional inks. Very low evaporation rate, safe and economical in use. Easy handling and storage because of high flash point (approx. 130 °C).



### Washes for small offset printing



**Böttcherin  
GTW** Water-miscible wash for sheet-fed offset with moderate drying time. (flash point approx. 40 °C)

**Böttcherin  
Orange** Non-water-miscible wash for sheet-fed offset with moderate drying time. (flash point approx. 40 °C)

**Böttcherin  
Offset-4015** Temporarily water miscible wash with medium evaporation rate. High cleaning power. (flash point approx. 40 °C)

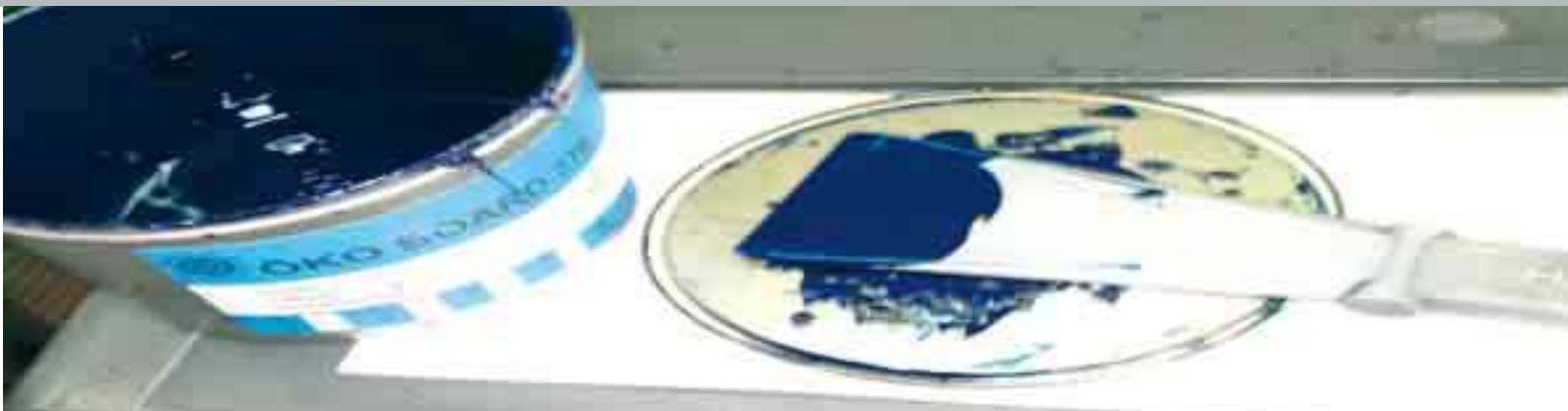
The following products are suitable for manual and automatic washing of small offset printing presses and designed to the particular requirements of these types of presses.

**Feboclean  
BTO** Non-water-miscible special wash for manual cleaning of printing blankets, fast drying time. (flash point > 25 °C)

**Böttcherin  
Yellow -new-** Non-water-miscible special wash with fast drying time. Suitable for cleaning of printing blankets, particularly on small offset printing presses (flash point > 25 °C)

**Böttcherin  
Green** Non-water-miscible wash for cleaning letterpress and offset plates in small offset printing. High evaporation rate. Also suitable for cleaning of plastic surfaces. (flash point < 0 °C)

Rubber surface glazing is caused by deposits of various substances in the structure of the surface of rollers and printing blankets. These dirt particles are not removed during normal cleaning and must be treated with stronger cleaning agents such as deglazers or special cleaning and maintenance pastes.



In addition to washes for daily cleaning operations, specialised washes are available for occasional use to remove stubborn deposits. These products should not come into contact with printing plates or plastic components.

**Special washes for occasional manual cleaning**

**Böttcherin EG-60** Slow drying deglazer and rejuvenating agent for removal of dried ink residues and dirt deposits on printing blankets and rollers. (Flash point > 60 °C)

**Böttcherin EG-40** Medium drying deglazer and rejuvenating agent with enhanced ink solvent strength. For removal of dried ink residues and dirt deposits on printing blankets and rollers. (Flash point approx. 40 °C)

**Böttcherin EG-20** Fast drying deglazer and rejuvenating agent with enhanced ink solvent strength. For removal of dried ink residues and dirt deposits on printing blankets. (Flash point < 0 °C)

**Böttcherin Offset** Water miscible blanket cleaner with good ink solvent strength. Medium evaporation grade. (flash point > 40 °C)



**Böttcherin  
Turbo**

Water based neutral cleaner with a wide range of applications and very good cleaning power for ink residues, paper lint and dried-on fountain residues. Cleans brush washing rollers, paper path rollers, brush dampening rollers and turbo dampening rollers effectively.

**Feboclean  
FL**

Ink dissolver for removing dried ink from metal parts. Medium evaporation grade. (flash point > 25 °C)

**Böttcherin  
FL-40**

Ink dissolver for removing dried ink from metal parts. Slow evaporation grade. (flash point approx. 40 °C)

**Feboclean  
EC-new**

Concentrate for cleaning dampening roller cloth sleeves and covers. Water soluble and economical.

**Böttcherin  
FR-1000**

Dampening roller cleaner for occasional cleaning of continuous-feed dampening units when ink deposits accumulate on pan and meter rollers. Free of acetone and non water-miscible. Does not accumulate in dampening water or circulation system. (Flash point < 21 °C)

**Böttcherin  
Rol-O-Plan**

Fast drying deglazer and rejuvenating agent for printing blankets with enhanced ink solvent strength. (Flash point < 21 °C)

**Böttcherin  
Rol-O-Sol**

Heavy-duty cleaner and rejuvenating agent for printing blankets and for rollers; quick drying. (flash point < 21 °C)

**BöttcherPro  
AR**

Heavy-duty water-based liquid alkaline cleaning agent with a wide range of applications; enhanced ink solvent strength for dried-on ink residues and other dirt. (flash point > 100 °C)

**Böttcherin  
Aquasol**

Water-based alkaline cleaning agent for water-based flexographic printing inks in automatic cleaning devices; and for manual cleaning of water-based varnishes in lacquering units; good solving power. (flash point > 100 °C)

# PRINTING AIDS

## Ideal for pressroom use

During printing operations, deposits consisting of paper coating material, calcium, printing ink ingredients accumulate on press rollers. These deposits cause glazing of the roller surface, which in turn lead to poor ink transfer and inking roller blinding. Böttcher recommend intensive weekly cleaning of rollers with special cleaning pastes. This maximises roller service life and ensures consistent print quality.



**BöttcherPro Cleanfix** Cleaning paste for inking rollers; prevents accumulation of dirt deposits and glazing if used regularly. Chemical and physical action ensures thorough cleaning into material pores. Ideal for cleaning between colour changes from dark to light inks. BöttcherPro Cleanfix is packaged in tubes for easy, economical application.

**BöttcherPro Calciumfix** Cleaning gel for removal of stubborn calcium deposits on inking rollers. The original ink transfer properties are restored. Regular use (once a week) helps prevent accumulation of calcium deposits. BöttcherPro Calciumfix is packaged in tubes for easy, economical application.

**BöttcherPro EK** Cleaning gel for removal of stubborn calcium deposits on inking rollers. Packaged in bottles.

**Feboclean RE** Cleaning paste for inking rollers; prevents ink ingredient deposit build-up if used regularly. Packaged in tubs.

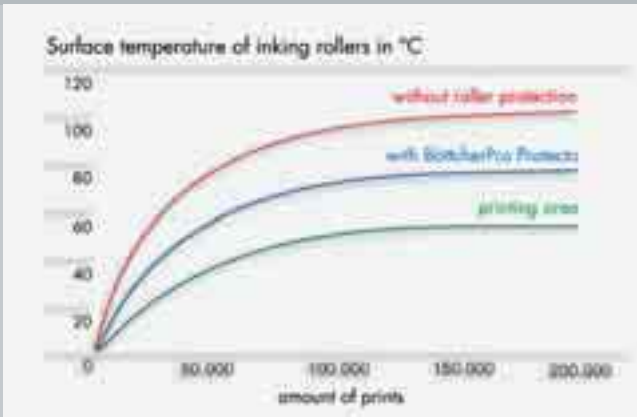
**BöttcherPro Rol-O-Past** Cleaning and rejuvenating paste for inking rollers; for removal of stubborn deposits on older inking rollers. Occasional application on rollers removed from presses restores the ink transfer properties of glazed inking rollers.





**ROLLER PROTECTION**

In printing part web, the use of roller protecting oils like BöttcherPro Protecto are necessary, because otherwise rollers will be overheated and damaged. Additional dosage recommended after about 30,000 turn arounds.



**Roller protecting agents**



**BöttcherPro Protecto**

VOC-free roller protection oil against dry running of rotating non-printing inking units; particularly in rotary offset printing when printing part or narrow webs; prevents abrasion and overheating. Remains a long time on the roller surface without misting or spraying. Easy to apply from spray bottle with extended nozzle (supplied), even whilst press is running.

**BöttcherPro Rol-O-Gel**

Roller protection paste for UV printing on EPDM and nitrile rollers, with very good lubricant properties for rotating non-printing inking units; prevents overheating and premature inking roller wear.

**Feboclean WP**

Roller protection paste with very good lubricant properties for rotating non-printing inking units; prevents overheating and premature inking roller wear. Not suitable for use when UV printing or on EPDM rollers.

**BöttcherPro Calcit**

Re-hardening solution for use in Reverse Osmosis systems. A concentration of 0.5 % raises water hardness to 10° dH.

**BöttcherPro Hydroclean**

Cleaning concentrate for regular cleaning of dampening water systems in all types of offset printing presses. To be used at a concentration of 5 - 10 %.

**BöttcherPro Antifoam**

Anti-foaming agent used to combat heavy foam formation within dampening water.

**BöttcherPro Platefix**

Abrasive-free printing plate cleaner for removal of ink residues; used to activate and re-sensitise the water-bearing layer of the printing plate.

**BöttcherPro Platefix-S**

Printing plate cleaner with mild abrasives enhancing cleaning strength for removal of ink residues. Used to activate and re-sensitise the water-bearing layer of the printing plate.

**Dampening water circulation**

**Plate cleaners**



Anti set-off powder based on natural starch



Böttcher offset spray powders are based on pure vegetable starch and are ideally suited for inline-lacquering or for subsequent laminating. Due to their outstanding flow and processing characteristics, Böttcher powders can be processed easily using all standard powdering machines and are distributed uniformly onto the printed sheet.

**BöttcherPro Silux 20** Fine, starch-based offset spray powder for processing paper and cardboard in weights of up to 200 g/m<sup>2</sup>.

**BöttcherPro Silux 35** Coarse, starch-based offset spray powder for processing paper and cardboard in weights between 200 and 350 g/m<sup>2</sup>.

**BöttcherPro Antiskin / Antiskin Spray** Liquid anti-skin agent for use in pump spraying unit. Prevents skin formation of printing ink in the inking unit, in ink ducts and in open ink containers. (Flash point approx. 65 °C) Also available in a convenient spray can.

**BöttcherPro Silicone Spray** Silicone spray used to improve paper feed. Enhances the glide effect. Prevents ink deposit accumulation on paper-guiding machine components during printing and subsequent processing (e.g. folding machines).

## Offset spray powders

## Other products





## ACCESSORIES

### Practical aids in the pressroom

In order to help in the use and handling of Böttcher products, different aids for daily use are available.



#### **BöttcherTex Primera/ Optima**

Böttcher cleaning webs are characterized by high absorbency. They store the full volume of cleaning agent, thus ensuring low consumption and are extremely resistant to tearing, abrasion and picking. Irritating fibre residues on the blanket are avoided. Currently, mini rolls with lengths starting from 8 m and maxi rolls with lengths starting from 500 m can be delivered for all standard roll widths.

#### **BöttcherTex Impress**

Cleaning web for impression cylinder; extremely resistant to abrasion.

#### **Disposable gloves**

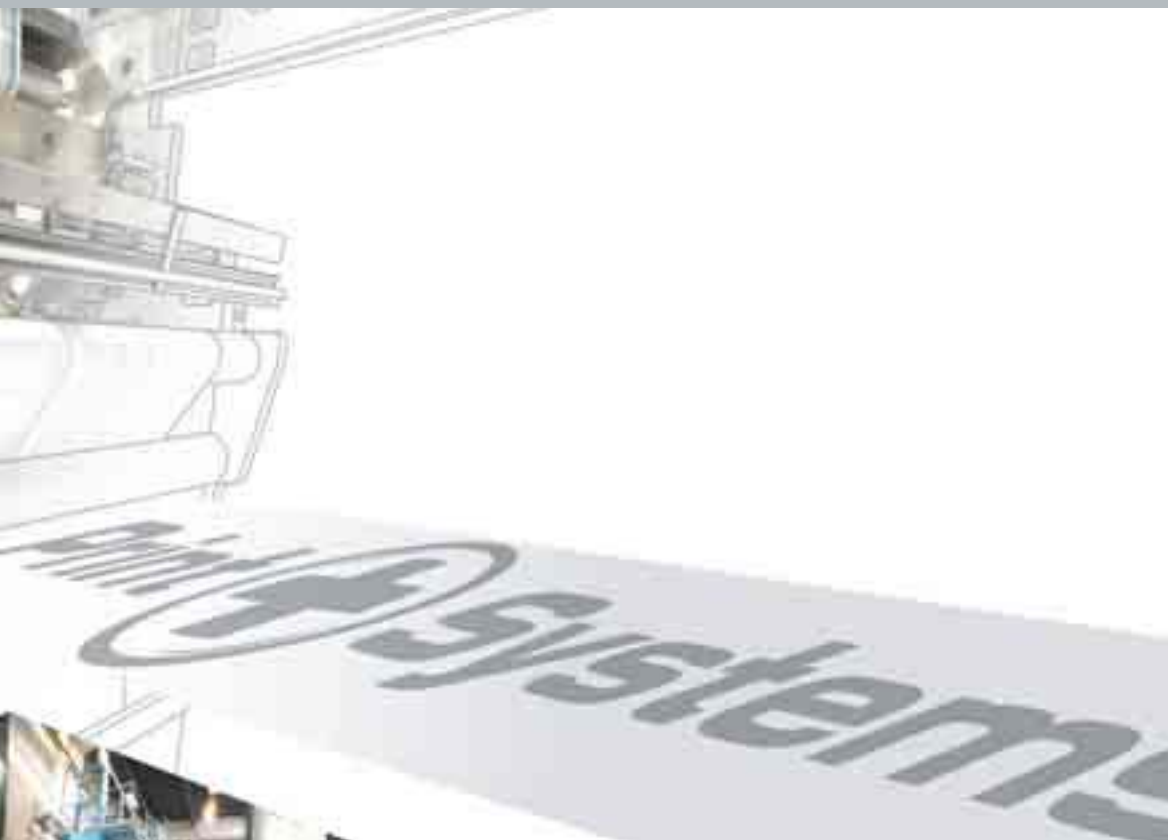
Powder-free one-way gloves from PVC, with good short time protection against printing chemistry. Do not lead to latex allergy.

#### **Protective gloves**

Nitrile rubber medium heavy gloves. With optimum protection for use with washes for conventional inks. Velour lining to enhance comfortable use.

#### **BöttcherPro Liposol**

Hand cleaning paste for removal of ink and strong industrial dirt. Based on high quality surfactants. Good skin compatibility, does not remove fatty tissue from skin (clinically tested). Economical dosage from a practical and hygienic dispenser bottle.



**Febotex** Disposable cleaning cloths with good absorbent properties and tear resistance for printing blanket cleaning. Low fluff formation diminishes the risk of problems in subsequent print runs. Available as folded single cloths or rolls with floor stand.

**Hand pump** Hand pump for metal and plastic drums with different pump capacities (0.1 l/stroke or 0.25 l/stroke) and different specifications. Suitable for all Böttcher washes and Isopropanol.

**Spray bottles** Plastic spray bottles (1000 ml) with manually adjustable spray nozzle; option, with enlarged pipes.

**Squirt bottles** Transparent plastic squirt bottles (1000 ml) with dosage tubes.

**Pouring spouts** Plastic taps/spouts for canisters and drums, for manual use.

**Plastic tool** Tool for easy opening of canisters and barrels.

**Measuring jug** Plastic measuring jug (1000 ml), with scale in 10-ml-divisions.



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The purpose of these technical data is to assist our customers. We list general experience and laboratory tests. Translation of these to actual applications is, however, subject to a variety of factors which are beyond our control. We ask for your understanding that claims cannot be based upon them.