

OUR ABILITY EQUALS
YOUR SUCCESS

PRODUCTS & SERVICES



JOH. CLOUTH[®]
A CLOUTH GROUP MEMBER

CLOUTH | **SPRENGER**
A CLOUTH GROUP MEMBER

CLOUTH GROUP DOCTOR BLADES AND CLEANING SYSTEMS

The Clouth Group companies set highest priority to quality, flexibility, innovativeness and an excellent cost-effectiveness ratio. In combination with a competent and practice-oriented consultancy service they thus contribute to an enhancement with regards to your productivity. The focus is set on the interaction between cleaning components and other process parameters

having a big impact on the product quality. This bundled competence of Joh. Clouth, Clouth Sprenger und Joh. Clouth Maschinenbau Eltmann covers doctor blades, coater blades, creping doctors, doctor holder systems, accessories and service activities precisely meeting your requirements.



OPTIMUM DESIGN

We can say, that through intensive research the optimum blade for almost any application is part of our product range. There is a permanent product range update along with the innovations developed with regards to material and construction which provides you with a decisive advantage.

SYSTEM SOLUTIONS

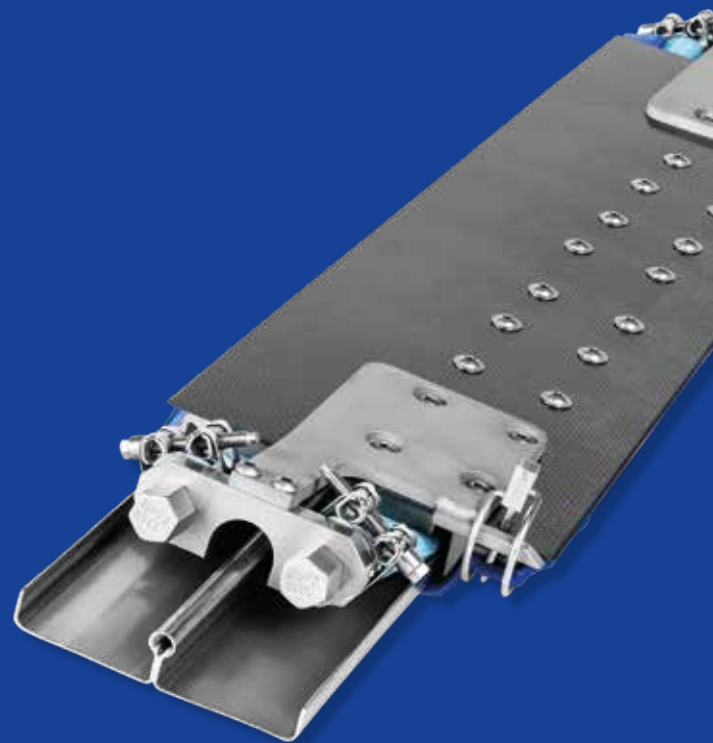
In addition to the blades we offer you system accessories, e.g. our doctor holder systems, which in the interaction make sure that you get the best from your production.

CLOUTHFLEX®-18/35 A
Doctor holder from stainless steel



Doctor blades from thermoplastics
and advanced composite material

CERADIA® – Coated creping
and coater blades



CLOUTH® TOPSLIDE – Patented
doctor holder with carbon fibre top-plate

CUSTOMIZED SERVICE

We offer a competent service, support start-ups on site and train the staff. We also optimise your production by a targeted troubleshooting, the adjustment of coating units and the supervision of pilot tests.

WORLDWIDE ON-SITE

Our competence, responsiveness and flexibility are available all over the world which turns us to a reliable partner – for multinational corporations as well as single companies. We are looking forward to master new challenges together with you!

Contents

Doctor Blades / Coater Blades / Creping Blades	Page
Thermoplastics / Phenoplastics	9
<p>Thermoplastics are plastics that soften or fuse when heated and then become rigid when cooled. They can be further subdivided on the basis of their thermal, chemical or mechanical characteristics. In the thermoplastics field we offer doctor blades with and without fabric inlay. The fabric inlay provides improved characteristics such as higher strength combined with better cleaning effects. Nevertheless, the cleaning effect on the roll and cylinder surface remains gentle.</p>	
Fibreglass	11
<p>We have a pioneering role in the area of fibreglass doctor blades, being one of the first to employ glass fibres to reinforce plastics and so have developed a very high quality fibre composite concept. Fibreglass-reinforced composite systems have a relatively low elasticity modulus compared to other reinforcing fibres. Their advantage is high elongation at breaking point and elastic energy absorption combined with excellent resistance to chemical corrosion. Doctor blades made from this material are employed in areas with higher levels of mechanical loading.</p>	
Carbon Fibre	13
<p>Carbon fibres exhibit very good electrical and thermal conductivity. The fibres are very strong and stiff whilst simultaneously having a low breaking elongation. The doctor blades that we manufacture exclusively from carbon fibre fabric also have a very good cleaning effect. They were developed for areas with very high levels of mechanical loading.</p>	
Glass and Carbon Fibres	14
<p>The specific characteristics of the components used result in a new material where the positive characteristics of glass fibres and carbon fibres are combined. With this combination, we are able to offer doctor blades that combine good cleaning results with a long service life in areas with high mechanical loading. For greater efficiency and optimised production figures.</p>	
Metal	17
<p>Our metal doctor blades are made from high-quality materials and are in widespread use in paper machines.</p>	
Uncoated Creping Doctors / Coater Blades	19
<p>Our uncoated creping blades and coater blades are manufactured from high-quality materials. They are used as an alternative to coated creping blades and coater blades, depending on the specific requirements.</p>	
CERADIA® – Coated Coater Blades / Creping Blades	22
<p>In order to increase the service life of coater blades and creping blades, their blade tips are coated with a wear-protection layer. Ceramic layers and metal-ceramic composites (cermets) are used for this. Different layer and wear characteristics, such as hardness and material removal, are required depending on the customer's specific application. Accordingly, our CERADIA® product range offers a broad spectrum of possible coating types so that our application technicians are able to develop an ideally-tailored product for each individual customer.</p>	
Special Blades	26
Special Models in Metal and Plastic	27
<p>We are able to supply virtually any kind of special design or accessory for doctor blades. By using state-of-the-art CNC-controlled machines, items can be produced with the highest precision over the machine width. It is also possible to produce special parts made of composite fibre materials in three dimensions with radii of all kinds.</p>	

Contents

	Page
Doctor Blade Holders	
Flexible Holders	30
<p>We offer a choice of flexible doctor holders suited to the full range of doctoring requirements. Our pneumatic tube holders are particularly suitable for compensating for irregularities on roll and cylinder surface providing ideal and even loading for the doctor blade and across the full width of the roll or cylinder.</p>	
Rigid Holders	31
<p>We offer a range of rigid doctor holders for various requirements and applications.</p>	
Top-Plates + Accessories	33
<p>For a smooth production process, our top-plates are available exclusively for CLOUTH® doctor holders as individual components for replacement, modification or optimisation.</p>	
Pressure Tubes + Accessories	34
<p>We ensure optimum safety and efficiency within recommended maintenance cycles by using high quality pressure tubes. These are selected according to the specific requirements of each position in the machine.</p>	
Accessories / Occupational Safety	Page
Storage	38
<p>Optimum workflow: CLOUTH® doctor blades can be changed by only one person using one of the high-quality CLOUTH DOCTOR-STORE® storage system in the 5, 10 or 20 slot versions. There is no need to transport the doctor blade to the machine as all of the systems can be positioned directly at the machine. Doctor blades can therefore be removed individually, thus lowering the risk of damage and injury.</p>	
Easy Handling	40
<p>Thanks to the use of state-of-the-art technology, it is not only possible to prevent accidents at work and reduce the risk of injury, but also to implement comprehensive preventive measures. For blade changes, we have designed a number of different extraction tools to enable quick and safe removal of old blades.</p>	
Measuring Devices	43
<p>We provide a variety of measuring instruments designed to simplify checks and adjustment of doctoring systems. These are designed to ensure maximum clarity.</p>	
Cleaning	44
<p>We have developed bespoke accessories to clean roll and cylinder surfaces as well as heavily soiled surfaces. The service life of the doctor blades and of the roll and cylinders are increased by the correct use of these accessories.</p>	
Disposal	45
<p>What to do with the used blade that still could be sharp and can become a tripping hazard due to its length if it is not disposed of immediately? To avoid this risk for the staff in advance we offer the possibility of a safe and simple disposal of plastic and metal blades.</p>	

Technical Service	Page
Complete machine audit	47
Installation	47
Inspection and adjustment of doctor holders	47
Doctor holder cleaning	47
Service measurement	47
Overhaul	47
CLOUTH HiSENSE® Doctor Blade Measurement	47
Shelving stock with Full-Service	48
Consignment stock	48
System Designs	Page
System Designs	49
Specialised Machine Constructions	Page
Specialised Machine Constructions	50
Creping Blade System GALENO.....	51



Doctor Blades / Coater Blades / Creping Blades

We manufacture all doctor blades on our very own production machines, which we have designed to our own specification. This guarantees the highest level of quality.

Our coater blades and creping blades are also made from high quality raw materials based on the individual customer requirements. State-of-the-art technology ensures straightness and accuracy of the blade.

For coated coater blades and creping blades, precision coating combined with excellent grinding processes also ensure precise geometries.



Thermoplastics / Phenoplastics



CLOUTH®-ROT
CLOUTH®-RED

CLOUTH®-RED

PVC (polyvinylchloride),
temperature resistance in continuous use up to 65°C.



CLOUTH-AS®
CLOUTH-AS®

CLOUTH-AS®

HDPE, ultra high density molecular weight polyethylene (UHMW),
temperature resistance in continuous use up to 80°C.



CLOUTH-AS®-PLUS
CLOUTH-AS®-PLUS

CLOUTH-AS®-PLUS

Glass reinforced HDPE, ultra high density molecular weight
polyethylene (UHMW),
temperature resistance in continuous use up to 80°C.



CLOUTH-KLEEN®
CLOUTH-KLEEN®

CLOUTH-KLEEN®

Glass reinforced polypropylene,
temperature resistance in continuous use up to 100°C.



DURADA®-100 D
DURADA®-100 D

DURADA®-100 D

Carbon fibre fabric with thermoplastic matrix, very low coefficient
of friction, extremely wear-resistant,
temperature resistance in continuous use up to 180°C.



DURADA®-DT
DURADA®-DT

DURADA®-DT

Multi-layer fiberglass fabric structure with thermoplastic polymer
matrix and ceramic coating at tip, very wear-resistant,
temperature resistance in continuous use up to 180°C.



CLOUTH-MG-FF®
CLOUTH-MG-FF®

CLOUTH-MG-FF®

Fine cotton fibre fabric with phenolic resin-system,
temperature resistance (TG) 135°C.



DIACLOUTH-600®
DIACLOUTH-600®

DIACLOUTH-600®

Fine cotton fibre fabric with phenolic resin-system and graphite
temperature resistance (TG) 135°C.

Doctor Blades / Coater Blades / Creping Blades



DUROCLOUTH®-A
DUROCLOUTH®-A

DUROCLOUTH®-A

Superfine glass fibre fabric with phenolic resin system,
fine cotton fibre fabric layer,
temperature resistance (TG) 140°C.



DUROCLOUTH®-B
DUROCLOUTH®-B

DUROCLOUTH®-B

Superfine glass fibre fabric with epoxy-resin system,
fine cotton fibre fabric layer,
temperature resistance (TG) 160°C.

Fibreglass



POLICLOUTH-SUPER®
POLICLOUTH-SUPER®

POLICLOUTH-SUPER®

Superfine glass fibre fabric with epoxy-resin system,
temperature resistance (TG) 185°C.



POLICLOUTH®-S2
POLICLOUTH®-S2

POLICLOUTH®-S2

Superfine glass and special fibre fabric with Clouth epoxy-resin system,
temperature resistance (TG) 185°C.



POLICLOUTH-PLUS®
POLICLOUTH-PLUS®

POLICLOUTH-PLUS®

Superfine glass fibre fabric with modified epoxy-resin system.
Resin with embedded micro-fillers for improved lifetime,
temperature resistance (TG) 185°C.



CLOUTH-BLAU®
CLOUTH-BLUE®

CLOUTH-BLUE®

Superfine glass fibre fabric with epoxy-resin system,
higher bending strength, increased cleaning properties,
temperature resistance (TG) 185°C.



POLICLOUTH® T-200
POLICLOUTH® T-200

POLICLOUTH® T-200

Superfine glass fibre fabric with high temperature resistant
epoxy-resin system,
temperature resistance (TG) 205°C.



POLICLOUTH® T-250
POLICLOUTH® T-250

POLICLOUTH® T-250

Superfine glass fibre fabric with very high temperature resistant
epoxy-resin system,
temperature resistance (TG) 250°C.



POLICLOUTH® T-300
POLICLOUTH® T-300

POLICLOUTH® T-300

Superfine glass fibre fabric with extremely high temperature
resistant epoxy-resin system,
temperature resistance (TG) 300°C.



COMBISTAR 2.0
COMBISTAR 2.0

COMBISTAR 2.0

Combination of application-optimized fabrics with epoxy-resin system,
temperature resistance (TG) 180°C.

Doctor Blades / Coater Blades / Creping Blades



CLOUTH-ABRASIV®
CLOUTH-ABRASIV®

CLOUTH-ABRASIV®

Superfine glass fibre fabric with epoxy-resin system and silicon carbide layers,
temperature resistance (TG) 185°C.



CLOUTH-ABRASIV®-BR
CLOUTH-ABRASIV®-BR

CLOUTH-ABRASIV®-BR

Glass fibre fabric with Clouth epoxy-resin system, including special abrasive microparticles fillers,
temperature resistance (TG) 180°C.



CLOUTH-MICROABRASIV®
CLOUTH-MICROABRASIV®

CLOUTH-MICROABRASIV®

Superfine glass fibre fabric with epoxy-resin system and very fine silicon carbide layers,
temperature resistance (TG) 185°C.



CLOUTH-VERTURA®
CLOUTH-VERTURA®

CLOUTH-VERTURA®

Superfine glass fibre fabric with a specially designed epoxy-resin system, very wear-resistant, very good cleaning properties,
temperature resistance (TG) 185°C.



CLOUTH®-MT-PCS
CLOUTH®-MT-PCS

CLOUTH®-MT-PCS

Glass fibre fabric with Clouth epoxy-resin system and low friction microparticle fillers,
temperature resistance (TG) 170°C.



CLOUTH®-MATERA
CLOUTH®-MATERA

CLOUTH®-MATERA

Multilayer fabric construction with Clouth epoxy-resin system
temperature resistance (TG) 180°C.

Carbon Fibre



COMBIFASER®-100C
COMBIFIBRE®-100C

COMBIFIBRE®-100C

Carbon fibre fabric with epoxy-resin system, very low coefficient of friction, extremely wear-resistant, temperature resistance up to 185°C.



CLOUTH-CONTOUR®-100C
CLOUTH-CONTOUR®-100C

CLOUTH-CONTOUR®-100C

Special carbon fibre fabric with epoxy-resin system, very low coefficient of friction, extremely wear-resistant, temperature resistance up to 185°C.



COMBIFASER® T-250/100
COMBIFIBRE® T-250/100

COMBIFIBRE® T-250/100

Carbon fibre fabric with very high temperature resistant epoxy-resin system, very low coefficient of friction, extremely wear-resistant, temperature resistance up to 250°C.



CLOUTH-VERTURA®-100S
CLOUTH-VERTURA®-100S

CLOUTH-VERTURA®-100S

Carbon fibre fabric with a specially designed epoxy-resin system, extremely low coefficient of friction, extremely wear-resistant, very good cleaning properties, temperature resistance up to 185°C.



ACTRA®-100
ACTRA®-100

ACTRA®-100

Carbon fibre fabric with special-resin system, very low coefficient of friction, extremely wear-resistant, temperature resistance up to 185°C.

CLOUTH®-MT-CF-100

Carbon fibre fabric with Clouth epoxy-resin system and low friction microparticle fillers, temperature resistance up to 175°C.

Doctor Blades / Coater Blades / Creping Blades

Glass and Carbon Fibres



COMBIFASER®-2C
COMBIFIBRE®-2C

COMBIFIBRE®-2C

Superfine glass fibre fabric with epoxy-resin system and layers of carbon fibre, low coefficient of friction, high wear-resistance, temperature resistance up to 185°C.



COMBIFASER®-4C
COMBIFIBRE®-4C

COMBIFIBRE®-4C

Material and properties equivalent to COMBIFIBRE®-2C; due to a growing portion of carbon fibre, there is an increase in the cleaning properties as well as the lifetime.



COMBIFASER®-6C
COMBIFIBRE®-6C

COMBIFIBRE®-6C

Material and properties equivalent to COMBIFIBRE®-4C; due to an enlarged growing portion of carbon fibre, there is an increase in the cleaning properties as well as the lifetime.



CLOUTH-CONTOUR®-2C
CLOUTH-CONTOUR®-2C

CLOUTH-CONTOUR®-2C

Superfine glass fibre fabric with epoxy-resin system and modified layers of special carbon fibre, low coefficient of friction, high wear-resistance, temperature resistance up to 185°C.



CLOUTH-CONTOUR®-4C
CLOUTH-CONTOUR®-4C

CLOUTH-CONTOUR®-4C

Material and properties equivalent to CLOUTH-CONTOUR®-2C; due to a growing portion of special carbon fibre, there is an increase in the cleaning properties as well as the lifetime.



CLOUTH-CONTOUR®-6C
CLOUTH-CONTOUR®-6C

CLOUTH-CONTOUR®-6C

Material and properties equivalent to CLOUTH-CONTOUR®-4C; due to an enlarged growing portion of special carbon fibre, there is an increase in the cleaning properties as well as the lifetime.



COMBIFASER® T-250/2
COMBIFIBRE® T-250/2

COMBIFIBRE® T-250/2

Superfine glass fibre fabric with very high temperature resistant epoxy-resin system and layers of carbon fibre, low coefficient of friction, high wear-resistance, temperature resistance up to 250°C.



COMBIFASER® T-250/4
COMBIFIBRE® T-250/4

COMBIFIBRE® T-250/4

Material and properties equivalent to COMBIFIBRE® T-250/2; due to a growing portion of carbon fibre, there is an increase in the cleaning properties as well as the lifetime.



COMBIFASER® T-250/6
COMBIFIBRE® T-250/6

COMBIFIBRE® T-250/6

Material and properties equivalent to COMBIFIBRE® T-250/4; due to an enlarged growing portion of carbon fibre, there is an increase in the cleaning properties as well as the lifetime.



CLOUTH-VERTURA®-2S
CLOUTH-VERTURA®-2S

CLOUTH-VERTURA®-2S

Superfine glass fibre fabric with a specially designed epoxy-resin system and layers of carbon fibre, low coefficient of friction, very wear-resistant, very good cleaning properties, temperature resistance up to 185°C.



CLOUTH-VERTURA®-6S
CLOUTH-VERTURA®-6S

CLOUTH-VERTURA®-6S

Material and properties equivalent to CLOUTH-VERTURA®-2S; due to a growing portion of carbon fibre, there is an increase in the cleaning properties as well as the lifetime.



CLOUTH-ABRASIV®-2C
CLOUTH-ABRASIV®-2C

CLOUTH-ABRASIV®-2C

Superfine glass fibre fabric with epoxy-resin system, layers of carbon fibre and silicon carbide layers, good doctoring/cleaning properties, high wear-resistance, temperature resistance up to 185°C.



CLOUTH-ABRASIV®-4C
CLOUTH-ABRASIV®-4C

CLOUTH-ABRASIV®-4C

Material and properties equivalent to CLOUTH-ABRASIV®-2C; due to a growing portion of carbon fibre, there is an increase in the cleaning properties as well as the lifetime.



CLOUTH-ABRASIV®-6C
CLOUTH-ABRASIV®-6C

CLOUTH-ABRASIV®-6C

Material and properties equivalent to CLOUTH-ABRASIV®-4C; due to an enlarged growing portion of carbon fibre, there is an increase in the cleaning properties as well as the lifetime.



CLOUTH-MICROABRASIV®-2C
CLOUTH-MICROABRASIV®-2C

CLOUTH-MICROABRASIV®-2C

Superfine glass fibre fabric with epoxy-resin system and layers of carbon fibre and very fine silicon carbide layers, good doctoring/cleaning properties, high wear-resistance, temperature resistance up to 185°C.



CLOUTH-MICROABRASIV®-4C
CLOUTH-MICROABRASIV®-4C

CLOUTH-MICROABRASIV®-4C

Material and properties equivalent to CLOUTH-MICROABRASIV®-2C; due to a growing portion of carbon fibre, there is an increase in the cleaning properties as well as the lifetime.

Doctor Blades / Coater Blades / Creping Blades

Glass and Carbon Fibres



CLOUTH-MICROABRASIV®-6C
CLOUTH-MICROABRASIV®-6C

CLOUTH-MICROABRASIV®-6C

Material and properties equivalent to CLOUTH-MICROABRASIV®-4C; due to an enlarged growing portion of carbon fibre, there is an increase in the cleaning properties as well as the lifetime.



CLOUTH-MICROABRASIV®-4PLUS
CLOUTH-MICROABRASIV®-4PLUS

CLOUTH-MICROABRASIV®-4PLUS

Superfine glass fibre fabric with epoxy-resin system and layers of carbon fibre and extremely fine silicon carbide layers, good doctoring/cleaning properties, very wear-resistant, temperature resistance up to 185°C.



CLOUTH-MICROABRASIV®-6PLUS
CLOUTH-MICROABRASIV®-6PLUS

CLOUTH-MICROABRASIV®-6PLUS

Material and properties equivalent to CLOUTH-MICROABRASIV®-4PLUS; due to a growing portion of carbon fibre, there is an increase of cleaning properties as well as the lifetime.



CLOUTH-MICROABRASIV®-T250/4
CLOUTH-MICROABRASIV®-T250/4

CLOUTH-MICROABRASIV®-T250/4

Superfine glass fibre fabric with very high temperature resistant epoxy-resin system, layers of carbon fibre and very fine silicon carbide layers, good doctoring/cleaning properties, very wear-resistant, temperature resistance up to 250°C.

Metal



SPECIAL STEEL

Carbon steel C = 0.75 %, hardness approx. 46-48 HRC
(approx. 437-461 HB)



SPECIAL STEEL EXTRA HARD

Carbon steel C = 1.00 %, extra hard, hardness approx. 52-55 HRC
(approx. 523-570 HB)



STAINLESS STEEL (13 %)

Stainless steel (13 %) 1.4021, hardness approx. 46-48 HRC
(approx. 437-461 HB)



STAINLESS STEEL (18-8)

Stainless steel (18-8) 1.4310, hardness approx. 46-48 HRC
(approx. 437-461 HB)



K-MONEL 500

(66 % NI, 29 % CU, 2.75 % AL, 0.5 % TI, 0.9 % FE, 0.75 % MN, 0.5 % SI,
0.15 % C)
K-MONEL 500 C: hardness approx. 30-32 HRC (approx. 285-305 HB)
K-MONEL 500 D: hardness approx. 38-42 HRC (approx. 355-390 HB)



PHOSPHORBRONZE

Phosphorbronze, CuSn 6 or CuSn 8, total acid resistance,
zinc-free, iron-free, hardness approx. 200-220 HB



CLOUTH-DT® STEEL

Metal blade with hard metal coating at bevel,
stainless steel (13 %) 1.4021

Doctor Blades / Coater Blades / Creping Blades

Metal



CLOUTH-DT® SPECIAL STEEL

Metal blade with hard metal coating at bevel,
carbon steel C = 0.75 %



CLOUTH-DT® BRONZE

Metal blade with hard metal coating at bevel,
phosphorbronze

Uncoated Creping Doctors/Coater Blades



COATER BLADES IN STAINLESS STEEL

Stainless steel (18-8) 1.4310, hardness approx. 46-48 HRC
(approx. 437-461 HB)



COATER BLADES IN CARBON STEEL

Carbon steel C = 1.00 %, hardness approx. 52-55 HRC
(approx. 523-570 HB)



FLO-CLEAN IN CARBON STEEL OR STAINLESS STEEL

Carbon steel, hardness approx. 52-55 HRC (approx. 523-570 HB)
Stainless steel, hardness approx. 46-48 HRC (approx. 437-461 HB)



SUPPORTING BLADE

Carbon steel C = 1.00 %, hardness approx. 52-55 HRC
(approx. 523-570 HB)
Stainless steel (18-8) 1.4310, hardness approx. 46-48 HRC
(approx. 437-461 HB)



SEALING BLADE

Corrosion resistant and wear-resistant material with excellent surface quality and straightness



NIP PLATE

- Carbon steel, hardness approx. 52-55 HRC
(approx. 523-570 HB)



- Stainless steel, hardness approx. 46-48 HRC
(approx. 437-461 HB)

Doctor Blades / Coater Blades / Creping Blades

Uncoated Creping Doctors/Coater Blades



ROLLFLEX BLADES

Stainless steel (18-8) 1.4310, hardness approx. 46-48 HRC
(approx. 437-461 HB)



CREPING BLADE

Carbon steel C = 1.00 %, hardness approx. 46-48 HRC
(approx. 437-461 HB)



CREPING BLADE EH

Carbon steel C = 1.00 %, extra hard, hardness approx. 51-53 HRC
(approx. 500-532 HB)



CREPING BLADE

Phosphorbronze, hardness approx. 200-220 HB



SUPPORTING BLADE

Stainless steel (18-8) 1.4310, hardness approx. 46-48 HRC
(approx. 437-461 HB)



ADJUSTMENT SLIDE

Stainless steel (18-8) 1.4310, hardness approx. 46-48 HRC
(approx. 437-461 HB)

Combining expertise – improving capacity

The cooperation between the two companies Horst Sprenger GmbH from Moers – specialists in doctor blade dosing systems, and Joh. Clouth GmbH & Co. KG from Hückeswagen – global market leader in the field of doctor blades, is based precisely on this principle. As Clouth Sprenger GmbH, the two traditional companies have specialised in coating coater blades and creping blades with high quality wear protection coatings.

The pioneering processes in the field of refinement benefit our customers twice over: The longer service life of the products not only maximise productivity, but also significantly improve the paper quality.

The use of state-of-the-art spraying and grinding technologies enables extremely environmentally friendly production processes.



Doctor Blades / Coater Blades / Creping Blades

CERADIA® – Coated Coater Blades / Creping Blades



COATER BLADE CERADIA® 100

Stiff Blade, Bent Blade or Double-angle Blade with ceramic tip



COATER BLADE CERADIA® 400

Stiff Blade, Bent Blade or Double-angle Blade with high wear-resistant ceramic tip



COATER BLADE CERADIA® 400+

Stiff Blade, Bent Blade or Double-angle Blade with high wear-resistant ceramic tip



COATER BLADE CERADIA® 450

Stiff Blade, Bent Blade or Double-angle Blade with high wear-resistant ceramic tip



COATER BLADE CERADIA® CC+

Stiff Blade, Bent Blade or Double-angle Blade with high wear-resistant carbide tip



COATER BLADE CERADIA® CCX

Stiff Blade, Bent Blade or Double-angle Blade with high wear-resistant carbide tip



COATER BLADE CERADIA® CCX+

Stiff Blade, Bent Blade or Double-angle Blade with high wear-resistant carbide tip



COATER BLADE CERADIA® CDX

Stiff Blade, Bent Blade or Double-angle Blade with high wear-resistant carbide tip



COATER BLADE CERADIA® CF

Stiff Blade, Bent Blade or Double-angle Blade with high wear-resistant carbide tip



COATER BLADE CERADIA® CXF

Stiff Blade, Bent Blade or Double-angle Blade with high wear-resistant carbide tip



COATER BLADE CERADIA® CXF+

Stiff Blade, Bent Blade or Double-angle Blade with high wear-resistant carbide tip



COATER BLADE CERADIA® DXF

Stiff Blade, Bent Blade or Double-angle Blade with high wear-resistant carbide tip

Ceradia® Cermet coating blades make use of a carbide-metallic (ceramic + metal = Cermet) wear resistant layer. With its low porosity this interlocking matrix exhibits a very high wear resistance. For particularly demanding applications where a high surface quality of the paper is required, we also offer all Cermet blades in the variant 'High-Line'.

Doctor Blades / Coater Blades / Creping Blades

CERADIA® – Coated Coater Blades / Creping Blades



CREPING BLADE CERADIA® 100

Carbon Steel with wear-resistant ceramic tip



CREPING BLADE CERADIA® 200

Carbon Steel with high wear-resistant ceramic tip



CREPING BLADE CERADIA® 400

Carbon Steel with high wear-resistant ceramic tip



CREPING BLADE CERADIA® 400+

Carbon Steel with high wear-resistant ceramic tip



CREPING BLADE CERADIA® 450

Carbon Steel with high wear-resistant ceramic tip



CREPING BLADE CERADIA® 500R

Carbon Steel with high wear-resistant ceramic tip



CREPING BLADE CERADIA® 500V

Carbon Steel with high wear-resistant ceramic tip



CREPING BLADE CERADIA® CDX

Carbon Steel with wear-resistant carbide tip

Your aim is to shorten the run-in time of oxide-coated creping blades? For these creping doctors, our 'MS' and 'MS+' modifications are available to help avoiding downturns in paper thickness occurring immediately after a doctor change.



For additional information please send us your request for detailed brochures for the paper or tissue production.

Here the tissue experts as well can find detailed information with regards to the following innovations:

GALENO – CREPING BLADE SYSTEM
absorption where it makes sense

V-GUARD – VIBRATION MEASURING SYSTEM
for an increased process stability

Doctor Blades / Coater Blades / Creping Blades

Special Blades



CLOUTH®-SOFT

Cleaning-Blade made of spring-steel with non-woven fabric strip. Fibre fleece available in the grit sizes: super fine, very fine, medium, and extra coarse.



CLOUTH®-VIBRASTOP

Special blade construction to solve vibration problems, high temperature resistant silicone rubber on metal or fibre reinforced blades



CLOUTH®-SEAL BT

Sealing blade – especially developed for a use in web stabiliser units within the dryer section. Excellent sealing properties and long lifetimes. Ultra-flexible, non-abrasive silicone with good sliding properties sustainably conserves the dryer fabrics.

Material colour: blue
Type: blunt tip
Temperature resistance up to 200°C



CLOUTH®-SEAL TT

Sealing blade – especially developed for a use in web stabiliser units within the dryer section. Excellent sealing properties and long lifetimes. Ultra-flexible, non-abrasive silicone with good sliding properties sustainably conserves the dryer fabrics.

Material colour: black
Type: tapered tip
Temperature resistance up to 200°C

Special Models in Plastic

We are able to supply virtually any kind of special design or accessory for doctor blades. By using state-of-the-art CNC-controlled machines, items can be produced with

the highest precision over the machine width. It is also possible to produce special parts made of composite fibre materials in three dimensions with radii of all kinds.



Doctor Blades / Coater Blades / Creping Blades

Special Models in Metal

For all those who need non-standard, tailor-made items, we manufacture special designs to your design to meet

your individual requirements. We are happy to help you!



Doctor Blade Holders

We produce a range of doctor holders suitable for all positions, offering the ideal solution to optimise doctoring on your machine.

The range includes traditional holder types and the most modern carbon fibre holders. All our doctor holders are

from high-quality materials and components and are manufactured to precise tolerances.

Highly efficient production methods allow very short delivery times.



Doctor Blade Holders

Flexible Holders



CLOUTH-CONTOUR®

Stainless steel doctor holder with carbon fibre top-plate for all doctor blade materials



CLOUTH-CONTOUR LIGHT®

Stainless steel doctor holder with carbon fibre top-plate for all doctor blade materials



CLOUTH® HS-1

Patented Doctor Holder with carbon fibre top-plate for all doctor blade materials



CLOUTH® HS-1 QUICK-TOP

Patented doctor holder with carbon fibre top-plate for all doctor blade materials. Quick removal of top-plate from either side of the machine, allowing very easy cleaning of the fingers and fast tube change.



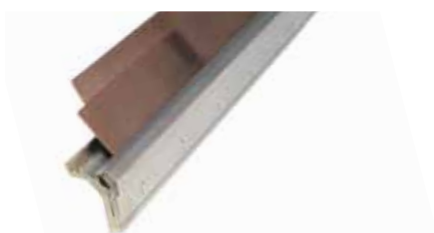
CLOUTH® TOPSLIDE

Doctor Holder with carbon fibre top-plate for all doctor blade materials. Quick removal of top-plate from either side of the machine, allowing very easy cleaning of the fingers and fast tube change.



For products marked with this symbol you can find a product movie in the Clouth media library at www.clouth-group.com

Rigid Holders



CLOUTH®-PROFIL 17C

Brass doctor holder for synthetic and metal doctor blades, brass (MS 58)



CLOUTHFLEX®-18

Glass-fibre doctor holder for all doctor blade materials, advanced composite material glass-fibre



CLOUTHFLEX®-18/35 A

Adjustable stainless steel doctor holder for all doctor blade materials, rust free and acid resistant steel AISI 316L (rust-free)



CLOUTHFLEX®-18/35 AS

Stainless steel doctor holder for all doctor blade materials, rust free and acid resistant steel AISI 316L (rust-free)

Doctor Blade Holders

Rigid Holders



CLOUTHFLEX® -18 VA

Adjustable doctor holder from stainless steel suitable for all doctor blade materials



CLOUTHFLEX® -18 VA mini

Adjustable doctor holder from stainless steel suitable for all doctor blade materials



CLOUTHFLEX® -18 VA AS

Adjustable doctor holder from stainless steel suitable for all doctor blade materials



CLOUTHFLEX® -20

Doctor holder from stainless steel with Spring-Mount finger technology for all doctor blade material, rust free and acid resistant steel AISI 316L (rust-free)



For products marked with this symbol you can find a product movie in the Clouth media library at www.clouth-group.com

Top-Plates + Accessories



CLOUTH-CONTOUR® TOP-PLATE

100 % special carbon fibre construction, available in thickness of 3 mm (4 mm optional), interchangeable with existing double tube holder top-plate (metric and imperial)



CLOUTH-CONTOUR LIGHT® TOP-PLATE

100 % special carbon fibre construction, available in thickness of 3 mm (4 mm optional), interchangeable with existing double tube holder top-plate (metric and imperial)



CLOUTH® HS-1 TOP-PLATE

100 % special carbon fibre construction, available in thickness of 3 mm (4 mm optional), interchangeable with existing double tube holder top-plate (metric and imperial)



CLOUTH DOCTOR-CLIP®

Safety clip for doctor holders

Stainless steel, with and without fixing chain, springless construction

- Wear and service free therefore longer lasting than traditional split-pins
- Reduced risk of injury
- Safe and easy handling
- Significant time saving compared to use of traditional split-pins



For products marked with this symbol you can find a product movie in the Clouth media library at www.clouth-group.com

Schaberhalter

Pressure Tubes + Accessories



CLOUTH-AIRFLEX® 100

Flexible pressure tubing, Basic: 100 % polyester, tubular weave
INNER LINING: high quality, oil and petrol resistant, fully synthetic rubber mixture
OUTER COVER: high quality nitrite-rubber silicone coated
Temperature resistance up to maximum 100°C
Operating pressure max. 6 bar

- Robust smooth red surface
- High abrasion resistance
- Weather-proof
- Rot-proof
- Ozone and UV stable
- Resists soiling



CLOUTH-AIRFLEX® 230

High temperature flexible pressure tubing
Basic: 100 % glass-silk, reinforced tubular weave
INNER LINING: special silicone
OUTER COVER: blue surface from silicone coated glass-silk
Temperature resistance up to maximum 230°C
Operating pressure max. 6 bar

- Good sliding properties
- High tear strength and high tear resistance
- High abrasion resistance
- Weather-proof
- Rot-proof
- Ozone and UV stable
- Resists soiling



CLOUTH-AIRFLEX® C101

Vibrastop-profiled sleeve, special silicone, neon green
Temperature resistance up to maximum 200°C

- Good sliding properties
- High tear strength and high tear resistance
- High abrasion resistance
- Weather-proof
- Rot-proof
- Resists soiling



CLOUTH® DOCTOR-TUBE

A special device to create vacuum in the air loading tubes of (double) tube doctor holders

Hose connector with quick fit coupling for the pressure hose

Hose connector with quick fit coupling for the external air supply

Robust PE-case with handle

Side vent

- Makes doctor loading tube changes quick and simple by creating a vacuum in the tube
- External pressurised air supply points can be used
- Easier maintenance of the doctor holder
- Increased efficiency of the doctor holder
- Simple to operate



AIRFLEX® 230 ADAPTER-KIT

High temperature flexible pressure tubing adapter-kit

High quality construction in stainless steel and brass

COMPONENTS:

2 connection couplings

Choice of 2 pneumatic couplings

4 special jubilee clips made from stainless steel

- Easy and simple change of existing double tube holder fittings to use high-temperature pressure tubes
- Airtight connection construction

Accessories / Occupational Safety

In addition to doctor blades, coater blades, creping blades, holder systems and special solutions, we, as well, offer to our customers an assortment of especially developed safety accessories that not only increase machine efficiency but also user safety. We do this for the reason that we recognised

early how important it is to keep safety as high as possible when handling these products. For the development of such suitable apparatuses and aids, we use our experience from countless installations.



Our full range of innovative accessories help with the maintenance, inspection and adjustment of doctor systems and complete the product portfolio of Clouth.

Our high quality storage systems also increase the material availability and protect the doctor blades against damages, which may occur with conventional storage methods.



Accessories / Occupational Safety

Storage



CLOUTH DOCTOR-STORE® 5

Doctor Blade storage system

Powder coated steel

5 storing positions for single octagonal boxes (contents 1-10 blades)

Handle and lockable front bar

4 steerable wheels, 2 of which are lockable

Weight: 36 kg

Special design on request

- Easy to use as it provides immediate overview of blade stocks
- Blade changes can be made by 1 person
- Reduces space requirement compared with blade racks
- Reduced risk of injury
- Minimises risk of incorrect blade installation
- Easy storage and distribution of blades at the machine
- Stores blades for several positions simultaneously
- Ideally suited for our (disposable) CLOUTH DOCTOR-BOX® which offers further advantages:
 - Built-in inventory system
 - No unpacking of blades until installation
 - Easy extraction of doctor blades
 - Reduced risk of damage to new blades
 - 4 different coiling-systems available



CLOUTH DOCTOR-STORE® 10

Doctor Blade storage system

Powder coated steel

10 storing positions for single octagonal boxes (contents 1-10 blades)

2 lockable plexiglas-doors

6 steerable wheels, 2 of which are lockable

Weight: 130 kg

Special design on request

- Easy to use as it provides immediate overview of blade stocks
- Reduces space requirement compared with blade racks
- Reduced risk of injury
- Minimises risk of incorrect blade installation
- Ideally suited for our (disposable) CLOUTH DOCTOR-BOX® which offers further advantages:
 - Built-in inventory system
 - No unpacking of blades until installation
 - Easy extraction of doctor blades
 - Reduced risk of damage to new blades
 - 4 different coiling-systems available



CLOUTH DOCTOR-STORE® 20

Doctor Blade storage system

Powder coated steel

20 storing positions for single octagonal boxes (contents 1-10 blades)

4 lockable plexiglas-doors

6 steerable wheels, 2 of which are lockable

Weight: 250 kg

Special design on request

- Easy to use as it provides immediate overview of blade stocks
- Reduces space requirement compared with blade racks
- Reduced risk of injury
- Minimises risk of incorrect blade installation
- Ideally suited for our (disposable) CLOUTH DOCTOR-BOX® which offers further advantages:
 - Built-in inventory system
 - No unpacking of blades until installation
 - Easy extraction of doctor blades
 - Reduced risk of damage to new blades
 - 4 different coiling-systems available



CLOUTH DOCTOR-BOX® (disposable)

Single-use packaging for CLOUTH DOCTOR-STORE® System

Coated box

Perforated opening slot

- Reduced risk of damage to new blades
- No unpacking of blades until installation
- Easy extraction of doctor blades
- Built-in inventory system
- 4 different coiling-systems
- Reduced risk of injury

Accessories/ Occupational Safety

Easy Handling



CLOUTH DOCTOR-PULL®

The original doctor blade extraction tool

Steel (VA)
Ergonomic design
2 specially hardened gripper wheels to grip the doctor blade
Different gripper designs according to blade thickness of 0.8-6.0 mm
Available in standard length of 0.25 m / 0.5 m / 1.0 m
With and without slide hammer
Weight: 500 g - 2950 g
Special design (stainless steel/aluminium)
Special lengths available

- Reduced risk of injury
- Easy blade extraction
- Safe blade handling



CLOUTH-POWER-PULL®

The latest doctor blade extraction tool

Powder coated steel
Ergonomic design
4 specially hardened lockable gripper wheels for the most secure grip on the doctor blade
Special gripper assembly made from aircraft aluminium to withstand high forces
Lockable eye-bolt to lock gripper wheels
Available in standard length of 0.6 m / 0.9 m / 1.2 m
With slide hammer
Weight: 2950 g - 3150 g
Special lengths available

- Reduced risk of injury
- Safe blade handling
- Increased pulling-power through use of 4 gripper wheels so ideal for removal of sticking doctor blades
- Very easy blade extraction
- Easy exchange of gripper wheels



CLOUTH SUPER-PULL®

The doctor blade tool for difficult applications
Suitable for metal or synthetic blades up to 3 mm thickness

Steel (VA), lacquered
Ergonomic design
2 specially hardened gripper wheels for the most secure grip on doctor blades up to 3 mm thickness
With eye-bolt
Weight: 900 g

- Reduced risk of injury
- Easy and simple extraction of sticking doctor blades
- Safe blade handling



CLOUTH DOCTOR-PULL HS-1®

Doctor blade extraction tool

Steel (VA)

Ergonomic design

1 specially hardened gripper wheel and gripper plate to grip the doctor blade

Especially for doctor blades in doctor holders with narrow access

Available in standard length of 0.25 m or 0.5 m

With and without slide hammer

Weight: 500 g - 2950 g

Special design (stainless steel/aluminium)

Special lengths available

- Reduced risk of injury
- Easy blade extraction
- Safe blade handling



CLOUTH BELT-CLIP®

Self-locking clamp for secure and simple installation and removal of synthetic belts

Steel (VA)

Ergonomic design

2 gripper wheels

With eye-bolt

Weight: 900 g

- Reduced risk of injury
- Safe handling
- Easy application and removal
- Secure grip, even on oily belts



CLOUTH FELT-CLIP®

Self-locking clamp for secure and simple installation of felts and wires

Aluminium, rubber-covered gripping plates

Ergonomic design

With choice of handle or eye-bolt

Weight: 700 g - 1200 g

Different sizes available

Special versions available

- Reduced risk of injury
- Time saving during wire and felt changes
- Safe handling
- Easy application and removal



For products marked with this symbol you can find a product movie in the Clouth media library at www.clouth-group.com

Accessories/ Occupational Safety

Easy Handling



CLOUTH PORTABLE-DOCTOR-CHANGE®

Portable device for doctor blade changes while the machine is running

All the components are made of high-quality, temperature-resistant stainless steel or aluminium

Robust transport trolley with storage tray and appropriate safety accessories*

- **Easy change and quick cleaning**

Due to a sophisticated design and construction, the doctor blade can be changed or removed and re-installed while the machine is running.

- **Highly efficient**

Mounted on a transport cart, the CLOUTH PORTABLE-DOCTOR-CHANGE® can be aligned directly with the protruding doctor blade at the height and angle adjustment of the holder.

For application areas that are difficult to access, the CLOUTH PORTABLE-DOCTOR-CHANGE® can be easily attached to a bracket* individually adapted to the machine through its guide pins.

- **Comfortable to use**

The 4-metre supply line of the pneumatic, intuitive two-hand operation ensures a safe distance to the working area. It can also be secured against unintentional restarting by means of the emergency stop button.

- **Easy operation**

Practical transport trolley with device-tray and safety accessories. This ensures that all materials are easily to hand and ready for use at any time. The control box with pressure indicator has an integrated maintenance unit.

The CLOUTH DOCTOR-CLEAN® CPDC from our range of accessories can be used to quickly and reliably clean the guide rail along its entire length.

CLOUTH DOCTOR- CLEAN® CPDC

Accessories for the CLOUTH PORTABLE-DOCTOR-CHANGE®

For a thorough cleaning of the guide rail

*A connection to the switch box is possible.

- air nozzles that thoroughly loosen impurities from the guide rail
- operation via the remote control (operating bottle) of the CLOUTH PORTABLE-DOCTOR-CHANGE®

* Depending on its configuration, the CLOUTH PORTABLE-DOCTOR-CHANGE® may vary in equipment and technical details. Please note the scope of delivery and product description. Accessories only included if listed in the scope of delivery.



For products marked with this symbol you can find a product movie in the Clouth media library at www.clouth-group.com

Measuring Devices



CLOUTH®-DOCTOR BLADE ADJUSTING GAUGE

Blade Adjusting gauge

Angle measuring tool made from plastic
For cylinder and roll diameters from 250 mm to > 2000 mm
and tangential angles from 10° to 40°
Weight: 30 g

- Easy handling
- Light-weight
- Compact design allows for measurement in difficult and tight positions
- Fast/exact measuring results



CLOUTH DOCTOR-GAUGE®

Digital angle measuring tool

For cylinder and roll diameters from 300 mm to > 2000 mm
and tangential angles from $\pm 180^\circ$

- Easy handling through one handed operation and three button operation
- Fast/exact measuring results
- Compact design allows for measurement in difficult and tight positions



CLOUTH DOCTOR-CHECK®

A special device to set and check any pneumatic (double) tube holders

Integrated manometer
Pressure regulator
Check valves
Switch with integrated exhaust
Hose connectors with quick-fit adaptor

- Custom-designed tube connections possible; no modifications are necessary to existing equipment
- Doctor holders can be loaded and unloaded independently of machine control system
- Enables adjustment of air-loaded doctor systems
- Improvement of doctoring efficiency
- Reduced operational controls to ensure easy handling

Accessories/ Occupational Safety

Cleaning



CLOUTH DOCTOR-CLEAN® II

Doctor holder cleaning system with cleaning head mounted on a special support blade featuring specially adapted tube

Special rivetting for use in left- or right-hand holder positions

Temperature resistance up to 150°C

Good chemical resistance

Can be connected to all common high pressure cleaning equipment by use of adapter

- Makes blade changes easy
- Reduced risk of injury
- Improved efficiency
- Exact blade contact equalises pressure across roll surface
- Reduces damage to roll surfaces
- Suitable for all major doctor holders



CLOUTH DOCTOR-CLEAN® II Plus

Doctor holder cleaning system with cleaning head mounted on a special support blade featuring specially adapted tube

Additional cleaning nozzle in front of the cleaning head

Special rivetting for use in left- or right-hand holder positions

Temperature resistance up to 150°C

Good chemical resistance

Can be connected to all common high pressure cleaning equipment by use of adapter

Special design available

- Makes blade changes easy
- Reduced risk of injury
- Improved efficiency
- Exact blade contact equalizes pressure across roll surface
- Reduces damage to roll surfaces
- Suitable for all major doctor holders



CLOUTH®-SOFT

Cleaning-Blade made of spring-steel with non-woven fabric strip.

Fibre fleece available in the grit sizes: super fine, very fine, medium, and extra coarse.



For products marked with this symbol you can find a product movie in the Clouth media library at www.clouth-group.com

Disposal



CLOUTH DOCTOR-CUT®

Cutting machine for the disposal of used doctor blades

Powder coated steel

High quality specially hardened steel cutting knives (exchangeable)

Waste container (optional), 380 V, weight: 280 kg

- For synthetic and metal blades
- Minimises risk of injury when disposing of used blades
- No removal of rivets necessary
- Simple and easy to use
- Compact and cost-effective blade disposal
- Cuts blade 250 mm length for safe disposal
- Cutting rate: approx. 5000 mm in 10 sec.

Technical Service

Our service experts make sure that the cleaning of cylinder and roll surfaces in industry machines is optimised.

To do so, they check whether all parameters for a fault-free operation, such as the working angle, pressure, parallelism, etc. are correctly set on-site. We place a great deal of im-

portance in the specifications of the correct blades in every position and the training of the operators.

Conversion and installation of doctor holders or completely new designs are also part of our work scope, as are doctor blade storage or recycling systems.



Complete machine audit

- Survey of existing holders and doctor blades
- Inspection of blade angles and holder alignment to ensure parallel set-up
- Inspection of doctor bearings, oscillation units and other mechanical components
- Detailed reports of survey findings and recommendations
- Detailed proposal to improve doctoring performance

Installation

- Installation of doctor holders, doctor backs and oscillation systems

Inspection and adjusting of doctor holders

- Angle, pressure and correct parallel installation
- Contamination
- Damage

Doctor holder cleaning

- Doctor holder cleaning with a CLOUTH DOCTOR-CLEAN® to provide improved ease and safety of blade changes

Service measurement

- Service measurement of used blades providing a detailed report and proposals to improve doctoring performance

Overhaul

- Complete overhauls and revision of production plants

CLOUTH HiSENSE® Doctor Blade Measurement

Precisely determine the optimum doctor blade setting

- Comprehensive measurement of contact pressure AND doctor blade angle with clear advice on how to improve doctoring
- Preparation of a detailed report with all data, measured values, and recommendations
- Longer service life of doctor blades and roll covers due to evenly adjusted contact pressure
- Universally applicable measuring blade separately from doctor blade and holder type
- Proven know-how from a single source: the CLOUTH HiSENSE® measuring blade, measurement, reporting, and optimization

Technical Service

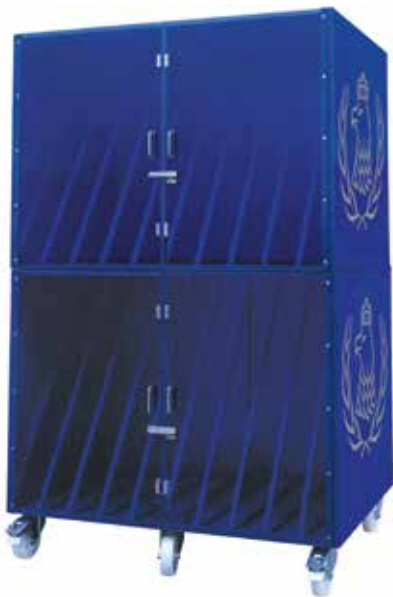


Shelving system

Shelving system – with Full Service

Advantages:

- Setup and initial stocking
- Signage/individual labelling with additional information possible
- Continuous control of inventories and stocks
- Automatic subsequent delivery of used doctor blades
- Secure stock of doctor blades
- Clear storage system
- Reduced transport costs
- Reduced workload for machine operators
- Storage management and stock responsibly including permanent inventory by Joh. Clouth technical service
- Annual inspection of the stock turnover rate of blades and adaptation of the stocks to actual use
- Annual doctor blade audit
- Increased occupational safety through safe handling of doctor blades
- Doctor blades are the property of your company



Consignment stock

Consignment stock without Full Service

- Setup and initial stocking
- Signage/individual labelling with additional information possible
- Continuous control of inventories and stocks
- Clear storage system
- Reduced transport costs
- An employee of Joh. Clouth representative can carry out the annual inventory
- Annual inspection of the stock turnover rate of blades and adaptation of the stocks to actual use
- Annual doctor blade audit
- Increased occupational safety through safe handling of doctor blades

Full-Service optional

- Continuous control of inventories and stocks
- Automatic subsequent delivery of used doctor blades
- Reduced workload for machine operators
- Storage management and stock responsibly including permanent inventory by Joh. Clouth technical service

System Designs

We specialise in the cleaning and special treatment of rolls and cylinder surfaces.

We help to optimise production processes by replacing complete components for doctoring.

The suitability of our products and services is assured by our many years of experience and precise production techniques combined with excellent detailed knowledge.

On-site measurements and accurate production procedures guarantee the greatest possible precision fit during assembly.



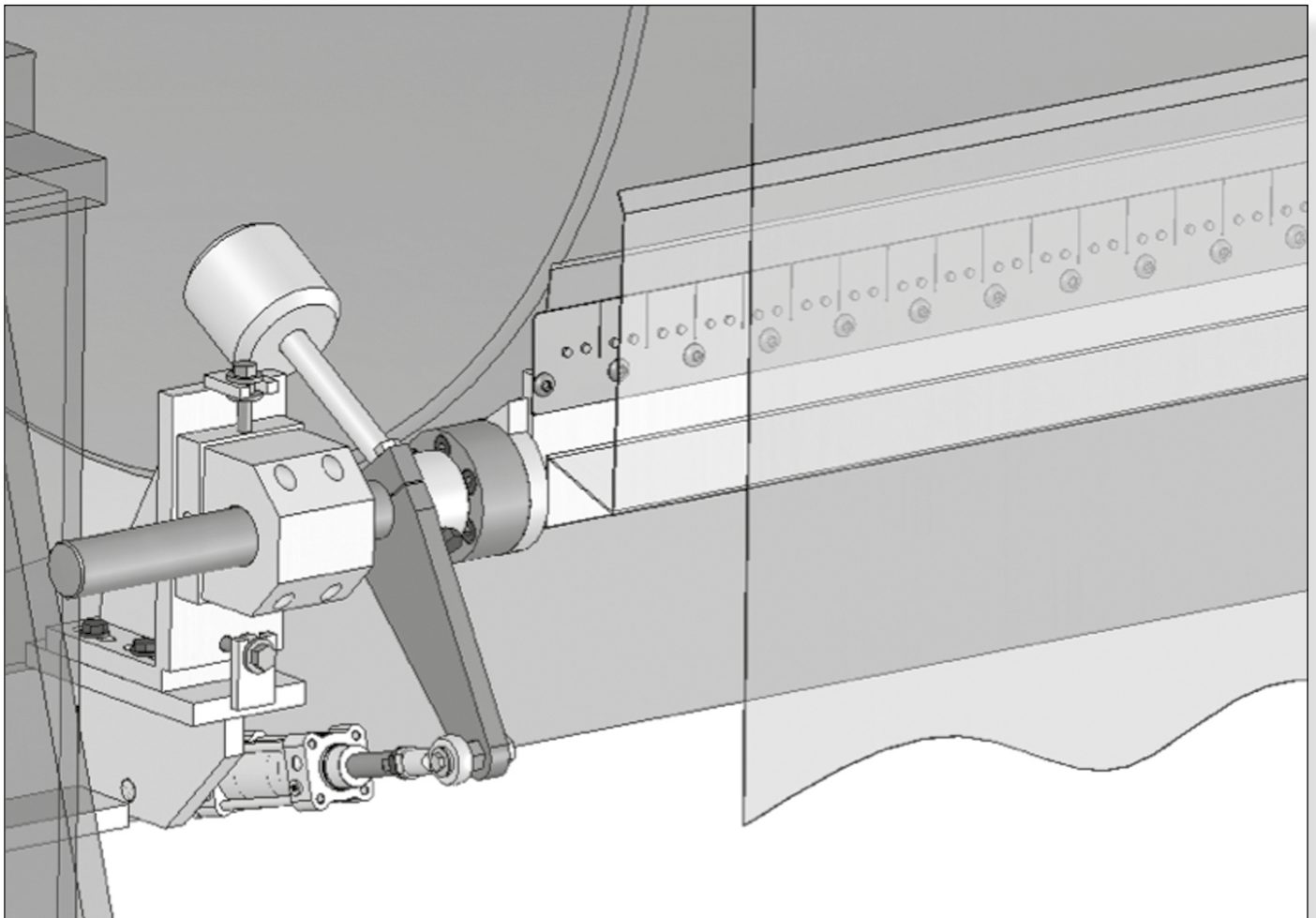
Specialist Machine Constructions

We cover a wide range of machine and system technology thanks to our specialist designs.

Special units

- Complete design and construction of special machines to customer specification
- Design and manufacture of chemical dosing systems and electrical and mechanical units
- Development of doctor blade systems and specialist machines for your individual requirements

Replacement parts and components are also available to precise specifications for more unusual machine types.



One innovation of many – Creping Blades System GALENO



Tissue-Production without vibrations

The heart of the tissue production is the Yankee cylinder and the biggest danger for its lifetime are uncontrolled blade vibrations. In the worst case they lead to chatter marks in the Yankee surface.

The new GALENO creping blade system stops vibrations at the creping blade – and thus protects the cylinder surface from damage.

Our holistic approach

As we understand the challenges of tissue making, we do not only focus on blade deliveries. We look at the whole production process research the causes of impairments.

The GALENO prevents the creping blade vibrating. This is achieved as the creping blade is held inside the holder and fixed using a clamp hose to prevent transmission of vibration. A further damping element at the upper end of the holder prevents vibration along the entire length of the creping blade.

A great feature of the GALENO is the option to adjust the operating angle during running, without having to stop the machine or change blades. An integrated water circuit prevents thermal deflection of the doctor beam, as it effectively counteracts the large differences in temperature between the Yankee surface and the environment.

One solution, many advantages

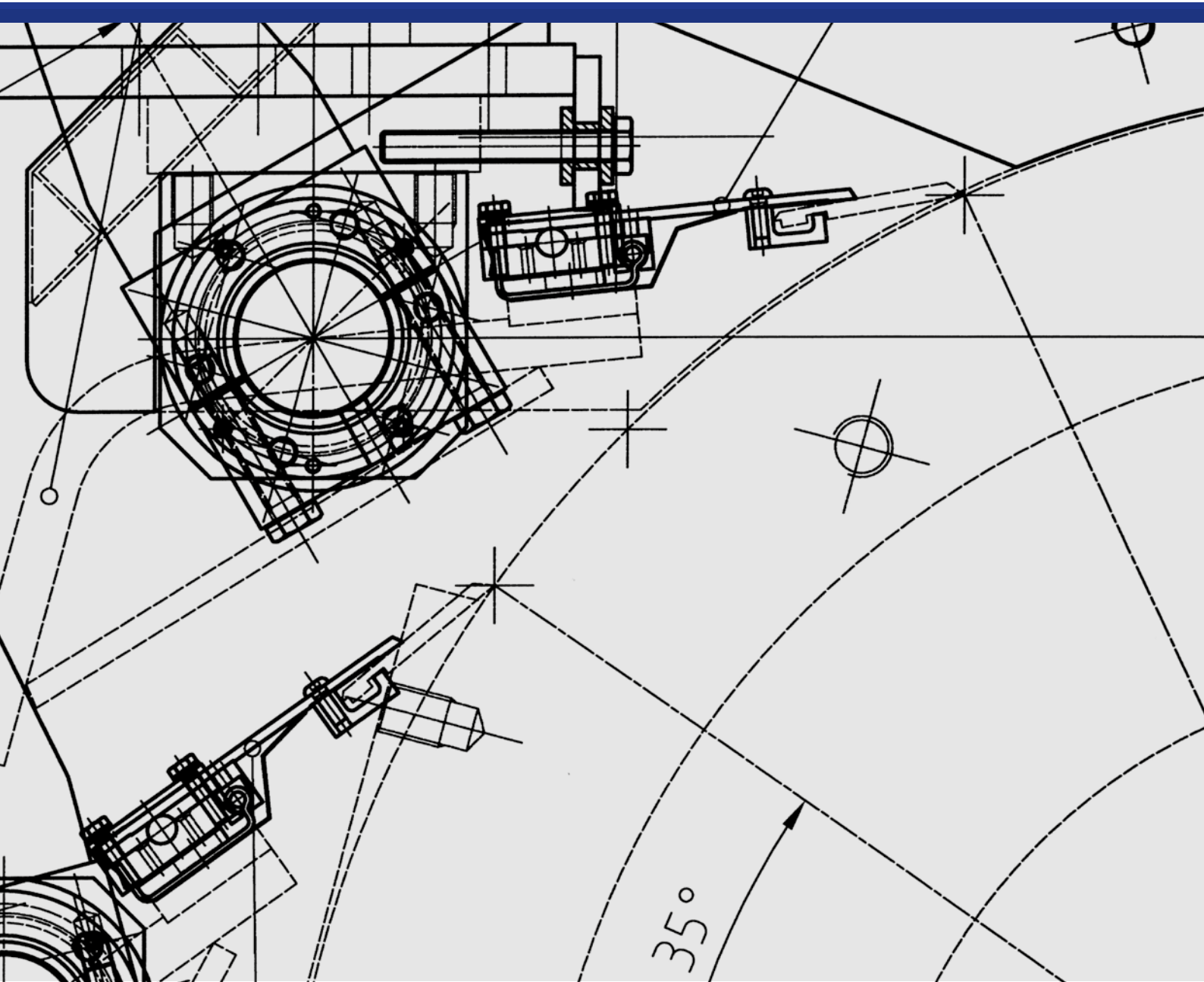
- **durable:** prevent chattermarks and expensive Yankee regrinds
- **cost efficient:** low-maintenance creping technology
- **raise productivity:** minimise machine downtime
- **flexible:** adapt the level of the Galeno doctor system automation to your requirements

Do you need special solutions for special requirements?

Contact our colleagues via: sales@clouth-group.com



For products marked with this symbol you can find a product movie in the Clouth media library at www.clouth-group.com



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