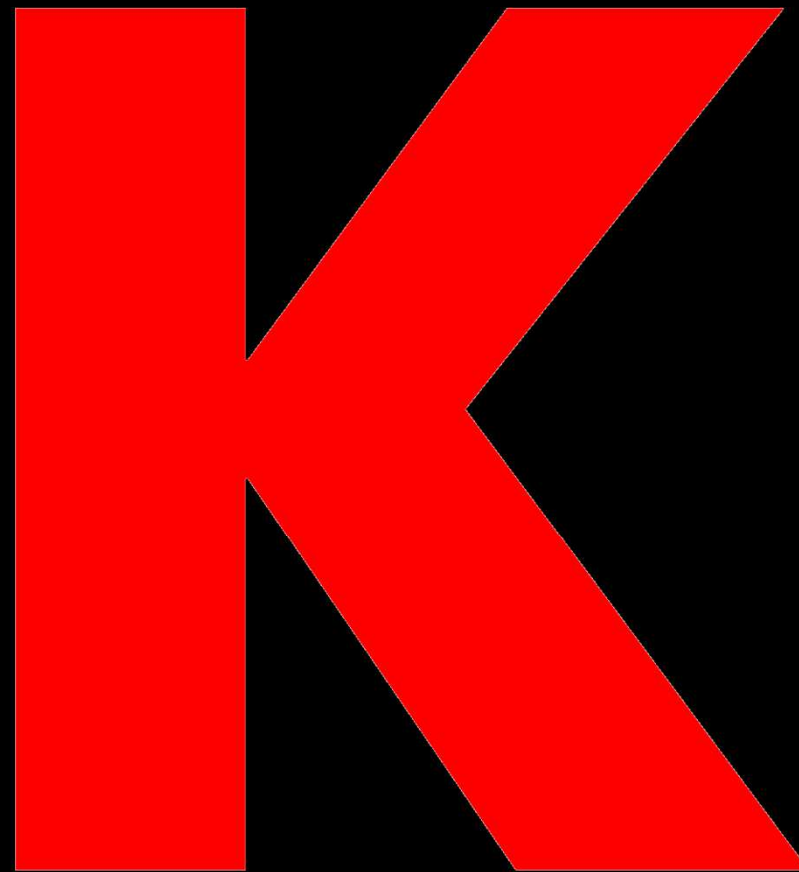


HERBORN
BREITENBACH



KIESELSTEIN[®]

WIRE SOLUTIONS



Head Office:

Erzbergerstr. 3
09116 Chemnitz, Germany

Phone: +49 371 9104-1 00
Fax: +49 371 9104-105

info@kieselstein.com
www.kieselstein.com



KIESELSTEIN
International GmbH

Erzbergerstraße 3
09116 Chemnitz
Germany

Phone: +49 (0) 371 91 04 100
Fax: +49 (0) 371 91 04 105
E-Mail: info@kieselstein.com
Internet: www.kieselstein.com

HERBORN
BREITENBACH



1863 Foundation of iron foundry and machine workshop Breitenbach in Unna near Dortmund

1905 Foundation of KRATOS-Werke in Chemnitz/Mittweida

1995 Creation of Herborn+Breitenbach-Group with branches in Herborn, Unna and Chemnitz

2002 Foundation of KIESELSTEIN GmbH Chemnitz

KIESELSTEIN GmbH buys the product ranges of Herborn+Breitenbach, SKET Drahtziehmaschinenwerk Gröna and others

2004 Foundation of KIESELSTEIN International GmbH opening of the inhouse technology center for shaving and draw-peeling (now **k.lab**)

2013 KIESELSTEIN International GmbH acquires business assets of KIESELSTEIN GmbH including know-how, existing trademark rights and patents

2017 Increase of capacity in **k.lab** with set-up of testing line for small wires (i.e. welding wire)

2018 New developed app for the support of production **k.connect** went online

2019 Set-up of an hot-drawing testing line in the **k.lab**



**HERBORN
BREITENBACH** 

SKET DRAHT-
ZIEHMASCHINENWERK
GRÖNA GMBH

 **MALMEDIE**
Maschinenfabrik GmbH
Düsseldorf



k.lab

k.connect

k.fit



KIESELSTEIN
International GmbH

Erzbergerstraße 3
09116 Chemnitz
Germany

Phone: +49 (0) 371 91 04 100
Fax: +49 (0) 371 91 04 105
E-Mail: info@kieselstein.com
Internet: www.kieselstein.com

**HERBORN
BREITENBACH** 



KIESELSTEIN
International GmbH

Erzbergerstraße 3
09116 Chemnitz
Germany

Phone: +49 (0) 371 91 04 100
Fax: +49 (0) 371 91 04 105
E-Mail: info@kieselstein.com
Internet: www.kieselstein.com

HERBORN
BREITENBACH





Suzuki Garphyttan



REFERENCES



EINEN SCHRITT VORAUSS.



KIESELSTEIN International GmbH

Erzbergerstraße 3
09116 Chemnitz
Germany

Phone: +49 (0) 371 91 04 100
Fax: +49 (0) 371 91 04 105
E-Mail: info@kieselstein.com
Internet: www.kieselstein.com

HERBORN BREITENBACH



COMPETENCIES

TECHNOLOGY

Equipment for demanding tasks in the wire industry at a high level of quality and efficiency

Trolley wire for trains and trams

Welding wire for additive manufacturing

High quality precious metal wire

Aluminium wire for aerospace

Cold heading wire

High quality magnet wire

Low carbon wire for screens and other applications

Wire for medical application

Spring wire for suspensions

SERVICE

Support for improving your wire production process giving you the leading edge over your competitors

k.lab

Green Commissioning

k.connect

Project Management

k.fit



KIESELSTEIN
International GmbH

Erzbergerstraße 3
09116 Chemnitz
Germany

Phone: +49 (0) 371 91 04 100
Fax: +49 (0) 371 91 04 105
E-Mail: info@kieselstein.com
Internet: www.kieselstein.com

**HERBORN
BREITENBACH**



TECHNOLOGY – Reference Projects

Heavy Single Drawing Blocks



Advantages

- High level of automation for easy operability, operational safety and minimum labour in the production of large diameter wire
- The large diameter range offers a high production variability
- Driven press-on rolls avoid the wire to slip which protects the quality of the wire surface and increases the product quality
- Complete line will be provided with online and offline pointing as well as different pay-off and take-up options
- Fully automatic infeed operation for optimal ergonomics and a maximum of safety

Technical Parameters

Size of capstan	500 – 1.250 mm
Inlet wire diameter	5.5 – 50.0 mm
Max. drawing speed	240 m/min



KIESELSTEIN
International GmbH

Erzbergerstraße 3
09116 Chemnitz
Germany

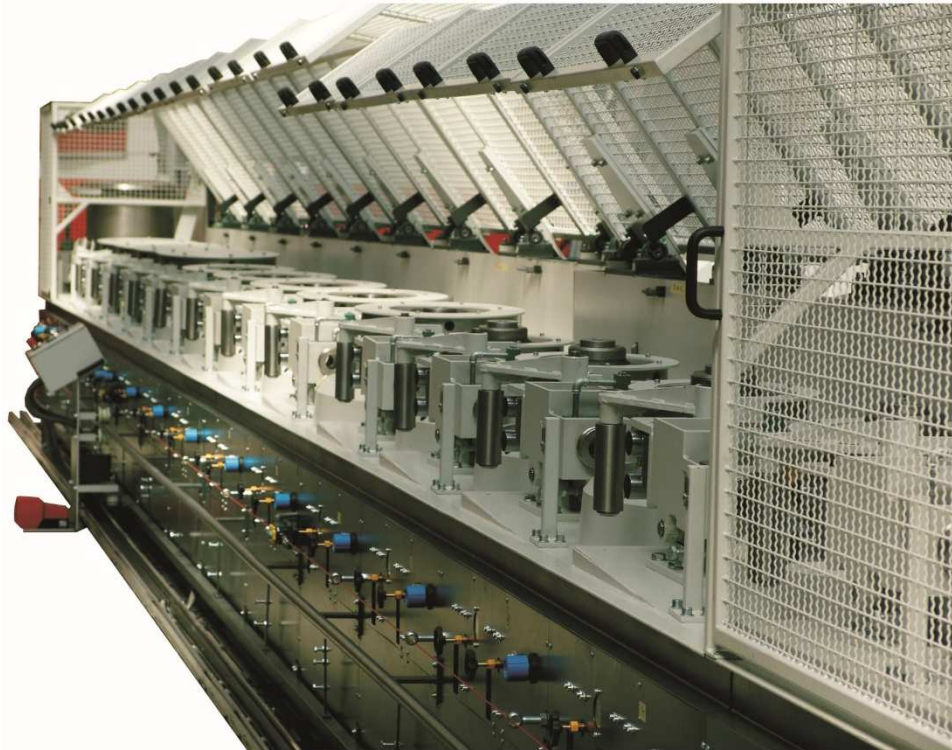
Phone: +49 (0) 371 91 04 100
Fax: +49 (0) 371 91 04 105
E-Mail: info@kieselstein.com
Internet: www.kieselstein.com

HERBORN
BREITENBACH



TECHNOLOGY – Reference Projects

Straight Line Drawing Machines



Advantages

- Flexible machine design with state-of-the-art control system and electric equipment
- System of back-pull tension control ensures the highest quality of the drawn wire and avoids surface defects
- Modular machine design for optimal adaption to the wire drawing program
- High efficient cooling of the capstan and the drawing die holder
- Drawing speed up to 50 m/s
- Full lines as turn-key projects can be offered
- Additional devices can be integrated

Technical Parameters

Drawing speed	Max. 50.00 m/s
Capstan diameter	300 – 1200 mm
Inlet wire diameter	5.50 – 18.00 mm



KIESELSTEIN
International GmbH

Erzbergerstraße 3
09116 Chemnitz
Germany

Phone: +49 (0) 371 91 04 100
Fax: +49 (0) 371 91 04 105
E-Mail: info@kieselstein.com
Internet: www.kieselstein.com

HERBORN
BREITENBACH



TECHNOLOGY – Reference Projects

Zero-Slip Drawing Machines for Non-Ferrous wire



Advantages

- Torsion-free wire guiding
- Zero-Slip drawing by individual drives and tension control
- Compact design for maximum flexibility
- Intensive cooling with indirect cooling of the capstan and the drawing die as well as direct cooling of the capstan by spraying system
- Maintenance-friendly by central lubrication system
- Shaving will be integrated to improve the wire surface and production quality

Technical Parameters

Inlet diameter range	3.00 – 12.00 mm
Outlet diameter range	0.60 – 8.00 mm
Wire materials	Copper and copper alloy, aluminium and aluminium alloy, super conductors



KIESELSTEIN
International GmbH

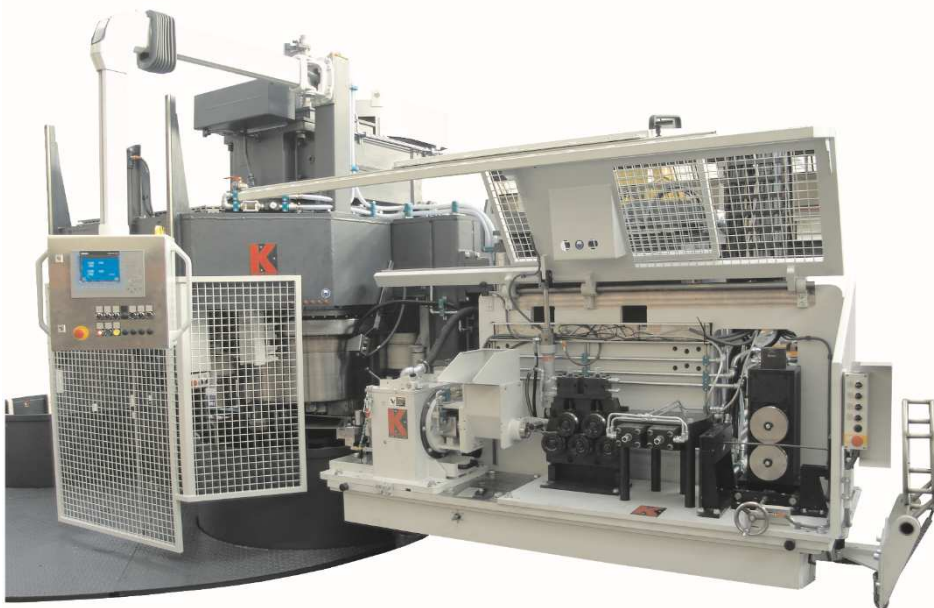
Erzbergerstraße 3
09116 Chemnitz
Germany

Phone: +49 (0) 371 91 04 100
Fax: +49 (0) 371 91 04 105
E-Mail: info@kieselstein.com
Internet: www.kieselstein.com



TECHNOLOGY – Reference Projects

Shaving Machines for Ferrous Metals



Advantages

- Single wire shaving machine for low and high carbon, stainless steel and titanium wire as well as alloys
- Operation from Coil to Coil
- Full automatic pulling-in dog, hydraulically activated straightening unit, feeding system for less downtime
- Special designed capstan with shedding ring and integrated high efficient cooling
- Double take-up increase the productivity
- Line with integrated pointing concept, coolant system, chip disposal and integrated process monitoring system

Technical Parameters

Inlet wire diameter	Max. 25.00 mm
Cutting Speed	Max. 3.00 m/s
Cutting depth (per side)	0.02 mm – 0.50 mm



KIESELSTEIN
International GmbH

Erzbergerstraße 3
09116 Chemnitz
Germany

Phone: +49 (0) 371 91 04 100
Fax: +49 (0) 371 91 04 105
E-Mail: info@kieselstein.com
Internet: www.kieselstein.com



TECHNOLOGY – Reference Projects

Shaving Machines for Non-Ferrous Metals



Advantages

- Compact design of the machines allows the integration into existing lines
- Stand-alone coil to coil, coil to spool or spool to spool lines available
- Full lines can be offered with different kinds of pay-off as well as take-up systems
- Double shaving as an option to increase the removal of material

Technical Parameters

Inlet wire diameter	Max. 32.00 mm
Cutting Speed	Max. 10.00 m/s
Cutting depth (per side)	0.01 mm – 0.50 mm



KIESELSTEIN
International GmbH

Erzbergerstraße 3
09116 Chemnitz
Germany

Phone: +49 (0) 371 91 04 100
Fax: +49 (0) 371 91 04 105
E-Mail: info@kieselstein.com
Internet: www.kieselstein.com



TECHNOLOGY – Reference Projects

Shaving Units for Large Range of applications



Advantages

- Large range of units
- Design for all kinds of wire materials
- Individual design for special requirements
- Double shaving unit for maximum cutting depth
- New design for non-ferrous with minimum distance for pointing and very compact design for a simple integration

Technical Parameters

Inlet wire diameter	Max. 32.00 mm
Outlet wire diameter	Min. 0.80 mm
Cutting depth (per side)	0.01 mm – 0.50 mm



KIESELSTEIN
International GmbH

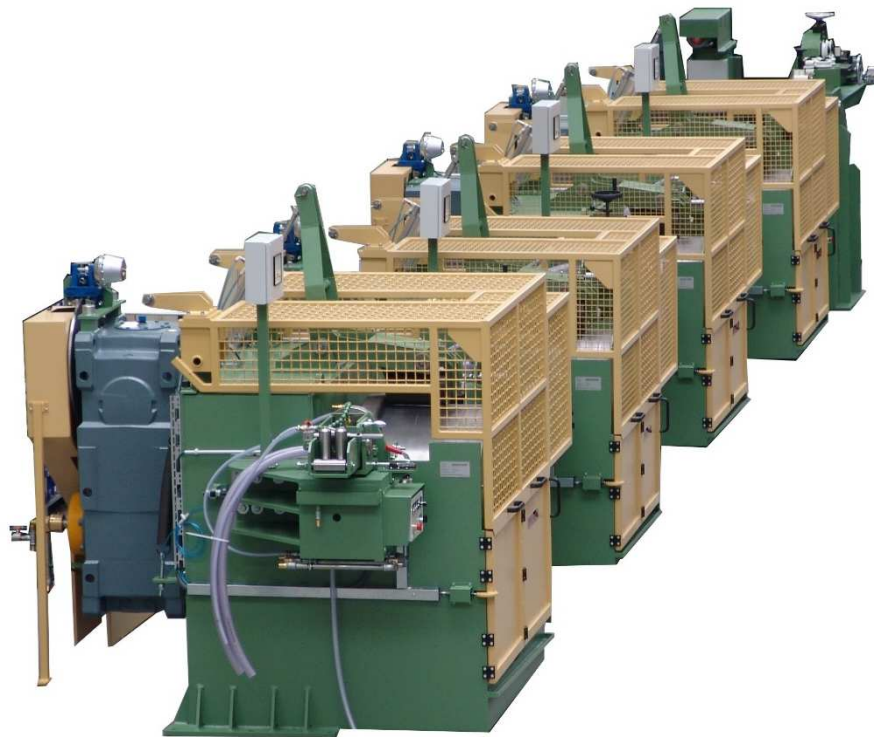
Erzbergerstraße 3
09116 Chemnitz
Germany

Phone: +49 (0) 371 91 04 100
Fax: +49 (0) 371 91 04 105
E-Mail: info@kieselstein.com
Internet: www.kieselstein.com



TECHNOLOGY – Reference Projects

Trolley Wire Drawing Machines



Advantages

- High Speed line for maximum productivity
- Rock solid machine design for high reliability and stable product quality
- Modular machine concept with a large range of sizes
- Integrated wire shaving unit increase the product quality
- Optimized wire handling based extensive experience

Technical Parameters

Inlet wire diameter	10.00 - 40.00 mm
Finished wire product	50 – 200 mm ²
Drawing speed	Up to 200 m/min



KIESELSTEIN
International GmbH

Erzbergerstraße 3
09116 Chemnitz
Germany

Phone: +49 (0) 371 91 04 100
Fax: +49 (0) 371 91 04 105
E-Mail: info@kieselstein.com
Internet: www.kieselstein.com

HERBORN
BREITENBACH



TECHNOLOGY – Reference Projects

Hot Wire Drawing Equipment



Advantages

- Reduction of process steps by large cross-section reduction is capable by hot-drawing
- No hardening of the wire means no annealing between the drawing operations
- Processing of extreme brittle materials
- Prevention of unfavorable microstructure
- Efficient, small investment, process integration is possible

Technical Parameters

Diameter Range	0.008 – 12.0 mm
Temperature	Up to 1000 °C
Number of drafts	1 – 8



KIESELSTEIN
International GmbH

Erzbergerstraße 3
09116 Chemnitz
Germany

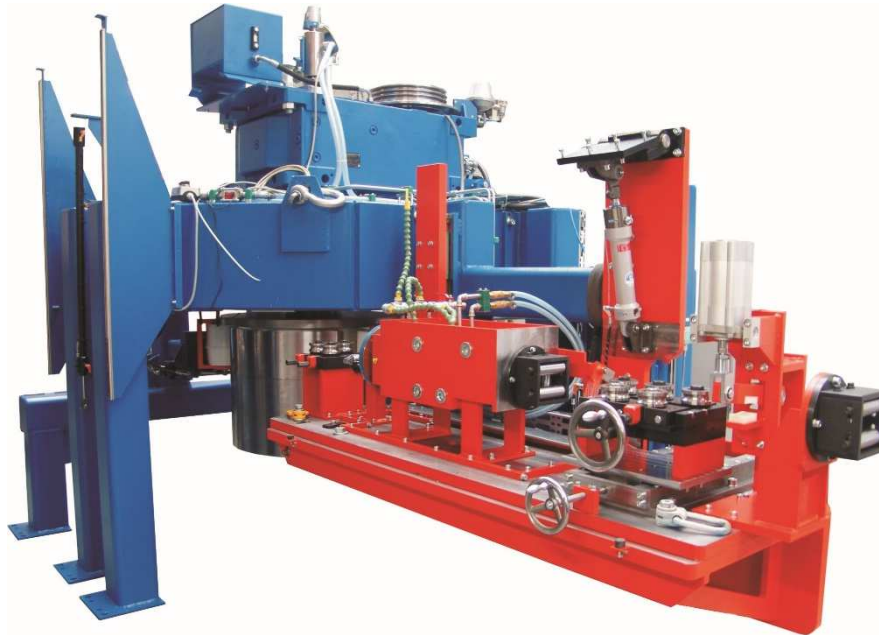
Phone: +49 (0) 371 91 04 100
Fax: +49 (0) 371 91 04 105
E-Mail: info@kieselstein.com
Internet: www.kieselstein.com

HERBORN
BREITENBACH



TECHNOLOGY – Reference Projects

Down Coiler



Advantages

- Space saving alternative to wire drawing machine
- High level of productivity due to double take-up which enables to continue drawing during unloading a finished coil
- Full automatic wire drawing line with pay-off system in a special design
- Automatic production without operator on a request
- Advancing unit and automatic pull-in dog for a high degree of automation for minimum labour

Technical Parameters

Diameter of capstan	900 mm
Inlet wire diameter	6.5 - 18.0 mm
Max. drawing speed	120 m/min



KIESELSTEIN
International GmbH

Erzbergerstraße 3
09116 Chemnitz
Germany

Phone: +49 (0) 371 91 04 100
Fax: +49 (0) 371 91 04 105
E-Mail: info@kieselstein.com
Internet: www.kieselstein.com



TECHNOLOGY – Further Reference Projects



No-Slip Fine Wire Drawing Machine



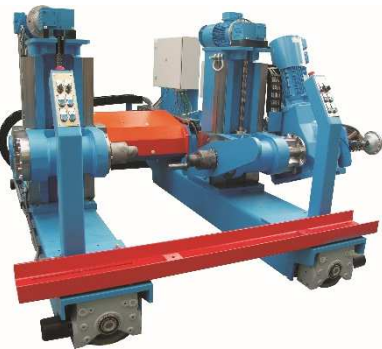
Wet Wire Drawing Machine



Compact Wire Drawing Machine



Vertical Coil Pay-off



Horizontal Spool Pay-off



Vertical Coiler



Rewinding Plant



Mesh Slitting Machine



KIESELSTEIN
International GmbH

Erzbergerstraße 3
09116 Chemnitz
Germany

Phone: +49 (0) 371 91 04 100
Fax: +49 (0) 371 91 04 105
E-Mail: info@kieselstein.com
Internet: www.kieselstein.com

HERBORN
BREITENBACH



TECHNOLOGY – Further Reference Projects



Horizontal Coil Pay-off



Bending Coiler



Horizontal Traversing Spooling machine



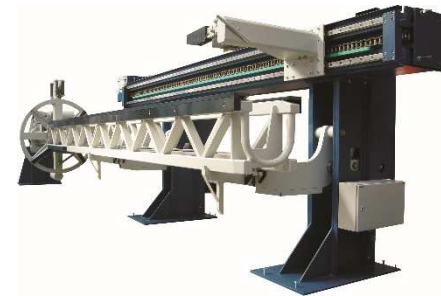
Horizontal Coil Pay-off for Aluminium



Pre-Drawing machine



Vertical Drawing block



Wire Rod pay-off with Flyer



Push Pointing machine



KIESELSTEIN
International GmbH

Erzbergerstraße 3
09116 Chemnitz
Germany

Phone: +49 (0) 371 91 04 100
Fax: +49 (0) 371 91 04 105
E-Mail: info@kieselstein.com
Internet: www.kieselstein.com

HERBORN
BREITENBACH



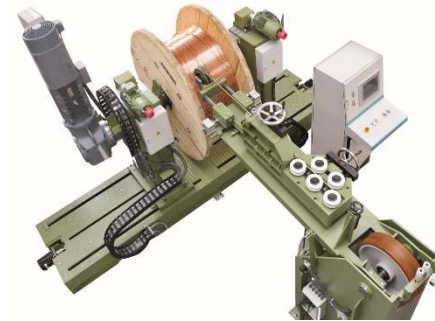
TECHNOLOGY – Further Reference Projects



Coil compactor



Eco-L Box



Horizontal traversing spooling machine



Vertical coiler with double take-up



Weaving machine for fishing net production



Feeding system for wire handling



Vertical spooling machine



Horizontal coiler



KIESELSTEIN
International GmbH

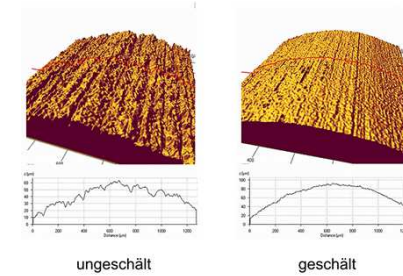
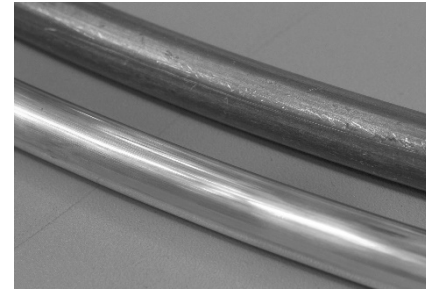
Erzbergerstraße 3
09116 Chemnitz
Germany

Phone: +49 (0) 371 91 04 100
Fax: +49 (0) 371 91 04 105
E-Mail: info@kieselstein.com
Internet: www.kieselstein.com

HERBORN
BREITENBACH



SERVICE – k.lab



- Several testing machines covering a wide range of wire diameters and materials
 - **Shaving up to 12.0 mm**
 - **Hot-drawing up to 8.0 mm**
- Testing of new technologies, tools and materials
- Trials in shaving, drawing or hot-drawing for sampling purposes
- Contract processing for small quantities

k.lab



KIESELSTEIN
International GmbH

Erzbergerstraße 3
09116 Chemnitz
Germany

Phone: +49 (0) 371 91 04 100
Fax: +49 (0) 371 91 04 105
E-Mail: info@kieselstein.com
Internet: www.kieselstein.com

**HERBORN
BREITENBACH**

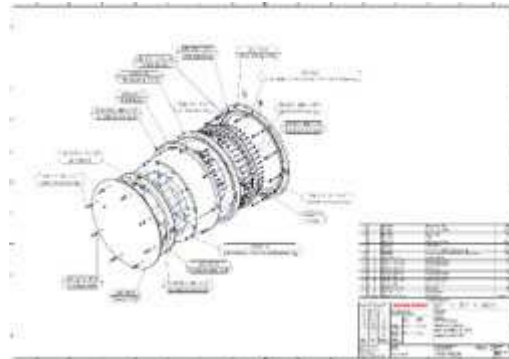


SERVICE – k.connect and k.connect2.0

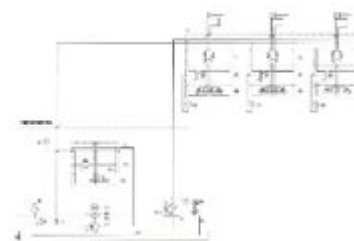


023 6F2
15015691

QR-code for identification



Quick and efficient enquiry and response



Complete documents available at any time



Digital parts data on demand



Safe authentication



Machine data accessible online by remote access at any time



View at drawings

k.connect



KIESELSTEIN
International GmbH

Erzbergerstraße 3
09116 Chemnitz
Germany

Phone: +49 (0) 371 91 04 100
Fax: +49 (0) 371 91 04 105
E-Mail: info@kieselstein.com
Internet: www.kieselstein.com

HERBORN
BREITENBACH



SERVICE – k.fit and k.fit+

We get your machine ready for the new decade!

Based on our considerable experience in the development of new plants, we are equally able to modernize your existing plants.

Our concept **k.fit** offers a phased modernization, to get your “**k.fitted**” machinery.



k.fit



KIESELSTEIN
International GmbH

Erzbergerstraße 3
09116 Chemnitz
Germany

Phone: +49 (0) 371 91 04 100
Fax: +49 (0) 371 91 04 105
E-Mail: info@kieselstein.com
Internet: www.kieselstein.com

HERBORN
BREITENBACH



SERVICE – k.fit and k.fit+

The way to be fit:

– Module "Analysis"

– Module "Concept"

– Module "Realisation"

– Module "Documentation / Certification"

– Module "Digitalisation"

k.fit



KIESELSTEIN
International GmbH

Erzbergerstraße 3
09116 Chemnitz
Germany

Phone: +49 (0) 371 91 04 100
Fax: +49 (0) 371 91 04 105
E-Mail: info@kieselstein.com
Internet: www.kieselstein.com

**HERBORN
BREITENBACH**



SERVICE – Service Enquiry Portal

Scan to link



or access at

[www.kieselstein.com/
spareparts](http://www.kieselstein.com/spareparts)

Short and easy tool to place spare parts and service enquiries

Quickly accessible by using a mobile device

Easy to fill by uploading pictures of machine label, spare parts and business card with contact details - No time consuming form-filling

No long term enquiry process through several departments - Directly linked to our service team replying within short notice (service@kieselstein.com)

Ersatzteilanfrage

Zur schnellen Bearbeitung Ihrer Anfrage benötigen wir weitere Angaben zu Ihrer Maschine und zum gewünschten Ersatzteil. Laden Sie Bilder hoch oder geben Sie die Daten in die vorgegebenen Felder ein.

Maschinenschild

Daten-Upload (Dateigröße max. 8 MB, Dateiformate: jpg, jpeg, png, pdf)

oder manuelle Eingabe der Daten

Konzeptionsnummer	Maschinennummer
<input type="text"/>	<input type="text"/>
Baujahr	Hersteller
<input type="text"/>	<input type="text"/>

Bauteil

Daten-Upload (Dateigröße max. 8 MB, Dateiformate: jpg, jpeg, png, pdf)

oder manuelle Eingabe der Daten

ET-Bezeichnung	Artikel-Nr
<input type="text"/>	<input type="text"/>

Um Ihnen ein Angebot zu unterbreiten, benötigen wir Ihre Kontaktdaten. Bitte senden Sie uns ein Foto Ihrer Visitenkarte oder füllen Sie die folgenden Felder aus. In jedem Fall benötigen wir die Eingabe Ihrer E-Mail-Adresse.

Kontaktdaten

Daten-Upload (Dateigröße max. 8 MB, Dateiformate: jpg, jpeg, png, pdf)

oder manuelle Eingabe der Daten



KIESELSTEIN
International GmbH

Erzbergerstraße 3
09116 Chemnitz
Germany

Phone: +49 (0) 371 91 04 100
Fax: +49 (0) 371 91 04 105
E-Mail: info@kieselstein.com
Internet: www.kieselstein.com

HERBORN
BREITENBACH




SERVICE – Green Commissioning


What means Commissioning for us?


The process of assuring that our supplied solution will fulfil your requirements regarding the quality, the productivity and all requirements. We driven to make your investment with us to an asset with a long-term sustainable value and a statement to your competition.

What makes it “Green”?

Green Commissioning is environment-friendly, saves natural resources and reduces CO2 emission. Green Commissioning is our answer for a sustainable future with a well individually engineered solutions for the challenges of our global partners and friends.

-  **the machine is designed for a plug-and-play installation:**
- no intervention of our service personnel on site necessary
 - installation can be done by the customer or local partners based on the guideline by us
 - this way of installation saves the customer time and cost

-  **the machine is designed for ready-to-play start-up:**
- internet access to the machine starts and finishes the commissioning
 - the customer can do the commissioning alone or with our remote service
 - fully digital twin of device at KIC allows us 24h-support

-  **not just upon request – it is a matter of course:**

The machine will be 100% tested in Chemnitz!



KIESELSTEIN
International GmbH

Erzbergerstraße 3
09116 Chemnitz
Germany

Phone: +49 (0) 371 91 04 100
Fax: +49 (0) 371 91 04 105
E-Mail: info@kieselstein.com
Internet: www.kieselstein.com

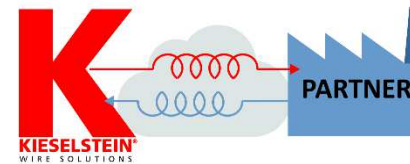
HERBORN
BREITENBACH



SERVICE – Project Management

Quality System

- Since 2006 we work continuously with DIN ISO 9001
- Spare parts will be 100% inhouse quality controlled before shipment
- In the last year we improved our system, and we work continuous on improvements together with our international team-members



Project Management

- 2018 Teaming Box for the safe share of information with our partners
- 2018 start of using MS Teams for the communication in our team and with our partners
- 2020 implementation of a new software (factro) for the project management
- 2020 has forced us to restructure the project management



KIESELSTEIN
International GmbH

Erzbergerstraße 3
09116 Chemnitz
Germany

Phone: +49 (0) 371 91 04 100
Fax: +49 (0) 371 91 04 105
E-Mail: info@kieselstein.com
Internet: www.kieselstein.com

HERBORN
BREITENBACH



**THANK YOU VERY MUCH
FOR YOUR ATTENTION**



KIESELSTEIN
International GmbH

Erzbergerstraße 3
09116 Chemnitz
Germany

Phone: +49 (0) 371 91 04 100
Fax: +49 (0) 371 91 04 105
E-Mail: info@kieselstein.com
Internet: www.kieselstein.com

**HERBORN
BREITENBACH**

