



Haug

RÖSLER

ULTIMATE SURFACE TECHNOLOGY

TECHNOLOGIES FOR SPECTACLE FRAME MANUFACTURING

High Energy and Vibrator **Barrelling Systems**

Drying Installations

Water Recycling Systems

Processing Media

HIGH ENERGY SYSTEM TYPE HBFE

The High Energy grinding and pre-polishing unit RÖSLER HBFE offers the optimum in surface treatment for spectacle frame components.

The excellent results after deburring, grinding, polishing and cleaning are based on a well coordinated combination of the machine and the processing media e.g. ceramic- and plastic chips, compounds and pastes, which can be produced according to the individual needs of each customer. In other words – RÖSLER does not mean just a machine, but a complete technology and Know-How which has already proved to be very successful in other industries.

The special KERAMO-FINISH® process has been developed by RÖSLER particularly for the spectacle frame industry with a lot of advantages. It is definitely a great improvement compared to traditional dry barrelling systems.



Some facts:

- Considerably reduced production costs thanks to energy savings
- Up to 30 times higher abrasion if compared with standard vibrators and barrels
- Much shorter processing times

The machines include indispensable equipment, such as

- Processing bowl lined with highly resistant Polyurethan
- Special metal seal ring coated with resistant Polyurethane for a constant gap distance (KERAMO-FINISH® version)
- *Permanent gap control by temperature sensor
- Infinitely adjustable speed control for the rotor
- Adjustment of the special seal gap for KERAMO-FINISH® process

- Level control of the process water in the processing bowl for regulation of the treatment intensity
- Tilting processing bowl (motorized), for easy emptying and separation
- Control box for manual or semi-automatic process cycle, programmable step control with cycle display (timer 0,1 min – 99 h) connection possibilities for
- Electronic Compound Dispenser with precision dosing pumps, magnetic valves, adjustable water quantity up to 100 l/h, Compound quantity adjustable up to 2 l/h
- Built-in screening system ("SA" – version) for individual separation sieves to separate the spectacle frame parts from the abrasives
- Motorized refilling system of the chips.

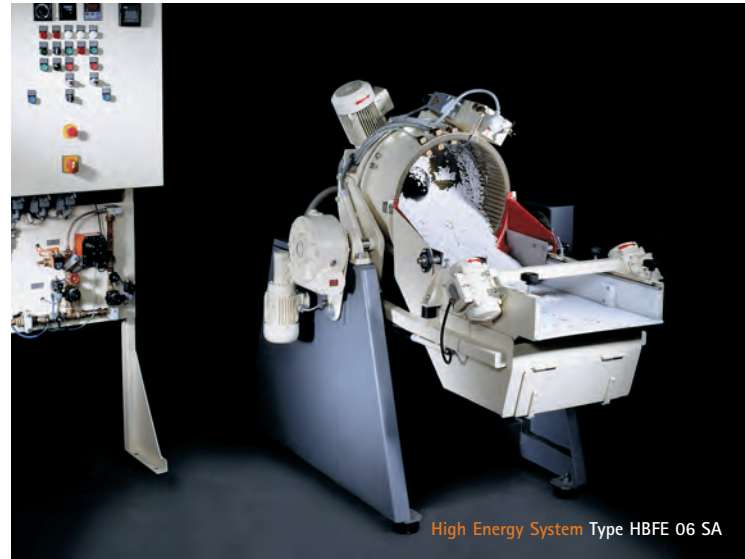


HIGH ENERGY SYSTEM TYPE HBFE 35 SA

This High Energy System allows an extreme quick removal of the injection moulding joint and an optimal, stain-free polishing of injected temple and front parts (e.g. Grilamid and similar), ready for varnishing. Also the required processing media – plastic and ceramic chips – were especially developed for this use. Furthermore, this system is also very suitable for the treatment of titanium parts. The fine-grinding and polishing times were reduced by 10–30 times compared with those of the traditional treatment methods in wooden barrels (dry) or standard vibrators.

Some details of the system

The High Energy System HBFE 35 SA features a resistive, PU-coated processing bowl with a loading [charge] volume of approx. 150 liter (total volume 260 liter). The spinning plate has been designed for an absolutely vibration-free run and is continuously adjustable. The problematic range of a common High Energy System is the area of the gap. In the HBFE 35 SA this area is especially protected. The system is equipped with a "Start- and Stop function" that controls the distance of the gap before each machine start and guarantees a permanent checking of the temperature by means of a sensor. The control unit is placed in a switch box which can either be mounted to the wall or onto an optionally available stand. All functions, such as Start/Stop, settings of the processing times, speed control, motor-driven movements of the processing bowl, separation, speed control for the separation, rinse function and control of the dosing device are centrally controlled by the switch box. The electronically-controlled dosing device is designed for use of recycled- as well as for fresh water. Water and compound are exactly dosed according to the adjustments. In case of failure of the water- and/or compound supply, a special flow detector releases an alarm and automatically interrupts the treatment process. The built-in, automatic level control of the water in the processing bowl allows a variety of different intensities of treatments. A higher water level provides a smoother treatment which for example would be required for punched-in surface designs. The flange-mounted separation device with integrated chip return system offers a quick separation of the finished parts from the polishing material. The polishing material drops into a buffer tank located beneath the separation sieve. The finished parts are separated in front of the system. After emptying of the tank, the polishing material will be brought back to the bowl by means of the motorized refilling system.



High Energy System Type HBFE 06 SA



High Energy System Type HBFE 02.3E SA

ROTARY VIBRATOR TYPE HBR



The RÖSLER Special Rotary Vibrators Type HBR are very suitable in the manufacture of spectacle frames for deburring, grinding and polishing of temples and fronts both metal and plastic.

Thanks to the special design of the machines and the particularly developed abrasives – specially for the KERAMO-FINISH process – an impeccably finished surface can be obtained in shortest time. For a smooth and individual treatment of spectacle frame parts the machines are fitted out with

- "RÖSLER Adiprene plus" special 16 or 20 mm thick Polyether-Polyurethan lining of the processing bowl
- Infinitely adjustable speed control for the rotor
- Vibration intensity of the machines can be adjusted to every working process thanks to specially designed and inclinable balance weights situated above and below the rotor.
- Control box for manual or semi-automatic process mode, programmable step control with cycle display (timer 0,1 min – 99 h)
- connection possibilities for
 - Electronic Compound Dispenser with precision dosing pumps, magnetic valves, adjustable water quantity up to 100 l/h,
 - Compound quantity adjustable up to 2 l/h
 - Built-in screening system for individual separation sieves to separate spectacle frame parts from the abrasives.

Accessories:

- Separation screens, Sound absorbing lids, Drying Systems, Process water recycling systems and more.



DRYING INSTALLATIONS

CENTRIFUGAL DRYER TYPE HBTZ

Operative Range

The RÖSLER centrifugal dryers HBTZ are specially suitable for drying of small spectacle frame components.

Features

- _ Control box
- _ Operating timer
- _ Heating elements for hot-air drying
- _ Heating fan with temperature control
- _ Infinitely adjustable speed control
- _ Electromagnetic safety lock
- _ Stainless steel centrifuge basket

Accessories

The application range of our centrifugal dryers can be extended by additional equipment, such as

- _ Lifting systems with electric driver for the centrifuge basket
- _ Additional equipment for washing, coating or de-oiling processes,
- _ And others upon request



ROTARY DRYER TYPE HBRT

Operative Range

The RÖSLER Rotary Dryers Type HBRT are very suitable for drying of temples, fronts and other components.

Process

The rotary dryer is filled with drying media (Supervelat), the wet components move automatically through the pre-heated drying media around the process chamber and are then separated on a Polyurethan coated separation screen. In addition to the stain free drying, additional polishing of the components will take place resulting in high quality finished components.

Features

- _ Control box
- _ Built-in tubular heating system
- _ 2-step heating power switch with 2 stages 2 and 4 kW
- _ Built-in screening system for separation



WATER RECYCLING SYSTEMS

The High-Power process water recycling systems series Rösler HA and ASS recommend themselves as a fast and cost-effective solution to clean waste water from Vibrators and High Energy Systems. The separated, solid particles, are automatically discharged from the rotor into the movable sludge tank.

Process advantages

- _ Fresh water and effluent water savings compared with flow-through process
- _ Resulting in lower cost for consumable materials (compound, effluent cleaners) compared with flow-through process
- _ The sludge production is considerably reduced compared with chemical and physical treatment systems

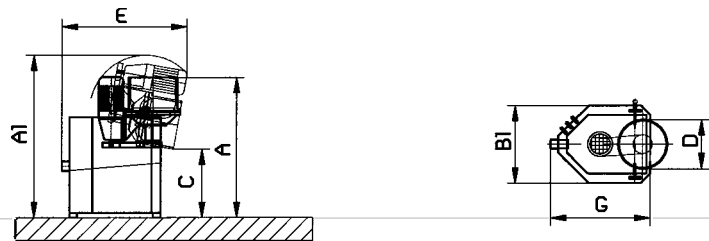
All water recycling systems are available in different sizes and can be adapted to a customer's particular requirements.



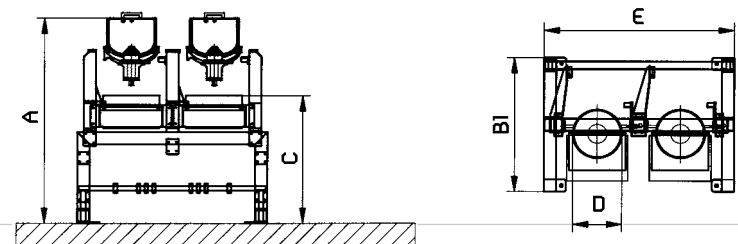
Type		HBFE 02	HBFE 02.2E	HBFE 02.3E	HBFE 06 SA	HBFE 15 SA	HBFE 35 SA
Total volume	Litres	18	ea. 18	ea. 18	65	140	260
Charge approx.*	kg	8	ea. 8	ea. 8	20 - 35	100	150 - 250
External diameter	mm	321	ea. 321	ea. 321	545	700	900
Internal diameter	mm	295	ea. 295	ea. 295	504	630	815
Empty weight approx.	kg	170	680	800	500	1100	2250
Space requirement							
Length x width	mm	850 x 510	1240 x 880	1780 x 880	1900 x 1300	2300 x 1570	3150 x 1445
Separation							
PU-Coating **	mm	6 - 12	ea. 6 - 12	ea. 6 - 1	6 - 21	10 - 19	15 - 30
Separation space							
Length x width	mm	-	ea. 245 x 360	ea. 245 x 360	680 x 500	795 x 600	1060 x 850
Drive							
Motor speed	rpm/50 Hz	293	ea. 293	ea. 293	174	172	121
Screening speed***	rpm	-	-	-	1500	1500	1500
Fuse protection	A	16	20	25	20	25	50
Power supply		230 V / 50 Hz	400 V / 50 Hz	400 V / 50 Hz	400 V / 50 Hz	400 V / 50 Hz	400 V / 50 Hz
Dimensions (mm)							
A		945	1345	1380	1062	1204	1200
A1		1060	-	-	1900	2370	2650
B		-	-	-	900	1150	1420
B1		510	880	880	1300	1570	-
C		500	840	840	791	1087	1150
D		321	321	321	495	630	830
E		760	1240	1680	1900	2300	3210
F		-	-	-	504	604	-
G		650	-	-	1295	1395	2225
H		-	-	-	1295	1395	2225

* depending on type of chips and kind of workpieces, as well as RPM's of rotor **PU-Coating of processing bowl (from - to) = Upper edge of processing bowl to gap area
 *** RPM's for built-in workpiece separation system. All data subject to change!

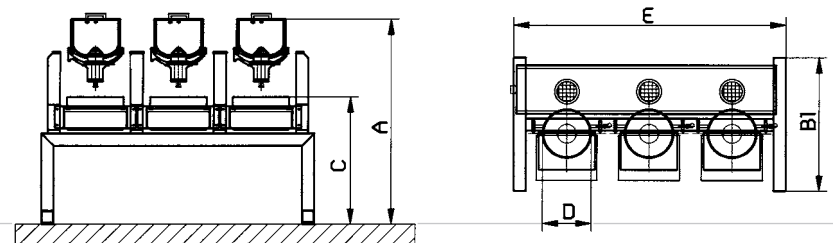
HBFE 02



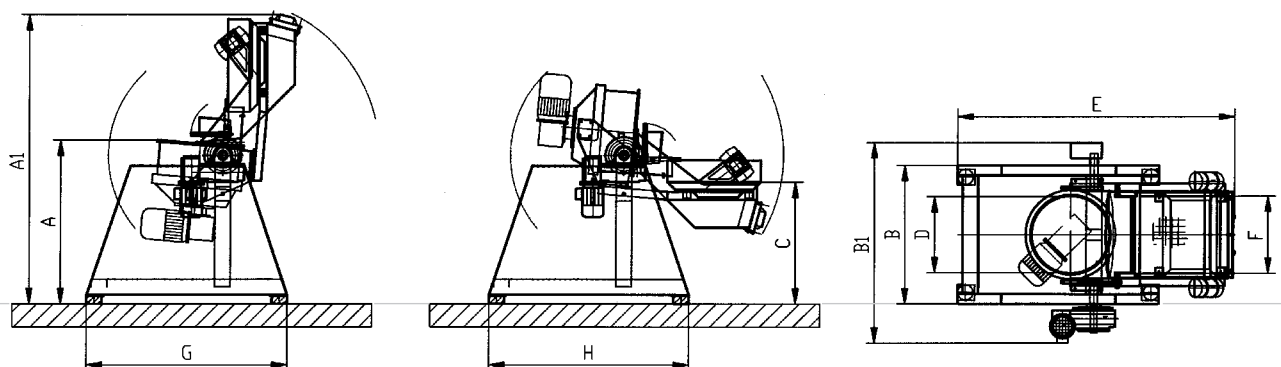
HBFE 02.2E



HBFE 02.3 E

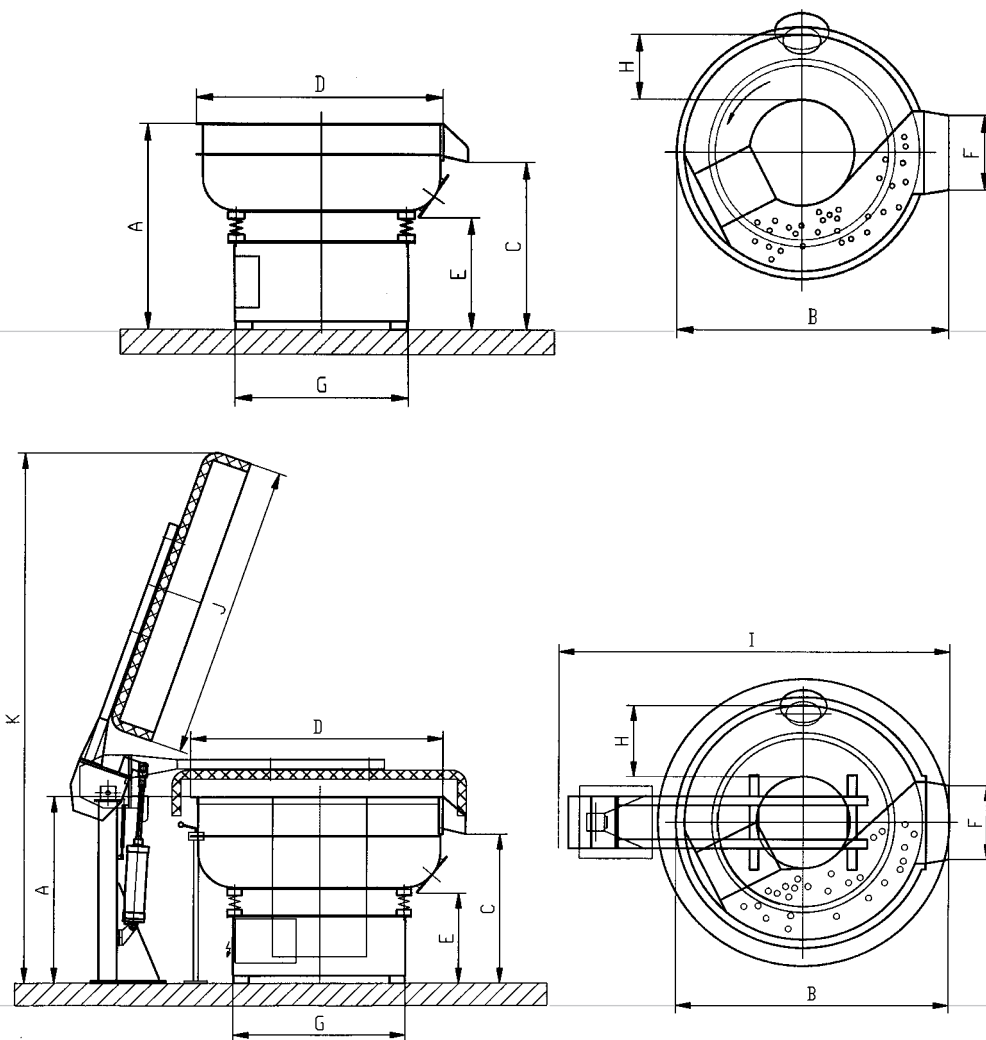


HBFE 06 SA
 HBFE 15 SA
 HBFE 35 SA



Type		HBR 22	HBR 42 S	HBR 62 S
Total volume	Litres	220	420	620
Charge volume*	Litres	approx. 160	approx. 300	approx. 450
External diameter	mm	1200	1520	1695
Internal width	mm	260	365	430
Empty weight approx.	kg	690	1020	1300
Charge **	kg	approx. 200	approx. 350	approx. 500
Space requirement				
Length x width	mm	1200 x 1340	1520 x 1650	1695 x 1810
Separation				
Hot-PU-Coating	mm	16	20	20
Screening section	m ²	0,26	0,46	0,58
Length x Width	mm	980 x 260	1260 x 36	1315 x 430
Drive				
Motor speed	rpm	1500	1500	1500
Screening speed***	rpm	1000	1000	1000
Power supply	A	20	35	35
Voltage		400 V / 50 Hz	400 V / 50 Hz	400 V / 50 Hz
Dimensions (mm)				
A		1117	1105	1225
B		1335	1650	1815
C		895	877	986
D		1200	1520	1694
E		630	543	480
F		350	450	500
G		782	1052	1134
H		260	365	430
I		1800	2115	2602
J		1420	1940	1937
K		2820	3292	3503

* Charge volume = approx. 70 % from total volume, ** depending on type of chips and kind of workpieces, *** RPM's for built-in workpiece separation system. All data subject to change!





Particularly designed for impeccable surface treatment of metal and plastic frames and their components.

Chips – Compounds – Pastes

RÖSLER is world wide the largest producer of ceramic and plastic chips, Compound and Paste for deburring, grinding and polishing. Specially for the requirements of the spectacle frame industry the **RÖSLER** technical laboratories have developed a wide range of processing products e.g.

- _ Ceramic and plastic chips in different shapes, sizes and qualities
- _ Liquid compounds for cleaning, polishing and corrosion prevention
- _ Pastes for wet grinding and polishing
- RÖSLER KERAMO – FINISH®** a leading technology for ultimate surface quality.

GmbH & Co. KG

Hanauer Straße 18

75181 Pforzheim

GERMANY

Phone ++49 7231-9617-0

Fax ++49 7231-961777

www.fw-haug.com

info@fw-haug.com

HAUG SALES AND SERVICE

PROFESSIONAL PLANNING AND SUPPLY OF COMPLETE PRODUCTION LINES

It is our strength to project, lay-out, deliver and finally install complete lines for industrialized surface treatment of spectacle frames and their components. Such packages are consisting of the machines themselves, the processing media, the water recycling and last but not least the drying process. There are various solutions which can be tailored to your particular requirements and made to suit your budget.

Should you wish to extend, optimize or modernize your existing surface treatment facilities you can absolutely rely on our professional advice and experience.

Repräsentanzen / Subsidiaries

Haug Italia Srl.

Haug (Far East) Ltd., Hong Kong

Haug (Shenzhen office), China

Haug Korea Co.

For contact details

please visit our website!

Remarks:

All machines and technologies illustrated in this brochure can be adapted to a customer's particular requirements. Most of the machines are available in different versions and sizes. The best suited equipment can be selected in close cooperation between our product management team and the customer. You are invited to submit your sample parts for complimentary processing in RÖSLER machines. Your parts will be returned together with a detailed test report. **All data subject to change!**

