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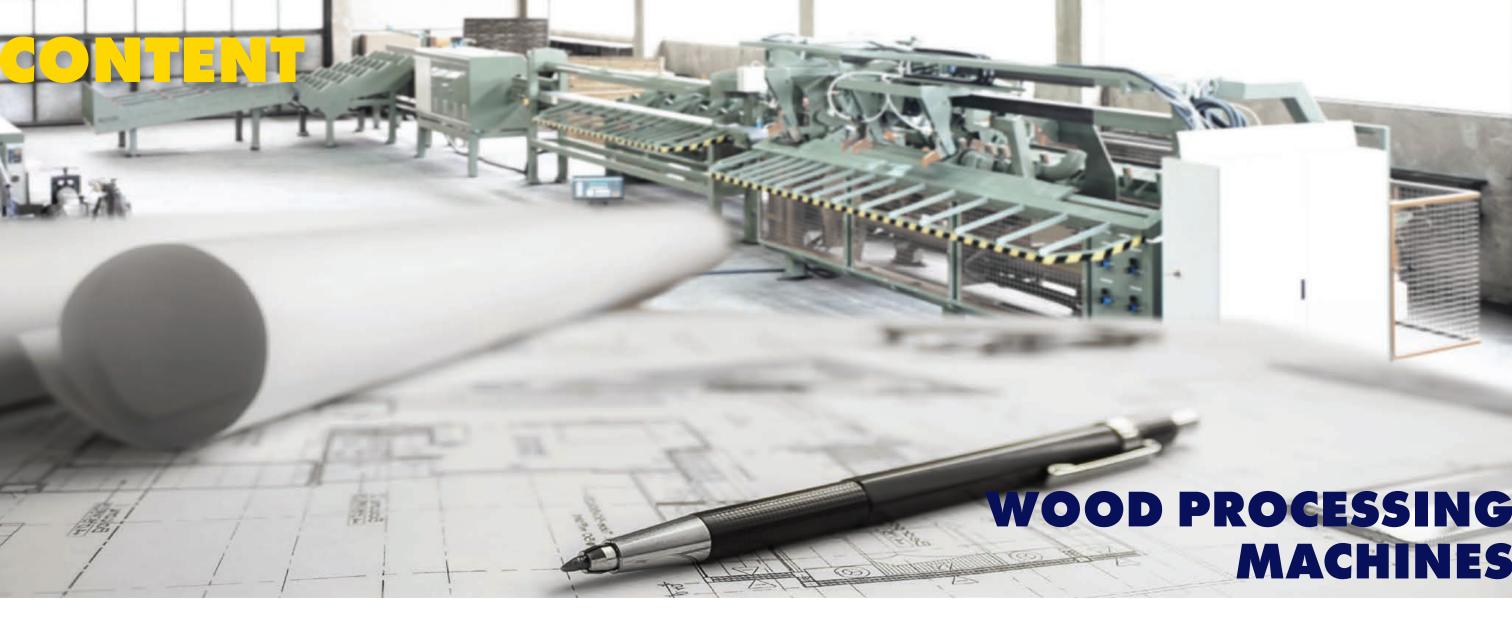


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WOOD PROCESSING MACHINES CORPORATE BROCHURE

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TECHNOLOGY FOR TIMBER INDUSTRIES AND SAWMILLS

If you are a company that processes forest wood, you can relate to the need for machines to be robust, efficient, and low in maintenance. That is precisely what we at Bezner-Oswald have been supplying our customers for more than a century. Not just single unit machines, but complete wood and timber or lumber processing installations. We think of ourselves as a company offering solutions rather than machines. That is why we are partners of the largest sawmill industries on the globe.

MACHINES AND INSTALLATIONS FOR WOOD PRODUCTS

At Bezner-Oswald, we aim to connect with our customers for the long-run. We see ourselves as your partner offering solutions for various companies in the wood industry. We pride ourselves to know machines we delivered six decades ago are still operational. Whether you require a single machine or a complete installation, we can design and manufacture according to your requirements.

WHY CHOOSE **BEZNER-OSWALD?**

We offer comprehensive services for engineering, development, fabrication, installation and maintenance of machines for wood production. It is our experience that a suitable solution is mostly a customized solution or a proven concept with long-term value. Since 2010 Bezner-Oswald became part of the Heilig Group. This extension offers our customers financial stability and broad access to the group-wide knowledge in industrial technology leading to further innovations.

OVER 100 YEARS OF EXPERIENCE

In 2010 Bezner-Oswald was founded by merging the activities related to manufacturing of wood processing machines of Bezner Anlagen und Maschinenbau and Oswald Maschinenbau. Bezner was already active on the market of wood processing machines towards the end of the 19th century. The Austrian company Oswald Machinenbau started the production of wood

machines in the mid-1980s. In 2010 Oswald Maschinenbau was taken over by Heilig Group, when Bezner was already part of the group. Merging the activities in the field of manufacturing wood processing machines established the company Bezner-Oswald.

WOOD PROCESSING AND WOODWORKING

Whatever branch your company covers within the industry of wood processing and woodworking, wood as a natural resource needs to be grown and harvested first. Second, logs go through the initial woodworking process, for instance peeling or debarking. Next, wood is cut in sawmills and being processed into valuable products, from semi-final products to consumer products. Every step in the process adds value to the woodworking chain.

Bezner-Oswald designs and manufactures machinery especially for organizations who process logs into semi-final products. We distinguish:

TIMBER | every activity to transform logs into wood ready for further processing. Think of machines for peeling, rounding, profiling, chamfering and pointing, and sawing.

YOUR ONE STOP-SHOP-PARTNER



TIMBER RESIDUES | every activity to maximize the application of lumber residues. Sawmill residue material is further processed in, among others, wood fiber products, OSB (oriented strand board), biomass, firewood. Think of machines for conveying and screens for sorting and batching wood chips, shavings, and sawdust.

Consider Bezner-Oswald your partner and one-stop-shop source. We gladly offer services including design engineering, installation, technical assistance, repair and maintenance service.

manufacturing,

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REPAIR AND MAINTENANCE OF WOODWORKING MACHINERY

Woodworking machines require periodic inspection and maintenance to guarantee an optimal, reliable, and continuous production process and reduce downtimes. Our experts are qualified and experienced to execute both technical and electrical inspections and repairs on any installation, regardless of the brand. Based on your requirements, we offer the following agreements:

with original parts

installations or single units

• INSPECTIONS & RISK INVENTORY: regular inspections to reduce unexpected repairs and downtime • SERVICE LEVEL: our experts check your installations on the operational use and safety of every machine, the system updates and the wear and tear. This guarantees and improves the potential of your overall installation

THE ADVANTAGES OF A SERVICE AGREEMENT FOR YOUR **INSTALLATION INCLUDE:**

• We keep stock of original parts to ensure quick repairs, offer maximum installation performance, and reduce your downtime.

- Customized offers for repairs and spare parts
- Installation in perfect condition
- Reduced scheduled and unscheduled downtime

SERVICES WE PROVIDE

• MAINTENANCE & REPAIRS: equipment examinations, also lubrication, oil changes, and overhauls of components & timely repairs

• MODIFICATIONS: upgrading, overhauling, and relocation of full

• In some cases with older machinery and inaccessible spare parts, we reconstruct the components ourselves; regardless of the brand

• Up-to-date inspection, repair and maintenance reports

• No surprise expenses for emergency inspections



ROUNDING MACHINE

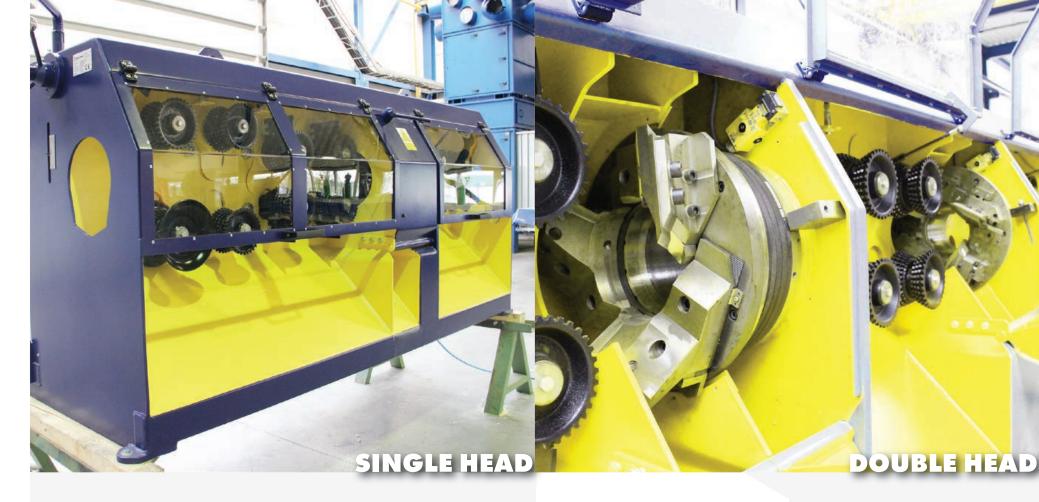
The wood rounding machines Bezner-Oswald offers, are available in various models for different kinds of roundwood. Depending on your requirements for cylindrical logs or wooden dowels, we design machines provided with single or double heads.

Rounding heads are equipped with 3 or 4 knife holders. An alternative option is to apply 6 knife holders when smoothing and roughing knives are not mounted together within one knife holder. On average designs, the in-feed speed could reach 35 meters per minute.

We offer many modular types covering log sizes with a diameter from 30 up to 400 mm. All kinds of machines can be integrated into automatic production lines.

COMBINED WITH PERFORATION

If your finished products require a perforation, you may want to include a perforation machine in your timber processing line. The perforation device can be mounted at the end of the rounding machine. At this point in the process, the poles will pass the device, and the perforation is automatically made.



PERFORATIO	

TECHNICAL DETAILS FINISHED DIAMETER	RFM 30-100 30-100	RFM 30-120 30-120	RFM 40-160 40-160	RFM 80-200 80-200	RFM 80-250 80-250	RFM 100-300 100-300	RFM 160-350 160-350	RFM 160-400 160-400
ADVANCE SPEED				cording to wood				
WOOD LENGHT MIN. CHIP REMOVAL	600	600	800	1000 80 - 100	1000	1200	1200	1200
OPTIONS								
DOUBLEHEAD MACHIN	IE	RFM 30-120	RFM 40-160	RFM 80-200	RFM 80-250	RFM 100-300	RFM 160-350	RFM 160-400
PROFILLING				\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
SAW				\checkmark	\checkmark	~	\checkmark	\checkmark





PROFILING MACHINE

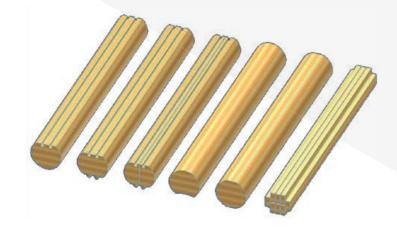
A profiling machine that does more than just profiling. At Bezner-Oswald, we design and manufacture machines from standard milling solutions up to fully integrated profiling installations. Planing and profiling in one machine which is made to measure.

The advantage of a customized profiler and planer machine is that you can choose for single or multiple milling stations, with milling heads fixed to order. This way the machine fits your installation perfectly and can be operated continuously. The machines are built robustly, have high reliability, and little maintenance work is needed. Also, it will produce any log size you desire, e.g., log house boards or simple square logs, very economically.

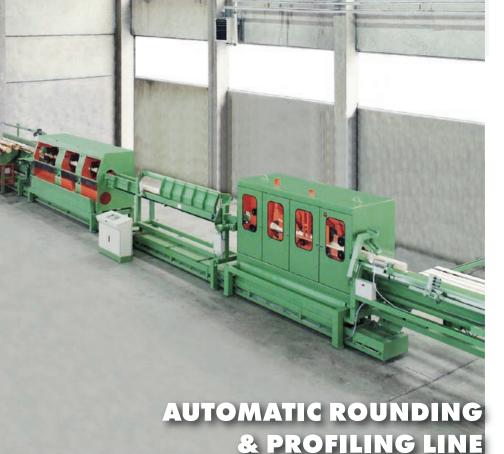
COMBINED WITH ROUNDING

Industrial woodworking machinery comes in all shapes and sizes. For instant roundwood production, a combination machine is ideal. Bezner-Oswald offers a combined rounding and profiling machine named RFMP.

Generally spoken, the rounding and profiling machines consist of one rounding head and one milling station. The milling heads can be positioned to your choice in height. Just like the profiling machine nearly all types of profiles can be made when changing the profile cutters. The first head rounds the wood and the second head provides a different profile.



PROFILING MACHINE



TECHNICAL DETAILSRPM 160RPM 200RPM 250FINISHED DIAMETER160200250ADVANCED SPEEDmax. 40 - depending on wood quality

TECHNICAL DETAILS

FINISHED DIAMETER ADVANCED SPEED



RPM 300

300

RPM 350

350

RPM 400

400

max. 40 - depending on wood quality



WOOD PEELERS

For peeling and debarking roundwood, we design and manufacture log and pole peelers for various dimensions. This type of forestry machinery can be customized to your requirements and provided with manual or automatic controls.

POST PEELER WP 35

The post peeler WP 35 is designed to handle roundwood with a diameter between 4 and 20 cm and a length between 0.7 and 6 meters. At your request, we manufacture the WP 35 as a manually operated machine or completely automatic integrated into a full peeling line.

POLE PEELER FML

Still a single pass of rods and poles, but the Pole peeling machine FML handles roundwood with a diameter between 8 and 40 cm. The minimum length is 4 meters. The 8 spiral milling cutters gimbal-mounted in 2 peeling heads cut over the rotating wood in the fibers' direction. The strong log debarking machine cuts through knots, butt swellings, and other difficult log parts. This results, even with dry wood, in splinter-proof and smooth poles.

FAST PEELER RSA I & II

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Fast peeling machines are equipped with simple peeling discs for clean debarking of posts and stakes by hand. Bezner Oswald offers 2 types of fast peelers. RSA I. is commonly used for the occasional peeling of posts and palisades and for recleaning and pointing logs up to 12 cm in diameter. Type RSA II. is designed with a larger peeling disc and a stronger driving power. With the RSA II, you can manually peel, point or chamfer roundwood up to 25 cm in diameter.

POST PEELER WP 35

FAST PEELER RSA

TECHNICAL DETAILS

WOOD DIAMETER RPM OF MILLING CUTTER AIR CONSUMPTION WEIGHT

TECHNICAL DETAILS

WOOD DIAMETER power AIR CONSUMPTION WEIGHT rpm



FML 80-400 mm 4000/6000 200 l / min 2550 kg

WP 35 30-220 mm 15 kW 80 | /min 1550 kg 1500



CHAMFERING AND POINTING MACHINE

To chamfer and point your roundwood, Bezner-Oswald supplies a wide variety of machines. You can choose from manually operated, semi-automatic to full-automatic with CNC controlled machines. Apart from the manually operated versions, your machine can be tailored to produce either square or round points and chamfered edges.

The frame consists of a sturdy welded construction, while the entire chamfering unit is mounted on pneumatic cylinders. The pointing and chamfering section includes of a fixed chain track with peeling rocker. First, the wood is pointed after which is proceeds via a wheeled track with a chamfering unit.

A slip-on geared motor flanged to the housing of the motor rocker drives the peeling disk of the sharpening station. On the peeling disc, 6 knife holders with knives are mounted at a 60 ° angle polar. The planar surface of the peeling disc is milled according to the knife arrangement at a 40 ° angle to the axis of rotation. After each sharpening section, the roundwood is rotated at 90 ° through motor-driven friction wheel.

ΤΥΡΕ	MAX. FINISHED DIAMETER
CAV 120	120 mm
CAV 140	140 mm
CAV 160	160 mm
CAV 200	200 mm
CAV 250	250 mm





SAWS

We offer a line of saws that can be supplied as a stand-alone machine or integrated into a your production line together with stock conveyor, selection systems, belt conveyors, debarking devices, sorting boxes, or rounding machines.

CROSS CUTTING SAW

A cross cutting saw serves as a machine to cross cut wood; both hard and soft wood. The machines we produce can handle both hard and soft wood; and also round poles or square logs with diameters or side-lengths from 60 up to 200 mm. Depending on your requirements and model, the output can run up to 300 units each hour.

The powerful machines we offer can be manufactured according to your needs. We can include electronics with microprocessor controls for manually or automatically controlled cross-cut stops and sorting devices for length and diameter sorting.

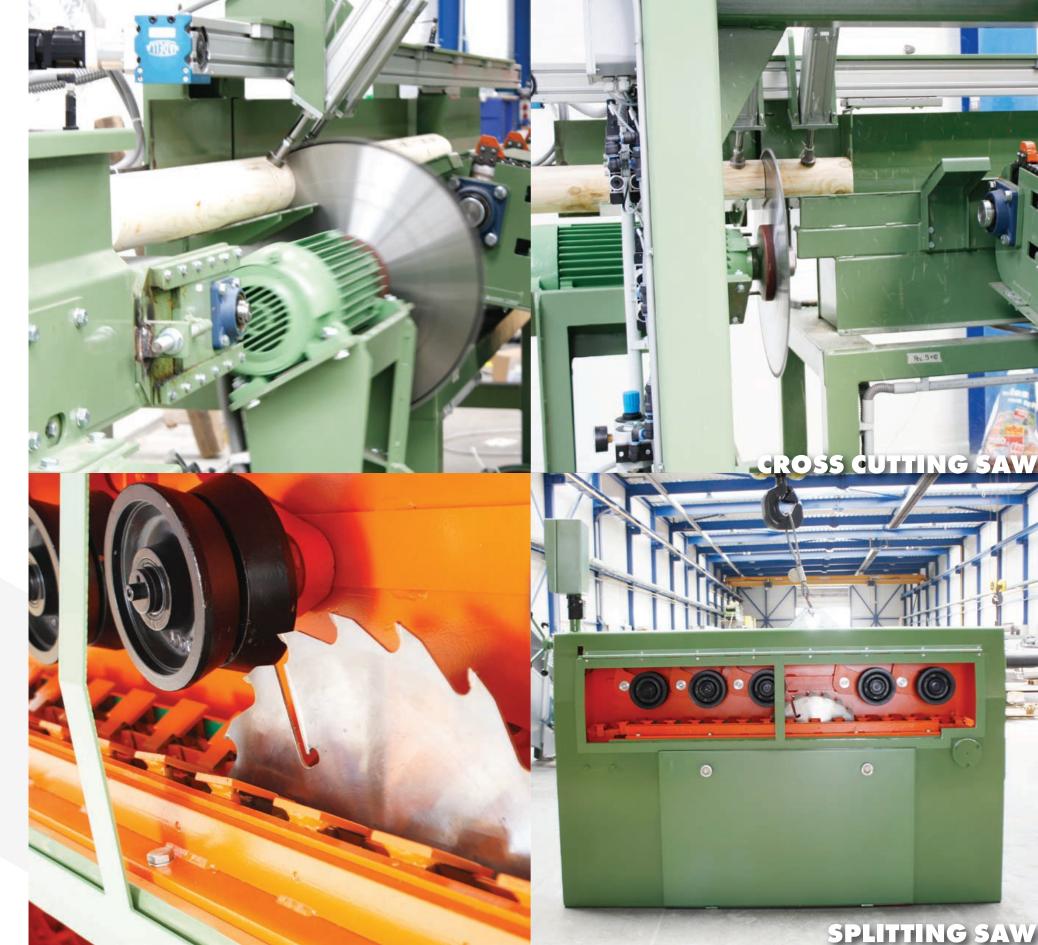
TYPE	MAX. FINISHED DIAMETER
CK 300	300 mm
СК 400	400 mm

SPLITTING SAW

Our splitting Saw CT is suitable for the center splitting of roundwood logs. For instance to produce fence laths, fence bars, semi-palisades, paddock stakes, etc. This log splitter machine handles logs that are rounded, peeled or fully debarked.

We manufacture the splitting saw with a saw blade fit for diameters between 40 and 120 mm. Another option is a wood splitter fitted with two saw blades working in the opposite direction. This type is available for diameters between 40 and 200 mm. For both machines applies that the speed is infinitely variable.

TYPE	MAX. FINISHED DIAMETER
CT 120	120 mm
CT 160	160 mm
CT 200	200 mm



CONVEYING SYSTEMS

To convey roundwood in lumber processing operations, Bezner-Oswald offers a range of conveying systems. Every unit transports poles, logs, or roundwood in many varieties of lengths and diameters. Our scope includes:

- CHAIN CONVEYORS FOR LOGS
- BELT CONVEYORS FOR LOG IN-FEED AND OUT-FEED
- WASTE OR RESIDUE CONVEYORS
- BUFFER STORAGE AND STOCK CONVEYORS
- LONGITUDINAL CHAIN CONVEYORS
- POST PEELER CHAIN CONVEYORS
- SORTING CONVEYORS
- STEP FEEDER (LOG FEEDER)

Of course, an automated wood processing line is composed of durable and high-quality units for rounding, profiling and chamfering in conjunction with material handling systems. Therefore, Bezner-Oswald is specialized in designing turnkey solutions for the timber industry.

Besides tuning the handling capacity of the conveyors to the required dimensions of your roundwood, also the dimensions conveying machines themselves can be customized. According to your requirements, we can combine separate units into an efficient production line.





SCREENING MACHINE

The horizontal screening machine is a unit to invest in for fractioning sawmill residues such as shavings, sawdust, and wood chips.

Screens separate materials based on the difference in particle size. The ultimate residue recycling occurs when you can offer clean material. This entails materials of the same particle size in one batch without any contaminations like pins, bolts, nails, etc.

The screening machine can separate sliced particles, sawdust or wood chips into several fractions (maximum 6) during a single pass. Dust is the first fraction (fines), while the most coarse materials are separated at the end of the screening process. Bezner was the first sawmill machinery manufacturer to include a swinging element in their screens. This element provides a steady and nearly noiseless separation.

ADVANTAGES OF THE BEZNER-OSWALD SCREENING MACHINES INCLUDE:

• over one century of experience in designing and manufacturing screens for the timber industry

- swinging element for steady and quiet screening
- durable and robust construction
- easy to operate and low maintenance
- optional sprinkler system for fire protection
- optional beat-ball cleaning system

ΤΥΡΕ	SCREE	NING S	URFACE (m²
BSM 10	1.75	2.5	3.5
BSM 50	5	6.5	8.5
BSM 60	8	10	12
BSM 70	14	16	19



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