

exactcut

high performance circular saws



CIRCULAR
SAWS

About us

ExactCut is a relatively young company out of the Czech Republic. Despite our young age we are very experienced in the sector of high-performance circular saws for ferrous and non-ferrous metals.

We have gained our experience through the cooperation with former employees of WAGNER – a formerly large German manufacturer of high performance circular saws, and the cooperation with our parent company BOMAR – a large Czech manufacturer of metal cutting band saw machines.

Thanks to our dynamic growth we are not only able to offer standard solutions, but we can also supply highly customized cutting centers for each individual application. The wide range of customized accessories and solutions already delivered to our customers confirms the flexibility of our company.

As manufacturer of high performance circular saws, the continuous quality control that also includes tests of saw blades from various manufacturers is one of our priorities. Our goal is to offer the optimum price/performance ratio to each individual customer and application. We certainly provide test result and optimum cutting parameters to our customers in order to guarantee most efficient production.





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Circular saws

ExactCut circular saws are mainly intended for mass cutting of a wide spectrum of steels and light metals. The machines have been designed with the emphasis on optimization of cutting conditions and reduction of inter-operation and preparatory times during operation. The great advantage they have is simple control in automatic as well as manual mode. ExactCut machines are most often used for cutting semi-products intended for forming (forging, pressure moulding, bending, etc.), semi-products for the manufacture of bearings, final products, cuts in metallurgical works, and others.

Our circular saws are designed to meet the most demanding criteria ensuring precision cutting

- maximum damping capacity of the saw base, which is filled with polymeric concrete
- robust and compact design of the saw gearbox, ensuring smooth cuts, high cutting power
- cutting speed range optimized for every customer according to the spectrum of materials cut
- precision cut quality ensured by steadily guided tool
- easy access to all service points of the machine, simple and quick change of the saw blade
- modular and flexible design of all input and output peripherals

As standard, our machines include:

- possibility of saving up to a hundred recipes according to your orders
- possibility of exporting and editing the data acquired in PC by means of Microsoft Office Excel
- system of user security according to the customer's wish
- diagnostics of the machine status, inputs and outputs directly on the control panel
- remote administration system for quick service





UNCOMPROMISING SOLUTION

ExactCut MAC/MAM 75 A(NC)

- hydraulically/electrically-driven push feed truck
- hydraulically-damped material stop with manual or NC adjustment
- horizontal feed-to-cut with the pivot point under the clamping jaw, optimized for short cut length with all diameters
- horizontal and vertical clamping system



PRECISE FOR GREAT LENGTHS

ExactCut MAC/MAM 75 TWIN

- electrically-driven feed vice with hydraulic/pneumatic clamping system
- vertical feed-to-cut on pre-tightened linear guides
- possibility of simultaneous cutting of several bars
- output part without a stop, enabling connection of various peripherals
- horizontal and vertical clamping system



MULTIPLY YOUR OUTPUT

ExactCut MAC/MAM 105

- electrically-driven feed vice with hydraulic clamping system
- angle-wise feed-to-cut on pre-tightened linear guides
- output part without a stop, enabling connection of various peripherals
- horizontal and vertical clamping system
- robust industrial design



POWER WITHOUT LIMITATION

ExactCut MAC/MAM 105 TWIN

- electrically-driven feed vice with hydraulic clamping system
- vertical feed-to-cut on pre-tightened linear guides
- cutting shaft braking for reduction of vibrations during profile material dividing
- energy recuperation during braking
- output part without a stop, enabling connection of various peripherals
- horizontal clamping system
- robust industrial design

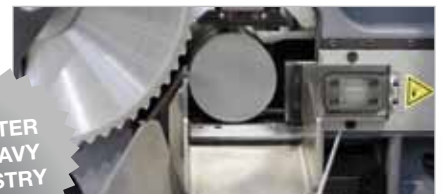


WHERE THE FORCE IS NOT SUFFICIENT

Circular saws

ExactCut MAC/MAM 155

- Electrically-driven feed vice with hydraulic clamping system
- angle-wise feed-to-cut on pre-tightened linear guides
- output part without a stop, enabling connection of various peripherals
- horizontal and vertical clamping system
- robust industrial design



**DRAFTER
IN HEAVY
INDUSTRY**

ExactCut MAC/MAM 205

- Electrically-driven feed vice with hydraulic clamping system
- biaxial feed-to-cut on pre-tightened linear guides with automatic selection of the shortest cutting distance
- output part without a stop, enabling connection of various peripherals
- horizontal clamping system
- robust industrial design



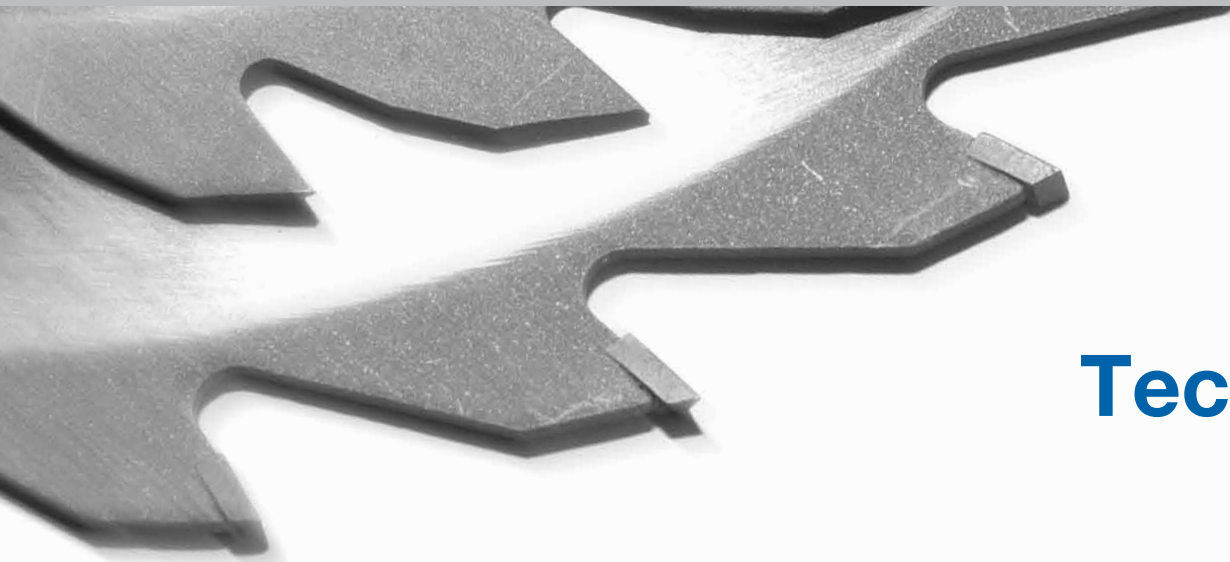
**THE QUICKEST
WAY TO HIGH
OUTPUTS**

ExactCut MAM 140 DM

- Electrically-driven feed vice with hydraulic/pneumatic clamping system
- angular division within the range of +/- 60°
- inclinable vertical feed-to-cut (the disk runs out of the table)
- output part without a stop, enabling connection of various peripherals
- horizontal and vertical clamping system
- high flexibility for cutting materials of various shapes



**ANGLE MUST
NOT HINDER
OUTPUT**



Technical data

TECHNICAL DATA	MAC/MAM 75 A (NC)	MAC/MAM 75 TWIN	MAC/MAM 105	MAC/MAM 105 TWIN
for cutting of	steel/non-ferrous metals	steel/non-ferrous metals	steel/non-ferrous metals	steel/non-ferrous metals
saw blade type	HSS/carbide	HSS/carbide	HSS/carbide	HSS/carbide
saw blade gripping	Ø32, 4x9x50	Ø32, 4x9x50	Ø40/50, 4x16x80/4x21x90	Ø40/50, 4x16x80/4x21x90
saw blade diameter (Ø mm)	250/275	250/275	315/360	300/360
CUTTING RANGE				
▲ cutting angle	90°	90°	90°	90°
● (Ø mm)	15–75	20–70	20–105	20–105
■ (HxH mm)	15x15–60x60	15x15–60x60	20x20–80x80	20x20–90x90
■ (HxW mm)	15x15–90x60	15x15–90x60	20x20–140x70	20x20–105x80
●● (Ø mm)	–	2 x Ø10–2 x Ø35	–	2 x Ø20–2 x Ø50
■■ (HxH mm)	–	2 x 10x10– 2 x 30x30	–	2 x 20x20– 2 x 50x50
cutting speed (m/min)	60–220/600–2200	60–220/600–2200	60–220/600–2200	60–220/600–2200
remnant length (mm)	50	90	60	60

TECHNICAL DATA	MAC/MAM 155	MAC/MAM 205	MAM 140 DM
for cutting of	steel/non-ferrous metals	steel/non-ferrous metals	non-ferrous metals
saw blade type	HSS/carbide	HSS/carbide	HSS/carbide
saw blade gripping	Ø40/50, 4x16x80/4x21x90	Ø50, 4x16x80/4x21x90	Ø30/50, 2x9x60/2x15x80
saw blade diameter (Ø mm)	425/460	460/560/620	500/600
CUTTING RANGE			
▲ cutting angle	90°	90°	±60°
● (Ø mm)	30–155	50–205	10–140
■ (HxH mm)	30x30–115x115	50x50–180x180	10x10–100x100
■ (HxW mm)	30x30–155x115	50x50–180x205	10x10–100x150
●● (Ø mm)	–	–	–
■■ (HxH mm)	–	–	–
cutting speed (m/min)	60–220/600–2200	60–220/600–2200	600–2200
remnant length (mm)	60	110	135

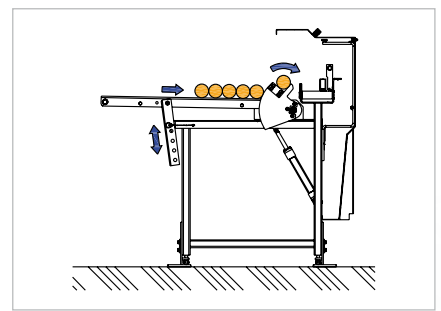
Other parameters on request.

Input part

All input devices of the cutting line provide smooth and fully automatic feeding of material to the cutting process. Important criteria for suitable selection include the method of material loading, cutting length, cross-section variety, etc. All the devices which we deliver are of modular design, thus enabling assembly in different lengths to suit any customer need.

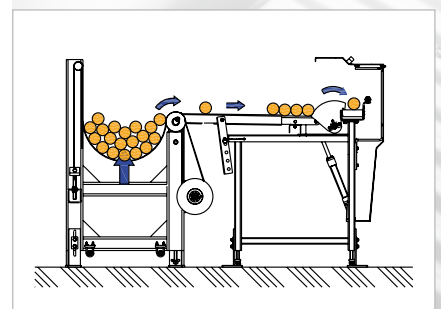
Transverse gravity magazine for materials

- simple design
- adjustable angle of transverse guide for different material diameters
- particularly suitable for circular sections
- possibility of expansion with other peripherals



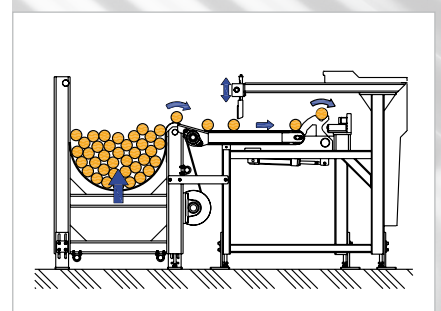
Auxiliary bundle magazine

- material transfer to the transverse magazine by means of control buttons
- used as optional equipment for transverse magazines of all types
- bundle stacking by means of a crane or fork-lift truck
- separate control panel



Automatic bundle magazine

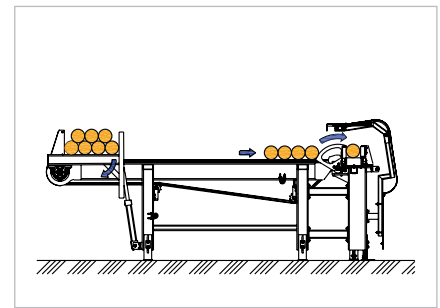
- fully automatic material transfer during the cycle
- particularly suitable for circular sections
- used as optional equipment for transverse magazines of all types
- bundle stacking by means of a crane or fork-lift truck
- separate control panel





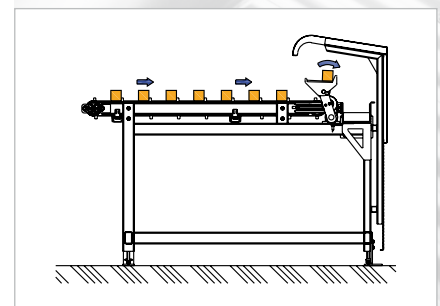
Transverse chain/belt conveyer

- robust conveyer design
- suitable for materials of all sections
- automatic setting during diameter change
- material stacking by means of a crane



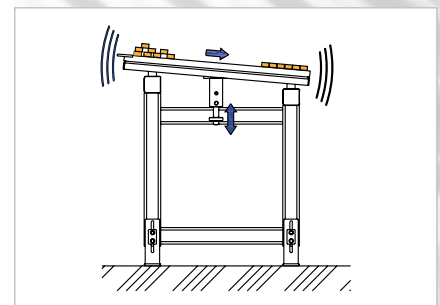
Transverse pocket conveyer

- suitable for materials of all sections
- intended particularly for shaped sections with pre-defined orientation of stacking
- possibility of putting more bars in a single pocket
- automatic removal of the entire content of individual pockets
- manual stacking necessary



Vibrating tables

- delivered in combination with the bundle magazine and transverse belt conveyer
- separation of small sections twisted in the stacked bundles
- pneumatic drive with adjustable amplitude and frequency of vibrations



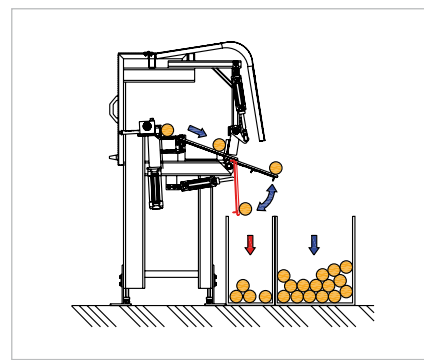
Output part

The equipment immediately following the saw to ensure automatic withdrawal of material, including separating good pieces from waste (cut-ins + remains). Standard devices are of modular design and enable assembly in various lengths according to the customer's wish.



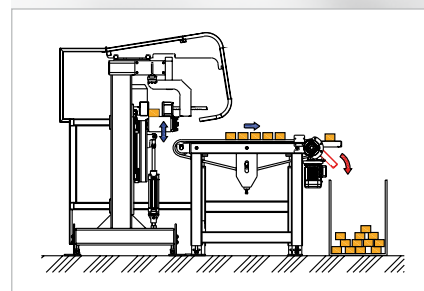
Tilting table

- simple design
- chute for gravity transfer of pieces to a box
- separate withdrawal of cut-ins and remains from cutting
- material support for cutting long materials



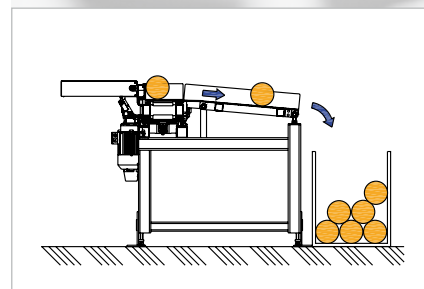
Output sorting table with belt conveyer

- possibility of simultaneous withdrawal of several cuts
- withdrawal of cuts to the belt conveyer
- possibility of manual withdrawal or transfer to a box
- suitable for visual parts



Output sorting table with chute

- simple design
- robust design for heavy pieces
- adjustable angle of inclination
- possibility of simultaneous withdrawal of several pieces



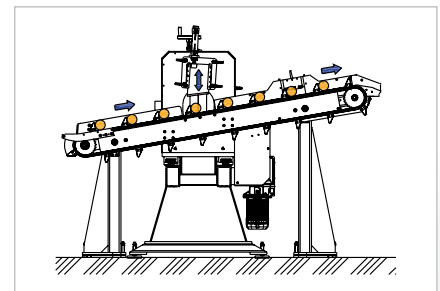
Material deburring

The deburring equipment is used for automatic two-side chamfering after cutting metal pieces.

This equipment is supplied in various levels of automation and different deburring principles. The equipment is modular; as standard, delivered for lengths of up to 3 m.

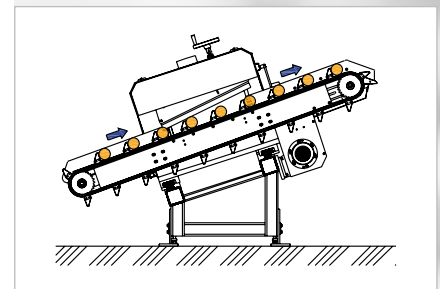
ORBITAL material deburring

- thorough deburring of full and section materials
- suitable for various sections
- once the material is clamped in the deburring position, both ends are simultaneously deburred by means of a brush rotating in two axes
- adjustment of deburring degree by time and position of brushes
- possibility of full automation when setting the equipment



Passing material deburring

- particularly suitable for circular sections
- high output of the equipment
- adjustment of deburring degree by the passing speed and position of brushes
- possibility of full automation when setting the equipment

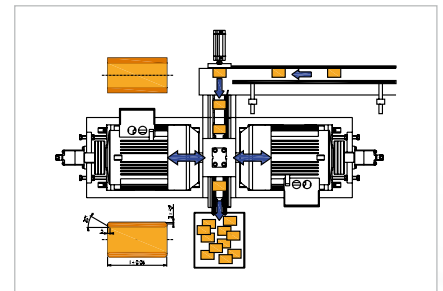


Processing of the material cut

The automation level of these special operations depends only on the customer's wishes. Examples of equipment offered:

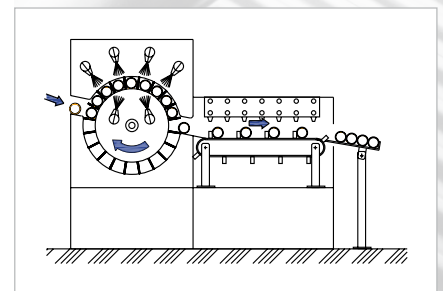
Machining of ends

- pre-defined chamfer shape of the end machined
- increased length accuracy
- Gühring company machining tools
- fully automatic operation
- robust machine design



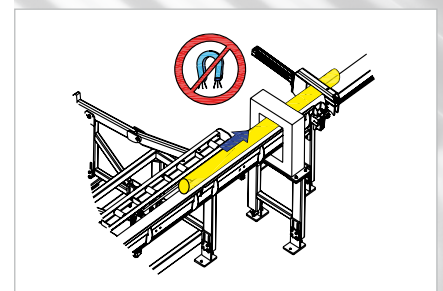
Pipe washing

- surface degreasing and thorough removal of swarf
- possibility of multistage washing
- possibility of surface preservation
- drying device included
- modular system according to the customer's wish



Demagnetization

- removal of residual magnetism from the materials cut
- demagnetization results in clean material without sticking swarf
- elimination of problems during further handling

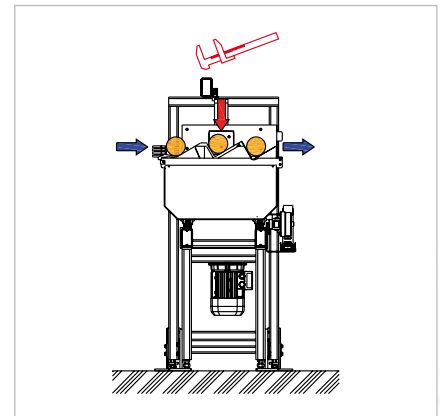


Length check

To ensure a trouble-free fully automatic process and increased quality of cuts, we offer corresponding check mechanisms.

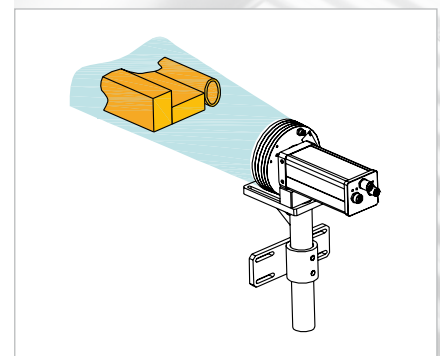
Output check and recording

- length check of every cut
- separate withdrawal of cuts falling outside the preset tolerance
- storage of records on the lengths measured
- modular system for various lengths
- accuracy according to the customer's requirements and the application selected (normally 0.01 mm)



Material shape identification

- check of correct material orientation for subsequent operations
- rough dimensional check
- check of piece quantity in a batch

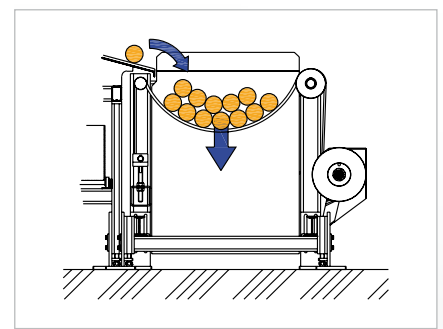


Handing and magazines

The method of storing the work pieces cut depends on the requirements of individual applications and possible further operations. Commonly manufactured equipment includes:

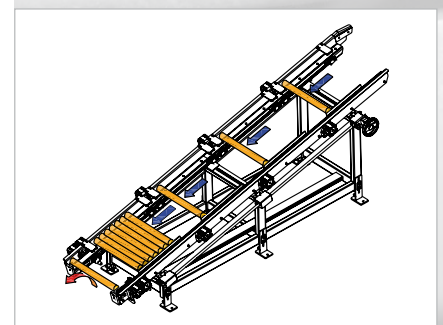
Bundle magazine

- automatic storage of material cut
- bundling of material cut
- simple robust design
- manual or automatic length adjustment



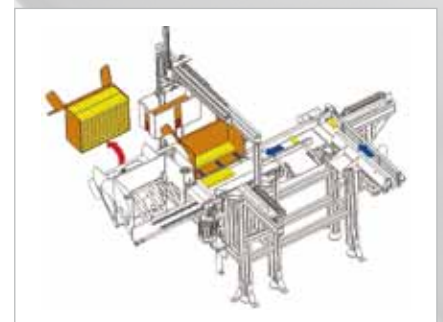
Elevator

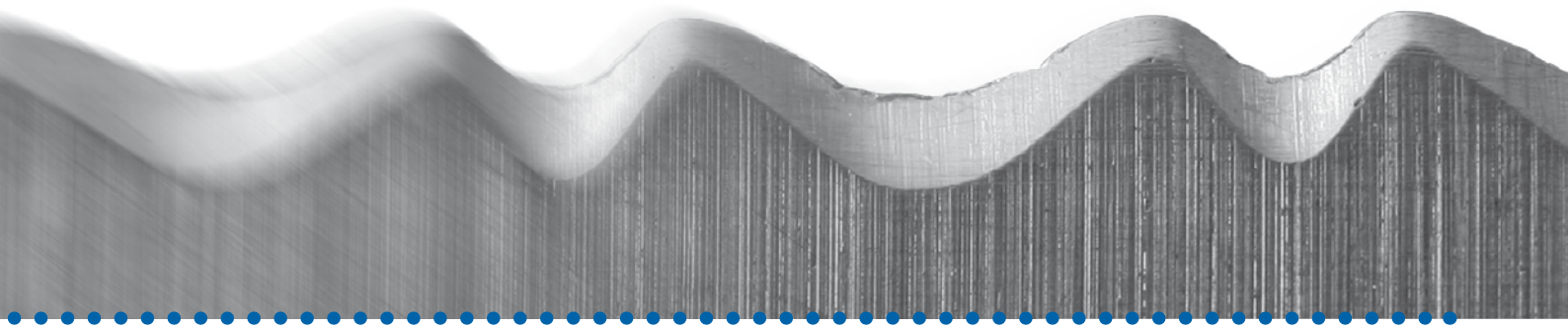
- storage of cuts used for further operations
- capacity magazine for further devices in case of stopping the saw (saw blade exchange, etc.)
- modular system according to the application and customer



Deposition into cases

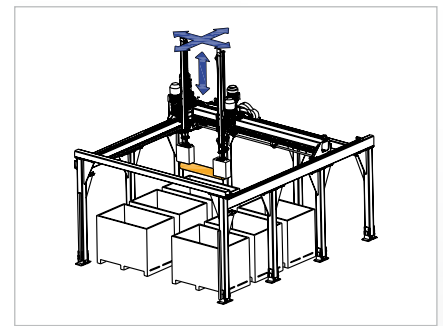
- simple aluminium structure
- automatic deposition of shaped profiles into cases
- two positions ensuring continuous operation with higher output capacity
- modular system suitable for shape, dimensions, weight and requirements for method of workpiece deposition





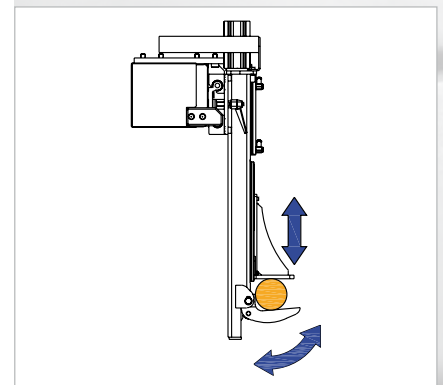
Manipulator

- automatic stacking and sorting of cuts into pre-defined positions
- possibility of multiple positions for storing cuts
- various principles of manipulator grips



Sorting and storage by means of a robot

- automatic stacking and sorting of cuts into pre-defined positions
- possibility of passing cuts for further operations
- various principles of robot grips
- high flexibility of usage

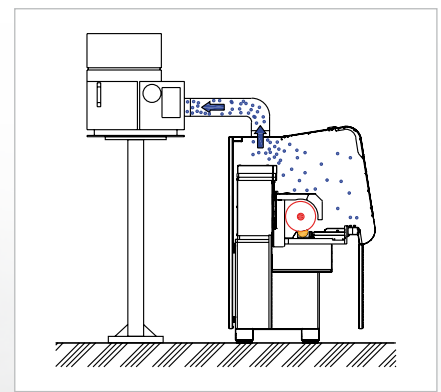


Exhaust

A high-quality filter device is an essential accessory for all newly manufactured equipment. The cutting power is increased to efficient oil mist lubrication systems; with an efficient exhaust system, we achieve the safety requirements. Moreover, oil sedimentation on all machine elements is undesirable as it may cause problems with material identification, etc. Cleanness of the machine increases cutting accuracy.

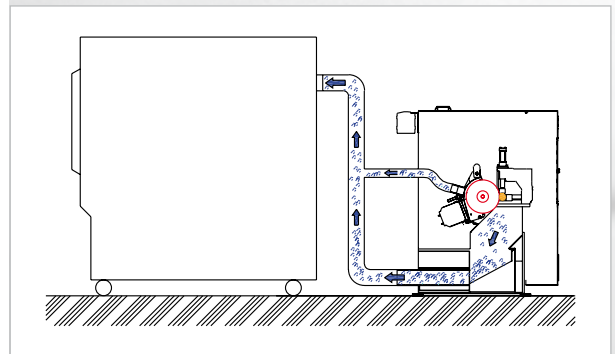
Oil mist exhaust

- compact devices located close to the machine
- HEPA absolute filters according to EN 1822 for separation of oil mist and smoke micro-particles
- separate withdrawal of condensed oil



Swarf exhaustion

- particularly used when cutting sections of aluminium or other non-ferrous metals
- highly efficient devices from the AL-KO company
- various designs according to the given application
- filtration simultaneously entraps oil mist



Electrical equipment

The control system and electric version are designed adequately to the concept and utilization of the machine, a wide range of accessories available. The most frequent include:

Manual barcode readers

- simplified machine setting in case of repeat orders
- command selection by the order barcode

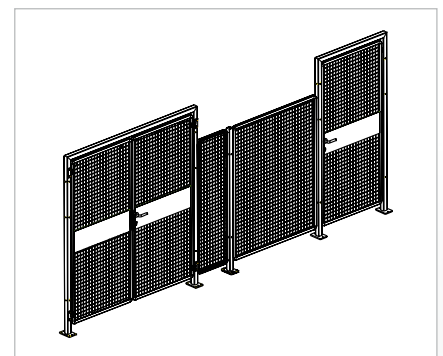


Safety elements

Our production portfolio also includes elements ensuring safe operation of your production line. These products, manufactured under the Securflex mark, conform to all current directives concerning machinery.

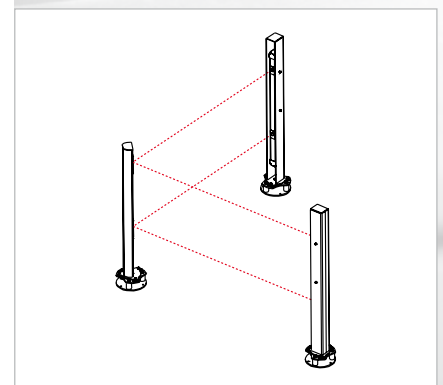
Fencing

- modular design with unlimited assembly possibilities
- several types and sizes of fence elements
- various types of door elements in left- and right-hand versions



Optical barriers

- safeguard of areas to which easy and quick access must be provided
- active elements up to a distance of 70 m
- angle mirror for reflection of beam at a 90° angle



Main distribution with cooling system

- maintenance-free equipment of corresponding output
- we supply equipment from the Pfannenberg company



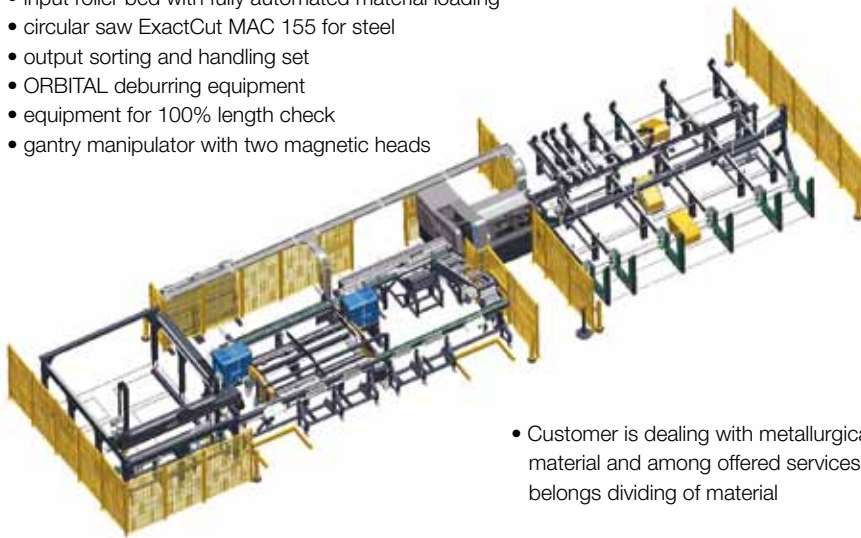
Special applications

Below please find examples of some cutting lines which were successfully installed in plants all over the world in the past. All centres are precisely “made-to-measure” according to all customer requirements.

Automatic line with circular saw ExactCut MAC 155

Cutting centre is equipped with fully automatic re-adjustment between different diameters and sectional lengths. Thanks to that is possible use the system for series of tens of pieces. Result of dividing process could be upto 12 orders divided into predefined positions for pallets and also for measuring protocol of selected order. Maximum usage of initial material is secured by optimization system.

- input roller bed with fully automated material loading
- circular saw ExactCut MAC 155 for steel
- output sorting and handling set
- ORBITAL deburring equipment
- equipment for 100% length check
- gantry manipulator with two magnetic heads



- Customer is dealing with metallurgical material and among offered services belongs dividing of material



Remote control

Do you want to control your equipment that is used to full capacity during three-shift operation? Use the remote control system through which our technician is able to connect and analyze a problem from any place over the world.

With fixed line connection

- Reducing irregular downtime in production
- Quick failure detection
- Remote software modification
- Machine settings backup
- Periodic diagnostic by service engineer
- Possibility to check the machine via a web interface

With GSM connection

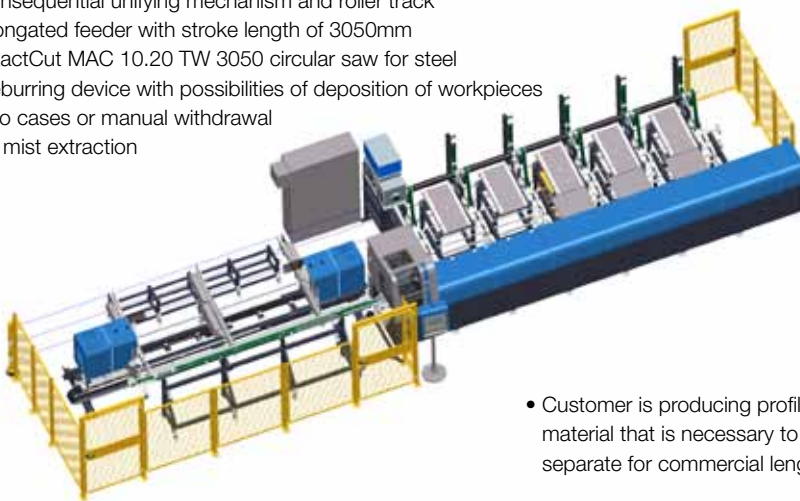
- It does not use the customer's corporate network

UNCOMPROMISING SOLUTION

Automatic line with circular saw ExactCut MAC 10.20 TW 3050

Problematic task of distribution of thin profiles are solved by vibrating tables with subsequent separative mechanism. Deburring device Orbital ensures 100% profile material deburring, that belongs to important customer requests.

- input bundle magazine completed with vibration tables for stratifying thin bar material
- consequential unifying mechanism and roller track
- elongated feeder with stroke length of 3050mm
- ExactCut MAC 10.20 TW 3050 circular saw for steel
- deburring device with possibilities of deposition of workpieces into cases or manual withdrawal
- oil mist extraction



- Customer is producing profile material that is necessary to separate for commercial lengths



- used hardware – eWON COSY 141 MPI
- Requirements for customer – access to the internet (http, https)
- Requirements for customer – RJ45 cable on the machine installation place

What remote control can't do

- unable enter or change cutting data and programs
- unable configure machine





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