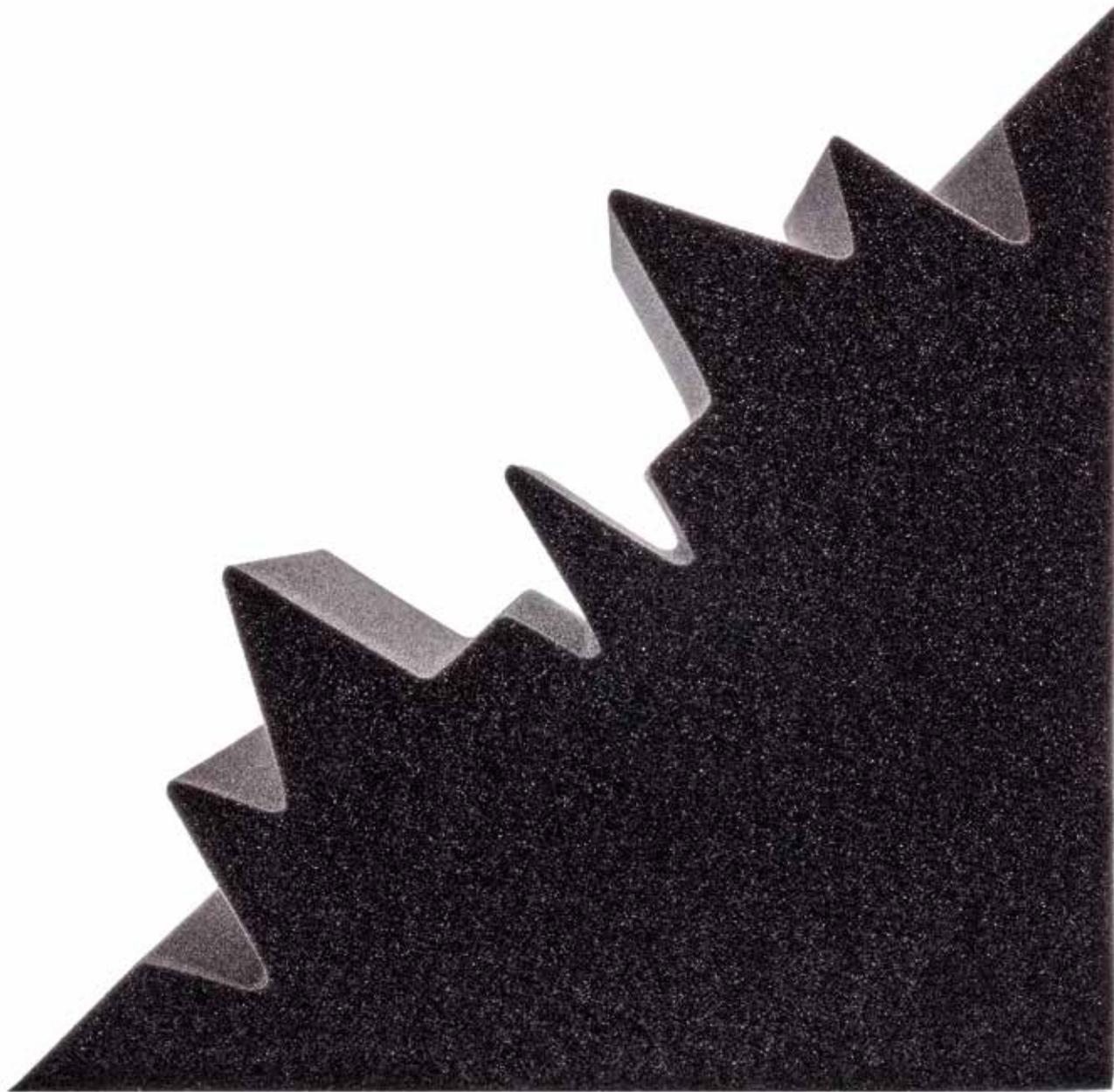
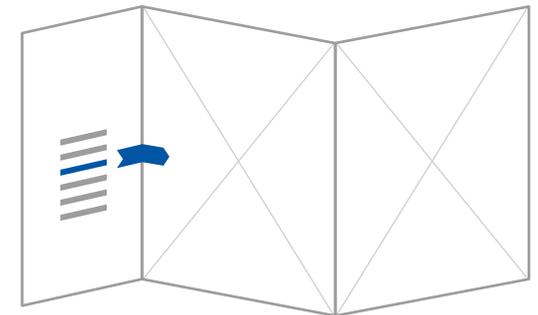


MACHINE ENGINEERING



MACHINE MATRIX



MACHINE MATRIX

Application	Model	Page	Material						Industry						
			Flexible foam	Technical foam	Synthetic rubber and plastic material	Recycled material	Fleece and fibers	Rigid foams	Packaging industry	Furniture industry	Miscellaneous: textile industry, flooring, household products	Medical-technical applications	Mattress industry	Automotive industry	
Cutting to length	ABLG-1	04+05	x							x	x		x	x	x
Cutting to length	ABLG-2	06+07	x					x		x	x		x	x	x
Vertical cutting	IS-M	08+09	x	x						x	x	x	x	x	x
Vertical cutting	IS-L	10+11	x	x				x		x	x	x	x	x	x
Vertical cutting	IS-BA	12+13	x	x						x	x	x	x	x	x
Vertical cutting	BZM-I	14+15	x	x				x		x	x	x	x	x	x
Vertical cutting	BZM-A	16+17	x	x				x		x	x	x	x	x	x
Horizontal cutting	BSL-200	18+19	x	x						x	x		x	x	
Horizontal cutting	BSL-204	20+21	x	x						x	x		x	x	
Horizontal cutting	BSL-214	22+23	x	x						x	x		x	x	
Horizontal cutting	BSL-D	24+25	x	x						x	x		x	x	
Horizontal cutting	BST-D	26+27	x	x						x	x		x	x	x
Horizontal cutting	BST-140	28+29	x	x						x	x		x	x	x
Horizontal cutting	BST-150	30+31	x	x						x	x		x	x	x
Horizontal cutting	BSA	32+33	x	x	x					x	x		x	x	x
Contour cutting (horizontal knife)	OFS-Twincut	34+35	x	x			x			x	x	x	x	x	x
Contour cutting (horizontal knife)	OFS-222	36+37	x	x			x			x	x		x	x	x
Contour cutting (horizontal knife)	OFS-HE3	38+39	x	x			x			x	x		x	x	x
Compression cutting	FSM-1	40+41	x							x	x		x	x	x
Contour cutting (vertical knife)	OFS-VS	42+43	x	x			x	x		x	x	x	x	x	x
Contour cutting (horizontal wire)	OFS-221	44+45			x		x		x						x
Contour cutting (vertical wire)	OFS-VW	46+47	x		x		x	x	x	x	x				
Cutting line	BSA + OFS-VS	48+49	x				x				x			x	
Cutting line	BSL-214 + OFS-VS	50+51	x				x				x			x	
Cutting line	OFS-HE3 + OFS-VS	52+53	x							x	x			x	x
Profiling	EP	54+55	x							x	x		x	x	
Splitting	ES	56+57	x	x	x		x			x			x		x
Splitting	SPLIT-HE 500	58+59	x				x			x	x	x			x
Splitting	BSR-HS	60+61	x							x		x			x
Splitting	BSV-E	62+63	x							x		x			x
Splitting	BSV-EC	64+65	x	x	x		x			x	x		x		x
Splitting	BSV-ET	66+67		x	x		x			x		x			x
Splitting	BSV-R	68+69	x							x		x			x
Splitting	BSV-S	70+71		x	x		x			x			x		x
Splitting	BFS	72+73	x	x	x		x			x			x		x
Splitting	BSM	74+75		x	x		x			x					x
Roll compression system	ROK	76+77	x	x						x	x	x	x		x
Peeling	SMW-1	78+79	x				x			x		x			x
Peeling	SMW-3	80+81					x			x		x			x
Peeling	SMW-5	82+83					x			x		x			x
Block crusher	BCR	84	x											x	
Angular cutting	AS-1	85	x	x						x	x		x		x
Edging/rounding	MDK-2	86	x								x				
Sponge milling	SF-1	87	x									x			
Sponge milling	SF-5	88	x									x			
Sponge milling	GF-1200	89	x									x			
Service		90-97													
Plant engineering		98-107													



Assuring our customers' future through customized engineering and intelligent services.

All details, figures and technical information were compiled with the utmost diligence, but we can accept no responsibility whatsoever for the respective accuracy. Subject to change.



ABLG-1 CUTTING-OFF MACHINE



ABLG-1 FOR CUTTING-OFF LONG BLOCKS FOLLOWING CONTINUOUS FOAMING PLANTS OR, IN CASE THERE IS NO BLOCK OR CRANE STORAGE EXISTENT, FOR THE CUTTING OF SHORT BLOCKS

ABLG-1 cutting-off machine with roller conveyor and horizontal blade

By utilizing a roller conveyor, even materials which are difficult to convert (such as visco foams), can be processed

- ✓ Very good cutting results as the cutting-off machine with the teflonized binding cuts over the whole block width in one stroke
- ✓ Suited for cutting-off start-up pieces/end pieces during the foaming process, when changing the colours and qualities or for the extraction of small test pieces for a quality check
- ✓ The reversing roller conveyor with non-driven idler rollers serves as place for depositing the block - utilization of the roller conveyor for converting standard foams, visco-elastic foams or foams with characteristics similar to visco foam
- ✓ Grinding unit for precision-grinding the circulating ground band knife
- ✓ Connection to the control of a long block or crane block storage

Material:
PUR-ether and polyester, HR,
CMHR, visco foam

Application:
Manufacturer of block foam,
upholstery, mattress, furniture,
packaging and automotive industry,
manufacturer of technical articles

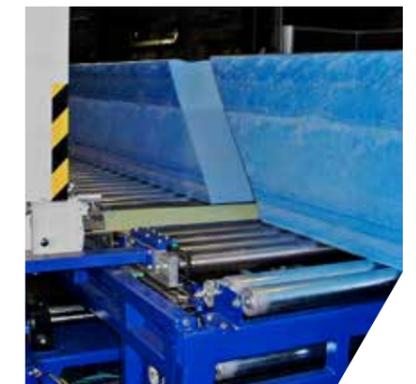
Cutting Tool:
Precision-ground circulating ground
knife, also available with convex
serrations 30 x 0.45 mm



Roller conveyor



Control automatic



Bevel cut-off



ABLG-2 CUTTING-OFF MACHINE

ABLG-2 FOR THE CUTTING OF SHORT BLOCKS OF VARIOUS LENGTHS FROM LONG BLOCKS

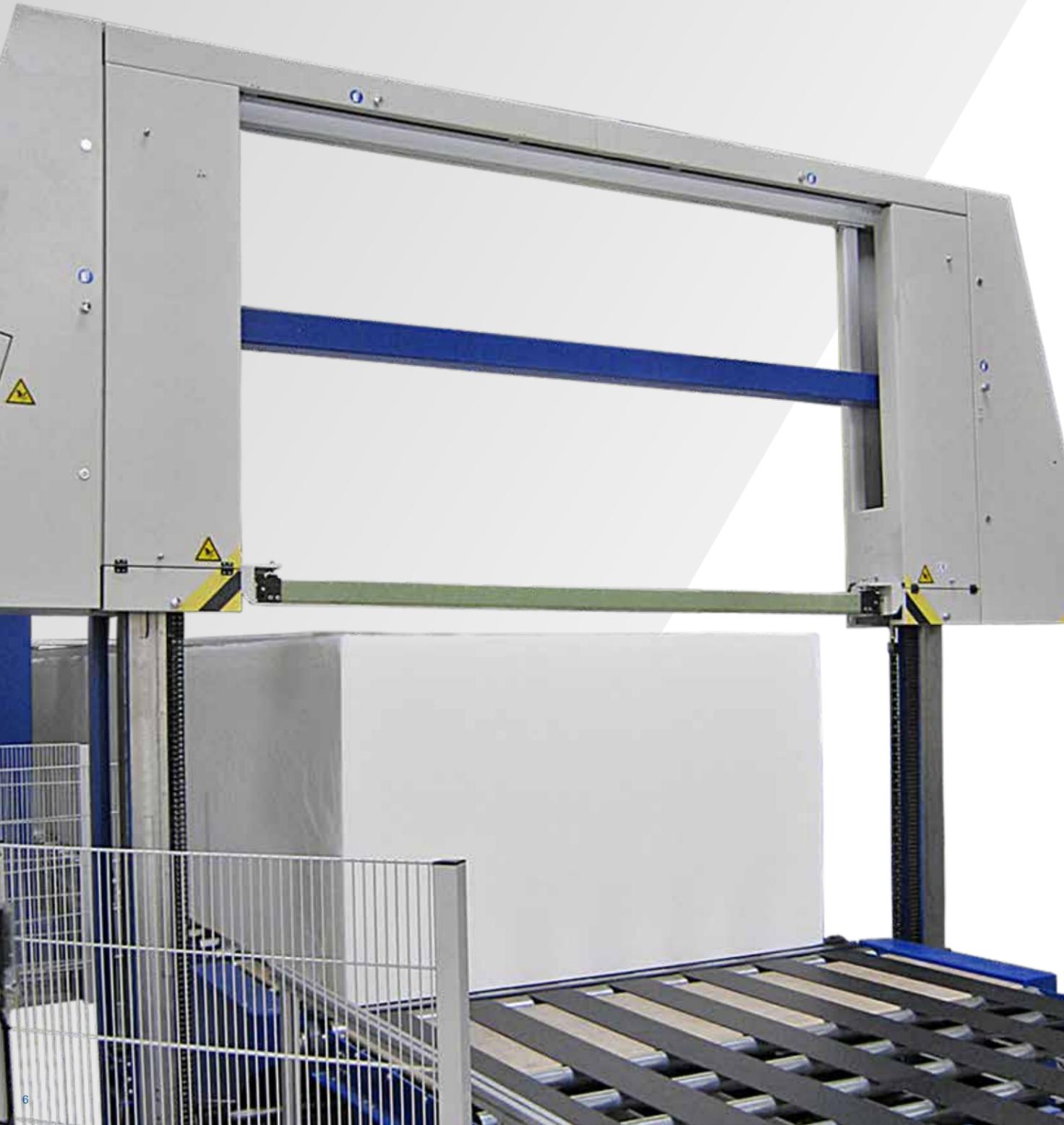
Generally, the ABLG-2 is integrated into the main control of the block storage and/or crane hall

- ✓ Very good cutting results as the cutting-off machine with the teflonized binding cuts over the whole block width in one stroke
- ✓ By means of length measurement, the block is very precisely fed during belt feed so that even the smallest deviations are prevented (optional)
- ✓ Grinding unit for precision-grinding the circulating ground band knife
- ✓ In a special version, the cutting-off machine is installed in or upstream of a long splitting machine in order to equalize the block ends or to cut out defective block parts - in this case the control is incorporated in the long splitting machine

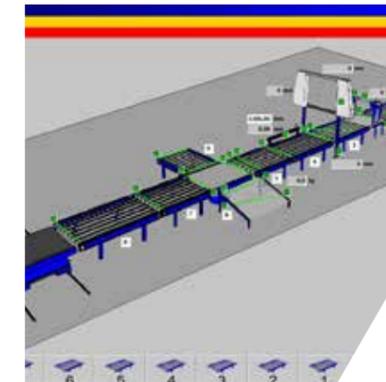
Material:
PUR-ether and polyester, HR,
CMHR, visco-elastic foam

Application:
Upholstery, mattress, furniture,
packaging and automotive industry,
producers of technical articles

Cutting Tool:
Precision-ground circulating
ground knife 30 x 0.45 mm



Cutting unit



Control automatic



Block printing device



IS-M VERTICAL CUTTING MACHINE



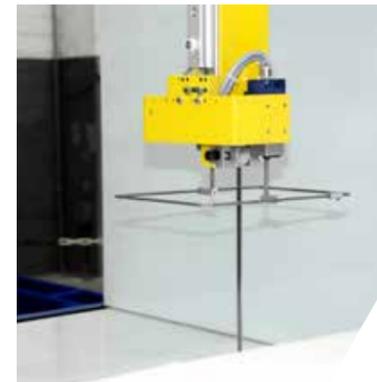
AUTOMATIC VERTICAL CUTTING MACHINE FOR TRIMMING BLOCKS, CUTTING SHEETS AND RECTANGULAR CUTS FROM SHEETS

- ✓ Very high cutting precision for the highest cutting standards
- ✓ Special design with set knife for the cutting of insulating material (e.g. mineral wool, PUR rigid foam or polystyrene (EPS))
- ✓ Second tiltable left side stop for easy loading of the machine
- ✓ Utilization of the left table half as turntable for precision rectangle cuts
- ✓ Utilization of a frequency-controlled knife drive for the cutting of special foams
- ✓ Air cushion system for an effortless handling of large blocks
- ✓ Material fixing by an optional holding down system
- ✓ Minimal space requirement due to a stationary table and a movable cutting unit
- ✓ Minimization of cutting times as it is possible to cut in both directions - employment of a knife twisted by 180°
- ✓ May be customized due to a number of differently configurable table dimensions of both table halves

Material:
Block and sheet ware from PUR soft foam, non-woven material, rubber foam, latex, EPDM foam and Basotect®, rock wool and glass wool as well as PUR rigid foam, EPP

Application:
Mattress, furniture, packaging and automotive industry, consumer goods/household goods industry, special applications such as ceramic filters (reticulated foams)

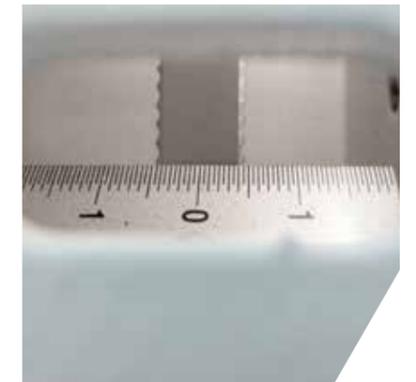
Cutting Tool:
Precision-ground circulating ground knife with widths of 6-20 mm, available either as toothed knife or as set knife



Upper knife guide, adjustable by motor



Optical knife grinding control



Window for monitoring the knife grinding process



IS-L VERTICAL CUTTING MACHINE



MANUAL VERTICAL CUTTING MACHINE FOR CUTTING/ TRIMMING BLOCK MATERIAL/SHEETS AND FOR STENCILING

The table is manually moved, the lateral stop is adjusted by means of a hand wheel

- ✓ Different table models
- ✓ Direct detection and display of side stop position by means of digital cursors (Option)
- ✓ Due to the option of locking the movable table, it is also possible to manually work by the templet on the machine
- ✓ For precise parallel cuts the material is guided on the sliding table by means of a side guide
- ✓ A ratchet for adjusting the side stop guarantees an exact infeed with recurring cutting widths
- ✓ Optionally available with motor-driven grinder and grinding dust extractor unit
- ✓ Special design with set knife for the cutting of insulating material (e.g. mineral wool, PUR rigid foam or polystyrene (EPS))

Material:
Block and sheet ware from PUR soft foam, PE foam, non-woven material, foam rubber, latex, EPDM foam and Basotect®, rock wool and glass wool as well as PUR rigid foam, laminated sheet ware, etc.

Application:
Mattress, furniture packaging and automotive industry, consumer goods/household goods, construction industry

Cutting Tool:
Precision-ground smooth circumferential knife 6 - 20 mm in width, also available with toothed knife or set knife



Knife protection unit adjustable by motor



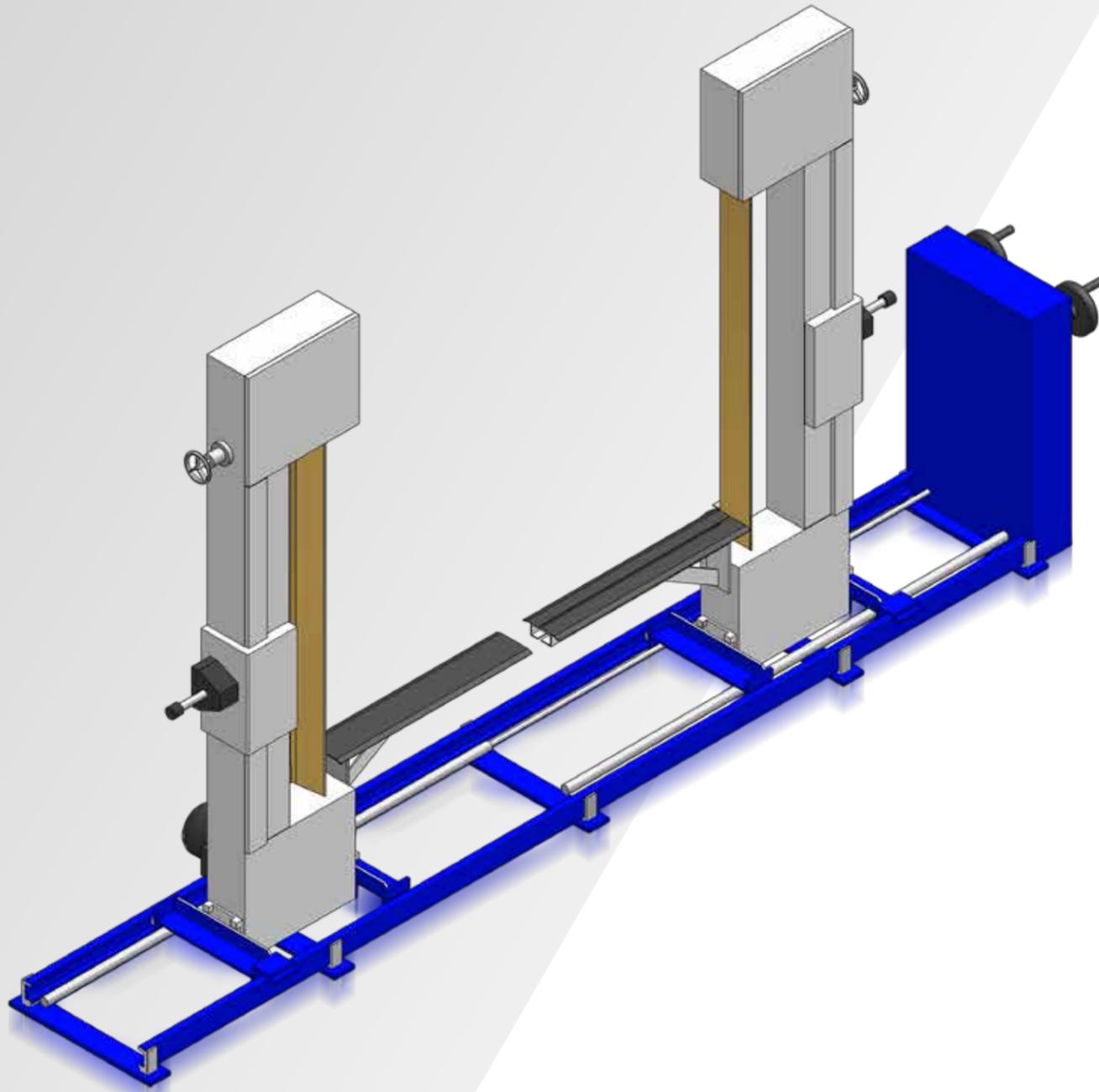
Operator panel



Hand wheel in connection with ratchet (optional)



IS-BA TRIMMING MACHINE



TWO VERTICAL CUTTING UNITS TRIM THE LONG BLOCK OR THE SHORT BLOCK TO THE REQUIRED WIDTH

The maximum trimming length per cutting unit is 200 mm

- ✓ Operator positions cutting unit by means of a hand wheel (optionally motor-driven)
- ✓ The position of the cutting unit is separately indicated as digital readout
- ✓ Utilization of teflonized bindings for a better guiding of the knife in order to ensure the accurate trimming of different materials
- ✓ Grinder for sharpening the knife
- ✓ Alternatively, a steel knife bar is possible

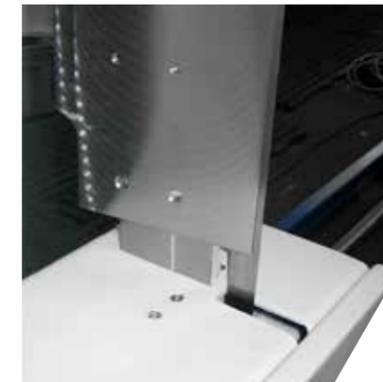
Material:
PUR soft foam (PUR-ether and PUR-ester) as well as all special foams such as HR, visco-elastic foam, etc.

Application:
Long block foam processing as well as major processor of short blocks for upholstery and mattress industry

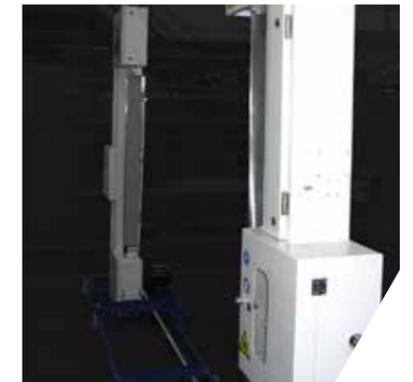
Cutting Tool:
Precision-ground circulating band knife 15 x 0.45 mm



Grinding unit



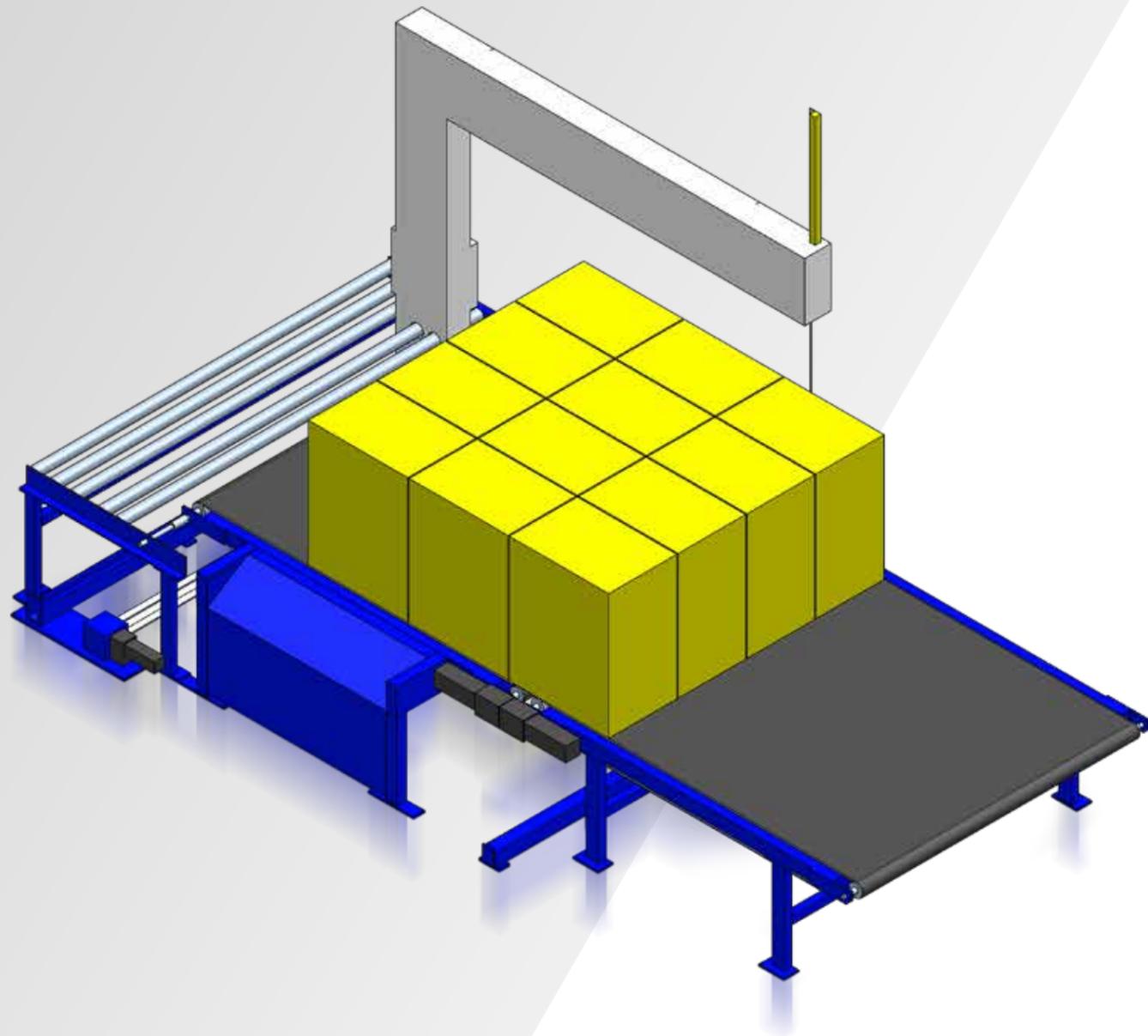
Steel knife bar



Cutting unit



BZM-I VERTICAL CUTTING MACHINE



FULLY AUTOMATIC VERTICAL CUTTING MACHINE FOR CUTTING-OFF OF LONG BLOCKS AND FOR TRIMMING, CUTTING OR DIVIDING OF SHORT BLOCKS

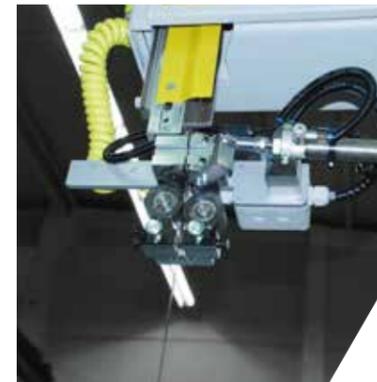
Minimal space requirement of the machine as the cutting unit is fixed parallel to the conveyor. Least space requirement of all comparable machines.

- ✓ The turning of the knife by 90° by means of pneumatic knife turning devices allows longitudinal and cross cuts in every required position
- ✓ Four different work modes for the trimming of short blocks:
 1. Only at the front and at the rear
 2. All four sides
 3. All four sides + centre cuts
 4. Dividing the block into (up to three) further single blocks and individual rectangular cuts
- ✓ Cutting-off function for long blocks at the BZM-I: -cutting-off a short block of a maximum length of 3.050 mm, - separating the short block from the long block, - cutting/trimming of the short block at all sides, preparation for its subsequent processing
- ✓ Exact and fast realization of various rectangular cuts
- ✓ Efficient utilization of the material with minimum waste
- ✓ High efficiency due to a band knife either toothed or ground at both sides which cuts in forward and backward motion
- ✓ Two infinitely variable synchronized transport conveyors can separately move the previously divided blocks and remove them in lengthwise direction
- ✓ Employment of the machine as stand-alone version as well as integrated in cutting lines due to the fully automatic mode of operation
- ✓ The BZM-I machine is an important connection link between rack storage and production process

Material:
Block and sheet ware made from PUR soft foam, PUR rebond foam, visco-elastic foam, latex

Application:
Upholstery, mattress, furniture, packaging and automotive industry as well as technical foams

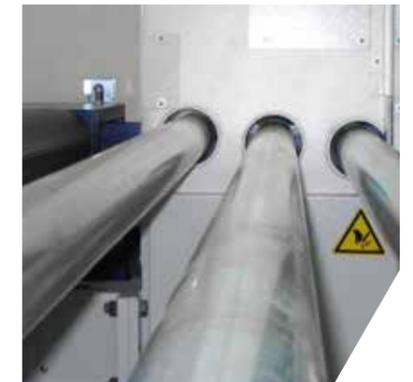
Cutting Tool:
Ground or toothed band knife with a width of 8-15 mm



Knife turning unit



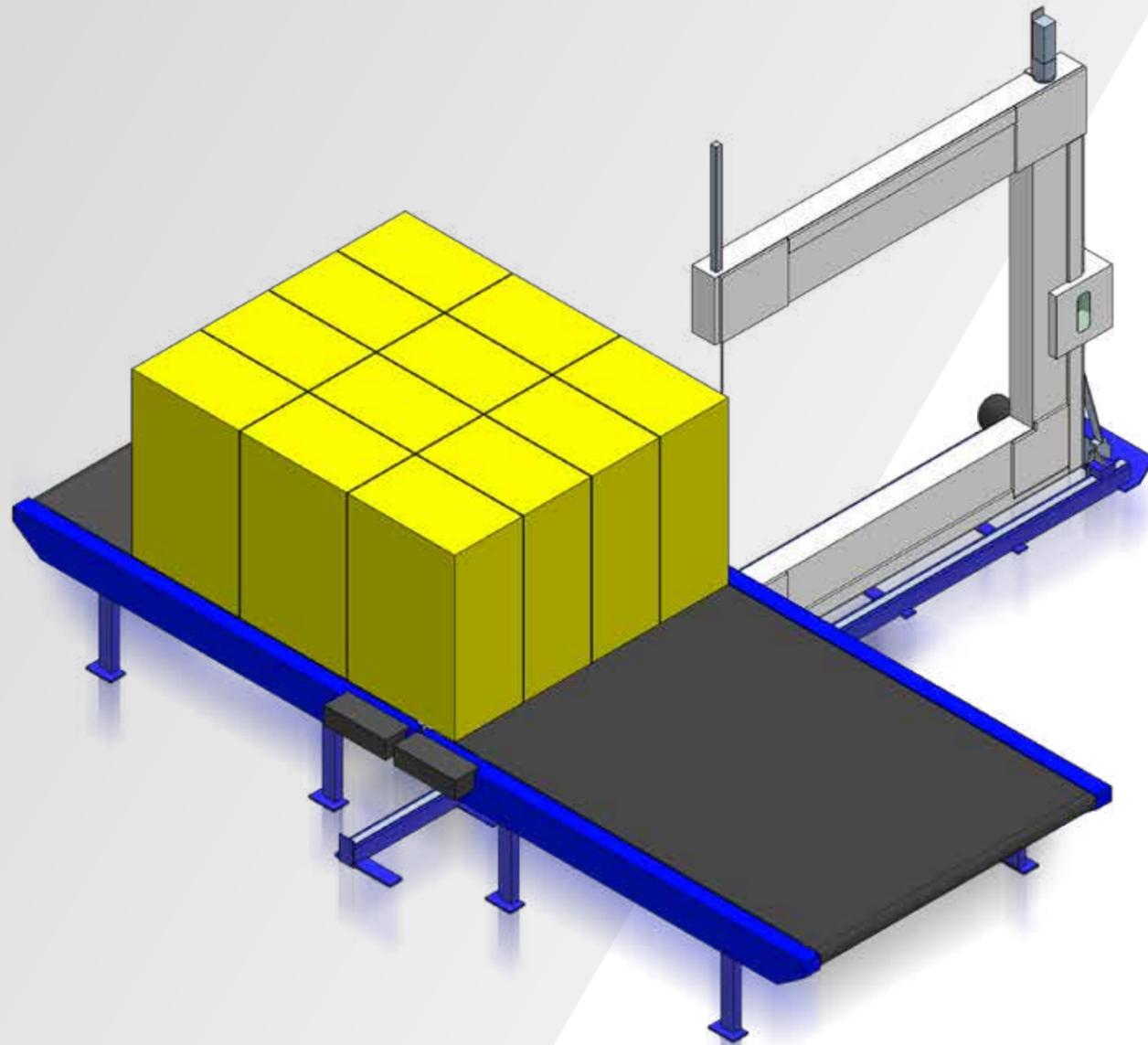
Alignment station



Loading and unloading rollers



BZM-A VERTICAL CUTTING MACHINE



FULLY AUTOMATIC VERTICAL CUTTING MACHINE FOR CUTTING TO LENGTH LONG BLOCKS AND TRIMMING, ADJUSTING OR SPLITTING SHORT BLOCKS

Due to the lateral positioning of the cutting unit, a maximum cutting speed of 40 m/min can be achieved (BZM-I 20 m/min) and the cutting cycle times can be reduced once more

- ✓ The turning of the knife by 90° by a pneumatic knife turning device enables the cutting-off and trimming of a block as well as to cut it to size
- ✓ Four different working modes for the trimming of short blocks:
 1. Only at the front and at the rear
 2. All four sides
 3. All four sides and centre cut
 4. Sectioning of the block into further single blocks and individual rectangular cuts
- ✓ Cutting-off function for long blocks of the BZM-A: - Cutting-off a short block to any length - Separating the short block from the long block - Cutting/trimming the short block on all sides, preparation for subsequent processing
- ✓ Efficient utilization of material with a minimum of waste
- ✓ As standard, the BZM-A is equipped with an on-board knife gap cover so that it is also possible to cut sheet stacks
- ✓ Two infinitely variable synchronized transport conveyors can separately move the previously cut partial blocks and remove them in longitudinal direction
- ✓ Due to the fully automatic mode of operation, the machine can be used either as a stand-alone version or incorporated into cutting lines

Material:
Block and sheet ware made from
PUR soft foam, PUR rebond foam,
visco-elastic foam, latex

Application:
Upholstery, mattress, furniture,
packaging and automotive industry
as well as technical articles

Cutting Tool:
Endless circulating ground or
toothed knife from 8-15 x 0.45 mm



Knife gap cover



Grinding dust extraction unit



Alignment station



BSL-200 HORIZONTAL CUTTING MACHINE



BSL-200 HORIZONTAL CUTTING MACHINE WITH REVERSE BELT SYSTEM FOR THE CUTTING AND SPLITTING OF SHEETS OF VARIOUS THICKNESSES

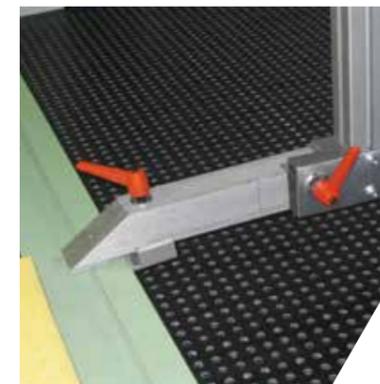
The ideal entry-level model of sound construction with ragged cutting unit

- ✓ Semi-automatic machine for the converting of materials with light to medium densities
- ✓ Non swivelling cutting unit (in contrast to all other machines of the BSL series)
- ✓ Achievement of excellent cutting results and precise sheet thicknesses by the manual adjustment of the knife binding between -1 and +5 degrees
- ✓ Equipped with belt system for easy loading and unloading

Material:
PUR foam and PUR rebond foam,
visco foams, Basotect®, latex,
reticulated foams

Application:
Furniture and mattress industry,
automotive industry, technical
articles, filter industry

Cutting Tool:
The endless band knife of
30 mm, which runs over 4 wheels,
is stabilized by an upper and lower
binding



Binding support



Operator panel



Grinding unit



BSL-204 HORIZONTAL CUTTING MACHINE



BSL-204 HORIZONTAL CUTTING MACHINE WITH REVERSING TABLE AND MAXIMUM HOLDING POWER THROUGH AN ON-BOARD VACUUM UNIT

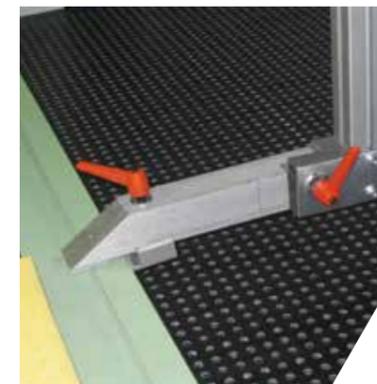
Perfect suitability for the fully automatic splitting and cutting of different materials with lightweight or medium densities

- ✓ Low throughput rates due to a maximum velocity of 80 m/min
- ✓ Effective increase in productivity
- ✓ Creation of optimal cutting angles and cutting of precise sheet thicknesses by an all-automatic angle adjustment option of the cutting unit
- ✓ Swivelling cutting unit allows for longer knife lifetime and low set-up costs
- ✓ Permanently high cutting precision throughout the knives lifetime thanks to the employment of a band knife of 30 mm width which is ground by an integrated grinding unit
- ✓ Very precise cutting tolerances through high tension of the binding
- ✓ Minimization of an off-set of the cut sheets

Material:
PUR foam and PUR rebond foam,
visco foams, Basotect®, latex,
reticulated foams

Application:
Furniture and mattress industry,
automotive industry, packaging
industry, technical articles, filter
industry

Cutting Tool:
The machine is equipped with an
endless bandknife of 30 mm width
which runs over 4 wheels in the
cutting unit



Binding support



Grinding dust extraction unit



Vacuum unit



BSL-214 HORIZONTAL CUTTING MACHINE



AUTOMATIC HORIZONTAL CUTTING MACHINE WITH REVERSE BELT SYSTEM FOR THE CUTTING AND SPLITTING OF SHEETS OF VARIOUS THICKNESSES

For the converting of lightweight up to medium densities

- ✓ Low throughput rates due to a maximum velocity of 80 m/min
- ✓ Effective increase in productivity
- ✓ Creation of optimal cutting angles and cutting of precise sheet thicknesses by an all-automatic angle adjustment option of the cutting unit
- ✓ Swivelling cutting unit allows for longer knife lifetime and low set-up costs
- ✓ High cutting precision throughout the knives lifetime thanks to the employment of a band knife of 30 mm width which is ground by an integrated grinding unit
- ✓ Precise cutting tolerances through high tensioning of the binding
- ✓ A perforated belt running around the table serves for the block transport and allows a fast and easy integration of the BSL 214 into automated production processes in connection with other cutting machines, e.g. an OFS-VS vertical contour cutting machine

Material:
PUR foam and PUR rebond foam
visco foams, Basotect®, latex,
reticulated foams

Application:
Furniture and mattress industry.
Automotive industry, packaging
industry, technical articles, filter
industry

Cutting Tool:
The machine is equipped with an
endless bandknife of 30 mm width
which runs over 4 wheels in the
cutting unit



Binding



Grinding unit

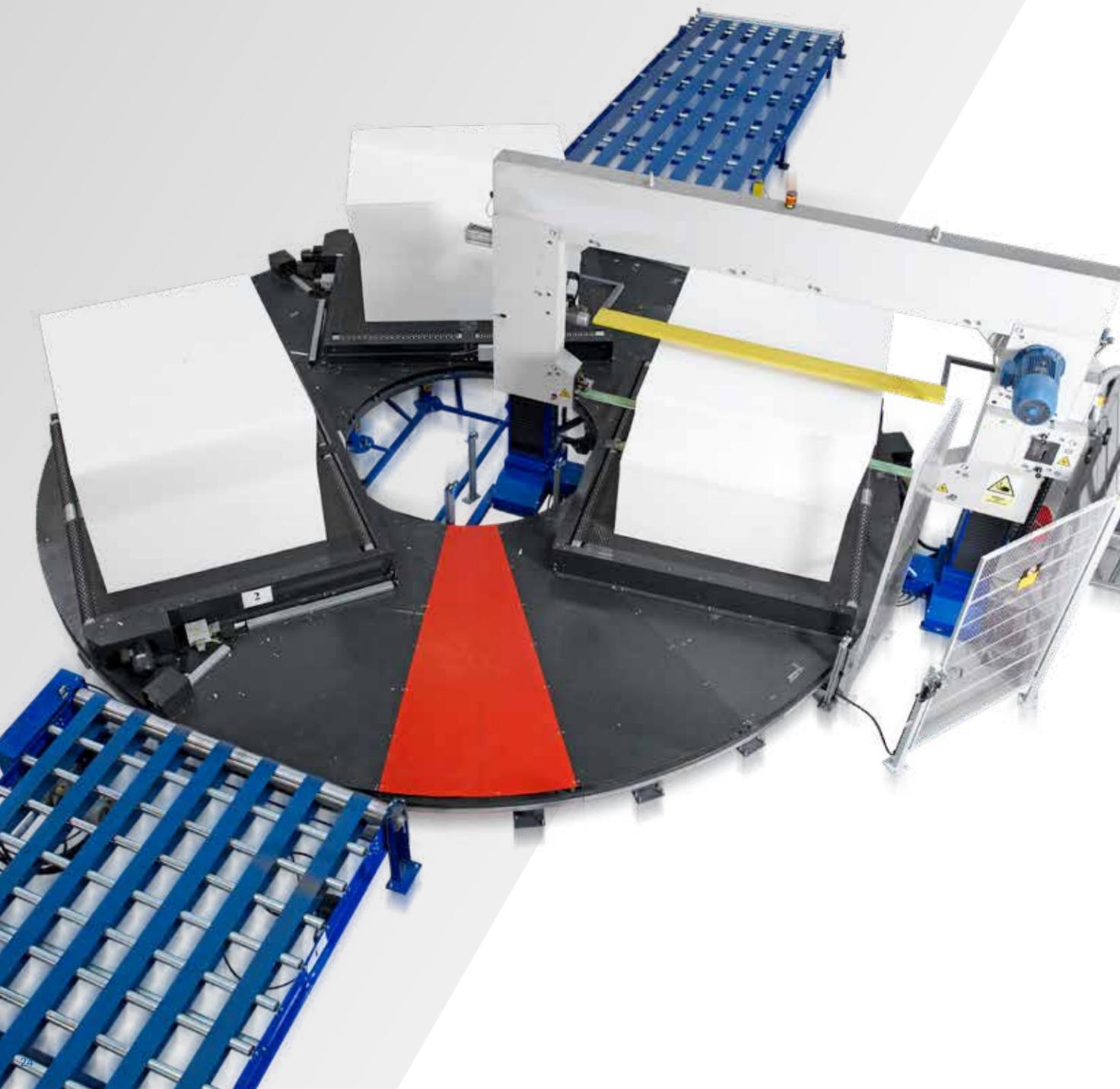


Angle adjustment of the cutting unit



BSL-D HORIZONTAL CUTTING MACHINE

HORIZONTAL CUTTING MACHINE WITH TURNTABLE (CAROUSEL) FOR THE CUTTING/SPLITTING OF SHEETS OF DIFFERENT SIZES AND QUANTITIES



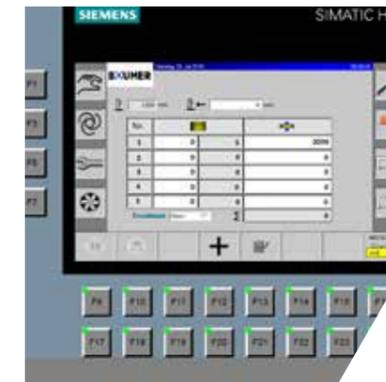
Converting of lightweight up to medium densities

- ✓ High cutting precision throughout the knives lifetime thanks to the employment of a band knife of 30 mm width which is ground by an integrated grinding unit
- ✓ Creation of optimal cutting angles and cutting of precise sheet thicknesses by a fully automatic angle adjustment option of the cutting unit
- ✓ Standard equipment vacuum units ensure optimal fixation of material to be cut
- ✓ Swivelling cutting unit allows for longer knife lifetime and low set-up costs
- ✓ Various table diameters available for the optimal utilization of the machine
- ✓ Fully automatic version of the BSL-D, depending on the table diameter, with corresponding loading and unloading conveyors upstream and downstream of the machine

Material:
PUR foam and PUR rebond foam,
visco foams, Basotect®, latex,
reticulated foams

Application:
Furniture industry, production of
mattresses, automotive industry,
packaging industry, technical
articles

Cutting Tool:
The machine is equipped with an
endless bandknife of 30 mm width
which runs over 4 wheels in the
cutting uni



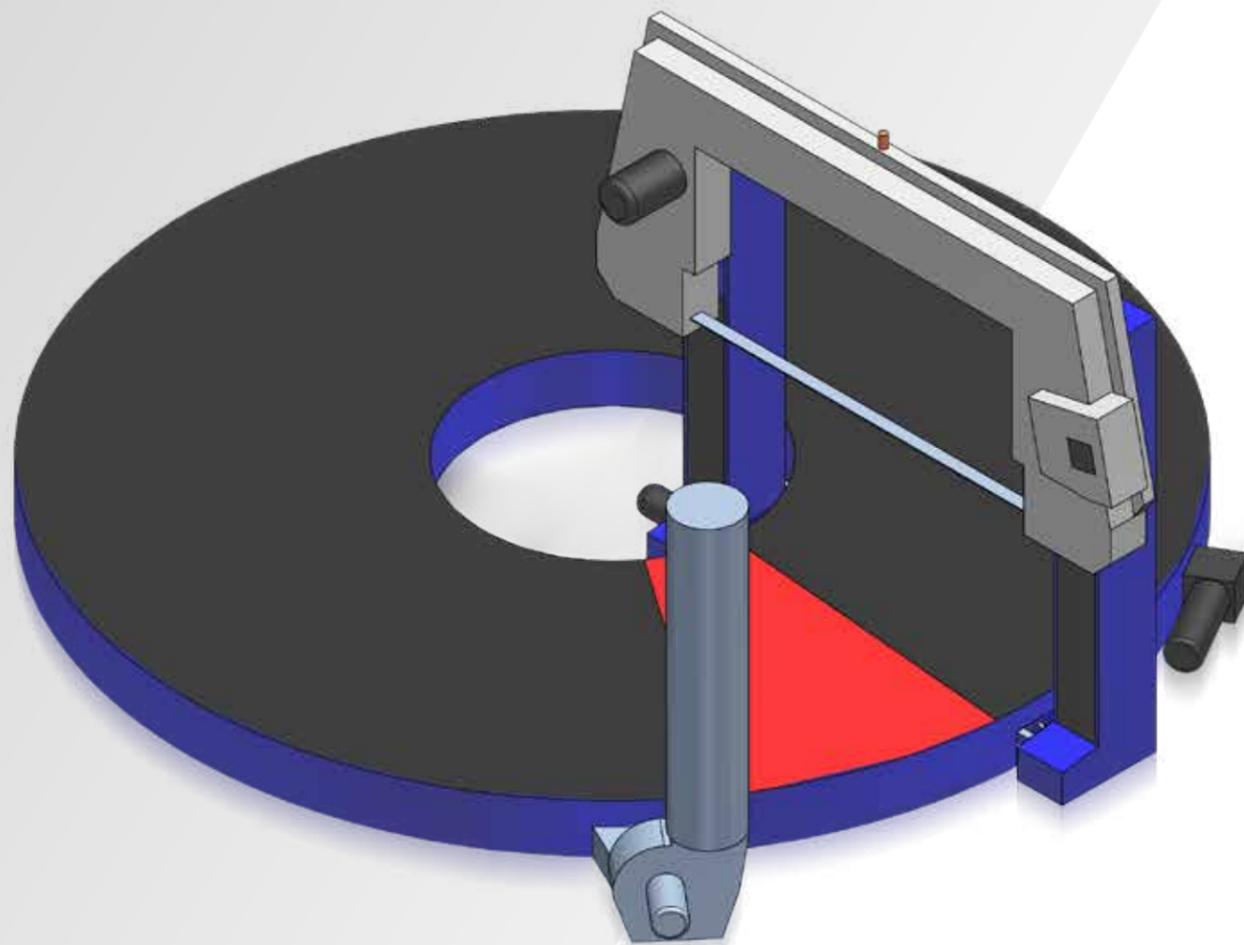
Control automatic



Table drive



BST-D HORIZONTAL CUTTING MACHINE



HORIZONTAL CUTTING MACHINE WITH TURNTABLE (CAROUSEL) FOR THE CUTTING AND SPLITTING OF SHEETS WITH DIVERSE THICKNESSES IN LARGE QUANTITIES

Specially re-inforced design of the cutting unit allows the optimal converting of medium and high volumetric weights

- ✓ Standard equipment vacuum units ensure optimal fixation of material to be cut
- ✓ Swivelling cutting unit allows for longer knife lifetime and low set-up costs
- ✓ High cutting precision throughout the knives lifetime thanks to the employment of a band knife of 60 mm width which is ground by an integrated grinding unit
- ✓ Optimum angle cutting and precise sheet thickness cuts thanks to fully automatic angle adjustment of the cutting unit depending on the cutting thicknesses
- ✓ Optional full automation of the carousel cutting machine with a belt system integrated in the turntable combined with loading and unloading conveyors
- ✓ Various table diameter can be selected for optimal utilization of the machine

Material:
PUR-ether and PUR-ester foam,
PU rebond foam, visco-elastic
foams, Basotect®, latex,
reticulated foams

Application:
Furniture industry, mattress
production, automotive industry,
packaging industry, technical
articles

Cutting Tool:
The machine is equipped with an
endless band knife of 60 mm width
which runs over 4 wheels inside the
cutting unit



All-automatic angle adjustment



Control manual



Table drive



BST-140 HORIZONTAL CUTTING MACHINE

AUTOMATIC HORIZONTAL CUTTING MACHINE WITH REVERSE BELT SYSTEM FOR THE CUTTING/SPLITTING OF SHEETS OF VARIOUS THICKNESSES BY A STACK CUT

The specially reinforced design of the cutting unit ensures a very high binding tension of approx. 10 t and thus provides the best possible way of converting light to higher densities

- ✓ Low throughput rates due to a maximum cutting and return motion speed of 80 m/min
- ✓ Effective increase in productivity
- ✓ Optimum angle cutting and precise sheet thicknesses cuts thanks to fully automatic angle adjustment of the cutting unit depending on the cutting thicknesses
- ✓ High cutting precision throughout the very long knife lifetime thanks to the employment of a band knife of 60 x 0.6 mm
- ✓ Swivelling cutting unit allows for longer knife lifetime and low set-up costs
- ✓ Grinding duration and grinding cycle can be regulated at the grinding unit by the operator
- ✓ A perforated sheet circling around the table serves for the transport of the blocks and allows a fast and uncomplicated integration into fully automated production processes, e.g. cutting lines

Material:
PUR-ether and PUR-ester foam, PU rebond foam, reticulated foams, latex, Basotect® as well as similar materials with light up to higher densities

Application:
Furniture and mattress industry, automotive industry, packaging industry, technical articles

Cutting Tool:
Endless band knife, 60 mm x 0.6 mm, runs over 4 light alloy wheels inside the cutting unit



All-automatic angle adjustment



Control automatic



Grinding dust extraction unit



BST-150 HORIZONTAL CUTTING MACHINE



AUTOMATIC HORIZONTAL CUTTING MACHINE WITH REVERSE TABLE FOR THE CUTTING/SPLITTING OF SHEETS WITH VARIOUS THICKNESSES

The specially reinforced design of the cutting unit ensures a very high binding tension of approx. 10 t and thus provides the best way of converting light to heavy densities

- ✓ Low throughput rates due to a maximum cutting and return motion speed of 80 m/min
- ✓ Effective increase in productivity
- ✓ Optimum angles cutting and precise sheet thicknesses cuts thanks to the automatic angle adjustment of the cutting unit
- ✓ High cutting precision throughout the very long knife lifetime thanks to the employment of a band knife of 60 x 0.6 mm
- ✓ Swivelling cutting unit allows for longer knife lifetime and low set-up costs
- ✓ Grinding duration and grinding cycle can be regulated at the grinding unit by the operator
- ✓ Optional equipment of the machine with transport conveyors and holding down device
- ✓ By storing the qualities, the cutting unit is automatically swivelled into the best position to the material when the cutting thickness is changed

Material:
PUR-ether and PUR-ester foam, PUR rebond foam, reticulated foams, latex, Basotect® as well as similar materials with light up to high densities

Application:
Furniture industry, production of mattresses, automotive industry, packaging industry, technical articles

Cutting Tool:
Endless band knife, 60 mm x 0.6 mm, runs over 4 light alloy wheels inside the cutting unit



All-automatic angle adjustment



Grinding unit



BSA HORIZONTAL CUTTING MACHINE

SPLITTING MACHINE WITH INTEGRATED DE-STACKING SYSTEM FOR THE SPLITTING OF FLEXIBLE SOFT FOAMS

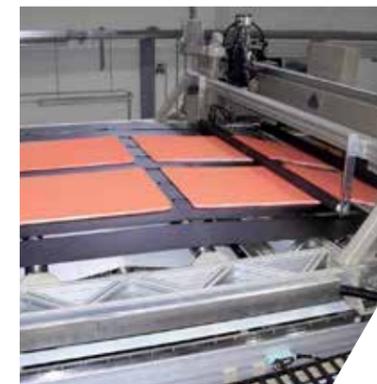
Unique splitting system: The cutting unit moves horizontally and works with 2 tables which are adjustable in height. On the first table the material is fed, on the second table the split sheet ware is de-stacked

- ✓ High productivity due to cutting speeds of up to 100 m/min. Cutting angle and pressure roller are automatically adjusted depending on material and cutting thickness
- ✓ Creation of sheet stacks with almost no misalignments by automatically removing and destacking the material
- ✓ Due to the utilization of a slim knife bar it is possible to cut a very wide range of different materials with minimal cutting tolerances
- ✓ The automatic re-adjustment of the knife secures a constant cutting and tolerance quality
- ✓ The machine is suitable for being incorporated into an all-automatic cutting line, e.g. in connection with a vertical contour cutting machine

Material:
PUR-ether and PUR-ester foams,
PUR rebond foam, PE, EVA,
reticulated foams, melamine foams,
sponge rubber, cellular rubber,
Neopren (EPDM), visco

Application:
Upholstery and furniture industry,
automotive industry, packaging
industry, technical articles

Cutting Tool:
Precision-ground endless band
knife of 60 mm width, running over
2 wheels, stabilized by an upper and
lower binding integrated into the
knife bar



Cut material



Cutting process



Pallet conveying system





OFS-TWINCUT HORIZONTAL CONTOUR CUTTING MACHINE

VERSATILE USE IN THE CONTOUR CUTTING TECHNIQUES DUE TO THE ALTERNATE USE OF A CIRCULATING OR AN OSCILLATING KNIFE IN A SINGLE CUTTING UNIT

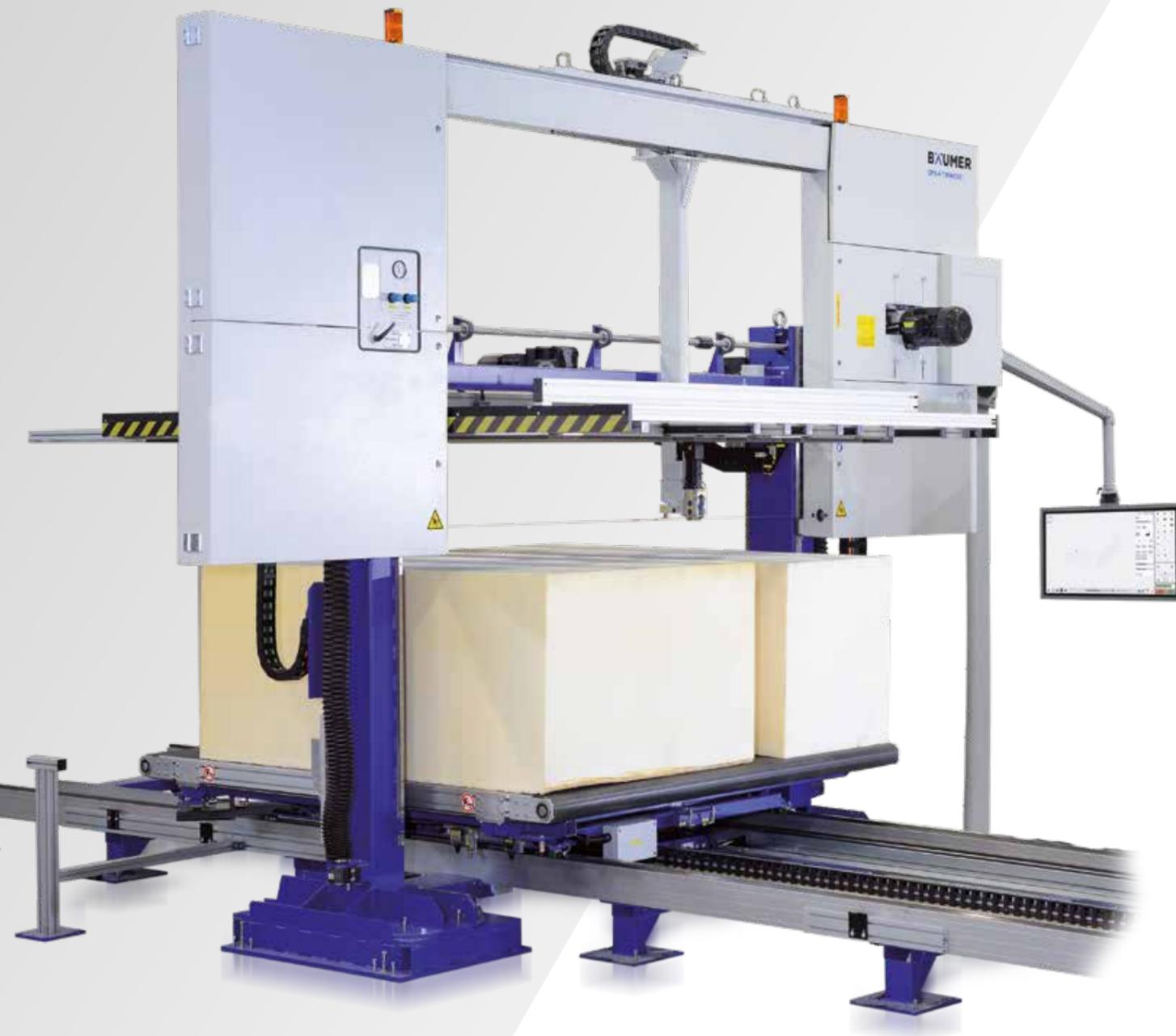
Double functionality of the OFS-Twincut: Allows very fast cutting of cushion parts and mattresses by means of the circulating knife (40 m/min max.). Guarantees high precise cutting of technical parts by means of the oscillating knife (10 m/min max.)

- ✓ Dust-free cuts of any three-dimensional contours with both cutting technologies
- ✓ Excellent cutting precision combined with highest cutting speed
- ✓ 3 axis machine with CNC control and windows operation system
- ✓ The exchanging between a circulating and an oscillating knife can be done within no time
- ✓ Saving of time and money due to an fully automatic cycle with turntable and loading/unloading conveyors
- ✓ WinCAP software for the external generation of material-saving cutting program
- ✓ Integration in cutting lines
- ✓ Possible inclusion of a motor-driven grinder

Material:
PUR soft foam PUR HR foam,
visco foam, latex, rebond foam,
Basotect®

Application:
Upholstery, mattress, furniture,
packaging and automotive industry,
technical articles

Cutting Tool:
Depending on the material,
precision-ground micro-toothed or
ground knife, either circulating or
oscillating



Sheet holding down device



Control B-Flex



Knife tension setting



OFS-222

HORIZONTAL CONTOUR CUTTING MACHINE



HORIZONTAL CONTOUR CUTTING MACHINE EQUIPPED WITH AN OSCILLATING KNIFE FOR MOST PRECISE CUTS

Specially suitable for technical parts which require extreme accuracies and for the converting of material with high densities

- ✓ Clean contour without any marks due to an endlessly turnable knife without any turning points
- ✓ Very short machine downtimes thanks to a fast changing of the knife
- ✓ Integration of the OFS-222 into automatic cutting lines possible
- ✓ Maximum precision when cutting parts for the automotive industry, such as backrests, seats, gaskets, cable insulation or sound insulation components, even at high densities or with Basotect®
- ✓ Second center support possible for processing technical items

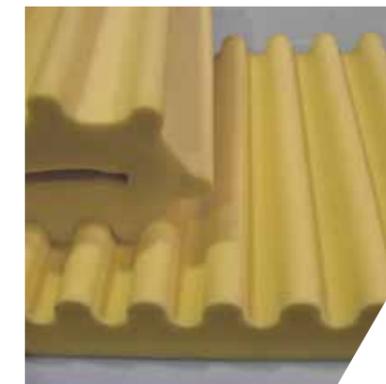
Material:
HR and CMHR foam, PUR soft foam, visco foam, Basotect®, rebond foams, frame foam

Application:
Automotive industry, upholstery and furniture industry, mattress and packaging industry, medical technology, technical articles

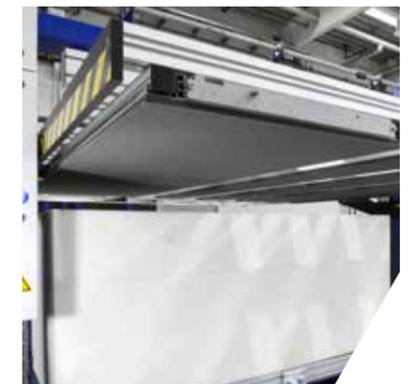
Cutting Tool:
Precision-ground micro-toothed oscillating knife 3 x 0.6 mm



Center support



Visco contour cut



Sheet holding down device



OFS -HE3 HORIZONTAL CONTOUR CUTTING MACHINE



FASTEST AND MOST EFFICIENT SOLUTION OF THE HORIZONTAL CONTOUR CUTTING MACHINES WITH CIRCULATING KNIFE FOR THE CUTTING OF CUSHIONS AND MATTRESSES

Possibility of an integration of the OFS-HE 3 into an automatic cutting line

- ✓ Bulk production of cushion parts made from PUR soft foam, visco or latex in no time
- ✓ Highest possible dynamics due to the functional principle of separated table and cutting unit drives
- ✓ High productivity and quality with the cutting of simple up to complex mattresses, for example made from PUR soft foam, PU HR foam or latex
- ✓ Long knife lifetime and high precision when cutting parts for the automotive industry such as backrests, seats, gaskets, cable insulation or parts for acoustic insulation, even with high densities or Basotect®
- ✓ Centre support for a better support of the knife
- ✓ Fully automated holding down system for fixing the block
- ✓ Fully automatic version of the horizontal contour cutting machine with automatic turntable and transport conveyors for loading and unloading.
- ✓ Utilization of a micro-toothed knife avoids regrinding and guarantees a constant cutting quality
- ✓ Optional inclusion of a separator
- ✓ Block area programming available as an option

Material:
PUR soft foam, PUR HR foam,
visco-elastic foam, latex, light-
weight rebond foams, Basotect®

Application:
Upholstery, furniture industry,
mattress and automotive industry

Cutting Tool:
Precision-ground micro-toothed
circulating knife 3 x 0.6 mm



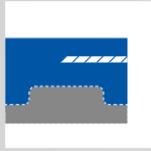
Center support



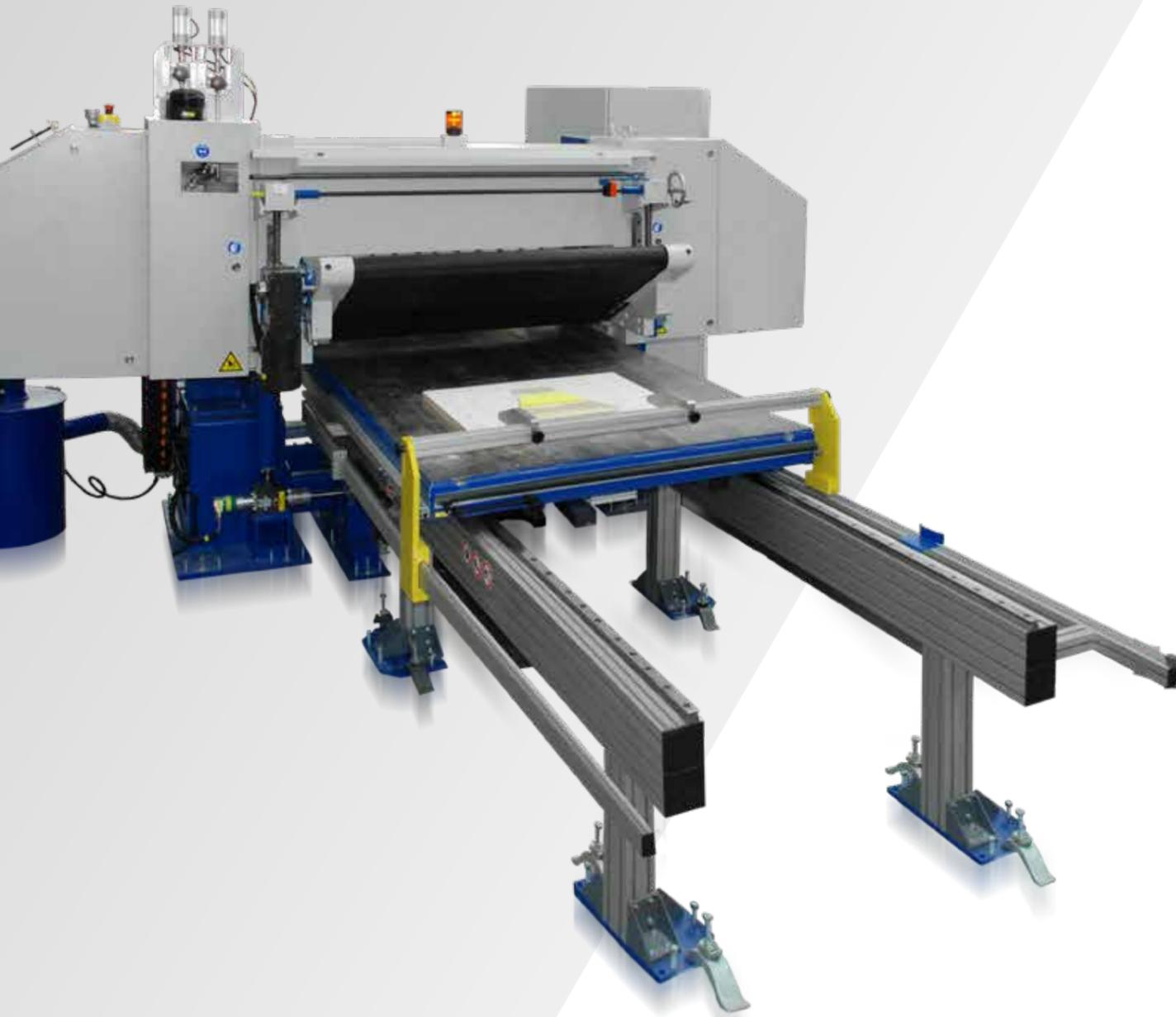
Knife tension setting



Cut up to 3 blocks at the same time



FSM-1 COMPRESSION CUTTING MACHINE



FORM PROFILE CUTTING MACHINE FEATURING A REVERSING TABLE AND STATIONARY CUTTING UNIT FOR PRODUCING NEARLY ALL THREE-DIMENSIONAL FORM PARTS MADE OF ELASTIC FOAM MATERIALS BY MEANS OF A GIVEN FORM

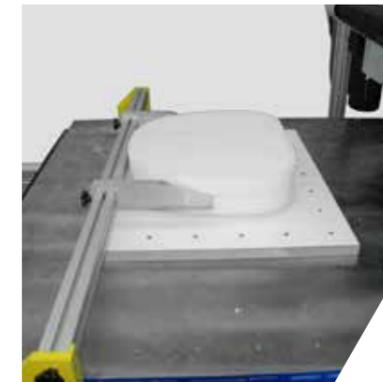
Able to produce positive parts (e. g. cushion parts) as well as negative parts (e. g. packaging industry) by means of compression cutting.

- ✓ Small and large bath sizes can be economically produced within short time
- ✓ The solid machine design allows a compression ratio of 1:20 and offers thus a high potential for the individual design of shaped pieces
- ✓ A sturdy knife bar with automatic knife readjustment ensures a steady knife position and thus constant production qualities
- ✓ Latest PLC control together with an operator panel enables a storing of production data and ensures a perfect reproducibility of the shapes
- ✓ State-of-the-art servo drive technology allows feeding accuracies of 2/100 mm

Material:
PUR soft foam, visco-elastic foam,
rebond foam, Basotect® as well as
lightweight PE

Application:
Upholstery and mattress industry,
packaging industry, fabrication of
technical articles

Cutting Tool:
Precision-ground endless circulating
knife of 40 x 0.5 mm, guided in a
stable knife bar with exchangeable
upper and lower bindings



Foam in the mold



Downstream take-off conveyor



OFS-VS VERTICAL CONTOUR CUTTING MACHINE



ALL-PURPOSE VERTICAL CONTOUR CUTTING MACHINE FOR THE CONVERTING OF SHEETS AND BLOCK WARE WITH UTMOST ACCURACY AND PERFORMANCE

The machine consists of a stationary cutting unit with an integrated knife guiding and a belt system coupled by a PLC control.

- ✓ A cutting speed of 80 m/min allows a very high productivity
- ✓ Pre-programmable speed for different cutting materials
- ✓ Accurate contours and narrow tolerances due to a knife turning angle of +/- 270° respectively +/- 360° and a very thin knife
- ✓ Perfect cutting of acute angles, sharp edges and small radius
- ✓ Holding down device secures material with low self-adhesion or high stacking heights, in particular with fleece materials
- ✓ Due to the innovative design with two separated cutting units minimal space is needed
- ✓ Utilization of a micro-toothed knife is possible and spares the regrinding of the knife and ensures a constant cutting quality
- ✓ Optional inclusion of on-board lateral brackets for optimum fixation of sheet stacks consisting of materials with a smooth surface, PE sheets, laminated materials
- ✓ The OFS-VS is eminently suited for being integrated into a cutting line, e. g. in connection with a horizontal splitting machine and a stacking machine or with a horizontal contour cutting machine

Material:
PUR soft foam and rebond foams,
PE, polyester und non-woven fabric,
reticulated foams, melamine foams,
laminated materials

Application:
Upholstery, furniture, packaging
and automotive industry as well as
fabricators of technical articles

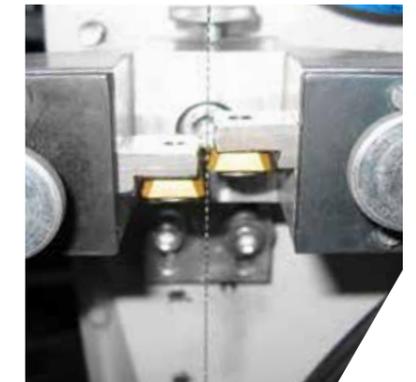
Cutting Tool:
Circulating, precision-ground knife
3 x 0.45 mm, micro-toothed or
ground



Contour part



Control B-Flex



Knife stripping device



OFS-221

HORIZONTAL CONTOUR CUTTING MACHINE



HORIZONTAL CONTOUR CUTTING MACHINE WITH A STATIONARY CUTTING UNIT AND REVERSING TABLE FOR THE CUTTING OF HARDER MATERIAL BY MEANS OF A CIRCULATING CUTTING WIRE

A special wire serving as broach can cut precise form parts even out of very hard materials due to its all-round cutting surface

- ✓ Cuts every shape required, even right angles and the smallest radius
- ✓ Cutting speeds of up to 5 m/min, depending on material and contour
- ✓ Continuously pre-selectable cutting speed
- ✓ Continuously variable wire speed for the optimal converting of diverse materials and qualities
- ✓ An integrated dust extraction unit for the optimal removal of the occurring cutting dust
- ✓ Optional equipment of the working table with transport conveyors for an easier loading and unloading

Material:
PUR rigid foam and soft foam, PUR rebond foam, polystyrene, PE, rock wool/glass wool, Foamglas®, phenol foam, Basotect®

Application:
Automotive industry, upholstery and furniture industry, packaging industry, construction engineering, acoustic and heat insulation and insulation technology

Cutting Tool:
Endless, patented special wire with a diameter of 1 - 1.5 mm



Cutting example



Cutting wire



OFS-VW VERTICAL CONTOUR CUTTING MACHINE



VERTICAL CONTOUR CUTTING MACHINE WITH CIRCULATING WIRE FOR THE CUTTING OF ANY GEOMETRICAL TWO-DIMENSIONAL CONTOUR

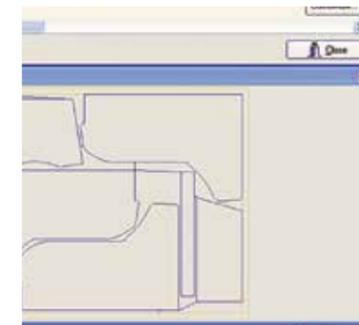
Minimum loss of material during the cutting process thanks to the special wire with little cross cut

- ✓ Cutting of any contour cuts and production of sharp-edged corners by the all-over cutting effect of the cutting wire
- ✓ OFS-VW cutting speed can be infinitely preset depending on the characteristics of the material (max. 40 m/min)
- ✓ Infinitely variable wire speed also for cutting extremely hard material qualities
- ✓ Employment of an endless special wire, produced by Bäumer according to a patented procedure
- ✓ Windows-based CNC control offers the possibility to easily program directly at the machine or also in conjunction with WinCAP

Material:
PU rigid foam, PVC and PET rigid foam, EPS and XPS, glass and mineral wool, laminated materials, rebond foam, phenolic foam

Application:
Construction industry, insulation technology, automotive and packaging industry

Cutting Tool:
Patent endless high speed cutting wire with various cross cuts



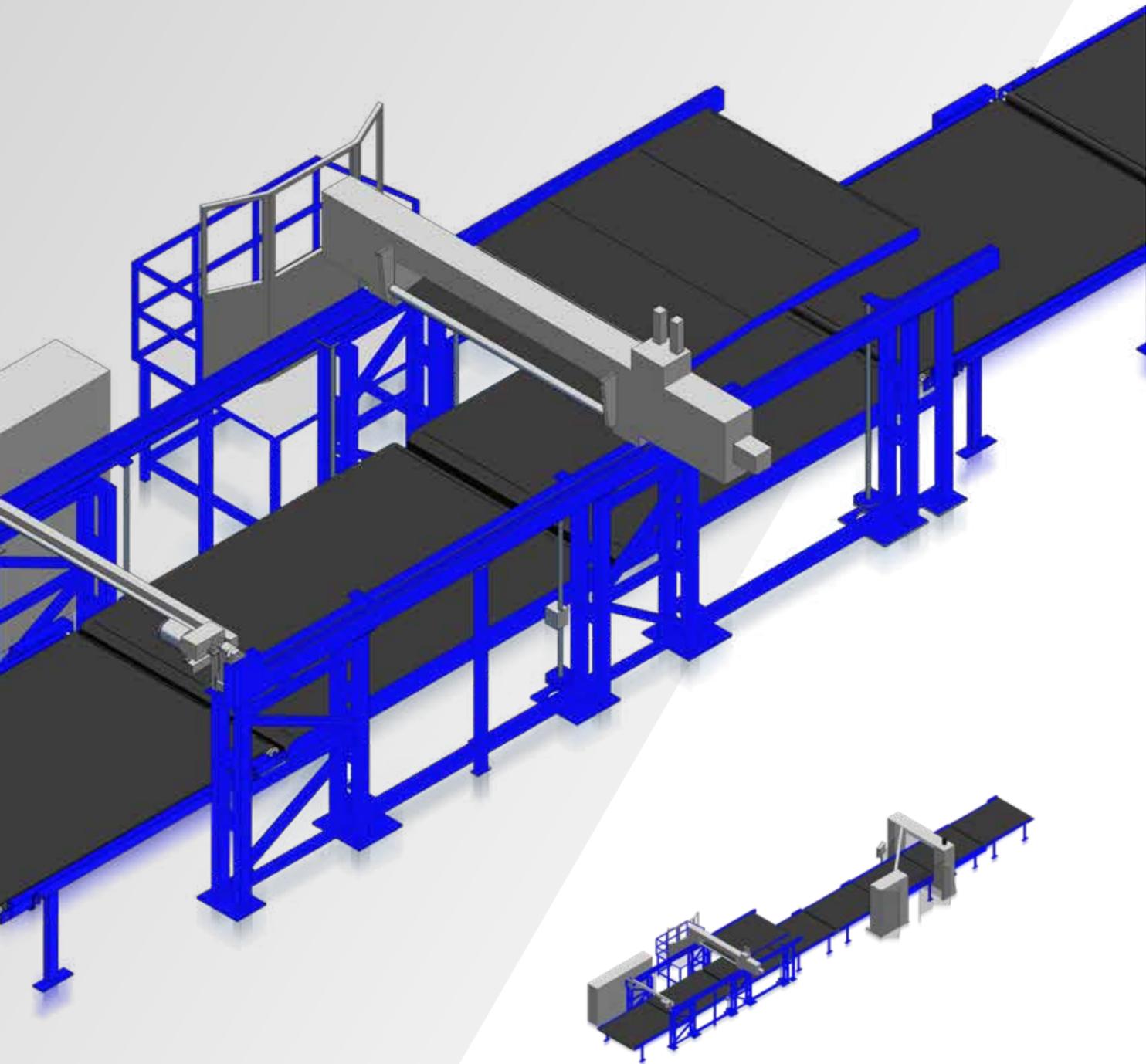
Nesting



Wire guide



BSA AND OFS-VS CUTTING LINE



CUTTING LINE FOR THE AUTOMATIC CUTTING OF BLOCKS INTO SHEET WARE AND FROM SHEET WARE INTO CONTOURS WITHOUT ANY MANUAL INTERVENTION

Cutting centre consisting of a BSA horizontal splitting machine with integrated de-stacking device and a vertical OFS-VS contour cutting machine for the automatic cutting of blocks into sheet ware and from sheet ware into contours without any manual intervention

- ✓ By automatically unloading and automatically de-stacking each sheet after they have been cut at the BSA, a stack with hardly any offset is formed which is then transported fast and easily to the OFS-VS machine where it is cut into contours
- ✓ Simultaneous, parallel and all-automatic processing of the jobs at both foam cutting machines for achieving a very high capacity
- ✓ Utilization of the cutting line for pure cushion and furniture cuts as well as for the cutting of technical parts
- ✓ Interlinkage of both cutting machines through a superior control
- ✓ Splitting of elastic PUR materials as well as of lightweight polyethylene and similar materials thanks to the employment of knife bar and pressure roller
- ✓ High production capacity through a high cutting velocity of 100 m/min at the BSA and 80 m/min at the OFS-VS machine
- ✓ Flexible adaption of the system to different space conditions - both foam cutting machines can be arranged in a line or in parallel alignment with the employment of a shuttle system
- ✓ Incorporation of shuttle systems for the integration of the cutting line into a complete production process
- ✓ Both machines can also be used for individual operation, even at the same time
- ✓ The range of applications of both machines is completely retained, i.e. non-woven material or adhesive laminated sheet ware can be cut into contours by the OFS-VS machine, independently of the BSA machine
- ✓ The BSA is equipped with a knife bar for the splitting of a very wide range of different material qualities

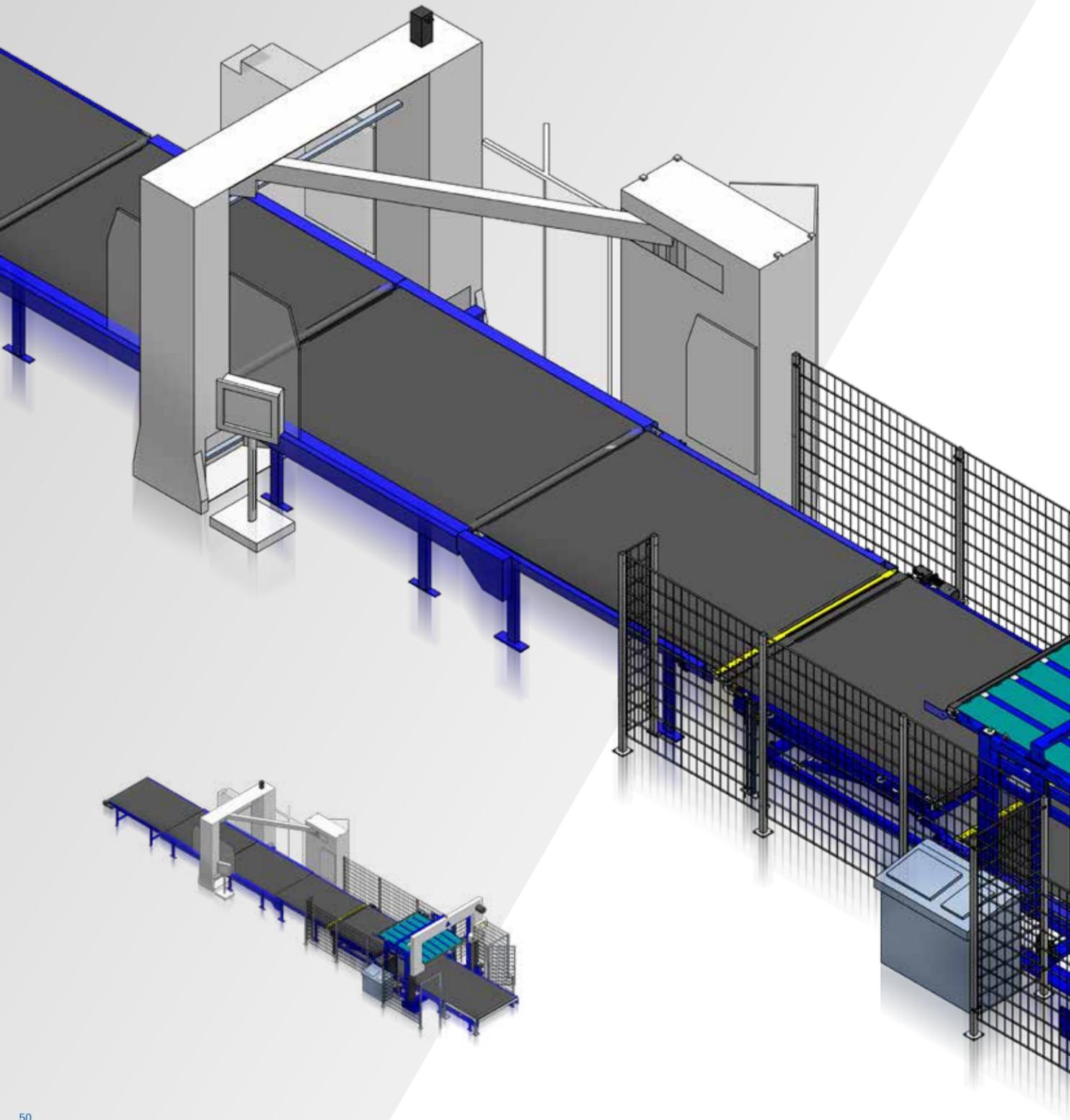
Material:
PUR foams and PUR rebond
foams, PE, EVA, reticulated foams,
melamine foams, sponge rubber,
cellular rubber, Neoprene, EPDM

Application:
Upholstery and furniture industry,
automotive industry, packaging
industry

Cutting tool:
BSA: band knife 60 mm x 0.6 mm
OFS-VS: precision-ground
micro-toothed circulating knife
3 x 0.6 mm



BSL-214 AND OFS-VS CUTTING LINE



CUTTING LINE FOR THE AUTOMATIC CUTTING OF BLOCK WARE INTO SHEET WARE AND OF SHEET WARE INTO CONTOURS, WITHOUT ANY MANUAL INTERVENTION

Cutting centre consisting of a BSL-214 horizontal splitting machine and OFS-VS vertical contour cutting machine for the automatic cutting of block ware into sheet ware and of sheet ware into contours, without any manual intervention

- ✓ Flexible production of sheet ware of various thicknesses and numbers at the BSL-214 in order to subsequently cut the required amount of contours at the OFS-VS
- ✓ Simultaneous, parallel and fully automatic processing of the jobs at both foam cutting machines for achieving a very high capacity
- ✓ Interconnection of both cutting lines by a superior control
- ✓ Incorporation of shuttle systems for the integration of the cutting line into a complete production
- ✓ Both machines can also be used for individual operation, even at the same time
- ✓ The application range of both individual machines is completely maintained, i.e. non-woven material or adhesive laminated sheet ware can be cut into contours at the vertical contour cutting machine, independently from the BSL-214 machine

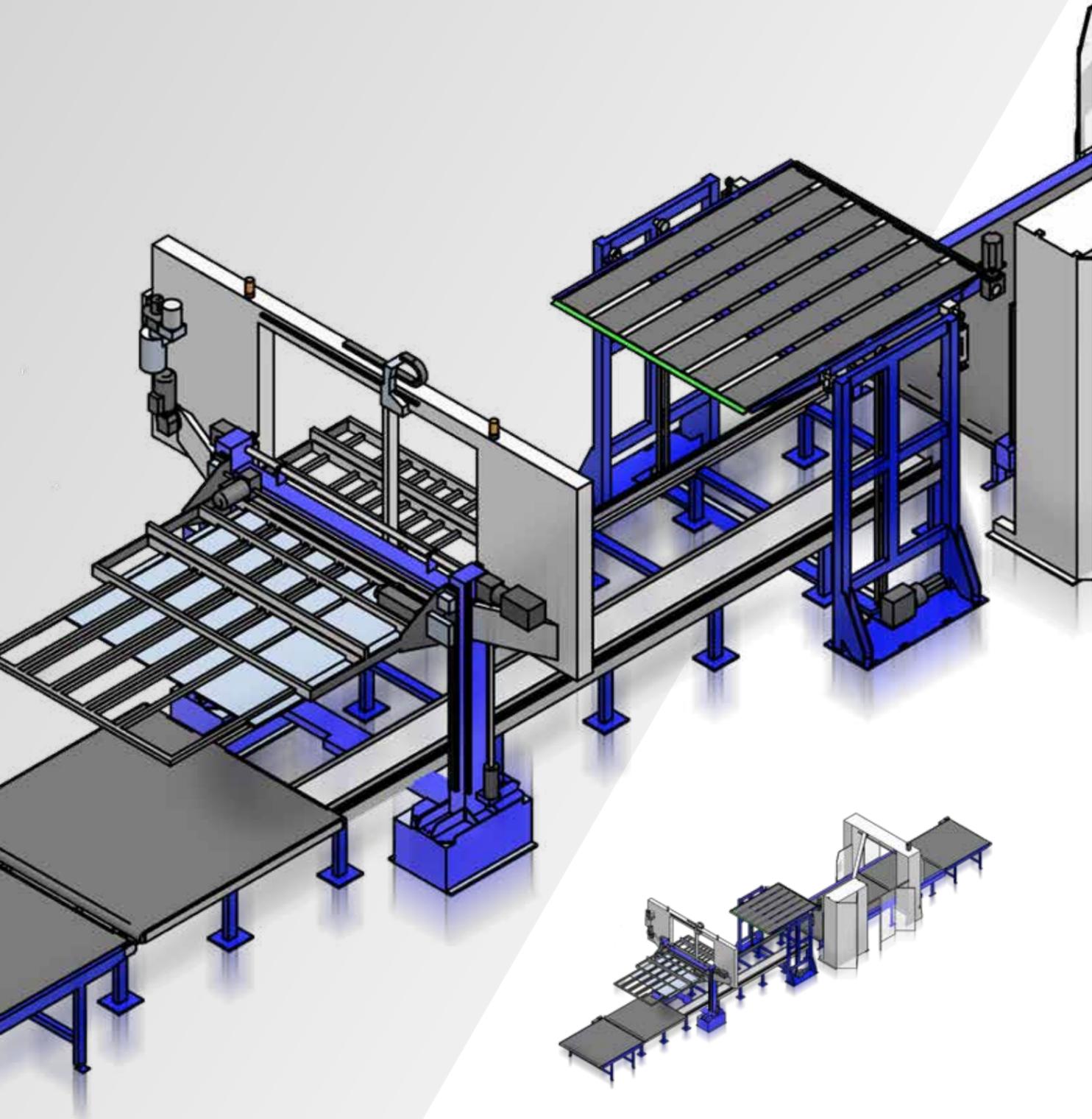
Material:
PUR and PUR rebond foam,
visco-elastic foam, reticulated
foam, Basotect®, latex

Application:
Upholstery and furniture
industry, packaging industry,
automotive industry

Cutting tool:
BSL 214: Band knife
30 mm x 0.45 mm,
OFS-VS : precision-ground micro-
toothed circulating knife 3 x 0.6 mm



OFS-HE3 AND OFS-VS CUTTING LINE



CUTTING LINE FOR AUTOMATIC CUTTING OF THREE-DIMENSIONAL PARTS IN A PROCESS INSTEAD OF OTHERWISE COMPLEX BONDING

Cutting center featuring horizontal contour cutting machine OFS-HE3, height-adjustable take-off conveyor and vertical contour cutting machine OFS-VS

- ✓ Utilization of the cutting line for pure mattress or furniture cuts as well as for 3D contours and technical parts
- ✓ High capacity and flexibility of the cutting centre as both contour cutting machines can process different jobs at the same time
- ✓ Fully automatic sheet transport from the horizontal to the vertical contour cutting machine
- ✓ Consistently high cut quality with no manual intervention in the production process (unmanned)
- ✓ Both machines are linked to each other and are controlled by a superior software (POS)
- ✓ Automatic production of 3D parts in one process instead of time-consuming gluing
- ✓ System flexibly adapts to different space requirements - the machines can be arranged in a line or integrated in complete cutting lines

Material:
PUR soft foam, PUR HR foam,
visco-elastic foam, latex, non-woven
material, Basotect®

Application:
Upholstery, mattresses, furniture,
packaging and automotive industry
as well as technical articles

Cutting tool:
Precision-ground micro-toothed
circulating knife 3 x 0.6 mm



Cutting example



EP PROFILING MACHINE

EP PROFILING MACHINE FOR THE PROFILING OF SHEET WARE AS WELL AS MATTRESS CORES MADE FROM FLEXIBLE MATERIALS



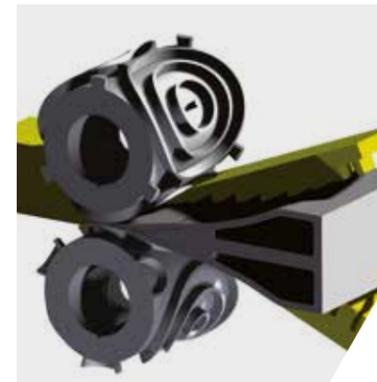
Production of various customized profilings from high densities, strain hardnesses and material thicknesses due to the compact design of the EP

- ✓ Winding and unwinding devices allow a continuous production flow for the profiling of sheet ware (option)
- ✓ Simple quick change system allows a fast changing of the profile rollers and minimizes thus the production costs
- ✓ Customized profile rollers provide a unique selling proportion and increase customer satisfaction and flexibility
- ✓ The standard version of the machines provides high, user-friendly and simple ease of use due to latest servo technology, operator panel, automatic knife readjustment in the case of knife wear and infinitely adjustment of the pressure rollers
- ✓ Knife retainers in the knife bar serve for additional guiding and stability of the knife during the cutting process
- ✓ As a special version, the EP machine can be delivered as a combination of an EP and ES machine - apart from profiling, this machine can also be universally used for the splitting of special materials such as PE, EVA, rubber foam, ether foam, etc

Material:
PUR soft foam, PUR HR foam,
PUR rebond foam, visco-elastic
foam, Basotect®

Application:
Mattress industry, packaging
industry, technical articles for the
acoustic industry as well as for the
household and consumer goods
industry

Cutting tool:
Endless band knife with a thickness
of 80 x 1 mm, guided in a knife bar
with exchangeable upper and lower
binding



Schematic diagram



Operator panel



Profiling process



ES SPLITTING MACHINE

THE ES SPLITTING MACHINE IS A UNIT EQUIPPED WITH TWO PRESSURE ROLLERS WHICH IS UTILIZED FOR THE SPLITTING OF SHEET AND ROLL WARE

The compact and rugged unit allows both the splitting of lightweight and soft foams as well as the converting of heavy and rigid materials while highest accuracy is maintained

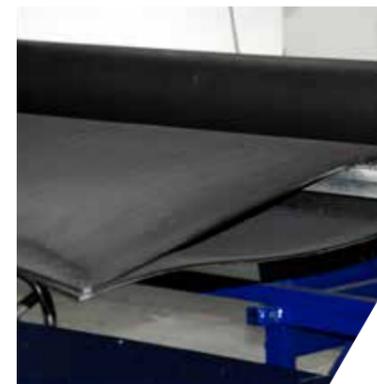
- ✓ Material qualities of up to 65 shore A can be converted
- ✓ The standard version of the machine comes with the latest servo technology and operator panel, automatic knife re-adjustment in case of knife wear as well as infinite adjustment of the pressure rollers
- ✓ Knife retainers in the knife bar provide the knife with additional guiding and stability during the cutting process



Material:
Polyethylene (PE), EVA, EPDM,
foamed and cellular rubber, PUR
and PUR rubber rebond, Neoprene

Application:
Packaging industry, fabrication
of technical articles, automotive
industry

Cutting tool:
Endless band knife with a width of
80 mm and a thickness of 1 mm in
a knife bar with exchangeable upper
and lower guiding binding



Splitting rollers in use



Operator panel



Pressure rollers and knife



SPLIT-HE 500 HORIZONTAL SPLITTING MACHINE



ALL-PURPOSE HORIZONTAL SPLITTING MACHINE FOR SPLITTING FLEXIBLE AND HARD TO SPLIT MATERIAL

Splits sheets and block material with volume weights up to 400 kg/m³ depending on the material and cutting thickness with maximum precision (splitting PE with volume weights up to 100 kg/m³) and high-density materials with hardnesses above 40 shore A

- ✓ The perfect splitting machine for the packaging and automotive industries, as well as other technical applications
- ✓ Innovative knife guide system for maximum cutting quality and accuracy: Includes knife bar with a new geometrical shape, which combines the properties of greater stability but also reduced friction with an exact cutting guide and high knife tension
- ✓ Excellent cutting tolerances thanks to very stable press roller suspension, thus providing greater guide rigidity as well as a significantly more stable, large diameter press roller
- ✓ Stable material support table with optimized table width
- ✓ The new vacuum system provides convincing cutting results thanks to 40% more power compared to its predecessor (BSR-1)
- ✓ Optimized, automatic knife readjustment reduces knife strain by maintaining the position of the knife tip to the pressure roller
- ✓ Two knife drives for more cutting power
- ✓ Less waste by reducing the remaining sheet thickness to 2 mm
- ✓ Short set-up times for fast and efficient production
- ✓ Efficient grinding in a very stable, powerful grinding unit with grinding disks with a diameter of 150 mm
- ✓ Quality assurance through automatic grinding monitored by camera
- ✓ Easy to operate using intuitive touch control system

Material:

Split a wide variety of materials such as PU and PU rebond, polyethylene (PE, XPE), cellular rubber, Basotect®, Baynat®, rubber and rubber rebond, cork, foam rubber, neoprene and comparable materials, reticulated foams, EVA and latex

Application:

The perfect splitting machine for the packaging and automotive industries, as well as other technical applications

Cutting tool:

Endless band knife with a width of 80 mm and a thickness of 1 mm in a knife bar with exchangeable upper and lower guide binding



Operator panel



Knife bar with press cylinder



BSR-HS FOR RIGID FOAM



THE BSR FOR RIGID FOAM IS A UNIVERSAL HORIZONTAL CUTTING MACHINE FOR THE CUTTING OF HARD AND COMPACT MATERIALS WITH A SET KNIFE

Solid design allows the cutting of sheet and block ware with densities of up to 450 kg/m³ with highest accuracy, depending on the material

- ✓ Shore hardnesses of up to 70 shore can be converted
- ✓ Optional drive technology for cutting medium and table movement allow the cutting of even extreme materials, such as rigid foams or PVC (option)
- ✓ By using a special vacuum unit, constant cutting results can be achieved even with extreme materials
- ✓ Set knives are guided in adjustable holding fixtures and are therefore stable. This ensures maximum stability during cutting
- ✓ Dust extraction channels at different balance points of the cutting unit provide a smooth broaching and cutting process of the set knife
- ✓ Various table dimensions provide an optimal design of the machine with regards to block dimensions and material
- ✓ Reinforcement of the machine for the converting of material with a weight of up to 800 kg/m³ (option)

Material:
Block and sheet ware made from PUR rigid foam, PVC rigid foam, PET materials, cardboard packaging, honeycomb, polystyrene/EPS

Application:
Automotive industry, packaging industry, fabrication of technical articles for the naval architecture and aircraft construction, wind-energy engineering, etc.

Cutting tool:
Endless set knife with a width of up to 30 mm and a thickness of 0.8 mm which runs on hardened crowned running wheels



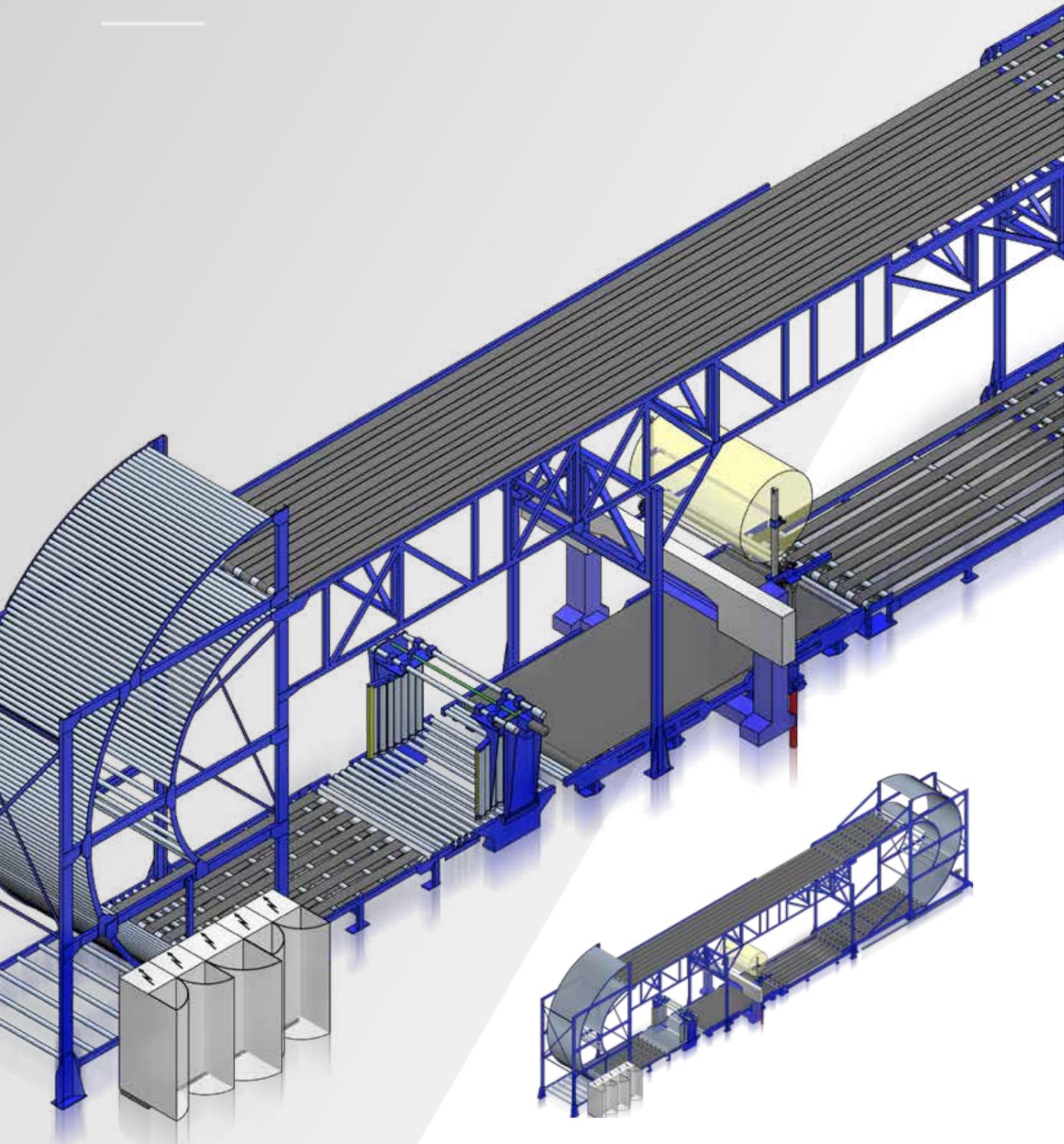
Working table with vacuum unit



Machine in use



BSV-E LONG SPLITTING MACHINE



SPLITTING OF GLUED LONG BLOCKS (40-60 M)

Most economic production of foil ware and best possible utilization of the material: with foil thicknesses of 1 mm to 50 mm it is possible to wind up a max. roller diameter from 1.5 to 2.4 m, depending on the corresponding machine version

- ✓ The long block to be split is continuously fed to the cutting portal by an endless transport system equipped with rollers which is located in two reinforced semi-circular towers
- ✓ Lowering of the cutting unit by the required foil thickness after each block circulation
- ✓ For the reason of length compensation, the tower after the cutting unit can be moved by motor

- ✓ A motor-driven side guide installed upstream of the cutting unit serves for an accurate block guiding and for bonding the block
- ✓ Maximum cutting velocity of 120 m/min with all versions and for all block lengths
- ✓ Maximum total block weight of 5 t with the 60 m version
- ✓ Motor-driven feeding bridge for an easy charging of the long blocks
- ✓ Precise cutting of various cutting thicknesses through a manual adjustment of pressure rollers and cutting angles by means of a hand wheel (Option: motor-driven)

- ✓ Simple operation by means of a modern touch screen which allows a the entry of cutting thickness, cutting length and/or number of rolls
- ✓ Continuous, high-quality grinding of the knife by a high-precision grinding unit with pneumatic advance of the cup wheels

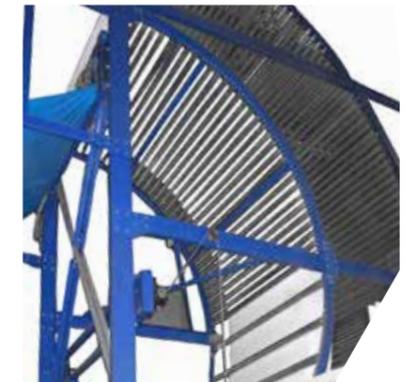
Material:
Polyether and Polyester, soft foams with various densities, rebond foam. **Precondition:** the flexible PUR soft foam used in the looper must be able to adapt itself to the radius of the deflection station without any difficulties

Application:
Automotive industry, mattress industry, footwear industry, apparel industry, packaging industry

Cutting tool:
Precision-ground circulating ground knife (width 80 mm, thickness 0.6 mm)



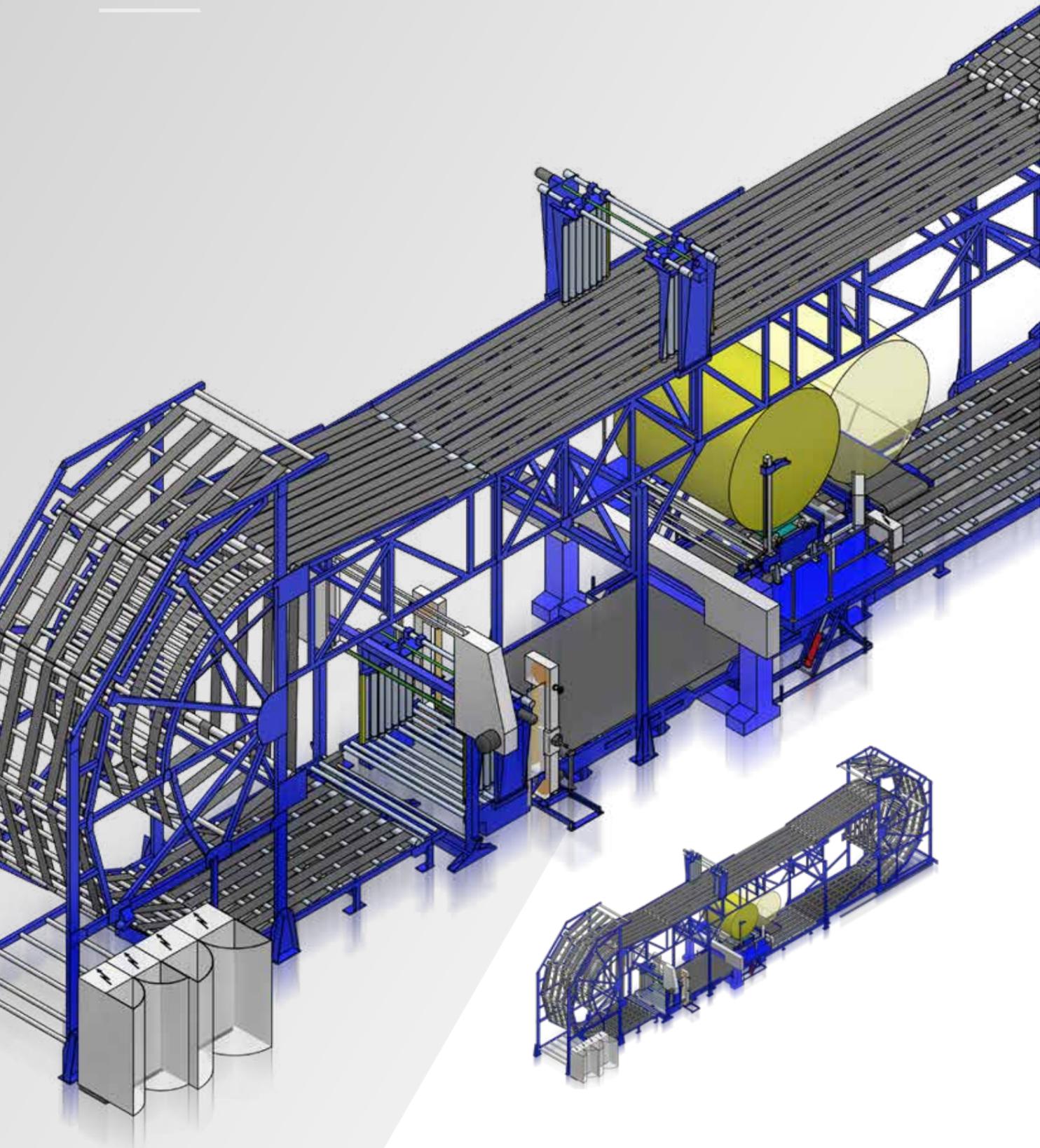
Left tower



Right tower



BSV-EC LONG SPLITTING MACHINE



SPLITTING OF BONDED AND SEPARATE LONG BLOCKS (40-120 M)

Most economic production of foil ware and best possible utilization of the material: with foil thicknesses of 1 mm to 50 mm it is possible to wind a max. roller diameter of 1.5 to 2.4 m, depending on the corresponding machine version

- ✓ The long block to be split is continuously fed to the cutting portal by an endless transport system which is located in two reinforced semi-circular towers equipped with belt systems
- ✓ Lowering of the cutting unit by the required foil thickness after each block cycle
- ✓ For the reason of length compensation, the tower after the cutting unit can be moved by motor
- ✓ For a precise block guiding and for bonding the block, a motor-driven side guide is installed upstream of the cutting unit. The current position of the side guide is displayed on the operator panel

- ✓ Clamp fitting in the towers enable the cutting of open blocks in semi-automatic circulation mode and the converting of long blocks of soft qualities
- ✓ Maximum cutting speed of 150 m/min with all versions and for all block lengths

- ✓ The maximum block weight with 60 m is 7 t
- ✓ The machine control is an efficient PLC by Siemens with a high operating convenience

- ✓ Storage of numerous cutting programs and machines settings directly at the control panel
- ✓ Continuous, constant cutting result due to a programmable, fully automatic movement of cutting angle adjustment, pressure roller position and knife bar, in dependence on the foam quality

- ✓ Grinding cycles and the duration of the knife grinding can be pre-programmed
- ✓ Continuous, high-quality grinding of the knife by a high-precision grinding unit with pneumatic advance of the cup wheels

Material:
Polyether and Polyester, soft foams with various densities, rebond foam. Precondition: the flexible PUR soft foam used in the looper must be able to adapt itself to the radius of the deflection station without any difficulties. Long-splitting machine BSV-EC can process more flexible foams and higher densities than the BSV-E model

Application:
Automotive industry, mattress industry, footwear industry, apparel industry, packaging industry

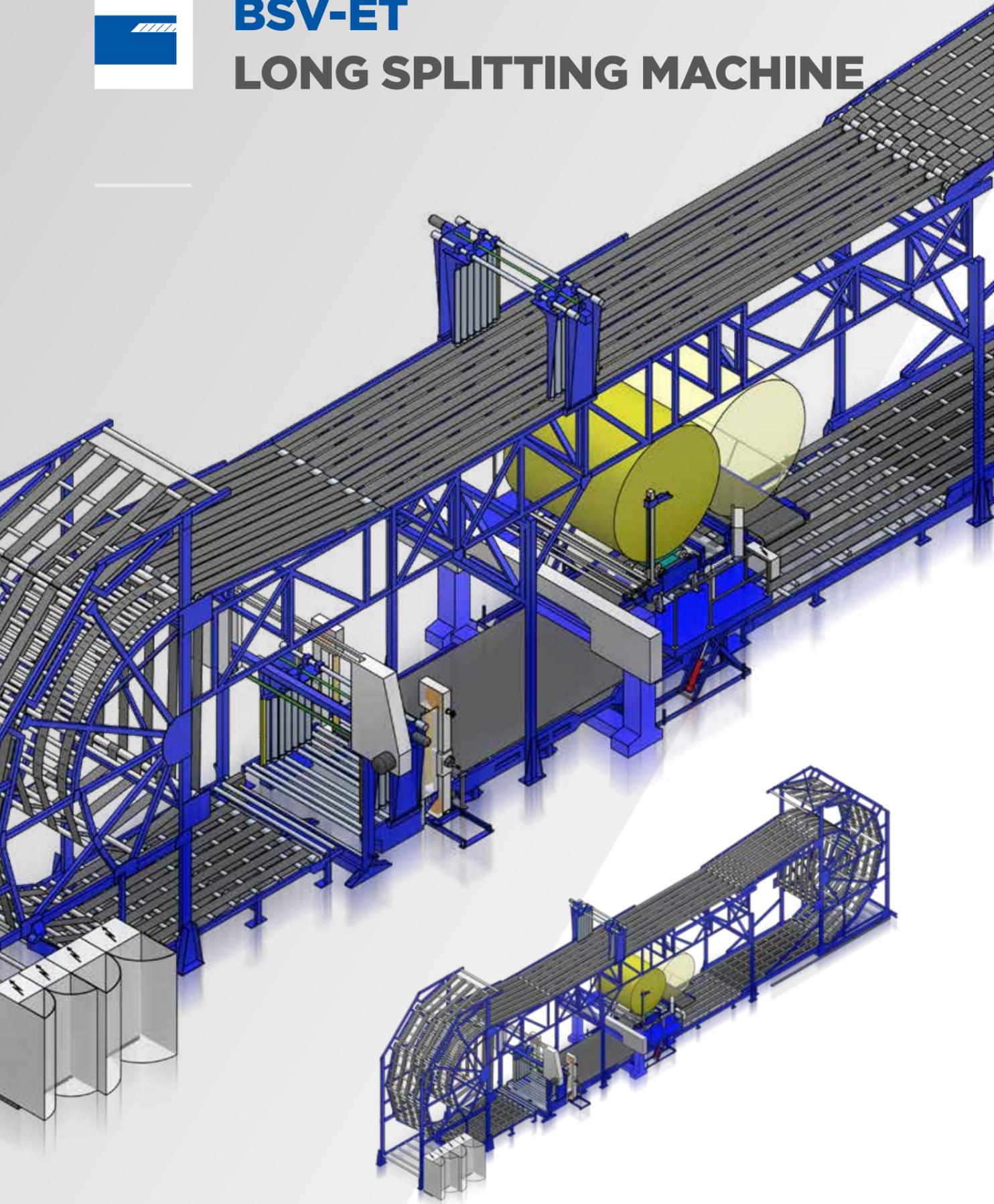
Cutting tool:
Precision-ground circulating ground knife (width 80 mm, thickness 0.6 mm)



BSV-EC



BSV-ET LONG SPLITTING MACHINE



SPLITTING OF GLUED LONG BLOCKS (60 OR 120 M)

Most economic production of foil ware with a max. speed of 350 m/min: with foil thicknesses from 1 mm to 50 mm it is possible to wind a max. roller diameter of 1.5 to 2.4 m, depending on the corresponding machine version

- ✓ The long block to be split is continuously fed to the cutting portal by an endless transport system which is located in two reinforced semi-circular towers equipped with belt systems
- ✓ Lowering of the cutting unit by the required foil thickness after each block cycle
- ✓ For the reason of length compensation, the tower after the cutting unit can be moved by motor
- ✓ A motor-driven side guide installed upstream of the cutting unit for an accurate block guiding and for bonding the block. The current position of the side guide is displayed on the operator panel
- ✓ Highest possible level of automation by adjusting the

Material:
Polyether and polyester, soft foams with various densities, rebond foam. Precondition: the flexible PUR soft foam used in the looper must be able to adapt to the radius of the deflection station without any difficulties

cutting angle and the position of the pressure roller by motor - these parameters can be individually stored for each job

- ✓ Maximum cutting velocity of 350 m/min
- ✓ Maximum block weight 15 t with a block length of 60 m
- ✓ Continuous, constant cutting result due to a programmable, fully automatic movement of the cutting angle adjustment, pressure roller position and knife bar in dependence on the foam quality
- ✓ Adjustable knife motor for the individual and optimal adjustment of the knife speed to the material or to the cutting speed, respectively
- ✓ The machine control is an efficient PLC by Siemens with a high operating convenience
- ✓ Storage of numerous cutting programmes and machines settings directly at the control panel

Application:
Automotive industry, mattress industry, footwear industry, apparel industry, packaging industry

- ✓ Adjustable knife motor for the individual and optimal adjustment of the knife speed to the material or to the cutting speed, respectively
- ✓ Continuous, high-quality grinding of the knife by a high-precision grinding unit with pneumatic advance of the cup wheels
- ✓ Grinding cycles and grinding duration of the knife can be pre-programmed
- ✓ Equipment of the main transport conveyor with a vacuum unit for a better fixation of the piece to be cut in the lower block area
- ✓ In order to compensate individual block running characteristics and material qualities, the transport belts are driven by 8 reinforced belt drives

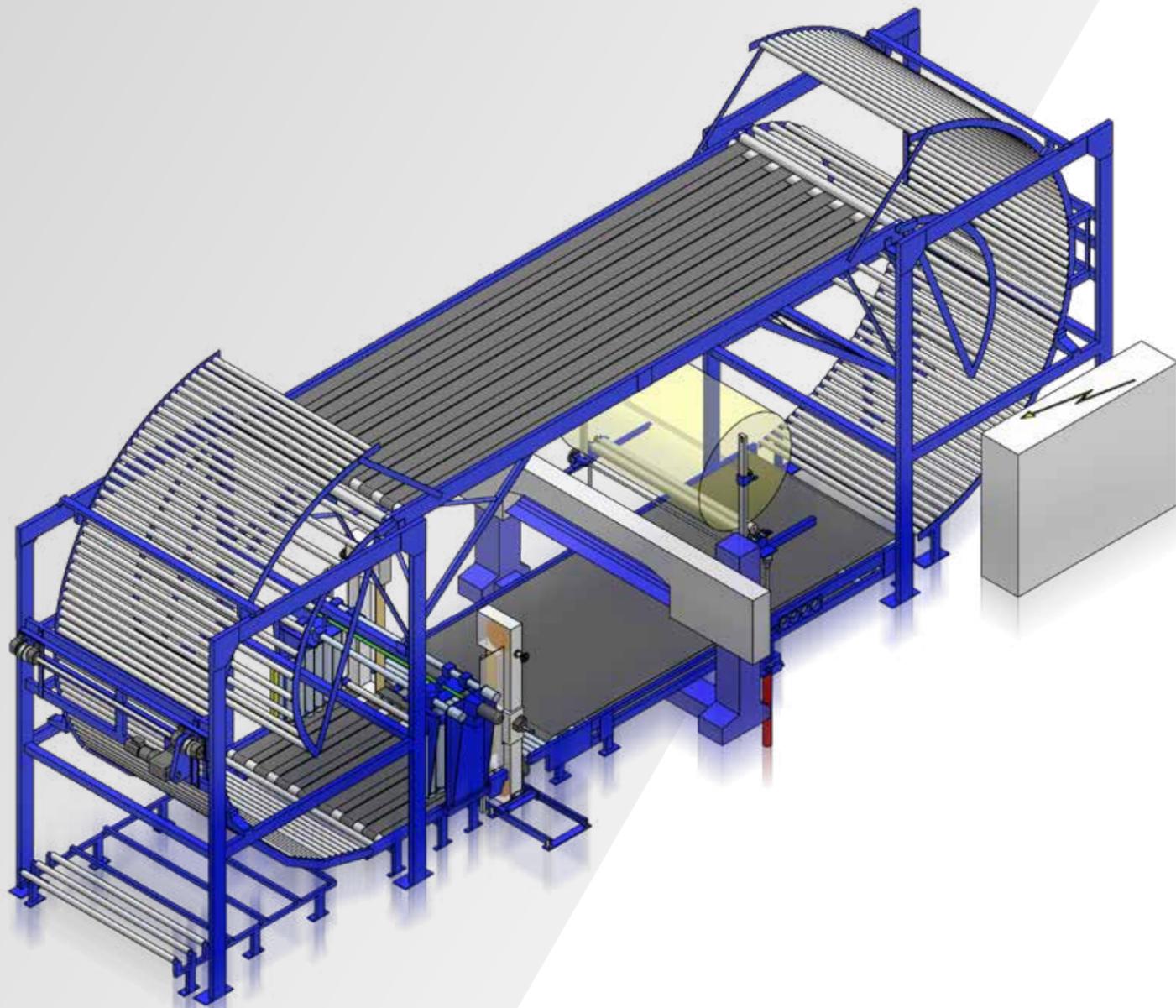
Cutting tool:
Precision-ground circulating ground knife (width 80 mm, thickness 0.6 mm)



BSV-ET



BSV-R LONG SPLITTING MACHINE



LOW-COST LONG BLOCK SPLITTING MACHINE FOR THE PRODUCTION OF FOILS FROM BONDED LONG BLOCKS (20 OR 30.5 M) WITH MID-SIZED CAPACITY REQUIREMENTS

With foil thicknesses of 1 mm to 50 mm it is possible to wind a max. roller diameter of 1.500 mm with both versions

- ✓ The long block to be split is continuously fed to the cutting portal by an endless transport system equipped with rollers which are located in two reinforced semi-circular towers
- ✓ Lowering of the cutting unit by the required foil thickness after each block circulation
- ✓ Standard non-driven, manually adjustable pressure roller to achieve optimal cutting tolerances
- ✓ Maximum cutting speed of 100 m/min in all versions and for all block lengths
- ✓ Maximum total block weight of 2 t with the 20 m version and 3 t with the 30 m version

Material:
Polyether and polyester soft foams with various densities and strain hardnesses. **Precondition:** the flexible PUR soft foam used in the looper must be able to adapt to the radius of the deflection station without any difficulties

- ✓ Max. block height of 600 mm with 20 m and 1.000 mm with 30.5 m
- ✓ The swivelling cutting unit ensures the ideal adaption of the cutting angle to the respective material qualities or splitting thicknesses
- ✓ Achievement of optimal cutting tolerances
- ✓ Standard non-driven, manually adjustable pressure roller to achieve optimal cutting tolerances
- ✓ Winding with high edge accuracy by means of winding units with two winding rollers and supporting spindles (max. winding diameter up to 1.500 mm)

Application:
Automotive industry, mattress industry, footwear industry, apparel industry, packaging industry

- ✓ The BSV-R can be combined with an IS-BA trimming unit inside the machine and a stationary ABLG-2/ABLG-2s cutting-off machine upstream the BSV-R machine. By this, it is possible to level the block at its head side and end side by means of the cutting-off

Cutting tool:
Precision-ground circulating ground knife (80 mm wide, 0.6 mm thick)



Cutting unit



Left tower



Right tower



BSV-S HORIZONTAL CUTTING MACHINE



UNIVERSAL HORIZONTAL SPLITTING MACHINE FOR THE SPLITTING OF FLEXIBLE MATERIALS AND FOR THE MANUFACTURING OF FOILS FROM BONDED BLOCKS OR SHEET WARE FROM SINGLE BLOCKS

The stationary cutting unit allows a fully automatic mode of operation, both in circulating and reversing mode, due to the linking of the belt system with the pressure roller, the infeed and the angle adjustment of the cutting unit

- ✓ Highest cutting quality and tolerance accuracy thanks to a constant knife position due to the automatic knife re-adjustment
- ✓ Advantage: increased tolerance accuracy of the cut sheets, low strain and therefore a long service life of the knife
- ✓ Highest accuracy due to latest servo and frequency converter technology for infeed and production speed and latest ease of use with swivelling operator panel allow a perfect production process
- ✓ Utilization of deflection units (towers) when converting open blocks
- ✓ Holding of the knife tip position in relation to the material by activating the automatic angle adjustment of the cutting unit when changing the cutting thickness
- ✓ Optimal dimensioning of the machine with regards to block dimensions and material due to configurable lengths of machine

Material:
Polyethylene (PE), cellular rubber,
EPDM, foamed rubber, Neoprene
and similar materials

Application:
Automotive industry, packaging
industry, fabrication of technical
articles

Cutting tool:
Endless band knife with a width of
80 mm and a thickness of 1 mm in
a knife bar with exchangeable upper
and lower guiding binding



Side guide



Deflection station



BFS HORIZONTAL CUTTING MACHINE



AUTOMATIC HORIZONTAL CUTTING MACHINE WITH REVERSE BELT SYSTEM AND STATIONARY CUTTING UNIT FOR THE ECONOMIC CUTTING AND SPLITTING OF SHEETS INTO VARIOUS THICKNESSES AND LENGTHS OF 10 M AND UPWARDS.

For the splitting of non-glued long blocks

- ✓ Simple fabrication of foil ware of minimum thicknesses of 5 mm with an optimum utilization of the material
- ✓ Creation of ideal cutting angles and cutting of accurate sheet thicknesses thanks to the automatic angle adjustment of the cutting unit
- ✓ The splitting machine can be equipped with different cutting units in order to convert materials of different qualities, densities and strain hardnesses
- ✓ Long knife lifetime and low set-up costs as the knife is relieved of the strain as it does not need to be turned due to the swivelling cutting unit
- ✓ For fabricating endless foil ware, the machine can optionally be equipped with a discharging conveyor in order to be able to bond the respective ends of the foils on a special platform

Material:
PUR-ether and PUR-ester foam,
PUR rebond foam, reticulated
foams and similar materials with
light up to high densities

Application:
Automotive industry, mattress
and furniture industry, footwear
industry, apparel industry,
packaging industry

Cutting tool:
Precision-ground circulating
ground knife, beginning from
30 x 0.45 mm



Grinding unit



Control automatic



Cutting unit



BSM HORIZONTAL SPLITTING MACHINE



HORIZONTAL SPLITTING MACHINE WITH STATIONARY CUTTING UNIT AND REVERSING WORKING TABLE

Maximum cutting thickness 200 mm and minimum cutting thickness 1 mm, remaining sheet of less than 4 mm

- ✓ Also suitable for cutting simple mattresses
- ✓ Particularly suitable for newcomers due to unmatched price/performance ratio
- ✓ Manual angle adjustment of the cutting unit
- ✓ Robust steel knife bar with automatic retainer adjustment in case of knife wear
- ✓ Operation panel integrated in switch cabinet, swivelling operation panel available (option)
- ✓ Special equipment for cutting thin foils
- ✓ Integration into an automatic cutting line is possible

Material:
Suitable for materials with a weight of up to 150 kg/m³ and hardnesses up to 35 shore, e. g.: PUR and PUR rebond foam, rubber rebond foam, PE, EPP and EVA foam, ethafoam, cellular caoutchouc, micro cellular rubber, Basotect®, Baynat®, latex, polyethylene

Application:
Automotive industry, packing industry, technical applications

Cutting tool:
Endless band knife 50 x 0.6 mm in steel knife bar with bindings and central retainer adjustment



Abzugsband



Grinding unit



BSM with belts



ROK ROLL COMPRESSION SYSTEM



COMPRESSION AND PACKAGING OF FOAM ROLLS FOR ECONOMIC AND SPACE-SAVING STORAGE AND TRANSPORT

ROK Roll compression system for compressing and packaging polyurethane foam in roll form

- ✓ Packaging foil is welded automatically when the number of entered wrap layers is finished
- ✓ Belt speed of 20 m/min
- ✓ Up to 5 freely parameterizable compression and packaging program enable an optimum coordination of the processes referred to different foam types
- ✓ For roll widths of 2.200 mm or 2.500 mm
- ✓ For roll diameters from 400 - 2.000 mm or 2.500 mm
- ✓ Reduction of the foam roll volume of up to 900 mm depending on foam type and machine specification

Material:
Soft foams and technical foams

Application:
Packaging industry, furniture industry, miscellaneous, medical-technical applications, automotive industry



Compressed roll



Operator panel



Compression



SMW-1 PEELING MACHINE



PEELING MACHINE FOR EFFICIENTLY PEELING ROUND AND RECTANGULAR BLOCKS WITH A TOTAL WEIGHT OF UP TO 1.000 KG FOR PRODUCING ENDLESS PU FILM OR WEB MATERIAL

A block fixed on a peeling shaft is driven by means of a pressure roller and continuously fed to the knife

- ✓ Due to the sturdy design, the machine can accommodate foam blocks with a weight of up to 1 000 kg
- ✓ A driven press cylinder ensures steady, low-tension feeding of material to the knife which prevents deviations in the cutting thickness
- ✓ With cutting speeds of up to 150 m/min it is possible to convert high production volumes
- ✓ An fully automatic retainer adjustment ensures a constant distance between the leading edge of the knife and the symetry axis of the pressure roller, by this, it is possible to maintain the cutting thickness
- ✓ Due to a continuous electronical height adjustment it is possible to peel thicknesses of 1 to 32 mm in steps of 0.01 mm
- ✓ State-of-the-art control technology with control panel enables easy and low-maintenance operation
- ✓ The great diameter of the utilized running wheels ensures an ideal bending radius and a long lifetime of the knife
- ✓ In connection with an EP profiling machine, the SMW 1 can be combined to an automatic production line

Material:
PU flexible foam, rebond foam,
polystyrene, light rubber rebond

Application:
Packaging industry, automotive and
vehicle industry, upholstery and
mattress industry, insulation and fall
protection

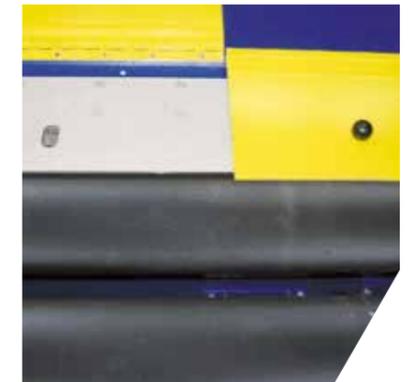
Cutting tool:
Endless band knife with a width of
80 mm and a thickness of 0.6 mm
with exchangeable upper and lower
binding



Trimming station



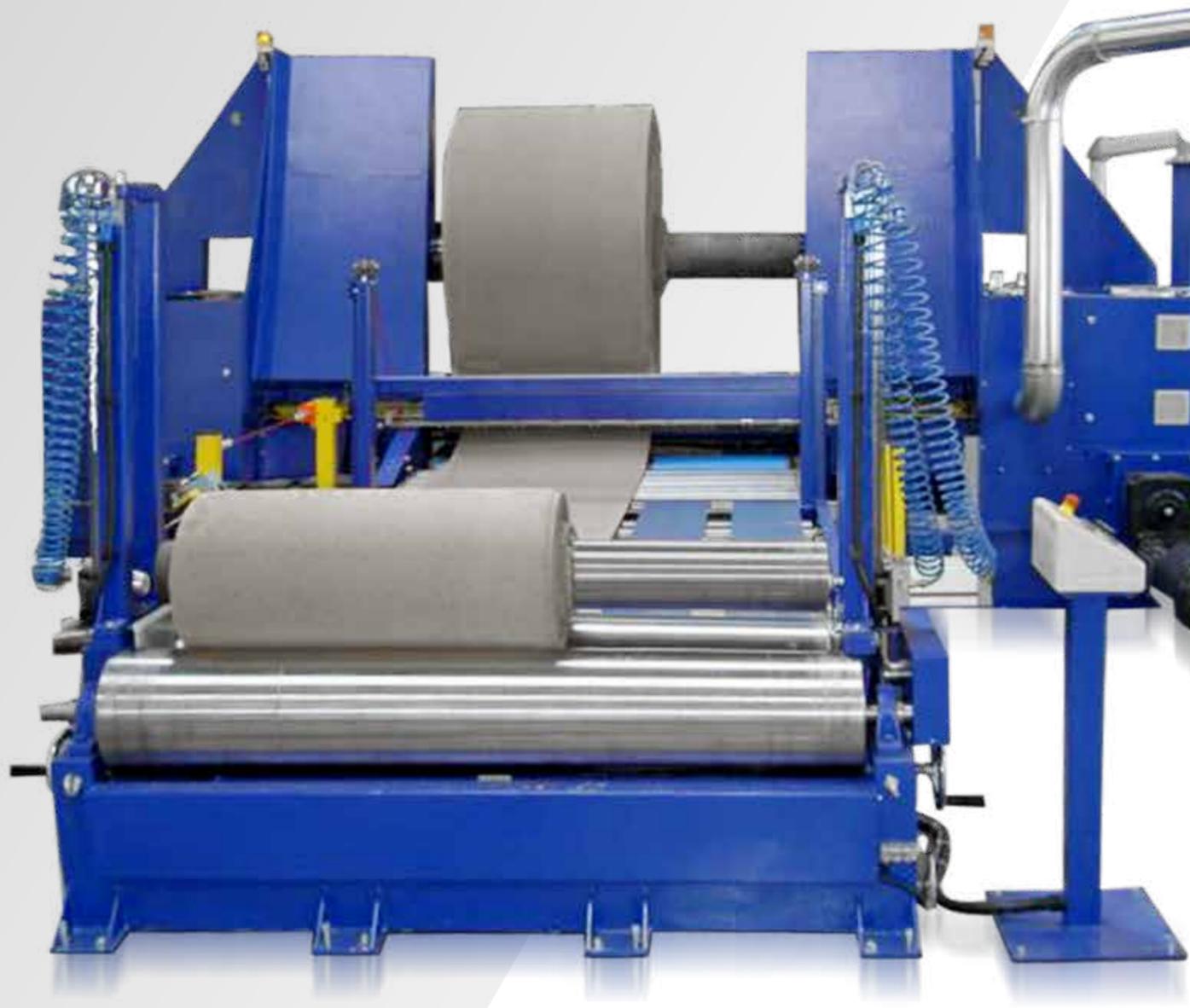
Heavy winding unit



Second press cylinder



SMW-3 PEELING MACHINE



PEELING MACHINE FOR EFFICIENTLY PEELING ROUND BLOCKS WITH A TOTAL BLOCK WEIGHT OF UP TO 3.000 KG FOR PRODUCING ENDLESS WEB MATERIAL

A block fixed on a peeling shaft is driven by means of a tandem press cylinder with longitudinal knurling and continuously fed to the band knife

- ✓ Standard cutting speed up to 25 m/min (optionally 80 m/min) makes it possible to process high production volumes
- ✓ A driven pressure roller serves for a steady feeding of the material to the knife which prevents deviations in the cutting thicknesses
- ✓ Due to an infinite electronical height adjustment it is possible to peel thicknesses of 1 to 32 mm in steps of 0.01 mm
- ✓ Peeling shaft reception by means of a clamping chuck for fast and easy reception of the peeling shaft or the inserted foam tube
- ✓ An fully automatic retainer adjustment ensures a constant distance between the leading edge of the knife and the symmetry axis of the pressure roller, by this, it is possible to maintain the cutting thickness
- ✓ A reinforced automatic winding unit with feeding function allows a precise and even winding of the foil
- ✓ Reinforced grinding unit for a continuous grinding of the knife
- ✓ Latest control technology and the operator panel enable a comfortable and low-maintenance operation

Material:
Rubber rebond foam, rubber-cork rebond, PU foam, cork and similar materials up to a density of 1.050 kg/m³

Application:
Packing industry, construction industry: flooring and impact sound insulation or fall protection, medical-technical applications, automotive industry

Cutting tool:
Endless band knife 80 mm in width and 1 mm thick in knife bar with interchangeable upper and lower guide binding



Trimming unit



Control automatic



Winding unit



SMW-5 PEELING MACHINE



PEELING MACHINE FOR THE EFFICIENT PEELING OF ROUND BLOCKS WITH A TOTAL WEIGHT OF UP TO 5.000 KG FOR THE PRODUCTION OF ENDLESS SHEET WARE

A block fixed on a peeling shaft is driven by means of a tandem press cylinder with longitudinal knurling and continuously fed to the band knife

- ✓ Standard cutting speed up to 25 m/min makes it possible to process high production volumes (optionally 80 m/min)
- ✓ A driven pressure roller serves for a steady feeding of the material to the knife which prevents deviations in the cutting thicknesses
- ✓ Due to a infinite electronical height adjustment it is possible to peel thicknesses of 1 to 32 mm in steps of 0.01 mm
- ✓ Peeling shaft reception by means of a clamping chuck for fast and easy reception of the peeling shaft or the inserted foam tube
- ✓ An fully automatic retainer adjustment ensures a constant distance between the leading edge of the knife and the symetry axis of the pressure roller, by this, it is possible to maintain the cutting thickness
- ✓ A reinforced automatic winding unit with feeding function allows a precise and even winding of the foil
- ✓ Reinforced grinding dust extraction unit for a continuous grinding of the knife
- ✓ Latest control technology and the operator panel allow a comfortable and low-maintenance operation

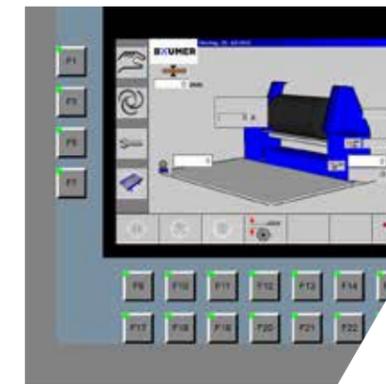
Material:
Rubber rebond foam, rebond foam consisting of rubber and cork, cork and similar materials with a volumetric weight of up to 1.050 kg/m³

Application:
Automotive industry, packaging industry, building industry: flooring and impact sound insulation or anti-slip surface

Cutting tool:
Endless band knife 80 mm in width and 1 mm thick in knife bar with interchangeable upper and lower guide binding as well as variable knife speed



Trimming unit



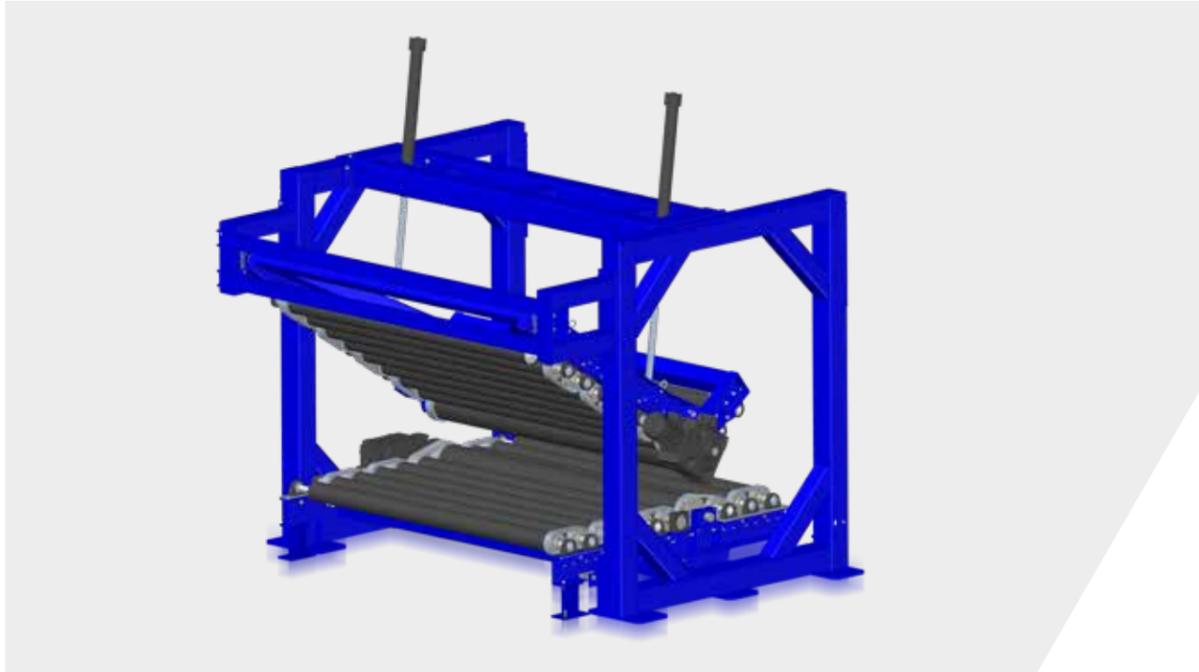
Control automatic



Material sample



BCR BLOCK CRUSHER



THE BLOCK CRUSHER OPENS THE CELL STRUCTURE OF FOAMS

Material:
HR foams, visco-elastis foams,
polyether and similar materials

A short or long block is uniformly compressed by roller rows placed on top of each other

Application:
Upholstery, mattress, furniture and
automotive industry

- ✓ High production capacity due to a crushing speed 15 m/min and a drive-through speed of 40 m/min
- ✓ The upper roller row can be infinitely moved when being inclined so that the pressing power can be continuously increased and adapted to different foam qualities
- ✓ The crushing of the foam improves its quality
- ✓ By means of the operator panel, an fully automatic crushing cycle of several steps can be programmed
- ✓ Utilization as a stand-alone version as well as in an automatic line



AS-1 ANGULAR CUTTING MACHINE



AS-1 ANGULAR CUTTING MACHINE FOR SIMPLE CUTS FROM SMALL FOAM PIECES

Material:
PUR soft foam, HR foam,
visco foam, latex, rebond
foam, Basotect®, PE

The vertical cutting unit can be swivelled to 15° in both directions. By this, it is possible to cut a multitude of different patterns

Application:
Packaging, furniture, upholstery
and automotive industry, medical-
technical applications

Cutting tool:
Endless circulating
precision-ground band knife,
10 x 0.45 mm

- ✓ It is possible to work by the template and to bevel at the same time
- ✓ With the twisted band knife it is possible to cut in both directions
- ✓ Max. block height of 400 mm, optional 650 mm, in vertical basic position of the cutting unit
- ✓ Two manually adjustable rollers on the working table facilitate the manual templating
- ✓ Long knife lifetime as rubberized knife wheels with a diameter of 300 mm are integrated in a two-wheel cutting unit which create a sufficient bending radius
- ✓ A motor-driven grinding unit sharpens the circulating knife and guarantees a high surface finish
- ✓ The machine is placed on rollers and by this it can be easily relocated inside of the factory



MDK-2 EDGE ROUNDING MACHINE



MDK-2 FOR THE ROUNDING OFF THE EDGES OF SMALLER FOAM PIECES OF 70 - 200 MM HEIGHT

Material:
PUR soft foam, leight-weight rebond foam, latex, PE, PP

Application:
Mattress and furniture industry, technical articles

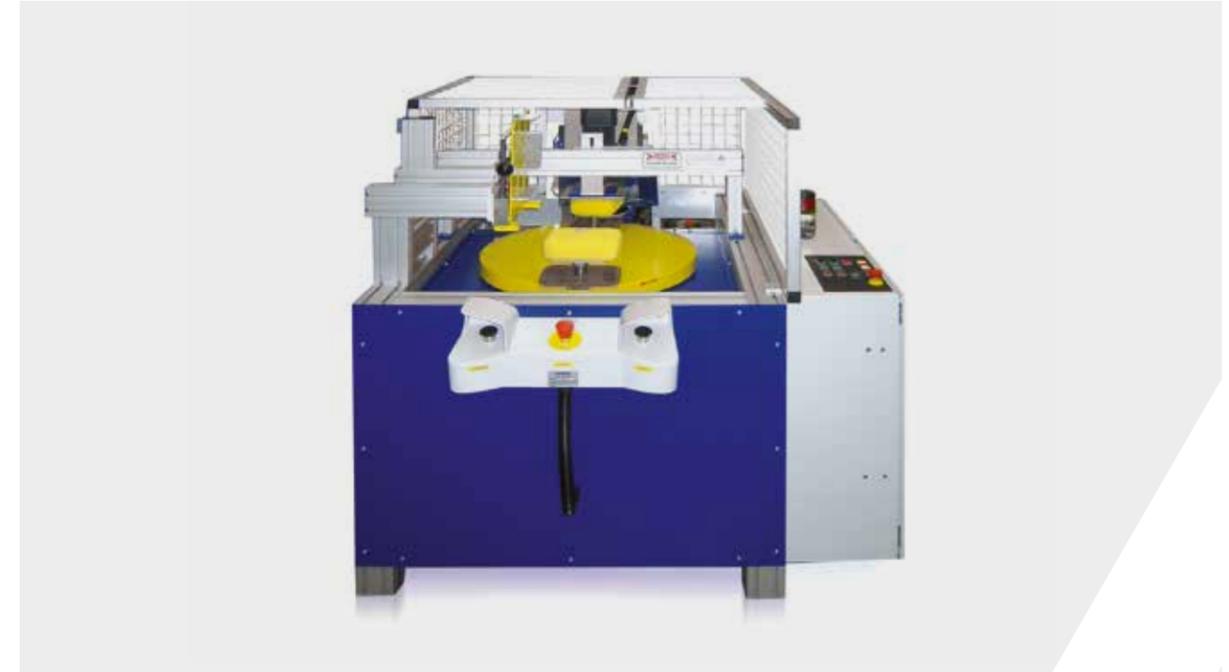
Cutting tool:
Precision-ground circulating ground knife 24 x 0.2 mm

By means of a flexible knife guide it is possible to vary cutting heights steplessly from 70 mm (radius 35 mm) to 200 mm (radius 100 mm):
By this, the machine is very flexible in use

- ✓ A motor-driven grinding unit ensures a high-precision grinding of the knife and thus improves the productivity and the cutting result
- ✓ By utilizing customised special knife guidings it is possible to cut special profiles
- ✓ Due to the compact design and the simple control system the machine can be installed and commissioned by oneself
- ✓ A removable driven transport belt after the knife guiding improves the transport of the material to be cut through the knife and ensures a constant cutting quality (Option)



SF-1 SPONGE MILLING MACHINE



SEMI-AUTOMATIC SPONGE MILLING MACHINE WITH ONE WORKING STATION FOR THE MILLING OF SPONGES OF ALL SALABLE SIZES

Material:
PU soft foam

Application:
Houshold industry

Cutting tool:
Milling head

While one sponge is being milled, the next one can already be placed onto an attachment unit on the sponge receptions

- ✓ Changing of sponge contour and shape by different templates and milling devices
- ✓ Capacity of up tp 600 sponges per hour
- ✓ High flexibility with little and medium piece numbers
- ✓ Sponges in lenth of 85 - 200 mm and widths of 85 - 200 mm and a height of 40 - 80 mm are possible



SF-5 SPONGE MILLING MACHINE



AUTOMATED SYSTEM FOR MILLING SPONGES IN DIFFERENT GEOMETRIES AND SHAPES. MACHINE PROCESSES FOAM BARS THAT ARE 2 M IN LENGTH.

Material:
PU soft foam

Fully automatic sponge milling machine consisting of a cut-off station with optionally integrated magazine as well as the actual milling station with 5 milling units (optionally 3 milling units) that are arranged in a line

Application:
Houshold industry

Cutting tool:
5 milling heads, possible adjustable rotational speed in particular for special foams



GF-1200 SPONGE MILLING MACHINE



MILLING STATION COMBINED WITH AN FULLY AUTOMATIC CUTTING-OFF MACHINE

Material:
Soft foam with scouring or non-woven material laminated onto one or both sides

Suitable for the bulk production of grip sponge scrubbers made from softfoam with laminations of abrasive or non-woven material

Application:
Houshold industry

Cutting tool:
Milling head made from aluminium or steel and toothed endless knife in the vertical cutting-off unit

- ✓ Production process: The sponge milling machine is fed with pre-configured foam bars from a magazine - milling of the groove into the foam bars - on the table of the cutting-off station the milled foam bars are bundled to packages of 10 or 20 bars - packages are automatically cut off or cut to size at the vertical cut-off machine
- ✓ Maximum rate of production: 12.000 sponges per hour
- ✓ Economic cycle times due to parallel cut-off and stacking function
- ✓ Pre-selection of different milling velocities for the production of quality products
- ✓ Powerful extraction
- ✓ Automatic material feed (optional)



SERVICES EVERYTHING FROM A SINGLE SUPPLIER

WORLD-WIDE AND CUSTOMER ORIENTED

Bäumer will impress you with sophisticated technologies to fulfill even the highest requirements. We provide our customers with Superior customer service along with highly trained service technicians with years of experience. We are a reliable partner for our customers, for they can rely on our technical competence. Benefit from our years of experience and take advantage of our full range of professional services.

Allow Bäumer to find the solutions to support your company's goals.

A wide variety of services ensures optimal operation of your Bäumer products, and we provide support throughout the life cycle of your machines and systems. We integrate you and your needs in our thinking and acting – individual, qualified and comprehensive:

- ✓ Hotline
- ✓ Preventive maintenance
- ✓ Repair
- ✓ Trainings
- ✓ Spare parts
- ✓ Cutting tools
- ✓ Retrofit
- ✓ Process optimisation

Put together your own personal service package from our wide range of services, and achieve maximum production reliability

AVAILABILITY

BÄUMER Availability reflects our proximity to our customers and our outstanding customer service, for we guarantee you fast and comprehensive support in case of need. We make sure that our technicians are on site quickly, and ensure that spare parts are shipped at short notice. We deal effectively with repairs – including the use of remote access. Most of the machines supplied by us – including older installations – can be retrofitted. Our international hotline is at your disposal worldwide.

HOTLINE

New technologies, further developments and the large range of ever newer types of machines, require comprehensive service, as well as the continuous provision of advice and assistance.

Specialists in the fields of mechanical engineering, electrical engineering and software are there to give you professional assistance in case of technical problems. Our service technicians distinguish themselves by many years of practical experience and provide quick and reliable assistance.

Your benefits at a glance:

- ✓ Support during and after commissioning
- ✓ Diagnoses per telephone
- ✓ Remote service via secure modem or VPN connections
- ✓ Spare part identification
- ✓ Arranging for service calls

In order to ensure optimum availability to break down language barriers and save you expensive long-distance calls we also offer you telephone support in the USA in addition to our central hotline in Germany

Hotline

Phone: +49 2734 289-372
Fax: +49 2734 289-289
e-Mail: service@baeumer.com

WinCAP Hotline

Phone: +49 2734 289-458
e-Mail: wincap@baeumer.com

Hotline USA (General support & WinCAP)

Phone: +1 973 263 1569
Fax: +1 973 299 8587
e-Mail: serviceusa@baeumer.com

PREVENTIVE MAINTENANCE

If you pay attention to yourself, you live longer. This also applies to our machines. Their service life increases significantly through our preventive maintenance measures. But that is not all. You radically reduce the risk of downtimes and at the same time improve your availability. This gives you greater production reliability and cuts your costs.

Avoid machine breakdowns, stick to delivery dates, maintain product quality and ensure reliable production with Bäumer's preventive maintenance concepts.

Your benefits at a glance:

- ✓ Extension of your machine's service life because of qualified maintenance by Bäumer service technicians and only original Bäumer spare parts
- ✓ Commitment to transparency and conformability of maintenance because of a detailed maintenance report
- ✓ Planned scheduled maintenance to prevent machine down time because of a pro active management of your individual maintenance contract
- ✓ Cost savings because of favorable maintenance fixed prices and reduced cost for additional repairs

REPAIR

If a malfunction occurs and a repair is necessary, we can assist you quickly in a professional manner. And since we are the manufacturers, we always find the better solution to your problem. Whether by road, rail or air, when it's really important our highly trained technicians are quickly on site in order to give you prompt and expert assistance should your machine malfunction. With our large stock of original spare parts, we can solve your problems without compromises.

Your benefits at a glance:

- ✓ The better solution comes directly from the manufacturer, because our technicians are trained constantly on our machines and internally certified
- ✓ Fast response times due to availability of our many technicians and spare parts
- ✓ Prevent unnecessary repairs for the future, because of damage analysis and advisory feedback

TRAINING

Optimally trained personnel are one of the keys to continuous success. We have realized this and provide our customers with a wide range of possibilities to qualify their employees. We offer training courses at our premises, as well as tailor-made on-site training in your company, specially tailored to your needs. Promote safe handling of tools, machines and programmes by your employees and ensure your economic success!

Your benefits at a glance:

- ✓ Get the most out of your new equipment with trainings on our in-house developed software solutions "WinCAP" and "Nesting" software
- ✓ Fast learning of the functions used on the master control system with a training on our "POS" master control system
- ✓ Highest learning effect: Group or individual training tailored to meet your needs as a training course for beginners or experts
- ✓ Smarter usage by wider knowledge about applications. We offer applications, engineering, trainings in the fields of „splitting“, „contour cutting“ and individual courses to educate your maintenance personnel



Academy

The BÄUMER Academy allows our customers and partners to share our comprehensive technical knowledge. Within the framework of our Academy, for example, we offer not only training courses for software and servicing, we also show you everything that is important for the maintenance and operation of our machines. You can find out everything you would like to know about cutting foam in the BÄUMER Academy. Here we show you how to create efficient cutting programs, how to use intelligent controllers and much more. All of this has just one goal, to allow you to work more successfully, more efficiently and more intelligently.

SPARE PARTS

Our machines and plants produce successfully on all five continents - supplying spare parts worldwide is our daily job. Whether per courier within Europe, or overseas per express air freight within 24 hours - we always find the most economical way for our customers. We do not only supply spare parts - our experts are pleased to advise you on identifying the correct parts or to make recommendations.

We work with a top-quality high-tech system of warehouse organization and material supply that saves time, warehouse space and costs, and allows a significantly more efficient sequence of operations. Thanks to this investment, we can make spare parts available even more quickly.

Professionally kept records from fifty years of Bäumer mechanical and systems engineering are the basis for the ability to deliver parts, even for machines from the 1960s. We always have a solution or an alternative if spare parts are no longer available. To increase the availability of your machines and plants it is useful to keep certain wear and spare parts in stock. Our experts will be pleased to advise you.

Your benefits at a glance:

- ✓ Longer life time of your machinery and guaranteed cutting quality because of perfect-fit original parts exclusively from Bäumer. Technical verification of your spare part inquiries and orders
- ✓ Cost effective and quick delivery of spare parts. Same day shipping of orders for urgent parts available from stock
- ✓ Guaranteed the best method to obtain quality and reliable spare parts. We give you personalized recommendations for spare parts based on your inventory requirements
- ✓ Only one supplier for all your needs because we offer wear parts also for other manufacturer's machines

CUTTING TOOLS

We don't know what you want to cut, but we know that we can do it.

Find the perfect product for your application! The famous Bäumer quality has also translated to our foam cutting tools. Whether the ability to adjust to various materials, different cutting procedures or competitive machinery, we can do it all.

Our large knife workshop, equipped with state of the art production machines, provides you with highly accurate and long living foam cutting tools, no matter if you are looking for toothed or ground knives, cutting tools with set teeth or wires in a large variety.

Fabrication according to DIN EN ISO 9001:2015

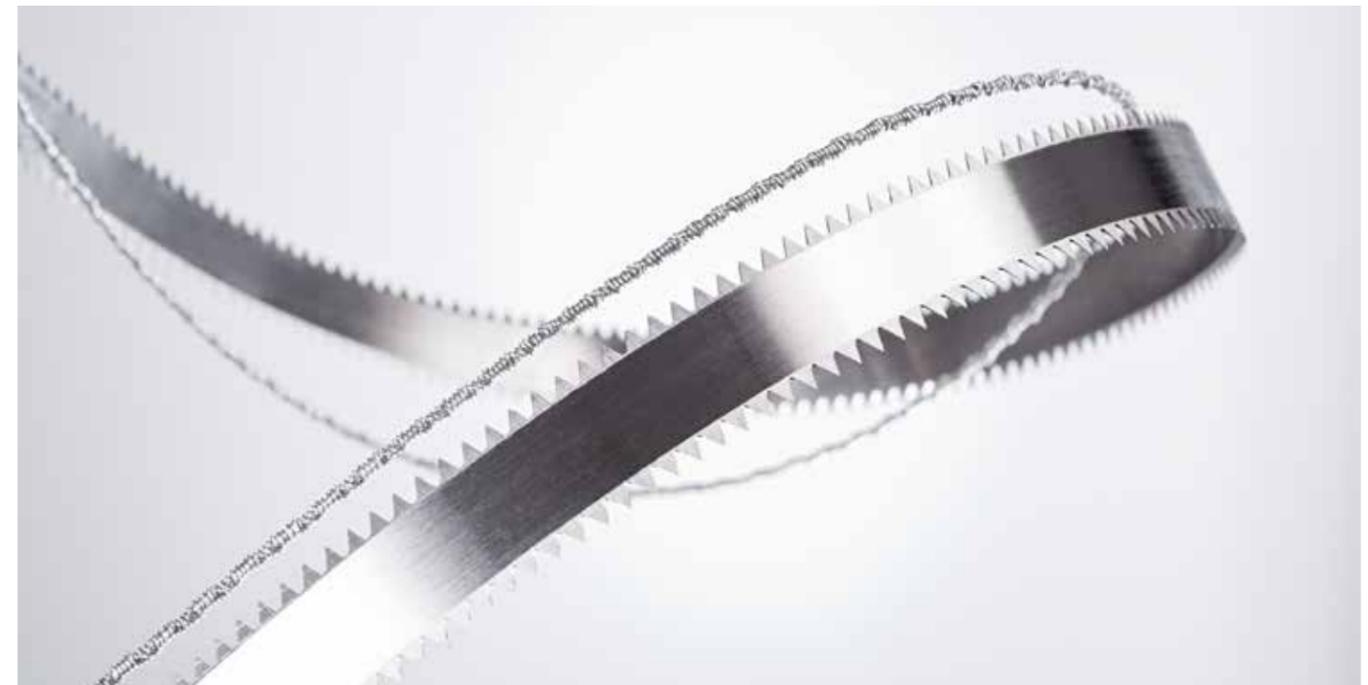
EXTREMELY FLEXIBLE - Production of blades and spare parts for Baumer machines and for other manufacturer's equipment

Through extensive research over the past years we have managed to strike a great balance between our blade cost and quality. We take no shortcuts when delivering an exceptional product!

Our toothed and grounded/smooth blades for your Bäumer and Fecken-Kirfel CNC machines will not disappoint. These blades can also be used for other CNC machines from various manufacturers. They will outperform the competition and make you ask yourself why you've ever ordered elsewhere.

Your benefits at a glance:

- ✓ Acquisition of raw material only from certified European producers
- ✓ Special machinery to cut band knives to exact length
- ✓ Individually cut to size by our highly trained staff
- ✓ Elaborate processing of welding seams
- ✓ Very well trained welding operators and modern machine park
- ✓ Inspection and analysis of all welding seams after processing
- ✓ State of the art welding and precision grinding machines
- ✓ Years of experience and qualified staff members
- ✓ Fulfillment of individual customer requests
- ✓ Ongoing quality checks at each production step and thorough outbound inspection
- ✓ Surface quality tests, material hardness tests, ultrasonic tests, tests of tolerances, running smoothness of band knives, etc



RETROFITS

We always offer an alternative - even when your Bäumert machine is getting on in years. Technology, particularly control technology, is advancing at an ever increasing rate. Yesterday's PC is already old today and will be obsolete tomorrow. After a certain amount of time, spare parts can no longer be supplied, which dramatically endangers production reliability. Control technology and mechanics improve from generation to generation and offer new possibilities to increase efficiency and quality.

You should know, that most of our retrofits are standards! We have standard modifications in stock such as the retrofitting for the IS-M vertical cutting machine, in which we offer a replacement for the direct current (DC) unit against a polyphase motor that is frequency-controlled and maintenance free. This retrofit is readily available from our stock and for immediate shipping. The unit can be easily replaced, as the terminal connections are the same. This is only one example of many retrofits we offer which include: Modifications for the contour cutting machine OFS (1985 and younger) and many others. Our retrofitting solutions update your machines and make your

systems more efficient. The investment is quickly amortised, because retrofits increase the productivity and operational reliability of your machine. Invest in the future!

Your benefits at a glance:

- ✓ Improve your productivity while maintaining your quality standards because of guaranteed state-of-the-art solutions from your Original Equipment Manufacturer
- ✓ Reduce machine down time due to outdated technology because we ensure the availability of spare parts for our retrofit solutions
- ✓ Most suitable solution for your needs and budget. Partial to complete retrofit solutions are readily available
- ✓ Shortest delivery time for standard retrofit solutions because many of our retrofits are available from stock
- ✓ Individual advice, what kind of solution is the best for you



PROCESS OPTIMISATION

Process optimization: More efficient production and higher production quality.

After precise analysis of the current production status, our experienced technicians will recommend the modification of certain process sequences. Decades of experience and methods tried and tested in our technical laboratory in Freudenberg can also help improve your processes.

Your benefits at a glance:

- ✓ Faster production as a result of the recommendation of process sequences and modernization measures
- ✓ Higher product quality, for our workers have a wide experience in handling demanding specification profiles
- ✓ Cost savings through greater efficiency and waste reduction
- ✓ Optimized settings for your machines, with the result that machine accuracy and dynamic range are improved

For example: Production of mattress edging using spring cores

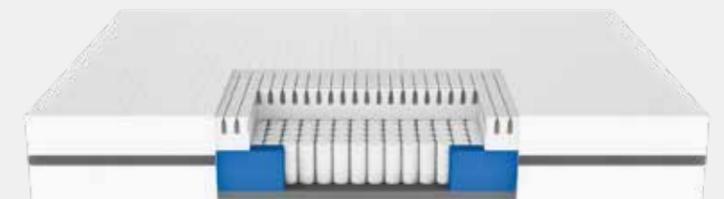
Process sequences in **conventional** production:

1. First, sheets are usually cut from a block using a horizontal cutting machine
2. The sheets are transported manually to a conventional vertical cutting machine
3. The sheets are stacked by hand, on average approx. 6 to 8 sheets
4. The stack is now cut to the length of the rectangles
5. The stack is turned manually by 90°
6. The stack is now cut to the width of the edging

7. The edging is unloaded by hand
8. These process sequences are repeated 3 times for each whole block

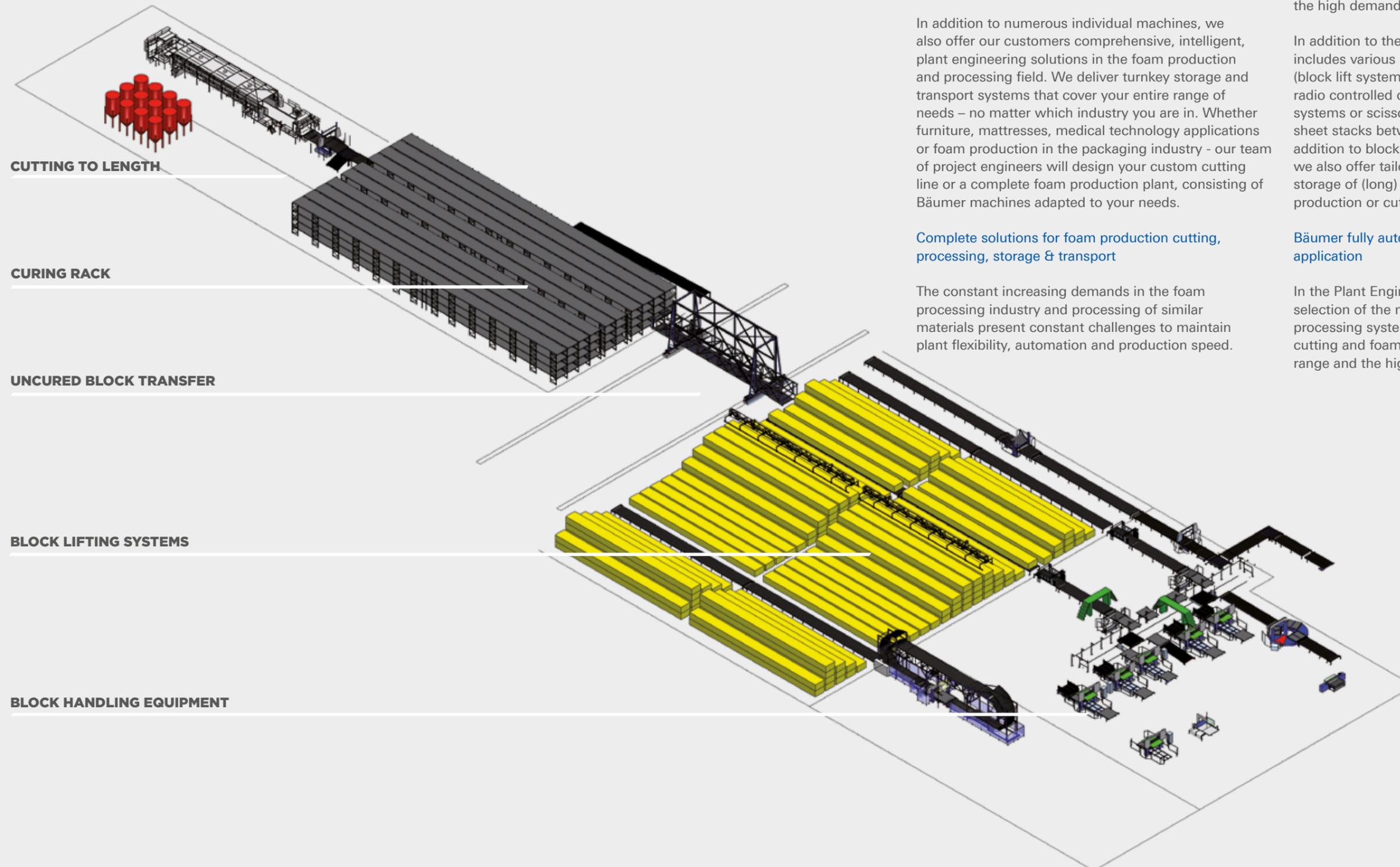
Process sequences in **optimized** production:

1. The block is transported automatically on a horizontal contour cutting machine
2. The block is automatically cut completely into the required edgings
3. The finished cut block is automatically unloaded



PLANT ENGINEERING

INTELLIGENT CONCEPTS IN PLANT ENGINEERING



Plant engineering for the storage and packaging of foam products

In addition to numerous individual machines, we also offer our customers comprehensive, intelligent, plant engineering solutions in the foam production and processing field. We deliver turnkey storage and transport systems that cover your entire range of needs – no matter which industry you are in. Whether furniture, mattresses, medical technology applications or foam production in the packaging industry - our team of project engineers will design your custom cutting line or a complete foam production plant, consisting of Bäumers machines adapted to your needs.

Complete solutions for foam production cutting, processing, storage & transport

The constant increasing demands in the foam processing industry and processing of similar materials present constant challenges to maintain plant flexibility, automation and production speed.

Through development of new cutting technology and automation methods using software solutions, we meet the high demands of precision foam production.

In addition to the cutting machines, a complete plant includes various systems for material block transport (block lift systems) that we build in optional manual radio controlled or fully automatic versions. Shuttle systems or scissor lift tables carry out the transfer of sheet stacks between different cutting machines. In addition to block wagons and block printing devices, we also offer tailor-made rack systems for efficient storage of (long) blocks upon completion of foam production or cutting to length.

Bäumers fully automated systems for every area of application

In the Plant Engineering category you will find a selection of the machines we offer and the foam processing system components that we use to design cutting and foam operations. See our wide product range and the high quality of our systems for yourself.

THE ADVANTAGE

YOUR TECHNICAL PROGRESS FOR “STREAMLINED PRODUCTION”

Effective use of raw materials means less waste: the curing rack allows you to store and cure large quantities of long blocks (up to 120 mm long) after foaming without having to cut them immediately into short blocks. On completion of the curing process, you can cut the foam exactly to the required lengths.

Less space required thanks to optimum space utilization: the long blocks are stored in multi-tier racks during the curing process and before further processing. They require less floor space as they are stacked one above the other.

Automated control system for **faster production flow with reduced manpower**: manage the greater number of blocks and different qualities in the curing rack and in the block lifting bay without manual intervention.

Efficient further processing ensured by complete concept: the overall control system combines all production units integrated in the plant to create a complete customer-specific entity. After storing the foam, the long blocks can be further processed with the aid of the automated control system and subsequent machines.



CONTROL SYSTEM INNOVATIVE INTERLINKING OF INDIVIDUAL CONTROL SYSTEM

The plant control systems are based on a modular design. Overall production is generally divided into the following sections:

- ✓ ABLG-1 cut-to-length machine up to conveyor in curing rack
- ✓ Curing rack with distributor gantry
- ✓ Interim storage with block lifting system
- ✓ Short block production (cutting to length, trimming)
- ✓ Processing (e.g. horizontal splitting machines, contour cutting machines)

Each of the above plant sections is equipped with its own control system. The individual systems communicate with each other via Ethernet links. The block data are also managed in the control system such that the availability of the different block types and their storage location in the system are known at all times. An additional VPN link (Virtual Private Network) for remote maintenance/remote diagnosis allows Bäumers fast access to the corresponding control system should problems occur. Siemens automation components are used in our control systems. We recognize the importance of the use of ultramodern state-of-the-art control technology.

LONGBLOCK RACK SYSTEM

- ✓ Rack for storing foam blocks after the foaming process as reaction storage and after cutting to length
- ✓ For high production volumes, investment in long block engineering is recommended
- ✓ To be able to carry out this task in a efficient manner, our product range includes storage rack systems for the handling of the raw uncured blocks
- ✓ Turnkey, customized storage systems in lengths of 12 - 120 m
- ✓ Customer-specific number of slide-in modules depends on capacities and annual tonnage
- ✓ Available with semi-automatic or fully automatic control or integrated in a superior control system (POS: Production Ordering System)
- ✓ Optimum handling of fresh blocks, in particular for demanding foams without physical impairment
- ✓ Automatic storage systems allow high productivity and flexibility in production
- ✓ Rack systems can be installed in a hall or, as it is often the case, the steel construction of the storage racks can be used at the same time as carrying construction for a sheet metal sheathing thus considerably reducing the costs for a hall construction



SHORT BLOCK STORAGE SYSTEM

With manual short block storage, fork-lift trucks pick up the short blocks to store them. At the moment of manual withdrawal, the block data kept up to this point, such as quality, color, foaming date, block dimensions etc. also leave the system. If the blocks are needed at a later point in time for further processing into sheets or contours, the short block as well as the associated block data also have to be fed in again, manually or by bar code.

Avoiding downtimes

The fully automatic short block storage comes immediately after the long block storage and short block cutting. After the cut-off or block trimming machine, the handling system takes the short block and places it in an appropriate storage location in the short block storage, in accordance with its data or according to defined stacking criteria.

The short block storage is followed by the automatic infeed to the further processing cutting machine. The cutting program is loaded automatically together with the POS software.



Advantages of the short block storage at a glance:

- ✓ Automatic collection, maintenance and forwarding of all block data in the system, from foaming to the finished cut part
- ✓ Preprogrammed storage logic: blocks are stacked automatically on the basis of their dimensions and other properties such as hardness, for example small on large and soft on hard. The maximum stacking height is observed, and the shortest paths possible are selected for optimum efficiency
- ✓ Single blocks as well as block packages with 2 blocks can be processed in one input or output operation
- ✓ Option of output of a complete storage status report, and sorting of the block stock according to search criteria like block type or production date
- ✓ Technical data of the block storage system, such as maximum stacking height, total capacity, gripper width etc. can optionally be adjusted to meet customers' needs
- ✓ The short block storage / short block gripper is specially intended to minimize downtimes in the processing of short blocks
- ✓ Automated short block storage combines the automated process between long block handling and packaging
- ✓ Short block storage systems in conjunction with POS >> short blocks can be put into storage with an assigned cutting program. Then automatic delivery to the further processing machine, with automatic loading of the cutting program
- ✓ Automatic storage according to stacking criteria
- ✓ Merging of 2 short blocks on one stacking location

BLOCK LIFTING SYSTEMS

- ✓ Block lifting systems for the transport of fresh and fully cured blocks with a length of 12 to 60 m
- ✓ Block storage systems provide a large storage capacity
- ✓ The block gripper consists of a welded carrier frame with longitudinal continuous carrying rods mounted to motor-adjustable support arms
- ✓ Available as manually operated system with Radio control incl. position preselection or as fully automatic system with block data management
- ✓ Engineering and production of the block lifting bridge in cooperation with an authorized company specialising in cranes; engineering and installation of the block gripper by Bäumers
- ✓ The block lifting system can also be used as supplement to a block storage system
- ✓ The size of the storage hall is adapted to the planned annual tonnage and to the size of the curing rack
- ✓ The lift drives are optionally available with frequency control

... SITTING BRIDGE TYPE

- ✓ Block lifting units sitting bridge types are available as:
 - Single beam system for lower loads and an approximate track width of up to 12 m
 - Two beam system for higher loads and an approximate track width of up to 30 m
- ✓ Hall height permitting, an onboard main switch cabinet for the crane is fixed on the crane bridge
- ✓ The positioning of the crane unit is realized by a laser distance sensing system
- ✓ Laser measuring systems ensure maximum positioning precision
- ✓ With this construction, there is no additional load on the roof construction



... WITH MONORAIL TROLLEYS

- ✓ Available as two-rail system (30 m installation) and four-rail system (60 m installation)
- ✓ The 60 m block lifting unit consists of 4 single-rail trolleys, 2 block grippers, a central control system and a power supply system for the electric supply of the single-rail trolleys and block grippers
- ✓ For the transverse movement the crane unit runs in existing crane runways
- ✓ The drives for the transverse movement are frequency-controlled
- ✓ A laser distance sensing system is provided for each monorail trolley
- ✓ The monorail trolleys are electrically synchronized
- ✓ Compared to overhead crane runways, the aforementioned system generates much less roof load
- ✓ For block lengths of approx. 45 m and longer, two block grippers with separate transportation systems are installed as a rule
- ✓ These systems can be operated simultaneously as well as in separate cross drive
- ✓ Laser measuring systems ensure maximum precision in positioning

... PORTAL TYPE

- ✓ Portal block lifting systems are used where the crane rails are installed on the hall floor
- ✓ Similar to bridge cranes, portal cranes generally cover smaller track widths (span widths) up to approx. 20 m
- ✓ If possible from the structural point of view, a lifting system in bridge construction is to be preferred to the version with a portal as it provides a better utilization of the space and thus storage capacity



BLOCK GRIPPERS

- ✓ Gripping device is a block gripper specially developed for the transport of foam blocks
- ✓ Also available in a special design as a fresh block gripper
- ✓ For the transport of 60 m blocks, 2 block grippers per block are used
- ✓ Each block gripper consists of a welded steel frame in which the gripper arms with toothed racks are driven
- ✓ As fresh block gripper, the lateral carrying rails are equipped with additional perforated plates so that an optimum hold of the blocks with a minimum contact pressure is ensured
- ✓ For the transverse movement, the block grippers are locked in the upper lifting position
- ✓ When moving in transverse direction, both block grippers are always moved together, however the upward and downward movement can be done separately
- ✓ If required by the application, a separate transverse movement of both block grippers is also possible as an option

GANTRIES

Gantries for automatic loading and unloading of block rack systems guarantee gentle transport of foam blocks

The relevant entry and exit ramps are located either in front of or behind the rack system depending on function

Possible designs:

- Movable rack with parallel gantry
- Movable rack with swivelling gantry
- Gantry for indoor and outdoor



BLOCK PRINTING DEVICE

- ✓ Block printing device for automatic printing of the front or lateral surface of the cut-off block. The necessary block data such as block weight, dimensions and quality descriptions are printed
- ✓ The block printing device is designed for two printing lines. In each line a maximum of 20 alpha-numeric signs can be printed
- ✓ Letter height 35 mm, letter width 30 mm
- ✓ The print image is assembled and displayed on OP or PC



CROSS TRANSPORT UNIT

- ✓ Cross transport unit for the lateral transport of the blocks
- ✓ Consists of a driven roller conveyor which is in rectangular position to the conveyor belts
- ✓ Transports the block laterally out of the cutting line
- ✓ Max. block length is 2.500 mm
- ✓ Installed behind a cut-off machine or in front of a rack system for removal of scrap or sample pieces
- ✓ Transports cut-off short blocks to the different machines in cutting lines



BLOCK HANDLING EQUIPMENT

SHUTTLE

- ✓ Automatic feeding of various production lines; replaces manual loading
- ✓ Individual travel path lengths, according to application and available space
- ✓ For example can be used for the transport of material between two contour cutting machines if they are positioned parallel to each other
- ✓ A conveyor belt is designed as shuttle
- ✓ The motor-driven shuttle runs over rails
- ✓ Shuttle is integrated into the automatic operation of the cutting line

SHORT BLOCK WEIGHING DEVICE

- ✓ Weighing device for the automatic weighing of the cut-off short blocks
- ✓ Weighing systems for block lengths of 2-30 m are available
- ✓ The weight of the foam block is determined with the help of 4 pressure cells installed under a conveyor belt
- ✓ The weight is indicated digitally and can also be taken over by the printing device or by connected computer systems

SCISSOR LIFT TABLE

- ✓ A hydraulic lifting table adjusts the height of the conveyor belt
- ✓ Here are two examples of applications:
 - Takes over the sheet stack from the preceding belt system of a horizontal cutting machine
 - After height adjustment, the scissors lift table passes the stack on to the vertical contour cutting machine

SEPARATOR

- ✓ For the lateral block alignment as well as for the separation of two blocks in front of the OFS-HE3
- ✓ For higher cutting accuracy: the separator creates a gap between two blocks which is then used by the automatic centre support of the OFS-HE3 as an additional knife support
- ✓ The belt system compensates the height difference between the shuttle and the table height of the OFS-HE3



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