

B17 Universal Counting Machine



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Features

The Task

- Since there is a requirement on the market for the physical counting of very different materials, new counting discs have to be developed in some cases for this purpose. In most cases, the higher the grammage or the bending strength of a product to be counted, the deeper the counting disc must penetrate into the material, which then increases the diameter of the counting disc. This leads to different disc diameters and also to different counting positions and distances, see "Counting disc positions overview".
- At the same time, the desired counting position also changes, the "classic corner" used for high security products cannot be used for higher grammages, or the discs are used on machines where it is not possible to count at the corner due to the design.
- On an usual counting machine it is not possible to set different counting positions.

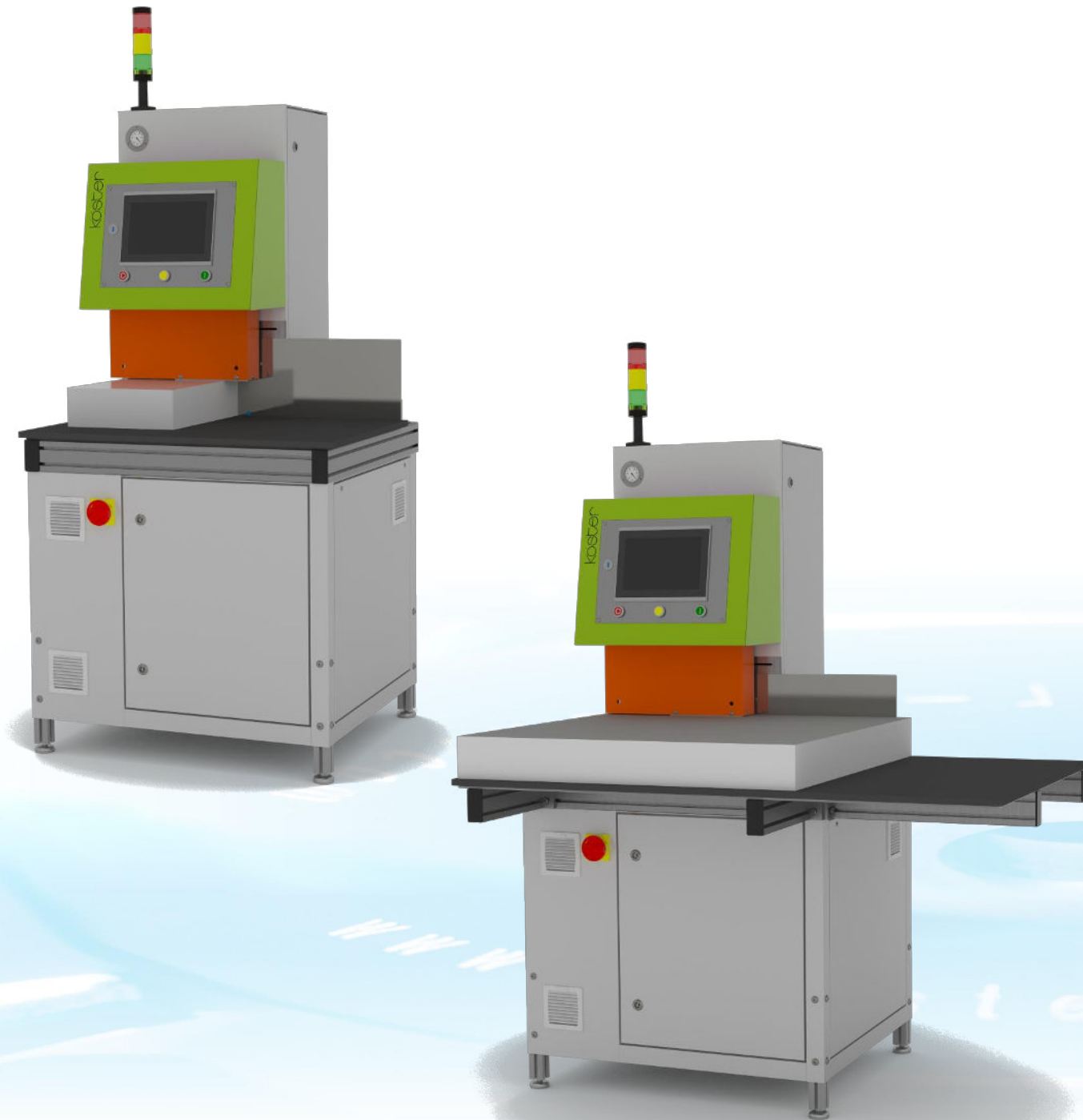
The Solution

- Our new B17 universal counting machine, compatible with all counting discs from our range.
- All necessary counting positions can be achieved by moving the counting head and the stops. Mechanical fitting is required for this purpose.

The Machine

- Single head counting machine with table.
- Counting at the product corner or at the product edge.
- Depending on the customer's requirements, the machine can be equipped with:
 - Fixed stop for corner counting.
 - Fixed stop for corner counting with a S-Disc.
 - Extended press plate for counting at the side edge.
 - Micro-perforated airflow tables standard or XL size.
 - Customized table sizes and versions.
- Standard voltage supply Single-phase 230V-AC / 50-60Hz.

Edge Counting Position



The Formats

- Bundled or loose products:
 - With standard table, from 160 x 75 mm up to 770 x 540 mm.
 - With XL table, from 160 x 75 mm up to 1260 x 840 mm.

The Substrates

- Coated products
- Hybrid products
- Laminated products
- Polymers
- Paperboards
- Cardboards
- And much more

The Products

- Labels
- Packagings
- Kraft papers
- High security products
- Tax and post stamps
- And many other sensitive products

The Operation

- Counting direction from top to bottom
- Precise and fast product handling
- User friendly HMI

The Technology

Disc technology and gentle disc design allow counting of critical areas such as:

- Security thread
- Applications
- Codes
- Intaglio printing
- And much more

Corner Counting Position



The Precision

- Concentricity and axial runout of the counting disc <math><0.025\text{mm}</math>
- Smooth running and safe counting signals at any speed

The Drive

- Fast - 2,000 RPM for up to 200 sheets / second
- Powerful - Torque at any speed
- Controllable - Accurate stopping on last count and exact batching

The Machine Design

- All installed components are high-quality products from global manufacturers.
- The non-sophisticated machine design ensures easy maintenance and low maintenance costs as well as maximum machine availability.
- Machine's high performance and availability results from the robust and precise construction out of steel and aluminium.

The Equipment

Wide range of integrated features in the standard version:

- Security Counting:
Results are compared with the pre-set value, if they do not match, the product is not automatically released.
- Batching:
A pre-selected number of sheets can be easily batched to form a layer. The counting disc is used for separation to provide a gap for the operator to easily separate the layers.
- Firmware or Program Update:
Firmware or program version updates are easily carried out using an USB memory stick.

The Options

- Tab inserter.
- Microperforated airflow tables in standard and XL size.
- Individual counting table sizes and versions upon request.
- 24 months warranty extension excluding wear parts.
- Printer kit.

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Technical Specifications

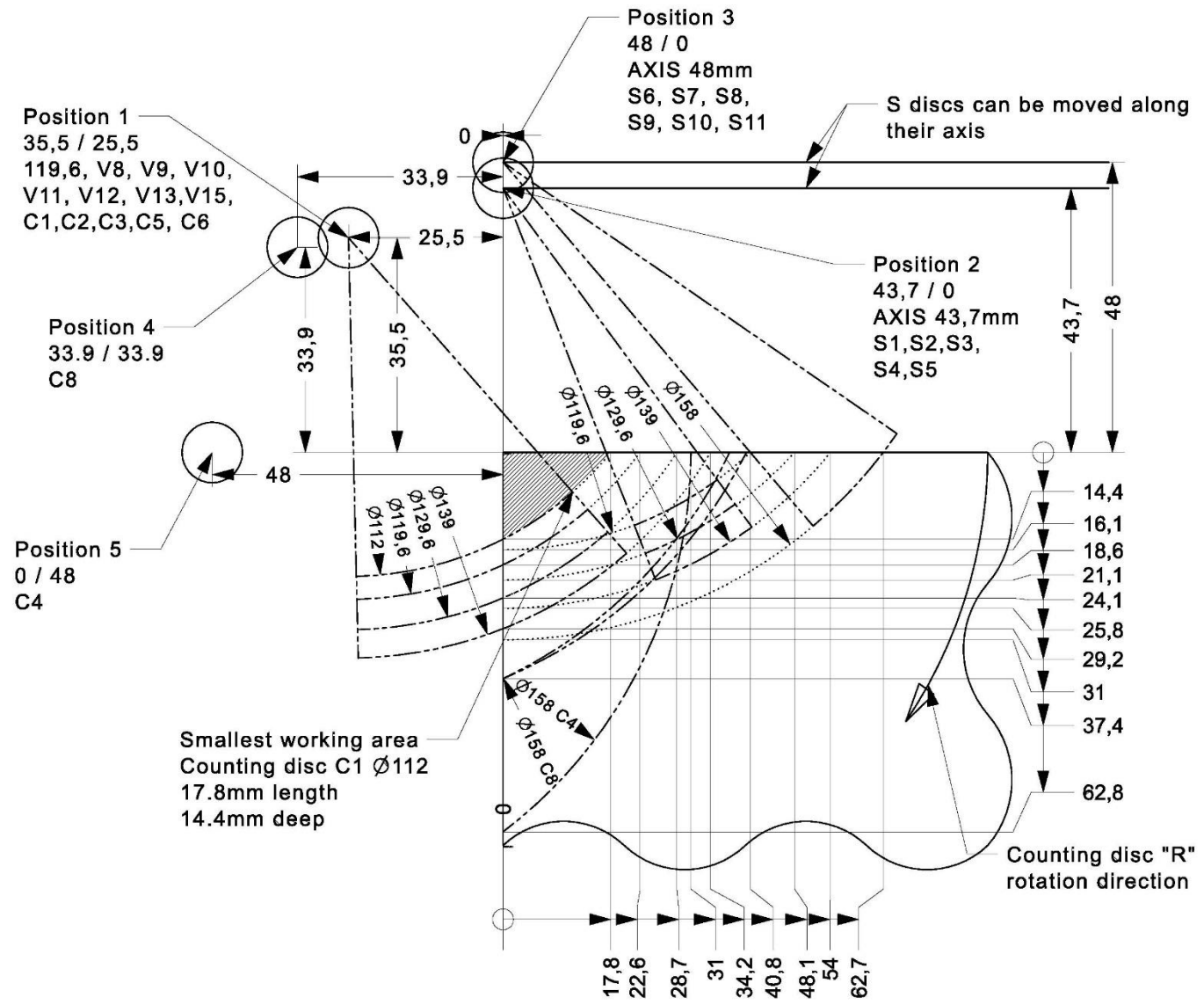
Dimensions	L	W	H		
Overall (mm):	839 - 1325	912 - 1202	1950 - 2080		
Standard Table (mm):	839	578			
Extended table (mm):	1325	870			
Weight					
Machine weight (kg):	240				
Working Height					
Working height (mm):	820 - 950				
Supplies					
Electric:	Single-phase 230V-AC / 50-60Hz / max. back-up fuse 16A / full load current 8A				
Pneumatic:	Min. 6 bar / oil and water-free / consumption 200 l/h				
Format Sizes					
	H				
Min. layer height (mm):	10				
Max. layer height (mm):	200				
Format Sizes		Standard table with stop		Extended table with stop	
C-Discs	L	W	L	W	
Min. format size (mm):	160	75	160	75	
Max. format size (mm):	550	540	1050	840	
Format Sizes		Standard table with stop		Standard table without stop	
S-Discs	L	W	L	W	
Min. format size (mm):	190	75	190	75	
Max. format size (mm):	600	540	770	540	
Format Sizes		Extended table with stop		Extended table without stop	
S-Discs	L	W	L	W	
Min. format size (mm):	190	75	190	75	
Max. format size (mm):	985	840	1260	840	

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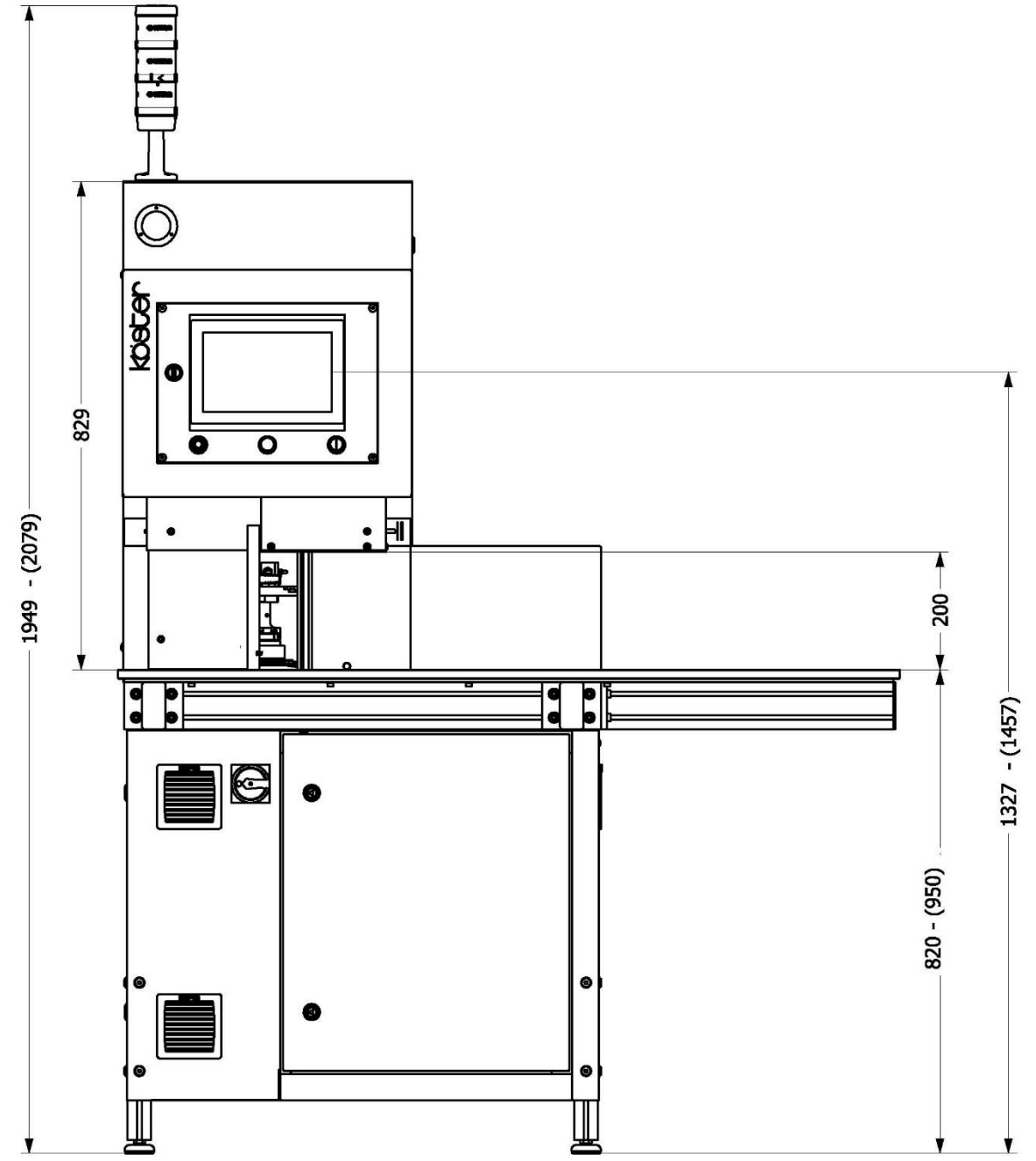
Technical Specifications

Counting Technology					
Counting method:	Disc				
Counting direction:	From top to bottom				
Max. Speed	RPM	Type	Segments	Sheets/min.	Sheets/sec.
Rated RPM:	2,000	C,S	3	6,000	100
Rated RPM:	2,000	C,S	4	8,000	133
Rated RPM:	2,000	C,S	5	10,000	166
Rated RPM:	2,000	C,S	6	12,000	200
Depending on the stiffness and quality of the products, these values may deviate during processing.					
Processable Substrates					
Currency Industry:	Currency and documents paper, coated or uncoated, polymers, hybrids and much more.				
Consumer Industry:	Consumer paper, coated or uncoated, laminated, plastics, polymers, paperboards, cardboards and much more.				
PLC Control					
Brand:	B&R				
Touchscreen:	10,1" colored multilingual, main HMI with pictograms				
Connections and interfaces:	FTP (Client / Server)/USB/MQTT (TCP / IP)/OPC UA/Profinet/Profibus/Ethernet-IP/ Device Net / CAN-Bus / CAN-Open / EtherCat / X2X Link Powerlink / Modbus TCP /				
Operating Noise					
Max. dB(A) at 2000 RPM.:	78				
Environmental Cond.	Min.	Max.			
Recommended temperature range (+°C):	15	35			
Recommended relative humidity range (%):	35	45			
Certification					
CE Certificate:	Complies with all applicable European standards.				

Counting Discs Positions Overview

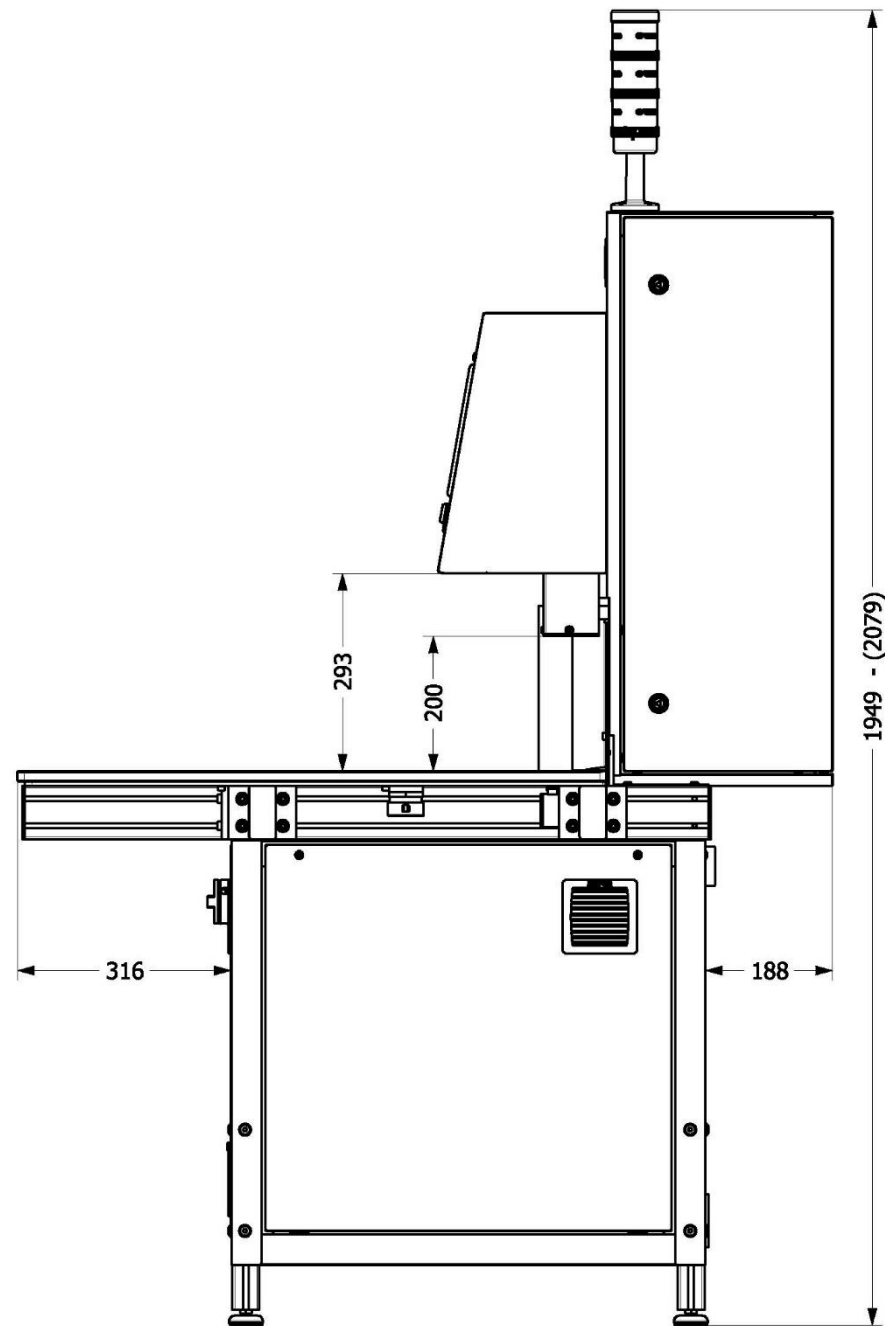


Machine Layout



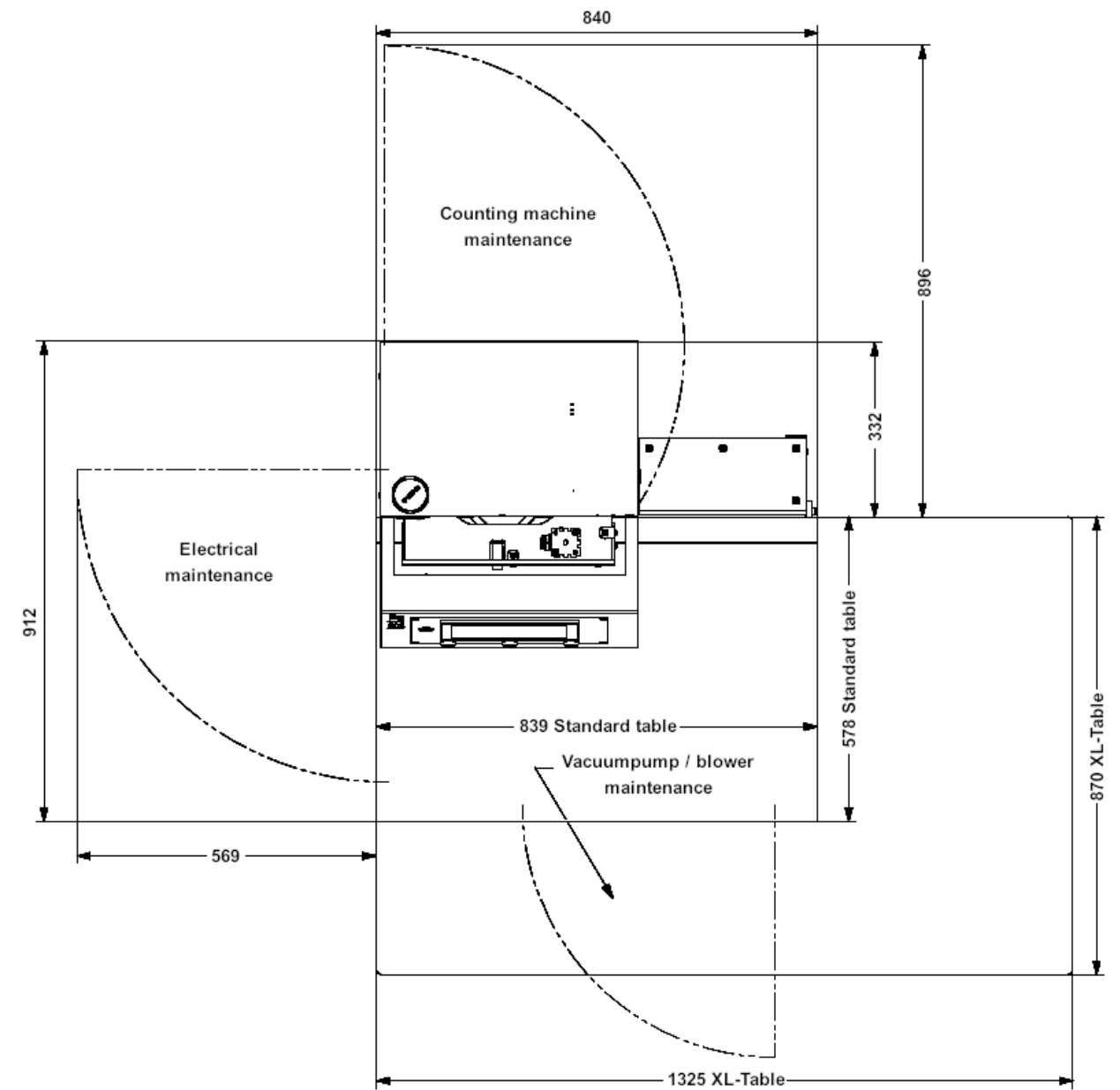
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Machine Layout



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Machine Layout



Counting Discs – Since 1991



HPC – HIGH PERFORMANCE COUNTING

Basic Information

Counting Discs:

- The details of the GSM values are based on experience and tests. Depending on the product rigidity, these values may differ.
- Older produced counting discs for corner position are designated by 1xx,x for the diameter in "mm" and / or "V8 - V15" depending on the type.
- Newly produced counting discs for corner position are designated by "C1-Cx" depending on the type.
- Newly produced counting discs for edge position are designated by "S1-Sx" depending on the type.
- Warranty for the lifetime of the counting discs is not granted as the abrasive wear depends highly to the processed product.

Counting Machines:

- Maximum counting speed refers generally to the rated maximum rpm value and the machine design.
- It is not granted that maximum speed can be attended using all kind of substrates / materials.
- Warranty time 12 months upon issuing of the acceptance certificate.
- Warranty extension 24 months optionally available.
- Warranty coverage except wear parts.

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