Rotation Cross Cutter
RQS-V
Technical data sheet

Ph-QUESTEC

Ph-QUESTEC – A cut above the rest

For more than 30 years now Ph-QUESTEC management offers its expertise and experience in designing and manufacturing as well as servicing and distributing Rotation Cross Cutter technology. Ph-QUESTEC is operating world-wide, setting up innovative new standards in refinement and production of cross cutting technology.

RQS-V – Mode of Operation

The RQS-V uses a multi-axis servo drive. This leads to much less waste and a significant reduction in wear of key components. In combination with the servo drives, an optional control for the mechanical register roller or a camera system is used, which enables precise detection of the register marks. Owing to the camera-controlled signal there is an optimal control of the cutting roll.

The paper web is cut by a rotating top knife. To keep cutting force, attrition and the noises low, the top knife has a special spiral form. On change of format lengths the entire cross cutter cartridge is automatically set to the exact perpendicularity of the sheet by means of a servomotor. The lower knife drum distinguishes by elaborate and solid construction and might be adjusted during the production. The cut-off length can be infinitely selected via touch screen, whereas the shortest format is 70% of the longest format.

For precise cutting, the uncut paper web is transported by Air Stream System II technology and tensioned by a chrome transport roller. The cut sheet's top is first guided to a suction roller, then to a brake roller.

Suction and brake roller both are equipped with a special arrangement of suction holes and a fixed suction section with negative pressure ensuring the best gentle transport.

The brake roller creates an overlapping stream which the Air Stream System II transports onto the roller table which again

cuts the streams into halves. The delivery speed is reduced to such an extent that there is no damage to the paper edges.

To increase adhesion with the sheet on the rotating transportation rollers, a vacuum is generated underneath the roller table. The end of the paper web is transported to the delivery device by belts. In between those transportation belts are located special nozzles to blow air towards the ends of the paper sheet coming out in shingles, and consequently facilitating gliding.

In an energy-optimized manner, blowers and motors provide air to the suction rollers and to the air conveyor table, thereby creating the required vacuum. A touch screen menu enables the user to react quickly and precisely to the various production conditions. In order to set up the most important parameters, six password protected programs are available – of which three are set to factory settings and three are customized.

With edges in precise alignment the paper sheets are collected in the sheet delivery.

The sheet stops are positioned by a servomotor depending on the selected format.

Your advantages at a glance

01. Impressive production speed above average
400 m/min
02. Extremely accurate cutting
± 0,25 mm
03. Easy automated handling
Crucial parameters can be centrally adjusted during production process
04. Easy and flexible processing of every paper grade
The dynamic blower (WebSnap) prevents paper blockages, even reliable with very thin paper
05. Well-engineered proven technology
8 years of test runs of all systems applied to rebuilt cross cutters
06. Competent service world-wide plus a 24 hour emergency service
Experienced technicians on service, 95% of all spare parts available in stock
07. Complete manufacturing according to modular principles
Allows the RQS to be expanded at any time
08. Manual change system
09. Air Stream-System II
All air bars can be easily adjusted by the user during production process. It will be possible to add extended air bars with a newly constructed changing system. Reduction of energy up to 30%; reduction of noises up to 35%
10. Integrated register control
– Manuel
– Automatic (precise detection of the register marks via camera technology)
11. Servo single-axis drive
High speed, less scrap, less wear
12. Options
Extra warranty, personnel training, optimized guiding plate system
Sample sheets can be easily extracted at full speed
13. Automatic, web width dependent suction roller separation
For narrow and offset paper webs

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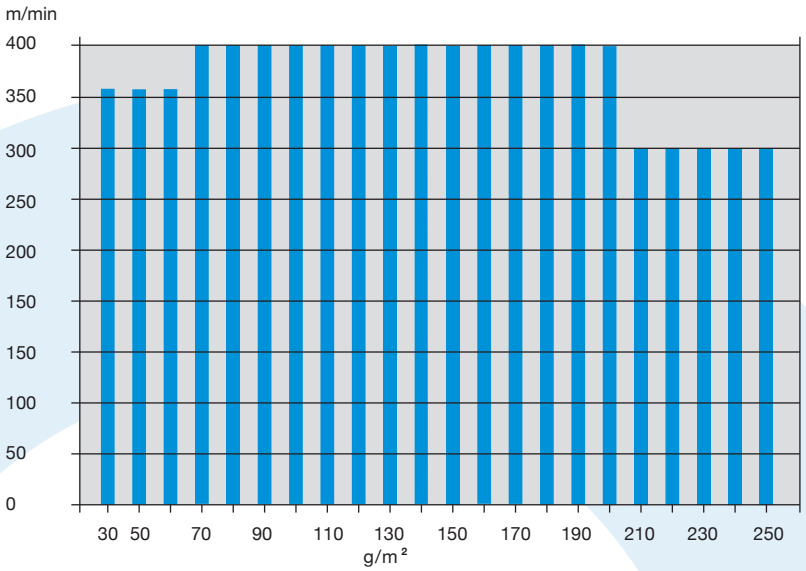
RQS-V – Paper specifications and performance data

The production capacity, as displayed in the illustration, is based on paper formats with a width of 440 – 1,100 mm. No speed reduction owing to vacuum loss, because there is an automatic suction roller separation. To guarantee best performance levels paper without adhesive varnish coat or perforations must be chosen. Users will achieve high-speed performance with single coated paper evenly coloured in regular moisture condition. A homogeneous silicone coating applied by a silicone coating head is to be required. The coating head should not be any further away from the rotary cross cutter than either a distance of 14 meters of web path, or seven guide rollers at a max.

RQS-V – Speed

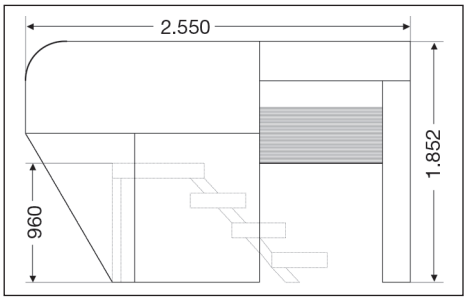


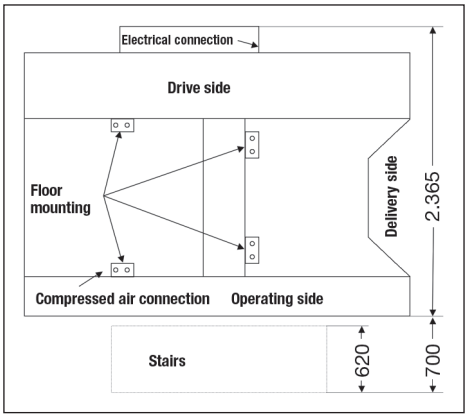
Technical data overview

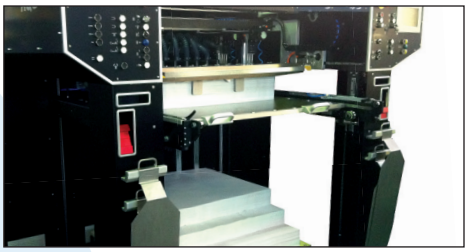
RQS - With its modern design, ergonomic operating comfort and essential practical advantages for the user!

RQS-V	
Meter per minute	400
Paper weight	30 – 250 g/m²
Cutting tolerance	± 0,25 mm
Voltage	3 x 380 V
Frequency	50 Hz
Machine weight	9.400 kg
Cut-off length	z.B. 42″ (1066mm) – 30″ (762mm)
Paper width	1100 mm – 440 mm

Constructional dimensions and connecting dimensions







Delivery device RQS-V

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