

# Rotation Cross Cutter RQS 60 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 60 – Mode of Operation

The paper is inserted through a guide roller with two draw-in rollers while the tension of the paper web and its registration tolerance is technically controlled. The second roller's fast reading provides the web tension required on the register roller. To avoid any slipping between pull roll and paper web they are tooled with segmented draw rolls which can be adjusted on the side. Contact pressure might be adjusted individually and the draw rolls will be deviated towards the web threading.

Afterwards the paper web is cut by a rotating top knife. To keep cutting force, attrition and noises low, the top knife has a special spiral form. The lower knife drum distinguishes by elaborate and solid construction. It might be adjusted during the production.

For precise cutting, the uncut paper web is transported by Air Stream System II technology and tensioned by a chrome transport roller. Simultaneously 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 transports on to the roller table which again cuts the streams into halves.

To increase adhesion with the sheet on the rotating transportation rollers, a vacuum is generated underneath the roller table.



The end of the paper sheet 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 like in shingles, and consequently facilitate gliding.

Former detailed manual handling with auxiliary sheets during change of piles is not needed any longer. The semi-automatic HNS Nonstop System allows easy pile changes at any time without any problems.

A well-engineered technology easily offers the possibility to extract sample paper sheets at any time during the cutting process.

In energy-optimised manner, blowers and motors of identical size either provide air to the suction rollers and the air conveyor table or create the corresponding vacuum. A touch screen menu allows the user a quick and precise reaction to different production conditions. To set up the most important parameters, six programs protected by passwords can be made available up to now – three of them fixed by factory setting, three to be defined by the customer.

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

RQS rotary cross cutters use SPS controllers produced by Siemens.

### Your advantages at a glance

**01. Impressive production speed above average**

10,5 m/s, max. 60,000 sheets/ h with wastage of 630 mm

**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**

5 years of test runs of all systems applied to rebuilt cross cutters

**06. Competent service worldwide 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. Extraction of sample sheet**

Sample sheets can be easily extracted at full speed

**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. Precision register control**

Type of extreme low backlash with ball screw (Minimization of paper wastage)

**11. Precision spur gear unit in aluminium gear box**

Hardened spur gears in oil bath (reduces attrition in rates of 40 – 50 %)

**12. Semi-automated changing system**

Best position in respect of the "web shingle"

**13. Co-flow drive**

Including an integrated direct current drive fixed within the machine

**14. Options**

Double-cut design, extra warranty, personnel training, optimized guiding plate system, pallet delivery

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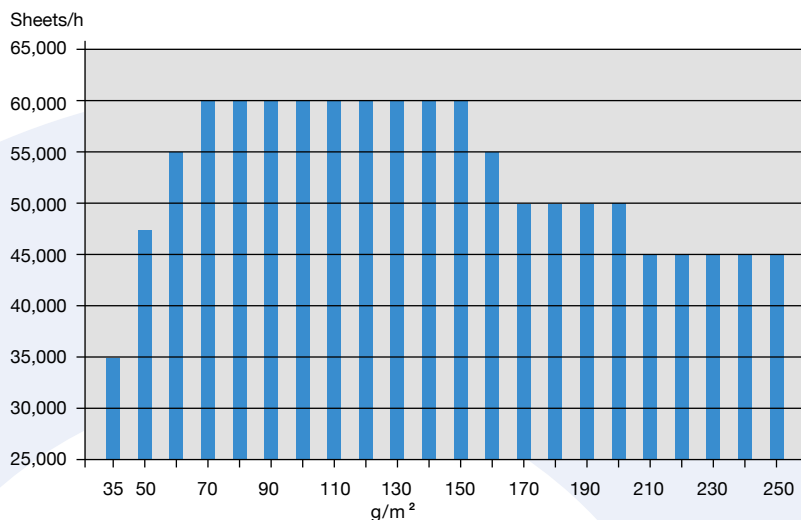


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## RQS 60 – Paper specifications and performance data

The production capacity, as displayed in the illustration, is based on paper formats with a width of 600 – 1,000 mm. If the web width of the paper varies between 400 and 600 mm, speed reduction of approximately 20% is to be expected since the suction rollers lose vacuum pressure. 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 silicon 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 60 – Speed

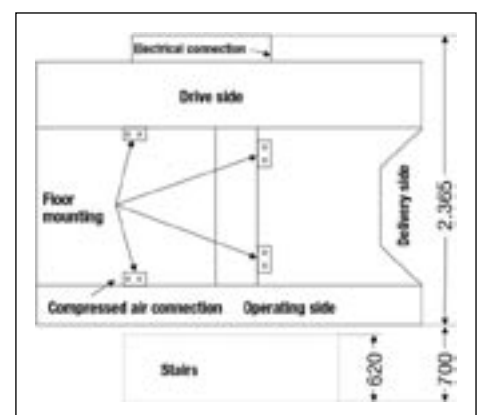
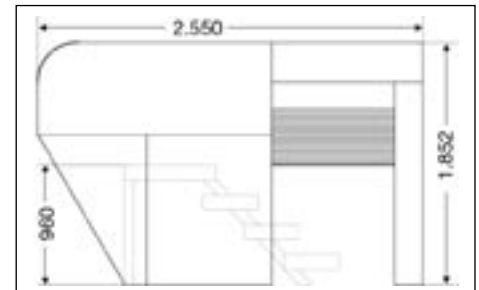


## Technical data overview

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

RQS 60	
Sheets/h	60,000
Paper weight	35 – 250 g/m <sup>2</sup>
Cutting tolerance	± 0,25 mm
Voltage	3 x 380 V
Frequency	50 Hz
Maschine weight	5,200 kg

## Constructional dimensions and connecting dimensions



Air Stream System II in RQS 60

## Design, production and service:

**Ph-QUESTEC GmbH & Co. KG**

Max Planck Ring 37  
D-40764 Langenfeld  
Tel. +49 (0)2173 - 85 49 497  
Fax +49 (0)2173 - 85 49 496

## Management & Administration

**Ph-QUESTEC GmbH & Co. KG**

Grüner Winkel 3  
D-52070 Aachen  
www.ph-questec.de

If you have any questions, please let us know!

[www.ph-questec.de](http://www.ph-questec.de)



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