



RAPID-KÖTHEN SHEET FORMER

For the preparation of laboratory sheets of pulp for physical testing

TECHLABSYSTEMS

RAPID-KÖTHEN SHEET FORMER

APPLICABLE STANDARDS

ISO 5269/2 - DIN 54358

DEVICE DESCRIPTION

The Rapid-Köthen device is built upon a warp resistant stainless-steel frame. This robust base holds the pump, hot water boiler, suction chamber, etc. On the left-hand side of the worktable, you can find the sheet forming column, the white-water tank and the white water thermostat (C model only).

The dryers are located on the right-hand side. They can be operated separately. You can find only a few important control switches on the worktable to ensure workspace for the transferring process between sheet former and dryer. Adjustments and setting for the automatic sheet forming process as well as parameters for the drying process can be controlled by using the touch screen (A and C model only) located next to the dryer timers and gauges.

Manual Former (RK-M)

The manual former is equipped with a six-position-switch by which each of the sheet-forming steps (filling, agitation, calming, fall-through, sucking and draining) can be selected manually. To control the temperature of the dryers, the device is furthermore equipped with a digital display for setting the dryer temperature.

Automatic Former (RK-A)

The automatic former is equipped with a touch screen panel on which all the times for each step can be adjusted. The device runs through these steps automatically upon pushing the start button. Additionally, it is equipped with a manual 6-position switch. The user can change from automatic to manual sheet forming any time.

Automatic Former with White Water Circulation-System (RK-C)

The former with circulation water system is working just like the automatic former. But instead of draining the water to the drainage after sheet-forming, the water can get stored in a separate tank by switching a button on the touch screen. When another sheet is formed, the stored water is used to fill the former column. After a circle of several sheets, the stored water can be taken out by opening a tap on the side of the device and chemical analysis of the white-water can be done.

Description Drying Process

The Rapid Köthen Sheet Formers are equipped with up to five dryers. The temperature of 94–97 °C is reached due to a water circulation system. Each dryer can dry one hand sheet with- in 5 to 10 minutes depending on the grammage of the sheet. After the forming process, the sheet gets placed into an empty dryer. The dryer gets closed, and the start button of that specific dryer is pushed. The vacuum pump starts to suck the air out of the dryer. Due to the vacuum in the dryer, the membrane lowers onto the sheet and applies pressure to it. After the preset time has passed, a sound signals the end of the drying process. By pressing the stop button, air is released into the dryer and the dryer-cover can be lifted. After taking out the sheet, the carrier board and the cover sheet are removed, and the hand-sheet can be further processed.



Specifications Rapid Köthen with Manual Former

- Top-quality standards
- Built into a sturdy stainless-steel frame
- Former column made from stainless steel
- Manual control by 6-position switch
- Dryer temperature adjustable by digital temperature control (up to 97°C)

Specifications Rapid Köthen with Automatic Former

- Top-quality standards
- Built into a sturdy stainless-steel frame
- Former column made from stainless steel
- Built-in water-resistant touch screen control panel
- Fully automatic sheet forming
- Additional 6-position switch to change to manual sheet forming at any time

Specifications Rapid Köthen with Automatic Former and White-water Circulation System

- Top-quality standards
- Built into a sturdy stainless-steel frame
- Former column made from stainless steel
- Built-in water-resistant touch screen control panel
- Fully automatic sheet forming
- Additional 6-position switch to change to manual sheet forming at any time
- White-water tank for saving the water used for sheet forming
- White-water heated tank up to 60°C
- Switchable water-source: tap-water or white-water
- Tap on the side to take out the white-water for chemical analysis

Connections

- Electricity: 400 V, 50Hz (other voltages possible)
- Air: 400–600kPa
- Water: Tap water connection is required
- Drainage: Ø 50mm drainage pipe

Specifications for Dryers

- Dryers are made of stainless steel
- Heated by a heating water circulation system
- Membrane exchangeable
- Dryer water circulation of 3–6 l/min according to standards
- Dryer water temperature (93–97°C according standard): adjustable up to 97°C
 - Amount of hand sheets that can be done within one hour (depending on user and grammage):

1 Dryer:	up to 10 Sheets/Hour
2 Dryers:	up to 20 Sheets/Hour
3 Dryers:	up to 30 Sheets/Hour
4 Dryers:	up to 40 Sheets/Hour
5 Dryers:	up to 50 Sheets/Hour



Models, sizes and weight

Model	Control System	Number of dryers	Dimensions Net W x D x H (mm)	Weight Net (Kg)
RK-0M	M	0	1200 × 760 × 1377	195
RK-1M	M	1	1333 × 760 × 1377	275
RK-2M	M	2	1722 × 760 × 1377	355
RK-3M	M	3	2111 × 760 × 1377	435
RK-4M	M	4	2500 × 760 × 1377	515
RK-5M	M	5	2899 × 760 × 1377	595
RK-0A	A	0	1200 × 760 × 1377	195
RK-1A	A	1	1333 × 760 × 1377	275
RK-2A	A	2	1722 × 760 × 1377	355
RK-3A	A	3	2111 × 760 × 1377	435
RK-4A	A	4	2500 × 760 × 1377	515
RK-5A	A	5	2899 × 760 × 1377	595
RK-0C	C	0	1600 × 760 × 1377	275
RK-1C	C	1	1722 × 760 × 1377	355
RK-2C	C	2	2111 × 760 × 1377	435
RK-3C	C	3	2500 × 760 × 1377	515
RK-4C	C	4	2899 × 760 × 1377	595
RK-5C	C	5	3288 × 760 × 1377	675

Control System: M = Manual, A = Automatic, C = "Circulation" also automatic but including white water system.

Customised devices, devices with transport ability or devices without dryers are available upon request.

