PRESS RELEASE
ICE EUROPE 2013

Weitmann & Konrad GmbH & Co KG (WEKO, Leinfelden-Echterdingen/ Germany) comes well equipped to the **ICE** with solutions for the current and future problems of the graphics and paper industry **(Hall A6 Booth 420).**

With finishing, such as coating and lamination of web-type materials, solvent-based, aqueous or also UV-wetting substances are applied to the substrates. Each of these systems offers its own advantages, but also has its drawbacks. However, because of the positive health aspects, the aqueous systems are favoured today. Their drawback, however, is often required drying associated with high energy expenses and unfavourable effects on the materials employed. Curl, static charges and reduced breaking load are factors especially with papers and carton.

Equipment and systems for web moistening are used to counteract these effects. Different systems, such as steam, roller or spray moisteners, are known here, however, with specific advantages and drawbacks. With the contactless application system from WEKO a system has come to establish itself over the past years – with their increasing demands on top machine speeds as well as environmental awareness – which distinguishes itself by high precision and a reproducible remoistening result. The moisture is regulated consistently and uniformly even at speeds above 1500 m/min. The spray application occurs via fast turning rotors which are arranged side by side in a rotor carrier. They are monitored and controlled by a supply unit, supplied with water, and they spray the liquid uniformly over the product width onto the web. Zone regulations are also possible; however, because of the precise application characteristics they are normally not required, provided the substrate does not exhibit a varying moisture profile. The energy expenditure is therefore limited to the delivery output of the supply pump as well as the drive power for the rotors. With a consumption of less than 3 kVA this is quite minute compared to the total machine. In addition, no additional heat is introduced into the material. Quite the opposite, the evaporation cold cools the material further and saves energy.

The WEKO rotor application system provides a system both for highest demands of web conditioning as well as for cost efficient and environmentally responsible companies.

THE WEKO ROTOR DAMPENING SYSTEM.

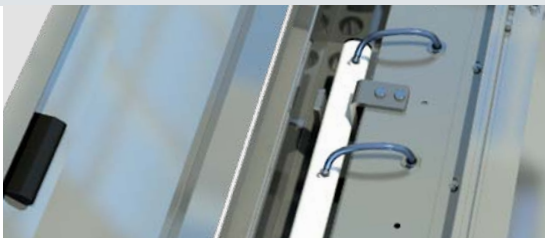
Application system for liquids onto material webs or continuously conveyed products.

Function principle

The system comprises a supply module, a control module and an application module. Application occurs by specifically designed spray disks, called rotors, which are located one next to each other within a rotor carrier. A supply module provides them with the desired liquid quantity. Rapid rotor rotation produces a uniform flow of microscopically small droplets.Adjustable sliders create a defined spray fan for each rotor. The individual spray fans are seamlessly arranged side by side providing uniform application.

Applications

- Conditioning by remoistening after drying processes
- Finishing, coating, and impregnating



WEKO SIGMA ROTOR CARRIERS.

For this new generation long-term stability, easy operating and maintenance have been brought into focus.

What is more is that the SIGMA rotor carrier is specifically designed for the use of functional and finishing substances.

Advantages

- Easy handling
- Great long-term consistency
- Very long service life
- Low maintenance effort
- Quick change-over times when using chemicals

Features

- Little space required
- Wide dynamic range in regard to the application quantities
- Plug-type rotors, easy to remove
- Removable supply module
- Drive components and bearings separated from the spray area

EASY ROTOR REPLACEMENT

WEKO-FLOW SUPPLY MODULE.

The purpose of the FLOW supply module is to supply the required liquid to the rotor carrier for the desired application.

Function principle

A frequency-controlled rotary pump transports liquid from the storage tank to the rotor carrier via a prefilter. A flow meter monitors the supplied quantity according to the quantity specification; the rotary pump's speed is controlled. The quantity applied is automatically adjusted to the machine speed.

The liquid that is not sprayed by the rotor carrier is returned to the supply unit via a return filter. As a result it is not wasted and remains in the liquid circuit.

SIGMA & FLOW – TEAMWORK OF A NEW GENERATION.

Perfect interaction of both components

The combination allows you tailoring the rotor application system to a variety of application-specific requirements. An optimal level of convenience and automation can thus be achieved.

Applications – constantly on the rise

This well-proven application system is used in a variety of applications and can be adapted to many different requirements thanks to its variability and modular design. It is an application system providing a large dynamic range without system adjustments. Even minimum application quantities can be applied in a reproducible and uniform manner.

WEKO-RFP – FLATNESS BY PAPER CONDITIONING AND REMOISTENING.

WEKO – qualified partner in paper processing and coating as well in package printing and decorative printing.

Functional and protective coatings are common in paper processing and finishing depending on the application. Mostly liquid substances are applied on printed or non-printed paper with printing or special-purpose coating units and subsequently dried.

Thermal drying processes are used to harden and fix such coatings. They extract moisture from paper as undesired side effect. Negative effects on runability as well as quality loss such as propensity to curling, bad dimensional stability and reduced breaking strength are known and can be avoided by well-aimed moistening.

WEKO with their many years of experience in moistening processes proven to be good in different industries is convincing by expertise. With the proven contactless application systems, it is possible to configure application-specific application systems, increase quality and productivity and make the production more reliable. This technology excels by constant reproducible and homogeneous liquid application. Even minimal quantities and high machine speeds are no insurmountable difficulties. Ease of operating makes it a finished system.

On the ICE, WEKO will represent a novelty – the innovative and consequent further development of rotor moistening. The new generation is named SIGMA. Special attention was paid to reliability, long service life and easy maintenance. Short downtimes and thus cost reduction with cleaning are achieved.

WEKO presents a new drive concept with the technical solution of powering each rotor individually.

With their rotor moistening systems, WEKO provides solutions for optimised runability, flatness, dimensional stability and breaking strength.

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