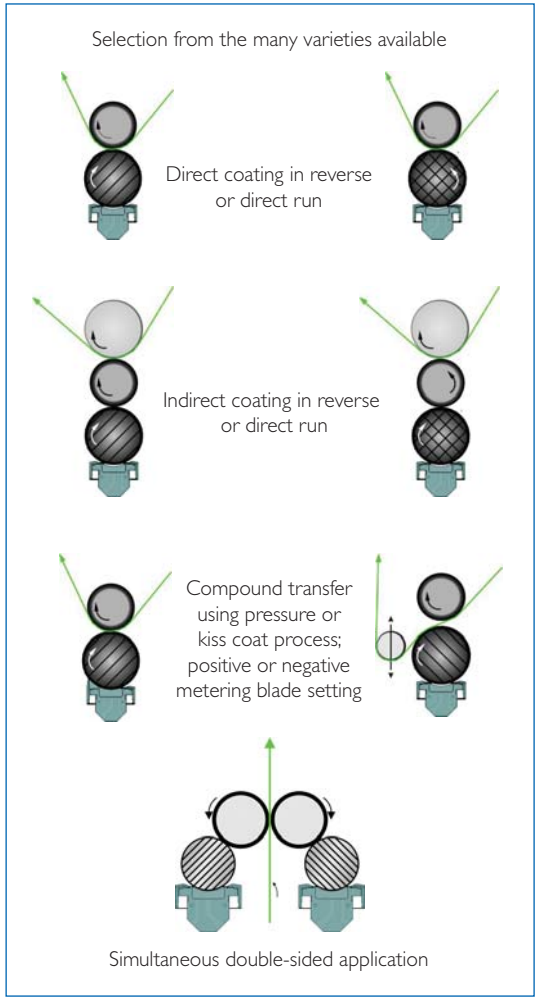
MPG 600 CI

Coating and metering technology from the RECO 800 and 800 A series

MPG 600 CI (Multi-Pressure Gravure 600 Chamber Injection) permits innovative coating processes with the highest quality. This is achieved by using a pressure-filled chamber doctor blade arranged against a screen roller in the 6 o'clock position. The compound chamber is enclosed and bordered by two doctor blades. In this way, differences in coating weight are possible by pressure variance alone and with a high degree of consistency. With its great versatility, the MPG 600 CI represents a quantum leap compared to conventional coating and metering methods:

- 3-chamber design for extremely accurate compound distribution, metering and flushing
- Reverse angle and positive running without turning the application head
- Sag-compensated application head
- Option of negative or positive metering blade setting allows wide variance in rheology and viscosity of the compounds
- Rapid blade changing is possible without tools or adjustment
- All displacers are wear-free and solvent-resistant (no plastic) and can be replaced without tools.
- Minimum maintenance, service and cleaning requirements

MPG 600 CI at working width of 2,900 mm



The diversity of applications is large – in addition to the coating processes, also are possible cooling or temperature control of the entire system

Features of the MPG 600 CI

Optimum flow in the chamber and small circulation systems specially developed for the purpose ensure absence of foam without making any compromise on transparency (clear-and-clear films, top coat etc.).

Quick-change Kroenert high-performance seals ensure splash-free operation even at 600 mbar compound pressure in the chamber.

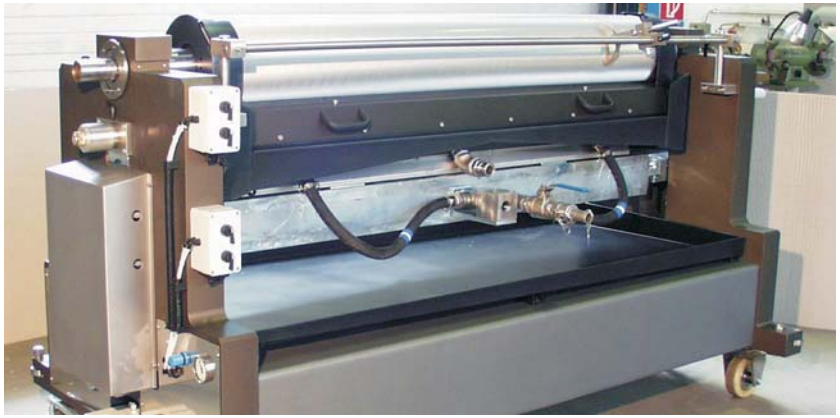
The high degree of resistance to leaks prevents pressure drop at the margins and loss of compound, thereby ensuring uniform application. The system is suitable for a wide viscosity range. Even with viscosities greater than 60 sec. Ford cup 4 or 2500 mPas, varnish spots and blade streaks are avoided.

Double coating station
Already today one sees applications where simultaneously 2-sided combinations of silicone- or wax emulsions, primer- and release coatings and lacquer- or functional coatings are applied at speeds beyond 1,000 mpm

MPG 600 CI and the environment

Conserving resources and improving the workplace (threshold limit values and ergonomics) are given top priority.

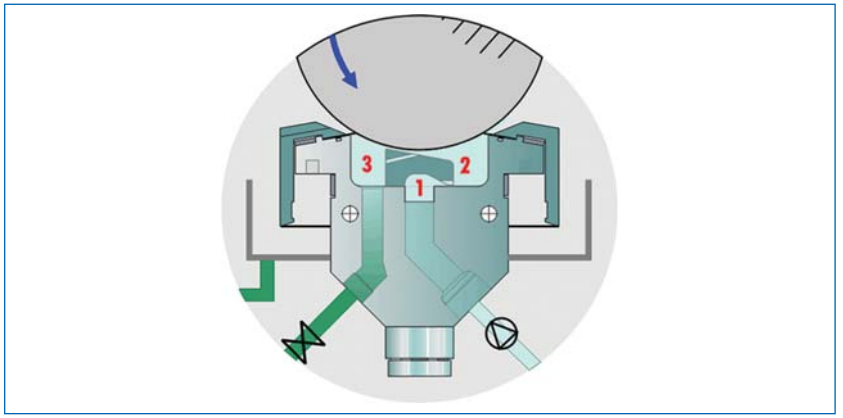
Thus, for example, overflows for defoaming are avoided and foam settlement and degasing tanks with minimum volume are used. In addition: extremely low solvent evaporation due to enclosed design (MPG chamber, compound circulation system, etc.)



Pressure-filled chamber doctor blade with gravure roll; a repeatable chamber position is achieved by utilizing a vertical setting arrangement

Other features

- Solvent-resistant material combinations permit the use of coating compounds dissolved in toluene, MEK, heptane etc. in addition to aqueous compounds
- No electrochemical corrosion of the application head when applying alkaline or acidic aqueous compounds
- Homogeneous cooling (from 2°C) or temperature control (up to 80°C) of the entire system, including the application head
- The system is suitable for installing in coating systems from other manufacturers



3-chamber design of the application head

Our capabilities

The experience we have gained from more than 120 different installations shows our outstanding variety of applications. Nevertheless, new requirements are being added every day, and these can be tested with your materials at Kroenert's own pilot plant.

Set us a challenge! We will develop your special system solution with individual modules which incorporate the required characteristics of the compounds with regard to rheology, viscosity, solids content and production speeds. Our many years of expertise provide you with the necessary security for your investment before you make any purchase.

Appropriate compound circulation systems can be supplied for various rheologies and viscosities

Kroenert

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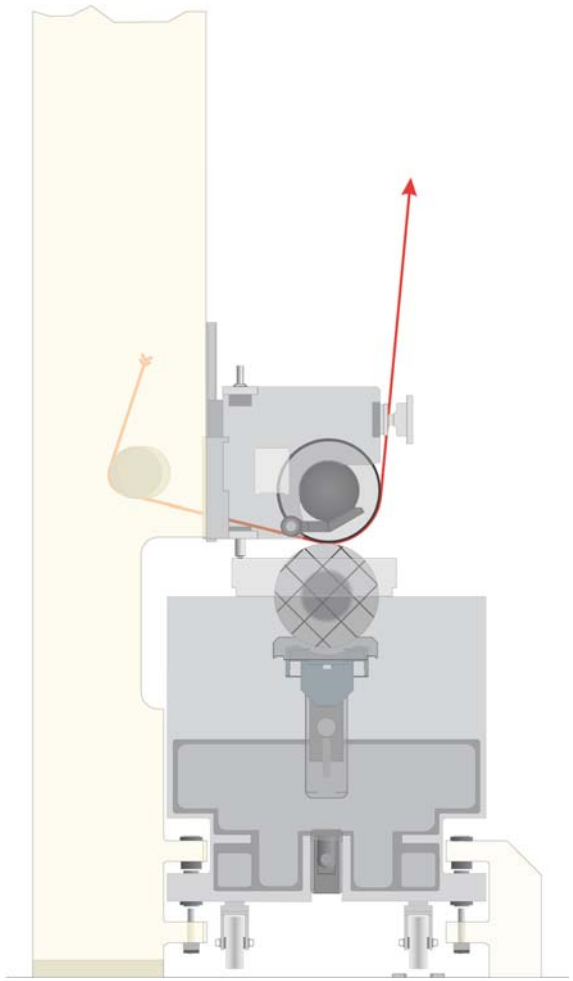

Schematic diagram of a coating unit with MPG 600 CI

The pressure-filled chamber doctor blade combines the advantages of screen roller application with the enclosed design of a nozzle

Performance data

- Coating variance without changing screen roller from 40% up to 200%, e.g. with aqueous acrylate adhesive coating 12-40 g/m² dry
- Coating weight consistency with continuous running speed in the longitudinal and transverse profiles ≤ 3%
- Coatability of high-solids varnishes with solids content greater than 40%
- Aqueous acrylate adhesive applications up to 800 m/min
- Solvent-containing and aqueous varnishes up to 1,000 m/min
- Emulsion-silicone coatings at 1,000 m/min
- Solvent-containing pigmented varnishes at 400 m/min
- Solvent-containing and dispersion laminating adhesives at 600 m/min
- Inkjet applications at 600 m/min
- Thermo-, CF and CB coatings at 800 m/min
- PVDC applications for sealing layers at 600 m/min and multilayer applications on rigid PVC for deepdrawable blister packs at 250 m/min
- UV-curing LF silicones at 1,000 m/min
- UV- and EBC-curing varnishes at 300 m/min