Steam-Foil® Profiling System

Steam Shower Overview

Applications
The Steam-Foil is utilized in a variety of applications to control moisture, curl, surface finish, gloss, and smoothness.

Features
- High thermal heat transfer
- Energy savings though containment of fugitive steam
- Instant-on capability prevents dripping or water spots
- Manual or computer controlled valves
- Available operator station with profile storage capability

Benefits
- Product stability across a wide range of environmental conditions
- Generate repeatable curl and moisture control product performance
- Less scrap increases saleable product

Advances in steam shower technology
The patented Steam-Foil profiling system is an innovative breakthrough in steam shower technology. Extensive research and development, combined with the experience gained in more than 700 steam shower installations on paper machines, coaters and printing presses worldwide, led to its development.

Our goal was to deliver excellent curl and moisture control to a wide variety of applications from highly sensitive thermal grades to highly moisture-resistant release liners.

The Steam-Foil profiling system's design combines the high efficiency of the Coanda nozzle with an integral vacuum chamber and preheated steam jacket. The result is high performance without the problems of dripping typically associated with conventional steam showers. The Steam-Foil profiling system provides excellent heat transfer, precise and selective control of steam, and operating economies through a more efficient design.
Typical applications
The Steam-Foil profiling system is used in a variety of applications to control moisture, curl, surface finish, gloss, and smoothness.

Coaters - The Steam-Foil profiling system is typically used to control lay flat characteristics of the web while increasing dimensional stability of the coating, packaging, and storage during transport to the end user.

Supercalenders and Soft Calenders - The Steam-Foil profiling system is used to control smoothness and gloss by raising the web’s temperature closer to the glass transition temperature. This allows the calender to increase both smoothness and gloss more efficiently.

Sheeters & Slitters - On sheeters and slitters, the Steam-Foil profiling system is used to control both cross-machine direction and roll-set curl by relieving the stresses in the web. The alleviation of stress allows the web to lay flat under a wide range of environmental conditions, including during transportation to the end user.