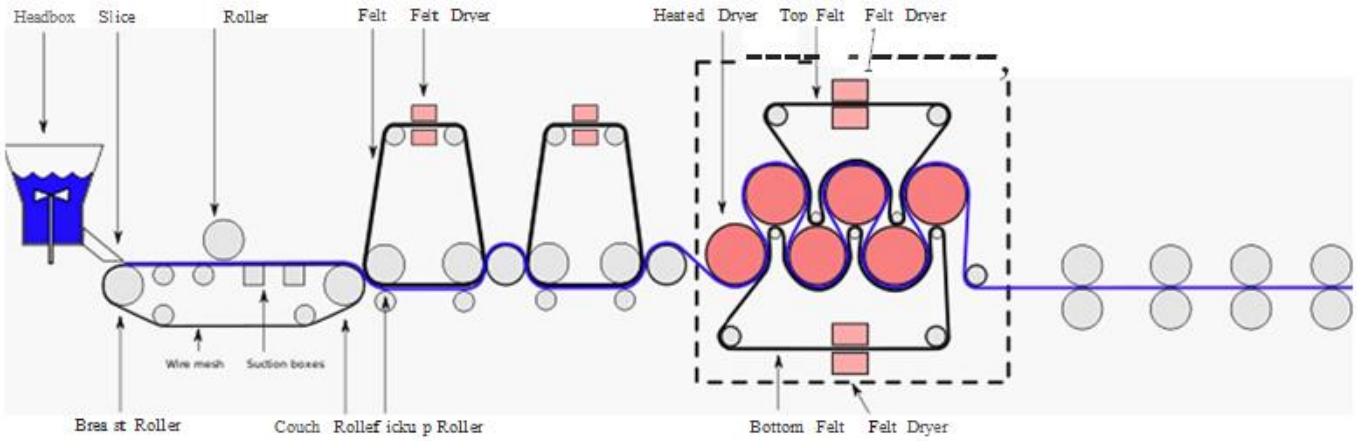
Precision Paper Finish by Means of Calendaring

Paper mills incorporate a Calendaring process to produce smooth or glossy paper for printing and writing. A Calendaring machine can have up to 16 servo valves in operation for this process.

A Calendar is a series of hard pressure rollers used to form or smooth a sheet of material. In a typical application, the Calendar is located at the end of a papermaking process (on-line). Those that are used separate from the process (off-line) are also called Super-calendars.

A Super-calendar is a stack of Calendars consisting of alternating steel and fiber-covered rolls through which paper is passed to increase it density, smoothness and gloss.



The sheeting roll gap is regulated by a plurality of hydraulic cylinders which are supplied with the precise amount of fluid by a Servo valve. An error-measuring device can actuate, for example, a series of pressure switches or a potentiometer circuit to impose a signal on the Servo Valve which can be proportional to the speed of the Calender to compensate for a lag between the error-measuring device and the Calendar-positioning control.