

V1000™ Vacuum Control Valve



Precise vacuum control is essential for consistent dewatering and formation. The V1000 vacuum control valve automatically maintains vacuum at a specified set-point, despite continually changing stock freeness and vacuum supply levels, due to the force balance control principle.

As the demand for greater production and higher quality increases, so does the need for precise and reliable vacuum control. Wet end vacuum control is often neglected. But a correctly designed vacuum control system contributes significant to machine runnability—and final product quality. This is particularly true as high operating speeds require elevated vacuum levels and stock and freeness fluctuations increase due to greater recycled fiber use.

A vacuum control system must provide precise vacuum control and react quickly to changes in air flow and sheet consistency. If not, vacuum surges can cause exiting sheet moisture variations, pin-holing, two-sidedness, poor formation, loss of fines and fillers—or even web breaks, and in extreme cases, wire stalling.

Air is regulated (B) between two diaphragms (A), creating a force imbalance causing piston assembly to float upward, uncovering slots in lower sleeve (C).

Slots let air flow from regulated vacuum chamber (D) to high vacuum header (E).

Regulated vacuum chamber reaches set-point vacuum and the piston assembly is in a force-balance equilibrium.

Overview



Features

- Low and high vacuum designs with integral vacuum level transducer
- 316L stainless steel housing with isolation valve included
- Easy interface with machine DCS
- Easy access for simple maintenance



Benefits

- Immediate response to process changes
- Precisely maintains set-points
- Facilitates quicker grade changes
- Graduating vacuum reduces drive loads and saves energy

