

Accu-Vac[®] Control Valves



Rugged, reliable and accurate

The Kadant AES Accu-Vac[®] is a 3-way vacuum control valve that improves forming table operation; providing precise control, atmospheric vacuum break and increased flexibility.

The Accu-Vac design minimizes maintenance costs associated with typical vacuum control valves and provides for simple operation.

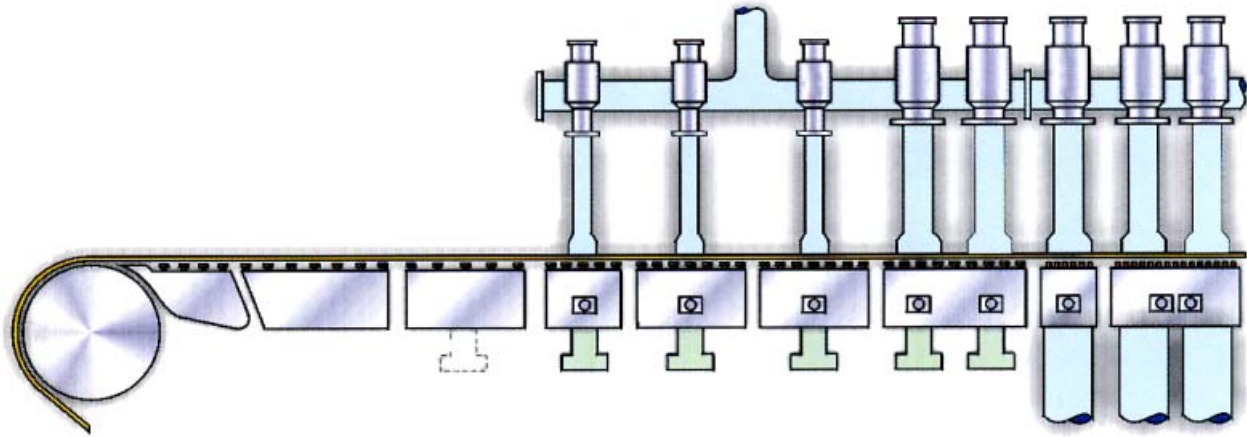
Valve controls allow for integration with existing mill-wide systems or stand-alone closed loop systems.

Accu-Vac's unique actuator, along with three step algorithmic range control, provides the user with a responsive, positive and powerful vacuum control valve that eliminates sticking.

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Accu-Vac[®] Control Valve



Theory of operation

The Kadant AES Accu-Vac[®] control valve is a positive displacement control valve. The rotating motion of the robust pneumatic motor is translated to vertical motion through a proprietary gear drive. The actuator in turn is attached to an internal piston assembly which regulates the process air-flow from either the vacuum header or atmospheric vacuum break. This feature allows the Accu-Vac to control any part of the table.

The pneumatic motor is actuated from directional solenoids which adjust valve position to compensate for changes in vacuum control.

This valve can be controlled by the mill's DCS or a Kadant AES control system.

Benefits to the papermaker

- Improved control provides more consistent drainage and formation
- Increased control flexibility allows for consistent sheet quality as control requirements change
- Unaffected by process contaminants
- Does not require water sprays or air diaphragms
- Provides faster and more accurate response to fluctuations in stock
- Simple setpoint selection minimizes operator support
- Rugged simplicity of design reduces control valve maintenance
- Easy integration into existing millwide or stand-alone control systems
- Allows use of graduated vacuum on forming table
- Optional sheet consistency control available

Features

- Maintains high precision setpoints to +/- .5 H₂O or .1" Hg
- Tuning features on valve and controller
- Automatically maintains set vacuum levels
- Low and high vacuum capability using same valve
- Direct drive eliminates need for air diaphragms and valve sticking
- Manual override drive not on air motor
- Isolation slide valve for on-line replacement available
- Operates at temperatures up to 150°F
- Lights for full open and vacuum break, and indicator flag on piston
- Single valve design enables a break to atmosphere for precise vacuum control
- Incorporates the same housing as Kadant AES V1000/V700 vacuum valves

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