Automatic Blower Start-Up and Unloading Valves

Positive displacement blowers all share a great feature: As soon as you turn the input shaft, air gets encapsulated by the lobes and thus moved through the machine. This leads to an almost linear performance curve. The faster the rotor speed, the more airflow is achieved. Sometimes this may lead to two key challenges for a project engineer. For one, applications where there is pre-existing header pressure, i.e. water in the main header in a water treatment plant, it may be either impossible to start the main motor without incurring high amperage spikes, or possibly the motor may not ramp up at all. The other key issue is related to regulating airflow or pressure. With a positive displacement blower air flow needs to either regulated by means of altering the input shaft speed, bleeding air through additional valves, or by stopping the blower altogether.

Aeromat

The standard Aeromat valve is the basic start-up unloading valve the project engineer may use to assure an unloaded blower start up. The key feature of Aeromat valves is that they operate self sufficiently without having to use any auxiliary power. The valve is normally open and starts closing once around 2PSI have been attained in the pipe work. With an optional electric solenoid valve the blower airflow may be vented on demand without having to stop the blower.
**Aeropress**

If it is desirable to maintain a certain discharge pipe pressure, the Aeropress valve is the best option for your application. This valve shares the same key characteristics with the Aeromat. Additionally, it comprises a pilot valve that let the user adjust is also called a pilot operated valve operation. Once the set pressure is exceeded, the valve automatically opens and bleeds air off to maintain the set pressure. Since it starts operating in the normally open position a minimum header pressure of 2PSIG must be present to assure the proper closing of the valve. The user may choose to install an electric solenoid valve to load and unload the blower.

**Aeropress 10S**

If a minimum header pressure of 2PSI cannot be attained, we offer the normally closed pilot operated Aeropress 10S valve. This is a normally closed valve that can only be used as a start up unloaded if it is carried out with a two-way solenoid valve. It functions primarily as a maximum pressure holding valve.

**Aerovac**

The Aerovac is a normally closed vacuum breaker that helps maintain a certain inlet vacuum level the user can adjust with the pilot valve.

No plant air or electrical connection is required for the basic valve versions.