

Unloading Valve

Lower your startup current, ease strain on your equipment, and save on operational costs.

In wastewater applications, starting a blower against a full head of pressure causes tremendous strain on drive components as the pressure builds in the line before finally releasing airflow into the water, at which point the amp draw will drop. This also places additional tension on the blower and causes the belts to wear out prematurely from startup slip. To minimize these issues, we now offer a cost-effective, non-electrical option: the unloading valve.

REDUCE POWER CONSUMPTION

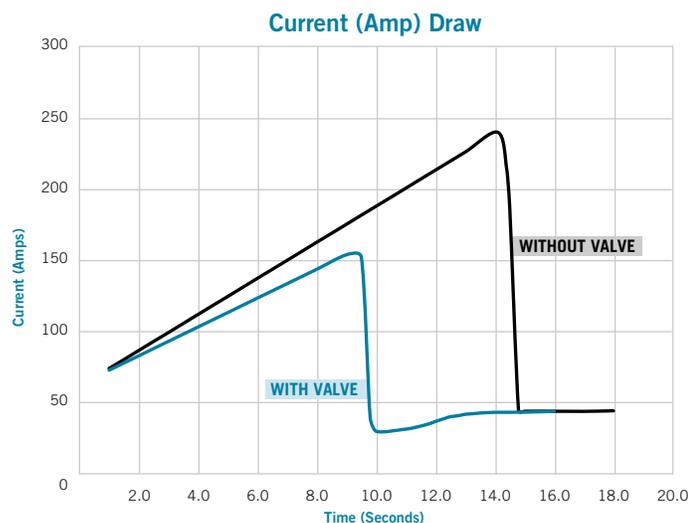
An unloading valve is a normally open device that allows air to escape into the atmosphere as pressure builds downstream before completely closing once system operating flow / pressure is reached. This reduces power consumption by as much as 35% during startup and it eases strain on the blower and motor, virtually eliminating belt-related startup wear. As it has no electrical parts, installation of an unloading valve is quick and easy, and maintenance is minimal. This mechanically operated device provides a reliable and cost-effective solution as compared to electrically operated alternatives, which can cost thousands of dollars more and may require a control panel, additional wiring, and high installation costs.



Part Number: 19295
Kit includes valve, gasket, and mounting hardware.

SPECIFICATIONS

MAX PRESSURE	20 PSI / 140 KPa
MAX TEMPERATURE	400 °F / 200 °C
FLOW RANGE	50–800 scfm ³ /MIN / 1.42–22.65 m ³ /MIN
FLANGE CONNECTION	2 ½" ANSI / DN65
WEIGHT	12 POUNDS / 5.44 KILOGRAMS
DIMENSIONS	8.5" L x 8.7" H x 8.5" D



HOW UNLOADING VALVES WORK

The automatic closing / opening is spring controlled and reacts to pressure differential between two cavities within the device. The unloading valve is comprised of upper and lower sections connected by a small hole. When the blower is inactive, the valve is open. When the blower is started, the air is discharged out the valve into the atmosphere. As pressure increases, the diaphragm compresses the spring downward to fully close the sealing head, allowing 100% of the air to flow downstream.

Current (Amp) Draw chart data is derived from the blower package specifications below:

Motor: 40 HP | Blower: 6008-A6L2CV1-A | Blower Speed: 2000 RPM | Pressure: 8 PSI

UNLOADING VALVE INSTALLATION

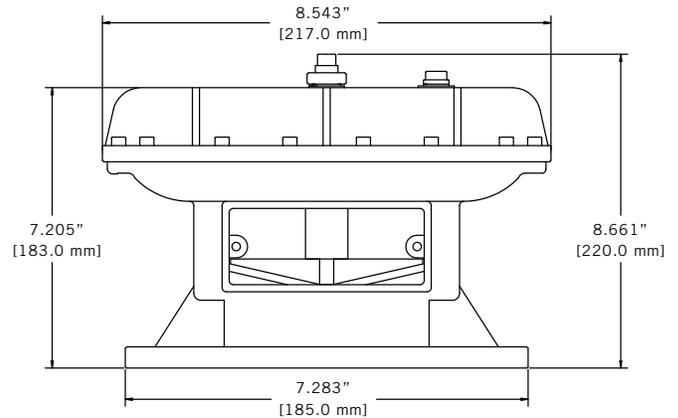
The unloading valve is designed for use in clean, dry, oil-free air. It features a DN65 (2 1/2" connection flange).

Note: valve is pre-adjusted at the factory. No need for additional adjustment.

1. The valve should be located close to the blower on the discharge side. The valve may be joined to the silencer if a connection option is present; otherwise, a tee can be used to add the valve to the discharge plumbing. The surface of the flange should be flat to ensure proper sealing and normal operation. The connection between the tee joint and valve should be concentric.
2. Place the gasket over the flange and insert the bolts. Insert bolts through bottom pointing up.
3. Place a lock washer and nut on each bolt. Tighten the bolts.
4. After startup, check to ensure there are no leaks.

DIMENSIONS

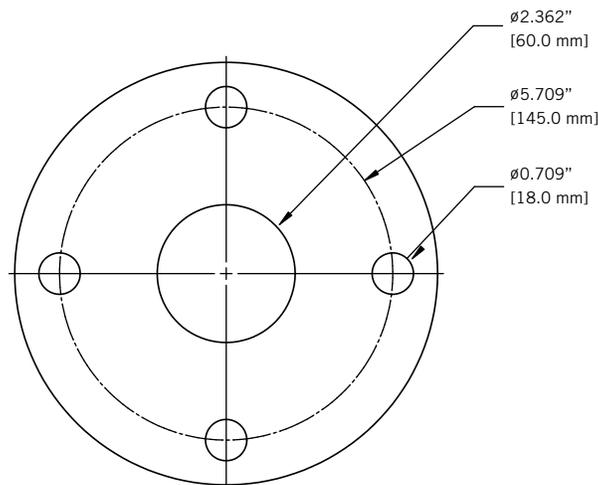
Values shown are approximate and should not be used for construction. Certified drawings are available through your local sales professional.



UNLOADING VALVE TROUBLESHOOTING | PART NUMBER 19295

Failure mode	Possible Root Cause	Correction
Bad seal / leakage at valve	Diaphragm blocked by foreign matter	Clean thoroughly and remove all debris
Leaking at flange connection	Screws not properly tightened	Tighten nuts evenly
	Flange surfaces or gasket damaged	Repair flange / replace gasket
Valve will not close	Internal parts loose	Adjust or replace
	Insufficient pressure or severe leakage	Check and correct system pressure
	Severe leakage	Replace worn / aged components
Leakage at valve body	Loose or worn inner membrane	Adjust or replace

UNLOADING VALVE BOLT PATTERN



CONTACT US

For more information, contact your Regional Sales Manager or call us at:

1-800-825-6937

Your Local Sales Professional: