



WHY ZERO AIR LOSS CONDENSATE DRAINS ARE MUST HAVES FOR YOUR COMPRESSED AIR SYSTEM

By Kyle Treble



Condensate: it's always present in a compressed air system but also something that needs to be removed. If not, you should prepare for some pretty bad consequences. Things like downtime, adverse product quality and efficiency, or even cause issues downstream in your air tools.

There are many drain options out there – manual drains, float drains or solenoid operated drains – but the benefits of choosing a zero air loss condensate drain, or the Sullair SULLIMAX™ condensate drain, are hard to dispute.

What is a zero loss condensate drain?

Zero loss drains reliably remove unwanted water, chemicals or other moisture in the air from your compressed air system. And they do so while providing maximum energy savings. Zero loss drains only open when liquid is present and do not allow any compressed air to escape from the system – compressed air isn't cheap, hence the savings.

Why do you need a zero loss condensate drain?

All compressed air systems have condensate present, and you need to get rid of it. If the condensate is not removed from the compressed air system, your product quality can be impacted. As will the efficiency of your production, and it may even lead to downtime or issues with your downstream tools.

The removal of condensate is especially important in industries such as pharmaceutical, who need to get rid of moisture prior to packaging medications.

What are the advantages of choosing a zero loss condensate drain?

A zero loss drain means you won't lose any of your air pressure while getting rid of moisture. Compare this to a manual drain. On manual drains, operators are required to manually open the valves to discharge condensate. This requires constant attention and leads to excess air loss, because the air escapes when the valve is left open to drain the condensate. Lost compressed air is lost money! In addition, as the pressure blows out, you lose pressure and you must build that pressure back up – meaning your compressor must work harder than it really needs to.

By choosing a zero loss condensate drain, it automatically drains the condensate. In addition, when a minimum level of condensate is reached, the valve closes before compressed air can escape.

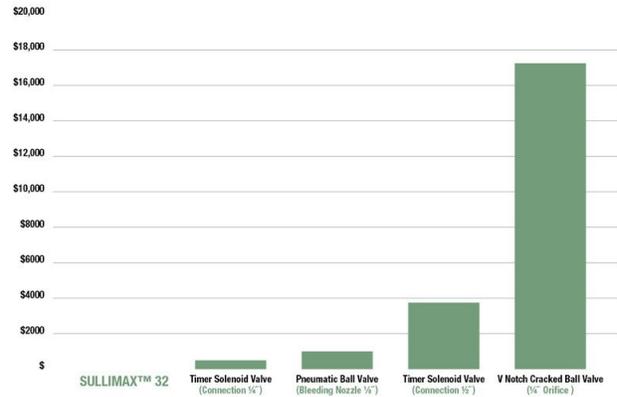
What Kind of Savings Can I Realize?

Some customers shy away from zero loss drains because of a higher upfront cost. However, they often do not realize that the payback is typically within 6-12 months at most.

Ultimately, your savings would depend on the cost to run the machine, how much air you're losing and the number of drain valves in your facility. Look at our estimated annual cost of use of different drain types. The major takeaway? The Sullimax, or zero loss drain, is zero.

Zero loss drains are the top choice for reliably removing condensate and preventing the loss and waste of compressed air. Compressed air is one of the most expensive sources of energy in a plant, so who wouldn't want to reduce the amount of lost air?

Estimated Annual Cost of Use



DRAIN TYPE	ESTIMATED ANNUAL COST OF USE	
SULLIMAX™ 32	\$-	
Timer Solenoid Valve (Connection 1/4")	\$600	
Pneumatic Ball Valve (Bleeding Nozzle 1/4")	\$1,170	
Timer Solenoid Valve (Connection 1/2")	\$3,800	
V Notch Cracked Ball Valve (Orifice 1/4")	\$17,500	
POTENTIAL COSTS OF AIR LOSS		
Input Assumptions	Example Input	
Capacity <i>cfm</i>	200	
Electricity Cost <i>USD</i>	\$0.08	
Compressor Working Hours <i>hours/day</i>	24	
Compressor Working Days <i>day/year</i>	365	
Working Pressure <i>psi</i>	100	
Solenoid Valve Time Tuned Open <i>seconds</i>	5	
Solenoid Valve Time Tuned Closed <i>minutes</i>	1	
SULLIMAX™ Sample Return on Investment	Best Sample Case	Worst Sample Case
Days	5	149

This chart illustrates the estimated annual cost of using different drains. The annual cost of using a SULLIMAX, or zero loss drain, is \$0.