

Energy Efficiency Tip #1

A zero-loss drain is a type of drain valve designed to remove accumulated water and contaminants from the compressed air system without wasting compressed air.

In compressed air systems, moisture from the air condenses and collects in various parts of the system, such as air receivers, filters, and dryers. If not removed, moisture can cause damage to downstream components and reduce efficiency as it deprives the system of useful volume and increases compressor cycling.

Benefits of zero loss drains include:

Elimination of Compressed Air Waste: Traditional timed or manual drains expel a mix of condensate and compressed air. Producing compressed air requires energy so any loss of compressed air is a loss of energy. Zero loss drains are designed to release only the condensate, not the compressed air. This means the energy used to compress the air isn't wasted.

Efficient Operation: Zero loss drains operate based on the actual level of condensate, typically using a sensor. This contrasts with timed drains that open at set intervals regardless of the condensate level, potentially releasing air unnecessarily. By operating only when needed, zero loss drains minimize energy waste.

Reduced Load on the Compressor: By preventing the loss of compressed air, the compressor doesn't have to operate as long to maintain system pressure. This reduces the load on the compressor and lowers energy consumption.

Reliability and Versatility: Zero loss drains are generally more reliable as they eliminate the risk of a human forgetting to manually drain the condensate. They can be used in various parts of the compressed air system and are compatible with different types of air compression technologies and air treatment equipment.

Long-term Energy Savings: While the individual instances of air loss might seem small, over time and especially in larger systems, this can amount to a significant quantity of wasted air and, consequently, wasted energy. By eliminating this waste, zero loss drains contribute to substantial long-term energy savings.

For further information please contact your compressed air supplier.

Compressed Air Association of Australasia (CAAA) a division of the Air and Mine Equipment Institute of Australasia Ltd

Compressed Air Association of Australasia, PO Box 7622, Melbourne VIC 3004
Phone: +61 3 9867 0227 Email: info@compressedair.net.au Web: www.compressedair.net
ABN: 33 068 107 586 ACN: 068 107 586

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