High Efficiency Ejector Solution

PV Vacuum Engineering Pte Ltd
(A member of Darco Water Technologies Limited)

puzair
A subsidiary of PV Vacuum Engineering Pte Ltd

High Efficiency Ejectors -
Save up to 50% of your Energy Bills!

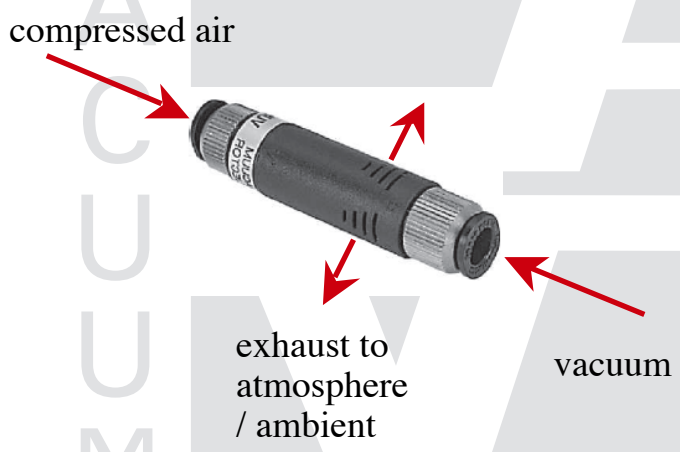
What is a Vacuum Ejectors?

A Vacuum ejector is a “vacuum pump” that does not have any mechanical parts. Instead, it is driven by an injected stream of compressed air or similar mediums.

It simplicity and relative low cost couple with the easy availability of compressed air had often make it the ideal choice for automation industry that uses vacuum.

For the same reasons, many original equipment manufacturers choose to use it as a preferred choice for their vacuum needs too.

The picture below illustrate such a Typical Vacuum Ejector : -



An expensive solution - Operationally Wise!

Whilst vacuum ejectors provide a quick and simple “fix” to provide a need for vacuum in a production plant, it become operationally expensive when the quantity of them increases.

The average energy cost of producing dry compressed air is about 0,147kwh per m^3 based on a 5 bar supply pressure only accordingly to information from SEMI (Semiconductor Equipment Manufacturer Institute).

This is about 1.96 times more than using a centralized vacuum system- (The benefits of this approach is discussed in one of our separate article. Hence it will not be elaborated here.)

To make matter worse, the dry compressed air system of any facility is usually designed to fulfil the highest pressure required in the facility. Hence, the energy cost might usually be higher.

Our quick fix -
PV / Fipa
Intelligent Vacuum Ejectors!

Whilst some ejectors might not require the High Pressure that the Central Dry Compressed Air system of a plant provide, it might not be practicable to install a regulator due to space, weight constraint or cost.

Hence, a vacuum ejector that require 5 bar g (8 to 100 N l/min) of Dry Compressed Air might actually be “blowing off” compressed air of 6 bar g or more depending on the Central Compressed Air System of the Plant.

Our PV / Fipa Intelligent Vacuum Ejector Model EMM; EKP & EKPP make all the difference by Not Doing So!

Its integrated pressure regulation saves compressed air. In other words, despite it being connected to a higher pressure dry compressed air system, it will only consume what it requires.

Hence, a saving of up to 50% of your energy cost is possible.

It can also achieve Maximum Vacuum of 60% (Porous products) or 90% (dense products) with only 3.5 bar g to 4 bar g too.

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