FAE

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FLOW – AIR EJECTOR (FAE)

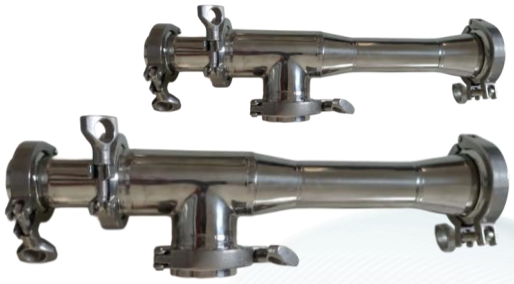
What is FAE?

It is an air ejector that was developed to provide the highest possible pressure differential, using the least amount of compressed air to generate an intense flow of low-pressure compressed air. This innovative design ensures superior performance with significant energy savings, meeting the specific needs of each application.

How Does FAE Work?

Its operation is simple, but highly effective, based on the principles of the venturi. The process begins when the ejector receives compressed air from an external source, such as a compressor. This air is then directed to the nozzle of the ejector, which is designed to maximize the speed of the flow. This increase in velocity results in the creation of negative pressure, which allows the ejector to suck a fluid (usually air, particulate, or other gas) from the environment. This fluid is then expelled at a higher pressure, performing the function of cleaning, cooling or any other desired application

Applications



- Material Cooling
- Removal of particles and dust
- Handling of light parts
- Blowing of paint or other liquids
- Ventilation in HVAC systems
- Pressure Lowering (Vacuum)
- Suction of liquid materials, powders, grains or other materials from industrial processes
- Handling of solid materials

Specifications

Typically customers want to have a specific amount of air at the ejector outlet, or in some cases customers specify the amount of air to be drawn in. We can meet both demands.

Templates

We offer air ejector models in 1.1/2", 2" and 2.1/2" dimensions. However, each design is carefully tailored with a specific venturi nozzle, designed and calculated according to the particular needs of each application. To ensure maximum efficiency, the ejectors are provided with a performance curve, allowing the customer to use the equipment in alternative process conditions, maximizing its flexibility. Above 2.1/2" the FAE becomes inefficient, and the use of Ejectors is recommended.

Materials and construction

All of our ejectors undergo rigorous liquid penetrant testing prior to shipment, ensuring the highest quality and reliability. Our design has been tested and approved in several operating units, proving its efficiency and durability in demanding environments.

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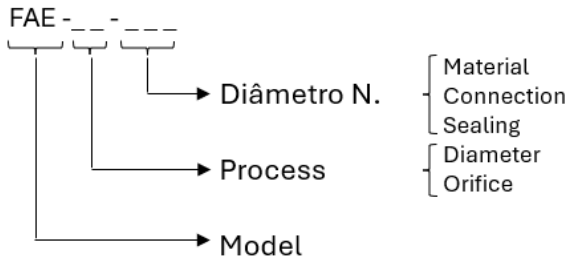
Technical Data

Diameter	Length (mm)	Inlet/Outlet Nozzle	Compressed Air Nozzle	Orifice (mm)
1.1/2”	249	1.1/2”	1”	2-10
2”	289	2”	1.1/2”	4-12
2.1/2”	350	2.1/2”	2”	6-20

Specification



Material	Code
Carbon Steel	1
Stainless Steel 304	2
Stainless Steel 316	3

Connection	Code
SMS	1
TC	2

Sealing	Code
Viton	3
EPDM	4

Example: FAE-25-214: Air Ejector FAE 2" with 5mm nozzle in SS 304, SMS connection and EPDM seal

Safety Instruction:

☞ Power Shutdown:

Before beginning any maintenance procedures or adjustments, ensure that the equipment involved is switched off and disconnected from the electrical power source.

☞ Pressure and vacuum check:

The air ejector can operate under pressure. Before beginning any operation or maintenance, check that the internal pressure of the equipment has been completely relieved.

☞ Air Suction and Discharge:

Never point the air ejector at any person or living being, the discharge may contain particles at high speed. The suction operates with extreme suction, do not approach if it is unplugged.

☞ Temperature Check:

The air ejector can operate under high temperature. Before starting any operation or maintenance, wait for the temperature of the equipment to return to temperatures suitable for handling.

☞ Maintenance:

Replacement of all gaskets is necessary in order to avoid leakage of product and/or chemical elements. The standard service life of the gaskets is 1 (one) year. Depending on the type of material being used, the lifespan can be reduced.

During the operation and maintenance of the air ejector, it is mandatory to use appropriate PPE (Personal Protective Equipment), such as:

- Safety helmet;
- Goggles;
- Key money;
- Safety boots;
- Ear protector;
- Among others;