



# ANALYSIS INSTRUMENTS

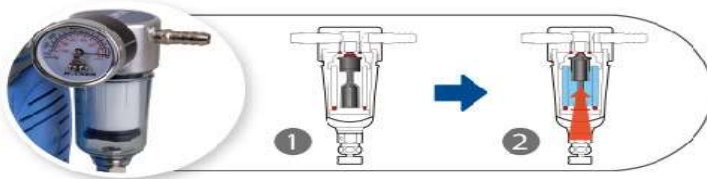
WHERE SERVICE AND QUALITY IS OUR FIRST NATURE

## OIL FREE VACUUM PUMP

Oil free vacuum pumps or dry vacuum pumps (sometimes referred to as oil-less vacuum pumps), are pumps that are free of any lubricant material within the pumping chamber. While the core element or mechanism of the pump might differ, the basic operating principle remains constant – free of any oil lubricant as the primary vacuum sealant. Oil free vacuum pumps play an important part in many vacuum applications and environments, with the main advantage being the absence of lubrication in the main pumping chamber. The immediate benefit of these dry vacuum pumps is the elimination of any oil-based contaminants to the process. This is particularly useful in sensitive and highly regulated applications such as the pharmaceutical and food industries.

### Features

- ❖ **Compact & care-free** : Analysis oil-free pumps are compact in size, light in weight and oil-mist-free, making them the best pal in laboratory.
- ❖ **Prote™ overflow protection** : Equipped with Prote™ overflow protection to prevent liquid from being sucked into the pump.



- ❖ **Air inlet protection** : Filter cartridge at air inlet filters particles and moisture, which prevents pumps from damage.
- ❖ **Vacuum regulation** : Equipped with vacuum gauge and regulator for vacuum monitoring and adjustment.
- ❖ **Overheat protection** : All Analysis oil-free pumps are equipped with overheat protection device that shuts down when overheated and resumes once cooled down, making the pumps safer and long-lasting.
- ❖ No Lubrication required.
- ❖ Noiseless performance.
- ❖ Absolutely portable.
- ❖ Totally Oil free construction.
- ❖ Practically maintenance free.
- ❖ All parts made from special graded aluminium die cast material for light weight and good strength.
- ❖ Diaphragms are made of special 2 ply nylon reinforced neoprene rubber.
- ❖ Special diaphragms also available (Teflon, Viton etc)
- ❖ Valves made of SS316 material.
- ❖ Built-in micro suction filter.
- ❖ Extra large bearings for trouble-free and smooth running.
- ❖ Pumps available with single as well as 3-phase motors.
- ❖ Pumps available with flame proof motor.
- ❖ Pumps available with 12/24/48 Volts DC.
- ❖ Pumps available with chemical resistive parts (PP, Teflon contact part) (CRP suffixed models).
- ❖ Pumps available with SS316 contact parts.
- ❖ Pumps available in 110 V AC motors.





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| Position | Designation          | Position | Designation             |
|----------|----------------------|----------|-------------------------|
| 1        | Power Switch         | 6        | Prote™ Filter Cartridge |
| 2        | Air Outlet (Muffler) | 7        | Moisture Trap           |
| 3        | Handle               | 8        | Vacuum Regulator        |
| 4        | Air Inlet            | 9        | Power Cord              |
| 5        | Vacuum Gauge         |          |                         |

## Specification

| MODEL         | Max Flow (Ltrs/Min) | Max Vacuum (inches Hg) | Max Press (PSig) | Motor HP  | Approx. Weight (kg) | Approx. Dimensions (mm) |
|---------------|---------------------|------------------------|------------------|-----------|---------------------|-------------------------|
| AI-15         | 15                  | 22"                    | 25               | 1/20      | 2.7                 | 175 x110 x 140          |
| AI-15-RD      | 15                  | 22"                    | 25               | 1/20      | 2.5                 | 150 x110 x 140          |
| AI-25-S       | 15                  | 27"                    | 35               | 1/16      | 4.1                 | 220 x110 x 140          |
| AI-25-P       | 25                  | 22"                    | 25               | 1/16      | 4.2                 | 220 x120 x 180          |
| AI-45         | 45                  | 22"                    | 35               | 1/8       | 6.2                 | 220 x120 x 180          |
| AI-75-S       | 45                  | 27"                    | 55               | 1/4       | 9.0                 | 290 x120 x 180          |
| AI-75-P       | 75                  | 22"                    | 40               | 1/4       | 9.0                 | 290 x120 x 180          |
| AI-15-DC-1500 | 15                  | 22"                    | 25               | 1/20 (DC) | 3.5                 | 230 x110 x 150          |
| AI-25-AX      | 15                  | 27"                    | --               | 1/16      | 5.5                 | 250 x150 x 210          |
| AI-45-CRP     | 28                  | 22"                    | 10               | 1/8       | 5.8                 | 235 x155 x 200          |
| AI-75-CRP     | 38                  | 22"                    | 10               | 1/4       | 8.7                 | 325 x155 x 200          |
| AI-45-FM      | 35                  | 22"                    | 20               | 1/4 (FPM) | 18.0                | 325 x150 x 250          |

## Application for use as Vacuum Pump

- ❖ Laboratories
- ❖ Pollution control equipment's
- ❖ Material handling equipment's
- ❖ Labeling machines
- ❖ Disorder station
- ❖ Glass forming
- ❖ Medical Instruments
- ❖ Chemical analyzers
- ❖ Gas Charging A/C

## Application for use as compressor

- ❖ Flame photometer
- ❖ Atomic Absorption Spectrophotometer
- ❖ Agitation of chemicals in electro-plating
- ❖ Agitation of film in drying tank
- ❖ Wave Soldering machines for foaming of flux
- ❖ Cement aeration
- ❖ Oil Free Spray Painting
- ❖ Operating small pneumatic tools
- ❖ Plastic welding

