

ANNEXURE-I TO PI 830691044

1) ITEM NO 01

Specification of Blades for Rotary Vacuum Pump

Carbon fiber composite construction. Glass fiber core is encased in 2 carbon fiber reinforced layers to prevent oil penetration of the core material.

Low material specific coefficient of expansion provides a high degree of thermal stability.

Highly resistant to chemicals, oils, solvents and oxygen.

Vanes do not get damaged from cold start conditions or when oil is contaminated.

Superior sliding properties that allow the pump to run even if the oil level is low. Even without oil, emergency operation can continue for up to 24 hours.

No potential for metal to metal contact due to insufficient lubrication.

Non -ageing resin results in optimum vane service life.

High temperature stability ensures that the vacuum pump continues to function perfectly if temperatures increase due to malfunctions.

High dimensional accuracy: Extremely high precision during manufacture and low material specific expansion at high temperatures guarantee optimal final pressure in the vacuum pump.

No chatter marks.

Dimensions:

Effective length of Blade - 340mm

Width of the blade - 115mm

Thickness of the blade - 15 mm

Very low coefficient of friction

Temperature with standing capacity - 380°C

Hole size - 9.78 mm

Number of spring - 9 nos.

Nominal pumping speed of pump=500 m³/hr

Ultimate pressure with gas ballast= 1 hPa | 0.75 Torr | 1 mbar

Ultimate pressure without gas ballast = 5 · 10⁻² hPa | 3.75 · 10⁻² Torr | 5 · 10⁻² mbar

1 Set comprises of 02 nos of blades.

2) ITEM NO 02

Specification of Compression Valve.

Spring loaded compression valves are used to expel compressed gas from vacuum pumps.

This valve operates only at a preset pressure to avoid the back flow. The valve comprises of an elastomer (artificial rubber) or fluoro-elastomer, with a metal backing plate. The metal backing plate limits the movement of the elastomer part of the valve. The valve opens and closes with every rotation. The valve operates mechanically and is forced open by the pressure created by the pump, then closed by atmospheric pressure.

Leak rate: 2×10⁻⁹ mbar-l/sec

Pressure range: 1×10⁻⁹mbar to 1000 mbar Viton seal bonnet

Maximum Δpressure before opening: 1.2 Bar

Efficiency: 99.9%, 99.99%

Medium Material: Fiberglass

Precision: 0.001-100 Micron

Porosity: 0.5um

Filtration Grade: Hepa Filter


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Includes the valve block, plate, springs, and screws

Compression valve provide in vacuum pump for create vacuum and exhaust internal air through rotation of vane inside the pump. Compression valve made of elastomer is high quality rubber and highly temperature resistance quality with high quality back plate along with spring return facility.

Diameter of compression valve – OD 54mm

Thickness of spring - 0.4 mm

With 1.2 mm thick stainless steel plate along with spiral spring for return back the rubber sheet

1 Set comprises of 03 nos of compression valves


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