

ANNEXURE-I TO PI 830671065**1) ITEM NO 1****Specification of Vanes for Vacuum pump**

1. Carbon fiber composite construction
2. Glass fiber core is encased in 2 carbon fiber reinforced layers to prevent oil penetration of the core material.
3. Low material specific coefficient of expansion provides a high degree of thermal stability.
4. High dimensional accuracy to guarantee final end Pressure and pump performance.
5. Highly resistant to chemicals, oils, solvents and oxygen.
6. Vanes do not get damaged from cold start conditions or when oil is contaminated.
7. 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.
8. No potential for metal to metal contact due to insufficient lubrication.
9. Non-aging resin results in optimum vane service life.
10. High temperature stability ensures that the vacuum pump continues to function perfectly if temperatures increase due to malfunctions.
11. High dimensional accuracy :Extremely high precision during manufacture and low material-specific expansion at high temperatures guarantee optimal final pressure in the vacuum pump
12. No Chatter marks

Effective length of Blade -220mm

Width of the blade - 52 mm

Thickness of the blade - 6 mm

Very low coefficient of friction

Coefficient of expansion $5 \times 10^{-6} 1/^{\circ}\text{C}$

2) ITEM NO 2**Specification of Poppet Valve**

Poppet valve provide in vacuum pump for create vacuum and exhaust internal air through rotation of vane inside the pump. Poppet 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 poppet valve – OD 55mm

Internal diameter - 12 mm

With 50 mm stainless steel along with spiral spring for return back the rubber sheet

Efficiency:99.9%, 99.99%

Medium Material: Fiberglass

Precision: 0.001-100 Micron

Porosity: 0.5um

Filtration Grade :Hepa Filter

includes the valve block, plate, springs, and screws

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