

# Diffstack Diffusion Pump

MODELS: OD-65D, OD-114D, OD-150D & OD-250D



HINDHIVAC's Diffstack Pumps are designed and manufactured to suit the needs of both industrial and laboratory applications. These Diffstack pumps are offered in sizes - 2.5 inch, 4 inch, 6inch and 10inch diameters. The superior pumping speed of Diffstack Pumps makes them exclusively suitable for Vacuum Furnaces, Space Research, vacuum coating of lenses, Thin Film Deposition and several other industrial applications. These pumps are capable of achieving vacuum in the range of  $10^{-6}$  to  $10^{-7}$  m.bar.

The main body is fabricated from stainless steel in the shape of a cylinder and water cooling copper coils are wrapped around the body.

The jet assembly consists of metallic nozzles aimed downwards facing the pump inner body so as to cool the vapor molecules emerging from these nozzles. The oil boiler, with external flat type heating coil for burst free evaporation, is located at the bottom of the pump and it holds specified quantity of oil for efficient working of the pump. An ultimate vacuum in the range of  $5 \times 10^{-7}$  m.bar can be achieved by using Dow Corning 704 Silicon Fluid, as this fluid does not oxidise by air and is chemical resistance which eliminates frequent replacements. These pumps are built in with water cooled cap over the jet assembly so as to trap the backstreamed oil vapours thus producing clean and better ultimate vacuum over conventional Diffusion pump. Other features is, pump is built in with High vacuum valve such that it can be used as high vacuum pumping unit with suitable backing pump.

## TECHNICAL SPECIFICATIONS

	Model	Model	Model	Model
Particulars	65D	114D	OD150D	OD250D
No. of stages	3	3	3	3
Oil charge in cc	80	100	250	500
Effective pumping speed lits/sec	120	280	600	1700
Ultimate vacuum m.bar	$>5 \times 10^{-7}$	$>5 \times 10^{-7}$	$>5 \times 10^{-7}$	$>5 \times 10^{-7}$
Critical backing pressure m.bar	0.5	0.5	0.5	0.5
Min. cooling water $15^{\circ}\text{C}-25^{\circ}\text{C}$ (lits/min)	3	3	3.5	3.5
Backing pump capacity lits/min (Double stage)	100	250	500	1000
Backing pump	ED-6	ED-15	ED-30	FD-60
Heater ratings (Watts)	325	650	1350	2250
Body materials	SS	SS	SS	SS
Jet assembly materials	AL	AL	SS & AL	SS & AL

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