

# HT16B Diffusion pump

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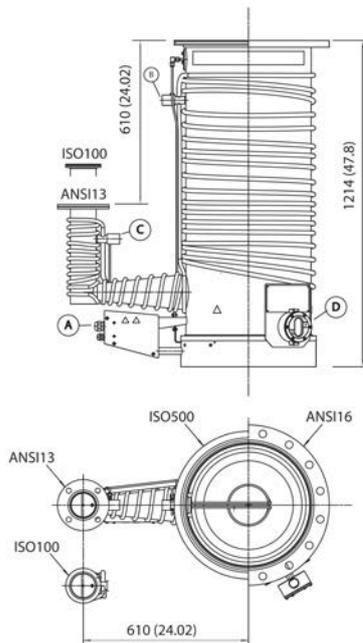
The HT high throughput series is the pinnacle of our diffusion pump knowledge with technology aimed specifically at industrial users.

Edwards HT16B (ANSI16/ISO5000 inlet) diffusion pump is designed for all light and heavy duty industrial applications. The robust construction gives high pumping speed at high pressure. The cast and machined aluminium interior provides consistent performance, while the stainless steel body prevents corrosion and ensures process cleanliness. These pumps are designed to give a high throughput (pressure multiplied by pumping speed) at  $4 \times 10^{-3}$  mbar making them ideal for industrial processes that involve large quantities of gases.

## Features & Benefits

- Highest throughput of comparative sized pumps
- Earliest crossover pressure of similar sized pumps
- Excellent maximum backing line pressure and tolerance to gas surges
- Comparative pumping speed to similar sized pumps
- Integral cold cap for best performance and low backstreaming

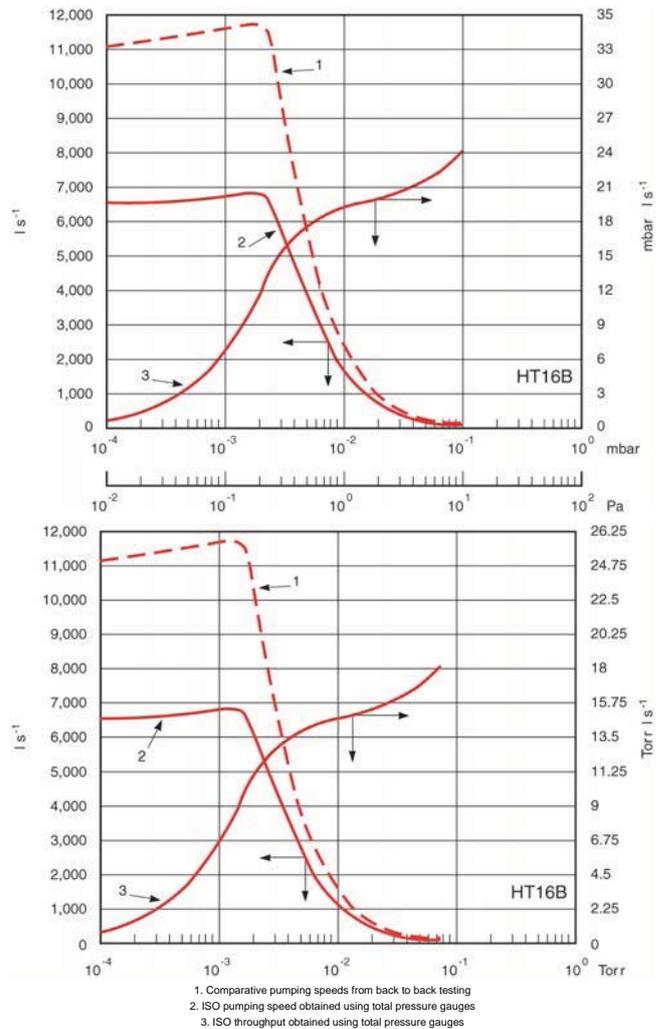
## Dimensions



## Applications

- Vacuum metallurgy
- Distillation, drying and degassing
- Thin film coating and metallizing
- Large-scale research

## Performance Curves



## Technical Data

Comparative pumping speed	11580 ls <sup>-1</sup>
ISO pumping speed†	
Nitrogen	6500 ls <sup>-1</sup>
Helium	7200 ls <sup>-1</sup>
AVS pumping	
Nitrogen	7220 ls <sup>-1</sup>
Helium	8000 ls <sup>-1</sup>
Maximum throughput (nitrogen)	18 mbar ls <sup>-1</sup> / 13.5 Torr ls <sup>-1</sup>
Critical backing pressure (DC704EU)	1.4 mbar / 1 Torr
Min backing pump displacement for max throughput	94 m <sup>3</sup> h <sup>-1</sup> / 55 ft <sup>3</sup> min <sup>-1</sup>
Recommended backing pump‡	GV80, GXS250, E2M175
Recommended fluid	DC704EU
Fluid charge (dry)	2400 ml / 2.5 qt
Inlet/backing connection	ANSI16/ANSI3 or ISO500/ISO100
Water connection	3/4 inch NPT female
Heater power	9 kW / 12 hp
Warm up time	60 min
Minimum cooling water flow at 25°C	700 l h <sup>-1</sup> / 3.1 US gal min <sup>-1</sup>
Pressure drop across cooling water supply	1 bar / 14.5 psi
Weight	185 kg / 408 lbs

† ISO speed and throughput data obtained with total pressure measurement. Partial pressure readings typically increase data by ~30%. ISO speed measurements are typically 10% less than AVS measurements for the same pump.

‡ These are given for guidance, please contact Edwards for a recommendation of pump combinations best suited to your application.

## Ordering Information

Product Description	Order No.
HT16B ANSI16/ANSI3, 200V	B31220200
HT16B ANSI16/ANSI3, 220V	B31220220
HT16B ANSI16/ANSI3, 380V	B31220380
HT16B ANSI16/ANSI3, 400V	B31220400
HT16B ANSI16/ANSI3, 415V	B31220415
HT16B ANSI16/ANSI3, 440V	B31220440
HT16B ANSI16/ANSI3, 460V	B31220460
HT16B ANSI16/ANSI3, 480V	B31220480
HT16B ISO500/ISO100, 200V	B31222200
HT16B ISO500/ISO100, 220V	B31222220
HT16B ISO500/ISO100, 380V	B31222380
HT16B ISO500/ISO100, 400V	B31222400
HT16B ISO500/ISO100, 415V	B31222415
HT16B ISO500/ISO100, 440V	B31222440
HT16B ISO500/ISO100, 460V	B31222460
HT16B ISO500/ISO100, 480V	B31222480