

# HT20B Diffusion pump

3

Page  
122



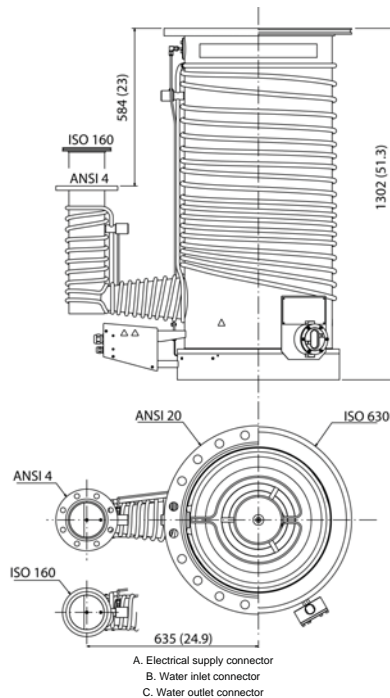
The HT high throughput series is the pinnacle of our diffusion pump knowledge with technology aimed specifically at industrial users.

Edwards HT20B (ANSI20/ISO630 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

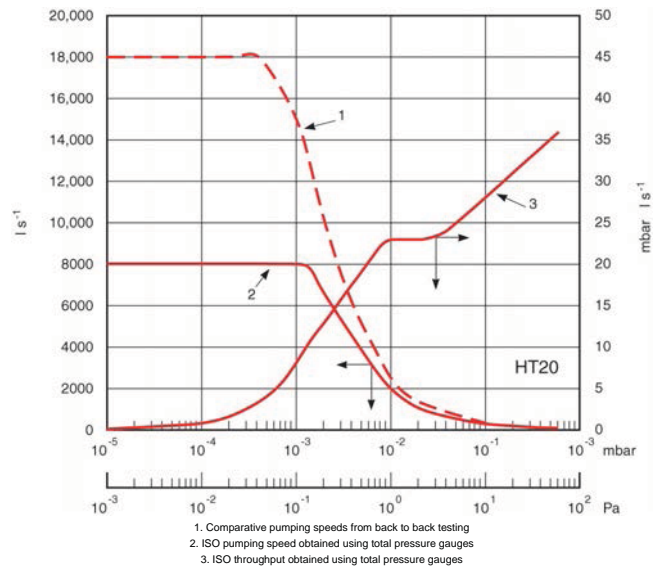
## Dimensions



## Applications

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

## Performance Curves



## Technical Data

Comparative pumping speed	18000 ls <sup>-1</sup>
ISO pumping speed†	
Nitrogen	8000 ls <sup>-1</sup>
Helium	16000 ls <sup>-1</sup>
Max throughput (nitrogen)	24 mbar ls <sup>-1</sup> / 18 Torr ls <sup>-1</sup>
Critical backing pressure (DC704EU)	1.3 mbar / 1 Torr
Min backing pump displacement for max throughput	135 m <sup>3</sup> h <sup>-1</sup> / 80 ft <sup>3</sup> min <sup>-1</sup>
Recommended backing pump‡	GXS250, E2M175
Recommended fluid	DC704EU
Fluid charge (dry)	3600 ml / 3.8 qt
Inlet/backing connection	ANSI20/ANSI4 or ISO630/ISO160
Water connection	3/4 inch NPT female
Heater power	12.6 kW / 16.9 hp
Warm up time	60 min
Minimum cooling water flow at 25°C	960 l h <sup>-1</sup> / 4.2 US gal min <sup>-1</sup>
Pressure drop across cooling water supply	1.2 bar / 17.4 psi
Weight	275 kg / 605 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.
HT20B ANSI20/ANSI4, 200V	B31420200
HT20B ANSI20/ANSI4, 220V	B31420220
HT20B ANSI20/ANSI4, 380V	B31420380
HT20B ANSI20/ANSI4, 400V	B31420400
HT20B ANSI20/ANSI4, 415V	B31420415
HT20B ANSI20/ANSI4, 440V	B31420440
HT20B ANSI20/ANSI4, 460V	B31420460
HT20B ANSI20/ANSI4, 480V	B31420480
HT20B ISO630/ISO160, 200V	B31422200
HT20B ISO630/ISO160, 220V	B31422220
HT20B ISO630/ISO160, 380V	B31422380
HT20B ISO630/ISO160, 400V	B31422400
HT20B ISO630/ISO160, 415V	B31422415
HT20B ISO630/ISO160, 440V	B31422440
HT20B ISO630/ISO160, 460V	B31422460
HT20B ISO630/ISO160, 480V	B31422480