

HT10 Diffusion pump

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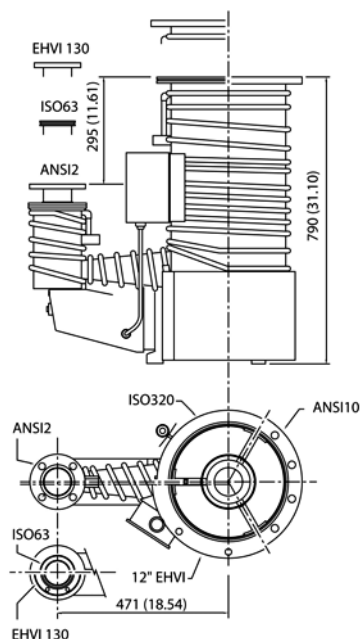
The HT high throughput series is the pinnacle of our diffusion pump knowledge with technology aimed specifically at industrial users.

Edwards HT10 (ANSI10/ISO320 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 4×10^{-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

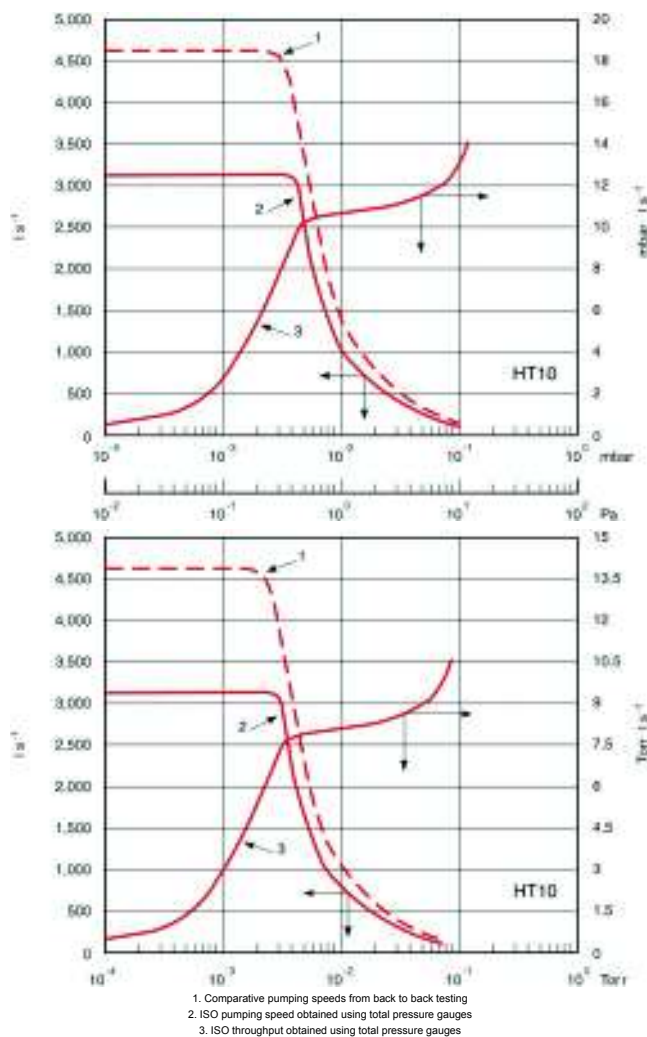
Dimensions



Applications

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

Performance Curves



1. Comparative pumping speeds from back to back testing
2. ISO pumping speed obtained using total pressure gauges
3. ISO throughput obtained using total pressure gauges

Technical Data

Comparative pumping speed	4650 ls ⁻¹
ISO pumping speed†	
Nitrogen	3000 ls ⁻¹
Helium	4650 ls ⁻¹
AVS pumping	
Nitrogen	3330 ls ⁻¹
Helium	5165 ls ⁻¹
Maximum throughput (nitrogen)	10 mbar ls ⁻¹
	7.5 Torr ls ⁻¹
Critical backing pressure (DC704EU)	1.1 mbar
	0.8 Torr
Minimum backing pump displacement for maximum throughput	60 m ³ h ⁻¹
	35 ft ³ min ⁻¹
Recommended backing pump‡	GV80, E2M80
Recommended fluid	DC704EU
Fluid charge (dry)	1250 ml
	1.3 qt
Inlet/backing connection	ANSI10/ANSI12 or EO12 inch/EO130 mm or ISO320/ISO63
Water connection	3/8 inch NPT female
Heater power	5.1 kW
	6.8 hp
Warm up time	30 min
Minimum cooling water flow at 25°C	400 l h ⁻¹
	1.8 US gal min ⁻¹
Pressure drop across cooling water supply	1 bar
	14.5 psi
Weight	80 kg
	176 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.
HT10 ANSI10/ANSI2, 200V	B31101200
HT10 ANSI10/ANSI2, 220V	B31101220
HT10 ANSI10/ANSI2, 380V	B31101380
HT10 ANSI10/ANSI2, 400V	B31101400
HT10 ANSI10/ANSI2, 415V	B31101415
HT10 ANSI10/ANSI2, 460V	B31101460
HT10 ANSI10/ANSI2, 480V	B31101480
HT10 EO12/EHV1130, 200V	B31102200
HT10 EO12/EHV1130, 220V	B31102220
HT10 EO12/EHV1130, 380V	B31102380
HT10 EO12/EHV1130, 400V	B31102400
HT10 EO12/EHV1130, 415V	B31102415
HT10 ISO320/ISO63, 200V	B31103200
HT10 ISO320/ISO63, 220V	B31103220
HT10 ISO320/ISO63, 380V	B31103380
HT10 ISO320/ISO63, 400V	B31103400
HT10 ISO320/ISO63, 415V	B31103415
HT10 ISO320/ISO63, 480V	B31103480

HT16B Diffusion pump

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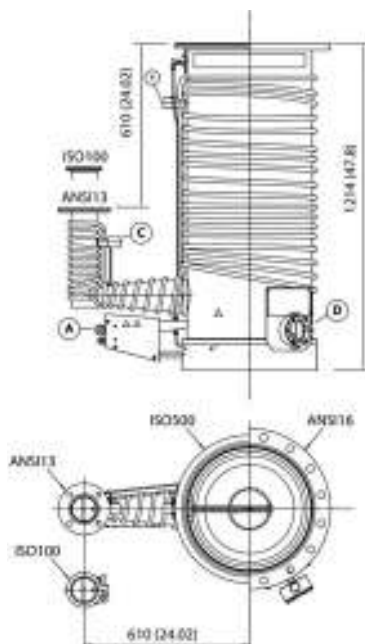
The HT high throughput series is the pinnacle of our diffusion pump knowledge with technology aimed specifically at industrial users.

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 4×10^{-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

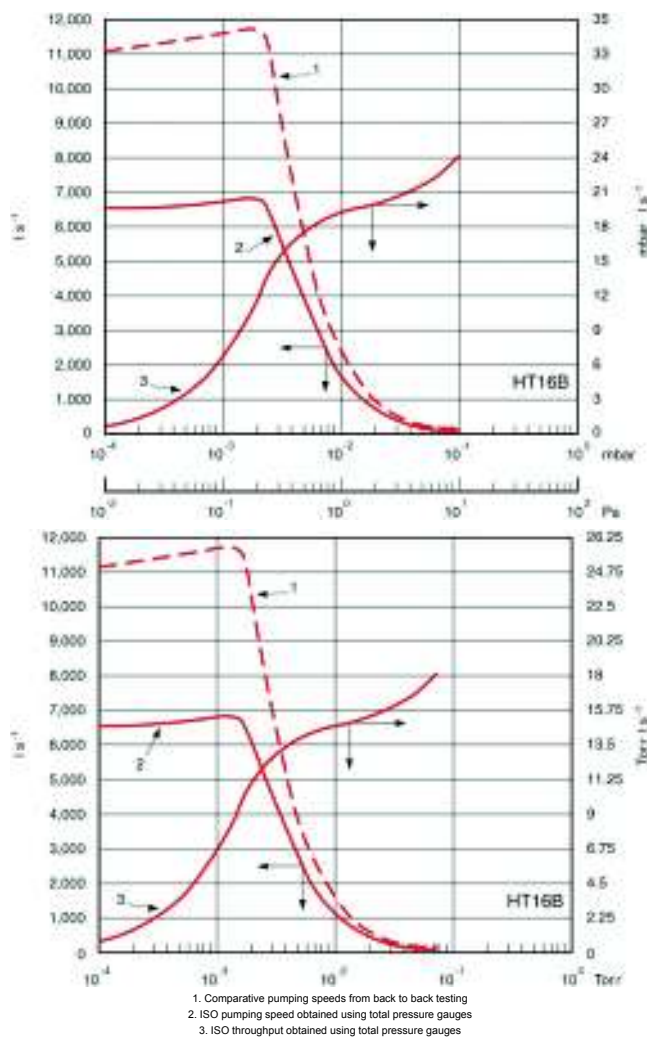
Dimensions



Applications

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

Performance Curves



Technical Data

Comparative pumping speed	11580 ls ⁻¹
ISO pumping speed†	
Nitrogen	6500 ls ⁻¹
Helium	7200 ls ⁻¹
AVS pumping	
Nitrogen	7220 ls ⁻¹
Helium	8000 ls ⁻¹
Maximum throughput (nitrogen)	18 mbar ls ⁻¹ / 13.5 Torr ls ⁻¹
Critical backing pressure (DC704EU)	1.4 mbar / 1 Torr
Min backing pump displacement for max throughput	94 m ³ h ⁻¹ / 55 ft ³ min ⁻¹
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 ⁻¹ / 3.1 US gal min ⁻¹
Pressure drop across cooling water supply	1 bar / 14.5 psi
Weight	185 kg / 408 lbs

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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

HT20B Diffusion pump

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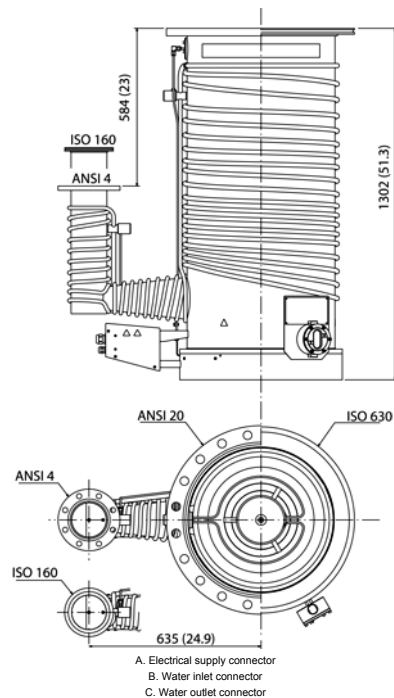
The HT high throughput series is the pinnacle of our diffusion pump knowledge with technology aimed specifically at industrial users.

Edwards 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 4×10^{-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

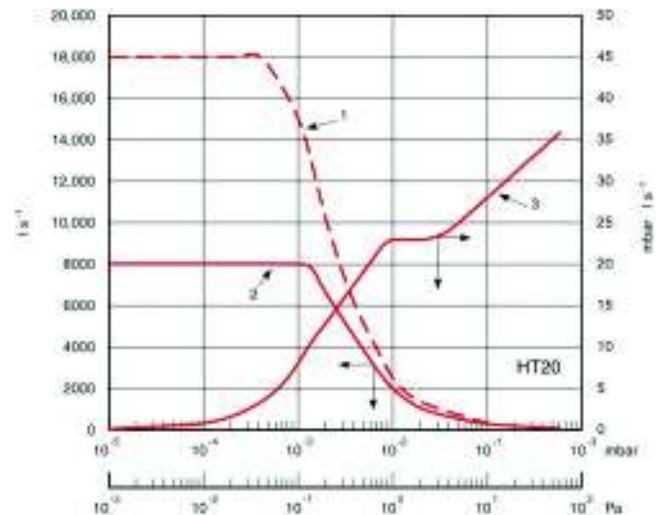
Dimensions



Applications

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

Performance Curves



1. Comparative pumping speeds from back to back testing
2. ISO pumping speed obtained using total pressure gauges
3. ISO throughput obtained using total pressure gauges

Technical Data

Comparative pumping speed	18000 ls ⁻¹
ISO pumping speed†	
Nitrogen	8000 ls ⁻¹
Helium	16000 ls ⁻¹
Max throughput (nitrogen)	24 mbar ls ⁻¹ / 18 Torr ls ⁻¹
Critical backing pressure (DC704EU)	1.3 mbar / 1 Torr
Min backing pump displacement for max throughput	135 m ³ h ⁻¹ / 80 ft ³ min ⁻¹
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 ⁻¹ / 4.2 US gal min ⁻¹
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.

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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