



PRODUCT DATA

EXT255H



High Performance Compound Molecular Pump

The EXT255H uses enhanced molecular drag pumping technology combined with traditional turbomolecular pump stages on a single rotor. The result is a pump with a good ultimate vacuum, extremely high compression ratio for light gases and extended tolerance to high backing pressures. For the UHV user this means good ultimate vacuum with the option of a dry backing pump*. For the general vacuum user this means fast pumpdown and the option of a smaller and/or dry backing pump.

Features & Benefits

- High critical backing pressure
 - Smaller backing pump or the option to use a dry diaphragm pump
- High volume flow rate
 - Fast pumpdown
- Multistage Holweck molecular drag mechanism gives high compression ratio for light gases
 - Good ultimate vacuum
- Proven EXT performance and reliability
 - Hybrid bearing configuration (permanent magnet upper bearing, oil lubricated ceramic lower bearing)
 - Maintenance free - oil bearing reservoir sealed for life
 - Machined monobloc rotor
 - DC motor drive for low power loss and a choice of controllers

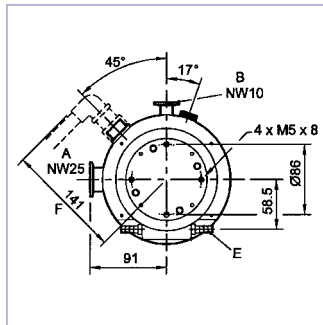
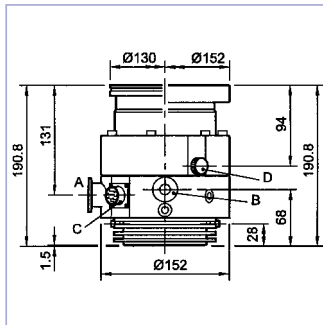
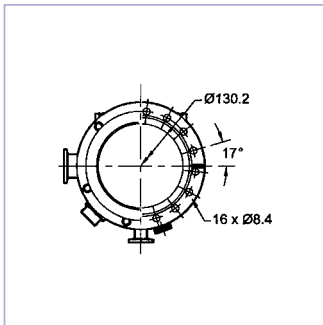
TECHNICAL DATA

SPECIFICATIONS

● Inlet flange	DN100 ISO-K or DN100 CF
● Outlet flange	DN25NW
● Vent port and purge port	1/8 inch BSP
● Pumping speed*	
N ₂	220 ls ⁻¹
He	230 ls ⁻¹
H ₂	180 ls ⁻¹
● Compression ratio	
N ₂	> 10 ⁸
He	4 x 10 ⁸
H ₂	1.6 x 10 ⁴
● Recommended backing pump	RV3
● Maximum backing pressure (N ₂)	12 mbar
● Maximum continuous inlet pressure†	
water cooling at 15°C	2 x 10 ⁻¹ mbar
air cooling at 35°C	2 x 10 ⁻² mbar
● Nominal rotational speed	60000 r.min ⁻¹
● Standby rotational speed	42000 r.min ⁻¹
● Run-up time to 90% speed	
EXC100E	190s
EXC120	130s
EXC300	100s
● Cooling method	Forced air or water
● Mounting position	Vertical and upright through to horizontal
● Max bakeout temp (at inlet flange)	100°C (with water cooling)
● Noise level at 1 metre	<50 dBA
● Maximum magnetic field	5 mT
● Recommended controller	EXC100 or EXC120
● Other compatible controller	EXC300
● Quiescent electrical power	25 W
● Ultimate pressure (mbar)	
Rotary vane pump**	ISO-K CF
Diaphragm pump ‡	<5 x 10 ⁻⁹ <5 x 10 ⁻¹⁰
Diaphragm pump ‡	<5 x 10 ⁻⁸ <5 x 10 ⁻⁸
● Weight (kg)	5.6 8.2

* Without inlet screen
 † Using EXC300 and backing pressure <0.1 mbar
 ** Backing pressure <0.1 mbar
 ‡ Backing pressure <5 mbar

DIMENSIONS - DN100ISO-K / DN100CF



- A BACKING PORT (OUTLET FLANGE)
- B PURGE-PORT
- C ELECTRICAL SUPPLY CONNECTOR
- D VENT-VALVE
- E COOLING-WATER CONNECTOR
- F ALLOWANCE FOR RIGHT ANGLE CABLE CONNECTOR

ORDERING INFORMATION

DESCRIPTION	PART NUMBER
EXT255H/DN100ISO-K	B753-01-000
EXT255H/DN100CF	B753-02-000

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