

# XDD1 DIAPHRAGM VACUUM PUMP

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XDD1 diaphragm pumps are compact and efficient pumps, used for backing small compound turbomolecular pumps in clean, high vacuum applications, and also designed to be free standing bench top units. A typical ultimate pressure of better than  $5 \times 10^{-8}$  mbar can be achieved when using an XDD1 to back a  $70 \text{ l s}^{-1}$  turbomolecular pump. The XDD1 pumps are intended for use on non-aggressive, safe area applications.

The 24 V version is designed to provide a complete pumping package and can be used with the Edwards Turbo and Instrument Controller (TIC). The d.c. voltage motor runs on 24 V via a 15 pin DIN connector. By selecting the appropriate mode the pump speed can be controlled by the user to provide variable pumping speed or max pumping speed. The pump is a compact and efficient. The Mk3 24V version can now be user set to run at a maximum speed of  $1.8 \text{ m}^3\text{h}^{-1}$  running at 2400 rpm.

Under normal conditions the XDD1 is virtually maintenance free, the lifetime of the diaphragms and valves is typically  $> 10,000$  operating hours, depending on the application.



## Features and benefits

**Dry pumping, lubricant free technology**  
eliminating the need for costly oil changes and disposal

**Lightweight and compact**  
with a small footprint allowing flexibility of use.

**Ideal backing pump**  
for small turbomolecular pumps.

**Complies**  
with EN61010, EN1012, CSA/UL standards.

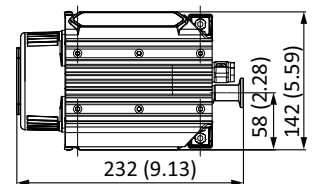
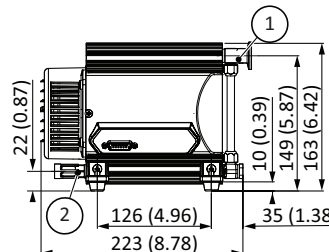
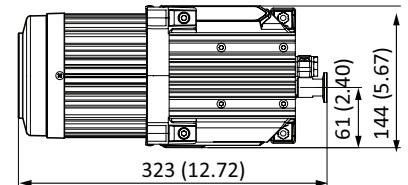
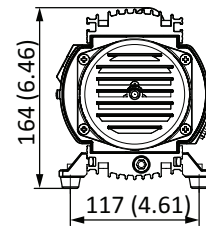
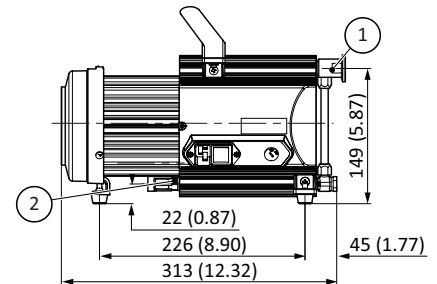
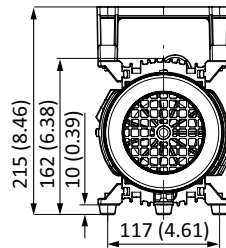
**Worldwide**  
115/230 V or 24 V options.

**IEC 60320 C13 connector**  
on a.c. pumps.

## Applications

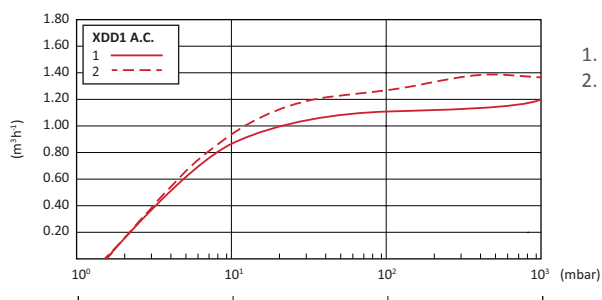
- Residual gas analysis
- Mass spectrometers
- Cryostat and Dewar evacuation
- Ion pump evacuation
- Surface science

## Dimensions

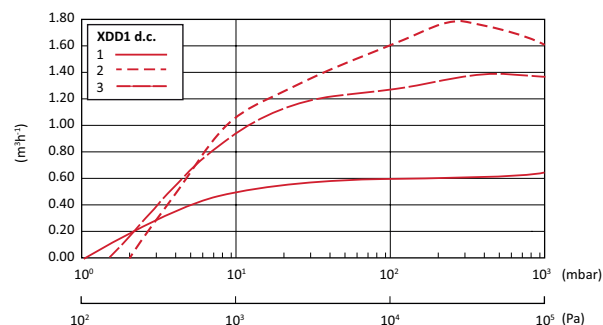


1. Inlet, 2. Outlet

### Performance curve



1. 50 Hz  
2. 60 Hz



1. 600 rpm  
2. 2400 rpm  
3. 1700 rpm  
factory set

### Technical data

a.c.		d.c.	
Pumping speed			
50Hz	1.2 m <sup>3</sup> h <sup>-1</sup>	600 rpm	0.6 m <sup>3</sup> h <sup>-1</sup>
60Hz	1.4 m <sup>3</sup> h <sup>-1</sup>	1700 rpm (Factory setting)	1.4 m <sup>3</sup> h <sup>-1</sup>
		2400 rpm	1.8 m <sup>3</sup> h <sup>-1</sup>
Motor power	Weight	Motor power	Weight
80 W	6.5 kg	64 W	4.5 kg

Performance	
Ultimate vacuum (typical)	<2 mbar
Ambient temperature limit	10 to 40 °C
Inlet connection	NW16
Exhaust connection	The pump is fitted with a silencer which can be removed and an exhaust line connected with a 1/8 inch BSP fitting
Max allowed inlet pressure	1 bar (abs)
Power connector (a.c.)	IEC EN60320 C13

### Accessories & spares

Product description	Order number
2m electrical supply cable for 1-ph pumps, UK plug 3A	A50516000
2m electrical supply cable for 1-ph pumps, no plug	A50508000
2m electrical supply cable for 1-ph pumps, North America/Japan plug	A50507000
2m electrical supply cable for 1-ph pumps, North European plug	A50506000
XDD/DX/EXDC extension cable 1m	D39700835
XDD/DX/EXDC extension cable 2m	D39700836
XDD/DX/EXDC extension cable 5m	D39700837
XDD1 diaphragm service kit	A74601800

### Ordering information

Product description	Order number
XDD1 Diaphragm Pump 100-115V/200-230V 50/60 Hz	A74602983
XDD1 Diaphragm Pump 24 V d.c. Mk3	A74603991

### GLOBAL CONTACTS

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