



Adixen by Alcatel Vacuum Technology

## ➤ Mechanical Diaphragm Pumps

AMD series

# Mechanical Diaphragm Pumps

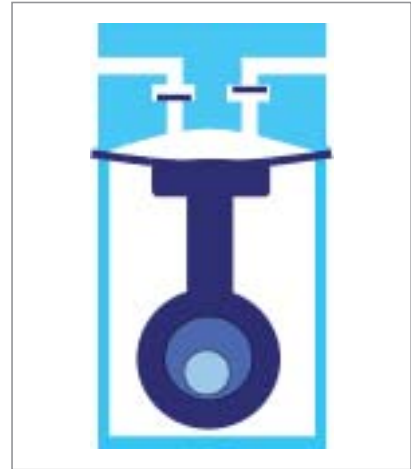
## AMD series

### The new generation of diaphragm pumps

The AMD1 and AMD4 diaphragm pumps provide high performance in a compact package. Featuring three stages of guided planar diaphragms, resulting in unmatched performance, quality and reliability.

AMD series pumps provide oil free pumping of gases for applications where dry, clean pumping is required.

Alcatel Mechanical Diaphragm Pumps provide added value to each of the applications listed below.



### Typical applications

- Leak detectors
- Gas analysers
- Surface analysers
- Electron microscopes
- Backing of turbo pumps
- Cryopump regeneration
- Load locks
- R&D laboratories



AMD1 inside ASM 142  
(Helium Leak Detection)

# Mechanical Diaphragm Pumps

## AMD series

### Focused on reliability, cleanliness and performance

#### OIL FREE PUMPING

Pumped gases are completely isolated from any hydrocarbon type lubricant by a highly flexible FPM Viton double diaphragm



AMD1

#### HIGH PUMPING SPEED

The three-stage guided planar diaphragm design offers outstanding pumping speed, even at low pressures



AMD4

#### HIGH RELIABILITY

AMD series pumps provide unrivalled lifetime with constant performance over the time. Interval between maintenance is 10 000 hours for diaphragms and valves.

#### EASY MAINTENANCE

The AMD series drive mechanism is maintenance free. Diaphragms and valves are easy to replace.

#### PORTABLE AND QUIET

Due to low noise, vibration, and weight, the AMD pumps are ideally suited for integration into portable systems.



Drytel 1025

# Mechanical Diaphragm Pumps

## AMD series

### Technical specifications

Description	units	ADM1	ADM2
Nominal pumping speed	50/60 Hz	m <sup>3</sup> /h	1.2/1.4
	50/60 Hz	cfm	0.7/0.82
Ultimate pressure		mbar	< 2
		Torr	< 1.5
Power supply: single-phase			
Voltage range	V	100/200 +5 %/-10 % 50/60 Hz	
		200/230 ±10 % 50/60 Hz	
Nominal motor rating	W	80	200
Max power	W	200	480
Operating ambient temperature	°C/°F	10 to 40 / 50 to 104	10 to 40 / 50 to 104
Noise level	dB(A)	< 50	< 55
Inlet port	ISO-KF	DN16	DN16
Exhaust port (*)	G	1/8"	1/4"
Dimensions : L x W x H	mm	303 x 141 x 180	315 x 235 x 176
	inches	12 x 5.55 x 7.1	12.4 x 9.25 x 6.9
Weight	Kg	6.5	15.5
	lb	14.3	34.1

(\*) after removing the external silencer

### Features

#### Electric motors

AMD pumps are equipped with dual frequency and dual voltage single phase motors. These motors feature both on/off and changeover switches. Motor's protection is secured by thermal switches (manual reset).

Power cables can be connected through a standard IEC socket.

Note: Cables must be ordered separately.

#### Optional handles

Standard AMD1 and AMD4 are delivered without handles. Handles can be easily installed on the pumps.

Kits including all necessary components (handle, screws, nuts, washers) are available.

One kit is suitable for the AMD1, another kit for the AMD4.

Optional handle



AMD1 power connection



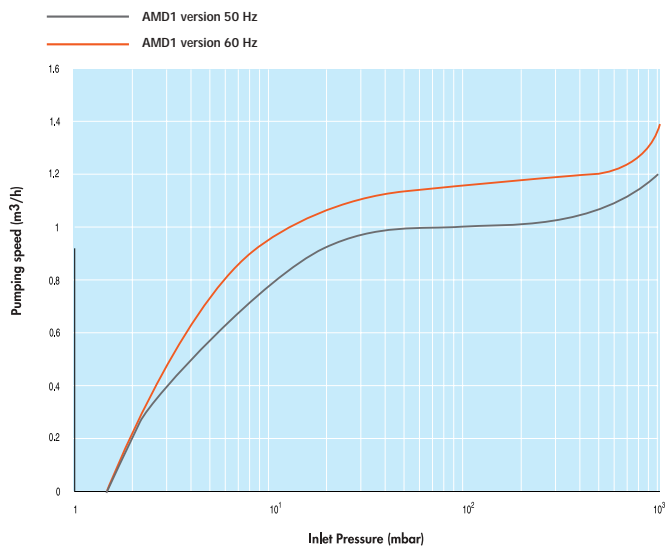
AMD4 power connection

# Mechanical Diaphragm Pumps

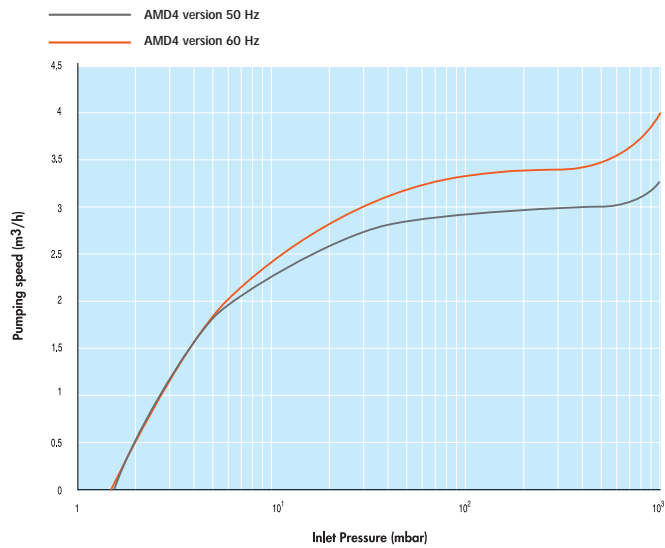
## AMD series

### Pumping speed

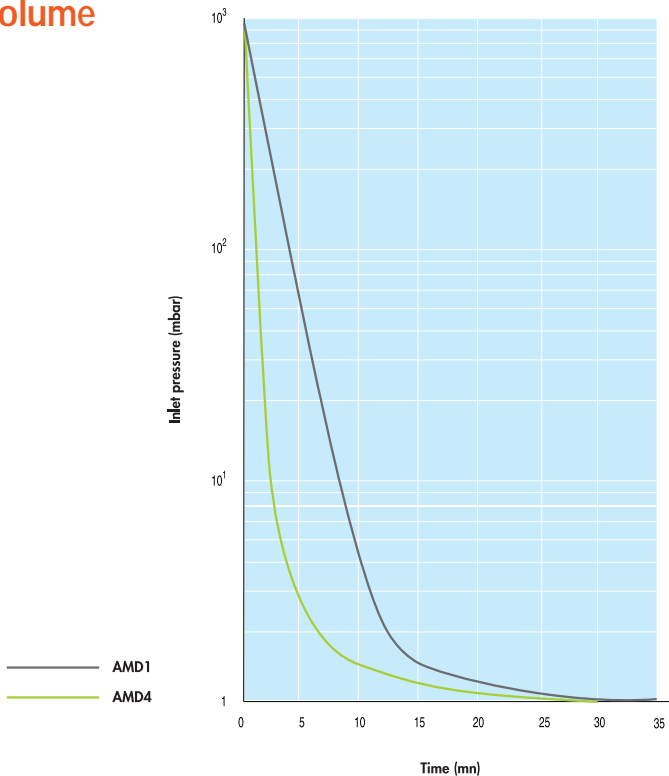
#### AMD1



#### AMD4



### Pump down time for a 30 l volume



# Mechanical Diaphragm Pumps

## AMD series

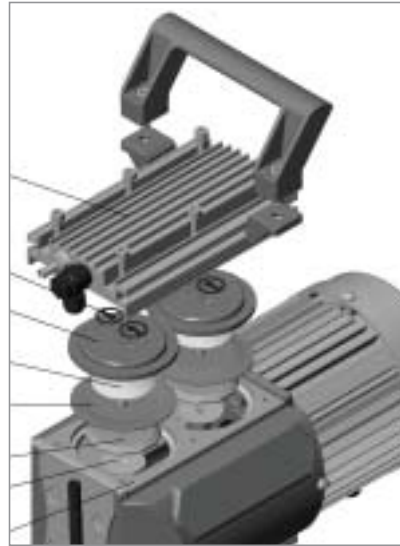
### Easy maintenance

The only maintenance required for AMD series pumps, is the replacement of internal valves and diaphragms.

All bearings are encapsulated and filled with appropriate lubricant and therefore do not require any maintenance.

Depending on the application, the lifetime of valves and diaphragms is up to 10 000 operating hours.

Maintenance does not require sophisticated tools or skilled labour.



AMD1 access to diaphragms



Diaphragm replacement

### Ordering information

#### AMD series pumps

Pump type	PART NUMBER
AMD1	305230
AMD4	109776

#### Handle kits

Handle kit	PART NUMBER
AMD1	110984
AMD4	110985

#### Maintenance kits

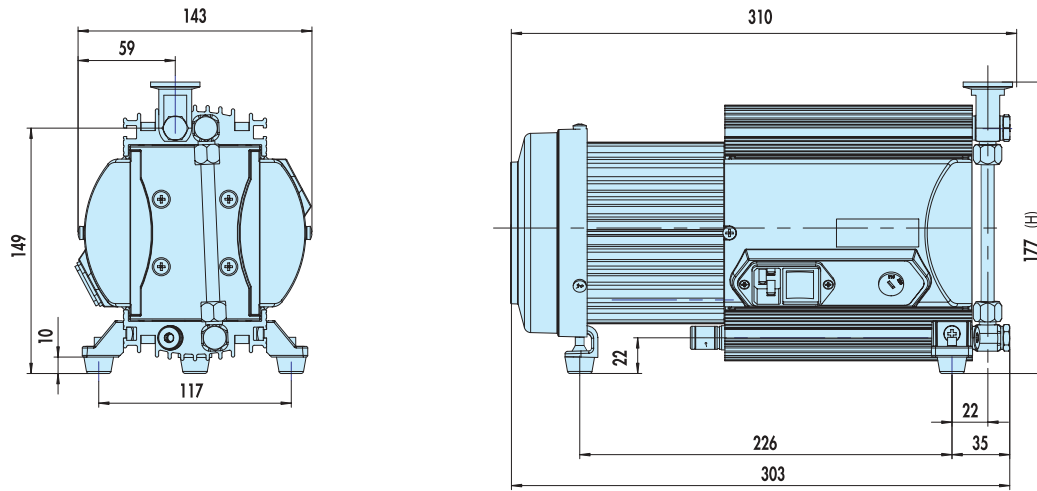
Maintenance kits	PART NUMBER
AMD1	109149
AMD4	110068

#### Power cables

Pump type	PART NUMBER
Low voltage power cable for USA	103567
High voltage power cable for USA	106837
Power cable for Europe	103566
Power cable for UK	104411
Power cable for Italy	104758
Power cable for Switzerland	103718

### Outline drawings

AMD1 - Dimensions in mm



AMD4 - Dimensions in mm

