



**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.

Adixen 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)

Focused on reliability, cleanliness and performance

OIL FREE PUMPING

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

HIGH PUMPING SPEED

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

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.



AMD1



AMD4



Drytel 1025

Technical specifications

Description	units	AMD1	AMD4	AMD4C
Nominal pumping speed	50/60 Hz 50/60 Hz	m ³ /h cfm	1.2/1.4 0.7/0.82	3.3/4 1.94/2.36
Ultimate pressure		mbar Torr		< 2 < 1.5
Power supply: single-phase Voltage range		V	100/120 +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		dBa	< 50	< 55
Inlet port		ISO-KF	DN16	DN16
Exhaust port (*)			G 1/8"	G 1/4" DN 16 ISO-KF
Dimensions : L x W x H		mm inches	303 x 141 x 180 12 x 5.55 x 7.1	315 x 235 x 176 12.4 x 9.25 x 6.9
Weight		Kg lb	6.5 14.3	15.5 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

Materials

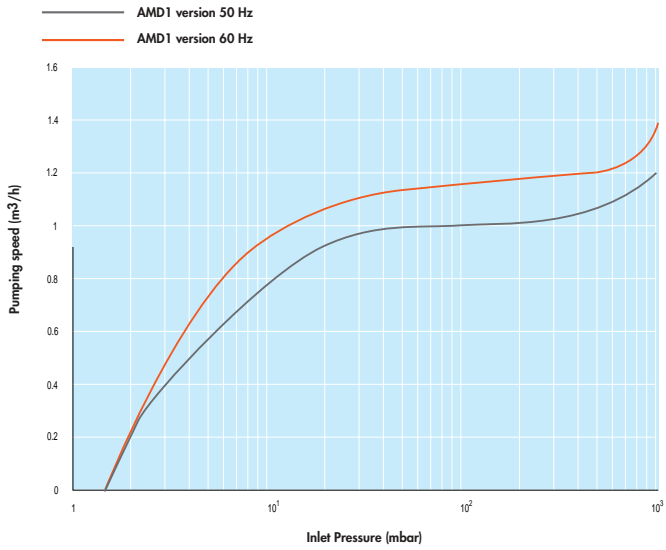
Components	AMD1	AMD4	AMD4C
Housing cover	Aluminium	Aluminium	PFA coating
Head cover	Aluminium	Aluminium	PFA coating
Clamping disc	Aluminium	Aluminium	ETFE
Valve	FPM	6 x FPM 2 x PTFE	6 x FFKM 2 x PTFE
Diaphragm	PTFE/NBR	FPM	PTFE
Inlet port	-	Aluminium	-
Exhaust port	Aluminium/Silicon	Aluminium/PA-PE	SS
Fittings	Anodized aluminium	Aluminium	-
Hose	PE	PE	PTFE



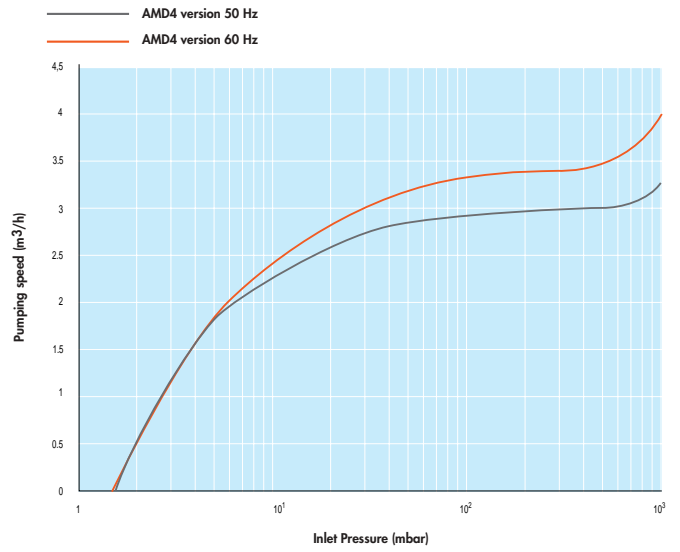
AMD4 power connection

Pumping speed

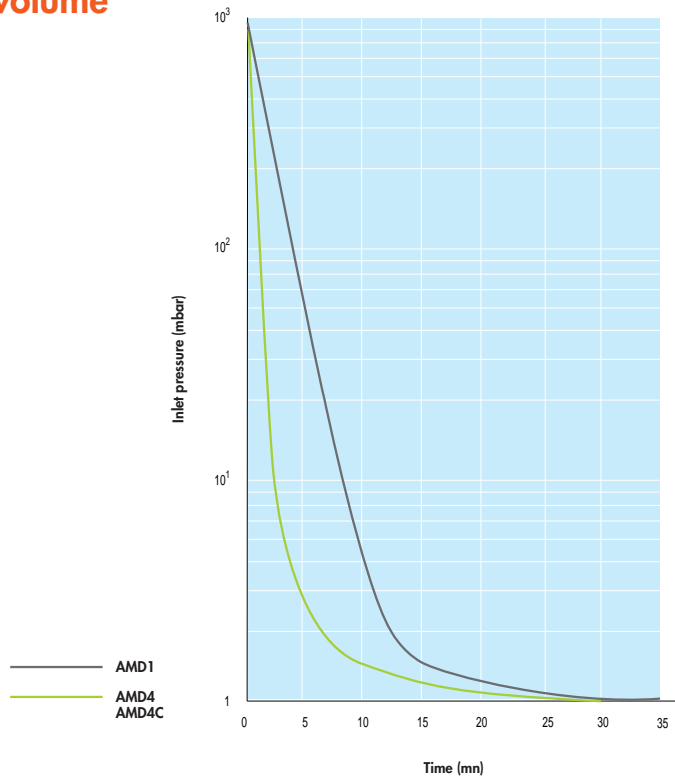
AMD1



AMD4/AMD4C



Pump down time for a 30 l volume



AMD SERIES

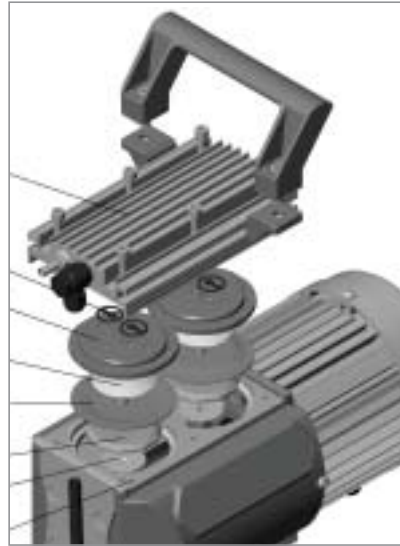
Easy maintenance

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
AMD4C	110662

Handle kits

Handle kit	PART NUMBER
AMD1	110984
AMD4/AMD4C	110985

Maintenance kits

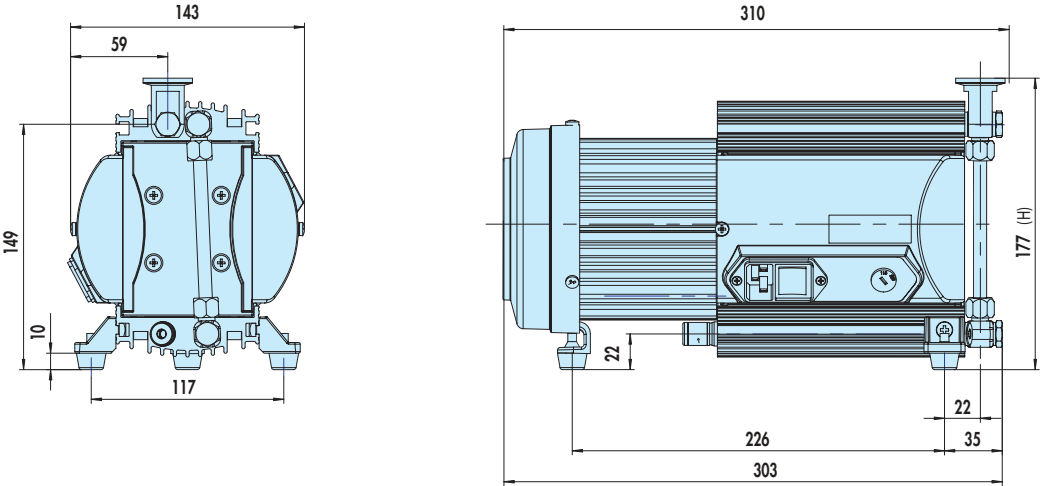
Maintenance kits	PART NUMBER
AMD1	109149
AMD4	110068
AMD4C	111183

Power cables

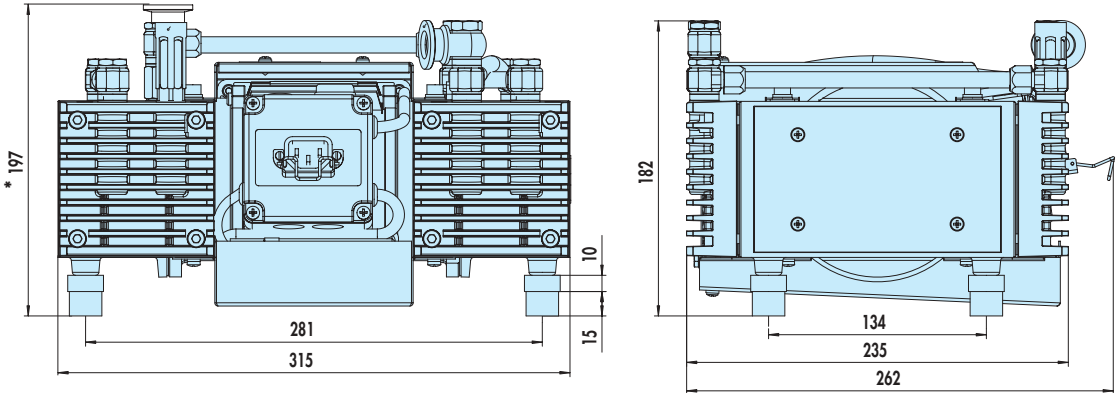
Pump type	PART NUMBER
Low voltage power cable for USA	103567
High voltage power cable for USA	106837
Power cable for Europe	103566
Power cable for UK	104411
Power cable for Italy	104758
Power cable for Switzerland	103718

Outline drawings

AMD1 - Dimensions in mm



AMD4 - Dimensions in mm



*AMD4C only

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