ATH 500 M/MT

Turbomolecular vacuum pumps

PFEIFFER VACUUM+FAB SOLUTIONS

Part of the BUSCH GROUP

Compact

Small footprint, integrated drive unit, installation in any orientation

Quiet

Low noise and vibration levels, perfectly suited for vibration-sensitive applications in semiconductor manufacturing processes and analytical instrumentation

Flexible

Compatible with a variety of backing pumps, MT version with integrated heating system for demanding chemical conditions, frequency-controlled direct current (DC) motors

Accessories, spare parts and options

- Installation kit
- Cooling water valve
- Purge gas valve
- Air cooling kit
- Handheld remote controller
- 48 DVC power supply
- Inlet protection screen
- Valve cable and coil
- Various inlet flange types
- Various user interfaces
- Temperature management system for corrosive process

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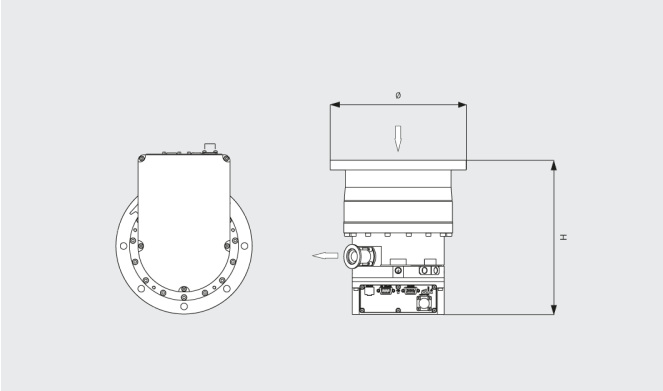
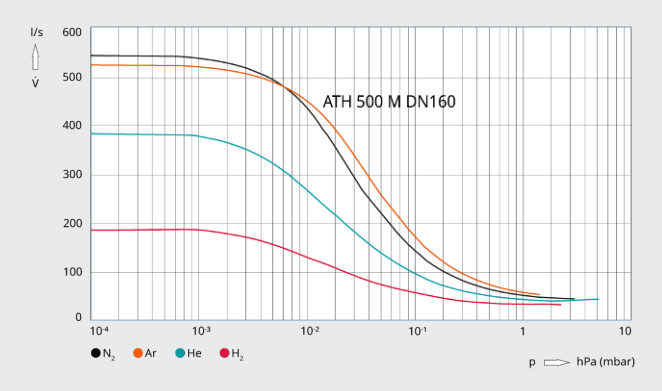
Dimensional drawing



Pumping speed



	ATH 500 M	ATH 500 MT
Pumping speed N_2	350-550 l/s	550 l/s
Pumping speed Ar	320-530 l/s	530 l/s
Pumping speed He	310-390 l/s	390 l/s
Pumping speed H_2	170-190 l/s	190 l/s
Compression ratio (ISO 5302) N_2	$2 \cdot 10^7$ l/s	$2 \cdot 10^7$ l/s
Compression ratio (ISO 5302) Ar	$8 \cdot 10^6$ l/s	$8 \cdot 10^6$ l/s
Compression ratio (ISO 5302) He	$1 \cdot 10^4$ l/s	$1 \cdot 10^4$ l/s
Compression ratio (ISO 5302) H_2	$2 \cdot 10^2$ l/s	$2 \cdot 10^2$ l/s
Ultimate pressure	$< 1 \cdot 10^{-8}$ mbar	$< 1 \cdot 10^{-8}$ mbar
Max. forevacuum N_2	2.6 mbar	2.6 mbar
Max. forevacuum Ar	3.3 mbar	3.3 mbar
Max. forevacuum He	1.0 mbar	1.0 mbar
Max. forevacuum H_2	0.25 mbar	0.25 mbar
Max. inlet vacuum N_2	1.0 mbar	0.04 mbar
Max. inlet vacuum Ar	1.0 mbar	0.02 mbar
Max. inlet vacuum He	10 mbar	> 0.1 mbar

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	ATH 500 M	ATH 500 MT
Max. inlet vacuum H_2	10 mbar	> 0.1 mbar
Gas throughput at final rotational speed N_2	4000 sccm	500 sccm
Gas throughput at final rotational speed Ar	2500 sccm	300 sccm
Gas throughput at final rotational speed He	> 10000 sccm	> 1000 sccm
Gas throughput at final rotational speed H_2	> 10000 sccm	> 1000 sccm
Recommended purge flow rate	50 sccm	50 sccm
Rotational speed	50000 rpm	50000 rpm
Rotational speed variable	15000 rmp to nominal speed	15000 rmp to nominal speed
Run-up time up to 90% of final rotational speed, with pressure exhaust < 0.1 mbar	< 2 min	< 2 min
Controller power supply	48 VDC	48 VDC
Max. power consumption for start-up	560 W	560 W
Nominal power (stand-by power)	100 W	100 W
Max. heating temperature	n/a	65 °C
Max. baking temperature	120 °C	120 °C
Recommended cooling water flow rate	60 l/h	60 l/h
Cooling water temperature	15-25 °C	15-25 °C
Recommended backing pump	ACP40	ACP40
Sound pressure level (ISO 2151) 1m distance at nominal speed	< 42 dB(A)	< 42 dB(A)
Vibration level at nominal speed	< 0.01 µm	< 0.01 µm
Dimensions (Ø x H)	180 x 159.3-209.3* mm	180 x 159.3-209.3* mm
Weight approx.	17 kg	18 kg
Gas inlet / outlet	DN 100/DN 160 / DN 25 ISO-KF	DN 160 / DN 40 ISO-KF
N_2 purge flange	1/8 G (ISO 228)	1/4 VCR
Stainless steel inlet screen (factory setting)	yes	yes
Permissible magnetic field (radial value) at 10 cm	< 12 mT	< 12 mT
On-board control option	Profibus, Remote	Remote

* depending on flange variant

DO YOU WANT TO KNOW MORE?

Get in touch with us directly!

CONTACT FORM

