

Turbo Molecular Pump with integrated controller

Controller integrated turbo molecular pump with magnetic bearings saves wiring work and installation space.



UTM1600A (VG200)

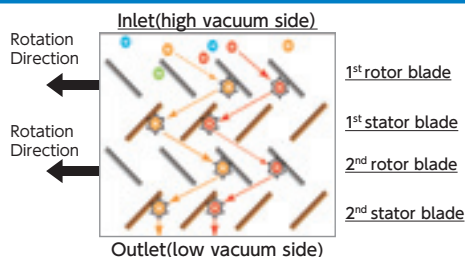
Features

- ▶ Controller integrated with the pump body
No wiring work between pump body and controller.
- ▶ Free mounting direction
Free mounting direction makes the system design flexible.
- ▶ 5 models from 1000L/s to 4000L/s class.
- ▶ Wide range and high flow for the light processes.
- ▶ Pump rotation variable from 25% to 100%
Enabling the pressure adjustment in a chamber.
- ▶ High durability and safety
Safety confirmation tests are passed, such as air rushing-in test and touch down test.

Applications

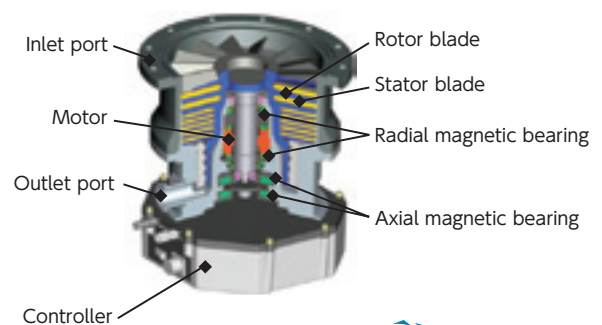
- ▶ Main vacuum pumping system for equipment
 - Semiconductor equipment
 - Evaporator
 - Sputtering system
 - Analytical equipment
 - Experimental device and etc.
- ▶ Main vacuum pumping system for the light processes that do not generate side reaction products.
- ▶ Replacement from oil diffusion pumps
- ▶ General use for high vacuum evacuation system.

Pumping principle



- ▶ Angled rotor blades rotate at high speed and transfer kinetic energy to gas molecules that collide with blades. By moving gas molecules down relatively, a high and ultra high vacuum are created.
- ▶ Continuous operation is possible without regeneration such as CRYO pump.

Structure



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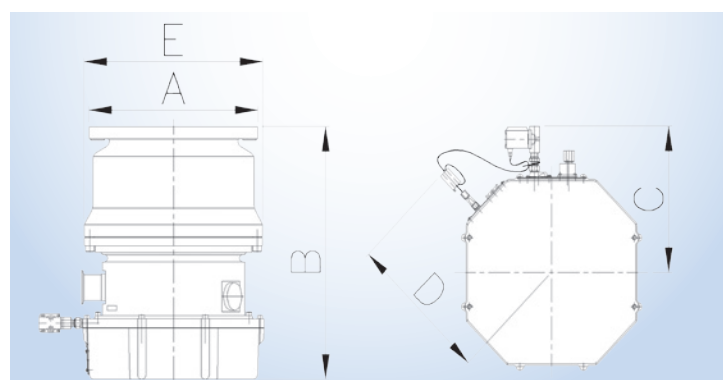
Specifications

Model	UTM1200A		UTM1600A		UTM2300A		UTM3400A		UTM4300A		
Inlet port	VG150 ISO160F		VG200/VG250 ISO200F/ISO250F		VG250 ISO250F		VG300/VG350 ISO320F				
Outlet port					KF40						
Ultimate pressure(*1)	Pa					10 ⁻⁷					
Pumping speed (*2)(*3)	N2	L/s	1030	1400	2100	3200					
	Ar	L/s	980	1330	2000	3100					
	H2	L/s	660	750	1380	2100					
Compression rate	N2		2 × 10 ⁸		1 × 10 ⁸ or more		1 × 10 ⁹ or more				
	He		7 × 10 ³		5 × 10 ³		1 × 10 ⁵				
	H2		8 × 10 ²		9 × 10 ²		6 × 10 ³				
Max inlet pressure(*4)	Pa	26		4.5		7					
Max outlet pressure(*4)	Pa	266		200		270					
Rotation speed	rpm	37200		33700		27600					
Speed variation	Speed is variable between 25% and 100% of the rated speed. (set as 0.1%)										
Start-up time	8minutes or less				9minutes or less		16minutes or less				
Mounting position	In any desired direction										
Surface treatment(*5)	None										
Communication	Contact	D-sub 25 pin female Contact input and output signal				D-sub 37 pin female Contact input and output signal					
	Serial	Serial connector RS232C/RS485				D-sub 9 pin male RS232C/RS485					
Controller	Composition	Pump with integrated controller									
	Input electric power	Single phase AC200 ~ 240V ±10% (50/60Hz ±2Hz)									
	Max power	0.75kVA				1.2kVA					
Cooling method	Water cooled										
Cooling water(*6)	Flow rate	L/min			3 ~ 4						
	Pressure	MPaG			0.2 ~ 0.4						
Noise	dB(A)	57				60					
Weight	kg	43	41	56	94						
Recommended backing pump(*7)	600L/min or more				1500L/min or more						
Applicable standard	CE, TUVus										
Standard accessories	O-ring(Only VG), Dust cap(Outlet port), Remote-control Connector, Instruction manual(CD-ROM)										
Select parts	AC Cable	AC Conector / AC Cable(5m/10m/15m/20m)									
	Special bolt for fixing pump	M10(Non-RoHS / RoHS)/ M12(Non-RoHS / RoHS)									
Special bolt for fixing pump	Need (M10)(*8)				Not need (*8)						
Option	Gas purge adaptor (KF10)										

To be released soon. Send us RFQ.

*1:A digit number is expressed. *2:Without a protective net. *3:Calculated values:UTM2300A and UTM3400A *4:Max inlet pressure and Max outlet pressure cannot be satisfied at same time. *5:Do not flow reactive gas and corrosive gas. Please contact us when using other gases. *6:Not condensing *7:When evacuating 30SCCM *8:Grade of bolts,Fixing method and etc. are subject to various conditions. Please contact us for the detailed information.

Dimensions



Note: The position and phase of outlet, gas purge port, cooling water valve and cooling water valve connector are different according to types. Please contact us for the detailed information.

		(mm)				
		A	B	C	D	E
UTM1200A	VG150	235	439	218	-	285
	ISO160F	225	442	218	-	285
UTM1600A	VG200	300	374	218	-	285
	ISO200F	285	374	218	-	285
	VG250	350	374	218	-	285
	ISO250F	335	374	218	-	285
UTM2300A	VG250	350	376	233	245	310
	ISO250F	335	376	233	245	310
UTM3400A	VG300	400	462	233	245	360
	VG350	450	462	233	245	360
	ISO320F	425	467	233	245	360
UTM4300A	To be released soon. Send us RFQ.					

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