

Oil Rotary Vacuum Pump **VD Series**

VD series is a direct-drive low noise oil rotary vacuum pump. This pump is suitable for a wide range of applications such as evaporator, sputtering and vacuum packaging.



VD901

Features

- **Optimization Design for Quiet Operation**
- **Easy Maintenance**
Pump head can be removed without disconnecting the vacuum piping (except VD151, VD201). *See attached figure. Oil level gauge and drain valve accessible for easy oil exchange and daily inspection.
- **Forced Oil Circulation System Ensures Stable Pumping Speed below Atmospheric Pressure**
When equipped with the optional oil mist trap and oil return mechanism, the VD301, VD401 and VD601 can continuously run at all pressure ranges under atmospheric pressure.
- **Totally enclosed fan cooled 3 phase AC motor**
Multiple voltage motor is equipped on the VD151 and VD201. Either 200V class or multiple voltage type is selectable for the VD301 to VD901. All model are complied with high efficiency regulation (IE2/EPAct).

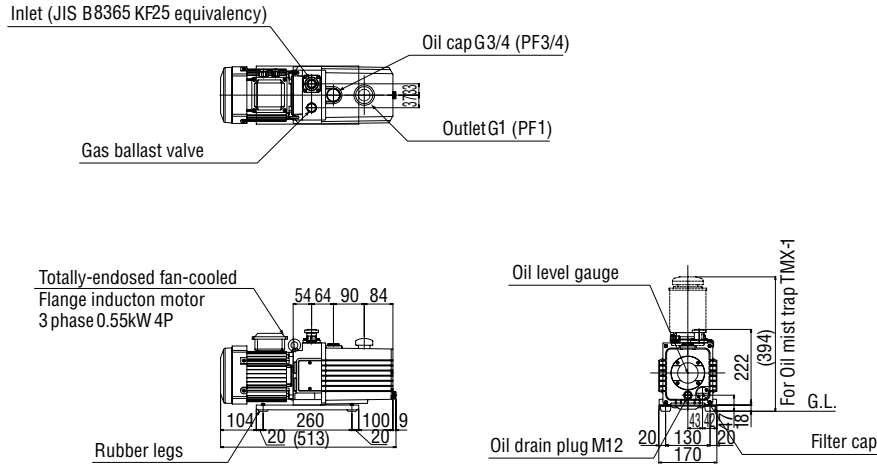
Applications

- Evaporation, sputtering, and ion plating
- Analytical instrument and leak test system
- Gas exchange, gas filling, and vacuum insulation
- Vacuum drying, freeze drying, vacuum degassing, vacuum packing, vacuum chuck and vacuum molding, etc.

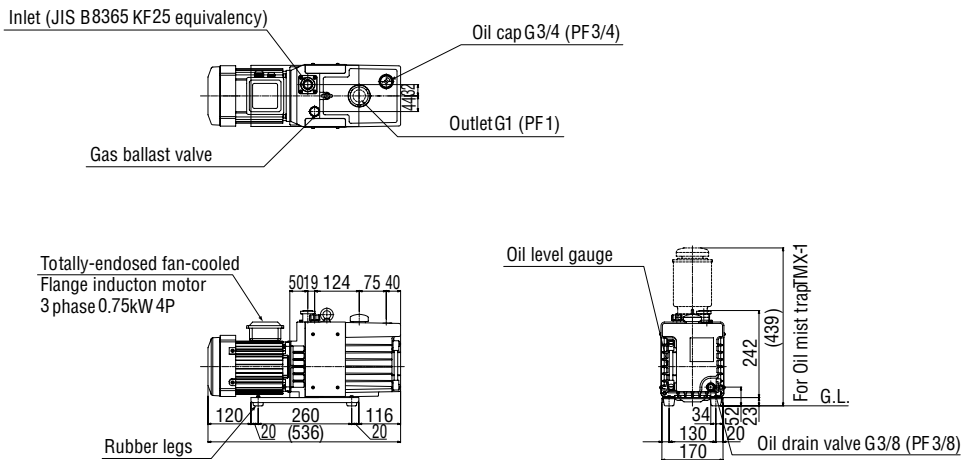
Dimensions

(unit: mm)

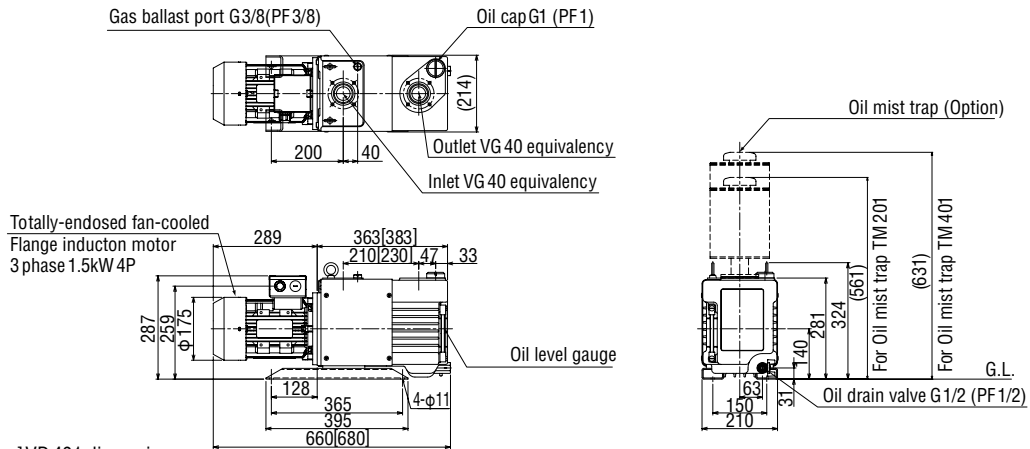
VD151



VD201



VD301, 401



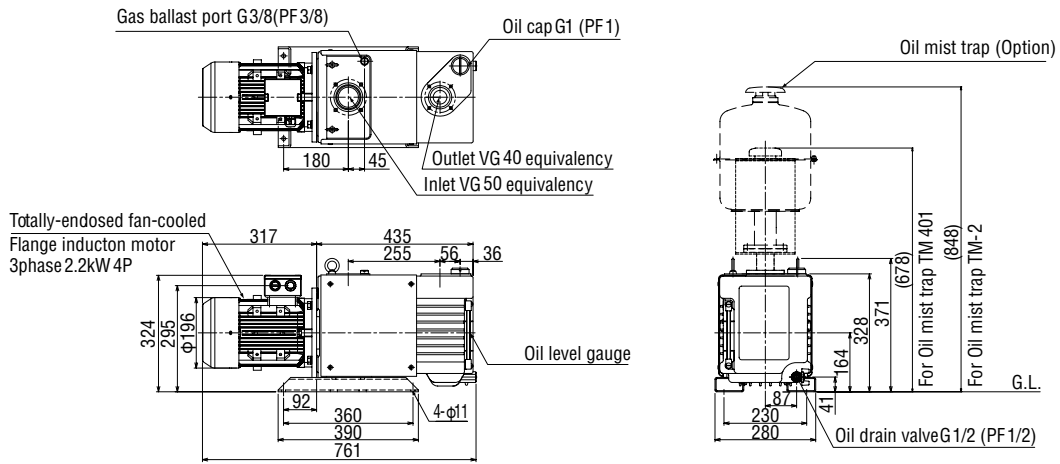
Note: [] VD401 dimension

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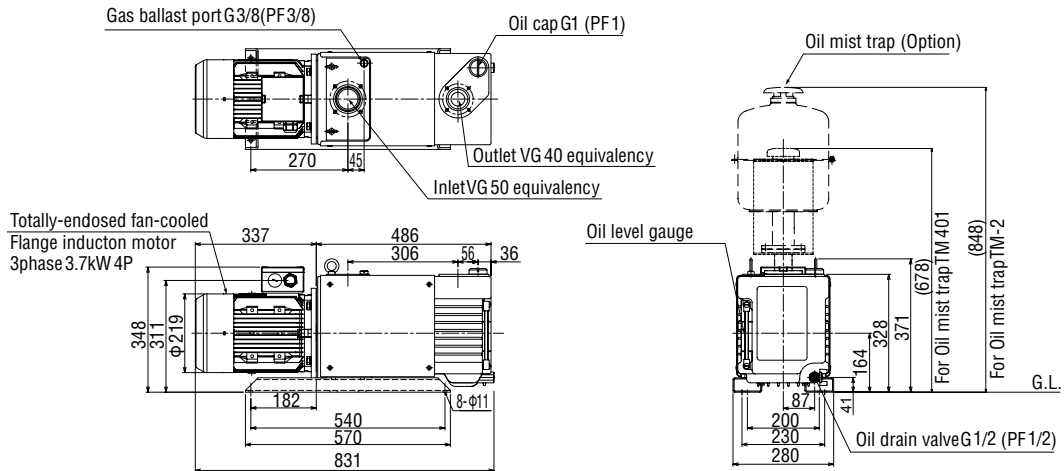
Dimensions

(unit: mm)

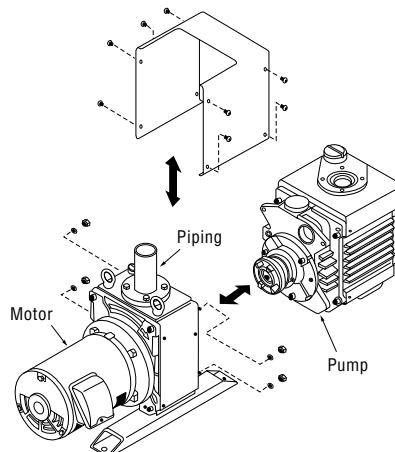
VD601



VD901



When a pump is removed (VD301-VD901)



Specifications

Model		VD151	VD201	VD301	VD401	VD601	VD901	
Designed pumping speed	50Hz	m ³ /h	14.4	20.2	30	40	60	90
		L/min	240	336	500	670	1000	1500
		CFM	8.47	11.89	17.66	23.54	35.31	52.97
	60Hz	m ³ /h	17.3	24.2	36	48	72	108
		L/min	288	403	600	800	1200	1800
		CFM	10.18	14.24	21.29	28.25	42.38	63.57
Ultimate pressure *1	GP close	Pa	0.67					
		Torr	5×10^{-3}					
		mbar	6.7×10^{-3}					
	GP open	Pa	6.7		2			
		Torr	5×10^{-2}		1.5×10^{-2}			
		mbar	6.7×10^{-2}		2.0×10^{-2}			
Motor *2	Type	Totally enclosed fan cooled 3 phase AC motor						
	kW (number of poles)	0.55 (4)	0.75 (4)	1.5 (4)		2.2 (4)	3.7 (4)	
	HP (number of poles)	0.75 (4)	1 (2)	2 (4)		2.95 (4)	4.96 (4)	
	Voltage (Frequency)	[Multiple voltage] 200V to 240V/380V to 415V (50Hz) 200V to 240V/380V to 460V (60Hz)		[200V class] 200V/50Hz, 60Hz, 220V/60Hz [Multiple voltage] 220V to 240V/380V to 415V (50Hz) 208V to 240V/380V to 460V (60Hz)				
Oil *3	ULVOIL R-7							
Oil capacity	0.7 to 1.1 L		1.0 to 2.5 L		2.5 to 4.0 L			
Cooling method	Air cooled							
Inlet	JIS B 8365 KF25 equivalency		VG40 equivalency/KF40 (optional)		VG50 equivalency/KF50 (optional)			
Outlet	G1							
Weight	29 kg		34 kg	57 kg	59 kg	86 kg	109 kg	
External dimensions WxLxH	170x514x240mm		170x536x265mm	210x660x324mm	210x660x324mm	280x761x371mm	280x831x371mm	
Certification	CE		CE/cTUVus					
Standard accessories	Motor, Oil for 1 pump, Operation manual							
Options	Oil mist trap		Oil mist trap, Gas ballast valve, Oil return mechanism, Helium tight, ISO flange					

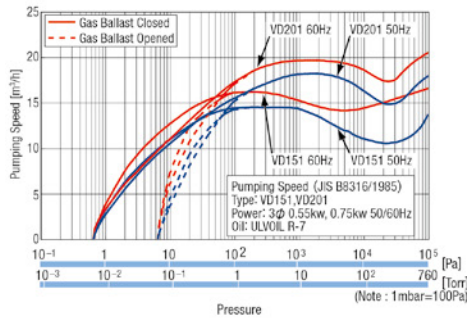
*1 Measured with a Pirani gauge. (Approx. 6.7×10^{-2} Pa when measured with a McLeod vacuum gauge.)

*2 Increased safety explosion-resistant motor and pressure proof explosion-resistant flange motor are available as option except the VD151 and VD201.

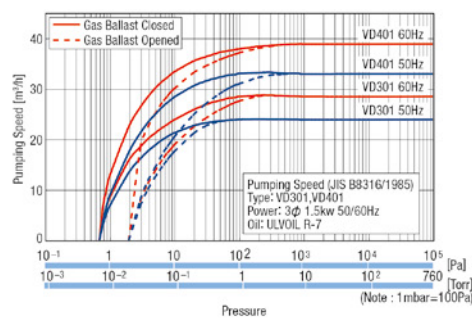
*3 Other oil types are available upon request.

Pumping Speed Curves

VD151, 201



VD301, 401



VD601, 901

