

Ultra-High Vacuum Valve VUH Series

Ultra-High Vacuum Valve (metal) VUH Series (Manual Valves with UFC Flanges)



Specifications

Item	Model	VUH			
		VUH-10D	VUH-251C	VUH-401C	VUH-651C
Connection flange *1		UFC034	UFC070	UFC070	UFC114
Main unit material		Valve body, bonnet flange, bellows: Austenitic stainless steel			
Gasket material		Bonnet seal: Gold wire, Disk seal: Copper			
Allowable baking temperature °C		OPEN: 250/CLOSE: 200			
Applicable pressure range Pa		10 ⁵ -10 ⁻⁹			
Leak volume Pa · m ³ /s		< 1.3 x 10 ⁻¹¹			
Allowable surrounding temperature °C		5-40			
Operation method		Manual			
Sealing torque *2	Initial	4.9		14.7	
	N.m	Maximum	29.4		44.1
Bellows lifespan		10,000 cycles or more			
Nose lifespan at room temperature (reference value) *3*4		(300)	(350)	(300)	(250)
Remarks					

Note: SI units are used in this catalog. The following conversion can be used for non-SI units.

Ultimate pressure: 1Pa = 7.5 x 10⁻³ Torr

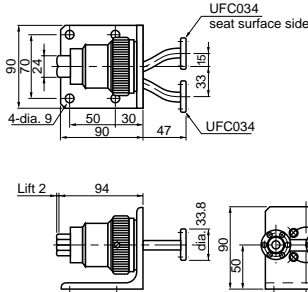
*1 ULVAC standard stainless steel knife-edge metal seal flange.

*2 A torque wrench is required to close the valve.

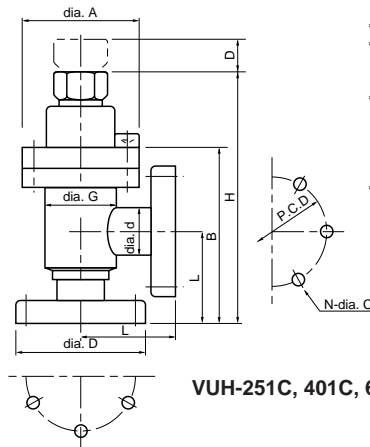
Prepare a 45N.m (450 kg · cm) preset torque wrench with a socket having a common diameter of 24.

*3 Lifespans vary depending on various irregular factors including use environment and use history. When sealing performance over time cannot be obtained within the range from initial sealing torque to maximum sealing torque, nose?? replacement is required. Lifespan is also decreased by bake-out operations.

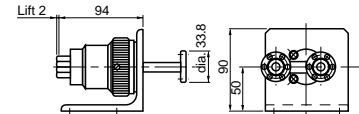
*4 Nose replacement operations should only be done by designated representatives. The VUH-10D model has a welded structure and nose replacement is not possible.



VUH-10D



VUH-251C, 401C, 651C

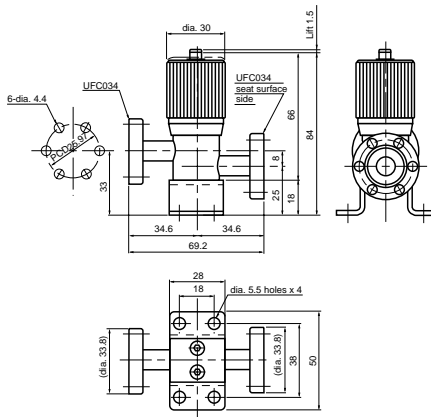


unit: mm

Item Model	Common port diameter (A)	Flange specification	Conductance L/s*1	Flange diameter dia. D	Surface interval	Total height H	Diameter dia. d	Bolt center P.C.D.	Hole quantity/diameter N-dia. C	dia. A	B	D	G	Weight kg
VUH-10D	10	UFC034	0.3						Refer to external dimension diagram					1.9
VUH-251C	25	UFC070	12	69.3	50	137	25.4	58.7	6-6.8	62	96	18	38	1.6
VUH-401C	40	UFC070	34	69.3	63	176	38.1	58.7	6-6.8	71	129	27	57	2.3
VUH-651C	65	UFC114	100	113.5	95	255	63.5	92.2	8-8.5	96	189	0	69	4.4

*1: Conductance: Calculated value using molecular flow, 20 °C, and air

Ultra-High Vacuum Valve (mini) VUH-MVF (Manual Valve with UFC Flange)



Specifications

Item	Model	VUH-MVF
Connection flange *1		UFC034
Main unit material		Valve body, bonnet flange, bellows: Austenitic stainless steel
Gasket material		Disk seal: Polyimide resin *2
Applicable pressure range °C		max. 200
Applicable pressure range Pa		10 ⁵ -10 ⁻⁸
Leak volume Pa · m ³ /s		< 6.7 x 10 ⁻¹¹ *3
Bellows lifespan		10,000 cycles or more
Allowable surrounding temperature °C		5-40
Operation method		Manual

Note: SI units are used in this catalog. The following conversion can be used for non-SI units.

Ultimate pressure: 1Pa = 7.5 x 10⁻³ Torr

*1 ULVAC standard stainless steel knife-edge metal seal flange.

*2 This valve has a welded structure and the disk seal material cannot be replaced.

*3 Polyimide resin permeability is not included in the specifications.