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版本 Ver: 2025年3月



KYKY 北京中科科仪股份有限公司
KYKY TECHNOLOGY CO., LTD.

科技创造美好生活

Vacuum Generation
真空获得设备

www.kyky.com.cn

COMPANY PROFILE
公司简介



北京中科科仪股份有限公司成立于1958年，是中国科学院首家事业单位整体转改制企业。专注于电子光学和真空技术领域，业务范围覆盖扫描电子显微镜、氦质谱检漏仪等科学仪器装备和分子泵、真空应用设备等核心零部件及产业设备，是国家级企业技术中心及国家级制造业“单项冠军”示范企业。先后研制出我国第一台扫描电子显微镜、第一台涡轮分子泵、第一台商用氦质谱检漏仪，第一台磁悬浮分子泵，第一台场发射枪扫描电子显微镜，打破了国外技术垄断，填补了国内空白，提升了我国高端科学仪器装备与核心零部件国产化和自主化水平，为我国前沿科学研究、重大工程和战略型新兴产业的发展提供了重要支撑。

Founded in 1958, KYKY Technology Co., Ltd. is the first enterprise of the Chinese Academy of Sciences that has been transformed from a public institution. Focusing on the field of Electron optics and vacuum technology, its business scope covers scientific instruments and equipment such as Scanning electron microscope and helium leak detector, as well as core components and industrial equipment such as turbo molecular pump and vacuum equipment. KYKY is a national enterprise technology center and a national manufacturing "single champion" demonstration enterprise, developing the first Scanning electron microscope, the first turbo molecular pump, the first commercial helium leak detector, the first magnetically levitated molecular pump and the first field emission Scanning electron microscope successively, breaking the foreign technological monopoly, filling the domestic gap, improving the localization and independence level of China's high-end scientific instruments and equipment and core parts, and contributing to China's cutting-edge scientific research and the development of Megaproject and strategic emerging industries.

APPLICATIONS 应用领域

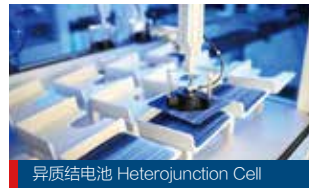
真空获得 Vacuum Generation



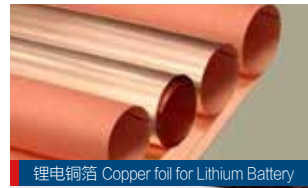
IC制造 IC manufacturing



分析仪器 Analytical Instruments



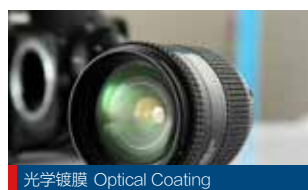
异质结电池 Heterojunction Cell



锂电铜箔 Copper foil for Lithium Battery



平板显示 Panel Display



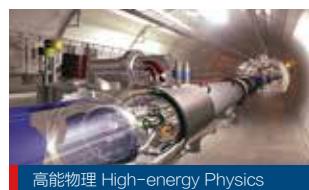
光学镀膜 Optical Coating



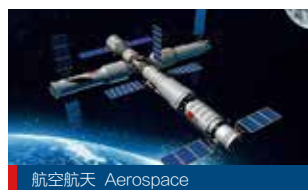
LOW-E玻璃镀膜 Low-e Glass Coating



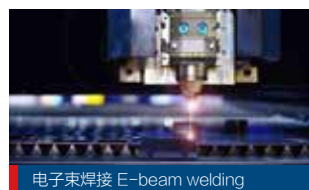
装饰镀膜 Decorative Coating



高能物理 High-energy Physics



航空航天 Aerospace



电子束焊接 E-beam welding



医疗设备 Medical Equipments

真空检漏 Vacuum Leak Detection



能源制造 Energy Production



航天工业 Space Industry



汽车工业 Automotive Industry



电力电气 Electricals and Electrics



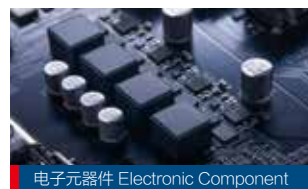
阀门工业 Valve Industry



动力电池 Battery



低温制冷 Cryogenic Refrigeration



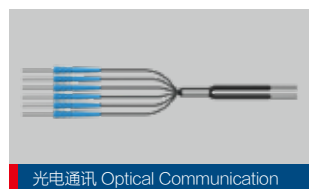
电子元器件 Electronic Component



换热系统 Heat Transfer System



仪器仪表 Instrument & Apparatus



光电通讯 Optical Communication



真空设备 Vacuum System



真空获得业务 / Vacuum Generation

中科科仪在真空获得产品研发与制造方面具有多年经验，产品包括系列分子泵、系列分子泵机组、系列旋片泵、系列插板阀、配套控制器等。自上世纪七十年代研制出我国第一台立式涡轮分子泵以来，中科科仪始终坚持以市场需求为导向、以满足客户需求为目标，秉承创新求发展的企业精神，相继推出了系列油润滑、系列脂润滑和系列磁悬浮分子泵等产品。广泛应用于分析仪器、航空航天、半导体制造、汽车工业、新能源、新材料、节能环保等前沿科学研究和高端装备制造领域，凭借优异的产品性能赢得了广大用户的厚爱。

高品质的产品源于我们不断的技术创新和对质量的不懈追求。通过持续的研发与技术创新和对真空事业的坚守与热爱，我们将坚持为客户提供更加优质的产品和服务。

KYKY TECHNOLOGY CO., LTD. has many years of experiences in R & D and manufacturing of vacuum generation products, including series molecular pumps, series Turbo pumping station, series Rotary Vane pumps, series gate valves and supporting controllers. Since developing the first vertical turbo molecular pump in 1970's, KYKY always orients to the demand-driven market, aims to meet the requirement of our customers, and continuously launches new products in the enterprise spirit of developing on innovation. Sequentially KYKY launches Oil-lubricated series turbo molecular pumps, grease-lubricated series molecular pumps and CXF-series magnetically levitated molecular pumps. KYKY products are widely used in fields such as analytical instruments, aerospace, semiconductor manufacturing, automotive industry, new energy, new materials, energy conservation and environmental protection, as well as forefront scientific research and high-end equipment manufacturing, and have won the favor of a large number of users with their excellent performance.

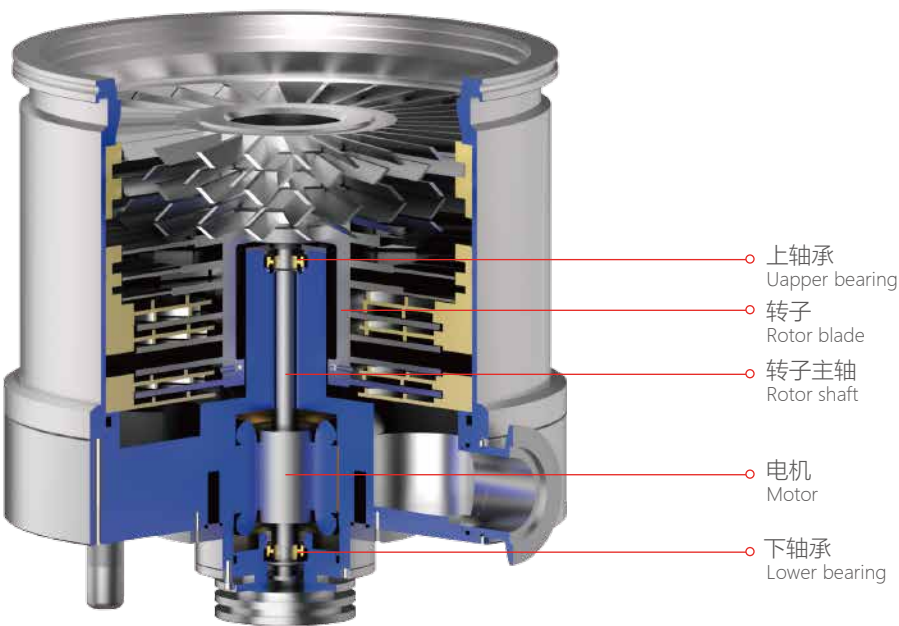
High quality products are derived from our continuous technical breakthrough and pursuit of quality. KYKY will persistently provide better products and quality services for customers by our continuous innovation, passion and commitment.

CATALOGUE
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真空获得设备 Vacuum Generation

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BEARING TECHNOLOGY – GREASE-LUBRICATED CERAMIC BEARING
轴承技术-脂润滑陶瓷轴承



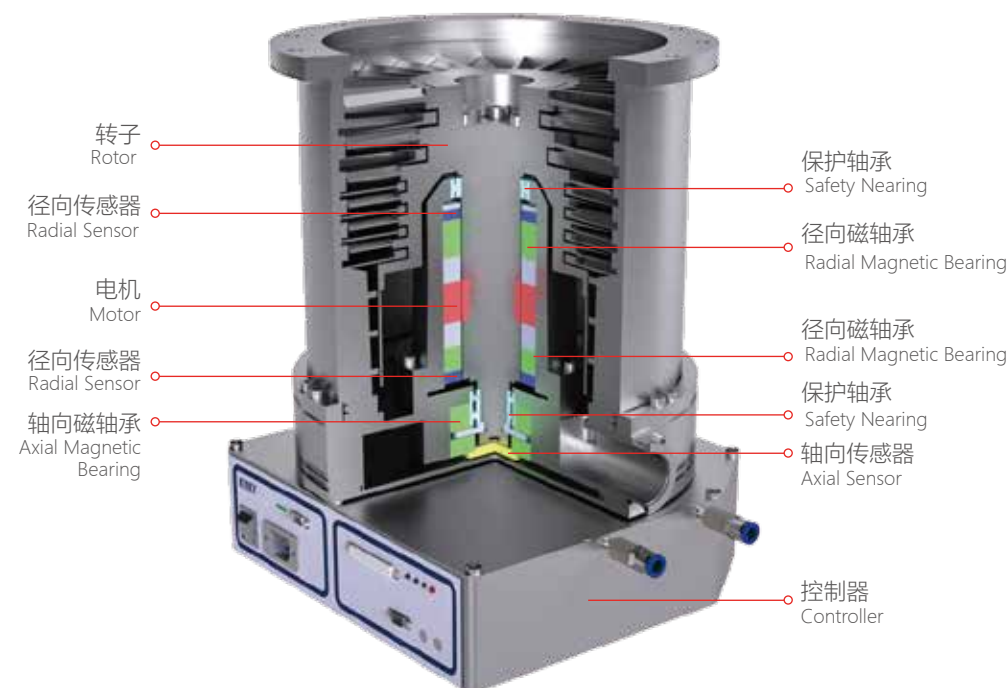
脂润滑陶瓷轴承： GREASE-LUBRICATED CERAMIC BEARING:

脂润滑陶瓷轴承一般采用自封闭的结构，由轴承内圈、轴承外圈、滚珠、保持架、密封端盖和润滑脂组成。其中的润滑脂由润滑剂、粘稠剂和添加剂等混合而成，分子泵专用脂润滑陶瓷轴承内充填的润滑脂具有优良的高速润滑效果，且在高速运转中几乎不会产生挥发，能够保持真空的高洁净度；陶瓷材料则具有优良的物理和化学性能，与金属球轴承相比，更轻、表面更光滑、硬度更高，其运转速度更高、摩擦系数更小、发热量更低。应用脂润滑陶瓷轴承的轴系支撑结构具有结构简单，免维护，功耗小等优点，可以实现分子泵产品的任意角度安装，正常使用条件下只需要每隔3~5年维护保养一次。

The grease-lubricated ceramic bearing is usually of a self-sealed structure, consisting of a bearing inner ring, a bearing outer ring, balls, holders, a sealing end cover and lubricating grease. The lubricating grease is formed by mixing lubricant, thickener and additive. The lubricating grease filled in the grease-lubricated ceramic bearing special for molecular pumps has excellent lubrication effect for high-speed rotation, and almost no volatilization occurs during high-speed operation, thereby keeping a clear vacuum environment. Ceramic materials are characterized by excellent physical and chemical properties, therefore, compared with metallic ball bearings, the ceramic materials have advantages of lighter weight, smoother surfaces, higher hardness, faster rotating speed, smaller friction coefficient and lower heating value. Shafting support structure applied to the grease-lubricated ceramic bearing has advantages of simple structure, free maintenance and low power consumption, so that molecular pump products can be installed in any orientation, and only need to be maintained once every 3-5 years in normal operating conditions.

BEARING TECHNOLOGY – MAGNETICALLY LEVITATED BEARING

轴承技术—磁悬浮轴承



磁悬浮轴承: MAGNETICALLY LEVITATED BEARING:

电磁轴承也被称为“主动式磁悬浮轴承”，由磁轴承、传感器和控制系统构成，在运转时不需要任何机械支撑，依靠磁力悬浮于空中，因此也无需润滑。KYKY磁悬浮轴承为五自由度电磁轴承，利用国际先进控制理论，采用动态主动闭环磁浮控制技术，动态反应迅速、调节及时，保证高速运转轴系悬浮稳定、运行可靠。KYKY磁悬浮轴承能够实时的监测分子泵涡轮运转的位置并将其反馈给控制单元，通过算法能够实现涡轮转子的自动平衡补偿。KYKY应用磁悬浮轴承的分子泵产品突出优点是无摩擦、低振动、无污染、免维护、任意角度安装。

The electromagnetic bearing is also called “active magnetic levitated bears”, consisting of a magnetic bearing, a sensor and a control system. During operation, it can float in air by virtue of magnetic force without any mechanical support; therefore, lubrication is not required. KYKY magnetically levitated bearing is an electromagnetic bearing with 5-axis magnetically levitated Structure. This design has dynamic response and timely adjustment by means of dynamic active closed-circuit magnetic suspension control technology based on advanced international control theory, so as to guarantee such significant advantages of the high-speed shafting as stable levitated and reliable operation. KYKY magnetically levitated bearing can be applicable to monitoring the running position of turbo of the molecular pumps and feed the running position back to the control unit, so that automatic balance compensation of the rotor can be realized through an algorithm. KYKY molecular pumps provided with the magnetically levitated bearing are free of friction, pollution and maintenance and with low vibration, and can be installed in any orientation.

SERIES OF OIL LUBRICATED TURBOPUMPS

油润滑分子泵



SERIES OF OIL LUBRICATED TURBOPUMPS
油润滑分子泵

油润滑涡轮分子泵介绍 INTRODUCTION OF OIL LUBRICATED TURBO PUMPS

油润滑分子泵是KYKY自主开发的系列紧凑型高性能分子泵，抽速150L/s-5000L/s，具有结构紧凑、使用方便和安装灵活，适用范围广，性能稳定。

The oil lubrication turbo pumps are products of compact and high-performance developed by KYKY. The pumping speed of the oil lubrication turbo pumps range from 150L/s to 5000L/s。The advantages of the oil lubrication turbo pumps are compact structure, convenient operation, flexible installation, wide application range and stable performance.

产品优势 ADVANTAGES

- ◆ 适用于恶劣的使用环境（高温、粉尘等）
Good performance under harsh environmental(high temperature, dust, etc.).
- ◆ 性能稳定，使用寿命长
Stable performance and long service life
- ◆ 维护保养简单，方便操作
Simple maintenance, convenient operation

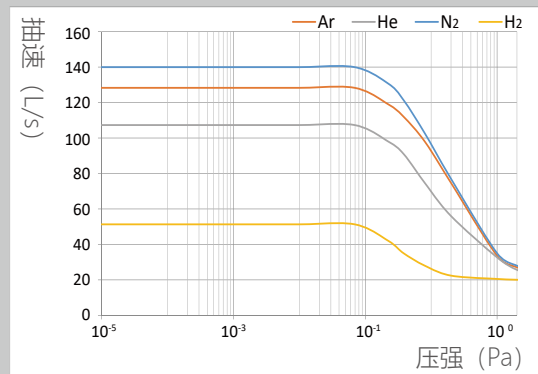
应用范围广 APPLICATIONS

系列油润滑分子泵主要应用在工业检漏、PVD、CVD、离子注入、真空电子元器件制造、Low-E玻璃、ITO玻璃、光学镀膜、太阳能电池、电子束焊接、真空炉等行业。

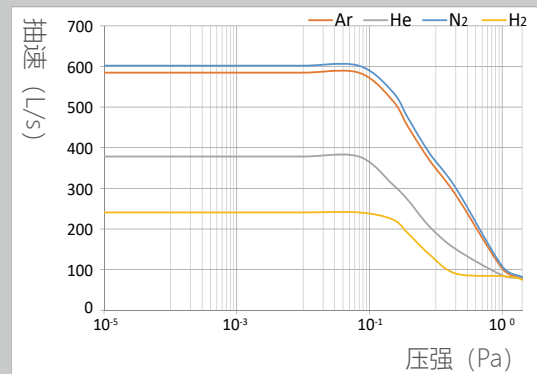
The oil lubrication turbo pumps are mainly used in industrial leak detection, PVD, CVD, ion implantation, vacuum electronic components manufacturing, low-E glass, ITO glass, optical coating, solar cells, electron beam welding, vacuum furnace and other industries

SERIES OF OIL LUBRICATED TURBOPUMPS
油润滑分子泵

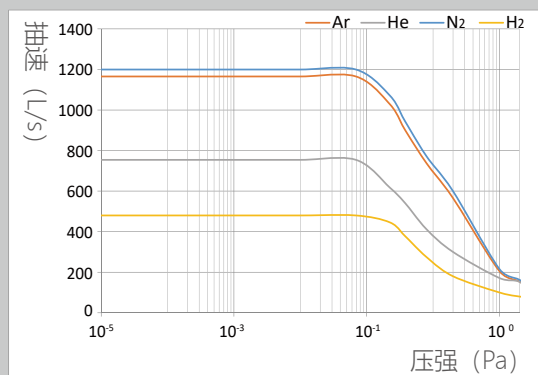
应用领域		F-100/150	FF-160/620	FF-200/1200	F-250/1500	FF-250/1600G	F-400/3500B	F-400/4500	FF-400/5000
分析仪器	电子显微镜 Electron microscopy								
	检漏 Leak detection								
	质谱 Mass spectrometry								
	表面分析 Surface analysis								
	等离子体监测 Plasma monitoring								
半导体	残余气体分析 Residual gas analysis								
	光刻 Lithography								
	物理气相沉积 PVD (Physical Vapor Deposition)								
	化学气相沉积 CVD (Chemical Vapor Deposition)								
	离子刻蚀 Plasma etching								
	注入 - 源 Implantation – Source								
	注入 - 光束 Implantation – Beamline								
	检测 Inspection								
	封装 Bonding								
	分子束外延 MBE (Molecular Beam Epitaxy)								
镀膜	真空锁, 转运箱 Load-locks, transfer chambers, handling systems								
	平板显示 Flat Panel Display (FPD)								
	LED / OLED			■	■	■			
	硬盘镀膜 Hard disk coating			■	■	■			
	光伏 Photovoltaics			■	■	■			
	玻璃镀膜 Glass coating (PVD)				■	■			
	CD / DVD / Blu-ray production (PVD)		■	■	■	■	■	■	■
	光学镀膜 Optical coating (PVD)		■	■	■	■	■	■	■
	硬质涂层 Wear protection (PVD, CVD)		■	■	■	■	■	■	■
	卷绕镀膜 Web coating						■	■	■
工业	装饰镀膜 Decoration Coating						■	■	■
	医学技术 Medical technology			■	■	■			
	工业检漏 Industrial leak detection	■	■						
	电子束焊接 Electron beam welding	■		■	■	■	■	■	■
	隔离真空 Isolation vacuums	■	■	■	■				
	灯管制造 Lamp and tube manufacturing		■			■			
	热处理 Heat treatment			■	■	■	■	■	■
	真空干燥 Vacuum drying		■	■	■	■	■	■	■
研发	真空炉 Vacuum furnaces			■	■	■	■	■	■
	核研究 Nuclear research	■	■	■	■	■	■	■	■
	聚变技术 Fusion technology		■	■	■	■	■	■	■
	等离子研究 Plasma research	■	■	■	■	■	■	■	■
	粒子加速器 Particle accelerators		■	■	■	■			
	模拟空间站 Space simulation			■	■	■	■	■	■
	冷冻研究 Cryogenic research	■	■	■			■	■	■
	基本粒子物理学 Elementary particle physics			■	■		■	■	■
	纳米技术 Nanotechnology	■	■				■	■	■
	生物技术 Biotechnology	■	■	■	■	■	■	■	■

PUMPING SPEED
抽速曲线

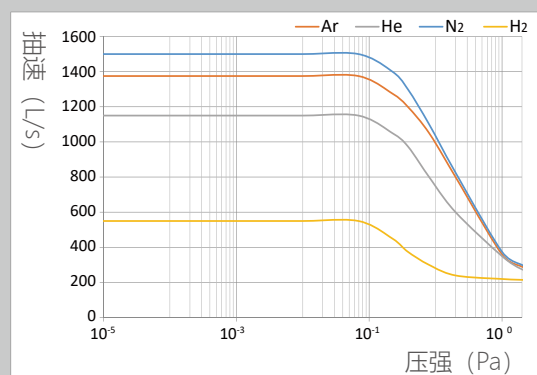
F-100/150



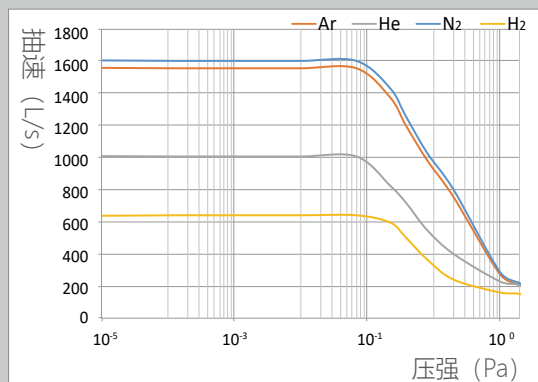
FF-160/620



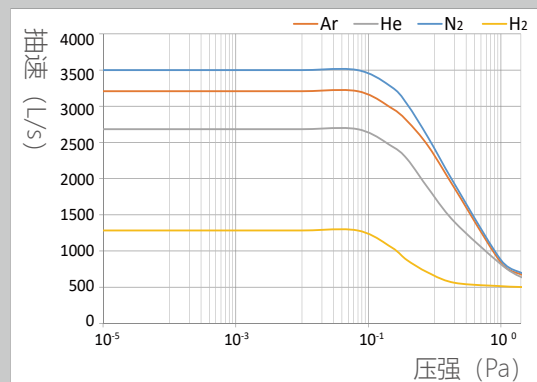
FF-200/1200



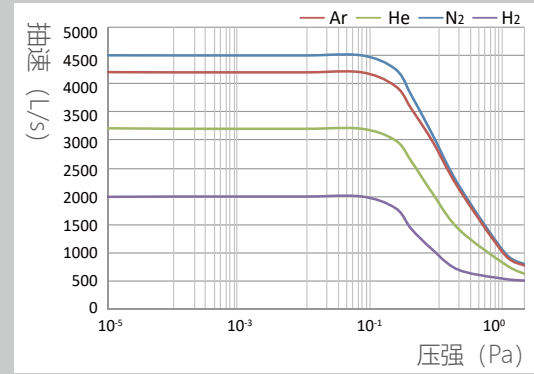
F-250/1500



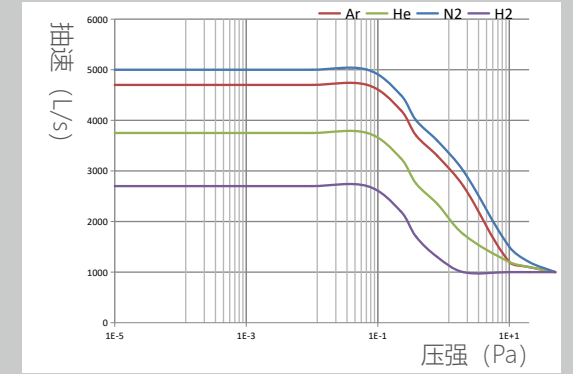
FF-250/1600G



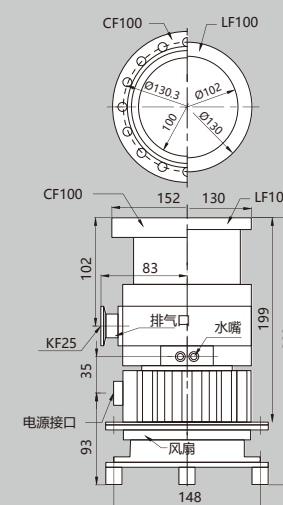
F-400/3500B

SERIES OF OIL LUBRICATED TURBOPUMPS
油润滑分子泵

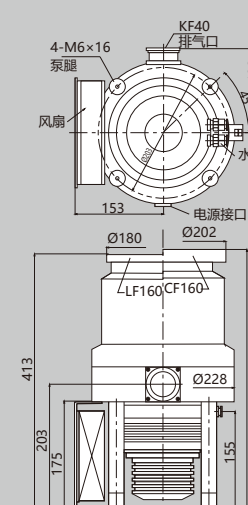
F-400/4500



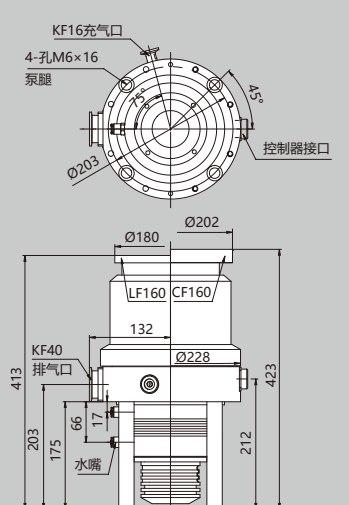
FF-400/5000

OUTLINE DIMENSIONS DRAWING(mm)
安装尺寸图

F-100/150



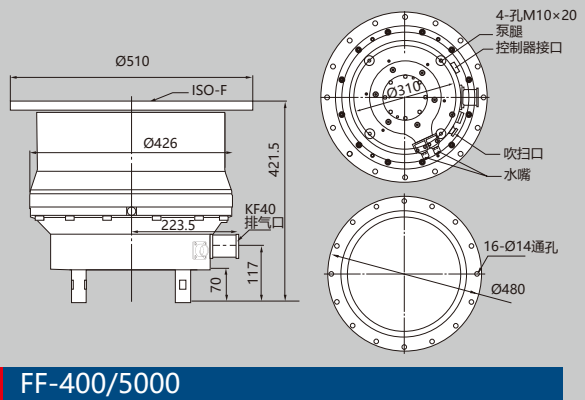
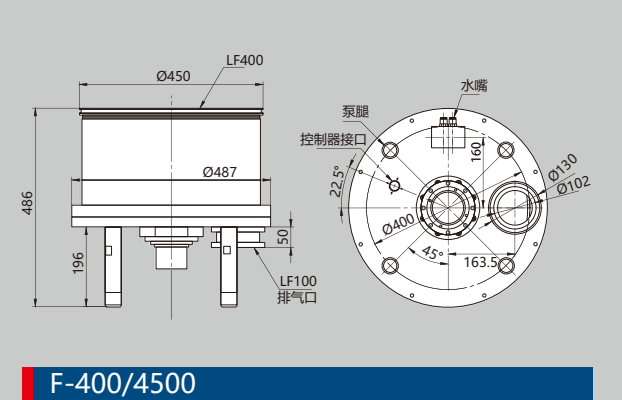
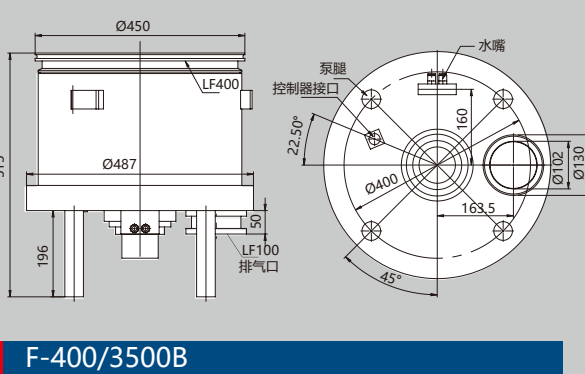
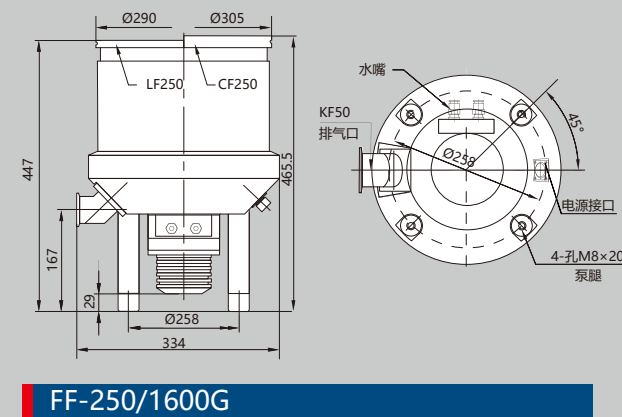
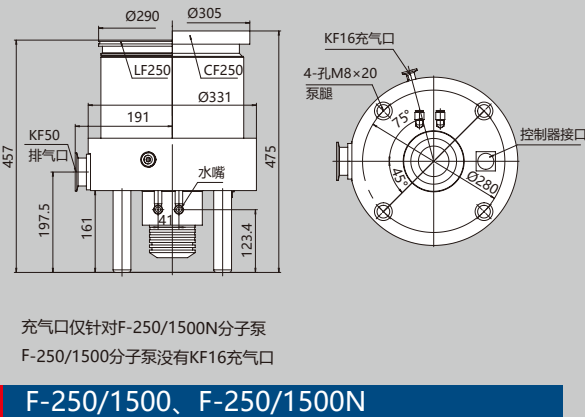
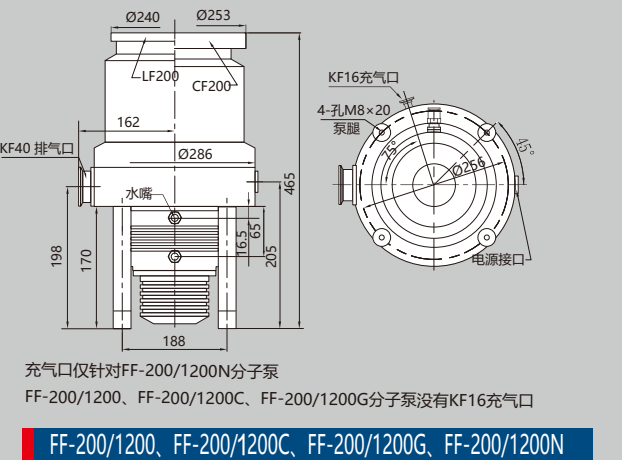
FF-160/620F



充气口仅针对耐腐蚀分子泵, 620、620C没有KF16充气口

FF-160/620, FF-160/620C, FF-160/620N

OUTLINE DIMENSIONS DRAWING(mm)
安装尺寸图



SERIES OF OIL LUBRICATED TURBOPUMPS
油润滑分子泵

型号 Model	单位Unit	F-100/150	FF-160/620	FF-160/620C
进气口法兰 Flange (In)		DN100 CF	DN160 CF	DN160 CF
		DN100 ISO-K	DN160 ISO-K	DN160 ISO-K
排气口法兰 Flange (Out)	ISO-KF	DN25	DN40	DN40
抽速速率 Pumping Speed	L/s	N ₂ : 150	N ₂ : 600	N ₂ : 600
		He: 100	He: 380	He: 380
		H ₂ : 50	H ₂ : 240	H ₂ : 240
		Ar: 130	Ar: 580	Ar: 580
压缩比 Compression Ratio		N ₂ : 10 ⁶	N ₂ : 10 ⁹	N ₂ : 10 ⁹
		He: 10 ²	He: 10 ⁴	He: 10 ⁵
		H ₂ : 5×10 ²	H ₂ : 6×10 ³	H ₂ : 6×10 ⁴
		Ar: 10 ⁶	Ar: 10 ⁹	Ar: 10 ⁹
极限压强 Ultimated Pressure	Pa	CF: 6×10 ⁻⁷	CF: 6×10 ⁻⁷	CF: 6×10 ⁻⁸
		ISO-K: 6×10 ⁻⁶	ISO-K: 6×10 ⁻⁶	ISO-K: 6×10 ⁻⁷
最大连续前级压强 Max. Continuous Fore-vacuum pressure	Pa	200	240	240
最大前级压强 Max. Fore-vacuum Pressure	Pa	N ₂ : 300	N ₂ : 350	N ₂ : 350
最大气载量 Gas Throughput	sccm	N ₂ : 300	N ₂ : 1200	N ₂ : 1200
		He: 240	He: 880	He: 880
		H ₂ : 180	H ₂ : 700	H ₂ : 700
		Ar: 110	Ar: 450	Ar: 450
额定转速 Rotation Speed	rpm	42300	27000	36000
启动时间 Run-Up Time	min	≤3	≤7	≤9
冷却方式 Cooling Type,Standard		水冷或风冷 (环境温度5-32℃时可风冷)	水冷 Water	水冷 Water
冷却水流量 Cooling Water Consumption	L/min	≥1	≥1	≥1
冷却水温度 Cooling Water Temperature	℃	≤25	≤25	≤25
电源电压 Power Connection:Voltage	V AC	DC24/AC220	DC24/AC220	DC24/AC220
最大功率 Max.Power Consumption	W	≤300	≤500	≤500
适配电源型号Controller Model		FD-110A	TCDP-II、FD-IIB、TD-II/TCP-II	TCDP-II、FD-IIB、TD-II/TCP-II
建议前级泵 Backing Pump	L/s	2	4~8	4~8
重量 Weight	kg	6(ISO-K)8(CF)	29 (ISO-K) 30.5 (CF)	29 (ISO-K) 30.5 (CF)
轴承 Bearing		油润滑陶瓷轴承		

SPECIFICATIONS
技术指标

型号 Model	单位Unit	FF-160/620F	FF-160/620N	FF-200/1200
进气口法兰 Flange (In)		DN160 CF	DN160 CF	DN200 CF
		DN160 ISO-K	DN160 ISO-K	DN200 ISO-K
排气口法兰 Flange (Out)	ISO-KF	DN40	DN40	DN40
抽速速率 Pumping Speed	L/s	N ₂ : 600	N ₂ : 600	N ₂ : 1200
		He: 380	He: 380	He: 750
		H ₂ : 240	H ₂ : 240	H ₂ : 480
		Ar: 580	Ar: 580	Ar: 1160
压缩比 Compression Ratio		N ₂ : 10 ⁹	N ₂ : 10 ⁹	N ₂ : 10 ⁹
		He: 10 ⁴	He: 10 ⁴	He: 10 ⁴
		H ₂ : 6×10 ³	H ₂ : 6×10 ³	H ₂ : 6×10 ³
		Ar: 10 ⁹	Ar: 10 ⁹	Ar: 10 ⁹
极限压强 Ultimated Pressure	Pa	CF: 6×10 ⁻⁷	CF: 6×10 ⁻⁷	CF: 6×10 ⁻⁷
		ISO-K: 6×10 ⁻⁶	ISO-K: 6×10 ⁻⁶	ISO-K: 6×10 ⁻⁶
最大连续前级压强 Max. Continuous Fore-vacuum pressure	Pa	240	240	400
最大前级压强 Max. Fore-vacuum Pressure	Pa	N ₂ : 350	N ₂ : 350	N ₂ : 500
最大气载量 Gas Throughput	sccm	N ₂ : 1200	N ₂ : 1200	N ₂ : 2300
		He: 880	He: 880	He: 1700
		H ₂ : 700	H ₂ : 700	H ₂ : 1350
		Ar: 450	Ar: 450	Ar: 870
额定转速 Rotation Speed	rpm	27000	27000	24000
启动时间 Run-Up Time	min	≤7	≤7	≤9
冷却方式 Cooling Type,Standard		水冷或风冷 Water or Air	水冷 Water	水冷 Water
冷却水流量 Cooling Water Consumption	L/min	≥1	≥1	≥1
冷却水温度 Cooling Water Temperature	℃	≤25	≤25	≤25
电源电压 Power Connection:Voltage	V AC	DC24/AC220	220±22	DC24/AC220
最大功率 Max.Power Consumption	W	≤500	≤500	≤750
适配电源型号Controller Model		TCDP-II、FD-IIB、 TD-II/TCP-II	TCDP-II、FD-IIB、 TD-II/TCP-II	TCDP-II、FD-IIB、 TD-II/TCP-II
建议前级泵 Backing Pump	L/s	4~8	4~8	15
重量 Weight	kg	29 (LF) 30.5 (CF)	29 (LF) 30.5 (CF)	39(LF) 41(CF)
轴承 Bearing		油润滑陶瓷轴承		

SERIES OF OIL LUBRICATED TURBOPUMPS
油润滑分子泵

型号 Model	单位Unit	FF-200/1200C	FF-200/1200G	FF-200/1200N
进气口法兰 Flange (In)		DN200 CF	DN200 CF	DN200 CF
		DN200 ISO-K	DN200 ISO-K	DN200 ISO-K
排气口法兰 Flange (Out)	ISO-KF	DN40	DN40	DN40
抽速速率 Pumping Speed	L/s	N ₂ : 1200	N ₂ : 900	N ₂ : 1200
		He: 750	He: 560	He: 750
		H ₂ : 480	H ₂ : 360	H ₂ : 480
		Ar: 1160	Ar: 870	Ar: 1160
压缩比 Compression Ratio		N ₂ : 10 ⁹	N ₂ : 10 ⁹	N ₂ : 10 ⁹
		He: 10 ⁴	He: 10 ⁴	He: 10 ⁴
		H ₂ : 6×10 ³	H ₂ : 6×10 ³	H ₂ : 6×10 ³
		Ar: 10 ⁹	Ar: 10 ⁹	Ar: 10 ⁹
极限压强 Ultimated Pressure	Pa	CF: 1×10 ⁻⁷	CF: 6×10 ⁻⁷	CF: 6×10 ⁻⁷
		ISO-K: 1×10 ⁻⁶	ISO-K: 6×10 ⁻⁶	ISO-K: 6×10 ⁻⁶
最大连续前级压强 Max. Continuous Fore-vacuum pressure	Pa	400	400	400
最大前级压强 Max. Fore-vacuum Pressure	Pa	N ₂ : 500	N ₂ : 500	N ₂ : 500
最大气载量 Gas Throughput	sccm	N ₂ : 2300	N ₂ : 2300	N ₂ : 2300
		He: 1700	He: 1700	He: 1700
		H ₂ : 1350	H ₂ : 1350	H ₂ : 1350
		Ar: 870	Ar: 870	Ar: 870
额定转速 Rotation Speed	rpm	27000	27000	24000
启动时间 Run-Up Time	min	≤9	≤9	≤9
冷却方式 Cooling Type,Standard		水冷 Water	水冷 Water	水冷 Water
冷却水流量 Cooling Water Consumption	L/min	≥1	≥1	≥1
冷却水温度 Cooling Water Temperature	℃	≤25	≤25	≤25
电源电压 Power Connection:Voltage	V AC	DC24/AC220	DC24/AC220	220±22
最大功率 Max.Power Consumption	W	≤750	≤750	≤750
适配电源型号Controller Model		TCDP-II、FD-IIB、 TD-II/TCP-II	TCDP-II、FD-IIB、 TD-II/TCP-II	TCDP-II、FD-IIB、 TD-II/TCP-II
建议前级泵 Backing Pump	L/s	15	15	15
重量 Weight	kg	39(LF) 41(CF)	39(LF) 41(CF)	39(LF) 41(CF)
轴承 Bearing		油润滑陶瓷轴承		

SPECIFICATIONS
技术指标

型号 Model	单位Unit	F-250/1500	F-250/1500N	FF-250/1600G
进气口法兰 Flange (In)		DN250 CF	DN250 CF	DN250 CF
		DN250 ISO-K	DN250 ISO-K	DN250 ISO-K
排气口法兰 Flange (Out)	ISO-KF	DN50	DN50	DN50
抽速速率 Pumping Speed	L/s	N ₂ : 1500	N ₂ : 1500	N ₂ : 1600
		He: 1100	He: 1100	He: 1000
		H ₂ : 550	H ₂ : 550	H ₂ : 640
		Ar: 1350	Ar: 1350	Ar: 1550
压缩比 Compression Ratio		N ₂ : 10 ⁸	N ₂ : 10 ⁸	N ₂ : 10 ⁸
		He: 10 ⁴	He: 10 ⁴	He: 10 ⁴
		H ₂ : 5×10 ³	H ₂ : 5×10 ³	H ₂ : 5×10 ³
		Ar: 10 ⁸	Ar: 10 ⁸	Ar: 10 ⁸
极限压强 Ultimated Pressure	Pa	CF: 6×10 ⁻⁷	CF: 6×10 ⁻⁷	CF: 6×10 ⁻⁷
		ISO-K: 6×10 ⁻⁶	ISO-K: 6×10 ⁻⁶	ISO-K: 6×10 ⁻⁶
最大连续前级压强 Max. Continuous Fore-vacuum pressure	Pa	300	300	200
最大前级压强 Max. Fore-vacuum Pressure	Pa	N ₂ : 450	N ₂ : 450	N ₂ : 650
最大气载量 Gas Throughput	sccm	N ₂ : 2400	N ₂ : 2400	N ₂ : 2500
		He: 1800	He: 1800	He: 1850
		H ₂ : 1400	H ₂ : 1400	H ₂ : 1450
		Ar: 900	Ar: 900	Ar: 950
额定转速 Rotation Speed	rpm	21000	21000	24000
启动时间 Run-Up Time	min	≤8	≤9	≤9
冷却方式 Cooling Type,Standard		水冷 Water	水冷 Water	水冷 Water
冷却水流量 Cooling Water Consumption	L/min	≥1	≥1	≥1
冷却水温度 Cooling Water Temperature	℃	≤25	≤25	≤25
电源电压 Power Connection:Voltage	V AC	DC24/AC220	DC24/AC220	DC24/AC220
最大功率 Max.Power Consumption	W	≤750	≤750	≤750
适配电源型号Controller Model		TCDP-II、FD-IIB、 TD-II/TCP-II	TCDP-II、FD-IIB、 TD-II/TCP-II	TCDP-II、FD-IIB、 TD-II/TCP-II
建议前级泵 Backing Pump	L/s	15	15	15
重量 Weight	kg	60(LF) 63(CF)	60 (LF) 63 (CF)	47 (LF) 50 (CF)
轴承 Bearing		油润滑陶瓷轴承		

SERIES OF OIL LUBRICATED TURBOPUMPS
油润滑分子泵

型号 Model	单位Unit	F-400/3500B	F-400/4500	FF-400/5000 FF-400/5000Y
进气口法兰 Flange (In)		DN400 ISO-K	DN400 ISO-K	DN400 ISO-F DN400 ISO-K
排气口法兰 Flange (Out)		DN100 ISO-K	DN100 ISO-K	DN40 ISO-KF
抽速速率 Pumping Speed		N ₂ : 3500	N ₂ : 4500	N ₂ : 4800
		He: 2750	He: 3200	He: 3550
		H ₂ : 1300	H ₂ : 2000	H ₂ : 2500
		Ar: 3300	Ar: 4200	Ar: 4500
压缩比 Compression Ratio		N ₂ : 10 ⁸	N ₂ : 5×10 ⁷	N ₂ : 10 ⁸
		He: 10 ³	He: 10 ³	He: 10 ⁴
		H ₂ : 5×10 ²	H ₂ : 5×10 ²	H ₂ : 10 ³
		Ar: 10 ⁸	Ar: 5×10 ⁷	Ar: 10 ⁸
极限压强 Ultimated Pressure		≤2×10 ⁻⁶	≤2×10 ⁻⁶	3×10 ⁻⁷
最大连续前级压强 Max. Continuous Fore-vacuum pressure		100	100	100
最大前级压强 Max. Fore-vacuum Pressure		N ₂ : 300	N ₂ : 300	N ₂ : 300
最大气载量 Gas Throughput		N ₂ : 5500	N ₂ : 5500	N ₂ : 5500
		He: 4000	He: 4000	He: 4000
		H ₂ : 3200	H ₂ : 3200	H ₂ : 3200
		Ar: 2100	Ar: 2100	Ar: 2100
额定转速 Rotation Speed		13500	15300	21000
启动时间 Run-Up Time		≤18	≤10	≤15
冷却方式 Cooling Type,Standard		水冷 Water	水冷 Water	水冷 Water
冷却水流量 Cooling Water Consumption		≥1	≥1	≥1
冷却水温度 Cooling Water Temperature		≤25	≤25	≤25
电源电压 Power Connection:Voltage		DC24/AC220	DC24/AC220	DC24/AC220
最大功率 Max.Power Consumption		≤1100	≤1100	≤1000
适配电源型号Controller Model		FD-III、TCDP-III	FD-III	TCDP-IV(FF-400/5000) TCDP-IVA(FF-400/5000Y)
建议前级泵 Backing Pump		30	30	30
重量 Weight		130	118	98
轴承 Bearing		油润滑陶瓷轴承		

SERIES OF TURBO PUMPS FOR INSTRUMENTS
仪器分子泵



系列仪器分子泵 INTRODUCTION OF PUMPS FOR INSTRUMENTS

系列仪器分子泵是KYKY针对仪器行业开发的系列紧凑型高性能分子泵，抽速22L/s-300L/S，具有结构紧凑、使用方便和安装灵活等优点。实践证明，系列仪器分子泵能够很好地满足仪器行业对分子泵的苛刻要求，转速更高、抽气结构更优化，使得分子泵具有更高的真空性能，兼容多种前级泵，对小分子气体抽气能力更强。

Series molecular pumps for instruments developed by KYKY for the instrument industry are compact high-performance types, with pumping speed of 22 L/s-300 L/s, and advantages of compact structure, convenience for use and flexibility for installation. Practices show that serial molecular pumps for instruments can perfectly meet the challenging requirements in instrument field; due to higher rotating speed and more optimal extracting structure, the molecular pumps are compatible with multiple backing pumps, and have stronger pumping capability for small molecular gases.

产品技术 TECHNOLOGY

集成驱动器：分子泵可直接通过集成驱动器进行驱动和控制，便于仪器等设备系统集成，可以实现DC24V供电后分子泵直接运行。

SERIES OF TURBO PUMPS FOR INSTRUMENTS
仪器分子泵

高效驱动：系列仪器分子泵启动时间短，停机配刹车功能，分子泵快速起停能够给您的生产和科学实验带来巨大好处。同时，分子泵转速控制精准，为分析仪器的使用提供保障。

卓越设计：系列仪器分子泵采用了全新模块化设计思路，抽气、驱动、控制、冷却等模块相互独立又有机统一，共同造就了仪器分子泵卓越的性能和高可靠性，客户使用、维护的便利性也取得了革命性的突破。

Integrated driver: Molecular pumps can be directly driven and controlled via the integrated driver, which is convenient to integrate into instrumental systems, thus the molecular pumps can be powered up by 24V DC directly.

Efficient drive: Series molecular pumps for instruments can be started up within short time and shut down quickly by braking functions, which can bring huge benefits to production and scientific experiments. In addition, rotating speed of molecular pumps can be controlled accurately, which guarantees the good operation of analysis instruments.

Excellent design: New ideas of module design are applied to serial molecular pumps for instruments, so that gas extracting, driving, controlling and cooling modules are independent and also integrated, organically united, which creates excellent performance and high reliability of the molecular pumps for instruments and easy operation and convenient maintenance.

产品优势 ADVANTAGES

- | | |
|--|---|
| ◆ 紧凑型结构设计，可以满足系统集成需求
Compact structure for system integration | ◆ 模块化设计，客户可以有更多选择
Module design for more selections |
| ◆ 更高前级耐压
Higher fore-pressure tolerance | ◆ 任意角度安装
Any mounting position |
| ◆ 转速可调
Adjustable rotating speed | ◆ 丰富配件满足客户潜在需求
Wide varieties of accessories for potential demands |

应用范围 APPLICATIONS

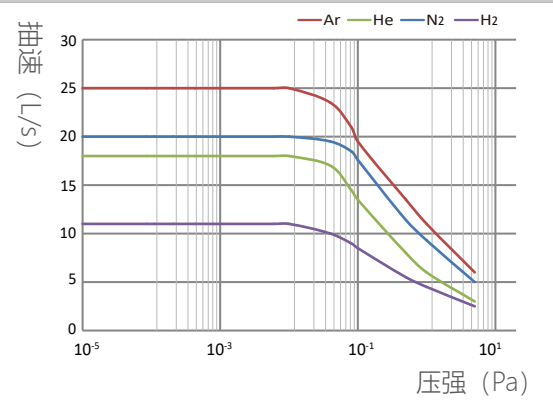
系列仪器分子泵是质谱分析、表面分析和其它科学研究领域高真空获得设备的优秀选择。仪器分子泵可以提供耐腐蚀版本，可以应用于有腐蚀性气体的环境中，比如镀膜和刻蚀等行业。

Series molecular pumps for instruments are suitable choices for high-vacuum generation equipment in fields of mass spectrometry, surface analysis and other scientific researches. Corrosion resistant molecular pumps for instruments can be applied to the processes which corrosive gases involved, such as in coating film and etching industries.

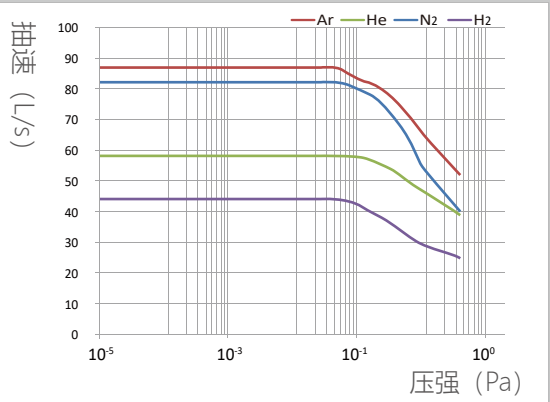
SERIES OF TURBO PUMPS FOR INSTRUMENTS
仪器分子泵

应用领域		FF-40/25	FF-63/80	FF-63/80HV	FF-100/150	FF-100/300
分析仪器	电子显微镜 Electron microscopy	■	■	■	■	■
	检漏 Leak detection	■	■	■	■	■
	质谱 Mass spectrometry	■	■	■	■	■
	表面分析 Surface analysis	■	■	■	■	■
	等离子体监测 Plasma monitoring		■	■	■	■
	残余气体分析 Residual gas analysis	■	■	■	■	■
半导体	光刻 Lithography					■
	物理气相沉积 PVD (Physical Vapor Deposition)					■
	化学气相沉积 CVD (Chemical Vapor Deposition)					■
	离子刻蚀 Plasma etching					■
	注入 - 源 Implantation – Source					■
	注入 - 光束 Implantation – Beamline					■
	检测 Inspection					■
	封装 Bonding					■
	分子束外延 MBE (Molecular Beam Epitaxy)					■
	真空锁, 转运箱 Load-locks, transfer chambers, handling systems					■
镀膜	平板显示 Flat Panel Display (FPD)					■
	LED / OLED					■
	硬盘镀膜 Hard disk coating					■
	光伏 Photovoltaics					■
	玻璃镀膜 Glass coating (PVD)					■
	CD / DVD / Blu-ray production (PVD)					■
	光学镀膜 Optical coating (PVD)					■
	硬质涂层 Wear protection (PVD, CVD)					■
	卷绕镀膜 Web coating					■
	装饰镀膜 Decoration Coating					■
工业	医学技术 Medical technology			■		■
	工业检漏 Industrial leak detection			■		■
	电子束焊接 Electron beam welding			■		■
	隔离真空 Isolation vacuums			■		■
	灯管制造 Lamp and tube manufacturing					■
	热处理 Heat treatment					■
	真空干燥 Vacuum drying					■
	真空炉 Vacuum furnaces					■
研发	核研究 Nuclear research		■	■	■	■
	聚变技术 Fusion technology					■
	等离子研究 Plasma research		■	■	■	■
	粒子加速器 Particle accelerators		■	■	■	■
	模拟空间站 Space simulation					■
	冷冻研究 Cryogenic research		■	■	■	■
	基本粒子物理学 Elementary particle physics			■		■
	纳米技术 Nanotechnology		■	■	■	■
	生物技术 Biotechnology		■	■	■	■

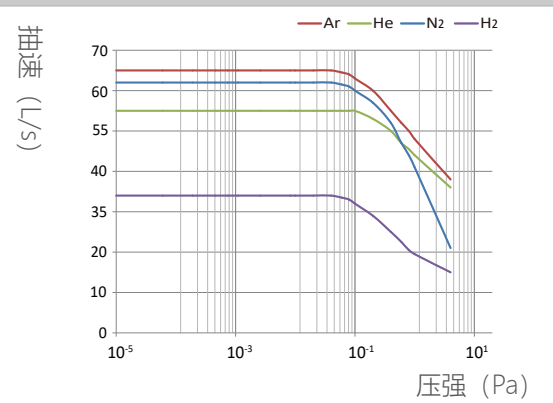
PUMPING SPEED
抽速曲线



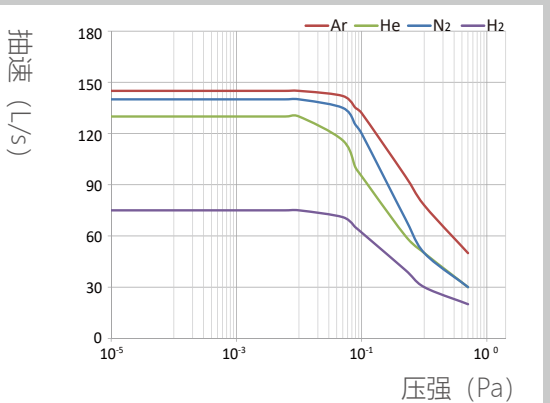
FF-40/25



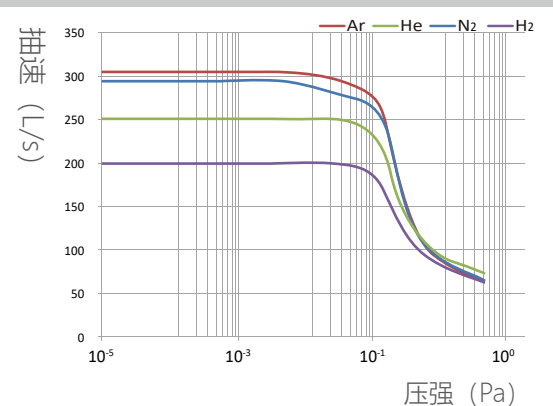
FF-63/80



FF-63/80HV

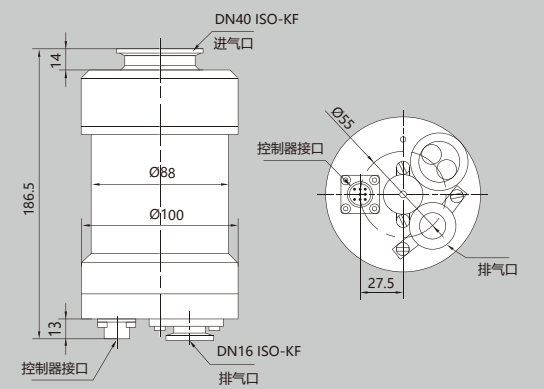


FF-100/150

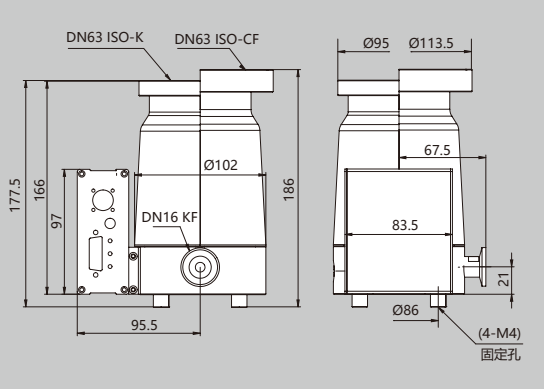


FF-100/300

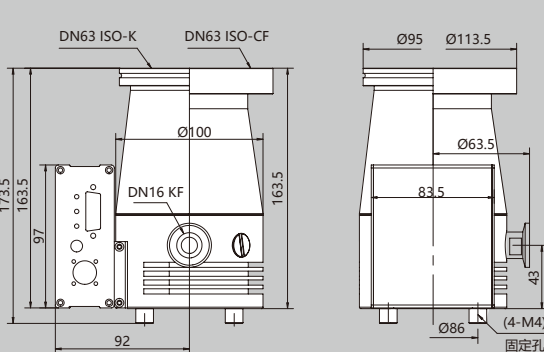
OUTLINE DIMENSIONS DRAWING(MM)
安装尺寸图



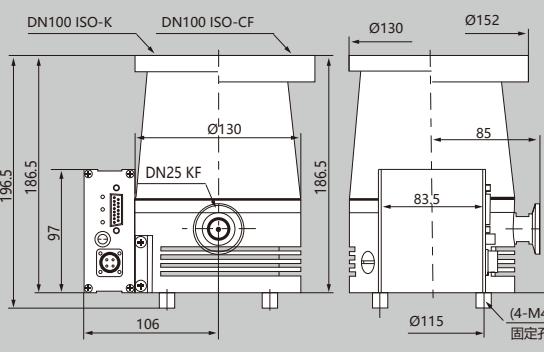
FF-40/25



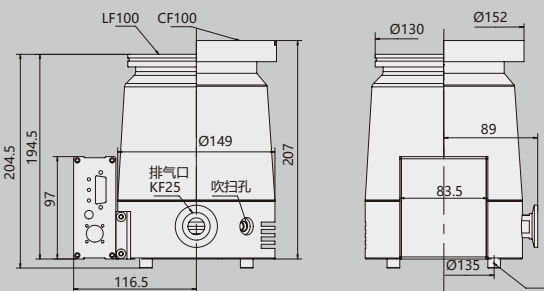
FF-63/80



FF-63/80HV



FF-100/150



FF-100/300

SERIES OF TURBO PUMPS FOR INSTRUMENTS
仪器分子泵

型号 Model	单位Unit	FF-40/25	FF-63/80	FF-63/80HV	FF-100/150	FF-100/300
进气口法兰 Flange (In)		DN40 ISO-KF	DN63 CF DN63 ISO-K	DN63 CF DN63 ISO-K	DN100 CF DN100 ISO-K	DN100 CF DN100 ISO-K
排气口法兰 Flange (Out)	ISO-KF	DN16	DN16	DN16	DN25	DN25
抽速速率 Pumping Speed	L/s	N ₂ : 20 He: 18 H ₂ : 11 Ar: 25	N ₂ : 82 He: 58 H ₂ : 44 Ar: 87	N ₂ : 62 He: 55 H ₂ : 34 Ar: 65	N ₂ : 140 He: 130 H ₂ : 75 Ar: 145	N ₂ : 296 He: 250 H ₂ : 200 Ar: 305
压缩比 Compression Ratio		N ₂ : 10 ⁶ He: 6×10 ² H ₂ : 10 ² Ar: 10 ⁶	N ₂ : 10 ⁸ He: 10 ³ H ₂ : 10 ³ Ar: 10 ⁸	N ₂ : 10 ⁹ He: 10 ³ H ₂ : 10 ³ Ar: 10 ⁹	N ₂ : 10 ⁷ He: 6×10 ³ H ₂ : 10 ³ Ar: 10 ⁷	N ₂ : 10 ⁹ He: 6×10 ⁵ H ₂ : 10 ⁵ Ar: 10 ⁹
极限压强 Ultimated Pressure	Pa	ISO-K≤5×10 ⁻⁴	CF: 8×10 ⁻⁷ ISO-K: 7×10 ⁻⁶	CF: 5×10 ⁻⁶ ISO-K: 3×10 ⁻⁵	CF: 2×10 ⁻⁷ ISO-K: 2×10 ⁻⁶	CF: 2×10 ⁻⁷ ISO-K: 2×10 ⁻⁶
最大连续前级压强 Max. Continuous Fore-vacuum pressure		500	200	500	220	500
最大前级压强 Max. Fore-vacuum Pressure	Pa	N ₂ : 650	N ₂ : 650	N ₂ : 1500	N ₂ : 500	N ₂ : 700
最大气载量 Gas Throughput	sccm	N ₂ : 23 He: 18 H ₂ : 12 Ar: 28	N ₂ : 55 He: 40 H ₂ : Ar:	N ₂ : 35 He: 30 H ₂ : 19 Ar: 38	N ₂ : 135 He: 80 H ₂ : 52 Ar: 143	N ₂ : 120 He: 50 H ₂ : Ar:
额定转速 Rotation Speed	RPM	30000	72000	72000	51000	51000
启动时间 Run-Up Time	min	≤3	≤3	≤3	≤3	≤3.5
冷却方式 Cooling Type,Standard		风冷 Air	水冷或风冷 Water or Air	水冷或风冷 Water or Air	水冷或风冷 Water or Air	水冷或风冷 Water or Air
冷却水流量 Cooling Water Consumption	L/min		1	1	1	1
冷却水温度 Cooling Water Temperature	℃		≤25	≤25	≤25	≤25
电源电压 Power Connection:Voltage	V AC	DC24/AC220	DC24/AC220	DC24/AC220	DC24/AC220	DC24/AC220
最大功率 Max.Power Consumption	W	70	90	90	90	220
适配电源型号Controller Model		TD-25/TCP-100/ TC-100	TD-80/TCP-100/ TC-100	TD-80HV/TCP-100/ TC-100	TD-150/TCP-100/ TC-100	TD-300/TCP-240/ TC-100
建议前级泵 Backing Pump	L/s	0.5~1	0.5~2	0.5~2	2	2
重量 Weight	kg	3	3.5 (ISO-K) 5 (CF)	3.5 (ISO-K) 4.5 (CF)	6 (ISO-K) 8.5 (CF)	7 (ISO-K) 10 (CF)
轴承 bearing		陶瓷轴承				

SERIES OF GREASE LUBRICATED TURBOPUMPS 脂润滑分子泵



SERIES OF GREASE LUBRICATED TURBOPUMPS 脂润滑分子泵

脂润滑涡轮分子泵介绍 INTRODUCTION OF GREASE LUBRICATED TURBO PUMPS

脂润滑分子泵是KYKY自主开发的系列紧凑型高性能分子泵，抽速700L/s、1300L/s、2000L/s，结构紧凑、使用方便、对系统污染小，适用范围广，性能稳定。

The grease lubrication turbo pumps are a series of high-performance molecular pumps independently developed by KYKY. The pumping speed ranges from 700L/s to 2000L/s. The characteristics of the grease lubrication turbo pump are Compact structure, easy to use, less contamination to system, wide range of application and stable performance.

产品优势 ADVANTAGES

- ◆ 任意角度安装
Installation at any angle
- ◆ 更高前级耐压和紧凑型的结构设计，可以满足系统集成的需求
Compact structural design to meet system integration needs

应用范围 APPLICATIONS

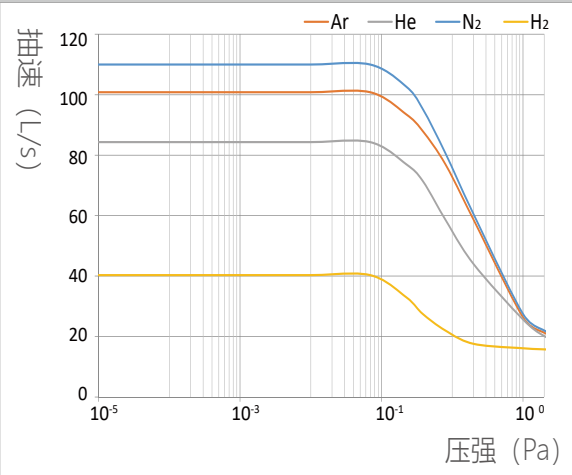
系列脂润滑分子泵主要应用在半导体设备、太阳能电池、Low-E玻璃、ITO玻璃、加速器、等离子技术、制灯、真空检漏等行业。

The grease lubrication turbo pumps are mainly used in solar cells, Low-E glass, ITO glass, accelerators, plasma technology, lamp making, vacuum leak detection and other industries.

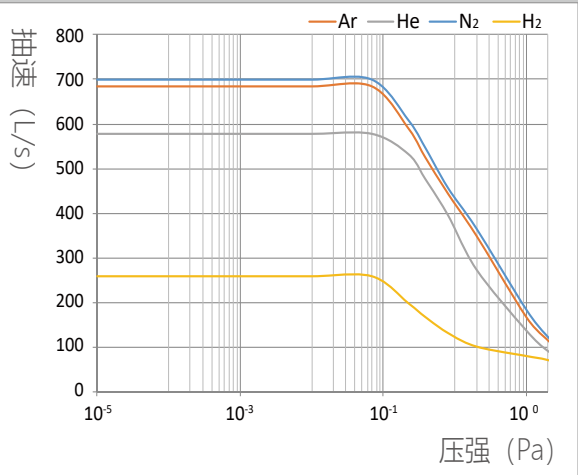
SERIES OF GREASE LUBRICATED TURBOPUMPS
脂润滑分子泵

应用领域		FF-100/110	FF-160/700	FF-200/1300	FF-250/2000
分析仪器	电子显微镜 Electron microscopy	■	■		
	检漏 Leak detection	■			
	质谱 Mass spectrometry	■	■		
	表面分析 Surface analysis	■	■		
	等离子体监测 Plasma monitoring	■	■		
半导体	残余气体分析 Residual gas analysis	■	■		
	光刻 Lithography				
	物理气相沉积 PVD (Physical Vapor Deposition)		■	■	■
	化学气相沉积 CVD (Chemical Vapor Deposition)		■	■	■
	离子刻蚀 Plasma etching			■	■
	注入 - 源 Implantation – Source		■	■	■
	注入 - 光束 Implantation – Beamline		■	■	■
	检测 Inspection		■	■	■
	封装 Bonding		■	■	■
	分子束外延 MBE (Molecular Beam Epitaxy)		■	■	■
镀膜	真空锁, 转运箱 Load-locks, transfer chambers, handling systems		■	■	■
	平板显示 Flat Panel Display (FPD)			■	■
	LED / OLED			■	■
	硬盘镀膜 Hard disk coating			■	■
	光伏 Photovoltaics			■	■
	玻璃镀膜 Glass coating (PVD)			■	■
	CD / DVD / Blu-ray production (PVD)			■	■
	光学镀膜 Optical coating (PVD)			■	■
	硬质涂层 Wear protection (PVD, CVD)			■	■
	卷绕镀膜 Web coating				■
	装饰镀膜 Decoration Coating				
工业	医学技术 Medical technology		■	■	
	工业检漏 Industrial leak detection		■	■	
	电子束焊接 Electron beam welding		■	■	
	隔离真空 Isolation vacuums		■	■	
	灯管制造 Lamp and tube manufacturing		■		
	热处理 Heat treatment			■	■
	真空干燥 Vacuum drying			■	■
研发	真空炉 Vacuum furnaces			■	■
	核研究 Nuclear research	■	■	■	■
	聚变技术 Fusion technology		■	■	■
	等离子研究 Plasma research	■	■	■	■
	粒子加速器 Particle accelerators	■	■		■
	模拟空间站 Space simulation			■	■
	冷冻研究 Cryogenic research	■	■		■
	基本粒子物理学 Elementary particle physics		■	■	■
	纳米技术 Nanotechnology	■	■		■
	生物技术 Biotechnology	■	■	■	■

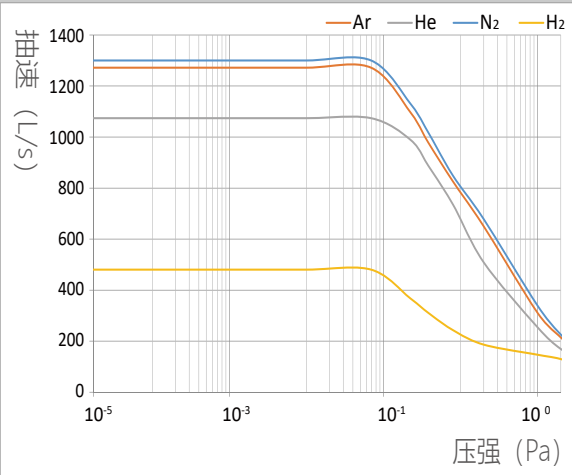
PUMPING SPEED
抽速曲线



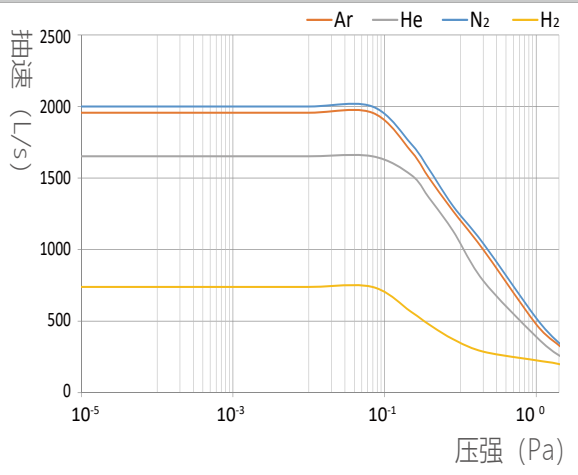
FF-100/110



FF-160/700

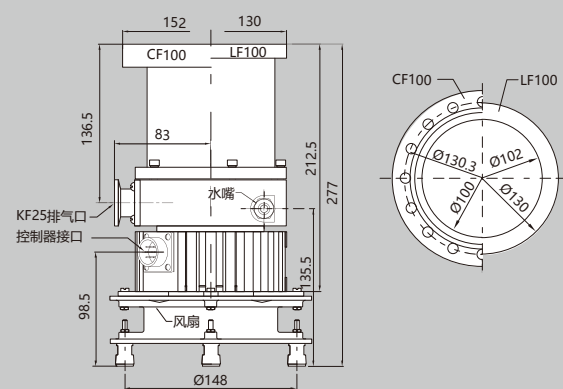


FF-200/1300

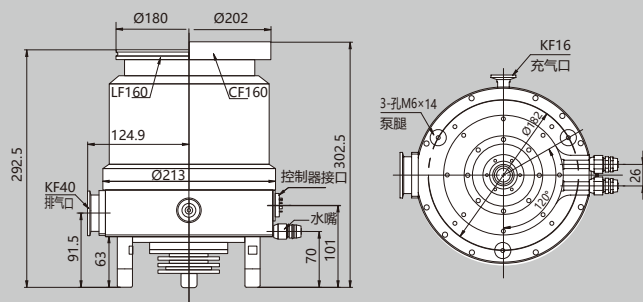


FF-250/2000

OUTLINE DIMENSIONS DRAWING(MM)
安装尺寸图

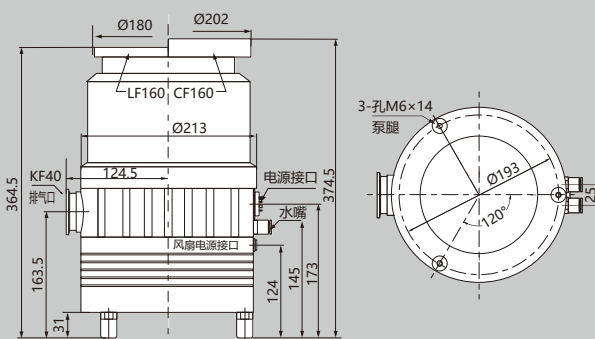


FF-100/110

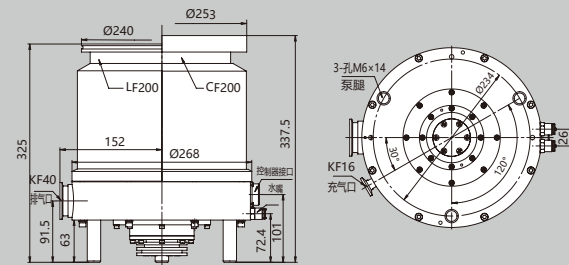


充气口仅针对FF-160/700A和FF-160/700N分子泵
FF-160/700分子泵没有KF16充气口

FF-160/700、FF-160/700A、FF-160/700N

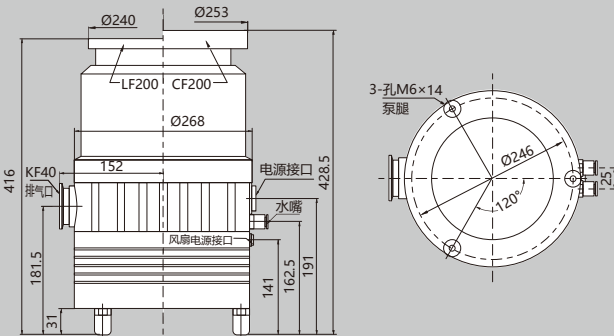


FF-160/700F

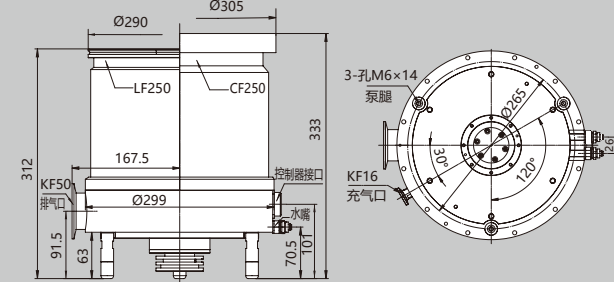


充气口仅针对FF-200/1300A和FF-200/1300N分子泵
FF-200/1300分子泵没有KF16充气口

FF-200/1300、FF-200/1300A、FF-200/1300N



FF-200/1300F



充气口仅针对FF-250/2000A和FF-250/2000N分子泵
FF-250/2000分子泵没有KF16充气口

FF-250/2000、FF-250/2000A、FF-250/2000N

SERIES OF GREASE LUBRICATED TURBOPUMPS
脂润滑分子泵

型号 Model	单位Unit	FF-100/110	FF-160/700	FF-160/700F	FF-160/700N FF-160/700A
进气口法兰 Flange (In)		DN100 CF	DN160 CF	DN160 CF	DN160 CF
		DN100 ISO-K	DN160 ISO-K	DN160 ISO-K	DN160 ISO-K
排气口法兰 Flange (Out)	ISO-KF	DN25	DN40	DN40	DN40
抽速速率 Pumping Speed	L/s	N ₂ : 110	N ₂ : 700	N ₂ : 700	N ₂ : 700
		He: 100	He: 580	He: 580	He: 580
		H ₂ : 50	H ₂ : 260	H ₂ : 260	H ₂ : 260
		Ar: 100	Ar: 680	Ar: 680	Ar: 680
压缩比 Compression Ratio		N ₂ : 10 ⁸	N ₂ : 10 ⁹	N ₂ : 10 ⁹	N ₂ : 10 ⁹
		He: 10 ²	He: 10 ⁷	He: 10 ⁷	He: 10 ⁷
		H ₂ : 5×10 ²	H ₂ : 6×10 ⁶	H ₂ : 6×10 ⁶	H ₂ : 6×10 ⁶
		Ar: 10 ⁸	Ar: 10 ⁹	Ar: 10 ⁹	Ar: 10 ⁹
极限压强 Ultimated Pressure	Pa	CF: 6×10 ⁻⁷	CF: 6×10 ⁻⁸	CF: 6×10 ⁻⁸	CF: 6×10 ⁻⁸
		ISO-K: 6×10 ⁻⁶	ISO-K: 6×10 ⁻⁷	ISO-K: 6×10 ⁻⁷	ISO-K: 6×10 ⁻⁷
最大连续前级压强 Max. Continuous Fore-vacuum pressure	Pa	200	300	300	300
最大前级压强 Max. Fore-vacuum Pressure	Pa	N ₂ : 300	N ₂ : 550	N ₂ : 550	N ₂ : 550
最大气载量 Gas Throughput	sccm	N ₂ : 300	N ₂ : 1400	N ₂ : 1400	N ₂ : 1400
		He: 240	He: 1000	He: 1000	He: 1000
		H ₂ : 180	H ₂ : 800	H ₂ : 800	H ₂ : 800
		Ar: 110	Ar: 550	Ar: 550	Ar: 550
额定转速 Rotation Speed	rpm	42300	36000	36000	36000
启动时间 Run-Up Time	min	≤3	≤7	≤7	≤7
冷却方式 Cooling Type,Standard		水冷或风冷 (环境温度5-32℃时可风冷)	水冷 Water	水冷或风冷 Water or Air	水冷 Water
冷却水流量 Cooling Water Consumption	L/min	≥1	≥1	≥1	≥1
冷却水温度 Cooling Water Temperature	℃	≤25	≤25	≤25	≤25
电源电压 Power Connection:Voltage	V AC	220±22	DC24/AC220	DC24/AC220	220±22
最大功率 Max.Power Consumption	W	≤300	≤500	≤500	≤500
适配电源型号Controller Model		FD-110B	TCDP-II、FD-IIB、 TD-II/TCP-II	TCDP-II、FD-IIB、 TD-II/TCP-II	TCDP-II、FD-IIB、 TD-II/TCP-II
建议前级泵 Backing Pump	L/s	2	4~8	4~8	4~8
重量 Weight	kg	7(ISO-K)8(CF)	19 (ISO-K) 20.5 (CF)	23 (ISO-K) 24.5 (CF)	19 (ISO-K) 20.5 (CF)
轴承 bearing		陶瓷轴承			

SERIES OF GREASE LUBRICATED TURBOPUMPS
脂润滑分子泵

型号 Model	单位Unit	FF-200/1300	FF-200/1300F	FF-200/1300N FF-200/1300A	FF-250/2000 FF-250/2000A/N
进气口法兰 Flange (In)		DN200 CF	DN200 CF	DN200 CF	DN250 CF
		DN200 ISO-K	DN200 ISO-K	DN200 ISO-K	DN250 ISO-K
排气口法兰 Flange (Out)	ISO-KF	DN40	DN40	DN40	DN50
抽速速率 Pumping Speed	L/s	N ₂ : 1300	N ₂ : 1300	N ₂ : 1300	N ₂ : 2000
		He: 1000	He: 1000	He: 1000	He: 1600
		H ₂ : 480	H ₂ : 480	H ₂ : 480	H ₂ : 740
		Ar: 1250	Ar: 1250	Ar: 1250	Ar: 1900
压缩比 Compression Ratio		N ₂ : 10 ⁹	N ₂ : 10 ⁹	N ₂ : 10 ⁹	N ₂ : 10 ⁸
		He: 10 ⁴	He: 10 ⁴	He: 10 ⁴	He: 10 ⁴
		H ₂ : 6×10 ³	H ₂ : 6×10 ³	H ₂ : 6×10 ³	H ₂ : 6×10 ³
		Ar: 10 ⁹	Ar: 10 ⁹	Ar: 10 ⁹	Ar: 10 ⁹
极限压强 Ultimated Pressure	Pa	CF: 6×10 ⁻⁷	CF: 6×10 ⁻⁷	CF: 6×10 ⁻⁷	CF: 6×10 ⁻⁷
		ISO-K: 6×10 ⁻⁶	ISO-K: 6×10 ⁻⁶	ISO-K: 6×10 ⁻⁶	ISO-K: 6×10 ⁻⁶
最大连续前级压强 Max. Continuous Fore-vacuum pressure	Pa	240	240	240	200
最大前级压强 Max. Fore-vacuum Pressure	Pa	N ₂ : 600	N ₂ : 600	N ₂ : 600	N ₂ : 650
最大气载量 Gas Throughput	sccm	N ₂ : 2500	N ₂ : 2500	N ₂ : 2500	N ₂ : 3200
		He: 1850	He: 1850	He: 1850	He: 2400
		H ₂ : 1450	H ₂ : 1450	H ₂ : 1450	H ₂ : 1850
		Ar: 950	Ar: 950	Ar: 950	Ar: 1200
额定转速 Rotation Speed	RPM	24000	24000	24000	24000
启动时间 Run-Up Time	min	≤9	≤9	≤9	≤9
冷却方式 Cooling Type,Standard		水冷 Water	水冷或风冷 Water or Air	水冷 Water	水冷 Water
冷却水流量 Cooling Water Consumption	L/min	≥1	≥1	≥1	≥1
冷却水温度 Cooling Water Temperature	℃	≤25	≤25	≤25	≤25
电源电压 Power Connection:Voltage	V AC	DC24/AC220	DC24/AC220	DC24/AC220	DC24/AC220
最大功率 Max.Power Consumption	W	≤500	≤500	≤500	≤750
适配电源型号Controller Model		TCDP-II、FD-IIB、 TD-II/TCP-II	TCDP-II、FD-IIB、 TD-II/TCP-II	TCDP-II、FD-IIB、 TD-II/TCP-II	TCDP-II、FD-IIB、 TD-II/TCP-II
建议前级泵 Backing Pump	L/s	15	15	15	15
重量 Weight	kg	29(ISO-K) 31(CF)	33(ISO-K) 35(CF)	29(ISO-K) 31(CF)	32(ISO-K) 35(CF)
轴承 bearing		陶瓷轴承			

SERIES OF MAGNETICALLY LEVIATATED TURBOPUMPS
磁悬浮分子泵



SERIES OF MAGNETICALLY LEVIATATED TURBOPUMPS

磁悬浮分子泵



磁悬浮分子泵介绍 INTRODUCTION OF MAGNETICALLY LEVITATED TURBO PUMPS

系列磁悬浮分子泵是KYKY为满足半导体刻蚀、离子注入、薄膜沉积、太阳能光伏、锂电复合集流体、真空镀膜、科学研究等领域开发的真空获得设备，抽速为300l/s-3260l/s，应用压力范围为20Pa到 10^{-8} Pa，包含ISO-K、ISO-F、ISO-CF三种气体入口连接形式，并有耐腐蚀、防沉积、分体等型号可供选择。

The series of magnetically levitated molecular pumps developed by KYKY are vacuum acquisition equipment, designed to meet the needs of various fields such as semiconductor etching, ion implantation, thin film deposition, solar photovoltaics, lithium battery composite current collection, vacuum coating, and scientific research. These pumps have pumping speeds ranging from 300l/s to 3260l/s, within a pressure range of 20Pa to 10^{-8} Pa. available with ISO-K, ISO-F, and ISO-CF inlet connections. Additionally, available for anti-corrosion, anti-deposition, and detachable type.

产品技术 TECHNOLOGY

磁轴承控制技术：为五自由度电磁轴承，利用国际先进控制理论，采用动态主动闭路磁浮控制技术，实现动态反应迅速、调节及时，保证高速运转轴系具有悬浮稳定、运转可靠等显著优点。

Control Technology for Magnetic Bearing: The adopted electromagnetic is a 5-axis magnetically levitated. This design can have dynamic response and timely adjustment by means of dynamic active closed-circuit magnetic suspension control technology based on advanced international control theory, so as to guarantee such significant advantages of the high-speed shafting as stable levitated and reliable operation.

电机驱动控制技术：系列磁悬浮分子泵全部采用高效高速直流电机和伺服控制系统，使得电机能量转化最大化、轴系转速自动补偿，实现启动平稳、运转可靠、动态能量自动调节功能。

Motor Drive Control Technology: High-efficiency high-speed DC motor and servo control system are applied to series magnetically levitated pumps, so to have maximum energy of the motor and to compensate the rotating speed of shafting automatically, thereby realizing stable start-up, reliable operation and automatic regulating function of dynamic energy.

碳纤维复合转子技术：系列磁悬浮分子泵涡轮转子采用高强度铝合金和轻质碳纤维复合而成，相对于全部铝合金转子而言，转子重量大大降低，强度大大提高，实现高转速、高性能、高可靠性目标。

Carbon fiber composite rotor technology: The turbo rotors of serial magnetic suspension molecular pumps are made by compounding high-strength aluminum alloy and light-weight carbon fiber. In comparison with all aluminum alloy rotors, the turbo rotors are characterized of great reduction of weight and great improvement of strength, so that targets of high rotating speed, high performance and high reliability are achieved.

抗腐蚀技术：系列磁悬浮分子泵采用泵腔内零部件表面进行特殊工艺处理，使零件表面能够耐受半导体制备等领域腐蚀性气体长期腐蚀，同时在泵轴系部分充入惰性气体，如 N_2 等，对泵内低真空部分进行保护，实现稳定长期抽除腐蚀性气体功能。

Corrosion resisting technology: Surfaces of parts in chambers of serial magnetic suspension molecular pumps are treated with special process, so that the surfaces can resist corrosion caused by corrosive gases in semiconductor manufacturing processes for a long time. In addition, such inert gases as N_2 are fully filled in shafting of the pumps to protect the low vacuum parts in the pumps, so that function of stably exhausting corrosive gases for long periods is realized.

加热温控体系：系列磁悬浮分子泵采用配置电加热装置和温度控制装置，实现运行过程对冷却水、气载发热、电加热、保护气体携带热量等动态监察与控制，能够使泵内长期恒定于某一特定温度，避免某些气态物质在常温下变成固态，沉积泵内，满足刻蚀等行业特殊工艺需求。

Heating temperature control system: Series magnetically levitated molecular pumps are equipped with an electric heater and a temperature controller, so that cooling water, air-bone heating, electric heating and heat carried by protective gases can be monitored and controlled during operation, temperature in the pumps can be maintained at some value for long term, some gaseous substances are not converted into solid substances at normal temperature and not deposited in the pumps, and requirements for special process such of etching can be met.

产品优势 ADVANTAGES

- ◆ 运转无摩擦，功耗低
Zero friction during operation, and low power consumption
- ◆ 整泵无需润滑，可以获得真正洁净高真空、超高真空
Easy to acquire really clean high vacuum and ultrahigh vacuum without lubrication for pumps
- ◆ 可以长期抽除腐蚀性气体
Capable of extracting corrosive gases for long term
- ◆ 对于常温下为固态，工艺过程为气态物质具有良好的抽除作用，并能够长期安全运行
Excellent extraction capability on substances which is a solid at normal temperature and a gas during process, with long-term safe operation
- ◆ 任意角度安装
Any mounting position
- ◆ 采用精密保护轴承，安全性高、使用寿命长
High safety and long service life due to protection of bearings with precision ceramic balls
- ◆ 具有发电功能，不怕突然断电
power generating function in case of sudden power-off
- ◆ 控制器具有丰富的外控和通信接口，可提供多样化的集中控制方式
A variety of integrated control modes provided due to multiple interfaces for external control and communication of controller.
- ◆ 满足定制化需求
Available for customization.

应用范围 APPLICATIONS

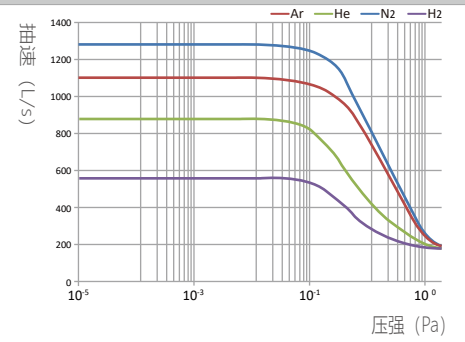
系列磁悬浮分子泵主要应用于半导体材料制备、芯片制造、工业镀膜、科研设备等领域，尤其适用于刻蚀、CVD、PVD、离子注入等存在腐蚀性气体和常温易凝结气体的抽除。

Series magnetically levitated molecular pumps are mainly applied to fields of semiconductor manufacturing, clip manufacturing, industrial plating and scientific instruments, especially to extraction of corrosive gases existing in etch, CVD, PVD and ion implantation and gases easily coagulated at normal temperature.

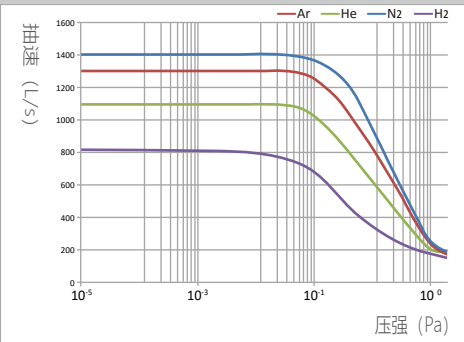
SERIES OF MAGNETICALLY LEVIATATED TURBOPUMPS
磁悬浮分子泵

应用领域		磁悬浮 标准系列、G系列	磁悬浮 CV(CVS)系列	磁悬浮 CS系列
分析仪器	电子显微镜 Electron microscopy			
	检漏 Leak detection			
	质谱 Mass spectrometry			
	表面分析 Surface analysis	■		■
	等离子体监测 Plasma monitoring	■		■
半导体	残余气体分析 Residual gas analysis	■		■
	光刻 Lithography	■	■	■
	物理气相沉积 PVD (Physical Vapor Deposition)	■	■	■
	化学气相沉积 CVD (Chemical Vapor Deposition)	■	■	■
	离子刻蚀 Plasma etching	■	■	■
	注入 - 源 Implantation – Source			■
	注入 - 光束 Implantation – Beamline	■		■
	检测 Inspection	■		■
	封装 Bonding			■
	分子束外延 MBE (Molecular Beam Epitaxy)	■		■
镀膜	真空锁，转运箱 Load-locks, transfer chambers, handling systems	■		■
	平板显示 Flat Panel Display (FPD)	■	■	■
	LED / OLED	■	■	■
	硬盘镀膜 Hard disk coating	■		■
	光伏 Photovoltaics	■		■
	玻璃镀膜 Glass coating (PVD)	■		■
	CD / DVD / Blu-ray production (PVD)	■		■
	光学镀膜 Optical coating (PVD)	■		■
	硬质涂层 Wear protection (PVD, CVD)	■		■
	卷绕镀膜 Web coating	■		■
工业	装饰镀膜 Decoration Coating			■
	医学技术 Medical technology	■		■
	工业检漏 Industrial leak detection			■
	电子束焊接 Electron beam welding	■		■
	隔离真空 Isolation vacuums			■
	灯管制造 Lamp and tube manufacturing			■
	热处理 Heat treatment			■
	真空干燥 Vacuum drying	■		■
	真空炉 Vacuum furnaces			■
	核研究 Nuclear research	■		■
研发	聚变技术 Fusion technology	■		■
	等离子研究 Plasma research	■	■	■
	粒子加速器 Particle accelerators	■	■	■
	模拟空间站 Space simulation	■		■
	冷冻研究 Cryogenic research	■		■
	基本粒子物理学 Elementary particle physics	■		■
	纳米技术 Nanotechnology	■		■
	生物技术 Biotechnology	■		■

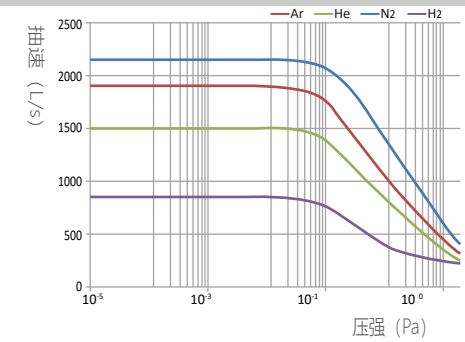
PUMPING SPEED
抽速曲线



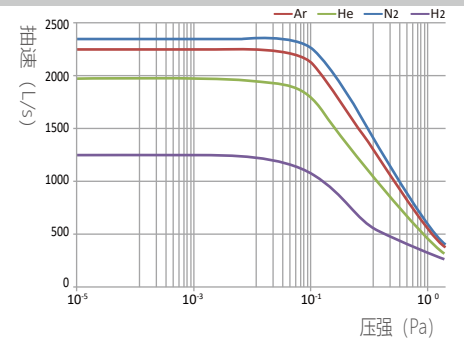
CXF-200/1401、CXF-200/1401CV、CXF-200/1401CS、CXF-200/1401CVS



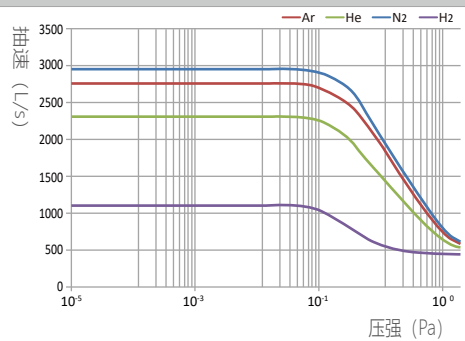
CXF-200/1402、CXF-200/1402CS



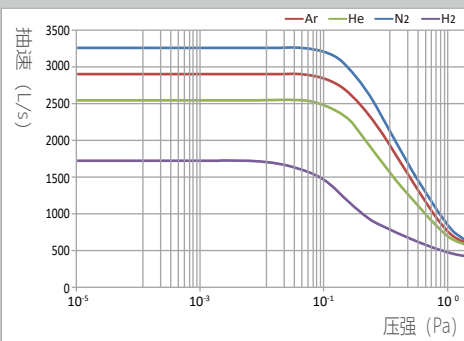
CXF-250/2301、CXF-250/2301CV、CXF-250/2301CS、CXF-250/2301CVS、CXF-250/2301G



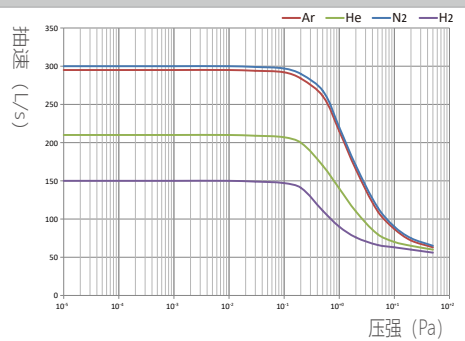
CXF-250/2302、CXF-250/2302CS



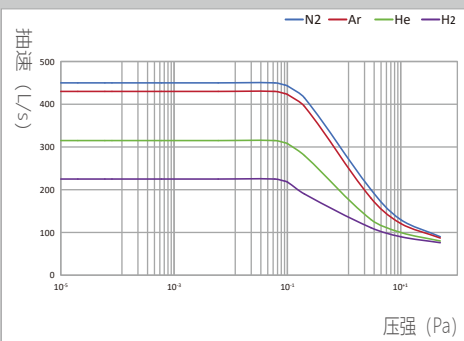
CXF-320/3001、CXF-320/3001CV、CXF-320/3001CS、CXF-320/3001CVS



CXF-320/3002、CXF-320/3002CS

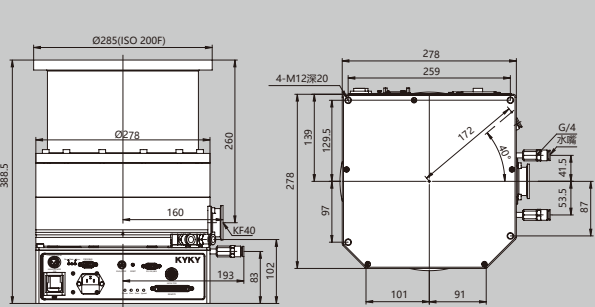


CXF-100/301CS

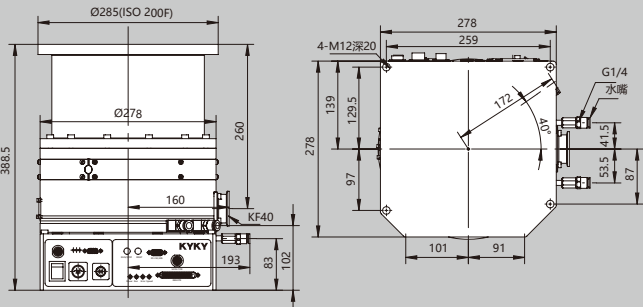


CXF-160/451CS

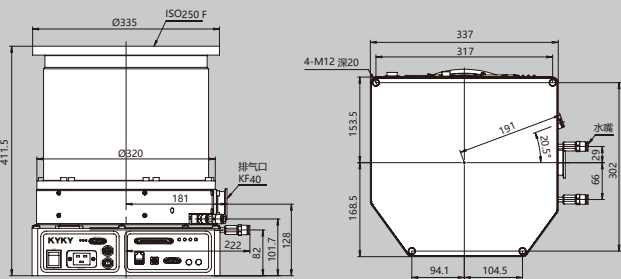
OUTLINE DIMENSIONS DRAWING(MM)
安装尺寸图



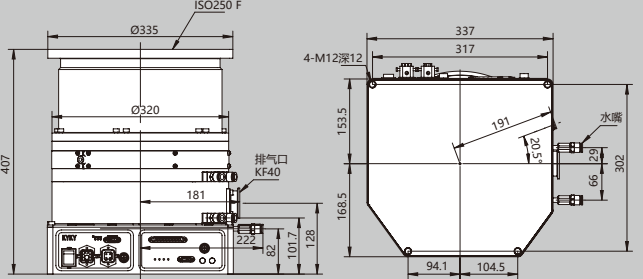
CXF-200/1401、CXF-200/1402



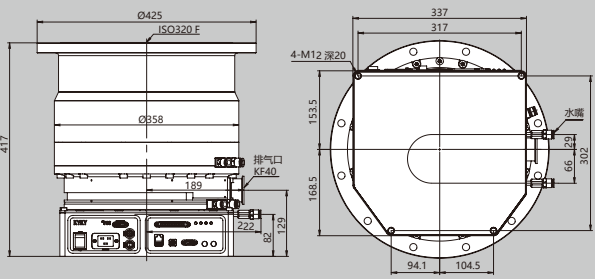
CXF-200/1401CV



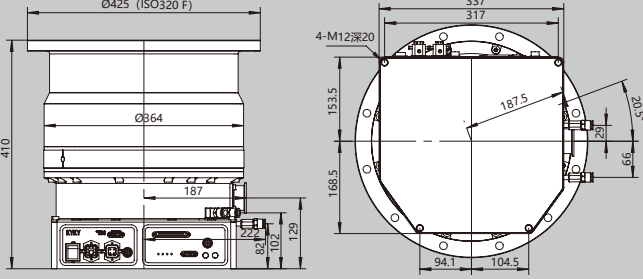
CXF-250/2301、CXF-250/2302



CXF-250/2301CV

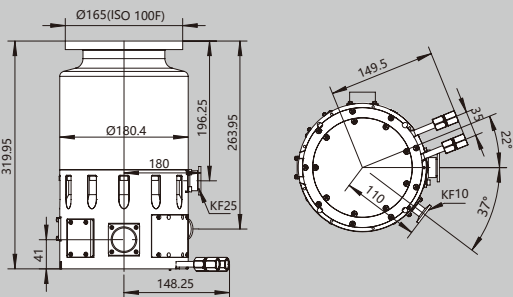


CXF-320/3001、CXF-320/3002

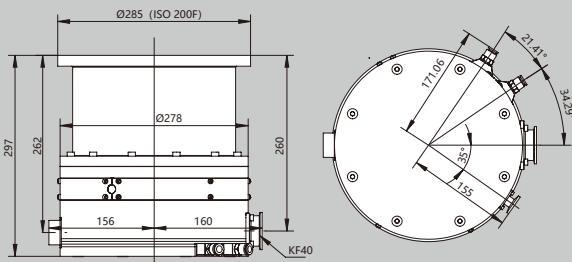


CXF-320/3001CV

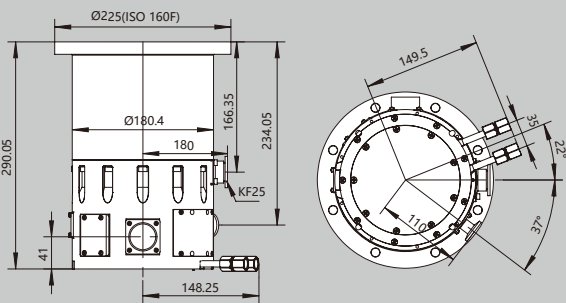
OUTLINE DIMENSIONS DRAWING(MM)
安装尺寸图



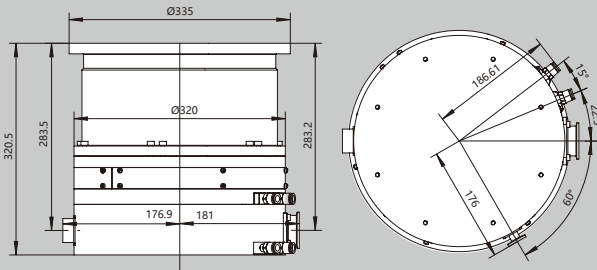
CXF-100/301CS



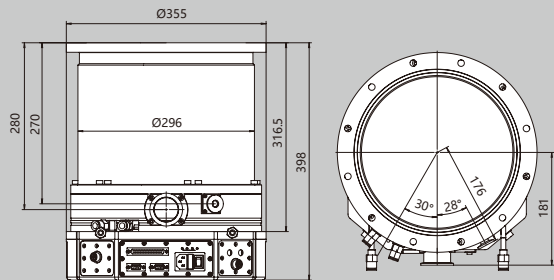
CXF-200/1401CS、CXF-200/1401CVS



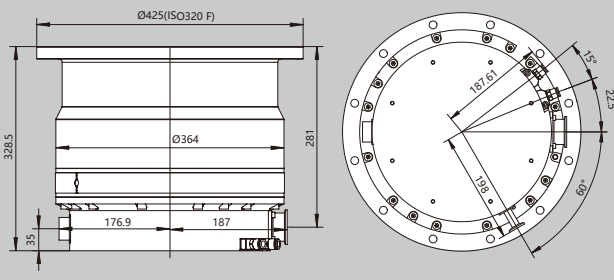
CXF-160/451CS



CXF-250/2301CS、CXF-250/2301CVS



CXF-250/2301G



CXF-320/3001CS、CXF-320/3001CVS

SERIES OF MAGNETICALLY LEVIATATED TURBOPUMPS
磁悬浮分子泵

型号 Model	单位Unit	CXF-200/1401	CXF-200/1402	CXF-250/2301	CXF-250/2302	CXF-320/3001	CXF-320/3002
进气口法兰 Flange (In)		DN200 ISO F (标配Standard)	DN200 ISO F (标配Standard)	DN250 ISO F (标配Standard)	DN250 ISO F (标配Standard)	DN320 ISO F (标配 standard)	DN320 ISO F (标配Standard)
		DN200 ICF (可选Optional)	DN200 ICF (可选Optional)	DN250 ICF (可选Optional)	DN250 ICF (可选Optional)	—	—
		DN200 LF (可定制Customized)	DN200 LF (可定制Customized)	DN250 LF (可定制 Customized)	DN250 LF (可定制 Customized)	—	—
排气口法兰 Flange (Out)		KF40	KF40	KF40	KF40	KF40	KF40
抽速速率 Pumping Speed	L/s	N ₂ : 1280	N ₂ : 1400	N ₂ : 2150	N ₂ : 2360	N ₂ : 2950	N ₂ : 3260
		Ar: 1100	Ar: 1300	Ar: 1900	Ar: 2260	Ar: 2750	Ar: 2900
		He: 880	He: 1100	He: 1500	He: 1980	He: 2300	He: 2550
		H ₂ : 560	H ₂ : 820	H ₂ : 850	H ₂ : 1250	H ₂ : 1100	H ₂ : 1730
压缩比 Compression Ratio		N ₂ : > 10 ⁸	N ₂ : > 10 ⁸	N ₂ : > 10 ⁸	N ₂ : > 10 ⁸	N ₂ : > 10 ⁸	N ₂ : > 10 ⁸
		Ar: > 10 ⁸	Ar: > 10 ⁸	Ar: > 10 ⁸	Ar: > 10 ⁸	Ar: > 10 ⁸	Ar: > 10 ⁸
		He: > 10 ⁴	He: > 10 ⁴	He: > 10 ⁴	He: > 10 ⁴	He: > 10 ⁴	He: > 10 ⁴
		H ₂ : > 10 ³	H ₂ : > 10 ³	H ₂ : > 10 ³	H ₂ : > 10 ³	H ₂ : > 10 ³	H ₂ : > 10 ³
极限压强 Ultimated Pressure	Pa	10 ⁻⁷ (橡胶密封 Rubber seal)	10 ⁻⁷ (橡胶密封 Rubber seal)	10 ⁻⁷ (橡胶密封 Rubber seal)	10 ⁻⁷ (橡胶密封 Rubber seal)	10 ⁻⁷ (橡胶密封 Rubber seal)	10 ⁻⁷ (橡胶密封 Rubber seal)
		10 ⁻⁸ (金属密封 metal seal)	10 ⁻⁸ (金属密封 metal seal)	10 ⁻⁸ (金属密封 metal seal)	10 ⁻⁸ (金属密封 metal seal)	—	—
最大瞬时入口流量 Max. Instantaneous Inlet flow	sccm	1100	1200	1300	1500	2100	2400
保护气入口法兰 (选配) Purge Port Flange(optional)		KF10	KF10	KF10	KF10	KF10	KF10
推荐保护气体流量 Protective Gas Flow	sccm	20	20	50	50	50	50
最大允许磁场强度 Magnetic Field, Max	mT	径向 Radial: 3	径向 Radial: 3	径向 Radial: 3	径向 Radial: 3	径向 Radial: 3	径向 Radial: 3
		轴向 Axial: 15	轴向 Axial: 15	轴向 Axial: 15	轴向 Axial: 15	轴向 Axial: 15	轴向 Axial: 15
额定转速 Rotation Speed	RPM	30000	33000	27000	30000	21000	24000
启动时间 Run-Up Time	min	≤6	≤7	≤8	≤9	≤9	≤10
停机时间 Run Down time	min	≤8	≤9	≤11	≤12	≤12	≤14
冷却方式 Cooling Type,Standard		水冷 Water	水冷 Water	水冷 Water	水冷 Water	水冷 Water	水冷 Water
冷却水流量 Cooling Water Consumption	l/min	2	2	3	3	3	3
冷却水温度 Cooling Water Temperature	℃	20±5	20±5	20±5	20±5	20±5	20±5
电源电压 Power Supply :Voltage	V AC	220±10%, 50Hz 110±10%, 60Hz	220±10%, 50Hz 110±10%, 60Hz	220±10%, 50Hz 110±10%, 60Hz	220±10%, 50Hz 110±10%, 60Hz	220±10%, 50Hz 110±10%, 60Hz	220±10%, 50Hz 110±10%, 60Hz
适配电源型号 Controller Model		CXFD-1001	CXFD-1001	CXFD-1601	CXFD-1601	CXFD-1601	CXFD-1601
建议前级泵 Backing Pump	L/s	≥16	≥16	≥22	≥22	≥30	≥30
重量 Weight	kg	51	51	60	60	76	76

※ DN320 ISO-F（泵口设有密封槽，含密封胶圈1个，无需中心支架） DN320 ISO-F（O-ring sealed flange with seal groove, no center bracket required.）

SPECIFICATIONS
技术指标

型号 Model	单位Unit	CXF-200/1401CV	CXF-250/2301CV	CXF-320/3001CV
进气口法兰 Flange (In)		DN200 ISO-F DN200 CF	DN250 ISO-F DN250 CF	DN320 ISO-F
加热温度(Heating temperature)		60至70℃	60至70℃	60至70℃
排气口法兰 Flange (Out)		KF40	KF40	KF40
抽速速率 Pumping Speed	L/s	N ₂ : 1280	N ₂ : 2150	N ₂ : 2950
		Ar: 1100	Ar: 1900	Ar: 2750
		He: 880	He: 1500	He: 2300
		H ₂ : 560	H ₂ : 850	H ₂ : 1100
压缩比 Compression Ratio		N ₂ : 10 ⁸	N ₂ : 10 ⁸	N ₂ : 10 ⁸
		Ar: 10 ⁸	Ar: 10 ⁸	Ar: 10 ⁸
		He: 10 ⁴	He: 10 ⁴	He: 10 ⁴
		H ₂ : 10 ³	H ₂ : 10 ³	H ₂ : 10 ³
极限压强 Ultimated Pressure	Pa	10 ⁻⁷ (橡胶密封) 10 ⁻⁸ (金属密封)	10 ⁻⁷ (橡胶密封) 10 ⁻⁸ (金属密封)	10 ⁻⁷ (橡胶密封)
最大瞬时入口流量 Max. Instantaneous Inlet flow	sccm	1100	1300	2100
保护气入口法兰 (选配) Purge Port Flange(optional)		KF10	KF10	KF10
推荐保护气体流量 Protective Gas Flow	sccm	20	50	50
最大允许磁场强度 Magnetic Field, Max	mT	径向 Radial: 3	径向 Radial: 3	径向 Radial: 3
		轴向 Axial: 15	轴向 Axial: 15	轴向 Axial: 15
额定转速 Rotation Speed	RPM	30000	27000	21000
启动时间 Run-Up Time	min	≤6	≤8	≤9
停机时间 Run Down time	min	≤8	≤11	≤12
冷却方式 Cooling Type,Standard		水冷 Water	水冷 Water	水冷 Water
冷却水流量 Cooling Water Consumption	l/min	2	3	3
冷却水温度 Cooling Water Temperature	℃	20±5	20±5	20±5
电源电压 Power Supply :Voltage	V AC	220±10%, 50Hz 110±10%, 60Hz	220±10%, 50Hz 110±10%, 60Hz	220±10%, 50Hz 110±10%, 60Hz
最大功率Max power		1000	1500	1500
适配电源型号Controller Model		CXFD-1001H	CXFD-1601H	CXFD-1601H
建议前级泵Backing Pump	L/s	≥16	≥22	≥30
重量 Weight	kg	51(ISO-F)	60(ISO-F)	76

SERIES OF MAGNETICALLY LEVIATATED TURBOPUMPS
磁悬浮分子泵

型号 Model	单位Unit	CXF-200/1401CS	CXF-200/1402CS	CXF-250/2301CS	CXF-250/2302CS	CXF-320/3001CS	CXF-320/3002CS
进气口法兰 Flange (In)		DN200 ISO-F	DN200 ISO-F	DN250 ISO-F	DN250 ISO-F	DN320 ISO-F	DN320 ISO-F
		DN200 CF	DN200 CF	DN250 CF	DN250 CF		
排气口法兰 Flange (Out)		KF40	KF40	KF40	KF40	KF40	KF40
抽速速率 Pumping Speed	L/s	N ₂ : 1280	N ₂ : 1400	N ₂ : 2150	N ₂ : 2360	N ₂ : 2950	N ₂ : 3260
		Ar: 1100	Ar: 1300	Ar: 1900	Ar: 2260	Ar: 2750	Ar: 2900
		He: 880	He: 1100	He: 1500	He: 1980	He: 2300	He: 2550
		H ₂ : 560	H ₂ : 820	H ₂ : 850	H ₂ : 1250	H ₂ : 1100	H ₂ : 1730
压缩比 Compression Ratio		N ₂ : > 10 ⁸	N ₂ : > 10 ⁸	N ₂ : > 10 ⁸	N ₂ : > 10 ⁸	N ₂ : > 10 ⁸	N ₂ : > 10 ⁸
		Ar: > 10 ⁸	Ar: > 10 ⁸	Ar: > 10 ⁸	Ar: > 10 ⁸	Ar: > 10 ⁸	Ar: > 10 ⁸
		He: > 10 ⁴	He: > 10 ⁴	He: > 10 ⁴	He: > 10 ⁴	He: > 10 ⁴	He: > 10 ⁴
		H ₂ : > 10 ³	H ₂ : > 10 ³	H ₂ : > 10 ³	H ₂ : > 10 ³	H ₂ : > 10 ³	H ₂ : > 10 ³
极限压强 Ultimated Pressure	Pa	10 ⁻⁷ (橡胶密封Rubber seal)		10 ⁻⁷ (橡胶密封Rubber seal)		10 ⁻⁷ (橡胶密封Rubber seal)	10 ⁻⁷ (橡胶密封Rubber seal)
		10 ⁻⁸ (金属密封metal seal)		10 ⁻⁸ (金属密封metal seal)			
最大瞬时入口流量 Max. Instantaneous Inlet flow	sccm	1100	1200	1300	1500	2100	2400
保护气入口法兰 (选配) Purge Port Flange(optional)		KF10	KF10	KF10	KF10	KF10	KF10
推荐保护气体流量 Protective Gas Flow	sccm	20	20	50	50	50	50
最大允许磁场强度 Magnetic Field, Max	mT	径向 Radial: 3	径向 Radial: 3	径向 Radial: 3	径向 Radial: 3	径向 Radial: 3	径向 Radial: 3
		轴向 Axial: 15	轴向 Axial: 15	轴向 Axial: 15	轴向 Axial: 15	轴向 Axial: 15	轴向 Axial: 15
额定转速 Rotation Speed	RPM	30000	33000	27000	30000	21000	24000
启动时间 Run-Up Time	min	≤6	≤7	≤8	≤9	≤9	≤10
停机时间 Run Down time	min	≤8	≤9	≤11	≤12	≤12	≤14
冷却方式 Cooling Type,Standard		水冷 Water	水冷 Water	水冷 Water	水冷 Water	水冷 Water	水冷 Water
冷却水流量 Cooling Water Consumption	l/min	2	2	3	3	3	3
冷却水温度 Cooling Water Temperature	℃	20±5	20±5	20±5	20±5	20±5	20±5
电源电压 Power Supply :Voltage	V AC	220±10%, 50Hz 110±10%, 60Hz	220±10%, 50Hz 110±10%, 60Hz	220±10%, 50Hz 110±10%, 60Hz	220±10%, 50Hz 110±10%, 60Hz	220±10%, 50Hz 110±10%, 60Hz	220±10%, 50Hz 110±10%, 60Hz
适配电源型号Controller Model		CXFD-1001S	CXFD-1001S	CXFD-1001S	CXFD-1001S	CXFD-1001S	CXFD-1001S
最大功率		1000	1000	1000	1000	1000	1000
控制线缆长度Cable length	m	5或10 (选配)	5或10 (选配)	5或10 (选配)	5或10 (选配)	5或10 (选配)	5或10 (选配)
建议前级泵Backing Pump	L/s	≥16	≥16	≥22	≥22	≥30	≥30
重量 Weight	kg	51	51	60	60	76	76

SPECIFICATIONS
技术指标

型号 Model	单位Unit	CXF-200/1401CVS	CXF-250/2301CVS	CXF-320/3001CVS
进气口法兰 Flange (In)		DN200 ISO-F	DN250 ISO-F	DN320 ISO-F
		DN200 CF	DN250 ISO-F	
排气口法兰 Flange (Out)		KF40	KF40	KF40
加热温度(Heating temperature)		60至70℃	60至70℃	60至70℃
抽速速率 Pumping Speed	L/s	N ₂ : 1280	N ₂ : 2150	N ₂ : 2950
		Ar: 1100	Ar: 1900	Ar: 2750
		He: 880	He: 1500	He: 2300
		H ₂ : 560	H ₂ : 850	H ₂ : 1100
压缩比 Compression Ratio		N ₂ : 10 ⁸	N ₂ : 10 ⁸	N ₂ : 10 ⁸
		Ar: 10 ⁸	Ar: 10 ⁸	Ar: 10 ⁸
		He: 10 ⁴	He: 10 ⁴	He: 10 ⁴
		H ₂ : 10 ³	H ₂ : 10 ³	H ₂ : 10 ³
极限压强 Ultimated Pressure	Pa	10 ⁻⁷ (橡胶密封Rubber seal) 10 ⁻⁸ (金属密封metal seal)	10 ⁻⁷ (橡胶密封Rubber seal) 10 ⁻⁸ (金属密封metal seal)	10 ⁻⁷ (橡胶密封Rubber seal)
最大瞬时入口流量 Max. Instantaneous Inlet flow	sccm	1100	1300	2100
保护气入口法兰 (选配) Purge Port Flange(optional)		KF10	KF10	KF10
推荐保护气体流量 Protective Gas Flow	sccm	20	50	50
最大允许磁场强度 Magnetic Field, Max	mT	径向 Radial: 3	径向 Radial: 3	径向 Radial: 3
		轴向 Axial: 15	轴向 Axial: 15	轴向 Axial: 15
额定转速 Rotation Speed	RPM	30000	27000	21000
启动时间 Run-Up Time	min	≤6	≤8	≤9
停机时间 Run Down time	min	≤8	≤11	≤12
冷却方式 Cooling Type,Standard		水冷 Water	水冷 Water	水冷 Water
冷却水流量 Cooling Water Consumption	l/min	2	3	3
冷却水温度 Cooling Water Temperature	℃	20±5	20±5	20±5
电源电压 Power Supply :Voltage	V AC	220±10%, 50Hz 110±10%, 60Hz	220±10%, 50Hz 110±10%, 60Hz	220±10%, 50Hz 110±10%, 60Hz
适配电源型号Controller Model		CXFD-1001S	CXFD-1001S	CXFD-1001S
控制线缆长度Cable length	m	5或10 (选配)	5或10 (选配)	5或10 (选配)
建议前级泵Backing Pump	L/s	≥16	≥22	≥30
重量 Weight	kg	44(ISO-F)	57(ISO-F)	73(ISO-F)

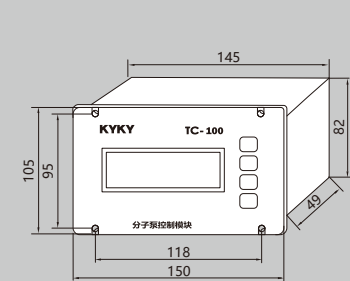
SERIES OF MAGNETICALLY LEVIATATED TURBOPUMPS
磁悬浮分子泵

型号 Model	单位Unit	CXF-100/301CS	CXF-160/451CS	CXF-250/2301G
进气口法兰 Flange (In)		DN100 ISO-K	DN160 ISO-F	DN250 ISO-F
			DN160 CF	DN250 CF
排气口法兰 Flange (Out)		KF25	KF25	KF40
抽速速率 Pumping Speed	L/s	N ₂ : 300	N ₂ : 450	N ₂ : 2150
		Ar: 295	Ar: 430	Ar: 1900
		He: 210	He: 315	He: 1500
		H ₂ : 150	H ₂ : 225	H ₂ : 850
压缩比 Compression Ratio		N ₂ : 10 ⁷	N ₂ : 10 ⁷	N ₂ : 10 ⁸
		Ar: 10 ⁷	Ar: 10 ⁷	Ar: 10 ⁸
		He: 10 ⁴	He: 10 ⁴	He: 10 ⁴
		H ₂ : 10 ³	H ₂ : 10 ³	H ₂ : 10 ³
极限压强 Ultimated Pressure	Pa	10 ⁻⁷ (橡胶密封Rubber seal) 10 ⁻⁸ (金属密封metal seal)	10 ⁻⁷ (橡胶密封Rubber seal) 10 ⁻⁸ (金属密封metal seal)	10 ⁻⁷ (橡胶密封Rubber seal) 10 ⁻⁸ (金属密封metal seal)
最大瞬时入口流量 Max. Instantaneous Inlet flow	sccm	500	500	1300
保护气入口法兰 (选配) Purge Port Flange(optional)		KF10	KF10	KF10
推荐保护气体流量 Protective Gas Flow	sccm	20	20	50
最大允许磁场强度 Magnetic Field, Max	mT	径向 Radial: 3	径向 Radial: 3	径向 Radial: 3
		轴向 Axial: 15	轴向 Axial: 15	轴向 Axial: 15
额定转速 Rotation Speed	RPM	33000	33000	27000
启动时间 Run-Up Time	min	≤4	≤4	≤8
停机时间 Run Down time	min	≤7	≤7	≤11
冷却方式 Cooling Type,Standard		水冷 Water	水冷 Water	水冷 Water
冷却水流量 Cooling Water Consumption	l/min	2	2	3
冷却水温度 Cooling Water Temperature	℃	20±5	20±5	20±5
电源电压 Power Supply :Voltage	V AC	220±10%, 50Hz 110±10%, 60Hz	220±10%, 50Hz 110±10%, 60Hz	220±10%, 50Hz 110±10%, 60Hz
适配电源型号Controller Model		CXFD-1001S	CXFD-1001S	CXFD-1601G
控制线缆长度Cable length	m	5或10 (选配)	5或10 (选配)	
建议前级泵Backing Pump	L/s	≥8	≥8	≥22
重量 Weight	kg	26(ISO-F)	29(ISO-F)	60(ISO-F)

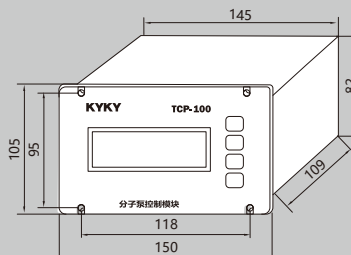
TMP CONTROLLER
分子泵控制器



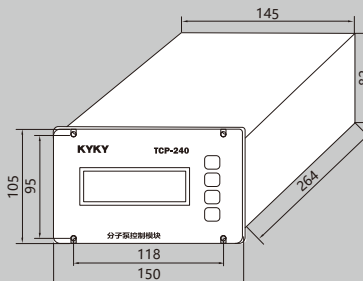
OUTLINE DIMENSIONS DRAWING(mm)
安装尺寸图



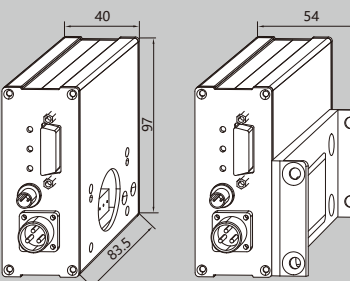
TC-100



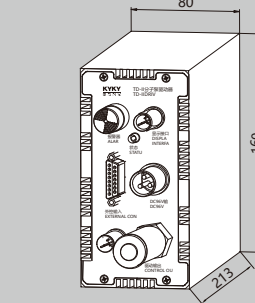
TCP-100



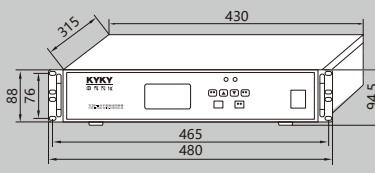
TCP-240



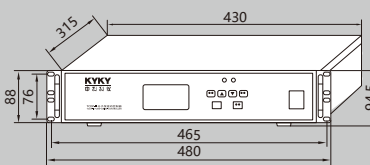
TD-25, 25J, 150J, 80, 80HV, 150, 300



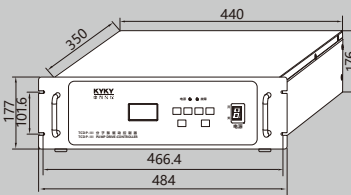
TD-II



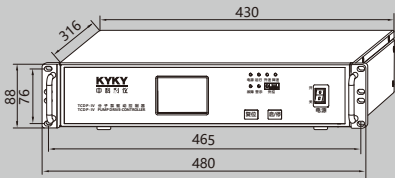
TCP-II



TCDP-II



TCDP-III



TCDP-IV

SPECIFICATIONS
技术指标

型号 Model		TCP-100	TCP-240	TC-100
分子泵型号 TMPs Models	单位Unit	FF-40/25、FF-40/25J、 FF-63/80、FF-100/150、 FF-100/150J	FF-40/25、FF-40/25J、 FF-63/80、FF-100/150、 FF-100/150J、FF-100/300	FF-40/25、FF-40/25J、 FF-63/80、FF-100/150、 FF-100/150J、FF-100/300
输入电压 Input voltage	V	110VAC±10%/ 220VAC±10%	110VAC±10%/ 220VAC±10%	24VDC±5%
输入电源频率 Output frequency	Hz	47 ~ 63	47 ~ 63	
最大输出功率 Power	W	100	240	
输出电压 Output power	VDC	24VDC±5%	24VDC±5%	
显示方式 Display		LCD	LCD	LCD
使用环境温度Working Environment temp	℃	5 ~ 40	5 ~ 40	5 ~ 40
环境湿度 Humidity	%	80	80	80
重量 Weight	kg	0.8	2.6	0.4

型号 Model		TD-25J/TD-25	TD-80	TD-80HV	TD-150J/TD-150	TD-300
分子泵型号 TMPs Models	单位 Unit	FF-40/25、 FF-40/25J	FF-63/80	FF-63/80HV	FF-100/150、 FF-100/150J	FF-100/300
输入电压 Input voltage	VDC	24VDC±5%	24VDC±5%	24VDC±5%	24VDC±5%	24VDC±5%
最大输出功率 Max output power	W	75	75	75	200	200
输出频率 Frequency	Hz	600	1200	1200	704/850	950
最大加速电压 Max acceleration voltage	V	11	18.5	18	15/18	19
最大加速电流 Max acceleration current	A	6.5	5.5	5.5	10.5	13
加速时间 Run-up time	min	3	2.5	2.5	3	3.5
关机减速时间 Shut-off time	min	2.25/3.5	4.5	4	2/6	12
使用环境温度Working Environment temp	℃	5-40	5-40	5-40	5-40	5-40
环境湿度 Humidity	%	80	80	80	80	80
长×宽×高 L*W*H	mm	83.5×40×97	83.5×40×97	83.5×40×97	83.5×40×97	83.5×40×97
重量 Weight	kg	0.3	0.3	0.3	0.3	0.3

TMP CONTROLLER
分子泵控制器

型号 Model		TCDP-II、TD-II/TCP-II			
分子泵型号 TMPs Models	单位 Unit	FF-160/500G、620、 620N、620NE、620F、 620FE、620E	FF-160/620C、620CE	FF-160/700、700E、 700F、700A、700N	FF-200/1200、1200N、 FF-250/1600G、
输入电压 Input voltage	V	220VAC±10% 110VAC±10%	220VAC±10% 110VAC±10%	220VAC±10% 110VAC±10%	220VAC±10% 110VAC±10%
输入电源频率 Input frequency	Hz	50/60Hz (±5%)	50/60Hz (±5%)	50/60Hz (±5%)	50/60Hz (±5%)
最大输出功率 Max output power	W	750	750	750	750
输出频率 Output frequency	Hz	450±10	600±10	600±10	400±10
输出电压Output voltage	VAC	≤66	≤66	≤66	≤66
正常工作电流 Operation current	A	≤4	≤5	≤2	≤5
最大启动电流 Max starting current	A	≤14	≤12	≤9	≤16
启动加速时间 Run-up time	min	5	7	5	6'30"
关机减速时间 Shut-off time	min	6	8	11	9'40"
重量 Weight	kg	8.8	8.8	8.8	8.8
启动/停车控制 Start/Stop	键盘、外控端子和上位机控制。 Available with Key panel , external control terminals and computer				
显示功能 Display	液晶显示屏显示当前输出频率、输出电流、当前输出电压、故障类型以及功能码参数、操作参数和分子泵型号；两个LED 指示灯指示驱动控制器的上电状态和故障状态。In the front panel: Output frequency, Output current, Output voltage, error type and function code, operation code and TMP model, 2 separate LED lights indicate the states of Electrification and Error.				
保护功能 Protection	驱动控制器输入欠压，过压，过流，过热，分子泵过载，限电流输出，过流及过热保护，用户密码错误，外部干扰保护。 In case of undervoltage, overvoltage, overcurrent, overheat, overload, current output limit, overcurrent and overheat protection, Password error, external interference protection.				
环境条件 Working environment	设备场所：无强烈腐蚀性气体和粉尘；环境温度：-10℃ ~ + 50℃； Facility environment: no highly corrosive gases and dust, Temperature: -10℃ ~ + 50℃ 环境湿度：90%以下（无水珠凝结现象）；振动强度：0.5g（加速度）以下。 Humidity: < 90% (no condensation), Vibration Strength: < 0.5g (gravity acceleration)				

SPECIFICATIONS
技术指标

型号 Model		TCDP-II、TD-II/TCP-II			
分子泵型号 TMPs Models	单位 Unit	FF-200/1200C、1200CE、1200G	FF-200/1300、1300E、1300F、1300A、1300N	F-250/1500、1500N、1500E	FF-250/2000、2000E
输入电压 Input voltage	V	220VAC±10% 110VAC±10%	220VAC±10% 110VAC±10%	220VAC±10% 110VAC±10%	220VAC±10% 110VAC±10%
输入电源频率 Input frequency	Hz	50/60Hz (±5%)	50/60Hz (±5%)	50/60Hz (±5%)	50/60Hz (±5%)
最大输出功率 Max output power	W	750	750	750	750
输出频率 Output frequency	Hz	450±10	400±10	350±10	400±10
输出电压Output voltage	VAC	≤66	≤66	≤66	≤66
正常工作电流 Operation current	A	≤5	≤3	≤5	≤3
最大启动电流 Max starting current	A	≤16	≤10	≤20	≤16
启动加速时间 Run-up time	min	6'30"	6'30"	6'30"	6'30"
关机减速时间 Shut-off time	min	11	11	9'40"	10
重量 Weight	kg	8.8	8.8	8.8	8.8
启动/停车控制 Start/Stop	键盘、外控端子和上位机控制。 Available with Key panel , external control terminals and computer				
显示功能 Display	液晶显示屏显示当前输出频率、输出电流、当前输出电压、故障类型以及功能码参数、操作参数和分子泵型号；两个LED 指示灯指示驱动控制器的上电状态和故障状态。In the front panel: Output frequency, Output current, Output voltage, error type and function code, operation code and TMP model, 2 separate LED lights indicate the states of Electrification and Error.				
保护功能 Protection	驱动控制器输入欠压，过压，过流，过热，分子泵过载，限电流输出，过流及过热保护，用户密码错误，外部干扰保护。 In case of undervoltage, overvoltage, overcurrent, overheat, overload, current output limit, overcurrent and overheat protection, Password error, external interference protection.				
环境条件 Working environment	设备场所：无强烈腐蚀性气体和粉尘；环境温度：-10℃ ~ + 50℃； Facility environment: no highly corrosive gases and dust, Temperature: -10℃ ~ + 50℃ 环境湿度：90%以下（无水珠凝结现象）；振动强度：0.5g（加速度）以下。 Humidity: < 90% (no condensation), Vibration Strength: < 0.5g (gravity acceleration)				

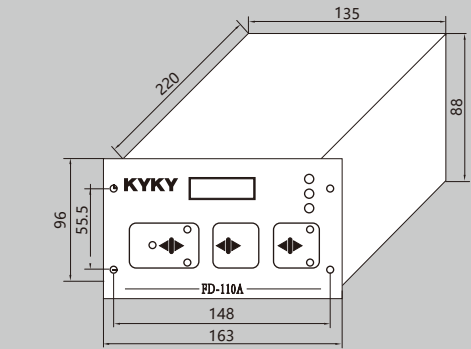
TMP CONTROLLER
分子泵控制器

型号 Model		TCDP-III	TCDP-IV
分子泵型号 TMPs Models	单位 Unit	F-400/3500B	FF-400/5000
输入电压 Input voltage	V	220VAC±10% 110VAC±10%	220VAC±10% 110VAC±10%
输入电源频率 Input frequency	Hz	50/60Hz (±5%)	50/60Hz (±5%)
最大输出功率 Max output power	W	1500	1000
输出频率 Output frequency	Hz	225±10	350
输出电压Output voltage	VAC	≤66	≤63
正常工作电流 Operation current	A	≤8.5	≤10
最大启动电流 Max starting current	A	≤21	≤17
启动加速时间 Run-up time	min	18	15
关机减速时间 Shut-off time	min	36	15
重量 Weight	kg	9.5	9
启动/停车控制 Start/Stop	键盘、外控端子和上位机控制。 Available with Key panel , external control terminals and computer		
显示功能 Display	液晶显示屏显示当前输出频率、输出电流、当前输出电压、故障类型以及功能码参数、操作参数和分子泵型号；两个LED 指示灯指示驱动控制器的上电状态和故障状态。In the front panel: Output frequency, Output current, Output voltage, error type and function code, operation code and TMP model, 2 separate LED lights indicate the states of Electrification and Error.		
保护功能 Protection	驱动控制器输入欠压，过压，过流，过热，分子泵过载，限电流输出，过流及过热保护，用户密码错误，外部干扰保护。 In case of undervoltage, overvoltage, overcurrent, overheat, overload, current output limit, overcurrent and overheat protection, Password error, external interference protection.		
环境条件 Working environment	设备场所：无强烈腐蚀性气体和粉尘；环境温度：-10℃ ~ + 50℃； Facility environment: no highly corrosive gases and dust, Temperature: -10℃ ~ + 50℃ 环境湿度：90%以下（无水珠凝结现象）；振动强度：0.5g（加速度）以下。 Humidity: < 90% (no condensation), Vibration Strength: < 0.5g (gravity acceleration)		

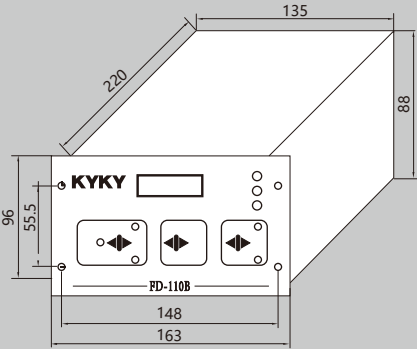
TMP CONTROLLER
分子泵控制器



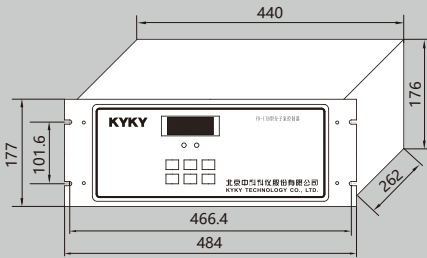
OUTLINE DIMENSIONS DRAWING(mm)
安装尺寸图



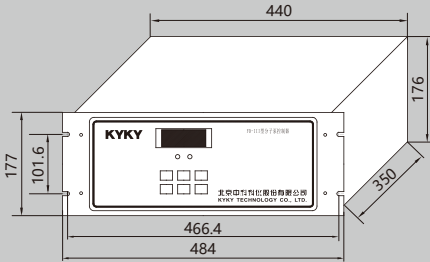
FD-110A



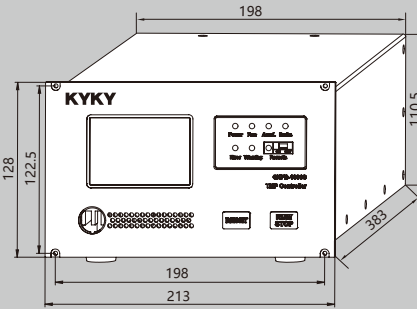
FD-110B



FD-IIB



FD-III



CXFD-1001S

SPECIFICATIONS
技术指标

型号 Model		FD-110A	FD-110B
分子泵型号 TMPs Models	单位 Unit	F-100/150	FF-100/110
输入电压 Input voltage	V	220VAC±20%	220VAC±20%
输入电源频率 Input frequency	Hz	50/60Hz (±3%)	50/60Hz (±3%)
最大输出功率 Max output power	W	150	120
输出频率 Output frequency	Hz	705±10	705±10
输出电压Output voltage	V	≤40	≤40
正常工作电流 Operation current	A	≤7	≤7
最大启动电流 Max starting current	A	≤3	≤3
启动加速时间 Run-up time	min	5 ~ 40	5 ~ 40
重量 Weight	kg	2	2
启动/停车控制 Start/Stop	键盘、外控端子和上位机控制。 Available with Key panel , external control terminals and computer		
显示功能 Display	液晶显示屏显示当前输出频率、输出电流、当前输出电压、故障类型以及功能码参数、操作参数和分子泵型号；两个LED 指示灯指示驱动控制器的上电状态和故障状态。In the front panel: Output frequency, Output current, Output voltage, error type and function code, operation code and TMP model, 2 separate LED lights indicate the states of Electrification and Error.		
保护功能 Protection	驱动控制器输入欠压，过压，过流，过热，分子泵过载，限电流输出，过流及过热保护，用户密码错误，外部干扰保护。 In case of undervoltage, overvoltage, overcurrent, overheat, overload, current output limit, overcurrent and overheat protection, Password error, external interference protection.		
环境条件 Working environment	设备场所：无强烈腐蚀性气体和粉尘；环境温度：-10℃ ~ + 50℃； Facility environment: no highly corrosive gases and dust, Temperature: -10℃ ~ + 50℃ 环境湿度：90%以下（无水珠凝结现象）；振动强度：0.5g（加速度）以下。 Humidity: < 90% (no condensation), Vibration Strength: < 0.5g (gravity acceleration)		

TMP CONTROLLER
分子泵控制器

型号 Model		FD-IIB			
分子泵型号 TMPs Models	单位 Unit	FF-160/500G、620、620N、620E、620NE、620F	FF-160/620C、620CE	FF-160/700、700E、700A、700F、700N	FF-200/1200、1200N FF-250/1600G
输入电压 Input voltage	V	220VAC±10% 110VAC±10%	220VAC±10% 110VAC±10%	220VAC±10% 110VAC±10%	220VAC±10% 110VAC±10%
输入电源频率 Input frequency	Hz	50/60Hz (±5%)	50/60Hz (±5%)	50/60Hz (±5%)	50/60Hz (±5%)
最大输出功率 Max output power	W	750	750	750	750
输出频率 Output frequency	Hz	450±10	600±10	600±10	400±10
输出电压Output voltage	V	≤66	≤66	≤66	≤66
正常工作电流 Operation current	A	≤4	≤5	≤2	≤5
最大启动电流 Max starting current	A	≤14	≤12	≤9	≤16
启动加速时间 Run-up time	min	4’30	6	4	6
关机减速时间 Shut-off time	min	6	8	11	10
重量 Weight	kg	18.5	18.5	18.5	18.5
启动/停车控制 Start/Stop	键盘、外控端子和上位机控制。 Available with Key panel , external control terminals and computer				
显示功能 Display	液晶显示屏显示当前输出频率、输出电流、当前输出电压、故障类型以及功能码参数、操作参数和分子泵型号；两个LED 指示灯指示驱动控制器的上电状态和故障状态。In the front panel: Output frequency, Output current, Output voltage, error type and function code, operation code and TMP model, 2 separate LED lights indicate the states of Electrification and Error.				
保护功能 Protection	驱动控制器输入欠压，过压，过流，过热，分子泵过载，限电流输出，过流及过热保护，用户密码错误，外部干扰保护。 In case of undervoltage, overvoltage, overcurrent, overheat, overload, current output limit, overcurrent and overheat protection, Password error, external interference protection.				
环境条件 Working environment	设备场所：无强烈腐蚀性气体和粉尘；环境温度：-10℃ ~ + 50℃； Facility environment: no highly corrosive gases and dust, Temperature: -10℃ ~ + 50℃ 环境湿度：90%以下（无水珠凝结现象）；振动强度：0.5g（加速度）以下。 Humidity: < 90% (no condensation), Vibration Strength: < 0.5g (gravity acceleration)				

SPECIFICATIONS
技术指标

型号 Model		FD-IIB			
分子泵型号 TMPs Models	单位 Unit	FF-200/1200C、1200G、1200CE	FF-200/1300、1300E、1300F、1300A、1300N	FF-250/1500、1500N、1500E	FF-250/2000、2000A、2000N、2000E
输入电压 Input voltage	V	220VAC±10% 110VAC±10%	220VAC±10% 110VAC±10%	220VAC±10% 110VAC±10%	220VAC±10% 110VAC±10%
输入电源频率 Input frequency	Hz	50/60Hz (±5%)	50/60Hz (±5%)	50/60Hz (±5%)	50/60Hz (±5%)
最大输出功率 Max output power	W	750	750	750	750
输出频率 Output frequency	Hz	450±10	400±10	350±10	400±10
输出电压Output voltage	V	≤66	≤66	≤66	≤66
正常工作电流 Operation current	A	≤5	≤3	≤5	≤3
最大启动电流 Max starting current	A	≤16	≤10	≤20	≤16
启动加速时间 Run-up time	min	6	6	8	6
关机减速时间 Shut-off time	min	11	11	10	10
重量 Weight	kg	18.5	18.5	18.5	18.5
启动/停车控制 Start/Stop	键盘、外控端子和上位机控制。 Available with Key panel , external control terminals and computer				
显示功能 Display	液晶显示屏显示当前输出频率、输出电流、当前输出电压、故障类型以及功能码参数、操作参数和分子泵型号；两个LED 指示灯指示驱动控制器的上电状态和故障状态。In the front panel: Output frequency, Output current, Output voltage, error type and function code, operation code and TMP model, 2 separate LED lights indicate the states of Electrification and Error.				
保护功能 Protection	驱动控制器输入欠压，过压，过流，过热，分子泵过载，限电流输出，过流及过热保护，用户密码错误，外部干扰保护。 In case of undervoltage, overvoltage, overcurrent, overheat, overload, current output limit, overcurrent and overheat protection, Password error, external interference protection.				
环境条件 Working environment	设备场所：无强烈腐蚀性气体和粉尘；环境温度：-10℃ ~ + 50℃； Facility environment: no highly corrosive gases and dust, Temperature: -10℃ ~ + 50℃ 环境湿度：90%以下（无水珠凝结现象）；振动强度：0.5g（加速度）以下。 Humidity: < 90% (no condensation), Vibration Strength: < 0.5g (gravity acceleration)				

TMP CONTROLLER
分子泵控制器

型号 Model		FD-III	
分子泵型号 TMPs Models	单位 Unit	F-400/3500B	F-400/4500
输入电压 Input voltage	V	220VAC±10% 110VAC±10%	220VAC±10% 110VAC±10%
输入电源频率 Input frequency	Hz	50/60Hz (±5%)	50/60Hz (±5%)
最大输出功率 Max output power	W	1100	1100
输出频率 Output frequency	Hz	225±10	255±10
输出电压Output voltage	V	≤66	≤66
正常工作电流 Operation current	A	≤8.5	≤8.5
最大启动电流 Max starting current	A	≤21	≤20
启动加速时间 Run-up time	min	18	10
关机减速时间 Shut-off time	min	36	18
重量 Weight	kg	27.5	27.5
启动/停车控制 Start/Stop	键盘、外控端子和上位机控制。 Available with Key panel , external control terminals and computer		
显示功能 Display	液晶显示屏显示当前输出频率、输出电流、当前输出电压、故障类型以及功能码参数、操作参数和分子泵型号；两个LED 指示灯指示驱动控制器的上电状态和故障状态。In the front panel: Output frequency, Output current, Output voltage, error type and function code, operation code and TMP model, 2 separate LED lights indicate the states of Electrification and Error.		
保护功能 Protection	驱动控制器输入欠压，过压，过流，过热，分子泵过载，限电流输出，过流及过热保护，用户密码错误，外部干扰保护。 In case of undervoltage, overvoltage, overcurrent, overheat, overload, current output limit, overcurrent and overheat protection, Password error, external interference protection.		
环境条件 Working environment	设备场所：无强烈腐蚀性气体和粉尘；环境温度：-10℃ ~ + 50℃； Facility environment: no highly corrosive gases and dust, Temperature: -10℃ ~ + 50℃ 环境湿度：90%以下（无水珠凝结现象）；振动强度：0.5g（加速度）以下。 Humidity: < 90% (no condensation), Vibration Strength: < 0.5g (gravity acceleration)		

SPECIFICATIONS
技术指标

型号 Model		CXFD-1001S			
分子泵型号 TMPs Models	单位 Unit	CXF-200/1401CS CXF-200/1401CVS	CXF-250/2301CS CXF-250/2301CVS	CXF-320/3001CS CXF-320/3001CVS	CXF-200/1402CS
输入电压 Input voltage	V	220VAC±10% 110VAC±10%	220VAC±10% 110VAC±10%	220VAC±10% 110VAC±10%	220VAC±10% 110VAC±10%
输入电源频率 Input frequency	Hz	50/60Hz (±5%)	50/60Hz (±5%)	50/60Hz (±5%)	50/60Hz (±5%)
最大输出功率 Max output power	W	1000	1000	1000	1000
输出频率 Output frequency	Hz	500Hz	450Hz	350Hz	550Hz
输出电压Output voltage	V	≤55/66VAC	≤55/66VAC	≤55/66VAC	≤55/66VAC
最大启动电流 Max starting current	A	≤15	≤15	≤15	≤15
启动加速时间 Run-up time	min	<7	<9	<9	<7
关机减速时间 Shut-off time	min	<9	<15	<15	<9
重量 Weight	kg	10	10	10	10
启动/停车控制 Start/Stop	键盘、外控端子和上位机控制。 Available with Key panel , external control terminals and computer				
显示功能 Display	液晶显示屏显示当前输出频率、输出电流、当前输出电压、故障类型以及功能码参数、操作参数和分子泵型号；两个LED 指示灯指示驱动控制器的上电状态和故障状态。In the front panel: Output frequency, Output current, Output voltage, error type and function code, operation code and TMP model, 2 separate LED lights indicate the states of Electrification and Error.				
保护功能 Protection	驱动控制器输入欠压，过压，过流，过热，分子泵过载，限电流输出，外部干扰保护。 Incase of undervoltage, overvoltage, overcurrent, overheat, overload, current output limit,external interference protection.				
环境条件 Working environment	设备场所：无强烈腐蚀性气体和粉尘；环境温度：-10℃～+50℃； Facilityenvironment: no highlycorrosive gases and dust, Temperature: -10℃～+50℃ 环境湿度：90%以下（无水珠凝结现象）；振动强度：0.5g（加速度）以下。 Humidity: < 90% (no condensation), Vibration Strength: < 0.5g (gravity acceleration)				

TMP CONTROLLER
分子泵控制器

型号 Model		CXFD-1001S			
分子泵型号 TMPs Models	单位 Unit	CXF-250/2302CS	CXF-320/3002CS	CXF-100/301CS	CXF-160/451CS
输入电压 Input voltage	V	220VAC±10% 110VAC±10%	220VAC±10% 110VAC±10%	220VAC±10% 110VAC±10%	220VAC±10% 110VAC±10%
输入电源频率 Input frequency	Hz	50/60Hz (±5%)	50/60Hz (±5%)	50/60Hz (±5%)	50/60Hz (±5%)
最大输出功率 Max output power	W	1000	1000	1000	1000
输出频率 Output frequency	Hz	500Hz	400Hz	550Hz	550Hz
输出电压Output voltage	V	≤55/66VAC	≤55/66VAC	≤55/66VAC	≤55/66VAC
最大启动电流 Max starting current	A	≤15	≤15	≤15	≤15
启动加速时间 Run-up time	min	<9	<9	<4	<4
关机减速时间 Shut-off time	min	<15	<15	<6	<6
重量 Weight	kg	10	10	10	10
启动/停车控制 Start/Stop	键盘、外控端子和上位机控制。 Available with Key panel , external control terminals and computer				
显示功能 Display	液晶显示屏显示当前输出频率、输出电流、当前输出电压、故障类型以及功能码参数、操作参数和分子泵型号；两个LED 指示灯指示驱动控制器的上电状态和故障状态。In the front panel: Output frequency, Output current, Output voltage, error type and function code, operation code and TMP model, 2 separate LED lights indicate the states of Electrification and Error.				
保护功能 Protection	驱动控制器输入欠压，过压，过流，过热，分子泵过载，限电流输出，外部干扰保护。 Incase of undervoltage, overvoltage, overcurrent, overheat, overload, current output limit,external interference protection.				
环境条件 Working environment	设备场所：无强烈腐蚀性气体和粉尘；环境温度：-10℃～+50℃； Facilityenvironment: no highlycorrosive gases and dust, Temperature: -10℃～+50℃ 环境湿度：90%以下（无水珠凝结现象）；振动强度：0.5g（加速度）以下。 Humidity: < 90% (no condensation), Vibration Strength: < 0.5g (gravity acceleration)				

TURBO PUMPING STATIONS
分子泵机组



FJ-80机组

FJ-300Z机组



FJ-110机组

FJ-150机组

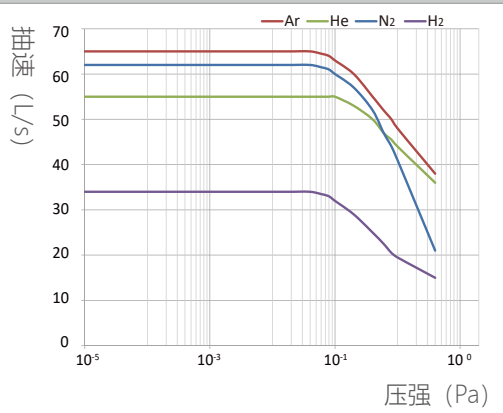
FJ-300机组



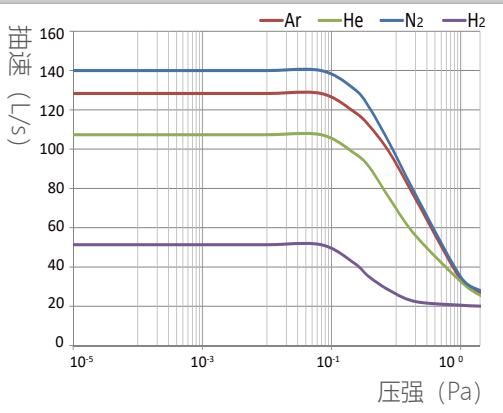
FJ-620机组

FJ-700机组

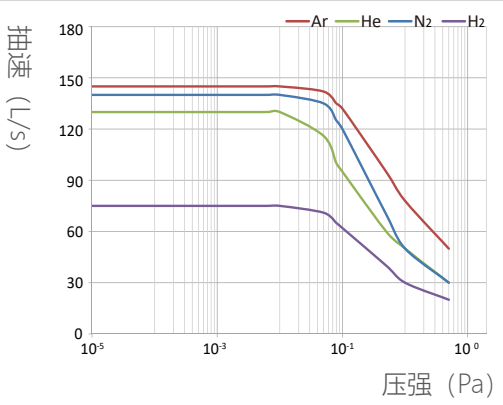
PUMPING SPEED
抽速曲线



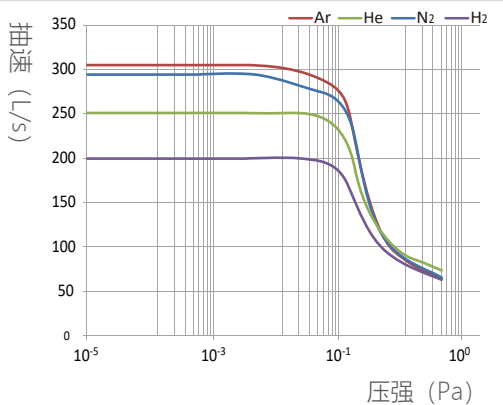
FJ-80机组



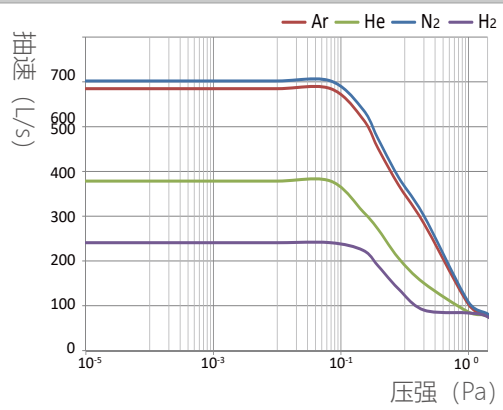
FJ-110机组



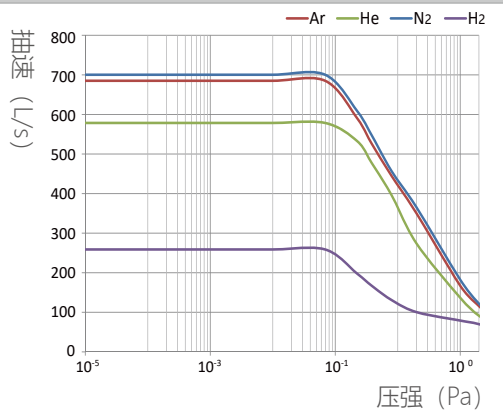
FJ-150机组



FJ-300、FJ-300Z机组



FJ-620机组



FJ-700机组

SPECIFICATIONS
技术指标

型号 Model	单位 Unit	FJ-80 FJ-80G	FJ-300Z FJ-300ZG
进气口法兰 Flange (In)		DN63 ISO-K	KF25
		DN63 CF	KF25
排气口法兰 Flange (Out)		Φ8快插接头(FJ-80) Φ8 Fast connection-peg for FJ-80	KF25
		Φ10快插接头(FJ-80G) Φ10 Fast connection-peg for FJ-80G	
抽速速率 Pumping Speed	L/s	N ₂ : 62	N ₂ : 296
		He: 55	He: 250
		H ₂ : 34	H ₂ : 200
		Ar: 65	Ar: 305
压缩比 Compression Ratio		N ₂ : 10 ⁹	N ₂ : 10 ⁹
		He: 10 ⁵	He: 6×10 ⁵
		H ₂ : 10 ⁴	H ₂ : 10 ⁵
		Ar: 10 ⁹	Ar: 10 ⁹
出厂指标Ex-factory Indicators	Pa	5×10 ⁻⁵	5×10 ⁻⁵
建议启动压强 Recommended fore-vacuum pressure	Pa	< 10	< 10
前级泵型号 Forevacuum pump		GHD-031B for FJ-80 SVF-E1-20 for FJ-80G	RV4 for FJ-300Z VPSL15 or WXP-3A-03 for FJ-300ZG
冷却方式 Cooling type,Standard		风冷Air Cooling	风冷Air Cooling
输入电源 Power Supply	V/Hz	220V±20V 10A 50Hz	220V±20V 16A 50Hz
环境温度 Environment Temperature	℃	5 ~ 32	5 ~ 32
相对湿度 Relative Humidity	RH	≤80%	≤80%
安装方式 Mounting position		垂直 Veritcal	垂直 Veritcal
长×宽×高 L*W*H	mm	433×320×280	590×616×1300
重量 Weight	kg	16 ~ 21	123(FJ-300Z) 120 or 126(FJ-300ZG)

TURBO PUMPING STATIONS
分子泵机组

型号 Model	单位Unit	FJ-110	FJ-150	FJ-300
进气口法兰 Flange (In)		KF25	KF25	KF25
排气口法兰 Flange (Out)		KF25	KF25	KF25
抽速速率 Pumping Speed	L/s	N ₂ : 110	N ₂ : 140	N ₂ : 296
		He: 100	He: 130	He: 250
		H ₂ : 50	H ₂ : 75	H ₂ : 200
		Ar: 100	Ar: 145	Ar: 305
压缩比 Compression Ratio		N ₂ : 10 ⁸	N ₂ : 10 ⁷	N ₂ : 10 ⁹
		He: 10 ²	He: 6×10 ³	He: 6×10 ⁵
		H ₂ : 5×10 ²	H ₂ : 10 ³	H ₂ : 10 ⁵
		Ar: 10 ⁸	Ar: 10 ⁷	Ar: 10 ⁹
出厂指标 Ex-factory Indicators	Pa	5×10 ⁻⁵	5×10 ⁻⁵	5×10 ⁻⁵
建议启动压强 Recommended Forevacuum Pressure	Pa	< 10	< 10	< 10
前级泵型号 Forevacuum Pump		RV-4	RV-4	RV-4
冷却方式 Cooling Type,Standard		风冷或水冷 Air Cooling or Water Cooling	风冷 Air Cooling	风冷 Air Cooling
冷却水流量 Cooling Water Consumption	L/min	>1	>1	>1
冷却水温度 Cooling Water Temperature	℃	≤25	≤25	≤25
输入电源 Power Supply		220V±20V 16A 50Hz	220V±20V 16A 50Hz	220V±20V 16A 50Hz
环境温度 (℃) Environment temperature	水冷方式 Water cooling	5℃ ~ 40℃		
	风冷方式 Air cooling	5℃ ~ 32℃		
相对湿度 Relative Humidity	RH	≤80%	≤80%	≤80%
安装方式 Mounting position		垂直 Vertical	垂直 Vertical	垂直 Vertical
适配电源型号 Controller Model		FD-110B	TCP-100	TCP-240
长×宽×高 L*W*H (高=地面-过渡腔电离规处)	mm	500×540×920	500×540×920	500×540×920
重量 Weight	kg	52	52.6	55

SPECIFICATIONS
技术指标

型号 Model	单位Unit	FJ-620	FJ-620C	FJ-620F
进气口法兰 Flange (In)		KF25 KF40	KF25 KF40	KF25 KF40
排气口法兰 Flange (Out)		KF25	KF25	KF25
抽速速率 Pumping Speed	L/s	N ₂ : 600	N ₂ : 600	N ₂ : 600
		He: 380	He: 380	He: 380
		H ₂ : 240	H ₂ : 240	H ₂ : 240
		Ar: 580	Ar: 580	Ar: 580
压缩比 Compression Ratio		N ₂ : 10 ⁹	N ₂ : 10 ⁹	N ₂ : 10 ⁹
		He: 10 ⁴	He: 10 ⁵	He: 10 ⁵
		H ₂ : 6×10 ³	H ₂ : 6×10 ⁴	H ₂ : 6×10 ⁴
		Ar: 10 ⁹	Ar: 10 ⁹	Ar: 10 ⁹
出厂指标 Ex-factory Indicators	Pa	5×10 ⁻⁵	5×10 ⁻⁵	5×10 ⁻⁵
建议启动压强 Recommended Forevacuum Pressure	Pa	< 10	< 10	< 10
前级泵型号 Forevacuum Pump		RV-6	RV-6	RV-6
冷却方式 Cooling Type,Standard		水冷 Water	水冷 Water	风冷 Air
冷却水流量 Cooling Water Consumption	L/min	>1	>1	>1
冷却水温度 Cooling Water Temperature	℃	≤25	≤25	≤25
输入电源 Power Supply		380V±20V/50Hz	380V±20V/50Hz	380V±20V/50Hz
环境温度 (℃) Environment temperature	水冷方式 Water cooling	5℃ ~ 40℃		
	风冷方式 Air cooling	5℃ ~ 32℃		
相对湿度 Relative Humidity	RH	≤80%	≤80%	≤80%
安装方式 Mounting position		垂直 Vertical	垂直 Vertical	垂直 Vertical
适配电源型号 Controller Model		TCDP-II	TCDP-II	TCDP-II
长×宽×高 L*W*H (高=地面-过渡腔电离规处)	mm	550×690×960(LF) 550×690×970(CF)	550×690×960(LF) 550×690×970(CF)	550×690×960(LF) 550×690×970(CF)
重量 Weight	kg	117	117	117

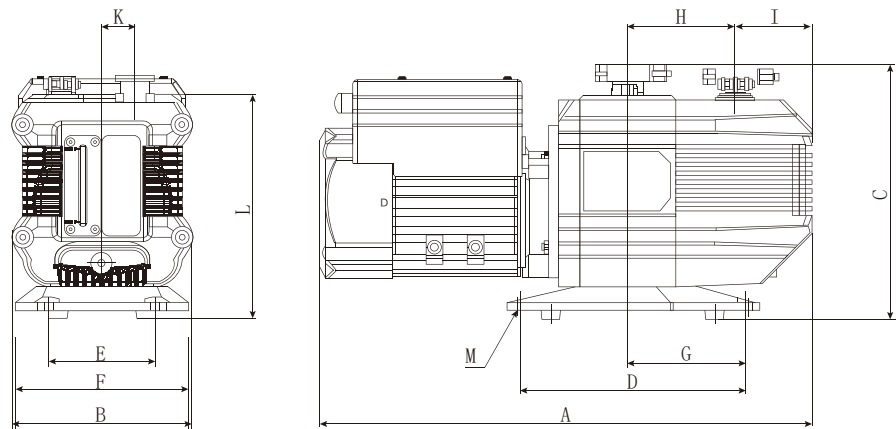
TURBO PUMPING STATIONS
分子泵机组

型号 Model	单位Unit	FJ-700	FJ-700F
进气口法兰 Flange (In)		KF25 KF40	KF25 KF40
排气口法兰 Flange (Out)		KF25	KF25
抽速速率 Pumping Speed	L/s	N ₂ : 700	N ₂ : 700
		He: 580	He: 580
		H ₂ : 260	H ₂ : 260
		Ar: 680	Ar: 680
压缩比 Compression Ratio		N ₂ : 10 ⁹	N ₂ : 10 ⁹
		He: 10 ⁷	He: 10 ⁵
		H ₂ : 6×10 ⁶	H ₂ : 6×10 ⁶
		Ar: 10 ⁹	Ar: 10 ⁹
出厂指标 Ex-factory Indicators	Pa	5×10 ⁻⁵	5×10 ⁻⁵
建议启动压强 Recommended Forevacuum Pressure	Pa	< 10	< 10
前级泵型号 Forevacuum Pump		RV-6	RV-6
冷却方式 Cooling Type,Standard		水冷 Water	风冷 Air Cooling
冷却水流量 Cooling Water Consumption	L/min	>1	>1
冷却水温度 Cooling Water Temperature	℃	≤25	≤25
输入电源 Power Supply		380V±20V/50Hz	380V±20V/50Hz
环境温度 (℃) Environment temperature	水冷方式 Water cooling	5℃ ~ 40℃	
	风冷方式 Air cooling	5℃ ~ 32℃	
相对湿度 Relative Humidity	RH	≤80%	≤80%
安装方式 Mounting position		垂直 Vertical	垂直 Vertical
适配电源型号 Controller Model		TCDP-II	TCDP-II
长×宽×高 L*W*H (高=地面-过渡腔电离规处)	mm	550×690×840(LF) 550×690×850(CF)	550×690×912(LF) 550×690×922(CF)
重量 Weight	kg	135	139

ROTARY VANE PUMP
旋片式真空泵



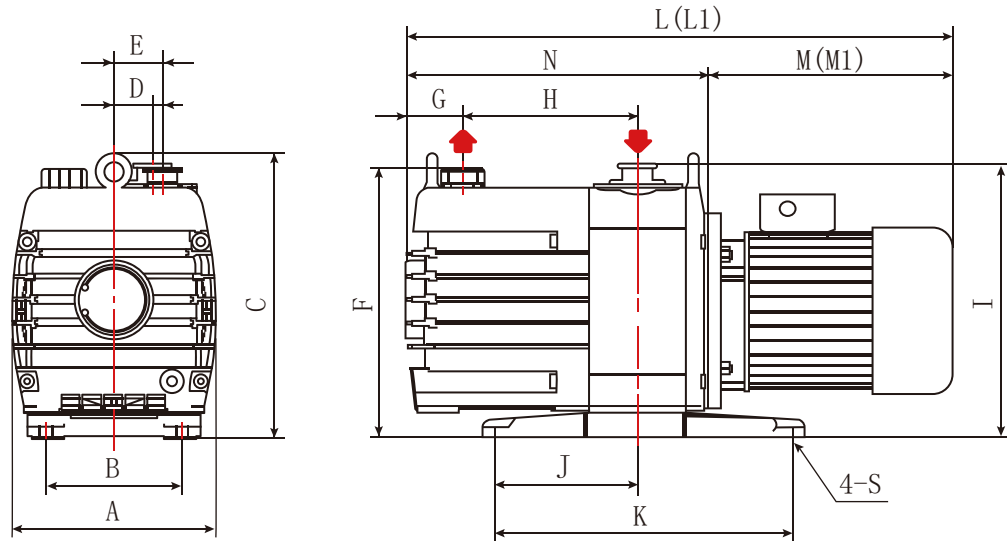
DIMENSIONS
外形尺寸图



型号 Model: RV2, RV4

型 号 Model	A	B	C	D	E	F	G	H	I	K	L	M
RV2	510	185	263	235	110	178	123	110	80	34	232	Φ9
RV4	535	185	263	235	110	178	123	110	105	34	232	Φ9

ROTARY VANE PUMP
旋片式真空泵



型号 Model: RV6、RV8、RV14、RV18、RV24

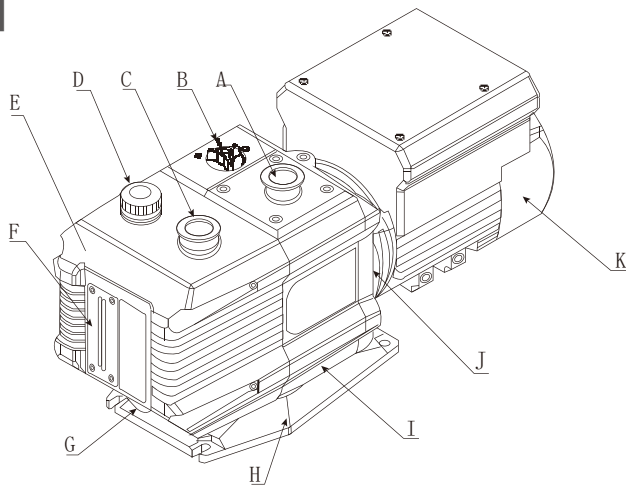
单位Unit: mm

型 号 Model	A	B	C	D	E	F	G	H	I	J	K	N	S	M	L	M1	L1
RV6	210	140	297	40	50	272	55	180	280	147	310	310	Φ12	250	560	288	598
RV8	210	140	297	40	50	272	58	210	280	147	310	340	Φ12	270	610	288	628
RV14	250	185	387	30	50	368	80	255	370	305	550	428	Φ14	286	714	341	769
RV18	250	185	387	30	50	368	80	255	370	305	550	433	Φ14	318	751	400	828
RV24	280	185	441	30	50	412	85	295	415	355	600	479	Φ14	318	797	400	879

SPECIFICATIONS
技术指标

型号 Model		单位 Unit	RV2	RV4	RV6	RV8	RV14	RV18	RV24
抽气速率	50Hz	L/S	2	4	6	8	14	18	24
Pumping speed	60Hz	L/S	2.4	4.8	7.2	9.6	16.8	21.6	28.8
极限全压力 Ultimate total pressure	气镇关 Without gas ballast	Pa	4x10 ⁻¹						
	气镇Ⅰ档 Gas ballast I				0.8				
	气镇Ⅱ档 Gas ballast II		4						
注油量 Oil consumption		L	1.0	1.1	2.0	2.3	4.5	4.5	6.5
进气口 Inlet flange		DN	25KF		25KF/40KF		40KF		
排气口 Outlet flange		DN	25KF				40KF		
电机功率 Power(Single phase /Three)		kW	0.55 (单/三相) (Single phase /Three)		1.1/0.75 (单/三相) (Single phase /Three)		1.5(三相) (Three phase)	2.2(三相) (Three phase)	
转速	50Hz	R.P.M	1420						
Rotation speed	60Hz		1710						
噪音 (关气镇) Noise(without gas ballast)		dB	50	50	52	52	56	58	58
重量 Weight		kg	27	28	35	37	66	77	88

SECTIONAL DRAWING
部件图



- A、进气口 inlet flange
- B、气镇阀 gas ballast switch
- C、排气口 outlet flange
- D、注油塞 oil filling plug
- E、油箱 oil tank
- F、油标 oil pointer
- G、放油塞 drain plug
- H、底座 installation base
- I、泵基座 pump base
- J、电机座 motor base
- K、电机 motor

GATE VALVE
插板阀

CC- 型超高真空手动插板阀系列
CC-type Ultrahigh Vacuum Manual Gate Valve Series

CC-型超高真空手动插板阀型号：
CC-type Ultrahigh Vacuum Manual Gate Valve Series:

CC-35B、CC-50B、CC-63B、CC-80A、CC-100A、
CC-150A、CC-200A、CC-250A、CC-320B、CC-400B

阀门标准口形式：
Standard Flange:

CF、ISO-F

SPECIFICATIONS
技术指标

型号 Model		CC-35B	CC-50B	CC-63B	CC-80A
接口法兰 Flange		CF/ISO-F			
公称通径 nominal Diameter		DN35	DN50	DN63	DN80
适用范围(Pa) range of application		10 ⁵ —10 ⁻⁶	10 ⁵ —10 ⁻⁶	10 ⁵ —10 ⁻⁶	10 ⁵ —10 ⁻⁶
漏率(Pa·m ³ / s) Leakage rate		≤1.3×10 ⁻¹⁰	≤1.3×10 ⁻¹⁰	≤1.3×10 ⁻¹⁰	≤1.3×10 ⁻¹⁰
驱动方式 Drive mode		手动 Manual	手动 Manual	手动 Manual	手动 Manual
阀门位置指示 Valve In-place Indication		机械式 Mechanical	机械式 Mechanical	机械式 Mechanical	机械式 Mechanical
耐烘烤温度(℃) Baking temperature	开 on	150	150	150	150
	关 off	120	120	120	120
安装方向Mounting position		任意Any	任意Any	任意Any	任意Any
重量 Weight (kg)		5	7	9	10

GATE VALVE
插板阀

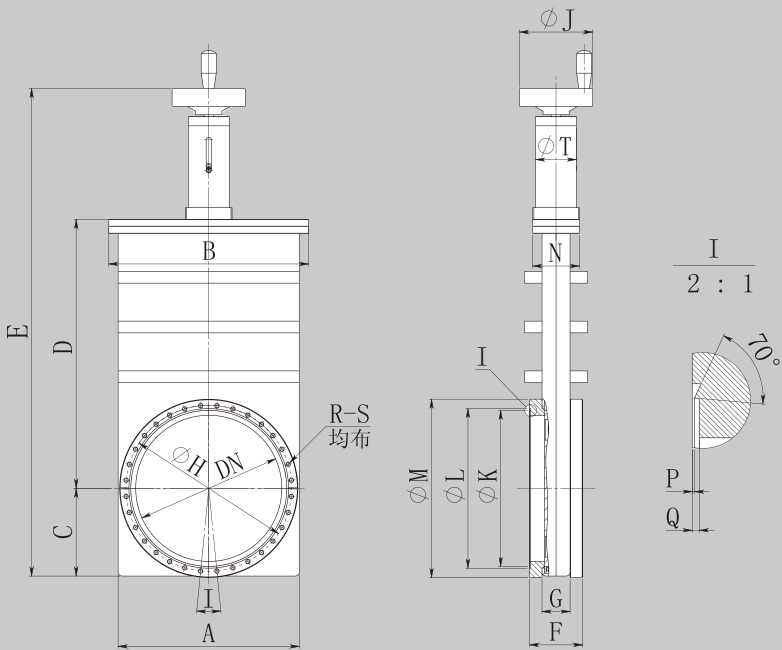
型号 Model		CC-100A	CC-150A	CC-200A	CC-250A
接口法兰 Flange		CF/ISO-F			
公称通径 nominal Diameter		DN100	DN150	DN200	DN250
适用范围(Pa) range of application		10 ⁵ —10 ⁻⁶	10 ⁵ —10 ⁻⁶	10 ⁵ —10 ⁻⁶	10 ⁵ —10 ⁻⁶
漏率(Pa·m ³ /s) Leakage rate		≤1.3×10 ⁻¹⁰	≤1.3×10 ⁻¹⁰	≤1.3×10 ⁻¹⁰	≤1.3×10 ⁻¹⁰
驱动方式 Drive mode		手动 Manual	手动 Manual	手动 Manual	手动 Manual
阀门位置指示 Valve In-place Indication		机械式 Mechanical	机械式 Mechanical	机械式 Mechanical	机械式 Mechanical
耐烘烤温度(°C) Baking temperature	开 on	150	150	150	150
	关 off	120	120	120	120
安装方向Mounting position		任意Any	任意Any	任意Any	任意Any
重量 Weight (kg)		14	24	38	52

型号 Model		CC-320B	CC-400B
接口法兰 Flange		CF/ISO-F	
公称通径 nominal Diameter		DN320	DN400
适用范围(Pa) range of application		10 ⁵ —10 ⁻⁶	10 ⁵ —10 ⁻⁶
漏率(Pa·m ³ /s) Leakage rate		≤1.3×10 ⁻¹⁰	≤1.3×10 ⁻¹⁰
驱动方式 Drive mode		手动 Manual	手动 Manual
阀门位置指示 Valve In-place Indication		机械式 Mechanical	机械式 Mechanical
耐烘烤温度(°C) Baking temperature	开 on	150	150
	关 off	120	120
安装方向Mounting position		水平	水平
重量 Weight (kg)		108	165

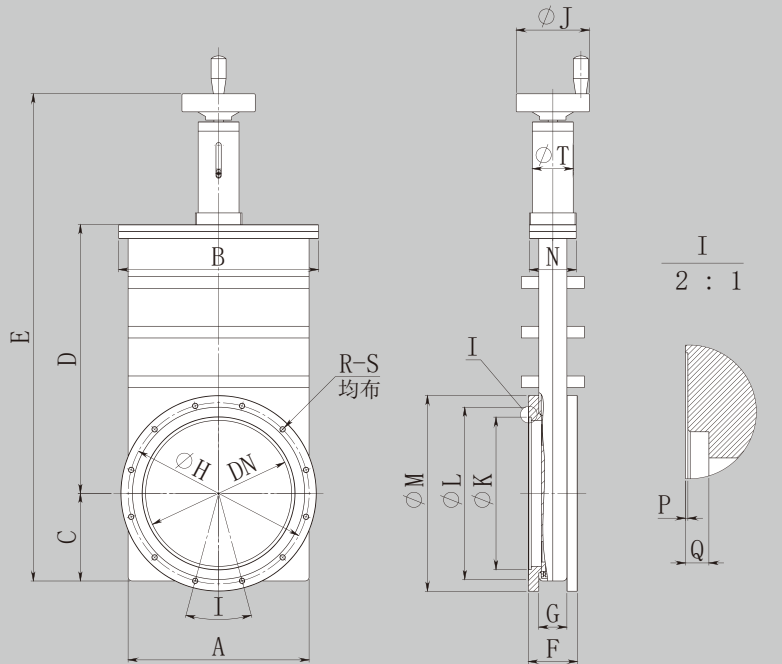
备注：根据客户需求，我们可定制10⁻⁷ Pa真空度环境使用U系列超高真空插板阀、及10⁻⁸ Pa真空度环境使用E系列超高真空插板阀
U series UHV gate valve of or E series UHV gate valve of 1E⁻⁸ Pa are available upon request.

OUTLINE DIMENSIONS DRAWING(mm)
安装尺寸图

CC-35B、50B、63B、80A、100A、150A、200A、250A、320B、400B 超高真空手动插板阀系列（CF法兰外形尺寸图）



CC-35B、50B、63B、80A、100A、150A、200A、250A、320B、400B 超高真空手动插板阀系列（ISO-F法兰外形尺寸图）



CC-ULTRAHIGH VACUUM MANUAL GATE VALVE
CC-型超高真空手动插板阀外形尺寸表

CC-35B、50B、63B、80A、100A、150A、200A、250A、320B、400B CF法兰(flange)

型号 Model	DN	外型尺寸 Dimension																	
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	Q	R-S	T
CC-35B	CF35	82	95	37	95	315	62.5	34.5	58.7	60	25	42	48.3	70	62	0.5	1.2	6-M6	45
CC-50B	CF50	92	124	42	142	331.5	71.5	34.5	72.4	45	80	55.6	61.6	86	65	0.5	1.2	8-M8	60
CC-63B	CF63	105	130	48.5	166	362	71.5	34.5	92.2	45	80	77	82.4	114	65	0.5	1.2	8-M8	60
CC-80A	CF80	136	158	64	191	409.5	70	34	110	22.5	80	93	99	130	64	0.5	1.2	16-M8	60
CC-100A	CF100	152	178	75	226	468	76	36	130.3	22.5	80	115	120.6	160	64	0.5	1.2	16-M8	60
CC-150A	CF150	200	228	96	300	614.5	80	40	181	18	80	166	171.4	210	75	0.5	1.2	20-M8	70
CC-200A	CF200	248	276	123	385	728.5	94	42	231.8	15	100	217	222.1	259	75	0.5	1.2	24-M8	70
CC-250A	CF250	310	342	150	460	830.5	101	48	284	11.25	100	267	273.1	319	80	0.5	1.2	32-M8	70
CC-320B	CF320	391	415	195.5	592.5	1033	124	60	338.1	11.25	125	320	326.4	425	85	0.5	1.2	32-M10	75
CC-400B	CF400	480	509	240	738	1236	140	62	437.9	9	125	419	424.4	510	91	0.5	1.2	40-M10	75

CC-35B、50B、63B、80A、100A、150A、200A、250A、320B、400B ISO-F法兰(Flange)

型号 Model	DN	外型尺寸 Dimension																	
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	Q	R-S	T
CC-35B	ISO-F35	82	95	37	95	315	62.5	34.5	80	90	25	41.2	65	100	62	0.2	3	4-M8	45
CC-50B	ISO-F50	92	124	42	142	331.5	71.5	34.5	90	90	80	52.2	75	110	65	0.5	4	4-M8	60
CC-63B	ISO-F63	105	130	48.5	166	362	71.5	34.5	110	90	80	70	95	130	65	0.5	4	4-M8	60
CC-80A	ISO-F80	136	158	64	191	409.5	70	34	125	45	80	83	110	145	64	0.5	4	8-M8	60
CC-100A	ISO-F100	152	178	75	226	468	76	34	145	45	80	102	125	165	64	0.5	4	8-M8	60
CC-150A	ISO-F150	200	228	96	300	614.5	80	40	200	45	80	153	185	225	75	0.5	4	8-M10	70
CC-200A	ISO-F200	248	276	123	385	728.5	86	42	260	30	100	213	245	285	75	0.5	4	12-M10	70
CC-250A	ISO-F250	310	342	150	460	830.5	91	48	310	30	100	261	295	335	80	0.5	4	12-M10	70
CC-320B	ISO-F320	391	415	195.5	592.5	1033	124	60	395	30	125	318.2	370	425	85	0.5	5	12-M12	75
CC-400B	ISO-F400	480	509	240	738	1236	140	62	480	22.5	125	400.5	450	510	91	0.5	5	16-M12	75

GATE VALVE
插板阀

CCQ-型超高真空气动插板阀系列
CCQ-type Ultrahigh Vacuum Pneumatic Gate Valve Series



CCQ-型超高真空气动插板阀型号：
CCQ-type Ultrahigh Vacuum Pneumatic Gate Valve Series:

CCQ-35B、CCQ-50B、CCQ-63B、CCQ-80A、
CCQ-100A、CCQ-150A、CCQ-200A、CCQ-250A、
CCQ-320B、CCQ-400B

阀门标准口形式：
Standard Flange:

CF、ISO-F

SPECIFICATIONS
技术指标

型号 Model	CCQ-35B	CCQ-50B	CCQ-63B	CCQ-80A
接口法兰 Flange	CF/ISO-F			
公称通径 nominal Diameter	DN35	DN50	DN63	DN80
适用范围(Pa) range of application	10 ⁵ —10 ⁻⁶	10 ⁵ —10 ⁻⁶	10 ⁵ —10 ⁻⁶	10 ⁵ —10 ⁻⁶
漏率(Pa·m ³ / s) Leakage rate	≤1.3×10 ⁻¹⁰	≤1.3×10 ⁻¹⁰	≤1.3×10 ⁻¹⁰	≤1.3×10 ⁻¹⁰
驱动方式 Drive mode	气动 Pneumatic	气动 Pneumatic	气动 Pneumatic	气动 Pneumatic
工作压力(MPa)Working pressure	0.3 ~ 0.4	0.3 ~ 0.4	0.3 ~ 0.4	0.4 ~ 0.5
阀门位置指示 Valve In-place Indication	磁感应开关 Magnetic	磁感应开关 Magnetic	磁感应开关 Magnetic	磁感应开关 Magnetic
耐烘烤温度(°C) Baking temperature	开 on	150	150	150
	关 off	120	120	120
安装方向Mounting position	水平或气缸朝上	水平或气缸朝上	水平或气缸朝上	水平或气缸朝上
重量 Weight (kg)	6	8	10	12

SPECIFICATIONS
技术指标

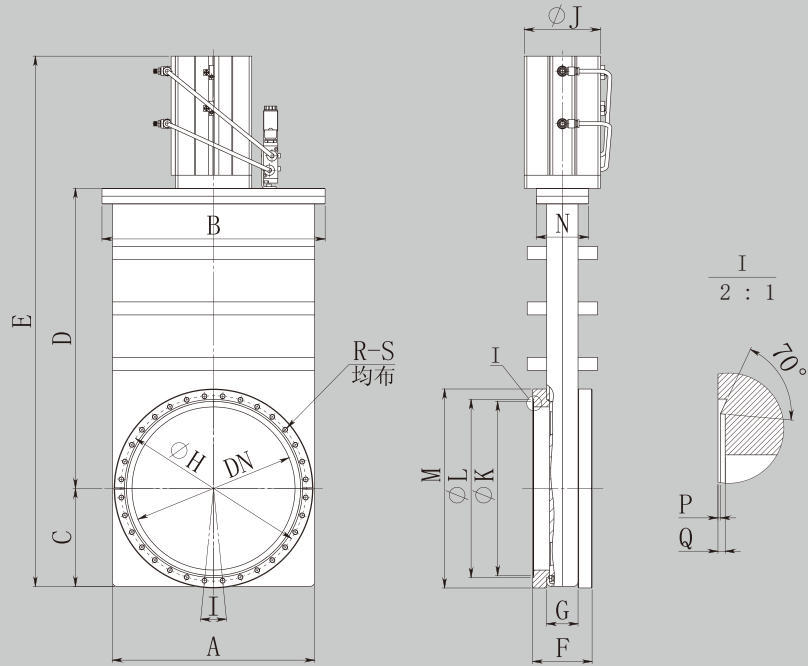
型号 Model		CCQ-100A	CCQ-150A	CCQ-200A	CCQ-250A
接口法兰 Flange		CF/ISO-F			
公称通径 nominal Diameter		DN100	DN150	DN200	DN250
适用范围(Pa) range of application		$10^5 \text{ —} 10^{-6}$	$10^5 \text{ —} 10^{-6}$	$10^5 \text{ —} 10^{-6}$	$10^5 \text{ —} 10^{-6}$
漏率(Pa·m³/ s) Leakage rate		$\leq 1.3 \times 10^{-10}$	$\leq 1.3 \times 10^{-10}$	$\leq 1.3 \times 10^{-10}$	$\leq 1.3 \times 10^{-10}$
驱动方式 Drive mode		气动 Pneumatic	气动 Pneumatic	气动 Pneumatic	气动 Pneumatic
工作气压(MPa)Working pressure		0.4 ~ 0.5	0.4 ~ 0.5	0.4 ~ 0.5	0.5 ~ 0.6
阀门位置指示 Valve In-place Indication		磁感应开关 Magnetic	磁感应开关 Magnetic	磁感应开关 Magnetic	磁感应开关 Magnetic
耐烘烤温度(°C) Baking temperature	开 on	150	150	150	150
	关 off	120	120	120	120
安装方向Mounting position		水平或气缸朝上	水平或气缸朝上	水平或气缸朝上	水平或气缸朝上
重量 Weight (kg)		15	25	39	56

型号 Model		CCQ-320B	CCQ-400B
接口法兰 Flange		CF/ISO-F	
公称通径 nominal Diameter		DN320	DN400
适用范围(Pa) range of application		$10^5 \text{ —} 10^{-6}$	$10^5 \text{ —} 10^{-6}$
漏率(Pa·m³/ s) Leakage rate		$\leq 1.3 \times 10^{-10}$	$\leq 1.3 \times 10^{-10}$
驱动方式 Drive mode		气动 Pneumatic	气动 Pneumatic
工作气压(MPa)Working pressure		0.6 ~ 0.7	0.6 ~ 0.7
阀门位置指示 Valve In-place Indication		磁感应开关 Magnetic	磁感应开关 Magnetic
耐烘烤温度(°C) Baking temperature	开 on	150	150
	关 off	120	120
安装方向Mounting position		水平或气缸朝上	水平或气缸朝上
重量 Weight (kg)		119	174

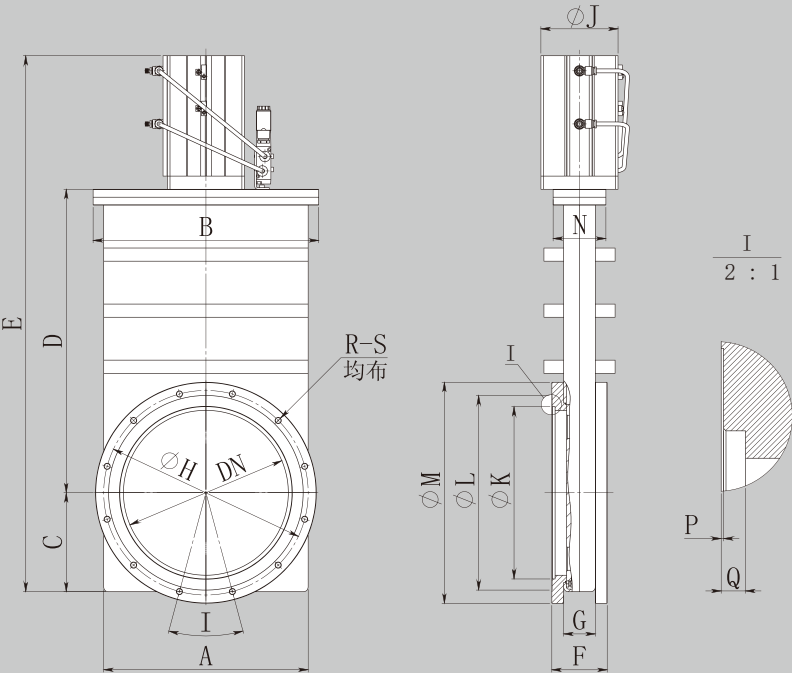
备注：根据客户需求，我们可定制10⁻⁷ Pa真空度环境使用U系列超高真空插板阀、及10⁻⁸ Pa真空度环境使用E系列超高真空插板阀
U series UHV gate valve of or E series UHV gate valve of 1E⁻⁸ Pa are available upon request.

OUTLINE DIMENSIONS DRAWING(mm)
安装尺寸图

CCQ-35B、50B、63B、80A、100A、150A、200A、250A、320B、400B 超高真空气动插板阀系列（CF法兰外形尺寸图）



CCQ-35B、50B、63B、80A、100A、150A、200A、250A、320B、400B 超高真空气动插板阀系列（ISO-F法兰外形尺寸图）



CCQ-TYPE ULTRAHIGH VACUUM PNEUMATIC GATE VALVE
CCQ-型超高真空气动插板阀外形尺寸表(单位: mm)

CCQ-35B、50B、63B、80A、100A、150A、200A、250A、320B、400B CF法兰

型号 Model	DN	外型尺寸 Dimension																
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	Q	R-S
CCQ-35B	CF35	82	95	37	95	352	62.5	34.5	58.7	60	53	42	48.3	70	62	0.5	1.2	6-M6
CCQ-50B	CF50	92	124	42	142	304	71.5	34.5	72.4	45	64	55.6	61.6	86	65	0.5	1.2	8-M8
CCQ-63B	CF63	105	130	48.5	166	334.5	71.5	34.5	92.2	45	64	77	82.4	114	65	0.5	1.2	8-M8
CCQ-80A	CF80	136	158	64	191	382	70	34	110	22.5	64	93	99	130	64	0.5	1.2	16-M8
CCQ-100A	CF100	152	178	75	226	447	76	36	130.3	22.5	64	115	120.6	160	64	0.5	1.2	16-M8
CCQ-150A	CF150	200	228	96	300	576	80	40	181	18	77	166	171.4	210	75	0.5	1.2	20-M8
CCQ-200A	CF200	248	276	123	385	710.5	94	42	231.8	15	98	217	222.1	259	75	0.5	1.2	24-M8
CCQ-250A	CF250	310	342	150	460	812.5	101	48	284	11.25	117	267	273.1	319	80	0.5	1.2	32-M8
CCQ-320B	CF320	391	415	195.5	592.5	990.5	124	60	338.1	11.25	117	320	326.4	425	85	0.5	1.2	32-M10
CCQ-400B	CF400	480	509	240	738	1303	140	62	437.9	9	142	419	424.4	510	91	0.5	1.2	40-M10

CCQ-35B、50B、63B、80A、100A、150A、200A、250A、320B、400B ISO-F法兰

型号 Model	DN	外型尺寸 Dimension																
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	Q	R-S
CCQ-35B	ISO-F35	82	95	37	95	352	62.5	34.5	80	90	53	41.2	65	100	62	0.2	3	4-M8
CCQ-50B	ISO-F50	92	124	42	142	304	71.5	34.5	90	90	64	52.2	75	110	65	0.5	4	4-M8
CCQ-63B	ISO-F63	105	130	48.5	166	334.5	71.5	34.5	110	90	64	70	95	130	65	0.5	4	4-M8
CCQ-80A	ISO-F80	136	158	64	191	382	70	34	125	45	64	83	110	145	64	0.5	4	8-M8
CCQ-100A	ISO-F100	152	178	75	226	447	76	34	145	45	64	102	125	165	64	0.5	4	8-M8
CCQ-150A	ISO-F150	200	228	96	300	576	80	40	200	45	77	153	185	225	75	0.5	4	8-M10
CCQ-200A	ISO-F200	248	276	123	385	710.5	86	42	260	30	98	213	245	285	75	0.5	4	12-M10
CCQ-250A	ISO-F250	310	342	150	460	812.5	91	48	310	30	117	261	295	335	80	0.5	4	12-M10
CCQ-320B	ISO-F320	391	415	195.5	592.5	990.5	124	60	395	30	117	318.2	370	425	85	0.5	5	12-M12
CCQ-400B	ISO-F400	480	509	240	738	1303	140	62	480	22.5	142	400.5	450	510	91	0.5	5	16-M12

GATE VALVES
插板阀

CCD-型超高真空电动插板阀系列
CCD-type Ultrahigh Vacuum Electric Gate Valve Series



CCD-型超高真空电动插板阀型号:
CCD-type Ultrahigh Vacuum Electric Gate Valve Series:

CCD-35B、CCD-50B、CCD-63B、CCD-80A、
CCD-100A、CCD-150A、CCD-200A、CCD-250A、
CCD-320B、CCD-400B

阀门标准口形式,Standard Flange: CF、ISO-F

SPECIFICATIONS
技术指标

型号 Model	CCD-35B	CCD-50B	CCD-63B	CCD-80A
接口法兰 Flange	CF/ISO-F			
公称通径 nominal Diameter	DN35	DN50	DN63	DN80
适用范围(Pa) range of application	10 ⁵ —10 ⁻⁶	10 ⁵ —10 ⁻⁶	10 ⁵ —10 ⁻⁶	10 ⁵ —10 ⁻⁶
漏率(Pa·m ³ /s) Leakage rate	≤1.3×10 ⁻¹⁰	≤1.3×10 ⁻¹⁰	≤1.3×10 ⁻¹⁰	≤1.3×10 ⁻¹⁰
驱动方式 Drive mode	电动 Electric	电动 Electric	电动 Electric	电动 Electric
工作电压(V) Working voltage	20≤DC≤50	20≤DC≤50	20≤DC≤50	20≤DC≤50
阀门位置指示 Valve In-place Indication	PNP光电开关 Photoelectric switch	PNP光电开关 Photoelectric switch	PNP光电开关 Photoelectric switch	PNP光电开关 Photoelectric switch
耐烘烤温度(°C) Baking temperature	开 on	150	150	150
	关 off	120	120	120
安装方向Mounting position	水平或电机朝上	水平或电机朝上	水平或电机朝上	水平或电机朝上
重量 Weight (kg)	7	10	12	15

SPECIFICATIONS
技术指标

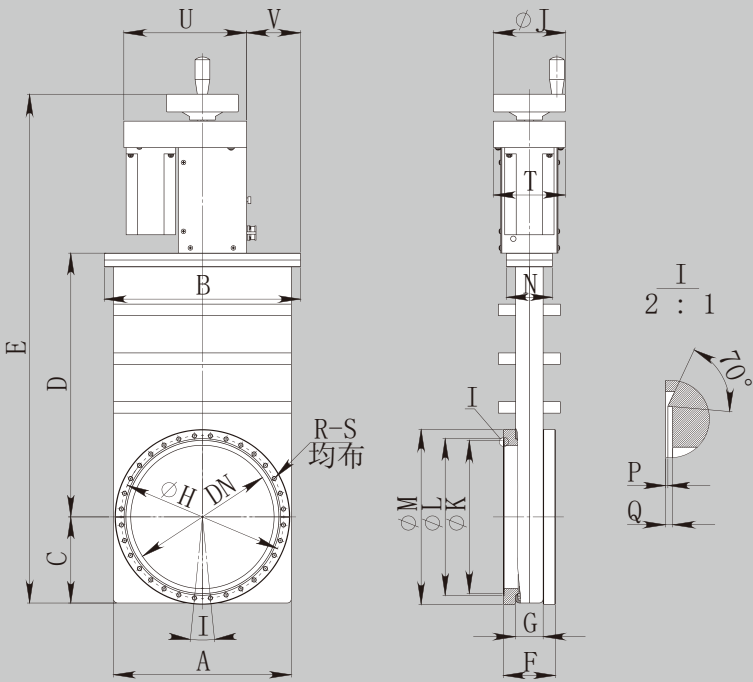
型号 Model		CCD-100A	CCD-150A	CCD-200A	CCD-250A
接口法兰 Flange		CF/ISO-F			
公称通径 nominal Diameter		DN100	DN150	DN200	DN250
适用范围(Pa) range of application		10^5-10^{-6}	10^5-10^{-6}	10^5-10^{-6}	10^5-10^{-6}
漏率(Pa·m³/s) Leakage rate		$\leq 1.3 \times 10^{-10}$	$\leq 1.3 \times 10^{-10}$	$\leq 1.3 \times 10^{-10}$	$\leq 1.3 \times 10^{-10}$
驱动方式 Drive mode		电动 Electric	电动 Electric	电动 Electric	电动 Electric
工作电压(V) Working voltage		$20 \leq DC \leq 50$	$30 \leq DC \leq 100$	$30 \leq DC \leq 100$	$30 \leq DC \leq 100$
阀门位置指示 Valve In-place Indication		PNP光电开关 Photoelectric switch	PNP光电开关 Photoelectric switch	PNP光电开关 Photoelectric switch	PNP光电开关 Photoelectric switch
耐烘烤温度(°C) Baking temperature	开 on	150	150	150	150
	关 off	120	120	120	120
安装方向Mounting position		水平或电机朝上	水平或电机朝上	水平或电机朝上	水平或电机朝上
重量 Weight (kg)		20	32	44	62

型号 Model		CCD-320B	CCD-400B
接口法兰 Flange		CF/ISO-F	
公称通径 nominal Diameter		DN320	DN400
适用范围(Pa) range of application		10^5-10^{-6}	10^5-10^{-6}
漏率(Pa·m³/s) Leakage rate		$\leq 1.3 \times 10^{-10}$	$\leq 1.3 \times 10^{-10}$
驱动方式 Drive mode		电动 Electric	电动 Electric
工作电压(V) Working voltage		$180 \leq AC \leq 240$	$180 \leq AC \leq 240$
阀门位置指示 Valve In-place Indication		PNP光电开关 Photoelectric switch	PNP光电开关 Photoelectric switch
耐烘烤温度(°C) Baking temperature	开 on	150	150
	关 off	120	120
安装方向Mounting position		水平	水平
重量 Weight (kg)		122	180

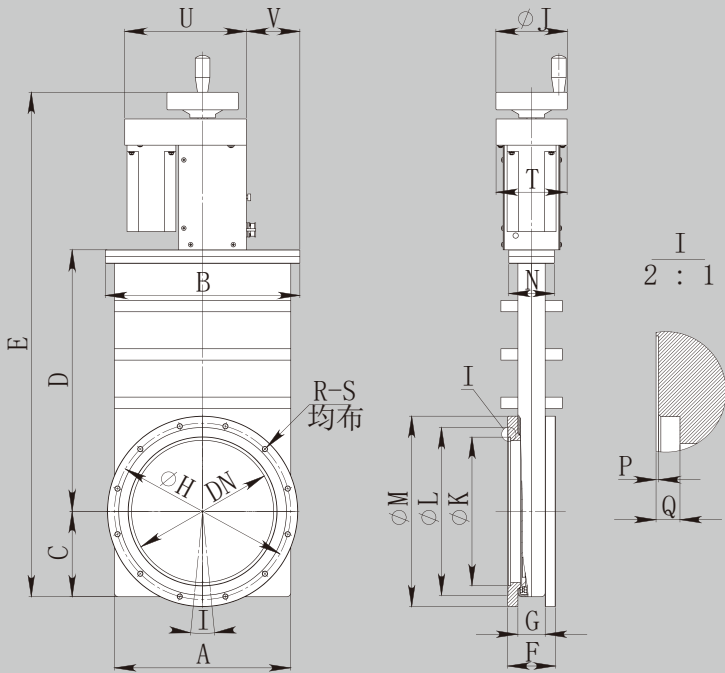
备注：根据客户需求，我们可定制10⁻⁷Pa真空度环境使用U系列超高真空插板阀、及10⁻⁸Pa真空度环境使用E系列超高真空插板阀
U series UHV gate valve of or E series UHV gate valve of 1E⁻⁸ Pa are available upon request.

OUTLINE DIMENSIONS DRAWING(mm)
安装尺寸图

CCD-35B、50B、63B、80A、100A、150A、200A、250A、320B、400B 超高真空电动插板阀系列（CF法兰外形尺寸图）



CCD-35B、50B、63B、80A、100A、150A、200A、250A、320B、400B 超高真空电动插板阀系列（ISO-F法兰外形尺寸图）



CCD-TYPE ULTRAHIGH VACUUM ELECTRIC GATE VALVE (IN MM)
CCD-型超高真空电动插板阀外形尺寸表(单位: mm)

CCD-35B、50B、63B、80A、100A、150A、200A、250A、320B、400B CF法兰flange

型号 Model	DN	外型尺寸 Dimension																			
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	Q	R-S	T	U	V
CCD-35B	CF35	82	95	37	95	348	62.5	34.5	58.7	60	25	42	48.3	70	62	0.5	1.2	6-M6	62	65	0
CCD-50B	CF50	92	124	42	142	383.5	71.5	34.5	72.4	45	80	55.6	61.6	86	65	0.5	1.2	8-M8	109.5	184	0
CCD-63B	CF63	105	130	48.5	166	414	71.5	34.5	92.2	45	80	77	82.4	114	65	0.5	1.2	8-M8	109.5	184	0
CCD-80A	CF80	136	158	64	191	461.5	70	34	110	22.5	80	93	99	130	64	0.5	1.2	16-M8	109.5	184	20
CCD-100A	CF100	152	178	75	226	520	76	36	130.3	22.5	80	115	120.6	160	64	0.5	1.2	16-M8	114	197	19
CCD-150A	CF150	200	228	96	300	666	80	40	181	18	80	166	171.4	210	75	0.5	1.2	20-M8	125	214	37
CCD-200A	CF200	248	276	123	385	780	94	42	231.8	15	100	217	222.1	259	75	0.5	1.2	24-M8	125	214	61
CCD-250A	CF250	310	342	150	460	882	101	48	284	11.25	100	267	273.1	319	80	0.5	1.2	32-M8	125	214	94
CCD-320B	CF320	391	415	195.5	592.5	1105	124	60	338.1	11.25	125	320	326.4	425	85	0.5	1.2	32-M10	154	261	130.5
CCD-400B	CF400	480	509	240	738	1307	140	62	437.9	9	125	419	424.4	510	91	0.5	1.2	40-M10	154	261	175.5

CCD-35B、50B、63B、80A、100A、150A、200A、250A、320B、400B ISO-F法兰flange

型号 Model	DN	外型尺寸 Dimension																			
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	Q	R-S	T	U	V
CCD-35B	ISO-F35	82	95	37	95	348	62.5	34.5	80	90	25	41.2	65	100	62	0.2	3	4-M8	62	65	0
CCD-50B	ISO-F50	92	124	42	142	383.5	71.5	34.5	90	90	80	52.2	75	110	65	0.5	4	4-M8	109.5	184	0
CCD-63B	ISO-F63	105	130	48.5	166	414	71.5	34.5	110	90	80	70	95	130	65	0.5	4	4-M8	109.5	184	0
CCD-80A	ISO-F80	136	158	64	191	461.5	70	34	125	45	80	83	110	145	64	0.5	4	8-M8	109.5	184	20
CCD-100A	ISO-F100	152	178	75	226	520	76	34	145	45	80	102	125	165	64	0.5	4	8-M8	114	197	19
CCD-150A	ISO-F150	200	228	96	300	666	80	40	200	45	80	153	185	225	75	0.5	4	8-M10	125	214	37
CCD-200A	ISO-F200	248	276	123	385	780	86	42	260	30	100	213	245	285	75	0.5	4	12-M10	125	214	61
CCD-250A	ISO-F250	310	342	150	460	882	91	48	310	30	100	261	295	335	80	0.5	4	12-M10	125	214	94
CCD-320B	ISO-F320	391	415	195.5	592.5	1105	124	60	395	30	125	318.2	370	425	85	0.5	5	12-M12	154	261	130.5
CCD-400B	ISO-F400	480	509	240	738	1307	140	62	480	22.5	125	400.5	450	510	91	0.5	5	16-M12	154	261	175.5

GCQ HV RECTANGULAR GATE VALVE
GCQ-型高真空矩形插板阀



产品特点 CHARACTERISTICS

- ◆ 采用特殊减振结构，阀门开闭震动噪音小
Small vibration and noise with special vibration damper
- ◆ 产品质量稳定，可靠性高
Stable performance and high reliability
- ◆ 可根据客户技术要求定制法兰接口或定制水冷法兰
Customized flange available (flange interface or water cooling)

技术参数 Main Specifications

接口法兰 Flange		定制
公称通径 nominal Diameter		定制
适用范围(Pa) range of application		10 ⁵ —10 ⁻⁵
漏率(Pa·m³/ s) Leakage rate		≤6.7×10 ⁻¹⁰
驱动方式 Drive mode		气动
工作气压(MPa)		0.5 ~ 0.7
阀门位置指示 Valve In-place Indication		磁感应开关
耐烘烤温度(°C) Baking temperature	开 on	150
	关 off	120
安装方向Mounting position		阀门水平或阀门气缸朝上

CCQ LARGE UHV PNEUMATIC GATE VALVE (BELLOWS FEEDTHROUGH)
CCQ-型大口径超高真空侧向气动插板阀系列



SPECIFICATIONS
技术指标

型号 Model		CCQ-500B	CCQ-630B	CCQ-800B	CCQ-1000B	CCQ-1250B
接口法兰 Flange		ISO-F				
公称通径 nominal Diameter		DN500	DN630	DN800	DN1000	DN1250
适用范围(Pa) range of application		10 ⁵ —10 ⁻⁶				
漏率(Pa·m³/ s) Leakage rate		≤1.3×10 ⁻¹⁰				
驱动方式 Drive mode		气动 Pneumatic				
工作气压(MPa)Working pressure		0.6 ~ 0.7				
阀门位置指示 Valve In-place Indication		磁感应开关 Magnetic				
耐烘烤温度(℃) Baking temperature	开 on	150				
	关 off	120				
安装方向Mounting position		阀门水平或阀门竖直朝上				
重量 Weight (kg)		312	554	771	1524	2350

备注：大口径阀门默认为单向阀门，不可反向受压。

GCQ HV RECTANGULAR GATE VALVE
GCQ-型高真空矩形插板阀



SPECIFICATIONS
技术指标

型号 Model		GCQ-500B	GCQ-630B	GCQ-800B	GCQ-1000B	GCQ-1250B
接口法兰 Flange		ISO-F				
公称通径 nominal Diameter		DN500	DN630	DN800	DN1000	DN1250
适用范围(Pa) range of application		10 ⁵ —10 ⁻⁵				
漏率(Pa·m³/ s) Leakage rate		≤6.7×10 ⁻¹⁰				
驱动方式 Drive mode		气动 Pneumatic				
工作气压(MPa)Working pressure		0.6 ~ 0.7				
阀门位置指示 Valve In-place Indication		磁感应开关 Magnetic				
耐烘烤温度(℃) Baking temperature	开 on	150				
	关 off	120				
安装方向Mounting position		阀门水平或阀门竖直朝上				
重量 Weight (kg)		286	552	720	1421	2200

备注：大口径阀门默认为单向阀门，不可反向受压。

CCQ LARGE UHV PNEUMATIC GATE VALVE(IN MM)
CCQ-型大口径超高真空侧向气动插板阀系列外形尺寸表（单位：mm）

CCQ-500B、630B、800B、1000B、1250B ISO-F法兰

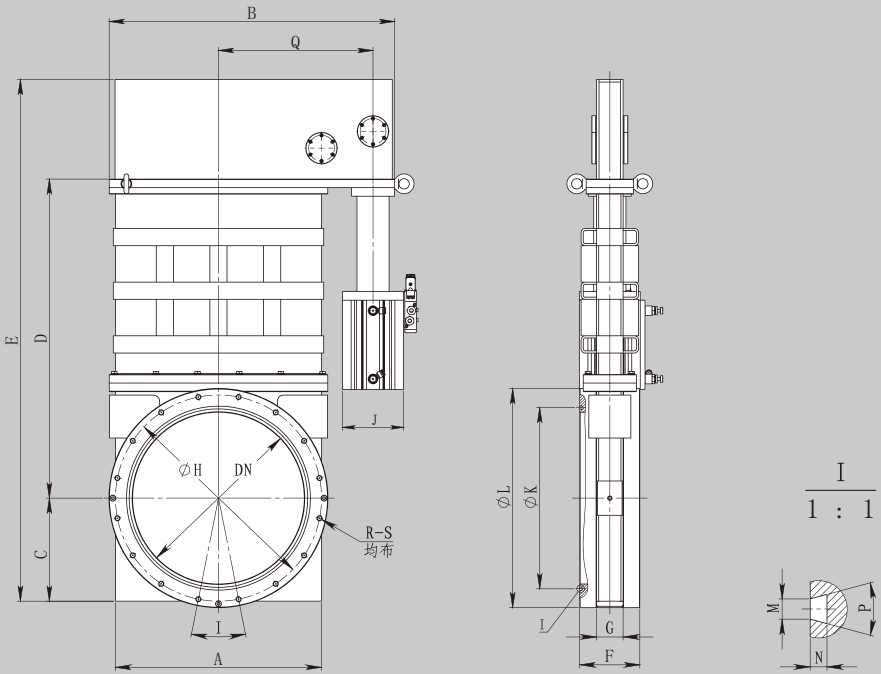
型号 Model	DN	外型尺寸 Dimension																
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	Q	R-S
GCQ-500B	ISO-F500	584	807.5	292	868	1440	160	74.6	580	22.5	178	525	616	6.3	5.2	30	439	16-M12
GCQ-630B	ISO-F630	723	1006.5	361.5	1106.5	1753	175	85	720	18	178	670	770	6.3	5.2	30	549	20-M12
GCQ-800B	ISO-F800	903	1190	451.5	1401.5	2198	209	119	890	15	178	822	950	6.3	5.2	30	610	24-M12
GCQ-1000B	ISO-F1000	1114	1472	557	1691	2730	230	125	1090	11.25	267	1022	1168	6.3	5.2	30	798	32-M12
GCQ-1250B	ISO-F1250	1380	1740	680	2069	3190	240	129	1404	11.25	282	1275	1440	9	7.5	30	930	32-M16

GCQ-型大口径超高真空气动插板阀系列外形尺寸表（单位：mm）

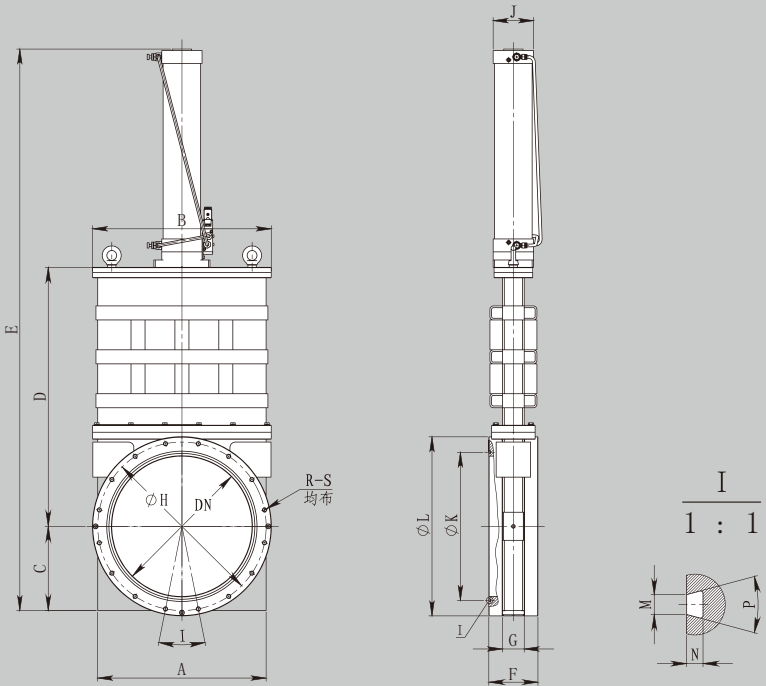
型号 Model	DN	外型尺寸 Dimension															
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	R-S
GCQ-500B	ISO-F500	584	621	292	868	1918	160	74.6	580	22.5	140	525	616	6.3	5.2	30	16-M12
GCQ-630B	ISO-F630	723	770	361.5	1096.5	2381	175	85	720	18	180	670	770	6.3	5.2	30	20-M12
GCQ-800B	ISO-F800	903	980	451.5	1391.5	2945	209	119	890	15	180	822	950	6.3	5.2	30	24-M12
GCQ-1000B	ISO-F1000	1114	1170	557	1691	3560	230	125	1090	11.25	220	1022	1168	6.3	5.2	30	32-M12
GCQ-1250B	ISO-F1250	1380	1440	680	2070	4332	240	129	1404	11.25	282	1275	1440	9	7.5	30	32-M16

OUTLINE DIMENSIONS DRAWING(mm)
安装尺寸图

CCQ-500B、630B、800B、1000B、1250B ISO-F法兰



GCQ-500B、630B、800B、1000B、1250B ISO-F法兰



GCQ HV PNEUMATIC GATE VALVE
GCQ-型高真空插板阀系列



技术参数 Main Specifications

型号 Model		GCQ-100A	GCQ-150A	GCQ-200A	GCQ-250A	GCQ-320B	GCQ-400B
接口法兰 Flange		ISO-F、定制					
公称通径 nominal Diameter		DN100	DN150	DN200	DN250	DN320	DN400
适用范围(Pa) range of application		10 ⁵ —10 ⁻⁵					
漏率(Pa·m ³ / s) Leakage rate		≤6.7×10 ⁻¹⁰					
驱动方式 Drive mode		气动					
工作气压(MPa)		0.4 ~ 0.5			0.5 ~ 0.6		
阀门位置指示 Valve In-place Indication		磁感应开关					
耐烘烤温度(°C) Baking temperature	开 on	150					
	关 off	120					
安装方向Mounting position		任意					
重量 Weight (kg)		14	23	38	55	116	176

GCQ HV PNEUMATIC GATE VALVE (IN MM)
GCQ-型高真空气动插板阀系列外形尺寸表(单位：mm)

GCQ-100A、150A、200A、250A、320B、400B CF法兰 (单位：mm)

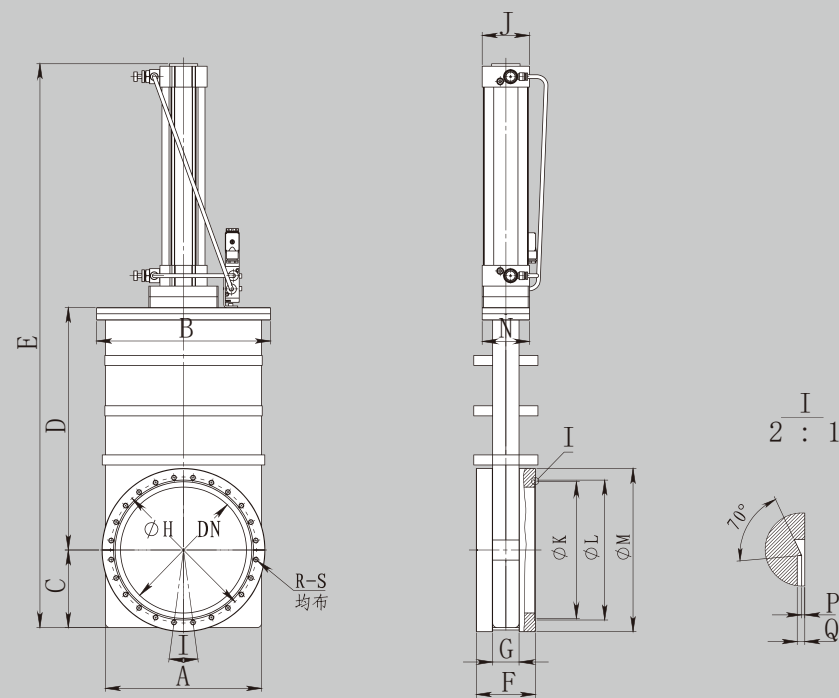
型号 Model	DN	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	Q	R-S
GCQ-100A	CF100	152	178	75	226	562.5	76	36	130.3	22.5	53	115	120	160	64	0.5	1.2	16-M8
GCQ-150A	CF150	200	228	96	300	713.5	80	40	181	18	65	166	171.4	210	75	0.5	1.2	20-M8
GCQ-200A	CF200	248	276	123	385	895	94	42	231.8	15	75	217	222.1	253	75	0.5	1.2	24-M8
GCQ-250A	CF250	310	342	150	460	1062	101	48	284	11.25	95	267	273.1	305	80	0.5	1.2	32-M8
GCQ-320B	CF320	391	415	195.5	592.5	1309	124	60	338.1	11.25	95	320	326.4	425	104	0.5	1.2	32-M10
GCQ-400B	CF400	480	509	240	738	1600	140	62	437.9	22.5	115	419	424.4	510	110	0.5	1.2	40-M10

GCQ-100A、150A、200A、250A、320B、400B ISO-F法兰 (单位：mm)

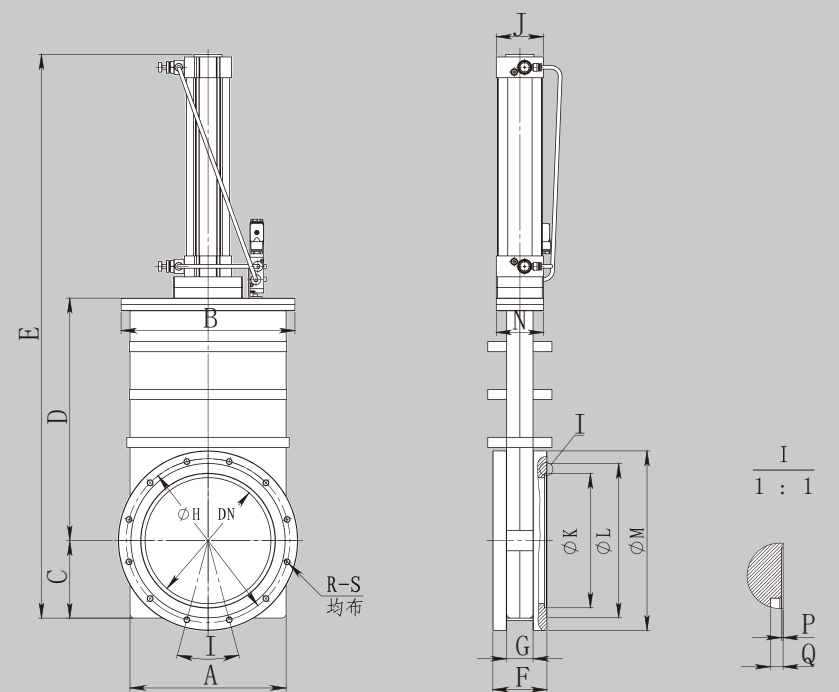
型号 Model	DN	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	Q	R-S
GCQ-100A	ISO-F100	152	178	75	226	562.5	76	36	145	45	53	102	125	165	64	0.5	4	8-M8
GCQ-150A	ISO-F150	200	228	96	300	713.5	80	40	200	45	65	153	185	225	75	0.5	4	8-M10
GCQ-200A	ISO-F200	248	276	123	385	895	86	42	260	30	75	213	245	285	75	0.5	4	12-M10
GCQ-250A	ISO-F250	310	342	150	460	1062	91	48	310	30	95	261	295	335	80	0.5	4	12-M10
GCQ-320B	ISO-F320	391	415	195.5	592.5	1309	124	60	395	30	95	318.2	370	425	104	0.5	5	12-M12
GCQ-400B	ISO-F400	480	509	240	738	1600	140	62	480	22.5	115	400.5	450	510	110	0.5	5	16-M12

OUTLINE DIMENSIONS DRAWING(mm) 安装尺寸图

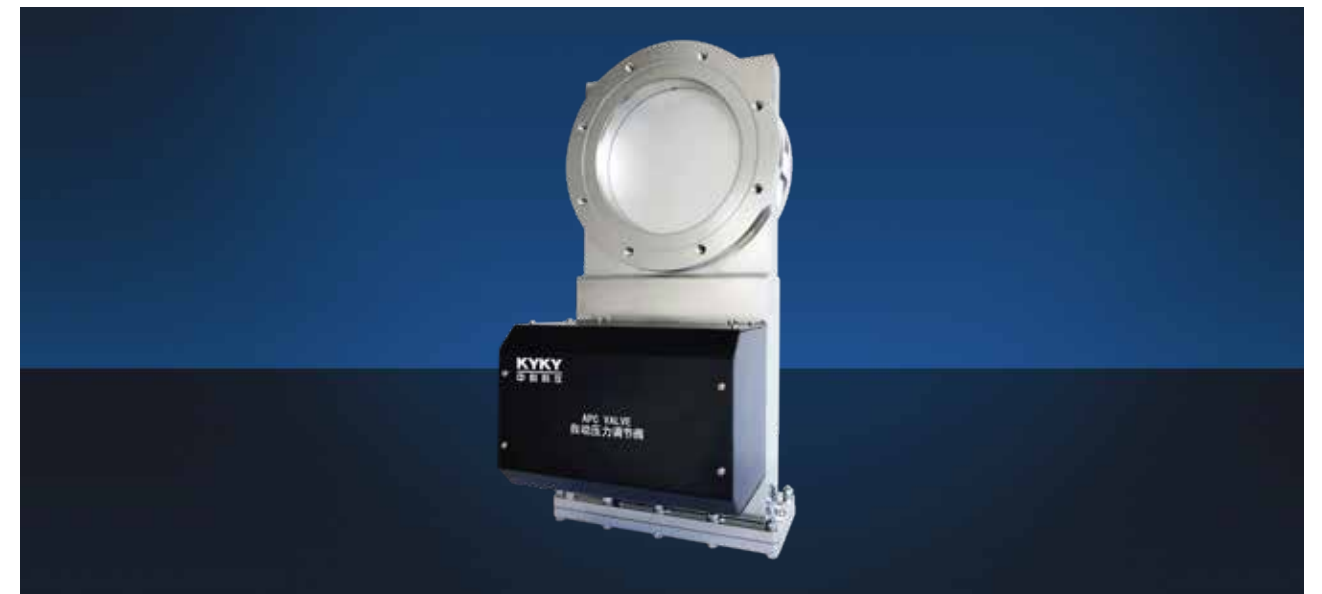
GCQ-100A、150A、200A、250A、320B、400B高真空气动插板阀系列（CF法兰外形尺寸图）



GCQ-100A、150A、200A、250A、320B、400B高真空气动插板阀系列（ISO-F法兰外形尺寸图）



AUTOMATIC PRESSURE CONTROL GATE VALVE APC智能调压插板阀



产品简介 BRIFE INTRODUCTION

APC (Automatic Pressure Control, APC) 自动压力调节插板阀应用于真空腔室的压力调节或真空隔断，控制精度高，响应速度快，震动噪音小。

阀板作为调节元件，通过不同位置改变阀门通经流导大小，控制主抽泵的有效抽速。APC控制器根据腔体容积、流量等条件自学习，自动建立压力控制参数。用户上位机输入设定工艺真空压力，APC压力控制器通过与压力传感器实时反馈腔体压力值比对，自动计算所需阀板位置，快速精准到达预定位置并适当微调，以获得设定的真空压力值。

APC (Automatic Pressure Control) gate valve with characteristics of high control accuracy, fast response speed and low vibration noise is used for pressure control or vacuum isolation.

As a regulating element, the plate can change the size of pipeline conductance at different positions to control the effective pumping speed of main pump. The APC controller automatically establishes pressure control parameters through self-learning based on conditions such as chamber volume and flow rate. The user's upper computer inputs the process pressure, and the APC controller automatically calculates the required valve plate position by comparing it with the chamber pressure value fed back by the pressure sensor in real time, and reaches the desired position quickly and accurately and fine-tunes it appropriately to obtain the process pressure.

AUTOMATIC PRESSURE CONTROL GATE VALVE
APC智能调压插板阀

产品特点 Characteristics

- ◆ 智能调节，控制简便快捷。
Intelligent regulation and simple and efficient operation..
- ◆ 质量稳定，抗干扰能力强。
Quality stability and strong anti-interference capability.
- ◆ 配置丰富，人机接口友好。
Abundant configuration and friendly human-machine interface.
- ◆ 一体设计，集成化程度高
Integrated design and high degree of integration.
- ◆ 安全可靠，低压直流供电。
Safe and reliable with low-voltage DC power supply.

应用领域 Applications

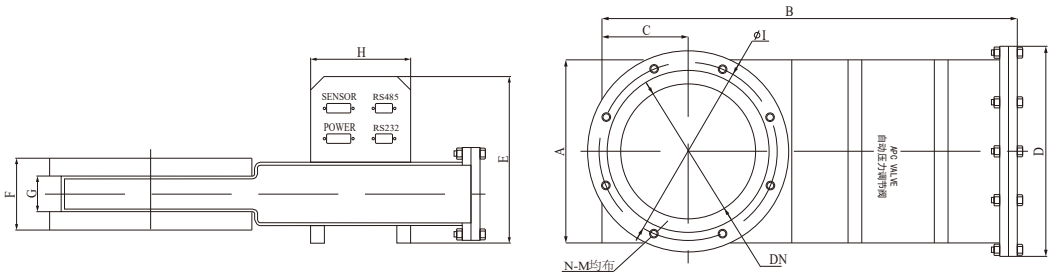
表面工程、能源科技、平板显示、IC制造、工业过程等领域
Surface engineering, Energy technology, FPD, IC production and industrial processes, etc.

技术参数

型号 Model	CCD-100ZM	CCD-150ZM	CCD-200ZM	CCD-250ZM
接口法兰 Flange	CF、ISO-F			
适用真空度范围 (Pa) range of application	1×10 ⁵ Pa ~ 1×10 ⁻⁶ Pa			
阀体漏率 Leak rate	≤1.3×10 ⁻¹⁰ Pa·m ³ /s			
开启压差 Differential pressure at opening	< 3000 Pa			
耐烘烤温度 Baking temperature	≤150 °C (控制器Controller≤50 °C)			
位置控制精度 Position accuracy	±0.1%FS			
薄膜规信号Sensor input	0 ~ 10V DC			
控制器电压Power supply	DC 24V			

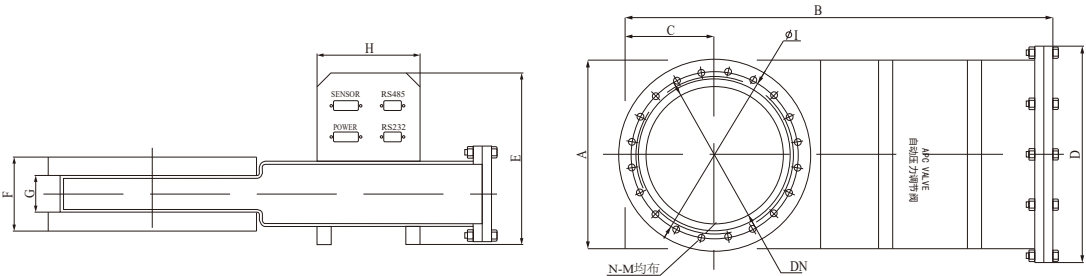
OUTLINE DIMENSIONS DRAWING(mm)
安装尺寸图

自动压力调节插板阀外形尺寸图（ISO-F法兰）（单位:mm） APC VACUUM GATE VALVE（ISO-F Flange）(IN MM)



型号 Model	DN	外型尺寸 Dimension									
		A	B	C	D	E	F	G	H	I	N-M
CCD-100ZM	ISO-F100	152	346	75	205	201	76	36	140	145	8-M8
CCD-150ZM	ISO-F150	204	463	96	234	207	80	40	140	200	8-M10
CCD-200ZM	ISO-F200	252	566	123	285	219	86	42	143	260	12-M10
CCD-250ZM	ISO-F250	314	681	150	345	234	91	48	143	310	12-M10

自动压力调节插板阀外形尺寸图（CF法兰）（单位:mm） APC VACUUM GATE VALVE（CF Flange）(IN MM)



型号 Model	DN	外型尺寸 Dimension									
		A	B	C	D	E	F	G	H	I	N-M
CCD-100ZM	CF100	152	346	75	205	201	76	36	140	130.3	16-M8
CCD-150ZM	CF150	204	463	96	234	207	80	40	140	200	20-M8
CCD-200ZM	CF200	252	566	123	285	219	94	42	143	260	24-M8
CCD-250ZM	CF250	314	681	150	345	234	101	48	143	310	32-M8

SPECIFICATIONS
技术指标

技术亮点 Technologies

- ◆ 独创软件算法，搭配自学习功能，实现工艺压力精准快速调控。
Innovated algorithm by software,automatic learning of system parameters, to achieve fast and accurate pressure control.
- ◆ 实时在线监测，自动切换调压和位置两种模式，确保工艺压力动态平衡。
Real time in-line control, automatic switch between pressure control mode and position control mode, to ensure dynamic balance of process pressure.

型号 Model	CCD-100DZ	CCD-150DZ	CCD-200DZ	CCD-250DZ
接口法兰 Flange	CF/ISO-F			
公称通径 nominal Diameter	DN100	DN150	DN200	DN250
适用范围(Pa) range of application	1x10 ⁵ ~ 1x10 ⁻⁶			
漏率(Pa·m³/ s) Leakage rate	≤1.3×10 ⁻¹⁰			
开启压差 (Pa) Differential pressure at opening	< 3000			
耐烘烤温度 (°C) Baking temperature	≤150 (控制器Controller≤50)			
位置控制精度Position accuracy	±0.1%FS			
控压精度Control accuracy	≤0.1%FS (10mV/10000)			
薄膜规信号 (V) Sensor input	DC 0 ~ 10			
控制器电压 (V) Power supply	DC 24			
重量 Weight (kg)	16	27	37	53

AUTOMATIC PRESSURE CONTROL BUTTERFIY VALVE
自动压力调节蝶阀



产品简介 BRIFE INTRODUCTION

自动压力调节蝶阀应用于真空腔室压力调节或真空隔断。阀板作为调节元件，不同的角度位置改变阀门通径中气体流导的大小，实现泵有效抽速的调节。自动压力调节蝶阀根据客户腔体容积、流量等参数，通过特殊算法，建立压力控制参数。用户输入工艺压力，自动压力调节蝶阀根据内部算法调整阀板位置，快速实现工艺压力的动态平衡。

Automatic pressure control (APC) butterfly valves are used for vacuum chamber pressure regulation or Cut off the gas flow. As a regulating element, the valve plate changes the gas flow conductance in the valve diameter at different angles to realize the adjustment of the effective pumping speed of the pump. APC butterfly valve According to the vacuum chamber volume, flow and other parameters, through a special algorithm to establish pressure control parameters. Input process pressure, APC butterfly valve according to the internal algorithm to adjust the valve plate position, achieve the dynamic balance of process pressure quickly and precisely.

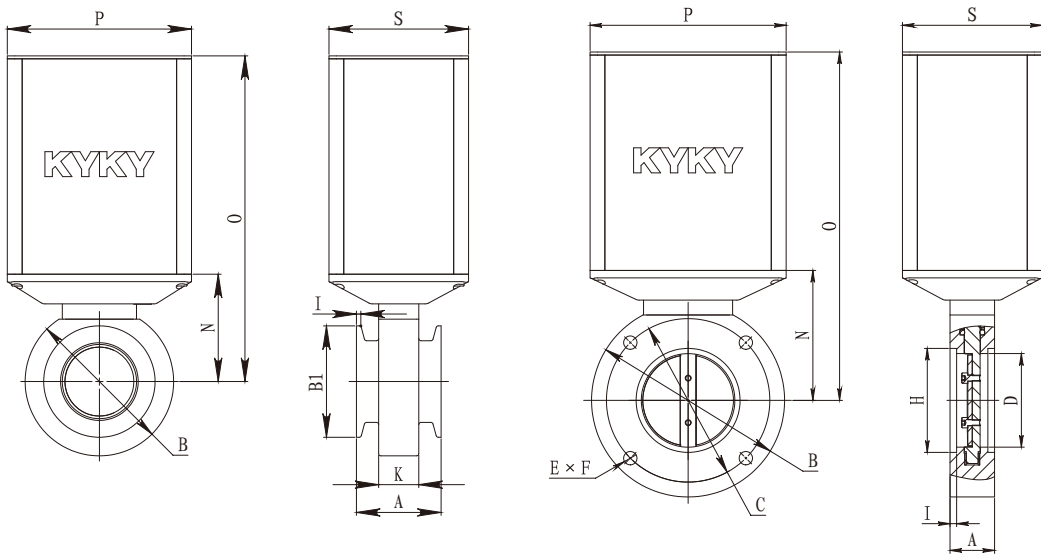
产品特点 CHARACTERISTICS

- ◆ 智能算法，精确控压
Intelligent Algorithm, Precise Pressure Control
- ◆ 配置丰富，按需定制
Diversified Configuration, Customized on Demand
- ◆ 一体设计，美观大方
Integrated Design, Elegant Appearance

AUTOMATIC PRESSURE CONTROL BUTTERFIY VALVE
自动压力调节蝶阀

型号 Model	GID-25ZM	GID-25ZM/KF40	GID-40ZM	GID-50ZM	GID-63Z
通径Diameter	DN25	DN25	DN40	DN50	DN63
法兰接口形式 Flange interface type	KF25	KF40	KF40	KF50	ISO-F63
适用压力范围 Applicable pressure range	1.2x10 ⁵ Pa ~ 1.0x10 ⁻⁶ pa				
整体漏率 Overall leakage rate	≤1.3x10 ⁻¹⁰ pa.m ³ /s				
开启压差 Opening pressure difference	≤1.2x10 ⁵ Pa				
压力控制精度 Pressure control accuracy	≤0.1%FS (10mv)				
位置控制精度 Position control accuracy	±0.1%FS				
位置分辨率 Position resolution	16384				
薄膜规信号 Film gauge signal	0 ~ 10V DC (DB15孔) 0 ~ 10V DC (DB15 hole)				
开关时间 Switching time	≤0.9S				
通讯接口 Communication interface	模拟量0 ~ 10V、RS485 (DB9孔) Analog quantity 0 ~ 10V, RS485 (DB9 hole)				
供电接口 Power supply interface	DB9针, DC24V±10% DB9 pin, DC24V±10%				
材料Material	阀体: 316L, 阀板: 316L Valve body:316L, Valve plate:316L O型密封圈: FKM或FFKM O-type seal ring: FKM or FFKM				
安装方向 Installation Direction	任意Any				

OUTLINE DIMENSIONS DRAWING(mm)
安装尺寸图



型号 Model	DN	外型尺寸 Dimension												
		A	B	B1	C	D	E×F	H	I	K	N	O	P	S
GID-25ZM	DN25	50	65	40	—	—	—	—	3	27	57	219	124	90
GID-40ZM	DN40	57	88	54.9	—	—	—	—	3	27	72	219	124	90
GID-50ZM	DN50	57	100	74.9	—	—	—	—	3	27	72	219	124	90
GID-63ZM	DN63	30	130	—	110	63	4×9	70	4.5	—	87.5	234.5	132	90

应用领域 Applications

- ◆ 薄膜沉积、晶体生长、离子束刻蚀、平面显示、太阳能光伏等领域。
IThin film deposition, crystal growth, ion beam etching, flat panel display, solar photovoltaic and other fields.

ANGLE VALVE
挡板阀



产品简介 BRIFE INTRODUCTION

CD-J型超高真空挡板阀用于接通或切断超高真空系统管路中的气流，有气动、手动两种驱动方式。气动阀是通过电磁换向阀改变气流方向来控制气缸运动，达到阀门启闭；手动阀是以人工转动手柄为动力通过螺纹传动实现阀门开闭。适用于介质为空气及非腐蚀性气体的场合。

Model CD-J ultrahigh vacuum baffle valve (manual or pneumatic) is used to cut-in or cut off the gas flow in the system. Pneumatic valve is controlled by solenoid directional valve to change flow direction of cylinder movement to achieve the opening and closing of the valve. Manual valve is controlled by manually turning the handle to achieve the opening and closing of the valve. This model of valve is available for air or non-corrosive gases.

产品特点 CHARACTERISTICS

- ◆ 模块化设计，结构紧凑，外形美观，重量轻
Module design, Compact structure, light weight
- ◆ 机械磨损小，使用寿命长
Less mechanical wear, Long service life
- ◆ 轴封采用焊接波纹管，密封可靠
Reliable seal(Shaft seal of welded bellow)
- ◆ 阀体采用不锈钢内部焊接，漏率小
Small leakage(Internal welded stainless steel chamber)

SPECIFICATIONS
技术指标

技术指标 SPECIFICATIONS

适用范围 Application	10 ⁵ Pa ~ 10 ⁻⁶ Pa
漏率 Leak rate	≤1.3×10 ⁻¹⁰ Pa.m ³ /s
工作介质 Working media	空气、水蒸气、非腐蚀性气体 Air, Vapor, Non-corrosive gases
耐烘烤温度 Baking temperature	打开(On): ≤200℃
	关闭(Off): ≤150℃
压缩空气 Air compression	0.4 ~ 0.7MPa
电源 Power supply	AC220V 50Hz, 6W或者 or DC24V, 3W(可选 optional)
安装位置 Mounting position	任意 Any
阀门位置指示 Valve in place indication	手动: 带有行程控制销钉 Manual : stroke control bolt
	气动: 带有启闭位置指示磁性开关 Pneumatic: magnetic switch with On/Off indications.

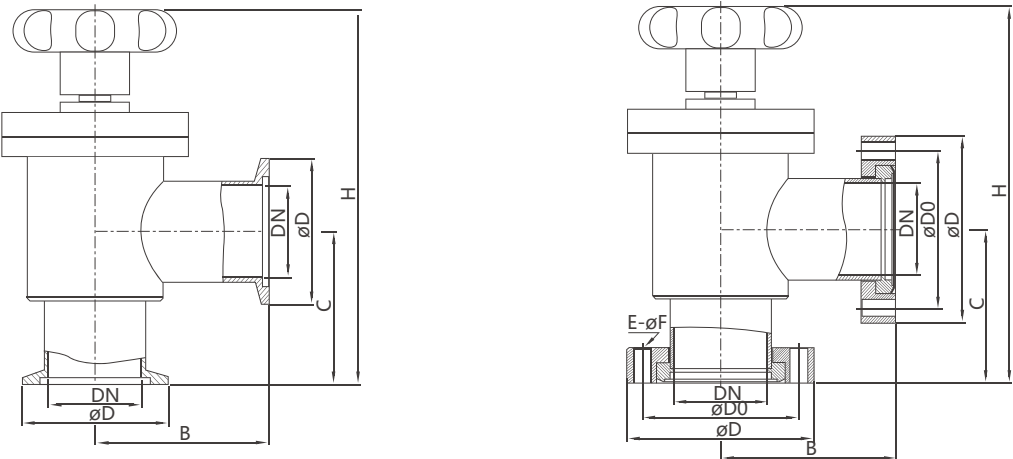
备注: 10⁻⁷Pa 真空度环境的阀门可定制

主要零部件材料 MAIN MATERIALS

阀体、阀杆 Valve body , valve rod	不锈钢(304) Stainless Steel 304
阀盖 Valve deck	铝合金、不锈钢(304) Aluminum alloy, Stainless steel 304
密封件 Seals	氟橡胶、焊接波纹管(316L) Viton, welded bellows(316L)

OUTLINE DIMENSIONS DRAWING(mm)
安装尺寸图

超高真空手动挡板阀外形图
Ultrahigh vacuum manual baffle valve



KF法兰连接 (KF Flange)、DN≤50 CF法兰连接(CF Flange)、DN≤50

超高真空手动挡板阀外形尺寸图（KF法兰）(单位：mm) Ultrahigh vacuum manual baffle valve (KF)(in: mm)

型 号 Model	DN	H	B	C	D
CD-JB16KF	16	106.2	35	35	30
CD-JB25KF	25	126.5	45	45	40
CD-JB40KF	40	141.5	55	55	55
CD-JB50KF	50	180.9	65	65	75

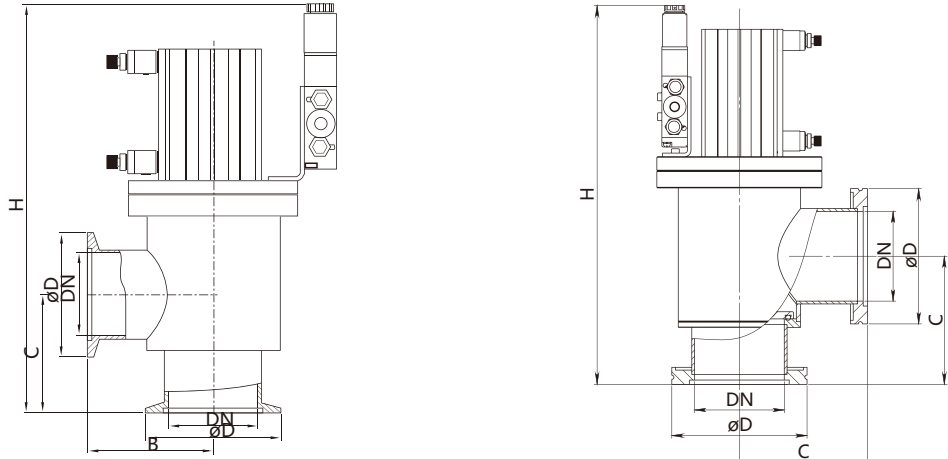
超高真空手动挡板阀外形尺寸图（CF法兰）(单位：mm) Ultrahigh vacuum manual baffle valve (CF) (in: mm)

型 号 Model	DN	H	B	C	D	D0	E-ØF	法兰标准 Flange
CD-JB16CF	16	111.2	40	40	34	27	6-Ø4.3	GB 6071
CD-JB25CF	25	136.6	55	55	54	43	6-Ø6.6	
CD-JB35CF	35	149.5	63	63	70	58.7	6-Ø6.6	
CD-JB50CF	50	196	80	80	86	72.4	8-Ø8.4	

注：Note
连接法兰可以根据客户要求定制；Flange can be customized
J表示角阀；B表示轴封为焊接波纹管密封结构；J refers to Angle valve, B refers to the shaft seal of welded bellows

ANGLE VALVE
挡板阀

超高真空气动挡板阀外形图
Ultrahigh vacuum pneumatic baffle valve



KF法兰 KF Flange DN≤50 ISO-K法兰连接ISO-K Flange、DN≥63

超高真空气动挡板阀外形尺寸图（KF法兰）(单位：mm) Ultrahigh vacuum pneumatic baffle valve

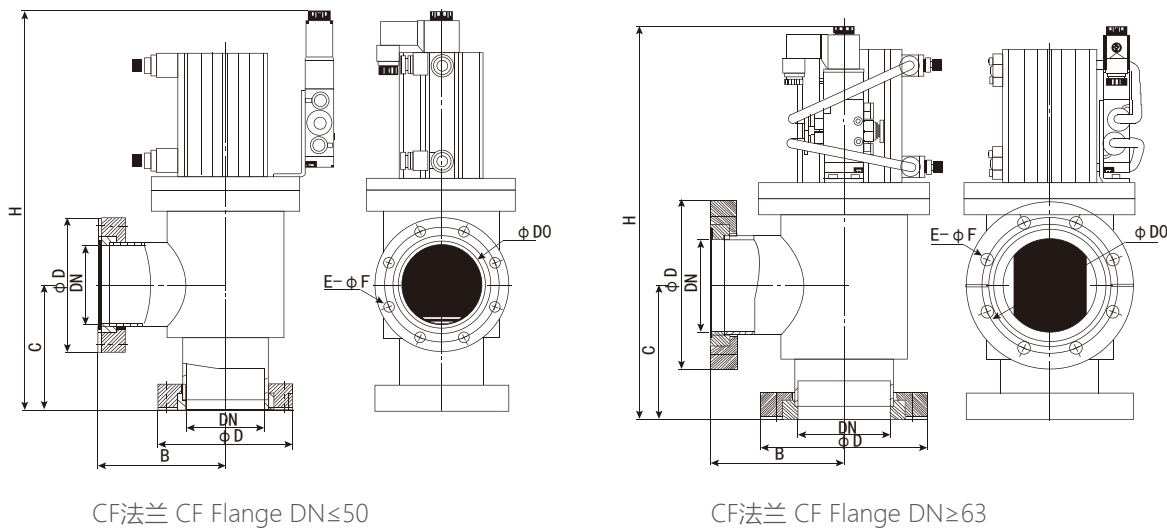
型 号 Model	DN	H	B	C	D
CDQ-JB16KF	16	115.7	35	35	30
CDQ-JB25KF	25	156.5	45	45	40
CDQ-JB40KF	40	161.8	55	55	55
CDQ-JB50KF	50	237	65	65	75

超高真空气动挡板阀外形尺寸图（ISO-K法兰）(单位：mm) Ultrahigh vacuum pneumatic baffle valve (ISO-K) (in: mm)

型 号 Model	DN	H	B	C	D	法兰标准 Flange
CDQ-JB50ISO-K	50	252.2	80	80	75	可配活套 法兰，标 准为 GB 6070
CDQ-JB63ISO-K	63	265.9	90	90	95	
CDQ-JB80ISO-K	80	285	100	100	110	
CDQ-JB100ISO-K	100	301.2	108	108	130	
CDQ-JB150ISO-K	150	387.5	140	140	180	
CDQ-JB200ISO-K	200	484	178	178	240	
CDQ-JB250ISO-K	250	719	208	208	290	
CDQ-JB320ISO-K	320	857.5	250	250	370	
CDQ-JB400ISO-K	400	1033	330	330	450	

OUTLINE DIMENSIONS DRAWING(mm)
安装尺寸图

超高真空气动挡板阀外形图
Ultrahigh vacuum manual baffle valve



超高真空气动挡板阀外形尺寸图（CF法兰）(单位：mm) Ultrahigh vacuum pneumatic baffle valve (CF)(in: mm)

型 号 Model	DN	H	B	C	D	D0	E-øF	法兰标准 Flange
CDQ-JB16CF	16	120.7	40	40	34	27	6-Ø4.3	GB 6071
CDQ-JB25CF	25	166.5	55	55	54	43	6-Ø6.6	
CDQ-JB35CF	35	175	63	63	70	58.7	6-Ø6.6	
CDQ-JB50CF	50	252.3	80	80	86	72.4	8-Ø8.4	
CDQ-JB63CF	63	266.2	90	90	114	92.2	8-Ø8.4	
CDQ-JB80CF	80	285	100	100	130	110	16-Ø8.4	
CDQ-JB100CF	100	311.2	118	118	152	130.3	16-Ø8.4	
CDQ-JB150CF	150	397.5	150	150	202	181	20-Ø8.4	
CDQ-JB200CF	200	490	184	184	253	231.8	24-Ø8.4	
CDQ-JB250CF	250	731	220	220	305	284	32-Ø8.4	
CDQ-JB300CF	300	870	260	260	368.3	338.1	32-Ø10.8	
CDQ-JB400CF	400	1045	340	340	469.9	437.9	40-Ø10.8	

HIGH VACUUM ANGIE VALVE
高真空挡板阀



产品简介 BRIFE INTRODUCTION

GDQ-J型气动高真空挡板阀依靠压缩空气作为阀板升降动力，实现阀门开闭；GD-J型手动高真空挡板阀是以人工转动手柄，通过螺纹传动实现阀门开闭。

阀门运动平稳,密封可靠,寿命长。

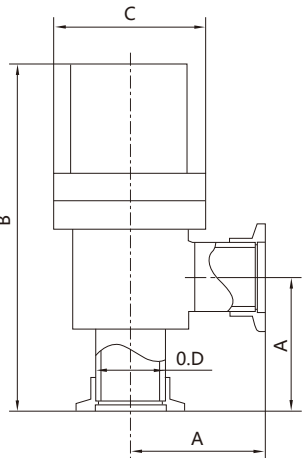
GDQ-J series Pneumatic high vacuum angle valve relies on compressed air as the driven power to achieve valve opening and closing. GD-J series manual high vacuum angle valve is manually driven (mechanical thread transmission) to achieve valve opening and closing. The valves feature smooth move, reliable seal and long service life.

技术指标 SPECIFICATIONS

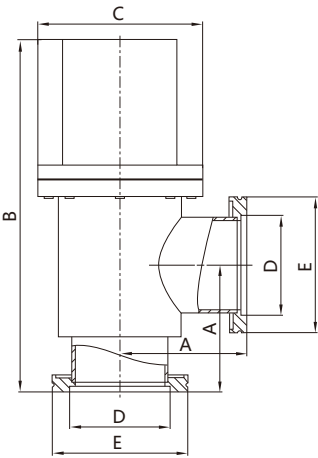
适用范围 Application	10 ⁵ Pa ~ 10 ⁻⁵ Pa	
漏率 Leak rate	≤1.3×10 ⁻¹⁰ Pa.m ³ /s	
工作介质 Working media	空气或低腐蚀性气体 Air、Non-corrosive gases	
耐烘烤温度 Baking temperature	打开(On): ≤150℃	关闭(Off): ≤120℃
压缩空气 Air compression	0.4 ~ 0.6MPa	
安装位置 Mounting position	DN≤100，安装方向任意，DN>150，密封板朝向高真空一侧	

OUTLINE DIMENSIONS DRAWING(mm)
安装尺寸图

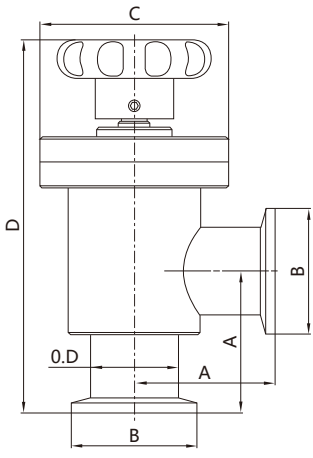
高真空气动挡板阀
High vacuum pneumatic angle valve



高真空气动挡板阀
High vacuum pneumatic angle valve



高真空手动挡板阀
High vacuum manual angle valve



高真空气动挡板阀外形尺寸图（KF法兰）(单位：毫米) DN≤50 High vacuum pneumatic angle valve(KF)(in: mm)

型 号 Model	DN	0.D	A	B	C
GDQ-JB16KF	16	15	40	131	60
GDQ-JB25KF	25	20	50	142	60
GDQ-JB40KF	40	35	65	178	78
GDQ-JB50KF	50	50	70	208	88

高真空气动挡板阀外形尺寸图（ISO-K法兰）(单位：毫米) DN≥63 High vacuum pneumatic angle valve(KF)(in: mm)

型 号 Model	DN	A	B	C	D	E	法兰标准Flange
GDQ-JB63ISO-K	63	88	350	101.6	70	95	可配活套法兰， 标准为GB 6070
GDQ-JB80ISO-K	80	98	350	114	83	110	
GDQ-JB100ISO-K	100	108	350	158	102	130	
GDQ-J150ISO-K	150	138	480	203.2	152	180	
GDQ-J200ISO-K	200	200	660	254	215	240	
GDQ-J250ISO-K	250	208	680	290	250	290	
GDQ-J320ISO-K	320	250	780	420	322	370	
GDQ-J400ISO-K	400	330	1033	510	390	450	

高真空手动挡板阀外形尺寸图（KF法兰）(单位：毫米) DN≤50 High vacuum manual angle valve(KF)(in: mm)

型 号 Model	DN	A	B	C	D
GD-JB16KF	16	40	30	60	127
GD-JB25KF	25	50	40	60	137
GD-JB40KF	40	65	55	78	165
GD-JB50KF	50	70	75	88	188

注：Note
挡板阀型号中B代表液压波纹管密封，无表示动密封。"B"in the model refers to Hydraulic bellows seal, others are Dynamic seal

VACUUM GAUGE
真空计



产品简介 BRIEF INTRODUCTION

真空计采用全新硬件及软件设计，稳定可靠、寿命长、抗干扰能力强、产品适用电压范围宽、环境适应性强，满足不同客户多样化的工艺过程需求。

Vacuum gauges with newly designed hardware and software feature good reliability, long service time and strong Anti-interference, available for wide power range and variety of processes requirements.

SPECIFICATIONS
技术指标

真空计快速选型方法 Selection Guide

测量范围 Measured range (Pa)														
	1×10 ⁵	1×10 ⁴	1×10 ³	1×10 ²	1×10 ¹	1×10 ⁰	1×10 ⁻¹	1×10 ⁻²	1×10 ⁻³	1×10 ⁻⁴	1×10 ⁻⁵	1×10 ⁻⁶	1×10 ⁻⁷	1×10 ⁻⁸
单电阻/双电阻 Pirani Vacuum Gauge														
单热电离 Ionization Vacuum Gauge														
单冷电离 Inverted Magnetron Gauge														
单BA规 Ionization Vacuum Gauge(B-A)														
阻+热离 Composite Vacuum Gauge														
阻+冷离 Composite Vacuum Gauge														
阻+BA规 Composite Vacuum Gauge														

变送器快速选型方法 Selection Guide

测量范围 Measured range (Pa)														
Category	显示控制器 controller	1×10 ⁵	1×10 ⁴	1×10 ³	1×10 ²	1×10 ¹	1×10 ⁰	1×10 ⁻¹	1×10 ⁻²	1×10 ⁻³	1×10 ⁻⁴	1×10 ⁻⁵	5×10 ⁻⁶	
单压阻Varistor sensor	KGC-103/ KGC-101													
压阻电阻复合 Varistor sensor														
单电阻 Resistance														
单冷电离 cold-cathodeionization gauge														
薄膜电容 thin-film capacitor														
电阻+冷离 Resistance gauge+cold- cathode ionization gauge														

VACUUM GAUGE
真空计

单测量真空计 Vacuum Gauge

型号 Model	ZDZ-52T/0B7	ZDR-27/0B6	ZDL-14/0B6	ZDR-12/0B6
测量范围 (Pa) Measured range	1.0×10 ⁵ ~ 1.0×10 ⁻¹	1.0×10 ⁻¹ ~ 1.0×10 ⁻⁵	1.0×10 ⁻¹ ~ 1.0×10 ⁻⁷	1.0×10 ⁻¹ ~ 1.0×10 ⁻⁸
配接规管 Type of gauge	ZJ-52T	ZJ-27	ZJ-14	ZJ-12
测量路数 Measured loop	1路 loop			
显示路数 Display loop	1路 loop			
显示方式 Display	五位LED数字显示，采用科学计数法，例1.2E-1，表示1.2×10 ⁻¹ (Pa) Five-digits LED display, e.g.: 1.2E-1 refers to 1.2 × 10 ⁻¹ Pa			
零点满度校准方式 Zero and Span Tuning	按键调节 Available	——		
控制路数 Controlled loops	2路 loops			
控制范围 (Pa) Controlled range	1.0×10 ⁵ ~ 1.0×10 ⁻¹	1.0×10 ⁻¹ ~ 1.0×10 ⁻⁵	1.0×10 ⁻¹ ~ 1.0×10 ⁻⁷	1.0×10 ⁻¹ ~ 1.0×10 ⁻⁸
控制方式 Control mode	点控或区域控制（带掉电记忆） Jog/regional control(with power off memory)			
控制点负载 Control point load	AC220V/3A；DC28V/10A			
电离外控External control of Ionization gauge	——	无源开关 Passive switch		
工作电源 Power supply	AC85V ~ AC245V /50Hz/15W	AC220V±10%/50Hz/45W		
重量 Weight	约1KG About 1Kg	约4KG About 4Kg	约3KG About 3Kg	约4KG About 4Kg
机箱尺寸 (mm) Dimension	96*96*130 (宽*高*深)(W*H*D)	240*88*330(宽*高*深)(W*H*D)		
安装开孔尺寸Amounting (mm)	92*92(宽*高)(W*H)	200*80(宽*高)(W*H)		
模拟输出Analog output	默认为0-5V输出，可选配4-20mA,二选一			
通讯接口Communication	RS-485(MODBUS-RTU协议)			

SPECIFICATIONS
技术指标

复合测量真空计 Composition Vacuum Gauge

型号 Model	ZDF-11B5	ZDF-11B7	ZDF-52B5	ZDF-41B5	ZDF-62B5	ZDF-71B5	ZDF-81B5
测量范围 (Pa) Measured range	1.0×10 ⁵ ~ 1.0×10 ⁻⁵			1.0×10 ⁵ ~ 1.0×10 ⁻⁷		1.0×10 ⁵ ~ 1.0×10 ⁻⁸	
配接规管 Type of gauge	ZJ-52T +ZJ-27	ZJ-52T +ZJ-27	ZJ-52T +ZJ-27	ZJ-52T +ZJ-14	ZJ-52T +ZJ-14	ZJ-52T +ZJ-12	ZJ-52T +ZJ-12
测量路数 Measured loop	2路 loops	2路loops	3路loops	2路loops	3路loops	2路loops	3路loops
显示路数 Display loop	2路 loops		3路loops	2路loops	3路loops	2路loops	2路loops
显示方式 Display	五位LED数字显示，采用科学计数法，例1.2E-1，表示1.2×10 ⁻¹ (Pa) Five-digits LED display, e.g.: 1.2E-1 refers to 1.2 × 10 ⁻¹ Pa						
零点满度校准方式 Zero and Span Tuning	按键校准 Available						
控制路数 Controlled loops	4路（全量程内任意设定） 4loops （ Full range setting）						
控制范围 (Pa) Controlled range	1.0×10 ⁵ ~ 1.0×10 ⁻⁵			1.0×10 ⁵ ~ 1.0×10 ⁻⁷		1.0×10 ⁵ ~ 1.0×10 ⁻⁸	
控制方式 Control mode	点控或区域控制（带掉电记忆） Jog/regional control(with power off memory)						
控制点负载 Control point load	AC220V/3A； DC28V/10A						
电离外控External control of Ionization gauge	无源开关 Passive switch						
工作电源 Power supply	AC220V±10%/50Hz/45W						
重量 Weight	约4KG About 4Kg						
机箱尺寸 (mm) Dimension	480*88*280 (宽*高*深) (W*H*D)	107*129*230 (宽*高*深)(W*H*D)	480*88*280(宽*高*深)(W*H*D)				
安装开孔尺寸Amounting (mm)	440*80 (宽*高)(W*H)	104*110 (宽*高)(W*H)	440*80(宽*高)(W*H)				
模拟输出Analog output	默认为0-5V输出，可选配4-20mA,二选一						
通讯接口Communication	RS-485(MODBUS-RTU协议)						

TRANSMITTER
变送器



KYM-240

KYM-240电容薄膜式绝对压力变送器采用进口电容薄膜片，具有量程宽，测量精度高，稳定性好等特点。

KYM-240 Capacitance Diaphragm Gauge features wide range,high accuracy and good reliability.

KYM-240 基本参数/specifications				
测量范围 Controlled range (Pa)	133000 ~ 13.3	13300 ~ 1.33	1330 ~ 0.133	133 ~ 0.0133
订购号 Model	13T	12T	11T	10T
供电电源 Power supply	+14VDC ~ 30VDC、Vpp≤0.5V			
调节方式 Adjusting way	全数字按键校准 push-button zero tuner			
电气连接 Electric connector	DB9 pin 针头			
精度等级 Accuracy grade	0.5 级/Grade			
读数误差 Accuracy	≤0.5%读数/Reading			
零点漂移 Zero drift	0.005%F.S./°C			
满度漂移 Span drift	0.01%F.S./°C			
分辨率 Resolution	0.003%F.S.			
输出电压 Output voltage	-0.1VDC ~ +10.5VDC			
破坏压强 Proof pressure	5 atm			
接口配置 Flange	KF16			

TRANSMITTER
变送器



KYP-101

KYP-101型变送器具有空间小、温度补偿快、真空测量稳定、对大气压强反映快等优点，适用于半导体系统及前级真空系统管道中。

KYP-101 Transmitter/Pirani Gauge features compact structure, fast temperature compensation, stable measuring performance and repid pressure response, available for semiconductor system and pre-vacuum system.

KYP-101 基本参数/specifications	
产品型号 Model	KYP-101
测量范围 Measureing range	1.0×10 ⁵ ~ 1.0×10 ⁻² (Pa)
有效范围 Effective range	3.0×10 ³ ~ 5.0×10 ⁻¹ (Pa)
参考范围 Reference	1.0×10 ⁵ ~ 3.0×10 ³ (Pa) and 5.0×10 ⁻¹ ~ 1.0×10 ⁻² (Pa)
测量精度 Accuracy	±30% Reading
供电电源 Power supply	DC24V±20%/0.2A
允许压强 Operation pressure	3atm
调节方式 Zero/Span Tuning	按键 push-button tuner
电气连接 Electric connector	FCC68/RJ45
尺寸 Dimension	约45*25*110(长*宽*深) (mm) (L*W*D)
安装方位 Mounting position	建议竖直安装 proposal vertical
法兰处烘烤 Baking (Flange)	80/250℃
接口配置 Flange	KF16

TRANSMITTER
变送器



KYF-181

KYF-181 型真空变送器是一款集成了皮拉尼、冷阴极电离传感器的真空测量变送器，适用于非可燃性、非腐蚀性气体。

KYF-181 Transmitter consists of Pirani and cold cathode ionization sensor, available for non-flammable, non-corrosive gases.

KYF-181基本参数/Specifications	
产品型号 Model	KYF-181
测量范围 Measuring range	1.0×10 ⁵ ~ 5.0×10 ⁻⁶ (Pa)
测量精度 Accuracy	±50% Reading
供电电源 Power supply	+18VDC ~ 30VDC
电气连接 Electric connector	RJ45
接口配置 Flange	KF25

CONTROLLER
真空控制器



KGC-101/KGC-103

真空控制器设计紧凑、可靠性高，使系统集成简单化和运用全范围测量技术获得多个压力读数。

The compact design and high reliability make system integration simple and use a full range of measurement techniques to obtain multiple pressure readings.

支持全系真空变送器，很好地适用于整个压强范围以及设点状态的监测和数据记录。

Available for whole series of vacuum transmitter for monitoring and data recording over the full pressure range and set-up status.

KGC-101/KGC-103 Controller真空控制器基本参数/Specifications

产品型号 Model	KGC-101/KGC-103
配接变送器 Transmitter	KYP-101/KYM-240/KYF-180/KYF-2YZ/ZJ-2Y等
数据单位 Unit	mBar、Torr、Pa、Micro、HPa、KPa、V
连接端口 Interface	RJ-45(FCC68)/DB15/孔座
变送器电源 Power output	DC24V±5%、Vpp≤0.5V
工作电源 Power supply	AC130V ~ AC240V/50-60Hz
满度误差 Accuracy	≤0.01%F.S. (典型typical) ≤0.1%F.S. (全温度、长时间) (Full temp Range, long time)
零点偏移 Zero drift	≤0.005%F.S. (典型typical) ≤0.02%F.S. (全温度、长时间) (Full temp Range, long time)
测量速率 Measuring tempo	10/S (每通道 each channel)
模数转换 (ADC)	分辨率 resolution 0.001%F.S.
控制路数 Controlled loops	6路loops
重量 Weight	约1KG
机箱尺寸 Dimension (mm)	KGC-101: 106*84*206 (宽*高*长) (W*H*L) /KGC-103: 106*129*235 (宽*高*长) (W*H*L)
安装开孔尺寸 Mounting dimension (mm)	KGC-101: 104*67.5 (宽*高) (W*H) /KGC-103: 104*110 (宽*高) (W*H*)

VACUUM SOLUTIONS
真空解决方案

中科科仪深耕真空领域60余年，具有国内首屈一指的真空资源整合能力，持续进行真空理论、工程实践和产品应用创新，为您提供全方位的真空解决方案和专业便捷服务。

With 60 years exploration in vacuum industry, KYKY is experienced to provide optimized vacuum solutions and convenient and professional services based on the overall understanding of specific requirements, vacuum fundamental theories, engineering practices and products applications.

半导体工业 SEMICONDUCTOR INDUSTRY

- ◆ 更长的维护保养时间间隔 Longer interval for maintenance
- ◆ 更加节能环保的真空产品 Efficient and eco-friendly products
- ◆ 定制化的真空解决方案 Customized vacuum solutions

工业检漏 INDUSTRIAL LEAK DETECTION

- ◆ 高灵敏度的检漏设备 Highly sensitive leak detector
- ◆ 高频率检漏的可靠产品 Reliable products for highly frequent operation
- ◆ 定制化的检漏解决方案 Customized leak detecting solutions
- ◆ 及时全面的现场服务 Timely and all-round services on site

研发、大科学工程 R&D AND NATIONAL MAJOR SCIENTIFIC ENGINEERING

- ◆ 高可靠性的产品 Highly reliable products

VACUUM SOLUTIONS 真空解决方案

- | | |
|---------------|---|
| ◆ 耐放射性辐射的解决方案 | Radiation-resistant solutions |
| ◆ 特殊需求的深度合作 | Deeper cooperation for special requirements |
| ◆ 定制化的真空解决方案 | Customized vacuum solutions |
| ◆ 及时全面的现场服务 | Timely and all-round services on site |

分析仪器 ANALYSIS INSTRUMENTS

- | | |
|---------------|---------------------------------------|
| ◆ 模块化设计的多重选择性 | Multi options based on modular design |
| ◆ 使用维护的便利性 | Convenient operation and maintenance |
| ◆ 控制连接的定制化 | Interfaces customization |
| ◆ 转速调节的自主性 | Independent speed adjustment |

真空服务 SERVICES

- | | |
|--------------------|--|
| ◆ 北京及全国真空行业协会的交流平台 | Platform of vacuum associations in China |
| ◆ 真空理论和计算交流咨询 | Consultancy of Vacuum theory and calculation |
| ◆ 真空工程的经验分享 | Experience sharing of vacuum engineering |