



全国统一服务热线
010-62966298



Pump Selection Guide

北京清博华科技有限公司
网址:<http://www.prehplc.com>
地址:北京市昌平区超前路甲一号北控宏创科技园3号楼7层
邮箱:销售:sale@prehplc.com 售后:service@prehplc.com
电话:(010)62966298

Beijing Qingbohua Technology Co., LTD.
Website:<http://www.prehplc.com>
Address:7th Floor, Building 3, No.1, Chaoqian Road, Changping District, Beijing
[Email:Sale:sale@prehplc.com](mailto:Sale:sale@prehplc.com) Service:service@prehplc.com
Tel:(010) 62966298

输液泵选型手册

北京清博华科技有限公司
Beijing Qingbohua Technology Co., LTD.



Company

Beijing Qingbohua Technology Co., LTD. specializes in the research and development and production of liquid chromatography instruments and their core components. The company has a professional and efficient R&D team and an experienced production team. It has established a mature R&D and production system for instruments and equipment, a strict quality management system and a comprehensive customer service system.

Product

High-pressure infusion pumps are the centerpiece of precise material transfer, and Qingbohua Technologies offers a wide range of high-pressure infusion pumps with superior performance for a wide variety of applications in the pharmaceutical, fine chemical, green chemistry, catalytic reaction, high sub-chemistry, oleochemical, food, energy, environmental, and materials industries.



Product Features

- ① Wide range of models with flow rates from 0-3000 ml/min for a wide variety of applications;
- ② The pump head is available in a wide range of materials and can be targeted to fulfill different scenarios of liquid transfer;
- ③ Optimized cam profiles and cross-point flow corrections ensure exceptional accuracy and stability of solvent delivery over the full flow range;
- ④ Floating plunger design for extended seal life;
- ⑤ Self-cleaning plunger function reduces wear on pump head seals due to material precipitation and improves service life;
- ⑥ Timing function allows you to customize the duration of pump operation;
- ⑦ With the weighing module, flow stability can be monitored to prevent material loss due to pump abnormalities.

Selection Wizard

Type	Model	Flow Range (ml/min)			Contact Medium	Applicable Materials
		Min	Max	Incremental		
316L Piston Pumps	P2010	0.001	9.999	0.001	316L, PTFE, PEEK, Sapphire, Ruby, Ceramic	Applicable to: Water, conventional organic solvents without free halogen ions, conventional inorganic concentrated strong acid solvents (without halogen), conventional organic alkali reagents, inorganic alkali solutions, etc. Not applicable to: Halogen-containing strong acid solutions, certain strong acid solvents and inorganic salts at various temperatures.
	P2050	0.01	50.00	0.01		
	P2100	0.01	99.99	0.01		
	P2200	0.01	200.00	0.01		
	P1300	0.01	300.00	0.01		
	P1600	0.01	600.00	0.01		
	P1001L	0.1	1000.0	0.1		
Hastelloy Piston Pumps	P1003L	0.1	3000.0	0.1		
	P2010H	0.001	9.999	0.001	Hastelloy, PTFE, PCTFE, Sapphire, Ruby, Ceramic	Applicable to: It contains halides and various organic acids at room temperature, and is particularly suitable for inorganic acids and organic acids mixed with impurities (such as formic acid and acetic acid). Not applicable to: Medium and high-temperature halogen-containing strong acid solutions.
	P2050H	0.01	50.00	0.01		
	P2100H	0.01	99.99	0.01		
	P2200H	0.01	200.00	0.01		
	P1300H	0.01	300.00	0.01		
	P1600H	0.01	600.00	0.01		
	P1001LH	0.1	1000.0	0.1		
PEEK Piston Pumps	P1003LH	0.1	3000.0	0.1		
	P2010K	0.001	9.999	0.001	PEEK, PTFE, Sapphire, Ruby, Hastelloy, Ceramic	Applicable to: Inorganic acids except for some strong oxidizing acids, various organic acids, strong bases, reducing acids, and some strong oxidizing acids, such as hydrochloric acid, phosphoric acid, acetic acid, etc. Not applicable to: Strong oxidizing acids, such as sulfuric acid, nitric acid, and pure halogen elements.
	P2050K	0.01	50.00	0.01		
	P2100K	0.01	99.99	0.01		
	P2200K	0.01	200.00	0.01		
	P1300K	0.01	300.00	0.01		
	P1600K	0.01	600.00	0.01		
	P1001LK	0.1	1000.0	0.1		
Titanium Piston Pumps	P1003LK	0.1	3000.0	0.1		
	P2010T	0.001	9.999	0.001	Titanium, PTFE, PCTFE, Sapphire, Ruby, Hastelloy, Ceramic	Applicable to: Inorganic acids except for some strong oxidizing acids, various organic acids, strong bases, reducing acids, and some strong oxidizing acids, such as nitric acid, etc. Not applicable to: Strong oxidizing acids, such as sulfuric acid, phosphoric acid, hydrochloric acid, and pure halogen elements.
	P2050T	0.01	50.00	0.01		
	P2100T	0.01	99.99	0.01		
	P2200T	0.01	200.00	0.01		
	P1300T	0.01	300.00	0.01		
	P1600T	0.01	600.00	0.01		
	P1001LT	0.1	1000.0	0.1		
PCTFE Piston Pumps	P1003LT	0.1	3000.0	0.1		
	P2010F	0.001	9.999	0.001	PCTFE, PTFE, Sapphire, Ruby, Hastelloy, Ceramic	Applicable to: All acidic organic and inorganic reagents and solvents. Not applicable to: Organic bases, epoxy cyclic ether reagents, cyclic sulfur solvents, etc.
	P2050F	0.01	50.00	0.01		
	P2100F	0.01	99.99	0.01		
	P2200F	0.01	200.00	0.01		

316L Piston Pumps



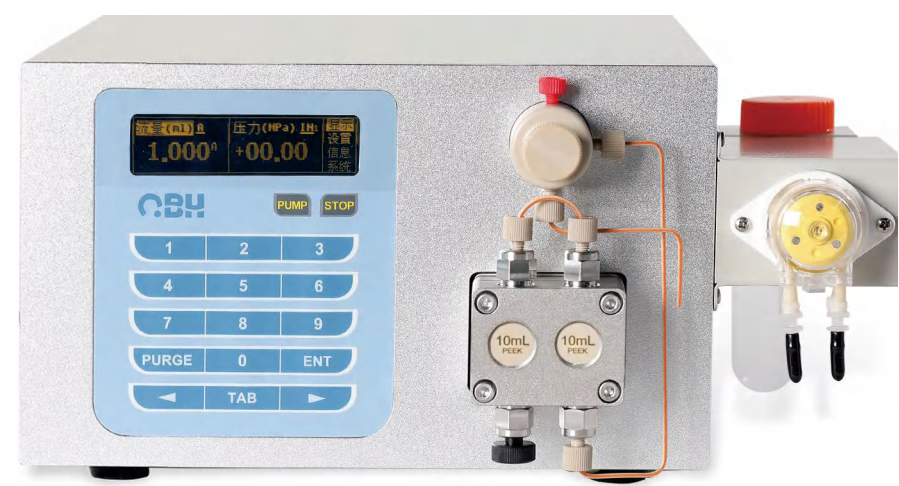
Hastelloy Piston Pumps



Model	P2010	P2050	P2100	P2200	P1300	P1600	P1001L	P1003L
Flow Range	0.001-9.999 (ml/min)	0.01-50.00 (ml/min)	0.01-99.99 (ml/min)	0.01-200.00 (ml/min)	0.01-300.00 (ml/min)	0.01-600.00 (ml/min)	0.01-1000.0 (ml/min)	0.1-3000.0 (ml/min)
Increment	0.001ml/min	0.01ml/min					0.1ml/min	
Flow Accuracy	±0.5%				±1%			
Flow Stability	RSD≤0.3%				RSD≤0.5%			
Pump Head	316L Stainless Steel: Universal Configuration							
Liquid Contact Medium	316L Stainless Steel, PTFE, PEEK, Sapphire, Ruby	316L Stainless Steel, PTFE, PEEK, Sapphire, Ruby, Ceramic			316L Stainless Steel, PTFE, PEEK, Ceramic			
Outlet Pipe OD	1/16", 1/8" or 3mm Standard 316L Stainless Steel Pipe				1/8" Standard 316L Stainless Steel Pipe			1/4" Standard 316L Stainless Steel Pipe
Inlet Pipe (PTFE Pipe)	4mm OD 2.5mm ID	4mm OD 3mm ID		6mm OD 4mm ID	7mm OD 5mm ID			10mm OD 8mm ID
Pressure	≤42Mpa	≤30Mpa	≤20Mpa		≤10Mpa			
Valve	Standard Check Valve							
Type	Series			Parallel				
Electric Machine	Stepper Motor				Servo Motor			
Communication Protocol	RS232/485/Modbus Protocol							
Display	OLED				LCD(320×240)			
Power	100 ~ 240VAC, 50/60Hz							
Size (L×W×H)	365×240×152mm				525×420×222mm			723×531×274mm

Model	P2010H	P2050H	P2100H	P2200H	P1300H	P1600H	P1001LH
Flow Range	0.001-9.999 (ml/min)	0.01-50.00 (ml/min)	0.01-99.99 (ml/min)	0.01-200.00 (ml/min)	0.01-299.99 (ml/min)	0.01-599.99 (ml/min)	0.01-999.9 (ml/min)
Increment	0.001ml/min	0.01ml/min					0.1ml/min
Flow Accuracy	±0.5%				±1%		
Flow Stability	RSD≤0.3%				RSD≤0.5%		
Pump Head	Hattelloy Alloy: Corrosion Resistance, Chlorine Resistance, Oxide Resistance						
Liquid Contact Medium	Hattelloy Alloy, PTFE, PCTFE, Sapphire, Ruby, Ceramic				Hattelloy Alloy, PTFE, PCTFE, Ceramic		
Outlet Pipe OD	1/16", 1/8" or 3mm Standard Hattelloy Alloy Pipe				1/8" Standard Hattelloy Alloy Pipe		
Inlet Pipe (PTFE Pipe)	4mm OD 2.5mm ID	4mm OD 3mm ID		6mm OD 4mm ID	7mmOD 5mm ID		
Pressure	≤30Mpa	≤20Mpa	≤15Mpa	≤10Mpa	≤5Mpa		
Valve	Standard Check Valve						
Type	Series		Parallel				
Electric Machine	Stepper Motor				Servo Motor		
Communication Protocol	RS232/485/Modbus Protocol						
Display	OLED				LCD(320×240)		
Power	100 ~ 240VAC, 50/60Hz						
Size (L×W×H)	365×240×152mm				525×420×222mm		

PEEK Piston Pumps



Model	P2010K	P2050K	P2100K	P2200K	P1300K	P1600K	P1001LK	P1003LK
Flow Range	0.001-9.999 (ml/min)	0.01-50.00 (ml/min)	0.01-99.99 (ml/min)	0.01-200.00 (ml/min)	0.01-300.00 (ml/min)	0.01-600.00 (ml/min)	0.01-1000.0 (ml/min)	0.1-3000.0 (ml/min)
Increment	0.001ml/min	0.01ml/min					0.1ml/min	
Flow Accuracy	±0.5%				±1%			
Flow Stability	RSD≤0.3%				RSD≤0.5%			
Pump Head	PEEK: Wear Resistance, High Temperature Resistance, Acid and Alkali Resistance, Hydrolysis Resistance							
Liquid Contact Medium	PEEK, PTFE, Sapphire, Ruby, Ceramic, Hadtelloy Alloy				PEEK, PTFE, Ceramic, Hadtelloy Alloy			
Outlet Pipe OD	1/16", 1/8" or 3mm Standard PEEK Pipe				1/8" Standard PEEK Pipe			1/4" Standard PEEK Pipe
Inlet Pipe (PTFE Pipe)	4mm OD 2.5mm ID	4mm OD 3mm ID		6mm OD 4mm ID	7mmOD 5mm ID			10mm OD 8mm ID
Pressure	≤25Mpa	≤20Mpa	≤15Mpa	≤10Mpa	≤5Mpa			
Valve	Standard Check Valve							
Type	Series		Parallel					
Electric Machine	Stepper Motor				Servo Motor			
Communication Protocol	RS232/485/Modbus Protocol							
Display	OLED				LCD(320×240)			
Power	100 ~ 240VAC, 50/60Hz							
Size (L×W×H)	365×240×152mm				525×420×222mm			723×531×274mm

Titanium Piston Pumps



Model	P2010T	P2050T	P2100T	P2200T	P1300T	P1600T	P1001LT	P1003LT
Flow Range	0.001-9.999 (ml/min)	0.01-50.00 (ml/min)	0.01-99.99 (ml/min)	0.01-200.00 (ml/min)	0.01-300.00 (ml/min)	0.01-600.00 (ml/min)	0.01-1000.0 (ml/min)	0.1-3000.0 (ml/min)
Increment	0.001ml/min	0.01ml/min					0.1ml/min	
Flow Accuracy	±0.5%				±1%			
Flow Stability	RSD≤0.3%				RSD≤0.5%			
Pump Head	Titanium Alloy: Chlorine Resistance, Oxidation Resistance, Corrosion Resistance							
Liquid Contact Medium	Titanium Alloy, PTFE, PCTFE, Sapphire, Ruby, Ceramic, Hadtelloy Alloy				Titanium Alloy, PTFE, PCTFE, Ceramic, Hadtelloy Alloy			
Outlet Pipe OD	1/16", 1/8" or 3mm Standard Titanium Alloy Pipe				1/8" Standard Titanium Alloy Pipe			1/4" Standard Titanium Alloy Pipe
Inlet Pipe (PTFE Pipe)	4mm OD 2.5mm ID	4mm OD 3mm ID		6mm OD 4mm ID	7mm OD 5mm ID			10mm OD 8mm ID
Pressure	≤30Mpa	≤20Mpa	≤15Mpa	≤10Mpa	≤5Mpa			
Valve	Standard Check Valve							
Type	Series		Parallel					
Electric Machine	Stepper Motor				Servo Motor			
Communication Protocol	RS232/485/Modbus Protocol							
Display	OLED				LCD(320×240)			
Power	100 ~ 240VAC, 50/60Hz							
Size (L×W×H)	365×240×152mm				525×420×222mm			723×531×274mm

PCTFE Piston Pumps



Model	P2010F	P2050F	P2100F	P2200F
Flow Range	0.001-9.999 (ml/min)	0.01-50.00 (ml/min)	0.01-99.99 (ml/min)	0.01-200.00 (ml/min)
Increment	0.001ml/min	0.01ml/min		
Flow Accuracy	±0.5%			
Flow Stability	RSD≤0.3%			
Pump Head	PCTFE: Low Temperature Resistance, Resistance to Various Acids, Alkalies, Oils and Most Organic Solvents			
Liquid Contact Medium	PCTFE, PTFE, Sapphire, Ruby, Ceramic, Hastelloy Alloy			
Outlet Pipe OD	1/16" Standard PTFE Pipe			
Inlet Pipe (PTFE Pipe)	4mm OD 2.5mm ID	4mm OD 3mm ID		6mm OD 4mm ID
Pressure	≤5Mpa			
Valve	Standard Check Valve			
Type	Series		Parallel	
Electric Machine	Stepper Motor			
Communication Protocol	RS232/485/Modbus Protocol			
Display	OLED			
Power	100 ~ 240VAC, 50/60Hz			
Size (L×W×H)	365×240×152mm			