

FSH-CF150系列 大流量恒流计量泵系统

FSH-CF150系列大流量恒流泵是广州飞升自主研发创新设计的高效恒流计量泵。该系统由1个控制器以及1个大流量恒流计量泵体组成。FSH-CF150系列计量泵集高效率、高精度、高稳定性、全数控于一体，采用微米级的加工技术，使其始终保持高精度注液特性。在高效率流体输送方面，能发挥其最大功效。

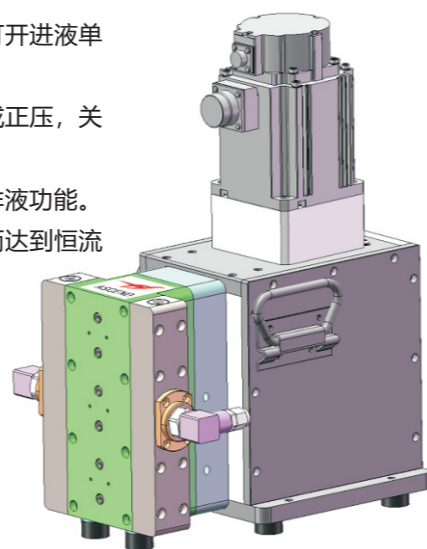
FSH-CF150系列大流量恒流泵适用于各种全自动注液灌装、无人化生产车间，广泛应用于锂电池、化工、医药、食品等行业。

工作原理：

吸液：电机驱动凸轮连杆机构拉动活塞后移，活塞腔体容积增大形成负压，打开进液单向阀同时关闭出液单向阀，吸入液体。

排液：电机驱动凸轮连杆机构推动活塞向前压缩，通过活塞腔体容积减少形成正压，关闭进液单向阀同时打开出液单向阀，排出液体。

恒流原理：电机驱动凸轮机构，带动A/B/C三个活塞进行往复运动实现吸、排液功能。三个凸轮带动活塞的相互配合，当电机转过任意相同角度时，泵出液量一致，从而达到恒流工作效果。于锂电池、化工、医药、食品等行业。

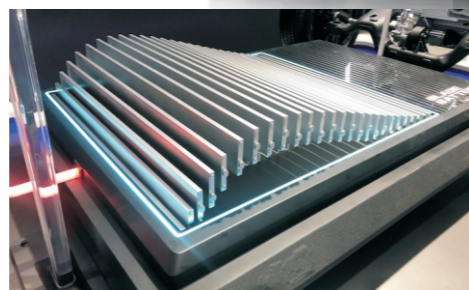


系统特点：

- 高效率，可达120ml/s
- 免维护设计，无脉动，永不卡泵
- 出液压力：0.5MPa
- 高精度，重复精度±0.5%以内
- 通讯接口：I/O、Ethernet
- 驱动方式：闭环伺服驱动
- 智能化控制

典型应用：

- 锂电池电解液注液
- 制药行业注液灌装
- 化工试剂灌装
- 化妆品灌装
- 食品添加剂灌装
- 配料试剂添加



FSH-CF150 Series High Flow Constant Flow Pump System

FSH-CF150 series is the latest pulse free high efficiency constant flow metering pump system developed by Guangzhou Ascend. The system consists of a digital controller and a pulse free constant flow pump body. FSH-CF150 series is a high efficiency, high precision, high reliability digital control system based on micro-meter precision machining technology. The system maintains high precision dispensing with maximum injection efficiency. FSH-CF150 series pump system is a perfect solution for automatic injection and filling lines as well as unmanned automatic factories. The system can be widely used in lithium battery electrolyte injection, chemical dispensing, pharmaceutical drug dispensing, liquid food dispensing, etc.

Working Principle:

Liquid inlet: Motor drive CAM connecting rod mechanism to pull the piston to move back, the piston chamber volume increases to form negative pressure, open the liquid inlet one-way valve while closing the liquid outlet one-way valve, suction liquid.

Liquid outlet: Motor drive the CAM connecting rod mechanism to push the piston forward compression, through the piston chamber volume reduction to form positive pressure, close the liquid inlet check valve and open the liquid outlet check valve, discharge liquid.

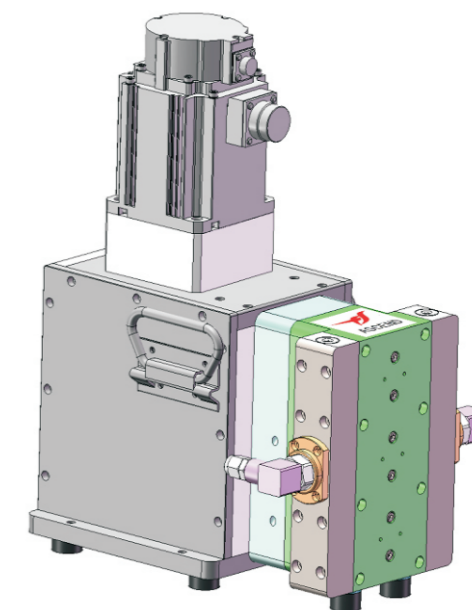
Constant current principle: the motor drives the CAM mechanism, driving A/B/C three pistons to reciprocate to achieve suction and discharge functions. Three CAM driven piston with each other, when the motor turned any same Angle, the pump liquid amount is consistent, so as to achieve constant current working effect.

System Features:

- High efficiency. Up to 120ml/s.
- Pulse free. No pump jamming or leaking.
- Output pressure. Up to 0.5 MPa.
- High precision. 0.5% or better.
- Communication: I/O、Ethernet.
- Drive: Servo motor with closed loop control.

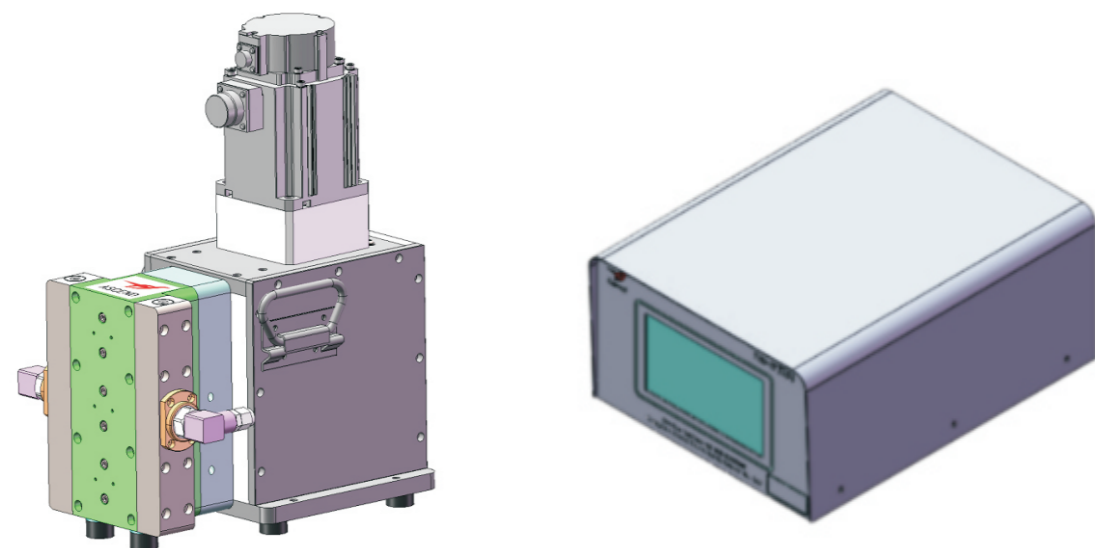
Typical Applications:

- Lithium battery electrolyte injection
- Pharmaceutical drug filling
- Chemical fluid filling
- Cosmetics fluid filling
- Food and beverage additions
- Ingredients mixing and additions



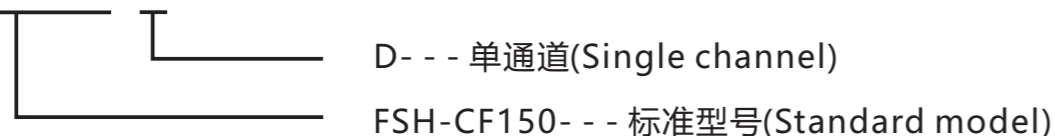
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FSH-CF150 Series High Flow Constant Flow Pump



规格型号定义 Specifications:

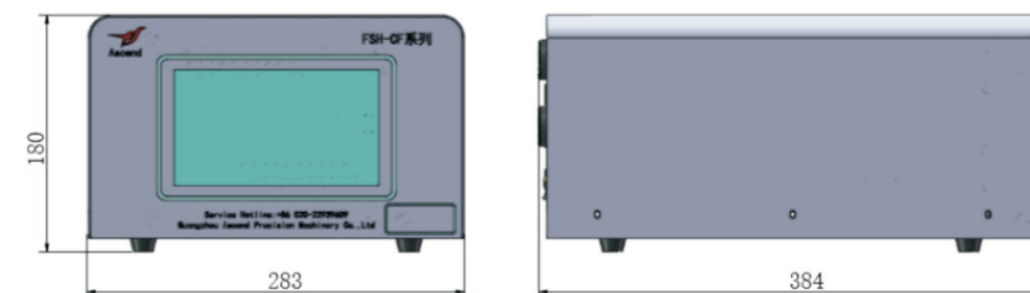
FSH- CF150- D-E



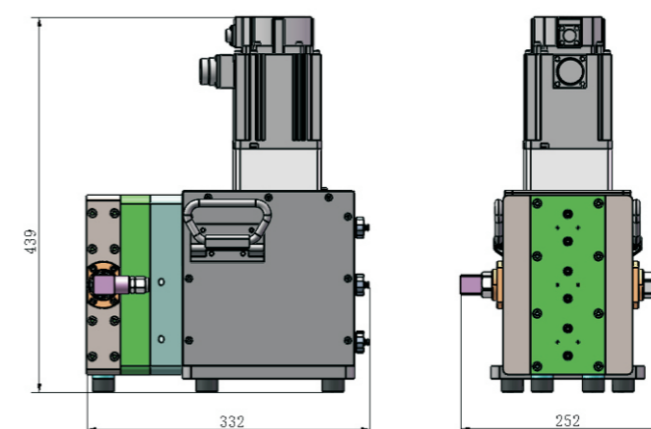
技术参数 Technical Parameters:

型号 Model	FSH-CF150-D-E
最大流量 Maximum flow rate	120ml/s
重复精度 Accuracy	±0.5%
通讯接口 Communication port	I/O, Ethernet
接触液体材料 Materials in contact with fluid	316不锈钢 特氟龙 陶瓷 (特殊氧化锆/碳化硅) 316 Stainless Steel Teflon Ceramic(Special Zirconia/SiC)
电源电压, 频率 Power supply voltage, frequency.	AC220V, 50/60HZ
功率 Power	1500W
注液阀 Injection valve	防滴液阀 (可定制) Drip proof valve (customized)

控制器的安装尺寸图 Installation Dimensions of Controller(in mm)



泵的安装尺寸图 Installation Dimensions of Pump(in mm) :



管道配置 Tubing Configuration:

参数 Parameter configuration	流量 (ml/s) Flow rate		
	10~40	40~80	80~150
进液接头(mm) Inlet fitting	φ 14	φ 14	φ 14
出液接头(mm) Outlet fitting	φ 12	φ 12	φ 12
进液管内径(mm) Inlet tubing ID	12	12	12
出液管内径(mm) Outlet tubing ID	10	10	10
注液针 Needle	配防滴液阀 (参考P37) Anti-drip valve (refer to P37)		

接头 Fitting:

	快拧接头 Connector	FS-CF150-20-φ 14
		FS-CF150-20-φ 12
		FS-CF150-20-φ 10

管道配置与布局请提前与飞升销售确认。

建议:

管道材质采用特氟龙材料, 进出液管道长度不超过3米; 出液管道扬程不超过1.5米; 针头与泵头高度差不超过1米。泵头位置高于储液罐位置, 高度差小于1米。针头位置高于储液桶位置。

Please contact Guangzhou Ascend for tubing configuration.

Suggestions:

Tubing material shall be Teflon material.
Length of inlet & outlet tubing should not exceed 3 meters.
Outlet tubing' s highest point should not exceed 1.5 meters above pump.
Height difference between dispensing needle and pump should not exceed 1 meter.
Pump should be placed higher than fluid tank. Height difference < 1M.