

Point of Use (POU) System

POU用水点换热系统

Exergy Point-Of-Use system dispenses instant, temperature controlled WFI or PW, and is designed to meet the high quality requirements and hygienic standards of the pharmaceutical industry. When not in use, a continuous flow of hot water (from the main loop) maintains sanitization. Exergy offers standard models using our compact, high performance heat exchangers for the most demanding conditions. Many features and options can be customized.

艾格用水点换热取样系统能够对达到目标温度的注射用水/纯化水进行即时取样，符合制药行业严格的卫生标准。该系统不工作时，主循环中持续的热水能持续消毒。艾格提供的该系列标准产品结构紧凑，效率高，能够满足大部分工况，并有多种配件可供选用。

Advantages 优势

- Cold or hot WFI/PW available within seconds
很快能取到所需的冷水/热水
- Dispense flow rates up to 15 GPM
流量可达到 15 GPM
- Minimal pressure drop due to heat exchanger design
换热器的设计使得该系统产生压力降很低
- Regulating header valve ensures desired flow rate, even if main loop pressure varies
即使主循环内压力变化，也可以通过控制阀来确保所需要的流量
- Fully automated (manual operation available)
全自动操作 (也可以提供手动操作)
- Touch screen HMI with intuitive software to view process parameters & system operation
HMI 触摸屏和直观的软件使操作人员在使用过程中可以看到系统工作中的各项参数
- DCS/SCADA interface via Ethernet with remote access
可以利用以太网通过 DCS/SCADA 接口进行远程操作
- Fully drainable on product side, with no dead legs
管程和完全排空，无死角
- Easy to install, operate and maintain
安装，操作和维护都十分方便
- Full performance test done on every POU
每台设备都经过性能测试
- CIP and SIP capable
可进行在线清洗和在线消毒



Typical Applications 典型工况

- Cool WFI/PW from 80-85°C to 20-40°C
将纯化水/注射用水从 80-85°C 降到 20-40°C
- Parts Washing Station 清洗机
- Product Sampling 物料取样
- Tank Filling 容器灌装

Design Features 设计特点

- Enclosed locking cabinet 外壳全封闭
- Double tube sheet heat exchanger eliminates risk of cross contamination between product and working fluids
无菌级双管板换热器能避免管程和壳程流体交叉污染
- 316L stainless steel construction 316L 不锈钢材质
- All product contact surfaces are passivated, less than 20 Ra and electropolish available
产品表面均经过钝化处理，抛光精度达到 Ra20 微英寸
- ASME BPE Compliant 符合 ASME BPE 标准

Documentation 文件资料

- FAT Report (Component Certs & MTR's, Orbital Weld Logs, Inspection, Leak Test, Passivation, Performance Reports)
FAT 工厂验收报告 (零件证书, 焊接记录, 泄漏测试, 钝化处理报告和性能报告)
- Quality Assurance Plan (QAP) QAP 质量保证计划
- Design Qualification (DQ) DQ 设计验证
- Install, Operating & Maintenance Manual 安装、操作、维护手册

Partial Client List 部分客户

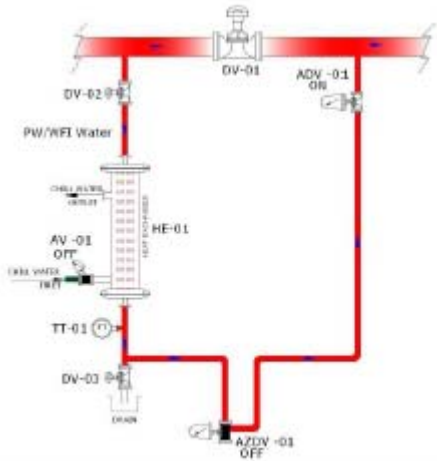
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|--------------------------|--------------------------|-------------------------------|
| ● Bayer Corporation 拜耳 | ● Nano Therapeutics | ● Johnson & Johnson Neurogena |
| ● Emergent Biosolutions | ● Pearl Therapeutics | 强生·露得清 |
| ● Sigma-Aldrich 西格玛-奥德里奇 | ● Reliance Life Sciences | ● Texas A & M (TAMUS) |
| ● WuXi AppTec 药明康德 | ● Perrigo | 德克萨斯州农工大学 |



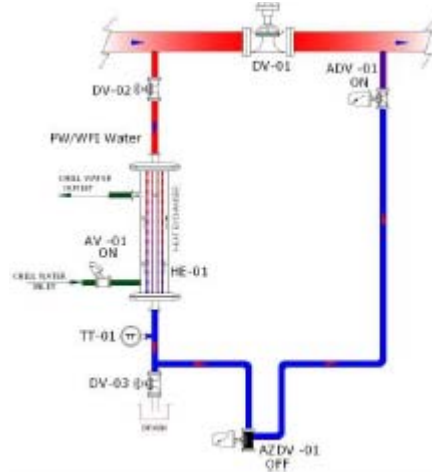
POU 用水点换热系统演示图

Typical Process Modes 流程

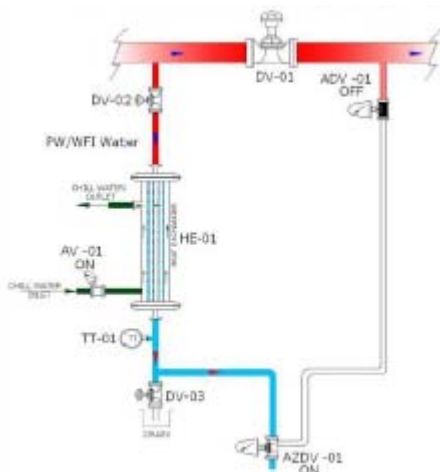
1、NORMAL SYAGE 初始状态



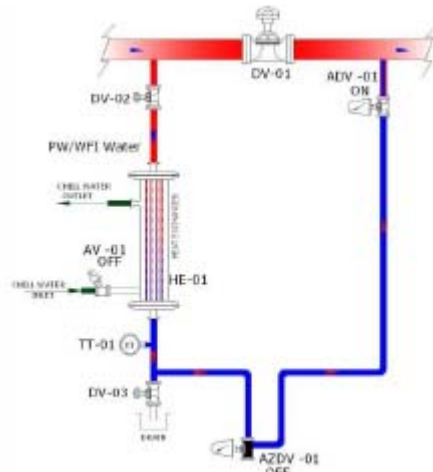
2、START & COOLING CYCLE 开始&冷循环



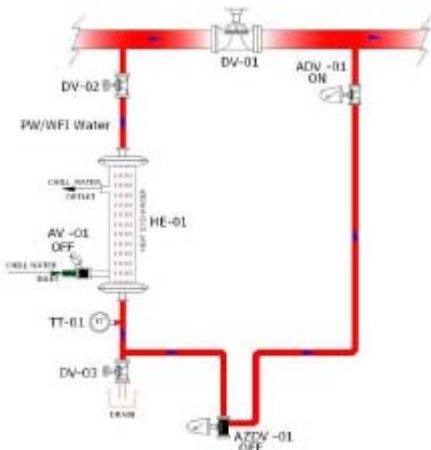
3、DISPENSING OF COOL PW/WFI WATER 放出冷却的 WFI 或纯化水



4、STOP OF DISPENSING OF COOL PW/WFI WATER 停止放水



5、BACK TO NORMAL STAGE 回到初始状态



Partial Client List 部分客户

Company 公司名称	Capacity 流量	Qty 数量
Bayer Corporation 拜耳	5GPM	2
Emergent Biosolutions	9 GPM	4
	7 GPM	3
Johnson & Johnson Neutrogena 强生 露得清	5 GPM	7
Nano Therapeutics	5 GPM	12
Pearl Therapeutics	3 GPM	1
Perrigo	6 GPM	1
Reliance Life Sciences	4 GPM	2
Sigma-Aldrich	5 GPM	1
	3 GPM	1
Texas A & M (TAMUS)	5 GPM	1
	10 GPM	1
WuXi AppTec	2 GPM	2