

545 Star Prep Pumps *New*

- **Advanced pump performance** designed for Prep chromatography
- **Reliable low cost solution with state-of the art Modbus RTU control**
- **Isocratic, Gradient or Metering fluid flow applications**
- **Available with integral wash pump option**



ASI 545 Series Features:

- ❖ **Intuitive Touchscreen display**
- ❖ **USB-serial connection**
- ❖ **Computer GUI and Modbus RTU communications via USB or RS485**
- ❖ **Available in Stainless Steel, Titanium and Biocompatible PEEK**
- ❖ **150 mL/min., 250 mL/min., 500 mL/min. and 1,500 mL/min. available**
- ❖ **Self-priming Pump Head**
Integral prime/purge for rapid solvent changes and self-priming
- ❖ **Solvent Compressibility Compensation**
User can select from a library of 15 solvents
Fourteen additional user-configured solvents
- ❖ **Easy Maintenance**
All user serviceable components are accessed via the front panel
Cartridge seal design makes seal replacement easy

Preliminary 545 Prep Scale Pump Specifications

Part Numbers	Min flow *	Max flow	Pmax
545-0150	0.100 mL/min.*	150 mL/min.	6,000 PSI
545-0250	0.200 mL/min.*	250 mL/min.	4,000 PSI
545-0500	4.00 mL/min.*	500 mL/min.	2,000 PSI
545-1500	10.0 mL/min.*	1,500 mL/min.	500 PSI

* Minimum flow is NOT related to precision/resolution. For precision, see table below.

Pulsation:	1% Δ P/P *
Flow Precision:	0.25%, 10-100 mL/min.*
Flow Accuracy:	\pm 100 μ L/min. or \pm 1% of selected flow rate whichever is greater*
Gradient Accuracy:	\pm 1% with aqueous acetone/water, at 5-95%, 100 mL/min.*
Wetted Materials:	316 Stainless Steel, PEEK, Titanium, PTFE or UHMW, YSZ Ceramic, Sapphire & Ruby

*All specifications are under load conditions of 500 PSI & temperature of 20° Celsius.

Dimensions: 11.6" W x 20.7" D x 11.2" H

Weight: 35 lbs.

Power: International AC input 220/240VAC & 50/60Hz

545 Gradient Options

545 pumps are different than 540 pumps in that they are intended to be stand-alone metering pumps. In order to make gradients a gradient option must be purchased. There are two options:

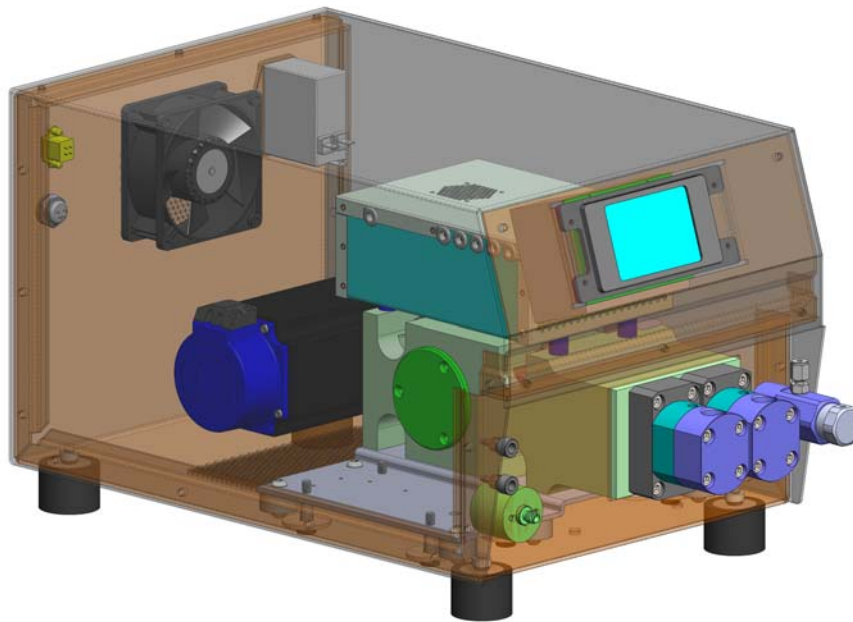
1. **Low pressure proportioning valve controller:** This includes a separate gradient controller and a proportioning valve assembly that generates a gradient by proportioning the solvents at the inlet of a *single pump*. The advantage is its simplicity and cost.
2. **Hi pressure gradient controller:** this is a separate gradient controller which controls multiple 545 pumps (one pump for each solvent) to generate a high pressure gradient. The advantage of high pressure gradients is their accuracy/precision.

What can we engineer for YOU?

ASI has supplied custom OEM pump assembly solutions for

Proteomics-LCMS
Process Instrumentation
Pharmaceutical Manufacturing
Supercritical Fluid Chromatography
Preparative Chromatography
Biotech and SEC/GPC Systems

We will make a custom configuration per your specification.



Pump Assembly in chassis

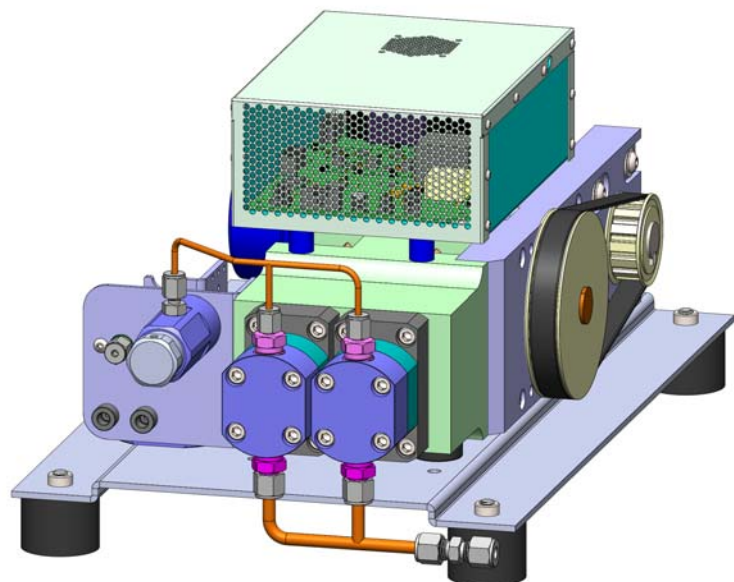
Wash Pump and Damper are available for custom configuration

See next page for illustration of a typical OEM configuration

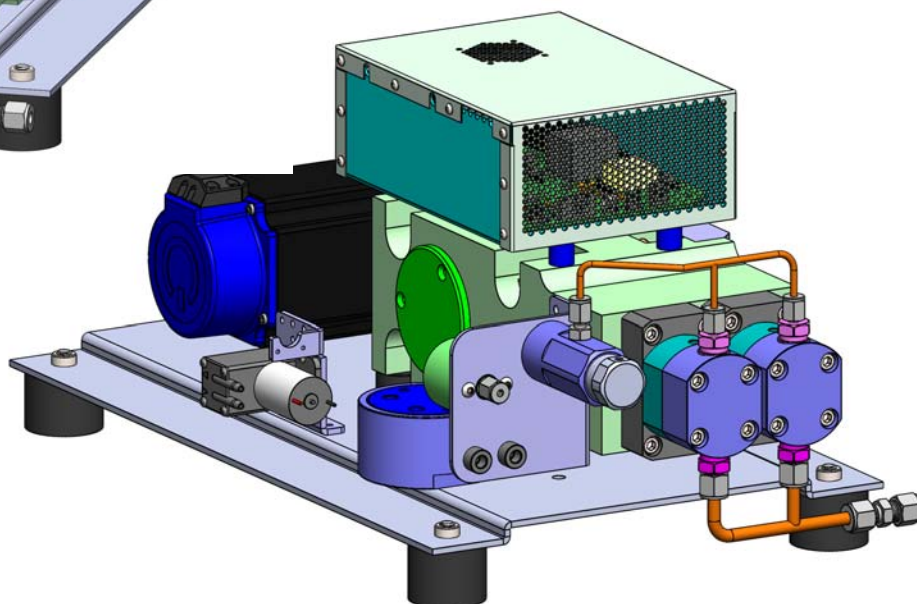
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Typical OEM configuration

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For illustration only, pump configured with
Hydraulic module,
Wash Pump, Damper and ServoController
on Base Plate



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Rev. 3_12_2020