540 HPLC Pumps

New

- **Advanced pump performance designed for the chromatographer**
- **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 540 Series HPLC Pump 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**
- **Micro, Analytical, UPLC, Semi-Prep, Prep and Flash Prep available**
- **Self-priming Pump Head**
  Integral prime/purge for rapid solvent changes and self-priming
- **Patented Floating Pump Seal**
  Seal floats in *alignment* relative to piston for longer seal life
- **Solvent Compressibility Compensation**
  User can select from a library of 15 solvents
  Fourteen additional user-configured solvents
- **Same great performance as 520 series with 30% smaller footprint**
- **Easy Maintenance**
  All user serviceable components are accessed via the front panel
  Cartridge seal design makes seal replacement easy

ASI

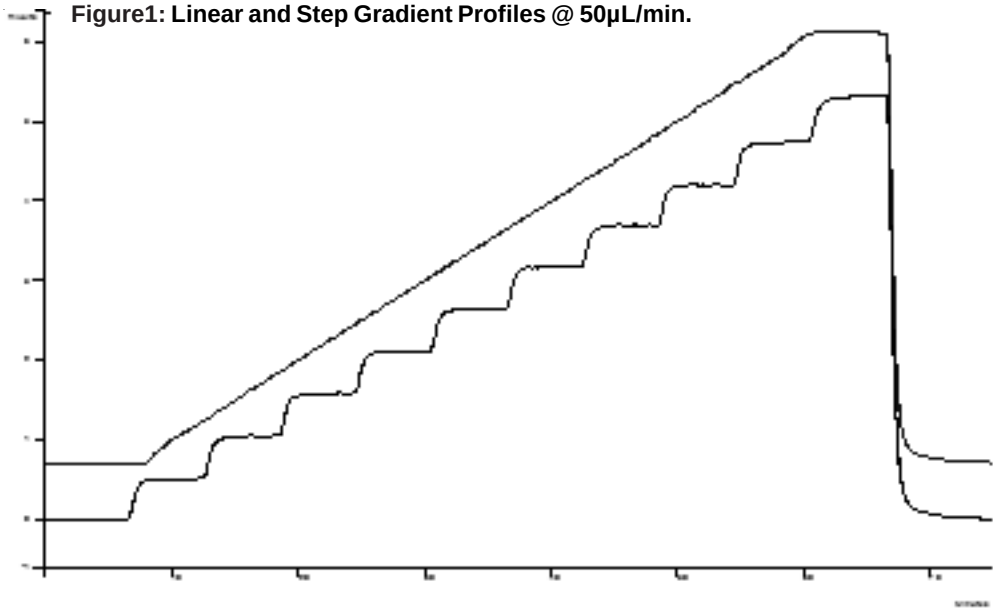
Model 541 Isocratic Solvent Delivery, Model 540G Gradient System

Part Numbers		Flow Range	Max Pressure
541-0004 & 540G-0004 541-0004T & 540G-0004T 541-0004B & 540G-0004B	Micro SST Micro Titanium Micro Biocompatible PEEK	0.5 µL/min. - 4 mL/min.	7,000 PSI Max 7,000 PSI Max 4,000 PSI Max
541-0004HP & 540G-0004HP	Micro SST UPLC	0.5 µL/min. - 250 µL/min. 0.5 µL/min. - 4 mL/min.	15,000 PSI Max 7,000 PSI Max
541-0010 & 540G-0010 541-0010T & 540G-0010T 541-0010B & 540G-0010B	Analytical SST Analytical Titanium Analytical Biocompatible PEEK	1 µL/min. - 10 mL/min.	7,000 PSI Max 7,000 PSI Max 4,000 PSI Max
541-0010HP & 540G-0010HP	Analytical SST UPLC	1 µL/min. - 1 mL/min. 1 µL/min. - 10 mL/min.	15,000 PSI Max 7,000 PSI Max
541-0040 & 540G-0040 541-0040T & 540G-0040T 541-0040B & 540G-0040B	Semi-Prep SST Semi-Prep Titanium Semi-Prep Biocompatible PEEK	10 µL/min. - 40 mL/min.	3,500 PSI Max
541-0125 & 540G-0125 541-0125T & 540G-0125T 541-0125B & 540G-0125B	Prep SST Prep Titanium Prep Biocompatible PEEK	10 µL/min. - 125 mL/min.	1,500 PSI Max
541-0200 541-0200T 541-0200B	Flash Prep SST Flash Prep Titanium Flash Prep Biocompatible PEEK	50 µL/min. - 200 mL/min.	500 PSI Max

Accuracy	Micro: ±1% or 1 µL/min. (whichever greater) Others: ±1% or 2 µL/min. (whichever greater)
Precision	Micro: 0.25%, 0.10 mL/min. - 4 mL/min. @ 20°c Others: 0.25%, 0.10 mL/min. - 10 mL/min. @ 20°c
Pulsation	1% Δ P/P @ 1,500 PSI pressure
Dimension	6.75" W x 15.6" D x 6.75" H (Isocratic)
Weight	16 lbs. (Isocratic)

ASI Performance Data

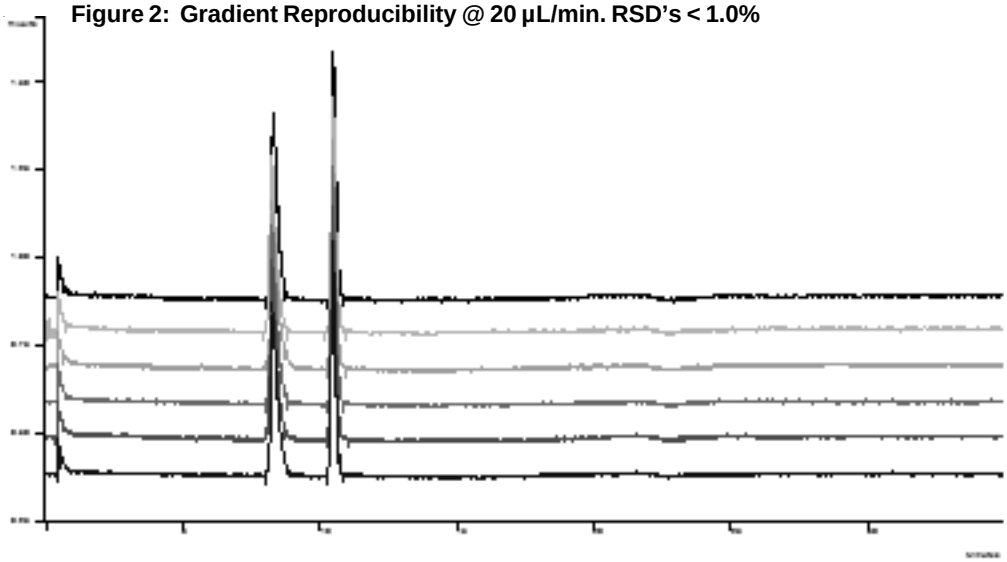
Figure1: Linear and Step Gradient Profiles @ 50µL/min.



HPLC System:
ASI Micro Head
Detection: UV214
Mixer: *ASI HyperShear* In-Line 25 µL

HPLC Conditions:
MP: A = H_2O, B = H_2O doped with 0.05% red dye
Flow Rate: 50µL/min
Step Gradient: 0 to 100% B in 60 min., 10% steps
Linear Gradient: Same, 4 min. T0 hold

Figure 2: Gradient Reproducibility @ 20 µL/min. RSD's < 1.0%



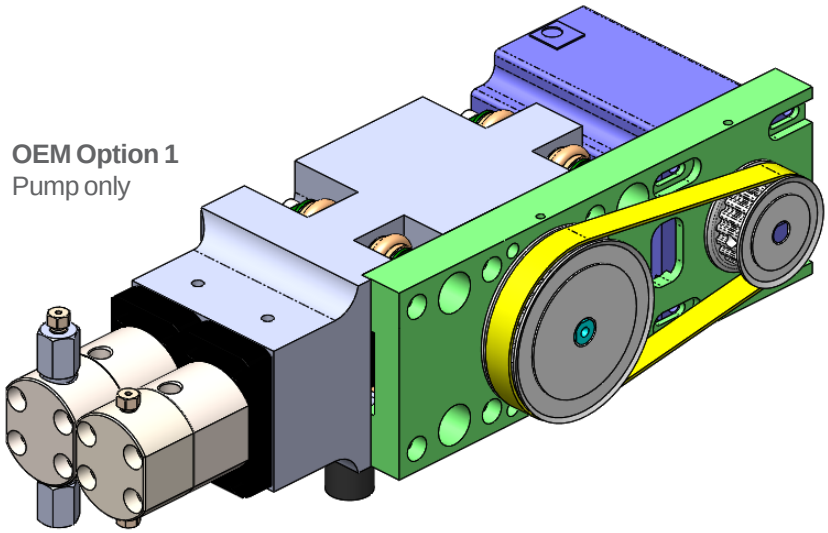
HPLC System:
ASI Micro Head
Detection: UV214
Mixer: *ASI HyperShear* In-Line 25 µL

HPLC Conditions:
MP: A = H_2O, B = H_2O doped with 0.05% red dye
Flow Rate: 20µL/min Gradient: 5 to 95% B in 20 min
Sample: Methyl and Ethyl Parabens

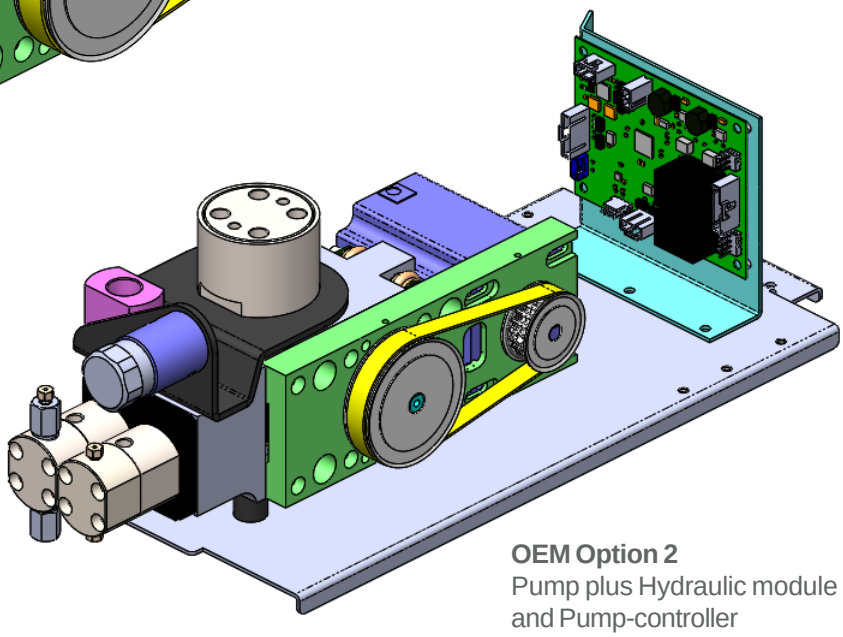
What can we engineer for YOU?

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.

Option 1 and Option 2 below are typical OEM configurations. We will make a custom configuration per your specification.



OEM Option 1
Pump only



OEM Option 2
Pump plus Hydraulic module and Pump-controller

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ASI Analytical Scientific Instruments US

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