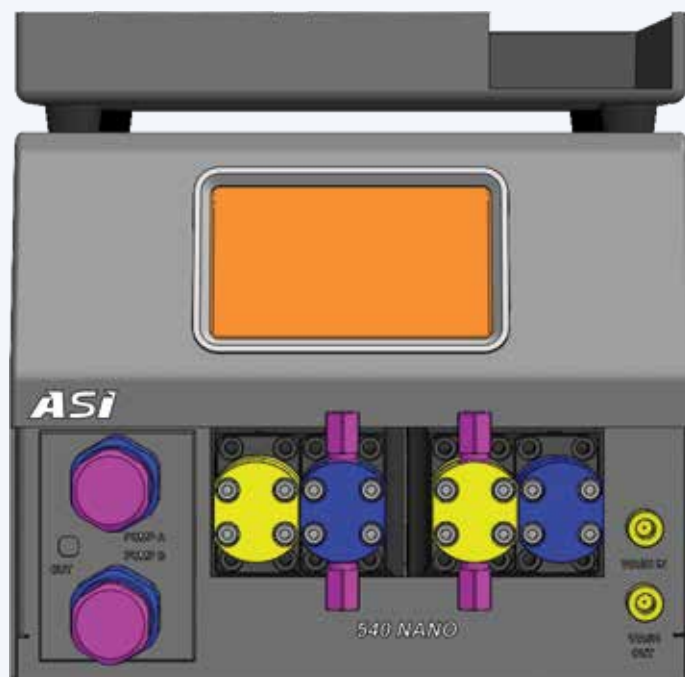


# 540 NANO GRADIENT UPLC PUMP

Bridges the gap between Nano UPLC and Micro UPLC



## Features:

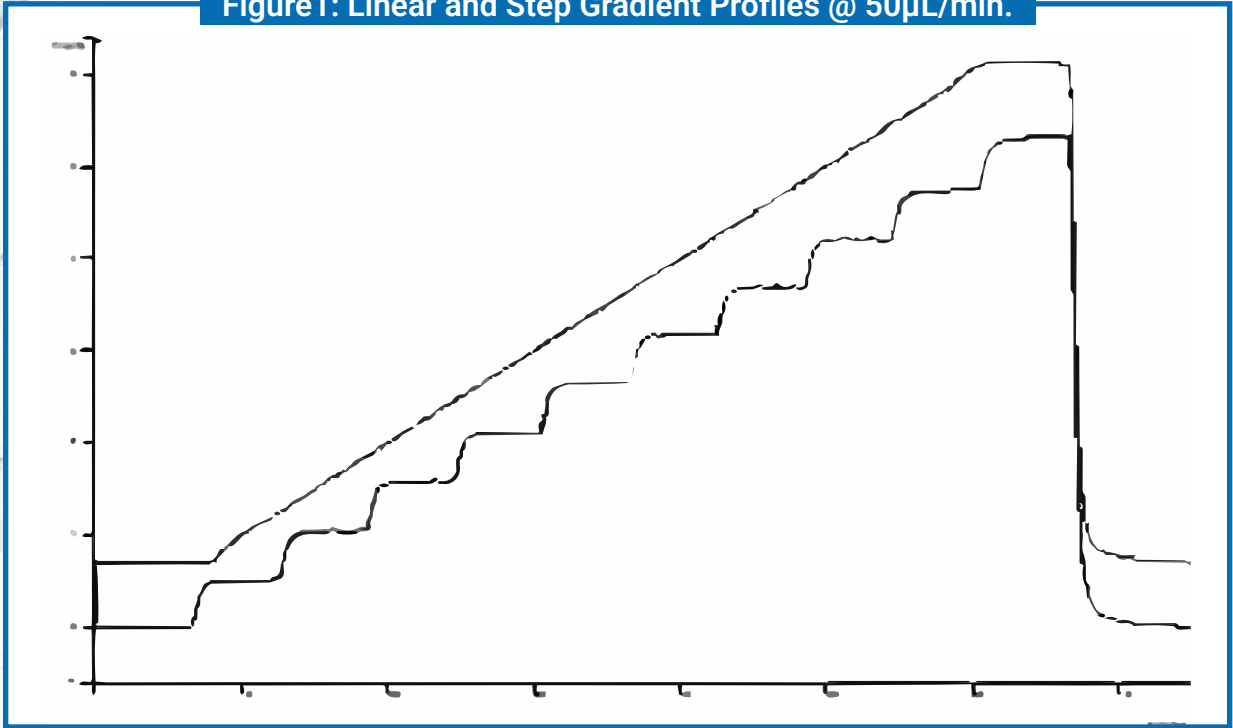
- Gradient system from 100 nL/min. to 1 mL/min.
- 12,500 maximum operating pressure
- Flow feedback for accurate and repeatable flow rate
- Intuitive touch screen display for local control
- Available with integrated wash pump option for buffers
- Windows GUI for computer control (Modbus RTU using RS485)
- ASi nano check valve technology eliminates need for expensive rotary shear valves  
**NO MORE CONTAMINATION FROM WORN ROTOR SEALS!**
- Optional solvent tray allows hands free solvent selection for up to 4 solvents

\* Optional 15,000 PSI range available

# ASi

# ASI Performance Data

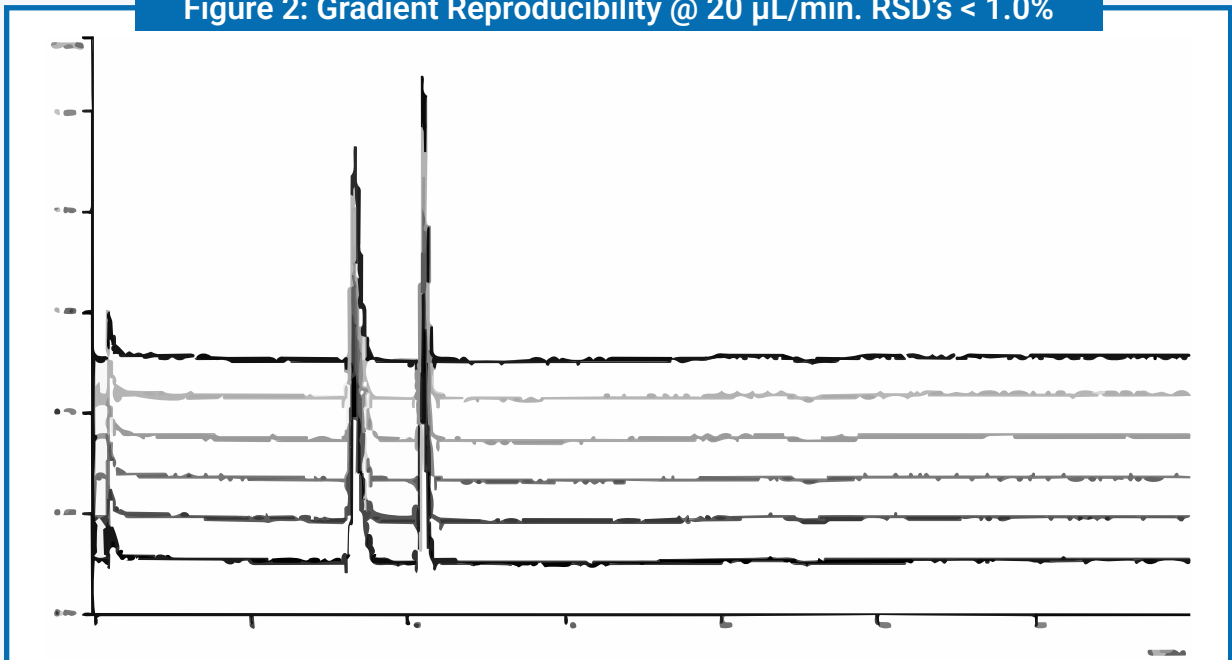
Figure 1: Linear and Step Gradient Profiles @ 50 $\mu$ L/min.



**HPLC System:**  
ASI Micro Head  
Detection: UV214  
Mixer: ASI HyperShear In-Line 25  $\mu$ L

**HPLC Conditions:**  
MP: A = H<sub>2</sub>O, B = H<sub>2</sub>O doped with 0.05% red dye  
Flow Rate: 50 $\mu$ L/min  
Step Gradient: 0 to 100% B in 60 min., 10% steps  
Linear Gradient: Same, 4 min. T<sub>0</sub> hold

Figure 2: Gradient Reproducibility @ 20  $\mu$ L/min. RSD's < 1.0%



**HPLC System:**  
ASI Micro Head Detection: UV214  
Mixer: ASI HyperShear In-Line 25  $\mu$ L

**HPLC Conditions:**  
MP: A = H<sub>2</sub>O, B = H<sub>2</sub>O doped with 0.05% red dye  
Flow Rate: 20 $\mu$ L/min Gradient: 5 to 95% B in 20 min  
Sample: Methyl and Ethyl Parabens

## 540 NANO Gradient UPLC Pump Specifications

Flow Range	100 nL/min. to 1 mL/min.
Max Pressure	12,500 PSI (Optional 15,000 PSI range available)
Accuracy	± 2% @ 1 µL/min. and 4,000 PSI
Precision	0.25%, 0.10 mL/min. @ 4,000 PSI @ 20°C
Flow Pulsation	.5% Δ P/P @ 4,000 PSI pressure
Dimension	9.0" W x 14.25" D x 7.5" H
Weight	20 lbs.
Power	AC 100 – 240 V 50/60 Hz, Fuse: 4A, 250 V

*\*Please contact ASI for 540 NANO Isocratic Pump with flow range: 50 nL/min. to 1 mL/min.*

# ASI

# 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.

**Inquire about OEMs private labels**

Option #1: mechanical pump assembly only

Option #2: pump + PCBA + hydraulics (transducer + purge valve)

Option #3: completed pump with enclosure

**We will make a custom configuration per your specification.**

**Analytical Scientific Instruments US, Inc.  
3023 Research Drive Richmond CA 94806 USA**

**[www.hplc-asi.com](http://www.hplc-asi.com)**

**Phone: 510-669-2250**

**Email: [info@hplc-asi.com](mailto:info@hplc-asi.com)**

***ASI*** **Analytical Scientific Instruments US**

Copyright © 2026 ASI - Analytical Scientific Instruments US, Inc.

Rev. 05\_11\_2026