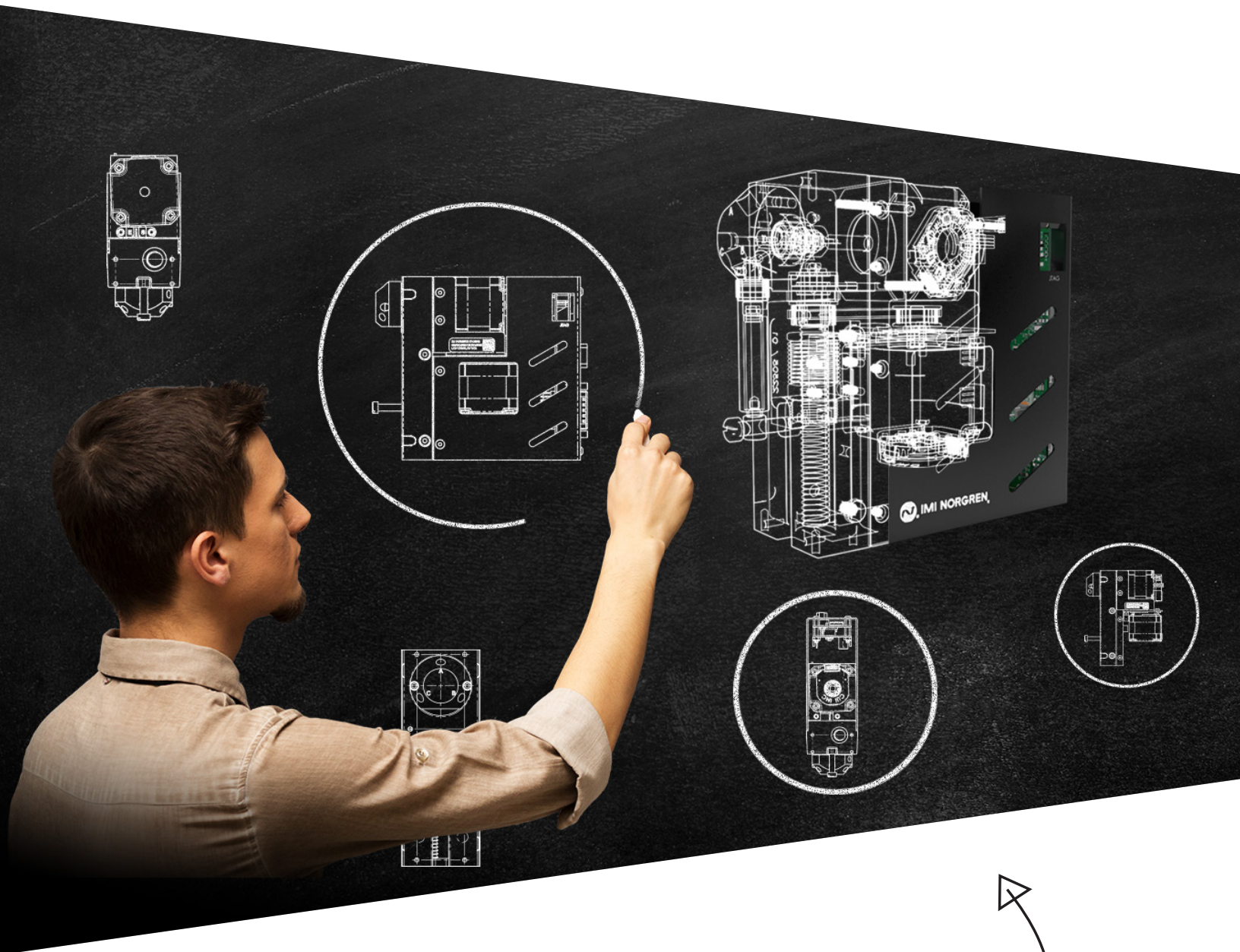


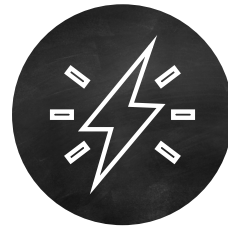
Cadent™ 3 Syringe Pump

Unmatched Flow Stability. Smart Diagnostics. Flexible Configurations.



Pump up your fluidic capabilities

For life science instruments, fluidic capabilities and flexibility of options are critical to outstanding performance and elevated precision. That's why we designed the IMI Norgren Cadent™ 3 syringe pump with premier flow stability, smart diagnostics, and customizability.



Outstanding Fluidic Performance

The Cadent 3 syringe pump provides the reliability and control you need to have confidence in precise and accurate analysis:

- > Industry-leading low-flow stability down to 1µL/min with a 1mL syringe
- > Extended speed range: 1/16th half-steps/sec to 10,000 half-steps/sec
- > Premier accuracy: 0.2% full-stroke; 0.3% 1/10th stroke
- > Excellent precision: 0.05% Cv full-stroke; 0.5% Cv 1/10th stroke
- > Sustained performance on precision and accuracy over pump lifetime
- > Adjustable flow rate range: 0.008µL/min to 500mL/min (based on syringe size, speed, and resolution)



Smarter, More Advanced Control

As fluidic pioneers, we've taken the Cadent 3's design to the next level with superior technology that allows for faster bench testing, smarter serviceability, and easier integration.

- > Programmable troubleshooting via smart diagnostics
 - Built-in event and error logs
 - Query pump for status and error feedback
 - Instant status alerts through LED lights
 - Concealed reset/home button
- > Interactive graphic user interface for easy benchtop testing
- > Consolidated connections for flexibility of use across various instrument interfaces
- > Boosted encoder for optimum valve alignment, which decreases port occlusions delivering:
 - Minimal flow turbulence
 - Assured dispense volume
- > Whisper-quiet operation (< 55dBA)



Flexible Configurations

As a single source supplier with rich engineering expertise in syringe pump systems, IMI can help you design a best-in-class instrument with fluidic capabilities tailored to your needs. We offer three levels of pump configurations, each with resolution options of 6k, 12k, and 24k:

- > Level 1: Robust syringe drive
- > Level 2*: Robust syringe drive plus valve option
- > Level 3*: Robust syringe drive plus valve with advanced controller

> Syringe options:



- 50µl to 5mL
- Standard (flat) or zero dead volume (ZDV) tips
- PTFE or UHMW tip construction

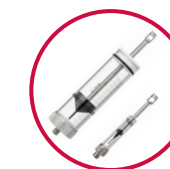
> Valve options:



- 1 to 12 ports (3/2 solenoid valve option also available)
- Flow configurations in distribution, non-distribution, and loop styles
- PTFE, Kel-F, ceramic, or PEEK construction

Choose the Cadent 3 (> 2 million cycles) or Cadent 3E for extended lifetime (> 5 million cycles)

The Cadent 3 syringe pump is also configurable with an extensive array of valve and syringe options:



> Zero Dead Volume syringes

IMI Norgren syringes are available with an enhanced ZDV plunger tip. These tips have a pointed end and extend into the end cap, providing a fully swept wetted path, minimizing the presence of residual fluids and ensuring no cross contamination or carryover into subsequent operations.

Why Choose Cadent?

To engineer market-leading instrumentation you need market-leading fluidic solutions. The IMI Norgren Cadent 3 syringe pump is robustly designed for accuracy and precision, and performs like no other pump on the market.

Don't see what you need? Custom options are available upon request.

*Syringe options are available but sold separately

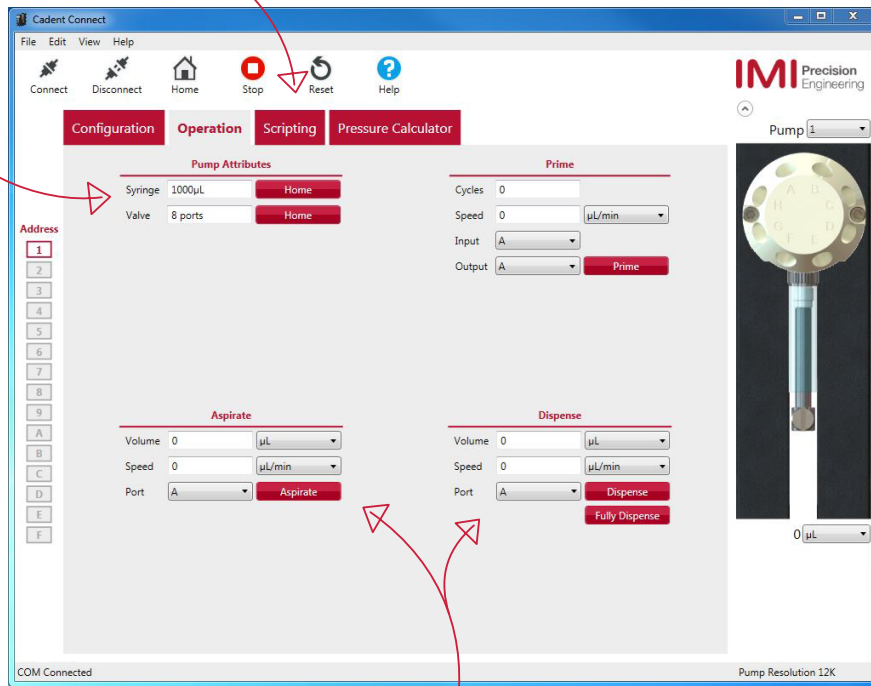


Cadent Connect: Interactive Graphic User Interface

Need to perform more complex commands? Our scripting tab breaks it down for you.

Need to use a different valve or syringe? You can easily update and home to the pump.

Seamlessly connect and control multiple pumps.



See real-time status of pump movements with exact position confirmation.

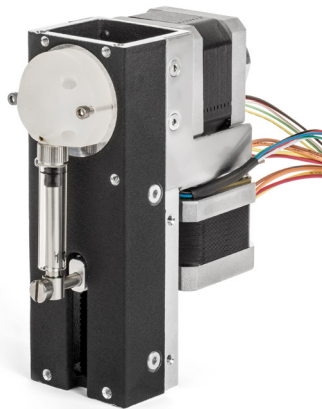
Send specific move commands with a few simple clicks.



Three Levels of Configurability



Robust syringe drive



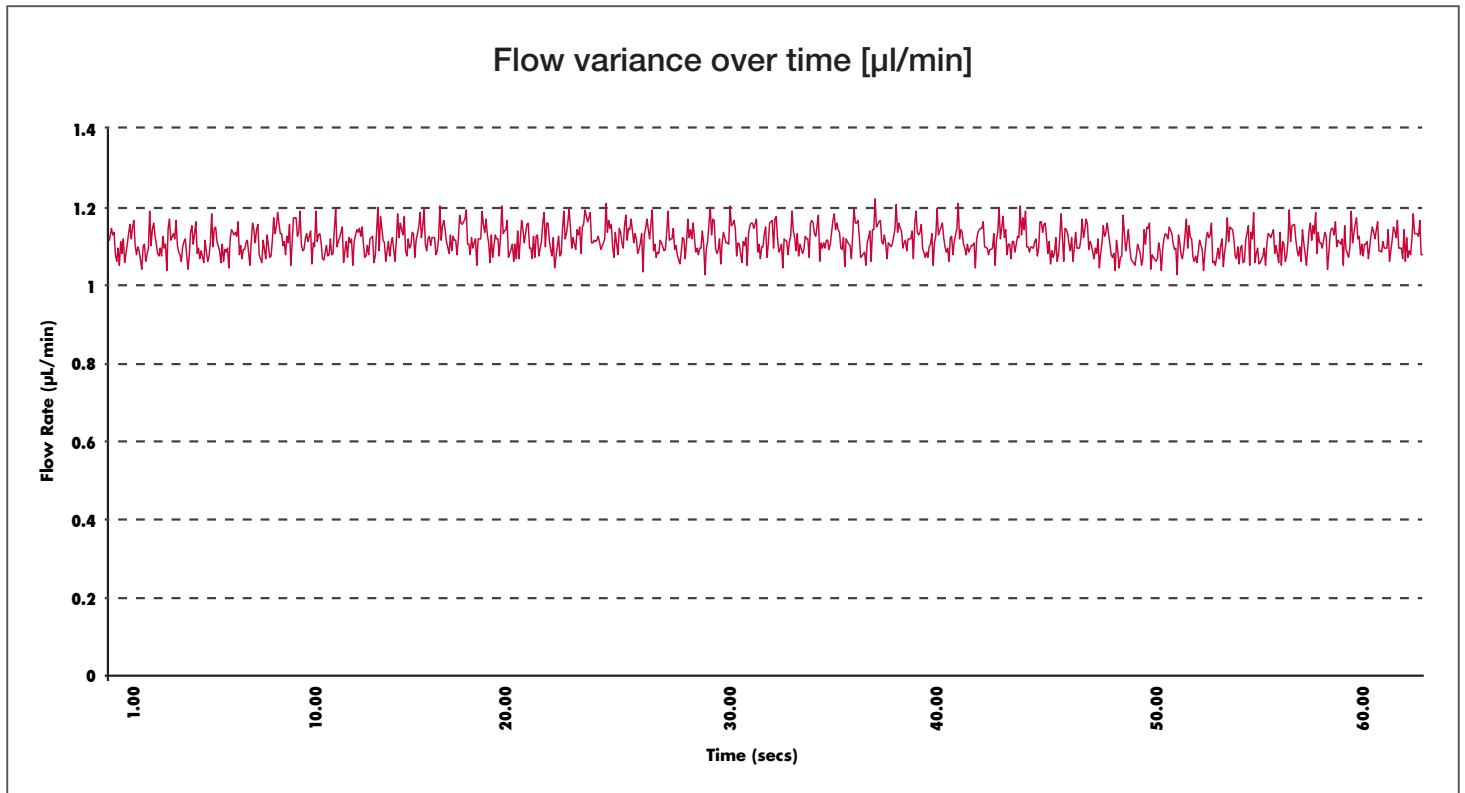
Robust syringe drive + valve



Robust syringe drive + valve + advanced controller



Unique Low-Flow Stability



Flow rate measurements taken over a 60-second period on a 10KHz sample rate showing flow accuracy/stability of $\pm 1\%$.

With advanced microstepping capabilities and mechanical resolutions of up to 24,000, only the Cadent 3 syringe pump can smoothly capture information down to $1\mu\text{L}/\text{min}$ (using a 1mL syringe) to deliver the best performance in:

- > Complex imaging instruments: urinalysis and hematology
- > Laser applications: flow cytometry and particle counting
- > Additional low-flow needs for increased surface-area-to-volume sample delivery: mass spectrometry and nanoLC

Transform your next-generation design into a market-leading instrument with the IMI Norgren Cadent 3 syringe pump.

Contact our fluidic pioneers to learn how you can pump up your fluidic capabilities.

IMI Precision Engineering operates four global centres of technical excellence and a sales and service network in 75 countries, as well as manufacturing capability in the USA, Germany, China, UK, Switzerland, Czech Republic, Mexico and Brazil.

For information on all IMI Precision Engineering companies visit

www.imi-precision.com

Supported by distributors worldwide.

IMI

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For further information, scan this QR code or visit cadentpump.com

