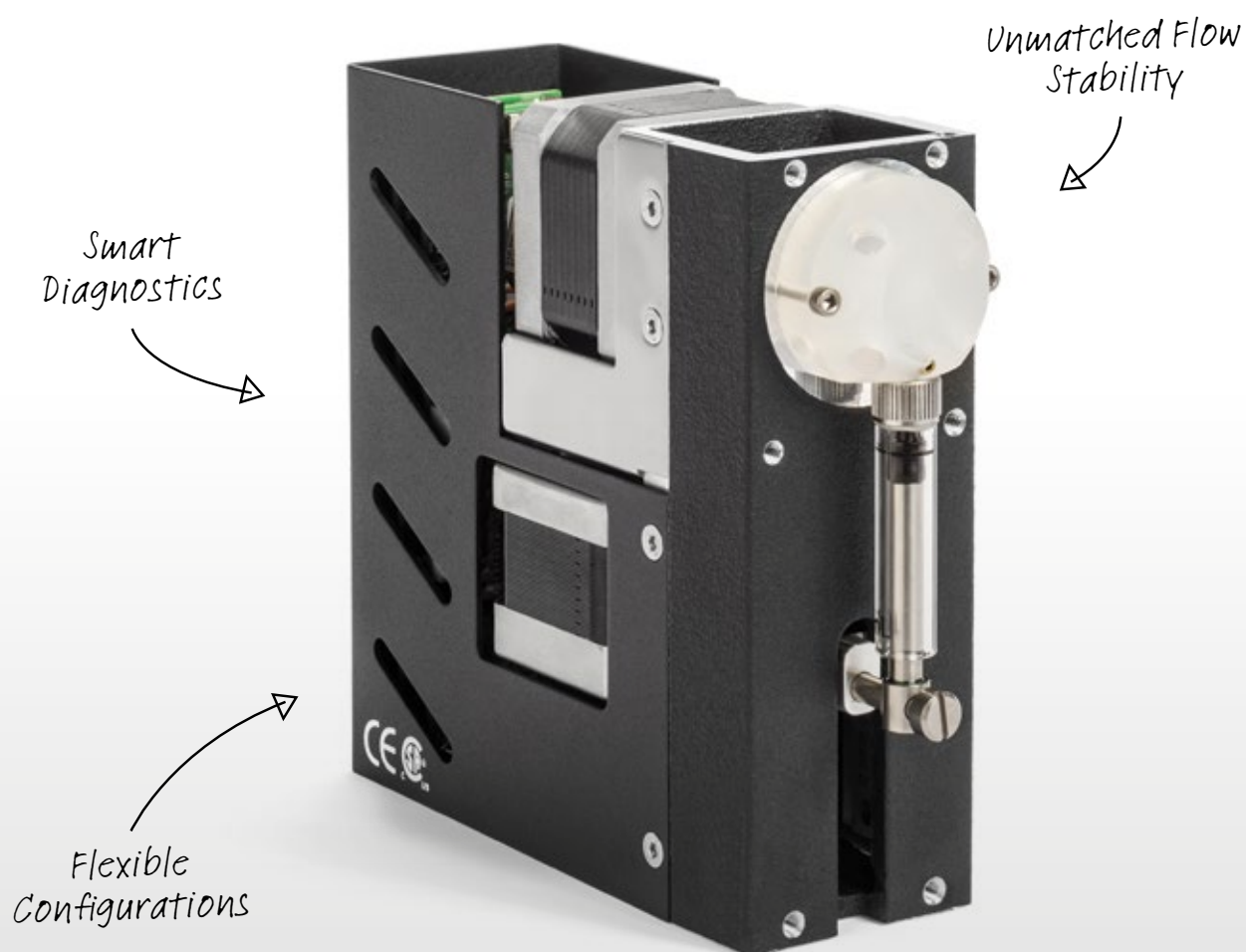


Cadent™ 3 Syringe Pump



Contents

03 Pump up your fluidic capabilities

04 Outstanding Fluidic Performance

04 Smarter, More Advanced Control

05 Flexible Configurations



Engineering GREAT solutions through people, products, innovation and service

IMI Precision Engineering is a world-leader in fluid and motion control. Building close, collaborative relationships with our customers, we gain a deep understanding of their engineering needs and then mobilise our resources and expertise to deliver distinctive products and solutions.

Wherever precision, speed and engineering reliability are essential, our global footprint, problem-solving capability and portfolio of high performance products enables us to deliver GREAT solutions which help customers tackle the world's most demanding engineering challenges.

> Reliability

We deliver and support our high quality products through our global service network.

> High performance products

Calling on a world-class portfolio of fluid and motion control products including IMI Norgren, IMI Buschjost, IMI FAS, IMI Herion and IMI Maxseal. We can supply these singly, or combined in powerful customised solutions to improve performance and productivity.

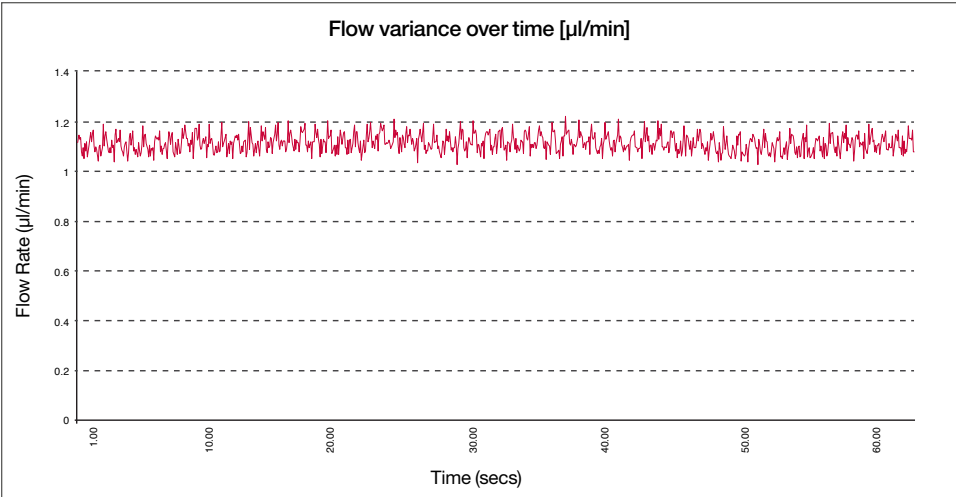
> Partnership & Problem Solving

We get closer to our customers to understand their exact challenges.

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)



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

Unique Low-Flow Stability

With advanced microstepping capabilities and mechanical resolutions of up to 24,000, only the Cadent™ 3 syringe pump can smoothly capture information down to 1µL/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

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 and delivers:
 - > Minimal flow turbulence
 - > Assured dispense volume
- > Whisper-quiet operation (< 55dBA)

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.

Send specific move commands with a few simple clicks.

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

Flexible Configurations

As a single source supplier with rich engineering expertise in syringe pump systems, we 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 and advanced controller

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:

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

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.



*Syringe options are available but sold separately

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

Three Levels of Configurability

Robust syringe drive

Robust syringe drive + valve

Robust syringe drive + valve + advanced controller

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.

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.



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.



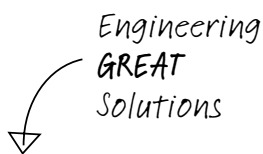
Precision Engineering

Norgren, Buschjost, FAS, Herion and Maxseal are registered trademarks of IMI Precision Engineering companies.

Due to our policy of continuous development, IMI Precision Engineering reserve the right to change specifications without prior notice.

z8514BR en/10/17

Selected Images used under license from Shutterstock.com



For further information, scan this QR code or visit **www.imi-precision.com**

