

# Single-Use Precision Pumps

## Revolutionising the Medical & Pharmaceutical Markets



- Quantex medical pumps provide precision dosing even when dispensing through **narrow cannula needles** and with **high viscosity fluids**. The single-use pump can be **integrated into the fluid pack or the delivery line**. Quantex delivers **consistent pump performance** throughout the operating life. Single-use with zero maintenance and no calibration requirements, Quantex is the new standard for medical and pharmaceutical dispensing.
- The single-use pump can be incorporated into **disposable pharmaceutical manufacturing lines**, eliminating the risk of cross-contamination as the pharmaceutical line is disposed of at the end of each manufacturing batch.
- The disposable pump is also used in the **biopharma market**. The gentle nature of the pump action reduces damage to cells during the pumping process (compared to conventional pumps that squeeze tubes and generate shear forces).
- The Quantex pump features of **zero free-flow, reverse cycling, high vacuum** and **high pressure** which facilitates **greater innovation in system design** and **pharmaceutical packaging**.
- Pumps are **fully scalable** and available in a **wide range of flowrates**.

### WHY USE QUANTEX?

#### ✓ Precision Pumping

- ✓ Accurate dosing over wide range of flowrates, temperatures and viscosities
- ✓ 100% dose efficiency until pack empty
- ✓ No software compensation required to preserve accuracy!

#### ✓ Pressure & Aerosol

- ✓ 90psig output pressure capability
- ✓ Ability to spray liquids
- ✓ Replacement for aerosol propellants
- ✓ Pump against high back-pressure valves

#### ✓ Reverse Cycling

- ✓ Bi-directional capability
- ✓ Reverse cycle eliminates drips
- ✓ Reverse cycle can actuate one-way valves
- ✓ Flexible system design

#### ✓ Vacuum

- ✓ 13psig vacuum capability
- ✓ Self-priming – removes air from pack
- ✓ Ability to collapse semi-rigid packaging
- ✓ Liquid pack can be placed above or below the pump

#### ✓ Low Power Consumption

- ✓ Facilitates compact dispenser design
- ✓ Suitable for battery operation
- ✓ Low power compared with peristaltic equivalent
- ✓ Allows cost effective systems

#### ✓ In-Pump Dilution

- ✓ Dilutes high viscosity fluids in any ratio
- ✓ Liquid contacting parts are formed in the disposable pump
- ✓ Eliminates cleaning regime between pack and point of dispense
- ✓ Eliminates risk of cross contamination

## MEDICAL PUMP APPLICATION EXAMPLES

- Wound cleaning
- IV drug dispensing
- Subcutaneous drug dispensing
- Spraying or aerosol drug delivery
- Disposable pharmaceutical production lines
- Disposable pharmaceutical giving sets
- Enteral feeding
- Nebulisers
- Ambulatory dispensers
- Simple dispense systems for non-dexterous users
- Self-priming medical devices – pumps air from system prior to dispensing liquid
- Bio-pharmaceutical dispensing
- Laboratory testing equipment
- Assay equipment
- Single-use fluid path assemblies

# Precision micro-dosing with Quantex single-use pumps

Quantex pumps are ideal for precise micro-dosing with **very low power consumption**. The micro rotor carries 3 cavities, each with a minute volume. This in-line pump has **barbed inlet and outlet connectors** for easy fitting to tubing. The connectors may be customised for specific applications e.g. **male/female luers, slips for adhesives, airless fluid packs** etc. The fluid

contacting materials are all **medical grades of silicone, polypropylene and HDPE**. Alternative materials can be used if necessary. A **micro-evaluation kit** is available to allow the pump to be evaluated in-house. This consists of a motor, controller, power supply, chassis to hold the pump to the motor and tablet with pre-loaded software.

## PRODUCT EXAMPLES

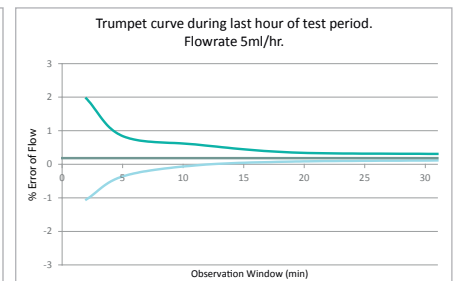
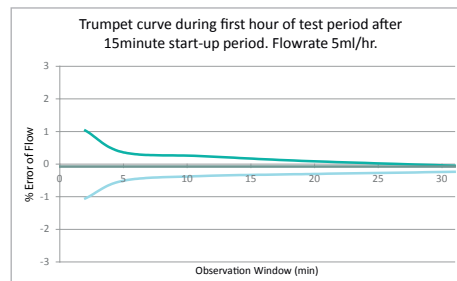


### CS-3: micro-dosing single-use precision pump

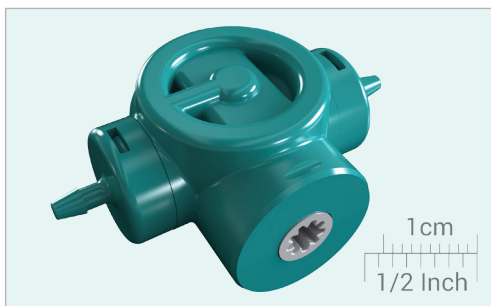
Features:

- Flowrate: 0 - 200 ml/hr
- Resolution: 1.3  $\mu$ l
- Pressure: 1 Bar
- Viscosity: <1,400 cP
- Torque: <8mNm
- Inlet and outlet connection: Barbed connection to 1.6mm ID tubing

Trumpet curves for the CS-3 pump >



Download full data sheets at [www.quantex-arc.com/products](http://www.quantex-arc.com/products)



### CS-6: micro-dosing single-use pump

Features:

- Flowrate: 0 - 2400ml/hr
- Resolution: 22 $\mu$ l
- Pressure: 2 bar
- Fluid Viscosity: <1,400cP
- Torque: <25mNm
- Inlet/outlet: barbed connection to 2.5mm ID tubing

## CONTACT

Quantex Arc Ltd.

+44 (0)20 8735 5880 ✉ [info@quantex-arc.com](mailto:info@quantex-arc.com)

85 Richford Street, London, W6 7HJ, UK

[www.quantex-arc.com](http://www.quantex-arc.com)

Vernay Laboratories Inc.

+1.937.767.9521 ✉ [sales@vernay.com](mailto:sales@vernay.com)

2077 Convention Center Concourse, College Park, Georgia 30337

[www.vernay.com](http://www.vernay.com)