

# Quizix<sup>®</sup>

## QUIZIX Q5000 SERIES PRECISION METERING PUMPS

Pulse-free Pumps For Critical Applications

Quizix Q5000 Precision Pumping Systems are manufactured by Chandler Engineering and designed for applications that require pulse-free fluid pumping. These robust pumps are capable of being heated and are ideal for delivering fluid at a constant rate or maintaining a constant pressure. The Q5000 can also be used to provide a constant differential pressure by using inputs from remote pressure transducers.

These pumps were developed specifically for fluid delivery and fluid pressure control applications in core flow analysis. However, Quizix pumps have satisfied the requirements of many other laboratory and science applications. These pumps are also used production environments where precision pulse-free flow or volume measurements are critical under high pressure.

The different models of the Q5000 cover a wide range of pressure capabilities and flow rates. These pumping systems are supplied as either a single pump cylinder or in combinations containing up to eight pump cylinders. Single cylinders deliver or receive a fluid for pressure control or in intermittent flow applications. A dual cylinder pump provides continuous pulse-free pumping.

#### **Operational Simplicity**

The Q5000 pumping systems are very easy to operate. PumpWorks<sup>™</sup> is a user-friendly software package that provides complete control over any Quizix system. This easy-to-use interface indicates the detailed status of each pump cylinder including its piston positions and direction, valve positions, flow rate, pressure, cylinder volume and cumulative volume pumped.

Pumps can be programmed to deliver a specified amount of fluid or operate for a specified period of time and then repeat the cycle as many times as desired. The programming allows for unattended operation of the pumps. All measured information on the pump can be logged and easily exported for graphing and analysis.

2001 North Indianwood Avenue, Broken Arrow, OK 74012 • Phone: 918-250-7200 • Fax: 918-459-0165



- ✓ Pulse-free precision flow
- ✓ Pressures up to 20,000 psi / 138 MPa
- ✓ High temperature option to 545°F / 285°C
- ✓ Stainless steel or HASTELLOY® wetted parts
- Delivers or receives fluids in constant flow or constant pressure mode
- ✓ Operational control via PumpWorks<sup>™</sup> software
- Control up to eight pump cylinders with virtually any parameter



### Quizix Q5000 Series

One of the unique features of the Q5000 series is the ability to keep the fluid heated when circulating fluids. This high temperature option allows the entire pump barrel to be inserted into an oven assembly where its temperature can be maintained up to  $320^{\circ}$ F /  $160^{\circ}$ C.

Engineering Excellence for Long-Term Performance

Chandler Engineering builds durability and reliability into every Quizix pumping system. The unique design and technology built into each pump eliminates the need for constant maintenance. The long-wearing piston seals are readily accessible and easy to replace if needed. Chandler Engineering also provides worldwide service for maintaining pump performance.

#### **Specifications**

Q5000 Precision Metering Pumps					
Pump Type	Maximum	Maximum	Cylinder Stroke	Minimum	Options
	Pressure	Flow Rate *	Volume	Flow Rate	
Q5000-2.5K	2,500 psi	60 mL/min 3,600 mL/hr	37 mL	0.000125 mL/min 0.0075 mL/hr	SS or HC,
	17.2 MPa				AT or HT or EHT
Q5000-5K	5,000 psi	30 mL/min 1,800 mL/hr	21 mL	0.000070 mL/min 0.0042 mL/hr	SSS or HC,
	34.5 MPa				AT or HT or EHT
Q5000-10K	10,000 psi	15 mL/min 900 mL/hr	9.3 mL	0.000031 mL/min 0.00186 mL/hr	SS or HC,
	68.9 MPa				AT or HT or EHT
Q5000-20K	20,000 psi	7.5 mL/min 450 mL/hr	5.2 mL	0.000018 mL/min 0.00108 mL/hr	HC
	137.9 MPa				AT or HT

SS: wetted parts in 316SST | HC: wetted parts in HASTELLOY° C-276 | AT: ambient temperature 0-50°C

HT: high temperature 50-165°C | EHT: extra high temperature 50-285°C

Q5000 pumps are available in ultra-low-flow configurations for tight rock and sub-microliter flow rate applications

Computer required for PumpWorks<sup>™</sup> pump control software.

Utilities

Air

65 - 100 psi / 450 - 690 kPa, clean and dry

Powe

120/240 VAC, 50/60 Hz

Manufacturer's specifications subject to change without notice





2001 North Indianwood Avenue, Broken Arrow, OK 74012 Tel: +1 918-250-7200 • Fax: +1 918-459-0165 e-mail: chandler.sales@ametek.com • www.chandlereng.com Houston Sales and Services 4903 W. Sam Houston Parkway, N., Suite A-400, Houston, TX 77041 Tel: +1 713-466-4900 • Fax: +1 713-849-1924