CHANDLER ENGINEERING®

Quizix®

PRECISION

ROCK CORE ANALYSIS • SPECIAL CORE ANALYSIS • EOR/IORPVT • ROCK MECHANICS • CHEMICAL FEEDSTOCK APPLICATIONS

PUMRS

PERFORMANCE • QUALITY • SAFETY



Chandler Engineering offers three different lines of Quizix pump systems: the 5000 Series, the 6000 Series, and the QX Series. Each product line includes several different models with various maximum pressure and flow rate specifications. (See model charts on page 4.)

All Quizix pumps are positive displacement pumps. All operate with PumpWorks Software and have an extremely precise flow rate, volume and pressure control. All models offer pulse-free continuous flow at constant rate, constant pressure or constant volume delivery modes and can also be operated in single cylinder batch mode.

A wide range of flow rates, pressure configurations and available options allow Quizix pumps to meet virtually any experimental requirement from bench top to pilot scale. Quizix pumps are designed to handle slurries, pastes, liquids or gas flows, providing unique capabilities not found in other positive displacement pumps.

QX SERIES PRECISION PUMPS

THE QUIZIX QX SERIES PUMPS deliver unparalleled accuracy and repeatability - with the superior pulseless metering that is critical for so many of today's production and research environments.

Based on an advanced design that includes an innovative valve technology and two independently controlled motor-driven pistons, our pumps set new standards in continuous, pulse-free operation. The QX Series exemplifies what you should demand from a pump: Nothing short of premier performance and an unprecedented array of features for the price. All six models in the QX Series can pump continuously for any length of time, from seconds to months. You can pump fluid at either a constant flow rate or a constant pressure, specifying the precise flow rate or pressure to be maintained. A ramping feature enables the pumps to provide a smooth transition between two rate or pressure settings. QX Series pumps can also operate in either direction, letting you easily deliver or withdraw fluid to or from an application.

- Small footprint with dual cylinders in a compact design
- Pulse-free flow at all rates and pressures
- Deliver or receive in flow or pressure modes
- · Control pump based on time, pressure, rate, fluid volume or events



QX SERIES
PRECISION PUMP

PUMPWORKS CONTROL SOFTWARE

PumpsWorks software operates under Win7/Win8/Win10 operating systems. Software is easy to use, intuitive and offers powerful features to operate your pump the way you require.

- 14 Standard Modes of Operation Several options for constant flow, constant pressure, or control from external signals
- · Clear, Comprehensive Data Display Main window displays from all pumps in a clear and informative format
- · Operate Multiple Pumps Up to 8 dual cylinder pump systems can be controller from PumpWorks software
- · Data Logging Record all operating data (flow rate, pressure, volumes, valve operations, etc.) directly to your computer
- Programmable Operation 2 ramping options to set up time or volume delivery, multi-step flow or pressure ramps

Q5000 SERIES PRECISION PUMPS

THE QUIZIX Q5000 PRECISION METERING PUMP is a high pressure syringe pump that provides truly pulse-free pumping with unmatched precision and accuracy. These positive displacement metering pumps are ideal for handling aqueous solutions, brines, hydrocarbons, refined oils and gases such as CO₂.

A pair of Q5000 cylinders can work together to pump continuously for any length of time, from seconds to months. You can pump fluid at either a constant flow rate or a constant pressure, specifying the precise flow rate or pressure to be maintained. A ramping feature enables the pumps to provide a smooth transition between multiple rate, pressure, or volumetric settings.

- Pressure up to 20,000 psi
- · Flow rate up to 60 ml/min
- High temperature option up to 545°F (285°C)
- Configurable cylinder combinations provide flexibility to meet application specifications



Q5000 SERIES PRECISION PUMP

Q6000 SERIES PRECISION PUMPS

THE QUIZIX Q6000 SERIES POSITIVE DISPLACEMENT METERING PUMPS are ideal for handling aqueous solutions, brines, hydrocarbons, refined oils, and gasses such as CO_2 .

A pair of Q6000 cylinders can work together to pump continuously for any length of time, from seconds to months. You can pump fluid at either a constant flow rate or a constant pressure, specifying the precise flow rate or pressure to be maintained. A ramping feature enables the pumps to provide a smooth transition between multiple rate, pressure, or volumetric settings. Q6000 Series pumps can also operate in either direction, letting you easily deliver or withdraw fluid to or from an application. Q6000 pumps can also be configured for single cylinder, batch flow operations as well.

- · Pressure to 30,000 psi
- Flow rate to 400 mL/min
- Temperature capability from ambient to 545°F (285°C)
- Multiple cylinder configurations provide flexibility to meet your application requirements



Q6000 SERIES PRECISION PUMP

QX PRECISION METERING PUMPS

PUMP TYPE	MAX PRESSURE	MAX FLOW RATE*	CYLINDER STROKE VOLUME	MIN FLOW RATE	OPTIONS
QX-500	500 psi 3.4 MPa	500 mL/min 30 L/hr	137 mL	0.100 mL/min	SS or HC AT
QX-1500	1,500 psi 10 MPa	200 mL/min 12 L/hr	49 mL	0.050 mL/min	SS or HC AT
QX-3000	3,000 psi 20.6 MPa	100 mL/min 6.0 L/hr	24 mL	0.005 mL/min	SS or HC AT
QX-6000	6,000 psi 41 MPa	50 mL/min 3.0 L/hr	12.3 mL	0.001 mL/min	SS or HC AT
QX-10K	10,000 psi 68.9 MPa	30 mL/min 1.8 mL/hr	7.5 mL	0.0005 mL/min	SS or HC AT
QX-20K	20,000 psi 138 MPa	7.5 mL/min 450 mL/hr	3.5 mL	0.0001 mL/min	SS or HC AT

Q5000 PRECISION METERING PUMPS

PUMP TYPE	MAX PRESSURE	MAX FLOW RATE*	CYLINDER STROKE VOLUME	MIN FLOW RATE	OPTIONS
Q5000-2.5K	2,500 psi 17.2 MPa	60 mL/min 3,600 mL/hr	37 mL	0.000125 mL/min	SS or HC, AT or HT or EHT
Q5000-5K	5,000 psi 34.5 MPa	30 mL/min 1,800 mL/hr	21 mL	0.000070 mL/min	SS or HC, AT or HT or EHT
Q5000-10K	10,000 psi 68.9 MPa	15 mL/min 900 mL/hr	9.3 mL	0.000031 mL/min	SS or HC, AT or HT or EHT
Q5000-20K	20,000 psi 137.9 MPa	7.5 mL/min 450 mL/hr	5.2 mL	0.000018 mL/min	HC AT or HT

Q6000 PRECISION METERING PUMPS

PUMP TYPE	MAX PRESSURE	MAX FLOW RATE*	CYLINDER STROKE VOLUME	MIN FLOW RATE	OPTIONS
Q6000-5K	5,000 psi 34 MPa	400 mL/min 24,000 mL/hr	550 mL	0.002 mL/min	SS or HC, AT or HT or EHT
Q6000-10K	10,000 psi 70 MPa	200 mL/min 12,000 mL/hr	275 mL	0.001 mL/min	SS or HC, AT or HT or EHT
Q6000-20K	20,000 psi 138 MPa	100 mL/min 6,000 mL/hr	125 mL	0.0006 mL/min	17-4 or HC, AT or HT
Q6000-30K	30,000 psi 206.8 MPa	75 mL/min 4,500 mL/hr	65 mL	0.0004 mL/min	A286 or I-725, AT

SS: wetted parts in 316SST I725: Inconel 725 HC: wetted parts in HASTELLOY® C-276 AT: ambient temperature 0-50°C 17-4: wetted parts in 17-4 PH SST HT: high temperature 50-165°C A286: wetted parts in A286 SST EHT: extra high temperature 50-285°C For over 70 years, Chandler Engineering has produced the highest quality measurement instruments for the Oil & Gas Industry. Today, Chandler Engineering, the Industry's largest instrument supplier, continues its efforts to help their customers improve the efficiency and productivity of their drilling and production operations.



The Oil & Gas Industry is truly a global endeavor with operations on every populated continent. As a global industry needs global support, AMETEK strives to continuously grow and develop its sales and support network. In addition to a global network of factory trained personnel, AMETEK maintains factory-direct customer support capabilities at its manufacturing sites and a growing number of regional offices.



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