

ZENITH[®] METERING SYSTEMS

WHEN ACCURATE ADDITIVE DELIVERY IS VITAL



ENGINEERED PUMP SOLUTIONS TO DOSE YOUR INGREDIENTS

Ensuring the integrity of your dosing process requires the best engineering minds. But cost and overall product appeal are just as important to OEMs in the food and beverage, nutraceutical and personal care product markets. How do you find the systems partner that will take all of that into consideration?

TRUST ZENITH FOR THE SOLUTION

Zenith's engineering experts design and tailor your metering pump systems to any process application for which you're responsible. With numerous designs and materials of construction to choose from, it is our standard of service to offer you the most value and lowest total cost of ownership in every solution. We will provide you with the right system for the right price.

OUR SYSTEMS APPROACH FOR ADDITIVES AND INGREDIENTS

Whether you are spraying, blending or injecting your fluid material, repeatability is of paramount importance. Zenith products assure accurate metering over a wide range of applications and process fluid conditions. Add a drive system and incorporate a closed loop speed controller to maintain metering accuracies of +/- 1 percent.

In addition to accurate delivery, close tolerance precision gear metering pumps with only two moving parts are reliable in service and have virtually pulse-free fluid performance. A gear metering pump's tight internal clearances are as small as 50 millionths of an inch, ensuring a consistent flow rate and high-pressure capabilities where they are needed the most.

OUR SYSTEMS CAN ACCOMMODATE:

- › Flows as low as 0.18 cm³/min (0.00005 gpm)
- › Pressures up to 10,000 psi
- › Viscosities up to 2 million centipoise
- › Temperatures from -40 F to 950 F
- › Explosion proof designs
- › Seal-less designs



PUMP EQUIPMENT PACKAGES MAKE THE DIFFERENCE

A packaged metering system approach will always offer the most value and overall lowest cost of ownership.

We provide:

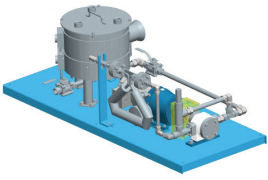
- › Programmable logic controllers and controllers for speed, pressure and temperature
- › Modular designs using mobile carts and base mounted assemblies
- › Accessories such as tanks, mass flow meters, level sensors, mixers and control valves
- › Custom layouts and system integration conforming to customer satisfaction
- › Test stands

WHAT ARE YOU SPRAYING, BLENDING OR INJECTING?

COLORING
 FLAVORING OILS
 LECITHIN
 VITAMIN SPRAYS
 FRAGRANCE
 COLORANTS
 FILLERS
 ANTIOXIDANTS
 SURFACTANTS
 EMULSIFIERS
 PRESERVATIVES
 ADHESIVES
 EXPENSIVE TRACE INGREDIENTS

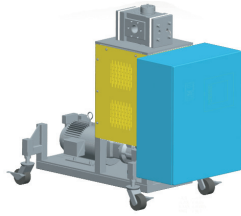


3-D MODEL EXAMPLES OF OUR TOTAL METERING SYSTEMS SOLUTIONS



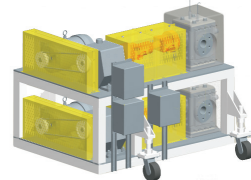
INLINE PUMP SYSTEM

- › Heated stainless steel tank
- › Level transmitter
- › Flow meter
- › Pressure transducer



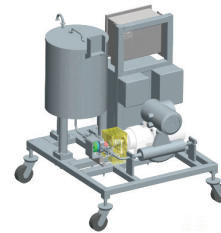
RIGHT-ANGLE PUMP SYSTEM

- › Temperature, pressure and speed alarms
- › Pump with cast-in electric heaters
- › LCD touch screen and PLC
- › Temperature control (two zones)
- › Pressure monitor and control
- › AC inverter duty motor with 1024 PPR encoder



TWO-LEVEL, DUAL PUMP SYSTEM ON A CUSTOM CART

- › Swivel casters with height adjustment
- › Belt driven, inline reducers
- › Electric cartridge heaters for pumps
- › AC inverter duty motors
- › Electric wiring to low and high voltage junction boxes
- › Temperature controller



INLINE PUMP SYSTEM

- › Locking swivel casters with brakes
- › Sanitary connections
- › Stainless steel tank
- › Mixer
- › Temperature control (two zones)
- › Flow meter
- › Feed controller

ACCURATE, RELIABLE, PULSE-FREE ADDITIVE DELIVERY IS AT HAND

Built with quality construction materials vetted through our supplier qualification process, our metering pumps and systems deliver the efficient, repeatable performance you demand, backed by sales and application engineers who are some of the best in the business and who provide ongoing support.

Stop worrying about performance variances and higher operating costs from inconsistent and/or pulsating flow. Say goodbye to ruined or off-spec products, with the resulting productivity losses, increased rework and excessive product waste. Find out what a Zenith system can do for you by contacting us at the number or address below.



CIRCOR is a market-leading, global provider of integrated flow control solutions, specializing in the manufacture of highly engineered valves, instrumentation, pumps, pipeline products and services, and associated products, for critical and sever service applications in the oil and gas, power generation, industrial, process, maritime, aerospace, and defense industries.

Excellence in Flow Control

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