

>> Accurate, repeatable dosing

You want to reduce expensive waste and material costs associated with over & under-dispensing.

You need repeatable and accurate shot sizes where precise amounts of fluid must be metered. The 9000DS-Series Dispensing System is ideal for even your most critical shot dispensing applications.

Unique design features combine Zenith's state-of-the-art 9000-series metering pumps with stepper-motor and control technology, resulting in unmatched performance in your fluid dispensing processes.

The dispensing controller is preprogrammed with five typical fluid delivery applications. It also features a graphical color LCD touch-screen for easy operation.

The stepper motor systems are also excellent for continuous duty applications where extreme flow ranges, high metering accuracy and repeatable performance are required.



9000DS Dispensing System Features

Benefits

- | | | |
|--|---|---|
| ◆ Zenith 9000 Series Metering Pumps | → | Match Pump to Application Conditions |
| • B-9000 Chemical Duty | | • General Purpose Applications up to 645 °F |
| • C-9000 Corrosion Resistant | | • Meter Corrosive or Non-Lubricating Fluids |
| • H-9000 Abrasion Resistant | | • Dispense Abrasive Slurries up to 950 °F |
| ◆ Positive Displacement Spur Gear Design | → | Smooth, Virtually Pulse-free Flow |
| ◆ Precision Ground and Lapped Components | → | Accurate and Repeatable Dosing |
| ◆ Hardened Pump Materials | → | Wear Resistance Provides Long Service Life |
| ◆ Turn-Key Dispensing Controller | → | Pre-programmed with 5 Dispensing Functions |
| ◆ Graphical Color LCD Touch-Screen | → | Ease of Use, Multiple Languages Supported |
| ◆ Microstepping Motor and Drive Technology | → | Extremely Accurate Intermittent Shot Dispensing |
| ◆ Compact and Lightweight Design | → | Saves Space and Eases Installation and Handling |
| ◆ Error Protection | → | Immediate Error Notification Reduces Waste |
| ◆ Multiple Input and Output Dispensing Functions | → | Flexible Control Scheme and System Integration |
| ◆ Electronic Active Motor Damping | → | Smooth Motor Rotation and Increased Torque |

Specifications

	B-9000	C-9000	H-9000
Materials of Construction	400 Series Stainless Steel	316 Series Stainless Steel and special alloys	Tool Steel
Shaft Seals (Other Options Available)	Single Mechanical or Double PTFE Lip	Single Mechanical or Double PTFE Lip	Graphoil Packing
Pump Sizes (cc/rev)	.05, .3, .6, 1.2, 2.4, 4.5, 9, 15, 30, 45 and 90	.3, .6, 1.2, 2.4, 4.5 and 9	.3, .6, 1.2, 2.4, 4.5, 9, 15, 30, 45 and 90
Speed Range (RPM)	10 - 300	10 - 500	10 - 300
Flow Range (GPH)	.008 - 285	.05 - 71	.05 - 285
Inlet Pressure Limit (PSI)	300	300	300
Outlet Pressure Limit (PSI)	1000	1000	1000
Δ Pressure Limit (PSI)	700	700	700
Operating Temperature (°F)	32 - 645	-40 - 350	32 - 645 (950 max.)
Shaft Rotation (Facing Shaft)	C W	C W	C W
Viscosity Range (cps)	1 - 1,000,000	.3 - 50,000	1 - 1,000,000
Port Connections	NPT	NPT	NPT
Recommended Uses	General Chemical Duty	Corrosive or Non-Lubricating	Abrasive or High Temperature
Suggested Fluid Handling	Chemicals, Adhesives, Silicones, Isocyanates, Polyols, Additives	Solvents, Water-Based Solutions, Mild Acids, Fuels, Food Products	Abrasive Slurries, Sealants, Paints, Pigments, Plastics

Controller

System Input Power	115 / 230 VAC / 50-60 Hz / 1 Phase
Motor Drive Output Current	0 - 6 Amp Peak
Motor Drive Resolution	Micro-stepping capability and software selectable from 200-to-51200 steps/rev in increments of 2 steps/rev
Motor Drive Protection	Over-voltage, Under-voltage, Over-temperature, External Output Shorts, Internal Amplifier Shorts
System Controller	PLC
System Remote Control	4 pre-programmed remote digital inputs (Dispense, Dispense & Reverse, Continuous & Stop)
System Expandable Inputs	9 Available Digital Inputs: 24 VDC, NPN (Customer programming needed)
System Expandable Outputs	11 Digital Outputs: 5 - 24 VDC, NPN (Customer Programming needed)
Certification	NEMA 4 / 12, UL / cUL
Environment	32 - 131°F, Maximum 90% at 25°C, Non-condensing

Operation Interface

Display Device	Color LCD, Touch-Screen
Resolution	320 (W) x 240 (H) dots
Display Size	4.7", 98.0 (W) x 74.0 (H) mm
Backlight	White LED (No need for replacement)
Languages	English, Spanish, German, French, Italian, Turkish, Simplified Chinese, Traditional Chinese, Japanese, Korean
Certification	IP65, Dust-proof and drip-proof from the front of panel

Stepper Motor

Motor Options	NEMA 34, 2-Phase Hybrid, 1.8°	NEMA 42, 2-Phase Hybrid, 1.8°
Compatible Pump Size	0.05, 0.3, 0.6, 1.2 and 2.4 (cc/rev)	4.5, 9, 15, 30, 45 and 90 (cc/rev)
Holding Torque (Max)	1715 (oz-in)	4320 (oz-in)
Rated Current / Phase	5 (Amp)	4.9 (Amp)
Environment	Maximum 90% at 25°C, Non-condensing	Maximum 90% at 25°C, Non-condensing



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