

# Z Series Solenoid Diaphragm Metering Pumps

define  
design

deliver

# Introducing the Z Series...Dosing Made Easy

## SMART...

### Just 3 Sizes, Just PVDF, All Functions In One Pump

- 3 Pump Sizes That Cover 1.06–29 gph With an Output Pressure Up To 232 psi
- 1 Housing Allows Skids To Be Pre-Constructed, As the Fixing Points Remain Constant, and the Pumps Can Be Selected On Confirmation of the Dosing Flow
- Multi-voltage Capability
- Flexible Installation - Bracket or Direct Panel Mount
- Reduced Inventory
- Minimum Spare Parts



## VERSATILE...

### One Piece Injection Molded PVDF Pump Head With a Ceramic Ball Check Valve as Standard - An Industry First

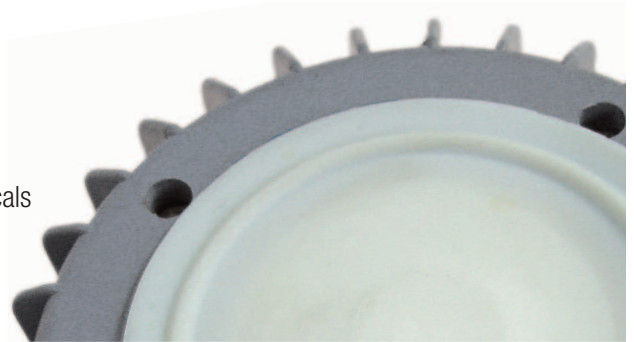
- PVDF Is Suitable for Almost All Chemicals Used In the Chemical Handling, Waste Water Treatment and Potable Water Applications
- Double Check Valves With Ceramic Balls Are Standard, Improving the Pumping Reliability and the Chemical Compatibility of the Entire Wet End
- Full Chemical Compatibility of the Pump Both Internally and Externally



## RELIABLE...

### Our High Performance Long-Lasting Diaphragm Are Tested To Exceed 5 Years Performance

- The Advanced Design and Manufacturing Process Allows the Diaphragm To Have a Unique Life Expectancy
- Made of PTFE, the Diaphragm Is Compatible With Most Key Chemicals
- The Diaphragm Is Designed for a 5 Year Or Greater Working Life Giving Superior Results Over Competitive Design and Materials
- Routine Diaphragm Replacement Is Not Needed
- Reduced Maintenance and Down Time



## EFFICIENT...

### Stabilized Multi Power Supply 100–240 VAC 50/60 Hz With Reduced Consumption

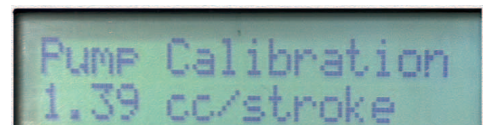
- Reduced Power Consumption As the Solenoid Only Draws the Required Power To Activate the Pump, Based On the Working Conditions
- Stable Dosing Performance: Improve Pump Efficiency As Performance Is Not Affected...By Power Supply Fluctuations
- Less Down Time Required For Maintenance
- Reduce Inventory and Spare Parts Needed



## INTUITIVE...

### A New Way of Programming Menu

- Programming Menus Are Self Explanatory and Available In 5 Languages
- Intelligent Display, Once a Function Is Selected the Pump Will Only Display the Parameters To Set, Which Are Linked To the Selected Function
- Reduced Programming Time



# Z Series Solenoid Metering Pump



The New Z Series Solenoid Diaphragm Metering Pumps brings simplicity to your metering pump needs in all aspects of design, function and performance. The Z Series features only one design configuration, featuring front facing controls and tube connections, allowing for easy and flexible installation. No more reaching over in tight spaces for hookups and connections. Available in analog and digital versions, the Z Series offers just three sizes with flow rates ranging from 1 gph to 29 gph. Additionally, the Z Series offers a stroke rate of 160 to 300 strokes/minute. No need to have multiple makes or models to cover all your application needs.

## KEY FEATURES & BENEFITS

- Analog and Digital Operation
- Three Pump Sizes Cover 1 To 29 gph With an Output Pressure Up To 232 psi
- Standard One Piece Molded PVDF Pump Head
- PTFE Diaphragm Provides Superior Chemical Handling
- Degassing Valve Included
- Glass Reinforced Polypropylene Housing
- FPM Body O-Ring Seal
- Removable Bracket Allows For Panel Mounting, As Well As Replacement of Existing Metering Pumps
- Inputs: 4-20mA, Pulse, etc.
- Manual Priming Valve
- NEMA 4X / IP 65 Rated
- Electrical Connections Are Configured With “Quick-Connectors”, Capped When Not In Use
- Automatic Power Supply - 100-240 VAC 50-60 Hz

## OPTIONS & ACCESSORIES

- Complete Standard Installation Kit Includes:
  - PVDF Foot Filter and Injection Valve
  - PVC Suction Tube
  - PE Delivery Tube
- Multifunction Valve Optional
- EPDM Body Seal Optional

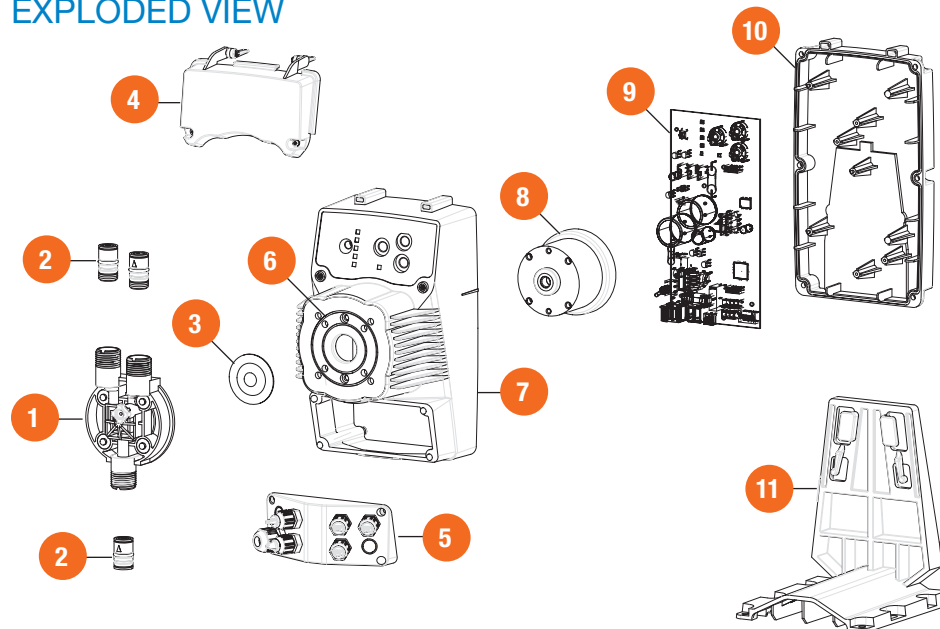


## MATERIALS

- GFPP Cell Class 85580 Per ASTM D4101
- PVDF Per ASTM D3222 II
- PTFE Diaphragm
- FPM Seals



## EXPLODED VIEW



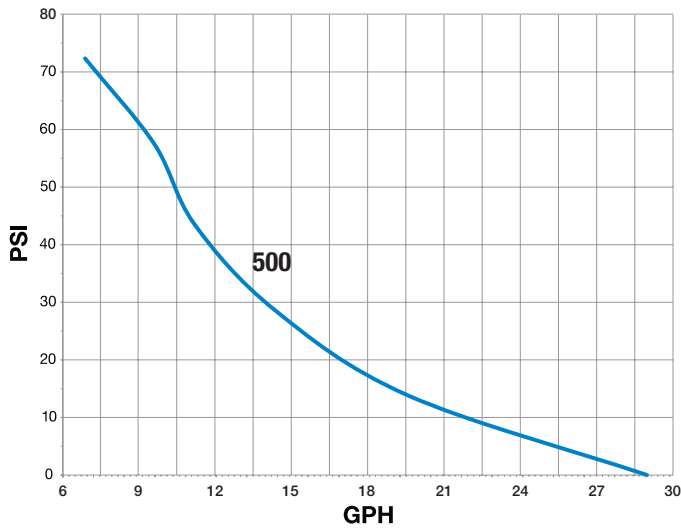
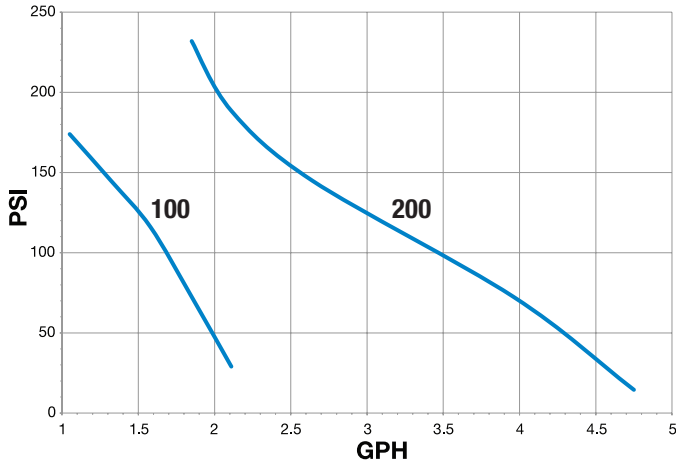
## PARTS LIST & MATERIALS

1	Pump Head - PVDF
2	Ceramic Check Valve Assemblies - PVDF/FPM/SC
3	Diaphragm - PTFE
4	Front Panel Lid
5	Wiring Terminal Block - GFPP
6	O-Ring Seal - FPM
7	Housing - GFPP
8	Solenoid
9	Circuit Board
10	Back Plate - GFPP
11	Mounting Stand - GFPP



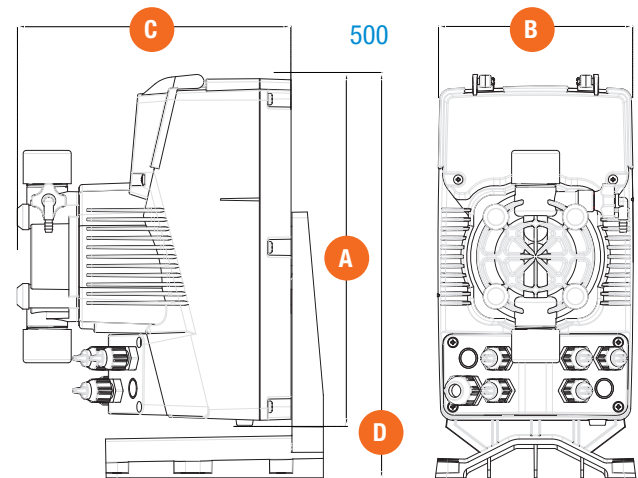
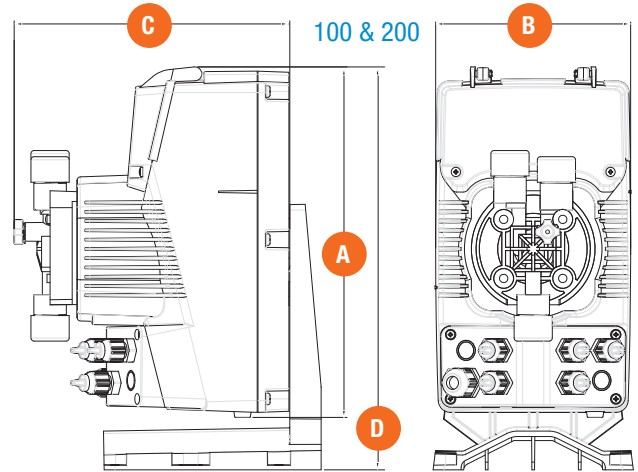
## TECHNICAL INFORMATION

### PERFORMANCE CURVES



### DIMENSIONS (inches)

MODEL	A	B	C	D
100 & 200	9.1"	4.7"	7.81"	10"
500	9.1"	4.7"	7.77"	10"

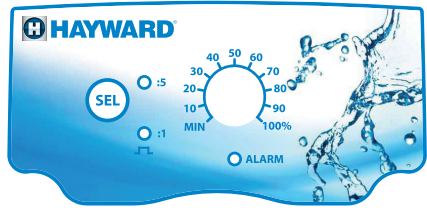


### SPECIFICATIONS

PUMP SIZE	FLOW RATE (GPH)	LINE PRESSURE (PSI)	STROKE CAPACITY (CC/STROKE)	Ø CONNECTIONS IN/ OUT (INCHES)	FREQUENCY MAX (STROKE/MIN)	CONSUMPTION (W)
100	1.06	175	0.42	0.17" x 1/4"	160	12.2
	1.32	145	0.52			
	1.58	116	0.63			
	2.11	29	0.83			
200	1.85	232	0.38	0.17" x 1/4"	300	23.9
	2.64	145	0.55			
	3.96	72	0.83			
	4.75	14	1.00			
500	7.90	73	1.11	5/16" x 7/16"	300	22.2
	10.50	58	1.39			
	12.00	29	2.22			
	29.00	0	3.00			

# Z Series Product Range

## Analog Interface

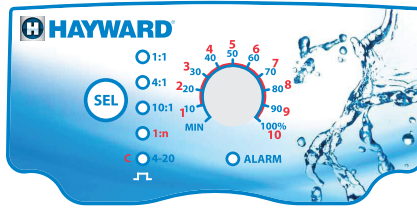


### ZMA Constant Dosage

Select from two frequency ranges (0–20% or 0–100%).

The constant flow rate is easily adjusted with the analog control dial, located on the front panel.

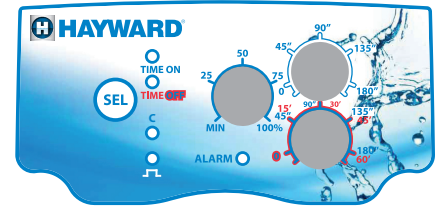
The Power-On led and level control indicators are also on this panel.



### ZPA Proportional Dosage

Analog dosing pump with constant flow rate manually adjustable, proportional flow rate according to an external analog (4–20 mA) or digital pulse signal (e.g. from water meter).

- Control Dial (Percentage and “N” Value In Multiplication Mode)
- 6 Position Adjustable Switch:
  - 3 In Division Mode (1, 4, 10 = n)
  - 1 In Multiplication Mode (n=1)
  - 1 For Proportional 4–20 mA Signal
  - 1 For Constant Functionality
- “Pacing” Function Adjustable By Dip Switch



### ZTA Timed Dosage

Analog dosing pump with constant flow rate manually adjustable and timed dosage with T on -T off double regulation.

- 3 Control Dials (Flow Rate Percentage - T On Regulation - T Off Regulation)

## Digital Interface



### ZPD Proportional Dosage

Digital dosing pump with constant flow rate manually adjustable, proportional flow rate according to an external analog (4–20 mA) or digital pulse signal (e.g. from water meter).

- Timer Function, Batch Dosing, ppm Dosing, Statistics, Password and On/Off Input (Remote Switch)



### ZRD Integral pH/ORP System

Digital dosing pump with pH/Redox control meter built in.

- Digital Interface For Constant Or Proportional Dosing, Depending On the Measured pH Or Rx Value
- PT100 Probe Input For Thermal Compensation
- Repetition Alarm Relay
- Input On-Off For Remote Control
- 4–20 mA Output

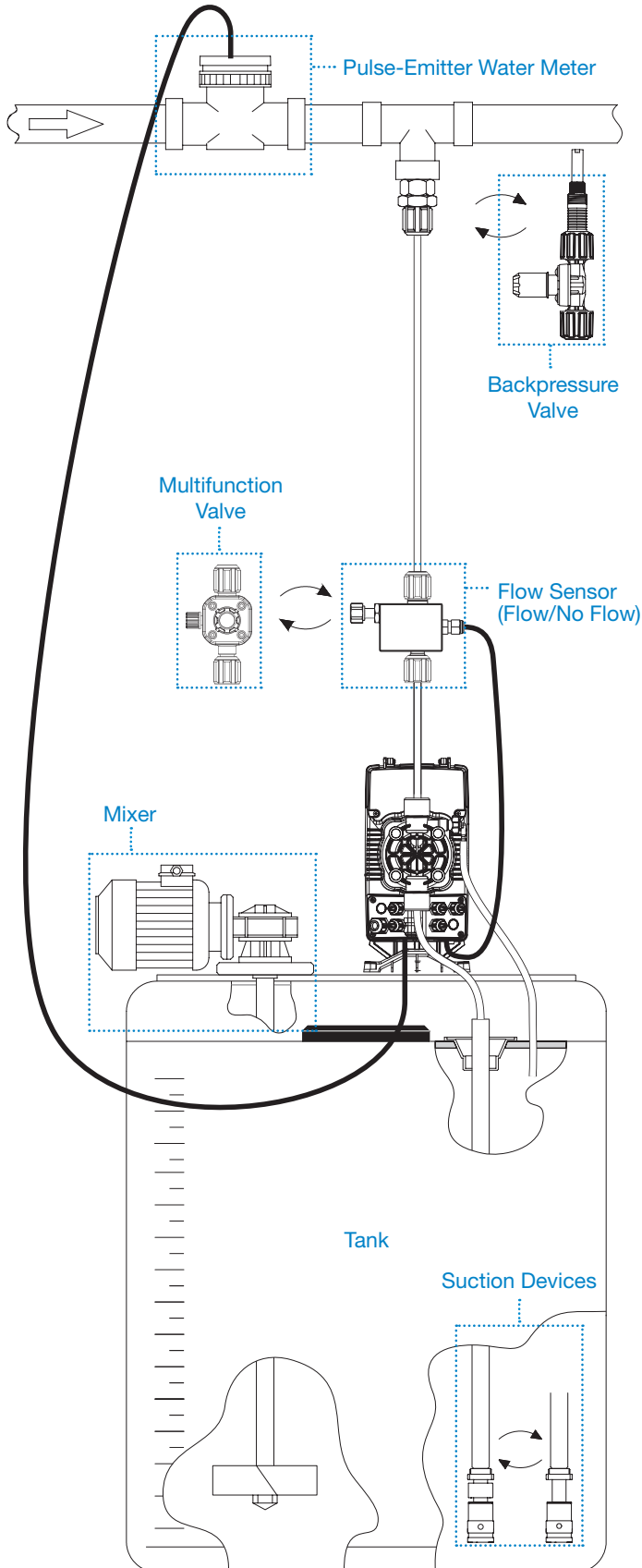


### ZKD Timed Dosage

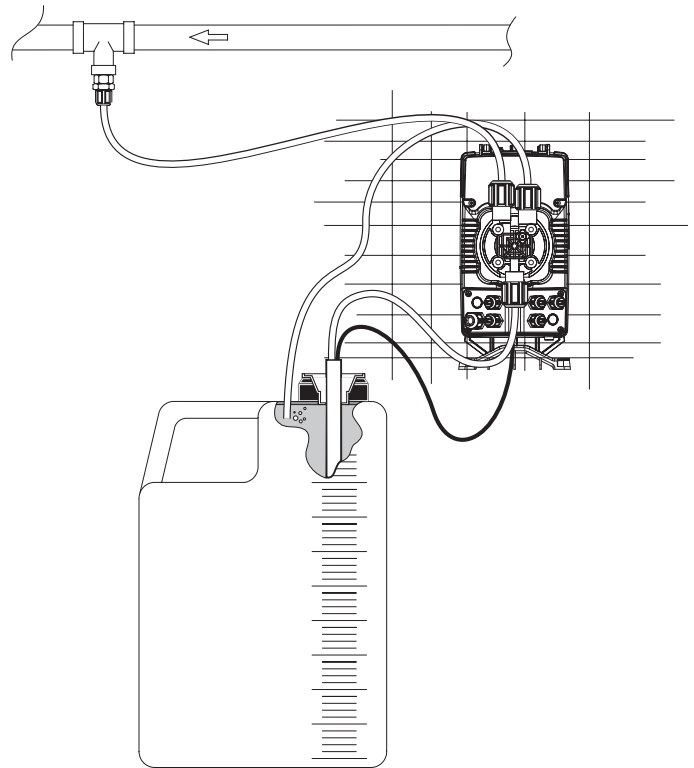
Digital dosing pump with a manually adjustable flow rate or timer control.

- Programmable Timed Relay

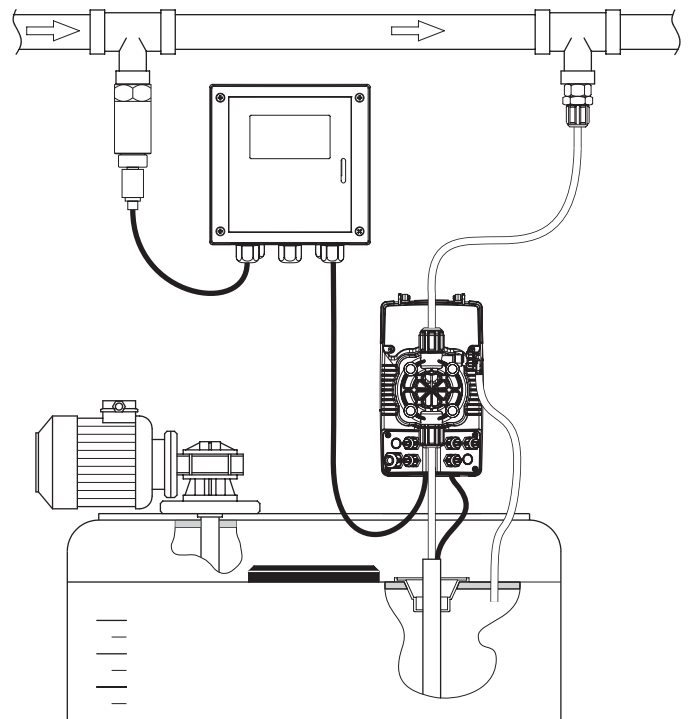
### TYPICAL INSTALLATION

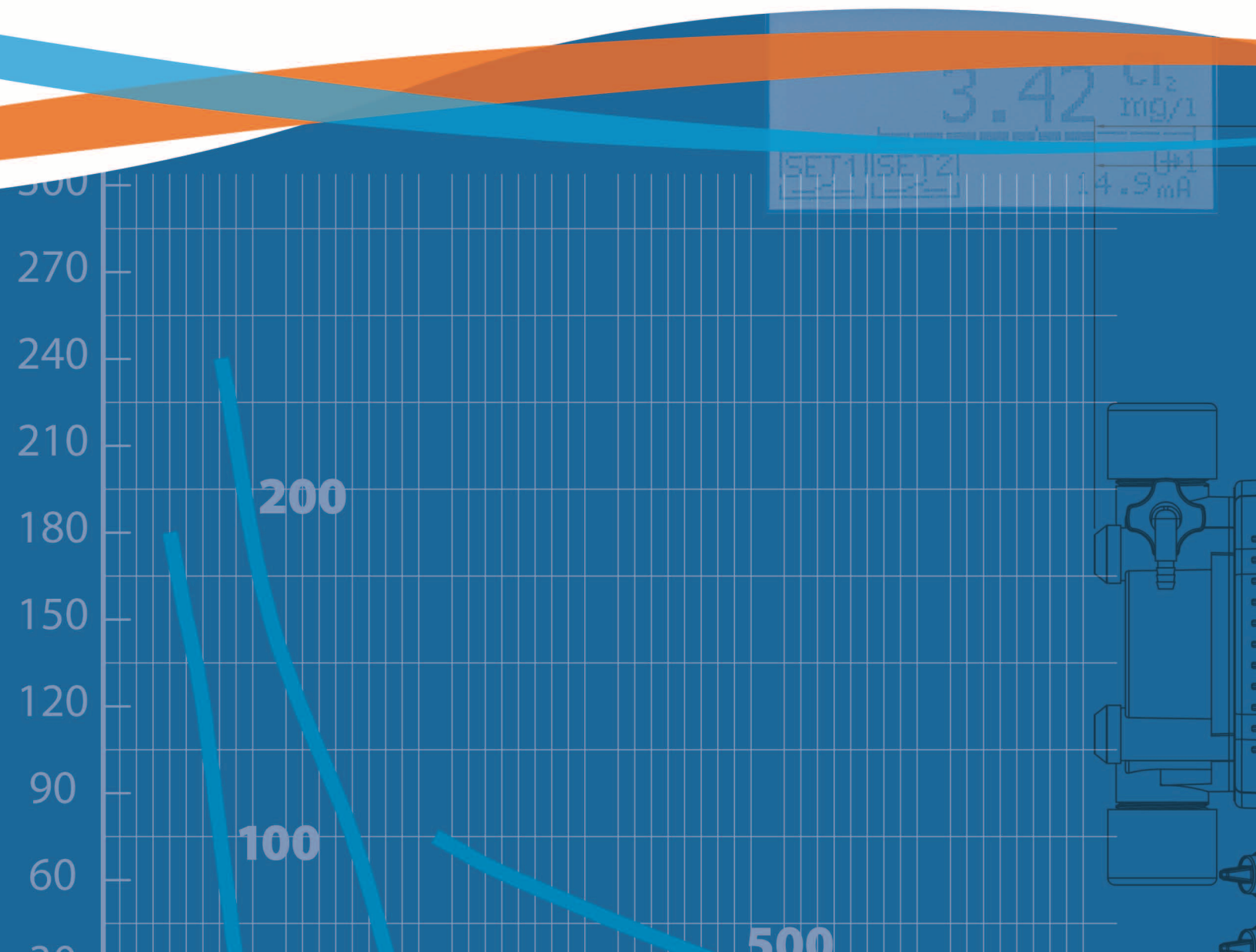


### DEGASSING HEAD INSTALLATION



### WITH CONTROL INSTRUMENT





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ZPG1115

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