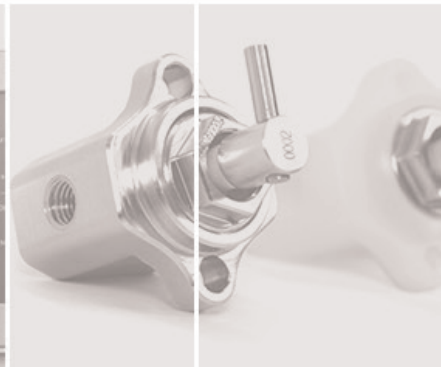
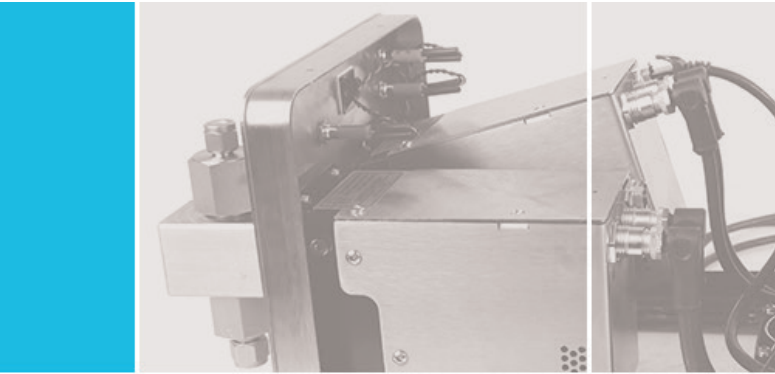


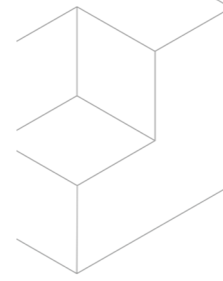
# 2019 | Pump Catalog



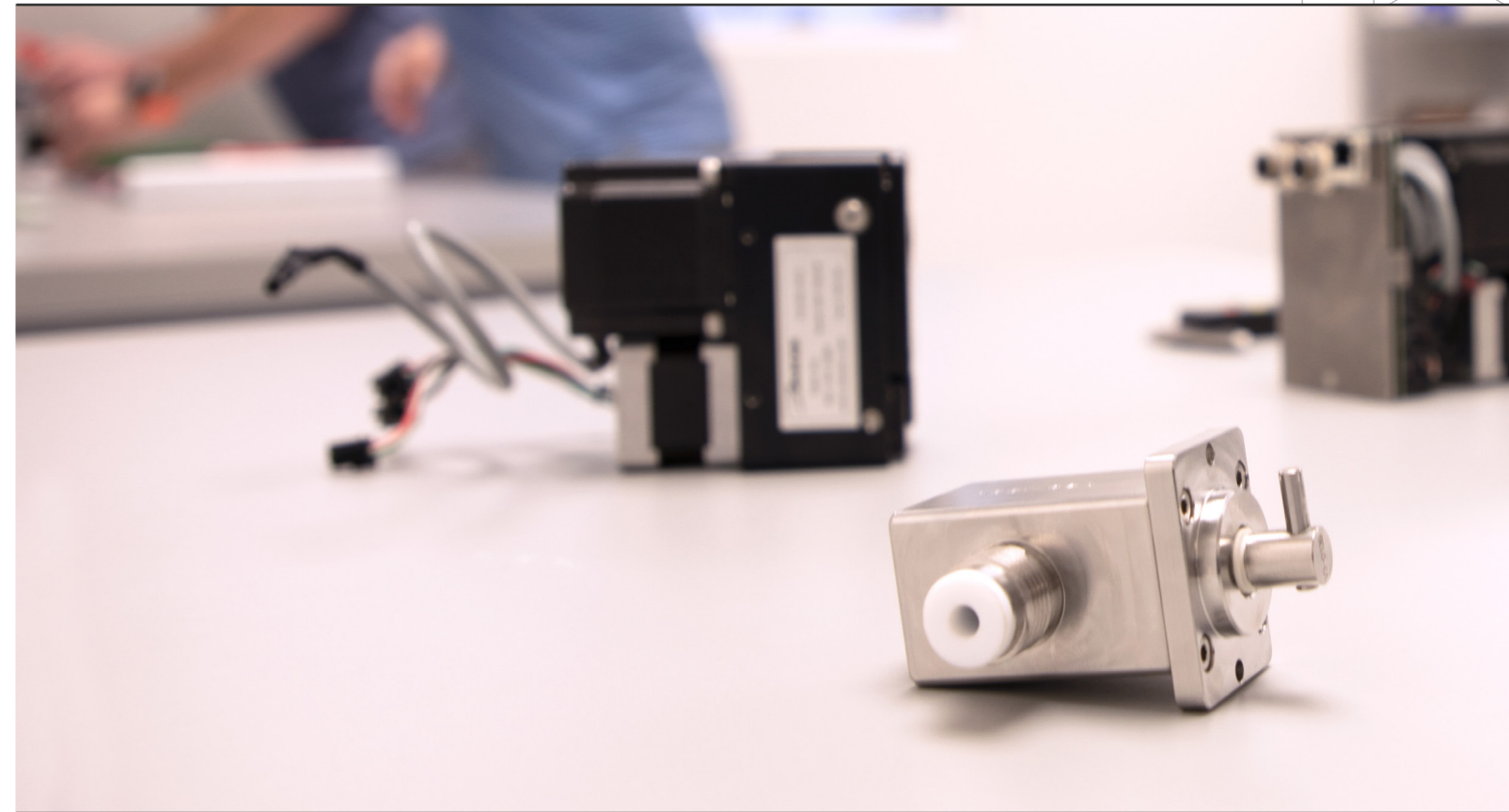
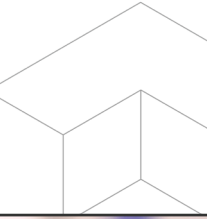
Patented Electronic Adjustment Pump  
Patent No. US 7,708,535 B2



Perfectly Adapted Fluid Metering Pumps |



**Perfectly Adapted Fluid Metering Pumps**



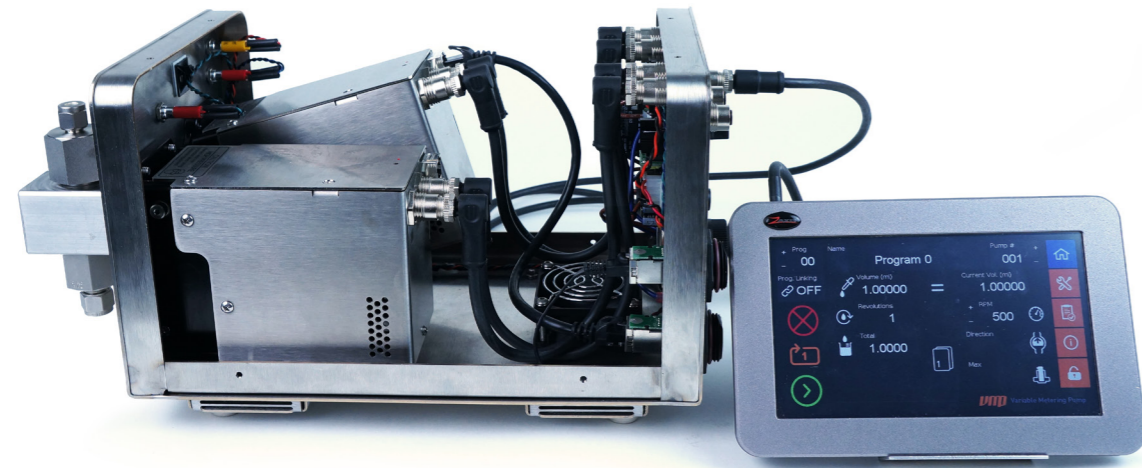
Engineering	4
Applications	6
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Located in the heart of Salt Lake City, Utah we have maintained a culture of innovation and success. Still a privately-owned company, we continue to engineer the world's finest leak testing and precision pumping technologies used by household name companies around the world. We are excited about our growth and the amazing people who have helped us along the way. Stay tuned to [Zaxisinc.com](http://Zaxisinc.com) to be the first to know what new technologies we are developing.

We came from humble beginnings. We were literally working out of a garage but our little garage company has grown into an industry leader. That small company heritage is something we take pride in. We try to act as small as we can when it comes to our customers. We're not interested in the sell-and-forget business. We want to deliver precision products to exceptional customers and build lasting relationships.

Since our humble beginnings, we have come a long way. In the Fall of 2014, we expanded into a 20,000+ SQFT facility to manage our future growth. We are excited to innovate new technologies with the growing Zaxis force and we look forward to meeting you soon. We hope that you find all of your solutions here with us and if not, we hope to provide them for you in the near future.

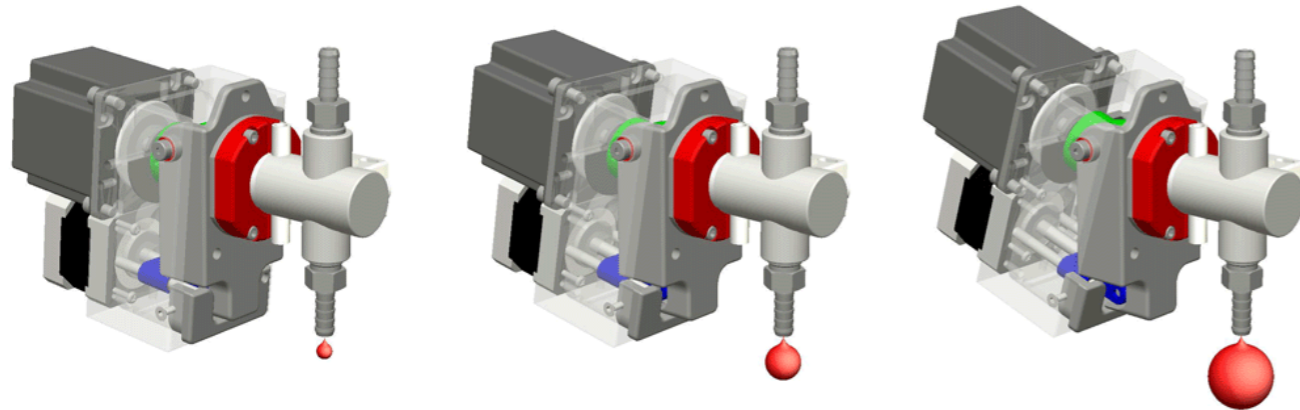




# eVmP

## Electronic Variable Metering Pump

The patented eVmP system is a precision metering and fluid dispenser combined with a detachable Touch Screen Interface (TSI) for simple programming and immediate teach and control. This pump technology combines precision ceramic pump components and an electronically controlled linear stepper actuator to make ultra-fine adjustments to angle position, thereby changing the volume of metered liquid. This allows the eVmP system to provide dynamic fluid displacement to overcome variations in viscosity and surface tension. The eVmP is the latest in fluid metering and dispense technology.



### Rotating and Reciprocating Valve-Less Ceramic Piston Design

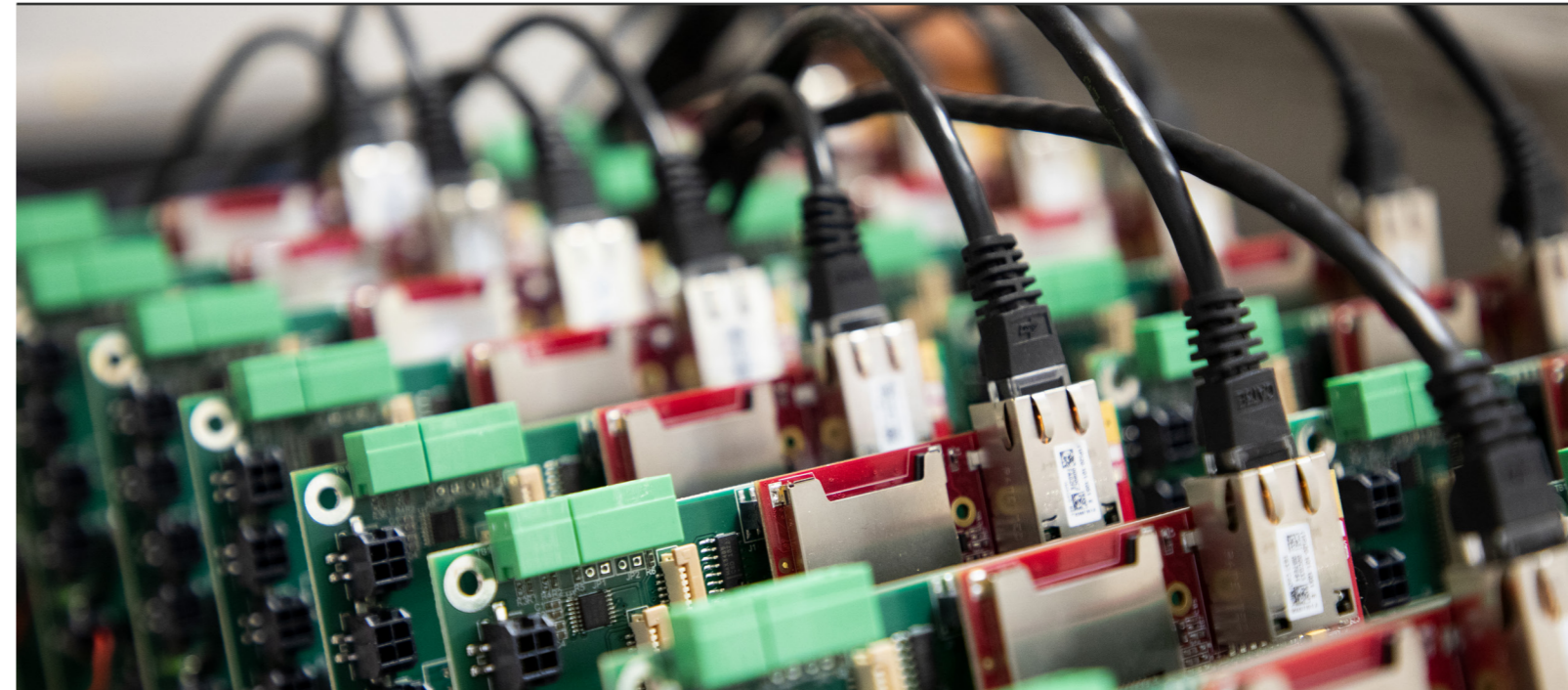
- Extremely tight tolerances bring accuracy and repeatability
- No external supply and discharge valves, the intake port is always connected to the discharge port
- Valveless and only one moving part, yielding millions of maintenance-free cycles

Patent No. US 7,708,535 B2



# EtherNet/IP

The Zaxis eVmP Pumps utilize the latest in industrial network protocols including, TCP/IP, and newly available Ethernet/IP. Ethernet/IP is one of the leading industrial protocols in the United States.



Ethernet /IP allows our end user to control processes in real time, utilizing the key elements of User Datagram and Protocol (UDP). In an ecosystem of technology, Control Engineers rely on I/O messaging and data transport, yet need the individual control of program settings, on each device.

### The eVmP Pump utilizes Ethernet /IP for:

- Transfer of basic I/O data (Implicit Messaging)
- Upload and Download of programs, settings, or recipes (Explicit Messaging)
- Constant or cyclical monitoring (Polling)

Visit [zaxisinc.com](http://zaxisinc.com) or contact our sales department at 801.264.1000 or [sales@zaxisinc.com](mailto:sales@zaxisinc.com) for the latest EDS (electronic data sheet).



# Applications

## For Precision Metering Pumps

Accuracy and reliability are the hallmarks of a high-end precision metering pump. The Zaxis eVmP design combines ceramic internals, an elegant valveless build, electronic adjustment, and the use of positive displacement. This creates a durable, low maintenance pump with simple displacement adjustment that is highly accurate and repeatable.

Ceramic Internals	Durable, long lasting, abrasion resistant
Valveless Design	Easy to clean, easy to maintain, simple changeover
Electronic Variability	Simple "Push Button" displacement adjustment
Positive Displacement	High accuracy and repeatability ( <i>accuracy is within a 0.5%</i> )

## Medical & Pharmaceutical



**Gel Caps**  
Involves the precise metering of pharmaceuticals for gel capsule manufacturing. With recipe control, the eVmP makes product changeover very easy.



**Fluid Reagent Kits**  
Reagent kits require extremely precise reagent volumes and concentrations to guarantee accurate patient results.



**Reagent Strips**  
Very small-very precise amounts of fluid are dispensed onto a diagnostic strip such as glucose test strips or a pregnancy test.



**Hydrogels**  
Often used for transdermal drug delivery, wound care, conductive/non-conductive adhesives, or medical diagnostics.



**Pre-Filled Doses**  
Specific metered prescription doses, packaged for individual use such as an epinephrine glucose auto injector.



**Device Assembly**  
Many medical devices require miniscule amounts of fluid, usually adhesive or lubrication, during assembly.



**CBD Oil**  
A growing industry with, promising medical applications, that requires precise delivery methods such as drops, softgels, vaporizers, and topical.



**Hazardous Materials**  
Acids, chemotherapy drugs, and other radioactive substances are hard on machinery and demand the durability offered by the eVmP.

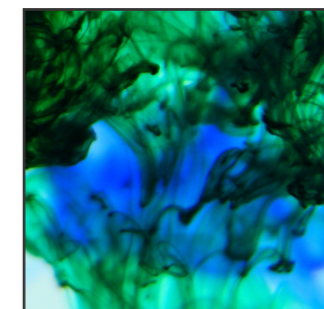
## Food & Beverage



**Form-Fill-Seal**  
Food and beverage packaging automation requires fast and reliable fluid dispensing to maintain quality products and high throughput.



**Additives**  
Additives such as flavors, sweeteners, and preservatives require consistency and accuracy for quality production.



**Coloring**  
Accuracy and repeatability are important, when adding color in food manufacturing, to achieve a consistent end product.

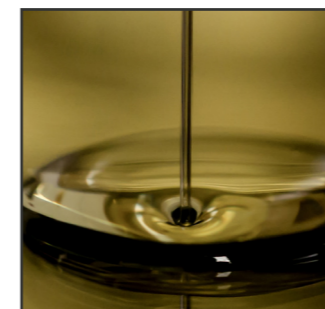


**Coatings**  
Often used in the manufacturing process as a mold release or for functional ingredients such as a cereal varnish.

## Automotive



**Coatings**  
Clear automotive glass primer, anti-scratch or uv glass coating, or primer for gluing glass to metal, all require consistency and reliability.



**Lubrication**  
Automotive manufacturing entails assembling many moving parts that require thorough lubrication for proper functionality.



**Conditioning**  
Conditioning is vital for proper functionality of materials such as automotive weather stripping, which requires an anti-stick coating.



**Audio Systems**  
Manufacturing automotive speakers involves the precision dispensing of Ferrofluid into the speaker's voice coil.

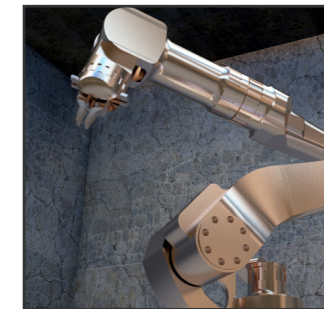
## Much More...



**Cosmetics**  
Cosmetic applications for precision metering are vast and include Fill-Form-Pack, repeatable-precise color mixing, and much more.



**Water Conditioning**  
The effects of filtration, purification and alteration of minerals, chemicals and contaminants in water are far-reaching and demand accuracy.



**Robotic Lubrication**  
To keep a manufacturing facility running at peak throughput, all machines and robotics need to be consistently maintained and lubricated.

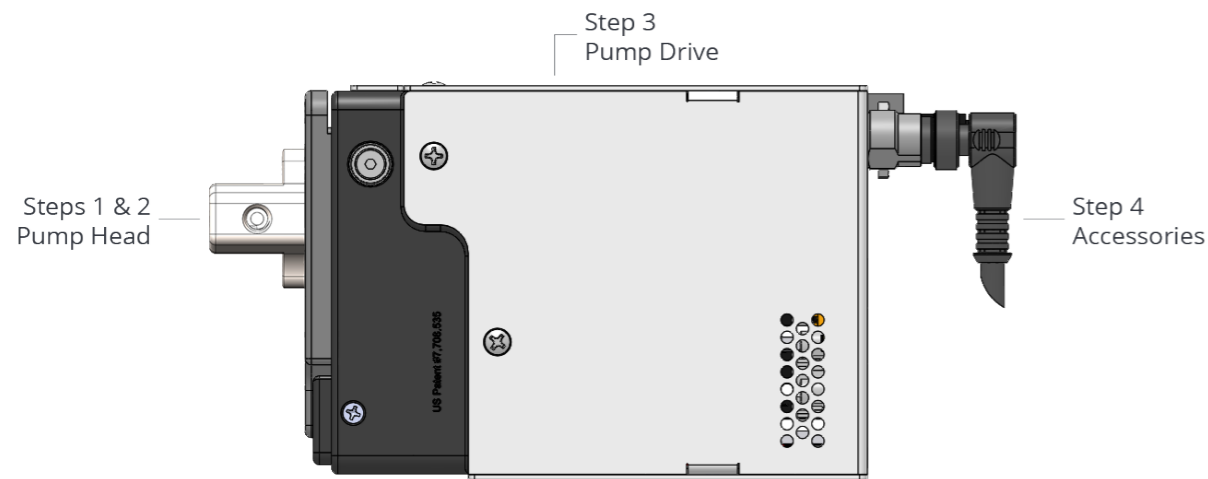


**Toy Manufacturing**  
Consistent adhesive pigment distribution in toy manufacturing is key to product durability and coherence.



# How it Works

## Selecting Your Variable Metering Pump



### Step 1 - Volume

Volume dictates the size of pump head you require. In the table to the right, pick the corresponding flow rate for your application. Select the piston size closest to your maximum volume for the best accuracy and precision.

### Step 2 - Material

The wetted path of the pump head and seals depends on the composition of the product running through it. The eVmP pump head offers a range of material options for each of the head sizes you see in the table on the right.

Common Materials:

- CKC - Ceramic, Kynar®, Ceramic
- SAN - Sanitary, primarily 316SS

### Step 3 - Drive

Select the drive that best meets your application needs. Zaxis offers a drive for M, V, and VS6 pump heads. Select either a stepper (-V under Pump Drive in the table to the right) or a servo drive (-VS under Pump Drive in the table to the right). Servo drives are typically used for high speed production or high viscosity applications.

### Step 4 - Accessories

How you would like to set the pump up in your facility will determine its configuration. Whether it be a single benchtop pump with a stand and individual touch screen or a full row of automated pumps, our accessories will help with the configuration that works for you.

## eVmP Configuration Table

Use this table as a guide in deciding which pump head and drive configuration will best suit your needs.

Head Size	Piston Size	Material Options	Pump Drive	PSIG	Max mL/rev	Max mL/min	RPM*
M0	3/16"	CKC/SAN	VMP-OEM-M	100	0.05	50	1000
M1	1/4"	CKC/SAN	VMP-OEM-M	100	0.10	100	1000
V1	1/4"	CKC/SAN	VMP-OEM-V	100	0.32	320	1000
			VMP-OEM-VS	200	0.32	450	1500
V2	3/8"	CKC/SAN	VMP-OEM-V	100	0.72	720	1000
			VMP-OEM-VS	200	0.72	1080	1500
V3	1/2"	CKC/SAN	VMP-OEM-V	100	1.28	1280	1000
			VMP-OEM-VS	200	1.28	1920	1500
VS6	1"	SAN	VMP-OEM-VS6	25	6.00	9000	1500

**Tech Note:** Speed dependent on viscosity.

**Tech Note:** Micro (M) pumps can dispense as low as 0.5 µl (microliters).

## Custom Fabrication pg. 26

When a challenging application cannot be solved by our standard products, we utilize our specialized design, manufacturing, and assembly team.

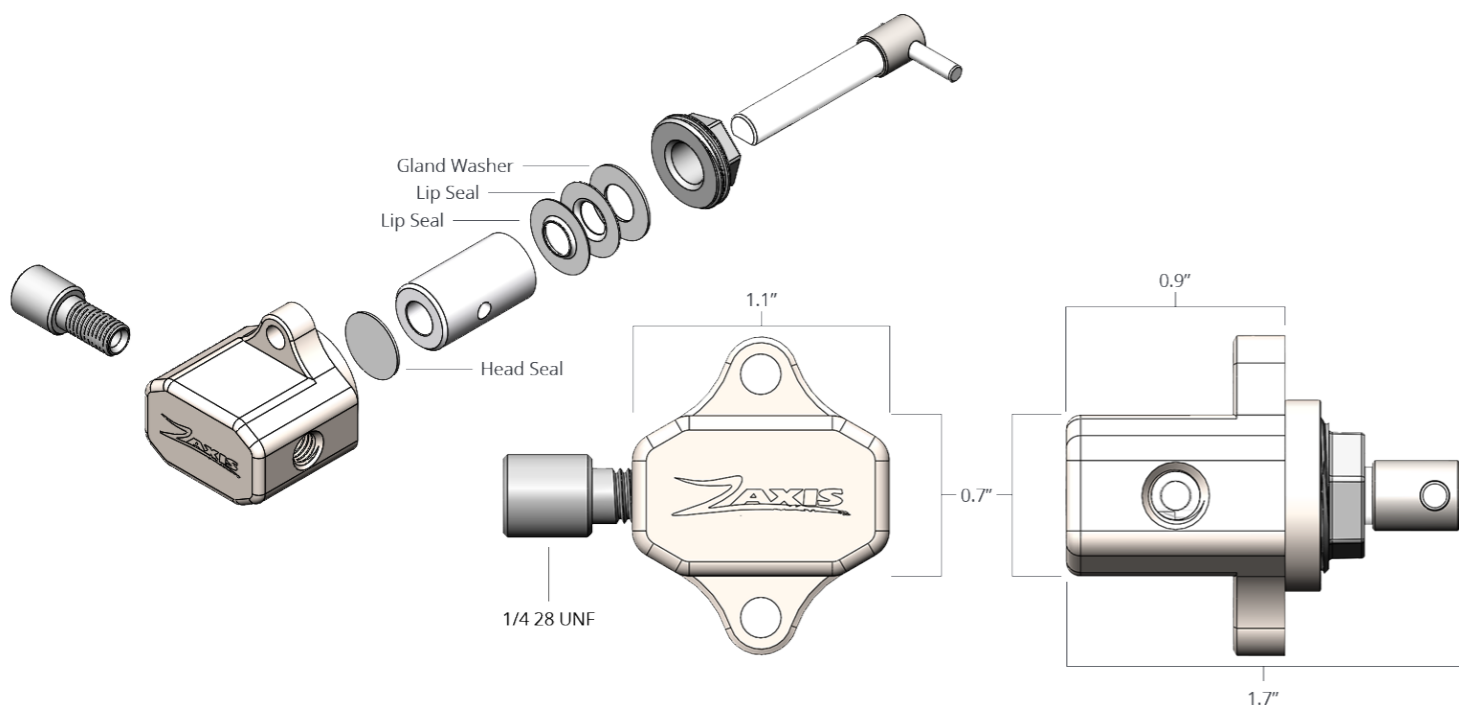
To learn more about our non-standard products please reach out to us at [sales@zaxisinc.com](mailto:sales@zaxisinc.com) or 801.264.1000.



# M-Series

The Zaxis eVMP M-Series Pump Heads are designed primarily for ultra-low volume metering and dispensing, providing high precision and accuracy. If you are looking to meter under 100 mL/min or dispense from 1 to 100 µL, then the M-Series are ideal. The M-Series is constructed in two basic models, utilizing 316SS or PVDF (Kynar®) for the pump body, and standard with low flow, low dead volume ¼ -28 female ports. In addition, the SAN model offers ease of disassembly for special food, pharma, and bio process applications that may require routine disassembly. **Select the piston size closest to your maximum volume for the best accuracy and precision.**

## M-Series Design



## Material - SAN

SAN pump heads are ideal for applications that require 316SS as the pump body material, as well as ease of disassembly for special applications, such as those found in food, pharma, and bio processes. The wetted path can be configured for 316SS and PTFE only. Max temperature 350°F.



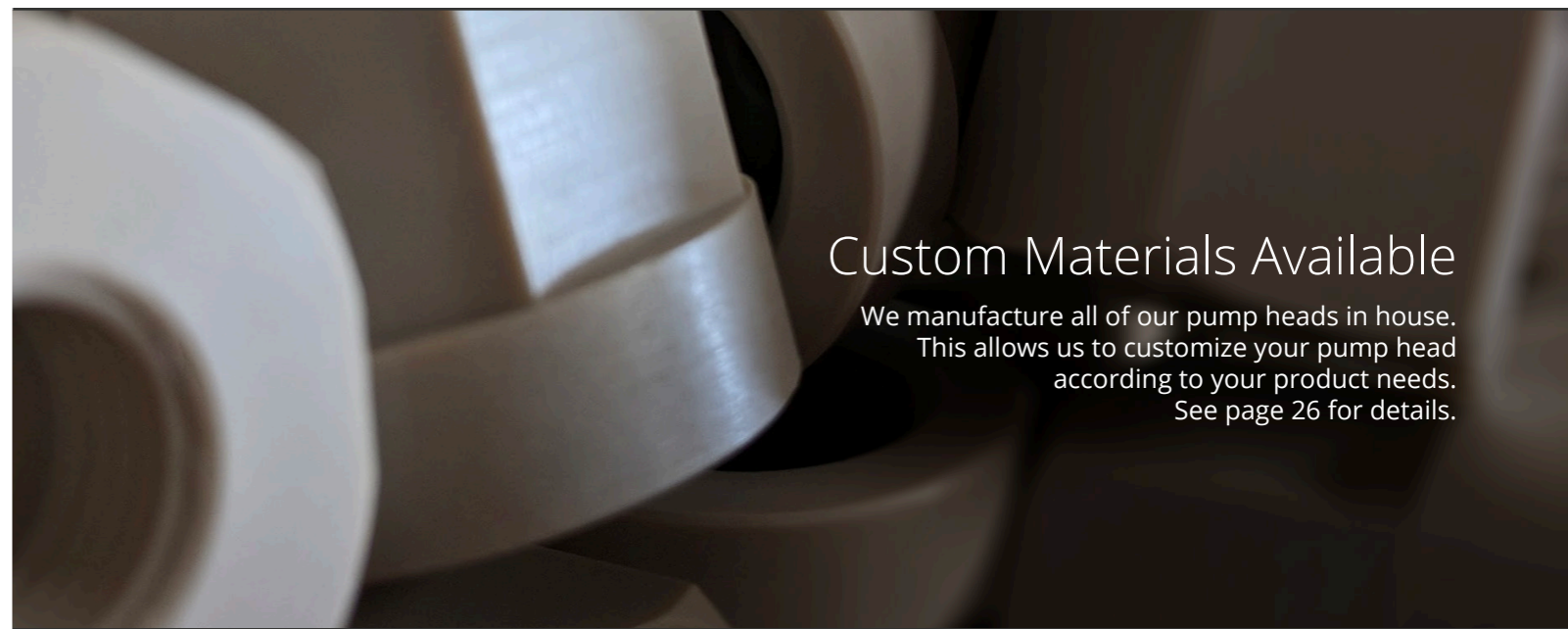
M0SAN-LF	3/16" BORE , 0.05 mL /rev Max	P/N   300026
M1SAN-LF	1/4" BORE, 0.10 mL /rev Max	P/N   300122

## Material - CKC

CKC pump heads are ideal for most applications that require aggressive chemistry, including acids and bases. CKC utilizes a PVDF (Kynar®) pump body, and the wetted path can be configured for Kynar®, PTFE, and Rulon® AR. Max temperature 200°F.



M0CKC-LF	3/16" BORE, 0.05 mL /rev MAX	P/N   300167
M1CKC-LF	1/4" BORE, 0.10 mL /rev MAX	P/N   300149



## Custom Materials Available

We manufacture all of our pump heads in house. This allows us to customize your pump head according to your product needs. See page 26 for details.

## Corresponding Products:

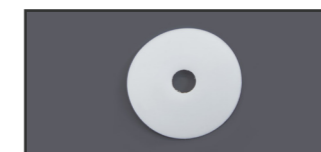
The M-Series pump heads are only compatible with the VMP-OEM-M pump drive. When ordering M-Series pump heads don't forget the corresponding consumables for preventative maintenance.



VMP-OEM-M  
pg. 14



Gland Washer  
pg. 25



Lip Seal  
SAN=PTFE, CKC=Rulon AR  
pg. 24



Head Seal  
SAN heads only  
pg. 25

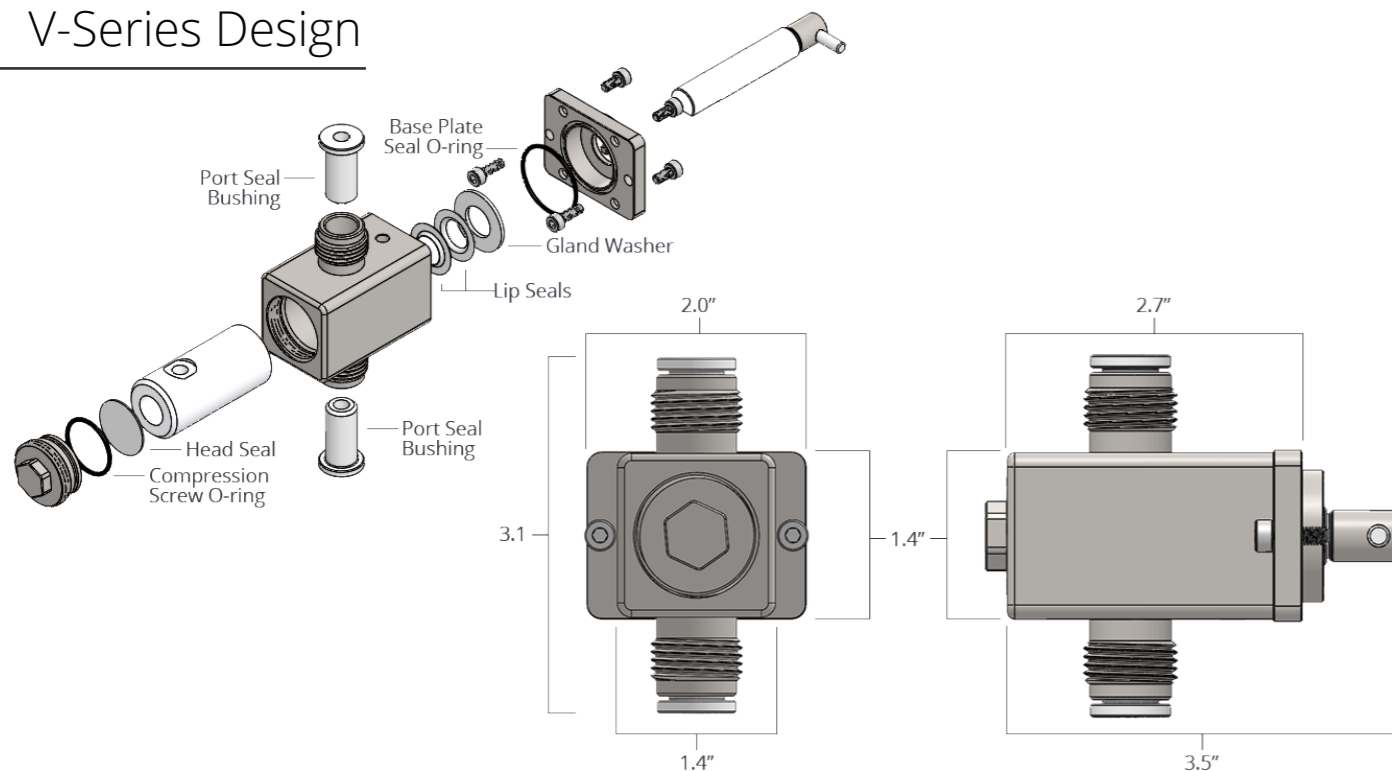




## V-Series

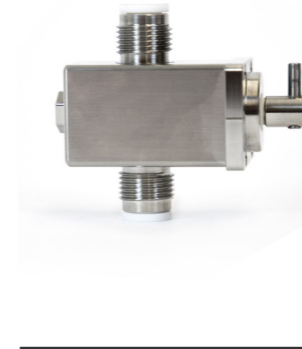
The Zaxis eVmP V-Series Pump Heads are designed for the most demanding applications. The V-Series pump heads offer industry leading design for ease of disassembly, combined with rugged performance, high precision, and repeatability. If you are looking to meter up to 9L/min or dispense down to 25 µL, then the V-Series are ideal. The V-Series is constructed with ISO, Male Gauge Threads standard, allowing for compression type fittings, which are available in a wide range of imperial and metric sizes. With 316SS and PTFE as the only wetted path materials, Food, Pharma, and Bio Processes are natural applications, however typical applications are wide ranging from Agriculture to Pharmaceutical. **Select the piston size closest to your maximum volume for the best accuracy and precision.**

### V-Series Design



### Standard Pump Head (SAN)

Standard V-SAN Pump Heads utilize 316SS and PTFE wetted paths are available in three sizes. These standard V-SAN Pump Heads are ideal for most applications and come standard with several options for compression fitting options.



V1SAN	1/4" BORE, 0.32 mL /rev MAX	P/N   300074
V2SAN	3/8" BORE, 0.72 mL /rev MAX	P/N   300075
V3SAN	1/2" BORE, 1.28 mL /rev MAX	P/N   300076

### Pump Head with Isolated Gland (Washport)

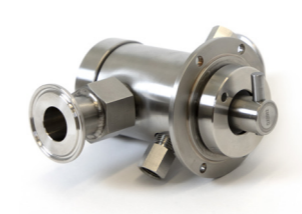
V-SAN-W is designed with an isolation gland or "wash port". The wash gland feature is an extra set of ports that allow a barrier of liquid, steam, or inert air to isolate the pump chamber from atmosphere. When pumping filled solutions, slurries, quick crystal forming, or anaerobic fluids, the gland option will protect the internal seals, improve the life of the pump, and reduce maintenance.



V1SAN-W	1/4" BORE, 0.32 mL /rev MAX	P/N   300123
V2SAN-W	3/8" BORE, 0.72 mL /rev MAX	P/N   300128
V3SAN-W	1/2" BORE, 1.28 mL /rev MAX	P/N   300131

**Tech Note:** The wetted path ports are not part of any internal pumping action and can either be provided with a gravity feed or low flow system of 3 to 5 mL/min of customer chosen fluid or air. When normal pressure differential is present the pumping fluid will migrate away from the primary fluid path, eliminating concern about cross contamination of fluids.

### Large Volume



The VS6-SAN Pump Head offers one of the largest fill volumes per stroke and metering rate in the industry, providing larger flow rates with a valve-less piston design. It features 316SS and PTFE wetted parts, as well as sanitary features such as tri clamp/sanitary fittings designed to meet FDA and 3A standards. Wash glands are optional (-W) as well as numerous fitting configurations to meet your application needs. **The VS6-SAN Pump Head is only compatible with the VS6 drive. For more information on the VS6 drive, see page 18.**

V6SAN-W	1" BORE, 6 mL /rev MAX	P/N   300142
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### Corresponding Products:

The V-Series pump heads are compatible with most VMP pump drives, excluding the VMP-OWM-M. When ordering your pump head don't forget any consumable products.



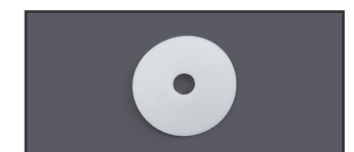
VMP  
pg. 16



VMP2  
pg. 20



Head Seal  
pg. 25

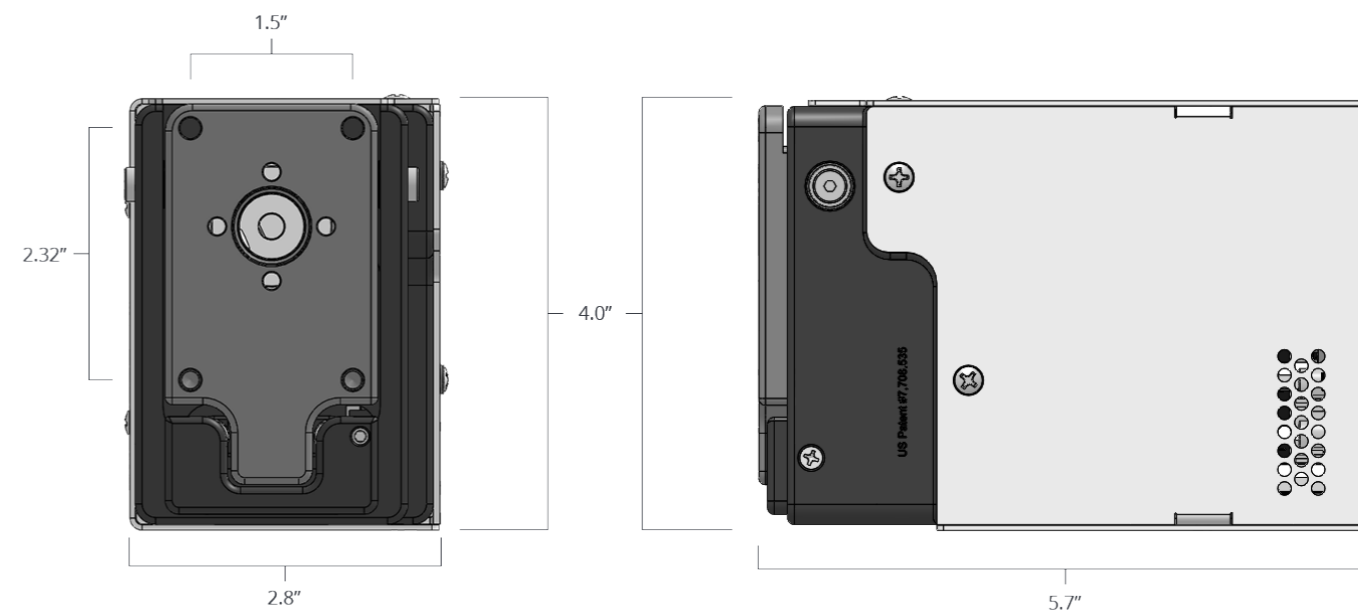


Lip Seal  
pg. 24

Custom materials for pump heads available. See Custom Fabrication on page 26.



### VMP-OEM-M Dimensions



## VMP-OEM-M

P/N | 300134

The eVmP Micro is our stepper motor drive, designed for the Micro Series pump heads. Micro Pumps are ideal for neat chemistry, with flow rates under 100 mL/min, and pressure less than 100 PSIG and accept SAN or CKC models. Each Micro Drive is standard with RS485, PLC I/O, and Ethernet connections.

#### Applications Include:

- Reagent Kit Manufacturing
- Specialty UV and Solvent Weld Adhesive
- Medical Device Lubrication
- Ultra-Low Volume Pharma API Dispensing
- Ultra-Low Volume Spraying and Coating



	PSIG	Max Flow Rate	RPM
VMP-OEM-M	100	100 mL/min	1000

### Suggested Accessories:

See pump drive accessories on page 22.



Color Touch Screen  
pg. 22



Power Supply Kit  
pg. 22



12 Pin Cable  
pg. 22

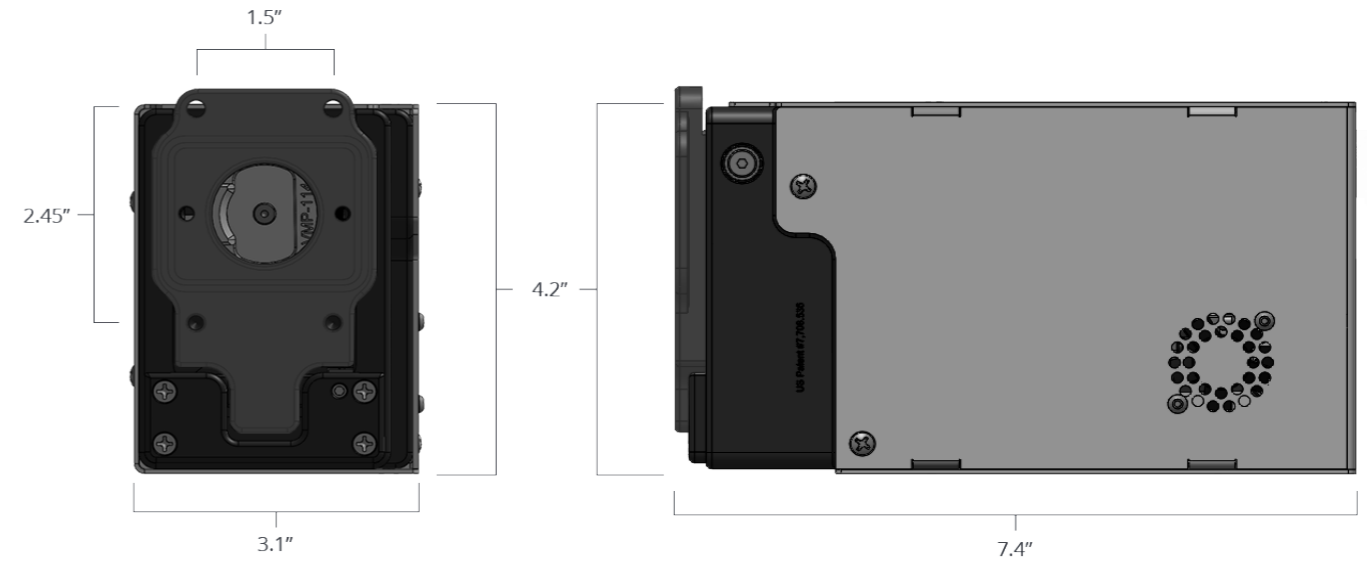


8 Pin Cable  
pg. 23





### VMP-OEM-V Dimensions



## VMP-OEM-VS

P/N | 300135

The eVmP VS is our servo-driven motor drive, designed for V series pump heads. The Servo Drive is ideal for more demanding applications with higher flow rates, higher pressure, or higher viscosity applications. With nearly 4 times the torque, the VS series drive can handle flow rates near 2,000 mL/min and back pressure up to 200 psi, while accepting common V series pump heads, available in CKC or SAN materials of construction. Each VS Drive is standard with RS485, PLC I/O, and Ethernet connections.

## VMP-OEM-V

P/N | 300136

The eVmP V is our stepper-driven motor drive, designed for V series pump heads. V Pumps are ideal for a very wide range of applications, including neat chemistry, and some slurries, pastes, gels, or creams. Flow rates are typically less than 1000 mL/min, and under 100 PSI, accepting SAN or CKC Pump Head materials of construction, making the V Series is one of our most popular pumps. Each V Drive is standard with RS485, PLC I/O, and Ethernet connections.



Compatible with V-Series Pump Heads

See page 12 for details.

Custom materials for pump heads available. See Custom Fabrication on page 26.

	PSIG	Max Flow Rate	RPM
VMP-OEM-VS	200	1920 mL/min	1500
VMP-OEM-V	100	1280 mL/min	1000

### Suggested Accessories:

See pump drive accessories on page 22.



Color Touch Screen  
pg. 22



Power Supply Kit  
pg. 22



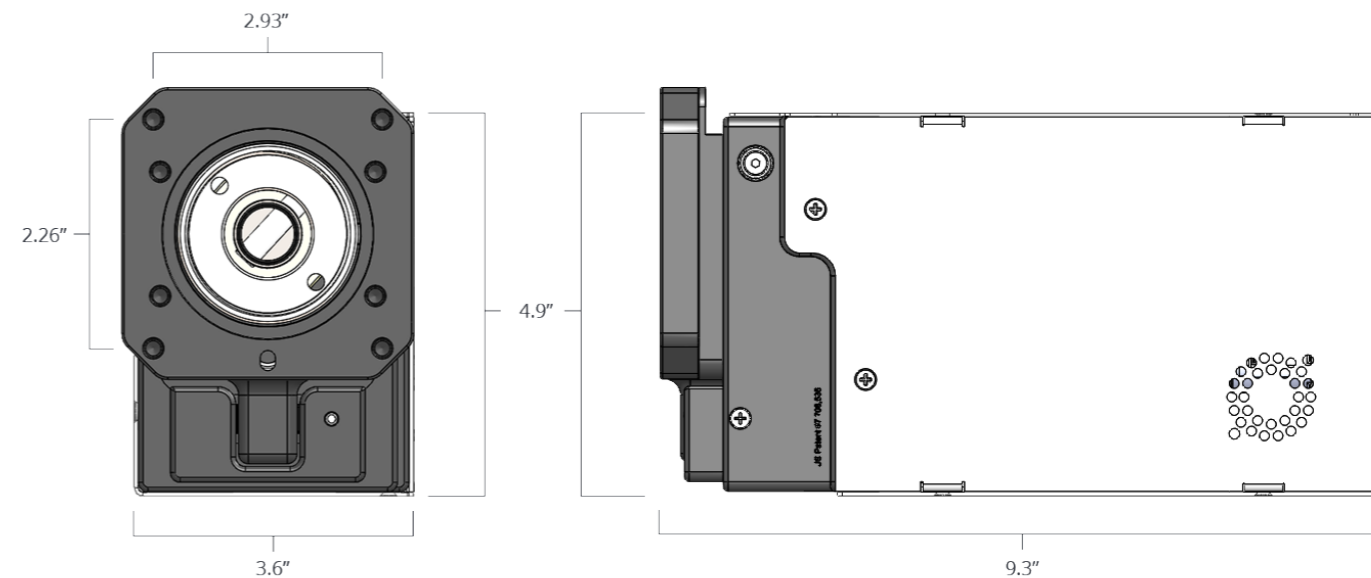
12 Pin Cable  
pg. 22



8 Pin Cable  
pg. 23



### V6SAN-W Dimensions



## VMP-OEM-VS6

P/N | 300137

The eVmP VS6 is our specialty, servo-driven motor drive, designed to accept to V6SAN Pump Head. Using one of the most powerful servo motors in the industry, and extra-large flow capacity, the VS6 can accomplish an amazing 6L/min and nearly 7 mL/stroke, at a maximum of 25 PSI. Each VS6 Drive is standard with RS485, PLC I/O, and Ethernet connections.

#### Applications Include:

- Large Vial and Bottle Filling
- Sanitary Napkins (Pre Treated)
- Specialty Pharma Process and Filling
- Specialty Food Dispensing
- Specialty Cosmetic Dispensing



Compatible with  
V6SAN-W Pump Head  
See page 13 for details.

Custom materials for pump heads available. See Custom Fabrication on page 26.

### Suggested Accessories:

See pump drive accessories on page 22.



Color Touch Screen-  
pg. 22



12 Pin Cable  
pg. 22



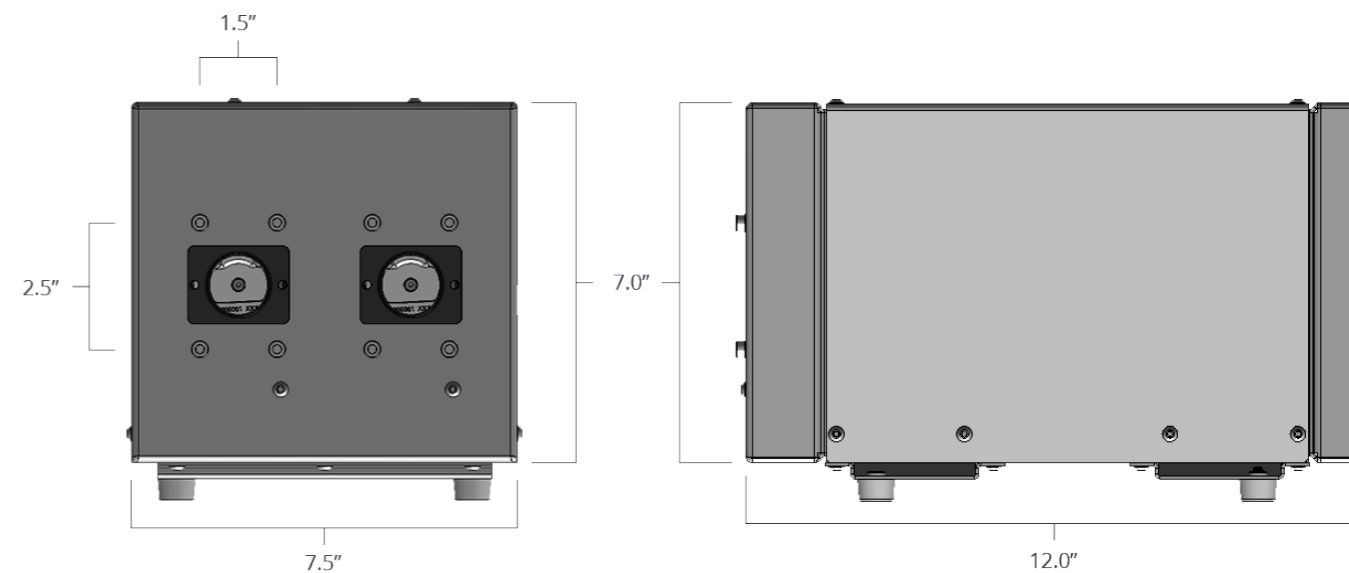
8 Pin Cable  
pg. 23

	PSIG	Max Flow Rate	RPM
VMP-OEM-VS6	25	9000 mL/min	1500





### VMP2 Dimensions



## VMP2-VS

P/N | 300141

The eVmP 2VS contains two of our servo-driven motor modules, inside of a 316SS, IP45 rated enclosure. Each enclosure is complete with power supply and communication cables for each pump. The Servo Drive is ideal for more demanding applications of higher flow rates, higher pressure, or higher viscosity applications. With nearly 4 times the torque, the VS series drive can handle flow rates near 2,000 mL/min and back pressure up to 200 psi, while accepting common V series pump heads, available in CKC or SAN materials of construction. Each VS Drive is standard with RS485, PLC I/O, and Ethernet connections.

## VMP2-V

P/N | 300140

The eVmP 2V contains two of our stepper-driven motor modules, inside of a 316SS, IP45 rated enclosure. Each enclosure is complete with power supply and communication cables for each pump. When combined with V Series Pumps, they are ideal for a very wide range of applications, including neat chemistry, and some slurries, pastes, gels, or creams. Flow rates are typically less than 1000 mL/min, and under 100 PSI, accepting SAN or CKC Pump Head materials of construction, making the V Series is one of our most popular pumps. Each V Drive is standard with RS485, PLC I/O, and Ethernet connections.



Compatible with V-Series Pump Heads

See page 12 for details.

Custom materials for pump heads available. See Custom Fabrication on page 26.

	PSIG	Max Flow Rate	RPM
VMP2-VS	200	1920 mL/min	1500
VMP2-V	100	1280 mL/min	1000

### Suggested Accessories:

See pump drive accessories on page 22.



Color Touch Screen  
pg. 22



4 Pin Cable  
pg. 23



12 Pin Cable  
pg. 22



8 Pin Cable  
pg. 23

### Detachable HMI, Color Touch Screen



The 7" HD Touch Screen is designed to communicate, program, and teach up to 32 eVmP Pump Systems over RS485, and includes the communication cable.

TSi Vc

P/N | 300133

### eVmP Power Supply Kit



Designed for OEM VVS and Micro OEM drives, the power supply kit is an easy way to get up and running on a benchtop. This power supply kit works with a remote start as well, such as a foot switch.

VMP-PSK-A

2 amps with dry connect connector

P/N | 500071

VMP-PSK-VS-A

4 amps with dry connect connector

P/N | 500080

### Cable - 12 Pin - Right Angle



The 12 Pin cable is used on eVmP drives to connect PLC power and contains the digital and discrete I/O. The 12 Pin cable delivers the ready, count, busy, and start signals on integrated eVmP pumps.

VMP-12RA-PLC-2M

PLC, 2 meter length

P/N | 100273

VMP-12RA-PLC-5M

PLC, 5 meter length

P/N | 100277

### Cable - 12 Pin - Straight



The 12 Pin cable is used on eVmP drives to connect PLC power and contains the digital and discrete I/O. The 12 Pin cable delivers the ready, count, busy, and start signals on integrated eVmP pumps.

VMP-12S-PLC-2M

PLC, 2 meter length

P/N | 100091

VMP-12S-PLC-5M

PLC, 5 meter length

P/N | 100267

### eVmP Field Connector Assembly



Field Connector Assembly can be used to create custom length 12 pin connections, standard lengths are typically 5 meters or less.

VMP-8S-RS485-FCA

P/N | 100856



### Cable - 8 Pin - Right Angle

8 Pin cables are utilized on eVmP Pumps for RS485 communication, which allows for daisy chain arrangement of up to 32 eVmP Pumps. From a standard eVmP drive, the 8 Pin cable also is utilized to connect the Touch Screen Interface.

VMP-8RA-RS485-2M

RS485, 2 meter length

P/N | 100090

VMP-8RA-RS485-5M

RS485, 5 meter length

P/N | 100279

### Cable - 8 Pin - Straight



8 Pin cables are utilized on eVmP Pumps for RS485 communication, which allows for daisy chain arrangement of up to 32 eVmP Pumps. From a standard eVmP drive, the 8 Pin cable also is utilized to connect the Touch Screen Interface.

VMP-8S-RS485-2M

RS485, 2 meter length

P/N | 100089

VMP-8S-RS485-5M

RS485, 5 meter length

P/N | 100392



### Cable - 4 Pin - Right Angle

Overmolded 4 Pin connectors are used to power 2-Up eVmP Pumps, like the VMP2 Series and are available in 5 meter length with straight or right angle connections.

VMP-4RA-AC-5M

5 meter length

P/N | 100181



### Cable - 4 Pin - Straight

Overmolded 4 Pin connectors are used to power 2-Up eVmP Pumps, like the VMP2 Series and are available in 5 meter length with straight or right angle connections.

VMP-4S-AC-5M

5 meter length

P/N | 100855



### Pump Stand

The eVmP Pump Stands are used to make easy use of any OEM drive, or intergrade into an OEM design. All parts are anodized.

VMP-MB-M

Micro Series

P/N | 300164

VMP-MB-V

V Series

P/N | 300165



## Stainless Steel Compression Fitting

All standard V-Series eVmP pumps utilize a 316SS compression fitting that is unique for OD Gauge type threads. Zaxis offers a wide range of metric and imperial sizes, as well as custom sizes.



SS-COMP0	ISO/BSP Female Thread, 3/16" OD	P/N   100845
SS-COMP1	ISO/BSP Female Thread, 1/4" OD	P/N   100347
SS-COMP2	ISO/BSP Female Thread, 3/8" OD	P/N   100256
SS-COMP3	ISO/BSP Female Thread, 1/2" OD	P/N   100407
SS-COMP4MM	ISO/BSP Female Thread, 4 mm OD	P/N   100847
SS-COMP6MM	ISO/BSP Female Thread, 6 mm OD	P/N   100848
SS-COMP8MM	ISO/BSP Female Thread, 8 mm OD	P/N   100849
SS-COMP12MM	ISO/BSP Female Thread, 12 mm OD	P/N   100846

## Lip Seal

The eVmP pumps, V-Series and Micro Series, utilize a simple set of wearable parts. V-Series are standard with PTFE lip seals, the Micro CKC series are standard with Rulon® AR lip seals, and the Micro SAN is standard with PTFE lip seals. Consult Zaxis about alternate materials.



V-LS-1T	1/4" PTFE	P/N   200109
V-LS-2T	3/8" PTFE	P/N   200010
V-LS-3T	1/2" PTFE	P/N   200090
M-LS-0T	3/16" PTFE	P/N   101058
M-LS-1T	1/4" PTFE	P/N   100905
M-LS-0AR	3/16" Rulon® AR	P/N   101059
M-LS-1AR	1/4" Rulon® AR	P/N   100899

## Lip Seal Insertion Tool

The Lip Seal Insertion Tool's smooth tapered design allows for worry free installation of the sensitive lip seals. The sizes below correspond to your piston size, all M-Series heads use 1/4" OD.



VMP-1LST	1/4" OD	P/N   500071
VMP-2LST	3/8" OD	P/N   500080
VMP-3LST	1/2" OD	P/N   500081

## Gland Washer

The eVmP pumps, V-Series and Micro Series, utilize a simple set of wearable parts. Both the V-Series and the M-Series heads are standard with PTFE washers. Consult Zaxis about alternate materials.



V-GW-1T	1/4" PTFE	P/N   200107
V-GW-2T	3/8" PTFE	P/N   200108
V-GW-3T	1/2" PTFE	P/N   200089
M-GW-0T	3/16" PTFE	P/N   101061
M-GW-1T	1/4" PTFE	P/N   101060

## V Pump Head Seal

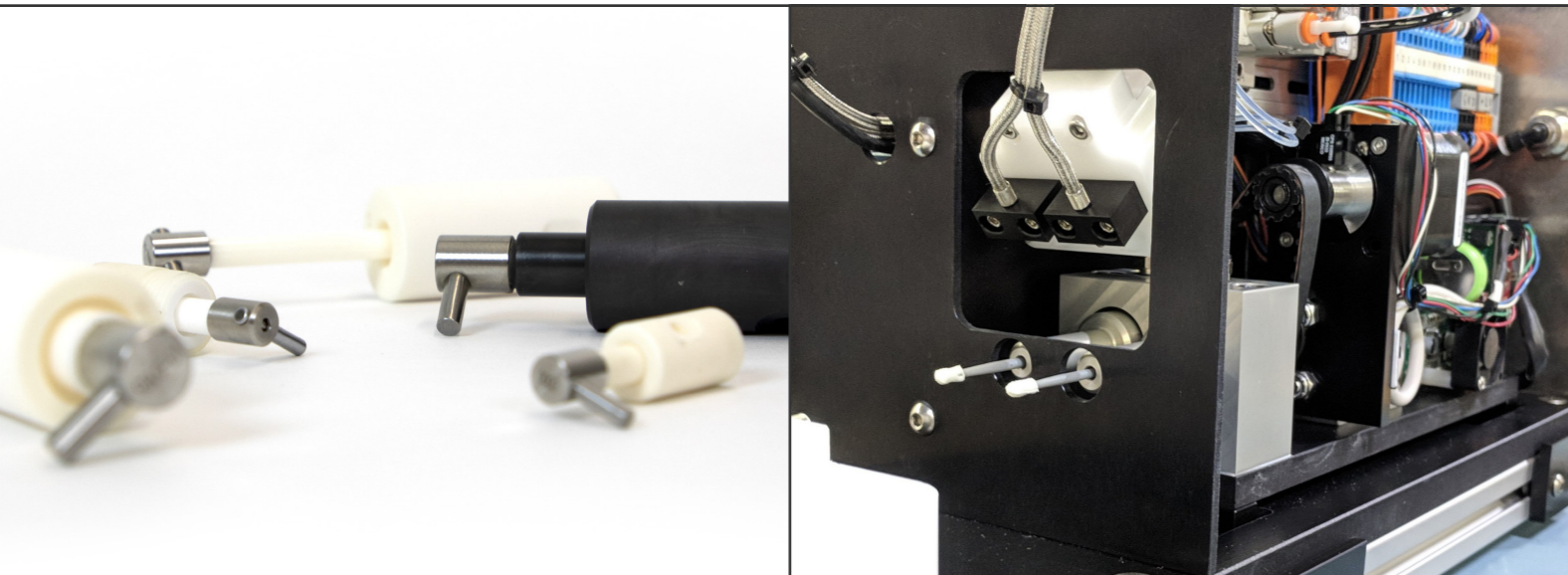
The eVmP pumps, V-Series and Micro Series, utilize a simple set of wearable parts. V-Series are standard with PTFE head seals, the Micro San series is standard with PTFE head seals. The Micro CKC pump head does not require a head seal. Consult Zaxis about alternate materials.



V-HS-T	PTFE	P/N   200075
M-HS-T	PTFE	P/N   101062

# Custom Fabrication

When a challenging application cannot be solved by our standard products, we utilize our specialized design, manufacturing, and assembly team. This specialized engineering team includes mechanical engineers, electrical engineers, software engineers, machinists, and assemblers. Zaxis Inc. operates in a 20,000 square foot manufacturing facility optimized for developing custom products for challenging applications. We like being challenged by our customers because it provides a natural well for innovation.



## Materials

It is not unusual for Zaxis to work with very specific wetted path requirements, where SAN and CKC components have been substituted with PEEK and even molded solutions for high quantity. Fittings, seals, washers and other material should be verified by end user and design review by the Engineering Team at Zaxis.

## Fixtures

Your eVmP pump may require that little extra something to complete a benchtop trial or design of experiments, for example Zaxis can design custom nozzles, reservoirs, tubing sets and mounting stands to help complete your project. Custom fixtures are inherent in our culture to provide the best of multiple pump and one-off pump solutions.

# Service

With our combined 60+ years of pumping experience, our eVmP service team offers multiple tiers of service. For Silver, Gold, and Platinum service packages please contact your sales representative to discuss which service package best meets your application's needs.

### Returns for Repair/Service

All Zaxis pump drives and pump heads can be returned for repair/service, with written return authorization (case#). The standard labor/evaluation charge for pump heads is \$124.00 each, including new seals, washers, and flow rate verification. Zaxis pump drives are \$240 for service/evaluation, which includes factory calibration, and a 12 month NIST traceable certificate.



For service questions please email us at: [pumpservice@zaxisinc.com](mailto:pumpservice@zaxisinc.com)

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TSi	Touch Screen Interface	pg. 04	UNF	Unified Thread Standard	pg. 08
TCP/IP	transmission control protocol/ Internet protocol	pg. 05	PTFE	Polytetrafluoroethylene (Teflon®)	pg. 09
I/O	Input/Output	pg. 05	PVDF	Polyvinylidene fluoride (Kynar®)	pg. 09
CKC	Ceramic, Kynar®, Ceramic	pg. 06	ISO/BSP	International Organization for Standardization/British Standard Pipe	pg. 22
SAN	Sanitary material, primarily 316SS	pg. 06			
OEM	Original Equipment Manufacturer	pg. 07			

## Speak to a Specialist

To learn more about our non-standard products please reach out to us at [sales@zaxisinc.com](mailto:sales@zaxisinc.com) or 801.264.1000.

**Note:** Zaxis does not sell custom products without the sale of leak testers or pumps. Non-recurring engineering expenses will be applied for developing nonstandard products.



