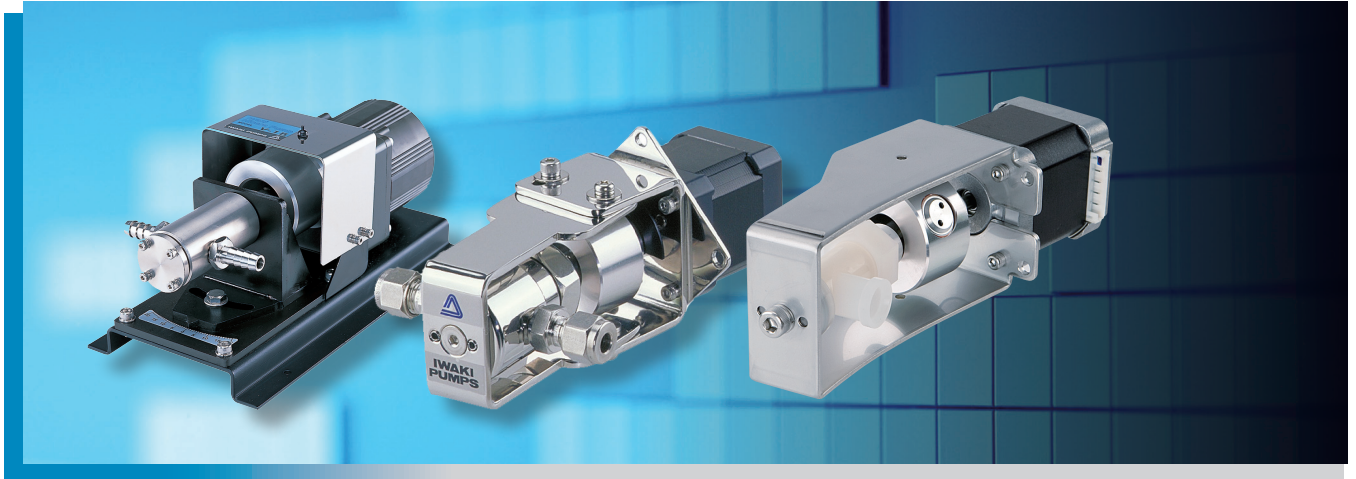


Valveless Piston Pump



The Iwaki V-Series pump is a compact metering pump that employs a fine ceramic plunger and an optional unique flush circuit. Precision micron-machining on the main ceramic parts ensures a high degree of discharge accuracy. The versatility of the Iwaki V-Series pump makes it ideal for micro-chemical feeding as well as high viscosity liquid feeding.

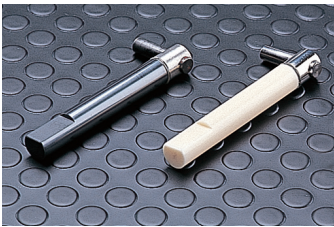
- **Improve system accuracy** - Ultra-high precision dosing ($\pm 0.5\%$) provides critical control of your chemistry at a micro-discharge capacity.
- **Pumps that last the life of your system** - Our pumps deliver over 40,000 hours of repeatable precision and accuracy without the need for recalibration.
- **Reduce maintenance costs** - A unique valveless design that eliminates clogging/jamming associated with other metering pumps, combined with hardened ceramic materials makes this a great solution for handling solids/slurries.
- **Simplify your fluid path** - Compact (6" x 3" x 2") and lightweight V-Series pumps can be installed in both vertical and horizontal orientations. The reversible motor direction allows you to reverse your flow without needing to add/change the piping.
- **Ease of Integration** - V-Series pumps can come equipped with; synchronous AC motors, DC motors and stepper motors to ensure seamless integration into your control system.
- **Perfect for tough applications** - Whether you're pumping high viscosity, slurries, high purity or crystallizing fluids, V-Series is the one pump that can handle all these applications. Great self-priming, 100 PSI discharge pressure and the ability to dispense into vacuum conditions from high pressure without using a solenoid, make this the ideal pump for aggressive applications.



Construction

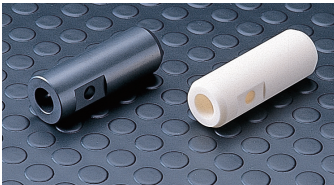
Plunger

The plunger is processed using micron order high-precision technology, leading to a higher degree of discharge precision. It is made of SiC or alumina ceramic



Cylinder

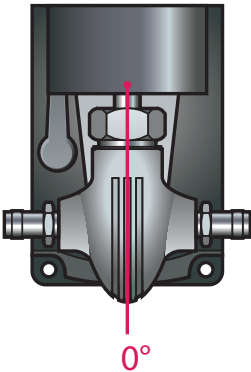
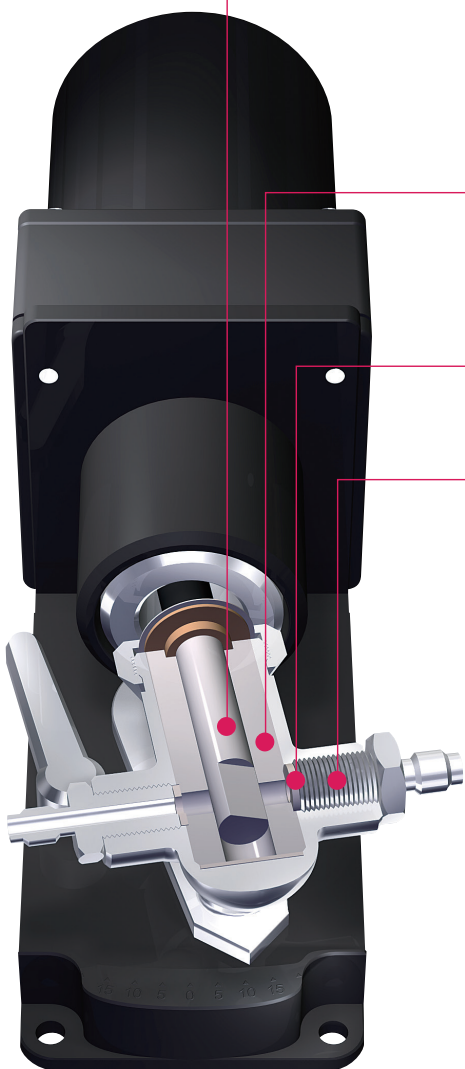
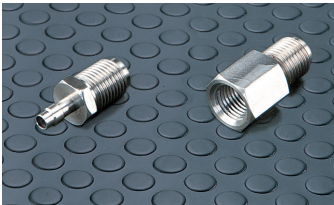
Like the plunger, the cylinder is also processed using high-precision technology.



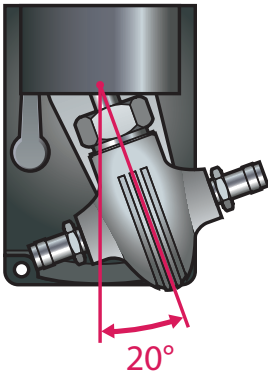
Joint Seal

Connections

- 1/4-28 UNI
- Stainless steel hose joint
- Stainless steel female adapter



Stroke 0
Discharge 0



Stroke Max
Discharge Max

Materials

Model	V-05	V-07	V-10		V-15	
Pump head	SCS14				SUS304	
Plunger	SiC		SiC	Al ₂ O ₃	SiC	Al ₂ O ₃
Cylinder	SiC		SiC	Al ₂ O ₃	SiC	Al ₂ O ₃
Head seal	PTFE					
Back seal	PTFE					
Tube joint	SUS316					
Joint seal	PTFE					
Lip seal	PTFE					

Specifications

Model	Max Flow mL/min	Max Discharge Pressure MPa	Connection	Standard Motor	Weight
V-05ZF(P)66	30	150	1/4-28 UNI	24 VDC	1.8 lbs
V-07AF(P)66	90	150	1/4-28 UNI	24 VDC	1.5 lbs
V-05SL1A4	1.6/1.9	101.5 PSI	Ø 6 SS tube joint	Induction motor 115VAC 15W	5 lbs
V-05SL1B4	3.3/4				
V-10□L1A4	6.0/7.0	101.5 PSI			
V-10□L1B4	13/16				
V-10□L1C4	33/40				
V-10□L1D4	67/81				
V-10□L2E4	135/163	87 PSI			
V-10□L2F4	203/245	58 PSI			
V-10□L2G4	338/409	43.5 PSI			
V-15□S3E4	559/673	72.5 PSI	Ø 13 SS tube joint	Induction motor 115VAC 40W	17.6 lbs
V-15□S3F5	841/1009	43.5 PSI			
V-15□S3G4	1400/1682	29 PSI			

- Either A: AL₂O₃/AL₂O₃ or S:SiC/Sic comes in □
- Performance values in the above table are based on pumping clean water at ambient temperature.
- Maximum suction lift with clean water is 4 meters and varies with liquid characteristics.
- Flush out crystallizing or adhesive liquid from the pump head after operation. Fushing ports is recommended with these pumps.
- Other than standard induction motor, other types of motors such as synchronous motor, DC motor, stepping motor or explosion-proof motors are available. Contact Iwaki America for details.

Custom Configured For Your Equipment Needs



Applications

The excellent discharge precision and superb durability of the V-Series pump makes it ideal for use in a wide range of fields. The pump's versatility enables it to be used in a variety of different processes. Whether it is mounted in other devices or used by OEMs, the V-Series pump can be adapted to fit the needs and specifications of each application.

Dialyzer

Pump for artificial dialysis

Analyzer

Pump for analyzer

Secondary Lithium Cell

Pump equipped with a pump head adjustment mechanism

Household Fuel Cell

Compact pump type for fuel cells

Fuel-Cell

Reformed water pump

Secondary Cell

Filling and pumping the electrolyte solutions of a lithium cell
Injection of gel-like liquid at a constant rate

Medical Devices

Clinical laboratory devices
Artificial dialyzers

Cleaning Equipment

Injection of detergent / rinsing chemical

Paper Manufacturing

Injection of paper strength additives at a constant rate
Injection of dye at a constant rate
Injection of slime control agent

Food Equipment

Transfer of food additives at a constant rate
Filling of soups
Injection of flavor liquids
Sampling
Injection of bactericides

Capacitor

Injection of phosphoric acid liquid

Liquid Waste Treatment Facility

Injection of polymer flocculants / slaked limes

Specifications for Special Motors

Stepper Motor

Allows for high precision injection at the ultra-precision level.

(Repeatability $\pm 0.5\%$)



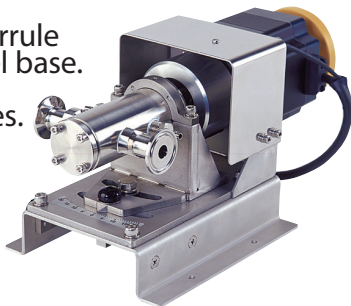
Speed Control Motor

(Equipped with a controller)
The variable volume controller located at the top of the motor makes it easy to control the number of the revolutions.



Sanitary

This type consists of a ferrule joint and a stainless-steel base. It can be used to sample beer and other beverages.



Enhanced Safety Explosion-Proof Motor

This type can be used for volatile and flammable drug solutions. Explosion-proof motors can also be used.



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