



# Animal Health

**Hydro**<sup>®</sup>  
**systems**  
A **DOVER**<sup>™</sup> COMPANY



# Innovative Dispersing Softfoams

# *Animal Health*

Keep your animals healthy and disease free with our medicators designed for the livestock industry. For operations like a small herd of 300 weaner pigs to a large herd of 14,000 finisher pigs, our wide range of medicators can meet your needs.

Our injectors offer the widest flow rates and injection ranges in the industry. That's why more professionals turn to us for milk and water line sanitizing solutions. Foreign contaminants can threaten your livestock and your livelihood; our injectors offer disinfecting washing solutions for egg, boot, vehicles and animal living areas regardless of size.

You can control your dosing mix even in the case of sudden pressure drops, or surges. The proportional positive displacement technology of our injectors delivers the exact amount of medication regardless of pressure and flow. Exact medication means healthy animals and lower dosing costs.

## **Applications**

- Drinking Water Treatment
- Sanitation
- Medication
- Electrolytes
- Vitamins
- Antibiotics
- Hydrogen Peroxide
- Disinfecting Agents
- Descaling Materials
- Oral Vaccinations
- Nutritional Supplements
- Probiotics
- Chlorine
- Ammonia
- Acidification
- Sanitizing Cleaners
- Iodine
- Enzymes

# Technology



## **Three Precise Technologies** Perfect For Your Operation

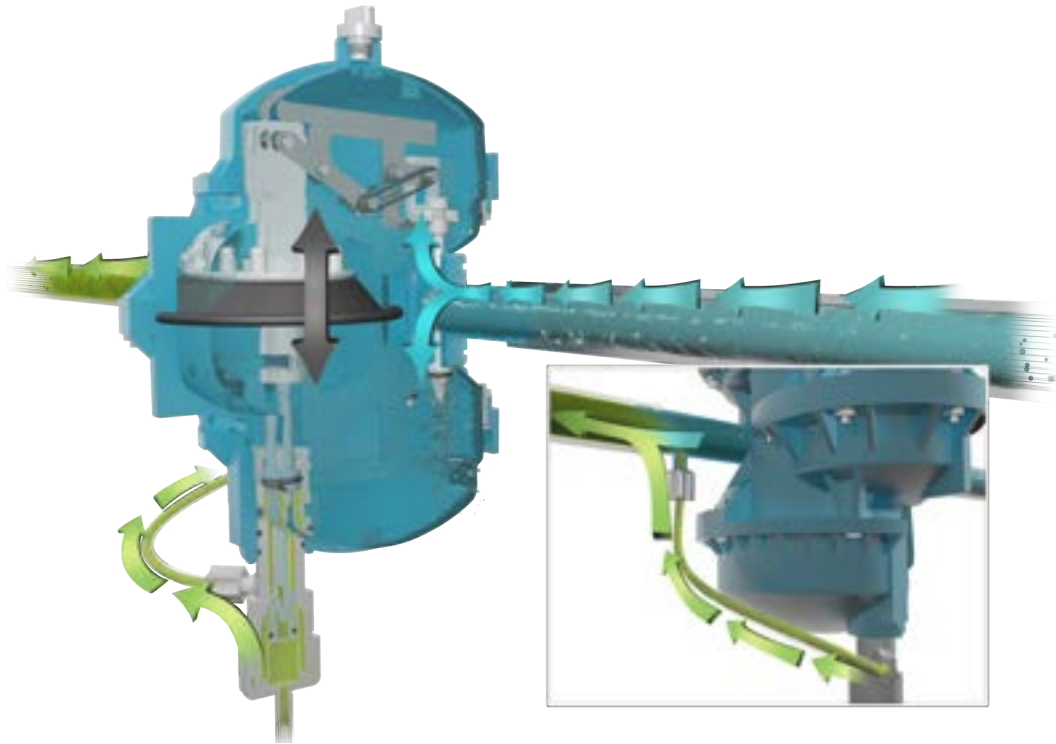
Our expansive product line includes a wide range of manually-actuated venturi dispensers. These dispensers offer a cost-effective way to ensure that products are dispensed accurately and consistently, on demand. Venturi feed systems can deliver a high volume of chemical into the flow loop against pressures up to 30 PSI for foaming, spraying, or sump systems.

Fluid (water)-driven volumetric injectors work on the principle of proportional positive displacement, ensuring that just the right amount of chemical is injected, regardless of pressure and flow, into the water stream.

Unlike traditional pumps, volumetric injectors eliminate the need for electricity and can operate in remote areas. They are easy to install and maintain, making them ideal for low-flow injection applications.

We offer volumetric injectors that work in piston and diaphragm configurations.

The water-powered motor drives the action of the chemical pump. Our injectors offer variable dilution ratios, enabling the user to determine the correct percentage of concentrate to water volume.



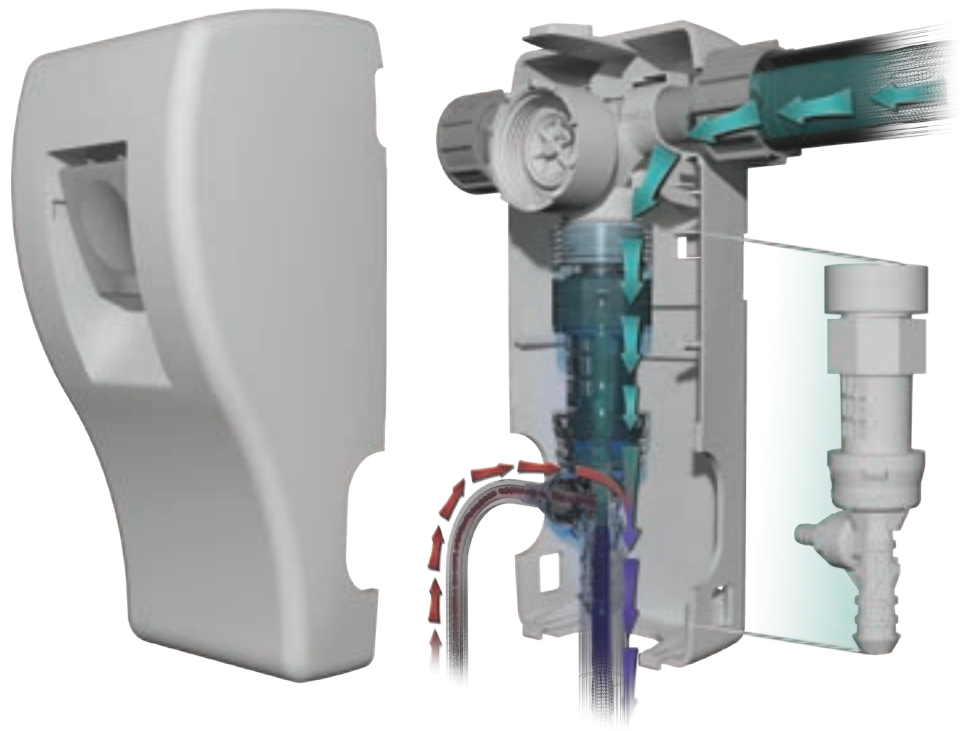
## *Diaphragm*

The motor utilises a reliable and durable diaphragm assembly, which is activated by the flow of water through the body of the injector. The higher the flow of water through the injector, the faster the diaphragm moves.

These injectors last longer because of their unique design; the water motor is not subject to chemical attack, nor is it affected by small particles in the water.

Furthermore, chemicals are injected AFTER the water has passed through the water motor, eliminating the potential for chemical deterioration of the water motor.

# Technology



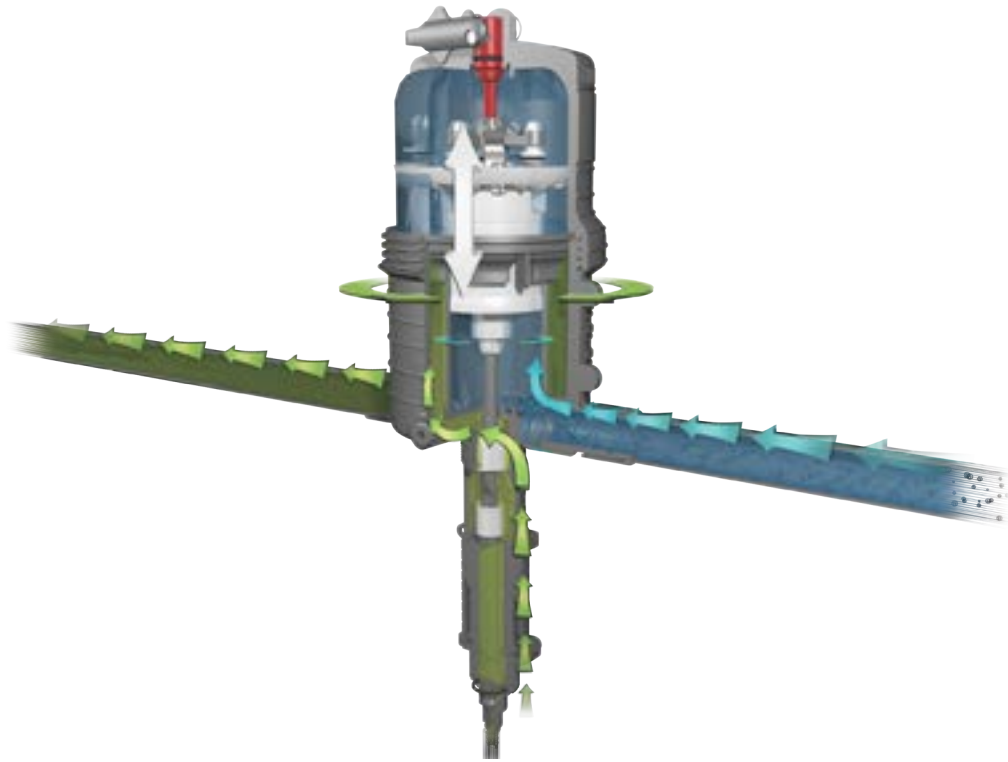
## *Venturi*

Venturi technology (the vacuum created by manipulating the speed of a stream of water) is used to mix chemicals with water.

The incoming water stream is restricted by a nozzle, while the speed of the outgoing water is decreased by the inverted funnel shape at the bottom of the venturi. The result is a vacuum in the middle, where the chemical is sucked into the water stream.

The amount of chemical introduced is regulated by interchangeable metering tips that restrict chemical flow into the water stream.

The device does not require external electricity, batteries, pumps, or air; from ordinary water pressure available in most buildings.



## *Piston*

Installed directly in the water supply line, the injector operates without electricity, using water pressure as the power source.

The water drives the injector, which pulls the required percentage of concentrate directly from the chemical solution container. The concentrate is mixed with the water inside the pump and the water pressure forces the mixed solution downstream.

The injection ratio of chemical concentrate stays constant and accurate regardless of variations in flow or pressure.

The injection rate is set by lining up the top of the ratio sleeve with desired ratio on the scale. The amount of injected concentrate is proportional to the amount of water coming into the injector: i.e. adjustment at 1% = 1:100 = 1 volume of concentrate + 100 volumes of water entering the injector.

# Chemilizer

## Consistent, fluid driven, chemical injection

The Chemilizer is a proportional liquid chemical injector that injects a precise amount of chemical in proportion to a volume of water.

The Chemilizer is driven by water flow, rather than electricity. It can run off water flows as low as 4L per hour and will work with gravity via as little as 1.5m. head of water.

The speed of the motor and pump are proportional to the water flow, ensuring Chemilizer will inject consistent amounts of chemical regardless of fluctuation in water pressure and flow. Chemilizer injectors are ideal for applications requiring a consistent level of chemical product to be injected into a water line, without the cost and hassle of an electric pump or filter.

- Chemilizer injectors are immune to electrical surge and power failure due to their water-powered motors
- Corrosion Resistant Construction – Silicone and Viton components available to withstand the most aggressive chemicals
- Chemical resistant – The chemical is injected after the motor; avoiding chemical contact with critical motor parts
- Works with any water source – the diaphragm water motor is unaffected by sand or minerals in the water
- Tailored to your specific dilution needs – Six dilution ratios available
- Easy and Low cost maintenance – typical maintenance is tool-free



### General Specifications

Housing	Polypropylene
Maximum Temp.	100°F (38°C)
Minimum Temp.	34°F (1°C)
Maximum Vertical Suction of Concentrate	12 ft/3.6 m
Maximum Horizontal Suction of Concentrate	50 ft /15 m
Self-Priming	Yes
Seal Material Available*	Silicone Viton
Maximum Viscosity	1,500 cP (Ex. Honey)
Recommended Accessories	Check valve, pressure regulator, flow restrictor
Thread Sizes Available	3/4" NPT, GHT, BSP

often Used



animal health



horticulture



industrial applications

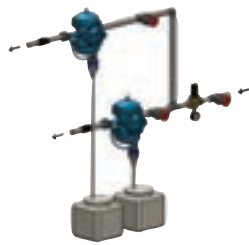


food processing





inline installation



dual inline installation



bypass installation



tank feed installation

Model Number	Critical Components	Operating pressure (Bar)	Water Flow (Lit./hr)	Fixed Dilution Ratio	Fixed Dilution %
CH9000-209GB	Viton	0.2 - 5.8	4- 2,700	1:128	0.78
CH9000-210GB	Viton	0.2 - 5.8	4- 2,700	1:100	1.00
CH9000-211GB	Viton	0.2 - 5.8	4- 2,700	2:100	2.00
CH9000-220GB	Viton	0.2 - 5.8	4- 2,700	2:128	1.54
CH9000-222GB	Viton	0.2 - 5.8	4- 2,700	1:250	0.40
CH9000-225GB	Viton	0.2 - 5.8	4- 2,700	1:500	0.20
CH9000-309GB	Silicone	0.2 - 5.8	4- 2,700	1:128	0.78
CH9000-310GB	Silicone	0.2 - 5.8	4- 2,700	1:100	1.00
CH9000-311GB	Silicone	0.2 - 5.8	4- 2,700	2:100	2.00
CH9000-320GB	Silicone	0.2 - 5.8	4- 2,700	2:128	1.54
CH9000-322GB	Silicone	0.2 - 5.8	4- 2,700	1:250	0.40

Model Number	Critical Components	Operating pressure (Bar)	Water Flow (Lit./hr)	Adjustable Dilution Range	Adjustable Dilution %
CH9000-AV1-BSPP 5%	Viton	0.2 - 5.8	4- 2,700	20:1 - 64:1	5 - 1.6
CH9000-AV2-BSPP 2%	Viton	0.2 - 5.8	4- 2,700	50:1-164:1	0.6 - 2
CH9000-AV3-BSPP 0.67%	Viton	0.2 - 5.8	4- 2,700	150:1 - 500:1	0.2 - 0.67

# SuperDos

Non-electric,  
fluid driven  
proportional injector

SuperDos operates without electricity to precisely inject liquid concentrates into a water supply line using fluid flow as the power source.

SuperDos is designed with a patented internal mixing chamber that promotes homogeneous mixing, while segregating harsh chemicals from critical internal components.

SuperDos comes in various models that easily satisfy the demands of your most challenging applications.

- No extra cost for proprietary composite body, which exceeds PVDF for chemical compatibility and for mixing aggressive chemicals.
- No extra cost for built-in on/off switch (30 and 45 models only), which allows user to stop the injection — but not the system.
- Separate internal mixing chamber to prevent chemical contact with motor piston — for longer life and uniform mixing.
- Interchangeable lower ends and can adjust ratios while in operation.
- Highly-aggressive, chemical-resistant models available
- Diesel fuel-friendly models available



often Used



horticulture



animal health



irrigation



carwash &  
auto detailing



industrial



food  
processing



## Basic installation



tank feed installation



inline installation



dual remote injection installation



bypass installation

## General Specifications

Housing	Proprietary engineered composite material
Dosing	+/- 10%
Repeatability	+/-3%
Fluid max. temp.	38°C
Fluid min. temp.	1°C
Max. vertical suction of concentrate	3.6 m
Max. horizontal suction of concentrate	15 m
Self-priming	Yes
Seal material available*:	Aflas- Alkaline concentrates Viton - Acids, oils & pesticides EPDM - Alkaline concentrates Kalrez

\*Contact your representative for specific chemical information.

Model #	Model	Water tank fed	On/Off switch	Operating pressure (Bar)	Water Flow (Lit/hr)	Dilution range %
SuperDos 15TF 0.3%	113727RGB	Yes	No	0.21 - 4.1	20 - 3,400	0.025 - 0.3
SuperDos 15TF 2.5%	113702GB	Yes	No	0.21 - 4.1	20 - 3,400	0.2 - 2.5
SuperDos 15TF 2.5%	113702WSPGB	Yes	No	0.21 - 4.1	20 - 3,400	0.2 - 2.5
SuperDos 15TF 5%	113703GB	Yes	No	0.21 - 4.1	20 - 3,400	0.4 - 5.0

# AquaBlend

## Precision injection for agricultural medication

The AquaBlend injector is specifically engineered to accurately medicate and/or treat water in most agricultural environments.

AquaBlend is offered in two different fixed ratio and two variable ratios models and is designed to handle both liquid chemicals & wettable powders.

Hydro Systems offers many ancillary products that can further enhance the performance of your new AquaBlend injector. We can configure the perfect medicator system for your most demanding applications.

AquaBlend injectors can be customized to meet your company's specific business strategies.

- Quick and easy installation
- Perfect for wettable powders and liquid chemicals
- Unique tool-free maintenance

### Maintenance

- After each round of chemical injection rinse out the check valve and lower end by injecting clean water.
- If the unit is going to be stored for more than three months without use, remove lower end and apply silicone to WSP gasket.
- Every two years or one million gallons of water that runs through the unit replace complete lower end.

### Perfect For:

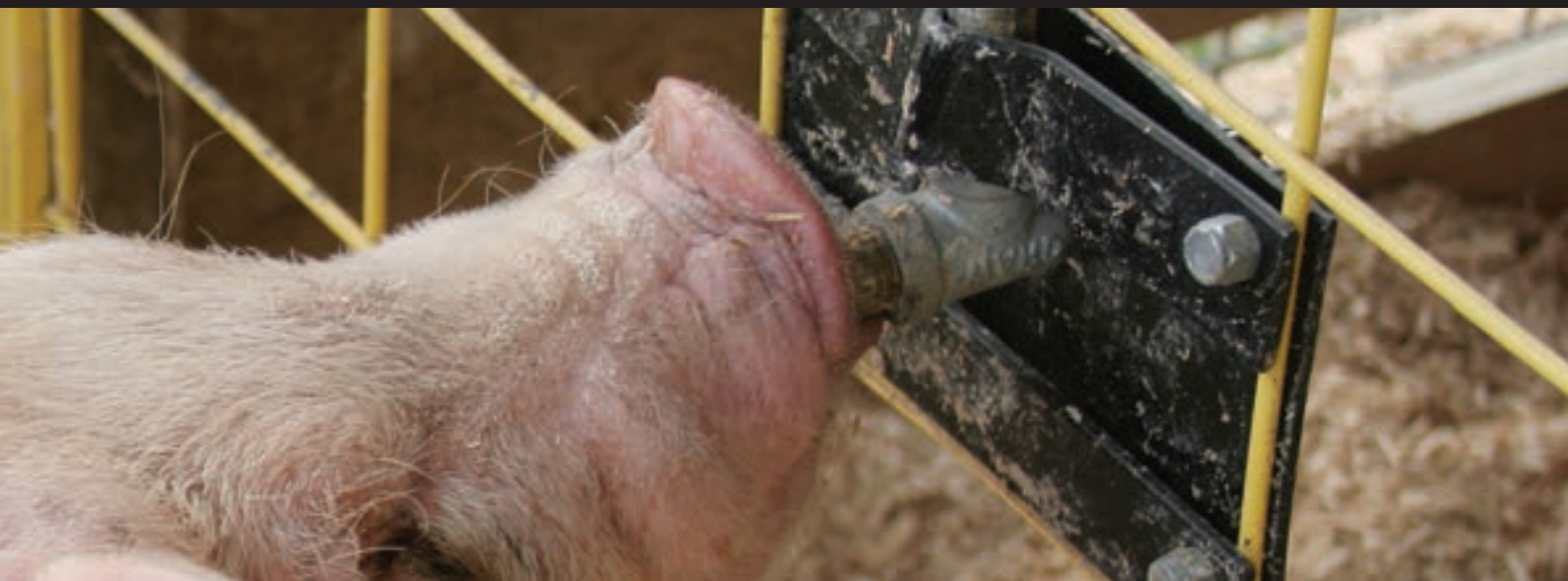
- vaccinating
- medicating
- water treatment
- cleaning water lines
- administering nutrients and supplements



often Used



animal health



## Basic Installation

inline installation



dual fixed inline installation



tank feed inline installation



## General Specifications

Housing	Acetal
Dosing Accuracy	+/- 10% of Ratio
Repeatability	+/- 3% of Ratio
Maximum Temperature	38° C
Minimum Temperature	1° C
Maximum Vertical Suction of Concentrate	3.6 m
Maximum Horizontal Suction of Concentrate	15 m
Self-Priming	Yes
Seal Material Available:*	Aflas Viton EPDM
Maximum Viscosity	1.500 cP (eg. Honey)

Model No.	Part No. NPT/BSP	Flow Rate	Injection Rate	Operating Pressure	Inlet/Outlet Pipe Conn.
1:128 Fixed	117859WSP	10 - 2500 l/hr	1:128 0.78%	0,34 - 6,2 bar	3/4" bsp
1:00 Fixed	117854WSP	10 - 2500 l/hr	1:100 1%	0,34 - 6,2 bar	3/4" bsp
0.4 - 2%	117957WSP	10 - 2500 l/hr	1:250 - 1:50 0.4 - 2%	0,34 - 6,2 bar	3/4" bsp
1 - 5%	117958	10 - 2500 l/hr	1:100 - 1:20 1 - 5%	0,34 - 6,2 bar	3/4" bsp

# HydroFoamer

Convenient cleaning and sanitising solutions

Outstanding value dispenser, delivers a rich, clinging foam for maximum cleaning performance.

HydroFoamer offers easy automatic dilution with convenient control of where and how solution is applied. On and off functions are finger-tip, trigger controlled on the spray nozzle. To rinse, the concentrate container is disconnected using an easy-to-operate quick coupler. This range of control helps personnel apply the solution where it's wanted.

- Built with Hydro's proven, reliable components – durability proven by years of use in the field
- Compact, easy to store
- Increased productivity of employees
- Enhanced safety (reduced exposure to concentrates)
- Non-electric, no installation required – just fill the concentrate container and connect the dispenser to a water source
- Maximum cleaning product performance
- Detachable clear water rinse wand included
- Small (1.4 l.) or large (2.8 l.) bottle
- Supplied ready-to-use
- Wide mouth bottles allow easy fill and no spillage
- Trigger gun operation
- Dilutes up to 125:1



Model	Foamer bottle capacity	Rinse wand	Max flow rate	Approx. Dilution range H2O:Chem. (3 Bar, 1.0cp)
481GB	2.8 lit.	Yes	8 lit./min.	12:1 to 125:1
483GB	1.4 lit.	Yes	8 lit./min.	12:1 to 125:1

often Used



schools  
universities



fast food



hotels &  
lodging



healthcare



supermarkets



transportation



carwash & auto  
detailing



animal health



industrial



food  
processing



pet care

# FoamMaster

Complete, ready to use, compressed air foam cleaning

FoamMaster power cleaning systems automatically dilute concentrated cleaning products with water, and use compressed air to generate a thick, rich, clinging foam.

Thanks to its small footprint, chemically-inert components and stainless steel surface, FoamMaster is ideal for use in cleaning and sanitising all locations including: food processing areas, restaurants, hospital areas, abattoirs, dairies and vehicles.

- Chemical-contact components are made of chemically - inert materials, allowing use with acids and aggressive cleaners
- Air and water flow can be controlled to deliver the foam thickness you need
- Built-in check valve prevents compressed air from forcing its way into the water line, allowing you to increase air flow for improved cleaning
- Clear water rinse facility allows you to rinse the area after cleaning without an additional hose
- Comes complete with 8 metres or 20 metres heavy duty discharge hose and brass foam/rinse nozzle with on/off valve.

Also available on a cart, please contact us for this option.



Model	Products		Hose	Approx. Dilution range H2O:Chem. (3 Bar, 1.0cp)
890GB	1 + rinse	Wall mounted	8m. Red Goodyear	5:1 to 250:1
892GB	1 + rinse	Wall mounted	20m. Blue TPR	5:1 to 250:1
894GB	2 + rinse	Wall mounted	20m. Blue TPR	10:1 to 500:1

often Used



schools  
universities



supermarkets



transportation



carwash & auto  
detailing



animal health



industrial



food  
processing



pet care

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