DYMAX®

Dispensing Equipment Selector Guide

www.dymax.com/dispensing

Dymax Fluid Dispensing Equipment

Dymax is committed to providing the best chemistry, curing equipment, and dispensing systems that offer customers complete manufacturing solutions for their challenging applications. Dymax, in alliance with some of the world's leading dispensing companies, has developed high-quality, field-proven dispense systems to fit many dispensing applications. These systems include various automatic and manual dispense systems, spray valves, and related components for seamless integration into your assembly process. Dymax engineers will work with you to create the best dispensing solution for your application.

- Manual and automated dispensing solutions
- Pneumatic spray valves and guns for applying coatings, lubricants, and masking resins
- Dispensing valves that offer contaminate-free dispensing
- Dispensing systems with adjustable suck-back control that facilitates clean, crisp shutoff even with stringy or tacky materials.

Model Number		Micro-Dot™	Stepper™	SD-100	200	300	400	455	826	830	475	485	775 Series	SG-100	SG-200
															
Dispense Data	Dispense Modes	Shot	Shot	Shot (timed), Continuous (bead)	Shot (manual), Continuous (bead)	Shot (timed), Continuous (bead)	Shot (timed), Continuous (bead)	Shot (timed), Continuous (bead)	Shot, Continuous (Bead)		Shot (timed), Continuous (bead)	Shot (timed), Continuous (bead)	Shot (timed), Continuous (bead)	Spray	
	Shot Size	0.0002 – 0.25 mL (15/18 GA Taper Tip)	0.01 – 0.10 mL 0.025 – 0.10 mL 0.05 – 0.25 mL 0.10 – 1.0 mL				0.002 mL to Continuous Flow	0.003 mL (0.066" tubing) to Continuous Flow	0.005 mL	0.02 mL	0.004 mL to Continuous Flow	0.002 mL to Continuous Flow	0.01 mL to Continuous Flow	Flat: 0.75" - 2+" [1.91 cm - 5.08+ cm] Round: 0.25" - 2" [0.64 cm - 5.08 cm]	Round: 2"-8" [5.08 cm - 20.32 cm]
	Viscosity Range	Medium to High	Medium to High	Low to High	Up to 5,000 cP			Medium to High	Low to High (including stringy)	High (including stringy)	Low to Medium	Low to High	Medium to High (including stringy)	RS: <10,000 cP RH: >10,000 cP	High
	Materials*	UV Adhesives, Greases, Inks	UV Adhesives, Medical Fluids, Greases, Inks	UV Adhesives, Greases, Inks	UV Adhesives, Cyanoacrylates, Inks	UV Adhesives, Cyanoacrylates, Inks	UV Adhesives, Inks	UV Adhesives, Cyanoacrylates, Inks	UV Adhesives, Cyanoacrylates, Inks	UV Adhesives, Cyanoacrylates	UV Adhesives, Cyanoacrylates, Inks	UV Adhesives, Inks	UV Adhesives, Greases, Inks	Conformal Coatings, UV Maskants	Conformal Coatings, UV Maskants
Mechanical Specs	Operation	Manual Syringe Dispenser	Manual Pipette	Powered Syringe Dispenser	Diaphragm	Diaphragm	Needle	Disposable Fluid Path			Diaphragm	Needle	Spool	Spray	
	Control	Manual Positive Displacement		Time Pressure	Manual Pressurized	Time Pressure	Time Pressure	Time Pressure			Time Pressure			Fluid Pressure, Atomization Pressure	
	Disposable Fluid Path	Yes			No	No	No	Yes			No			No	
	Controller	None		Integrated	None	DVC-345	DVC-345	DVC-345			DVC-345				DVC-345
	Operational Adjustments	Displacement	Displacement	Time, Pressure, Suck-Back	Flow	Flow	Flow	Over Pinch, Flow	Over Pinch, Flow, Suck-Back	Over Pinch, Flow, Suck-Back	Flow	Flow	Flow, Suck-Back	Flow	Flow
Utilities	Electrical Required	None		90-260 VAC	None	110V (for controller only) 100-240 VAC		110V (for controller only) 100-240 VAC			110V (for controller only) 100-240 VAC				110V (for controller only) 100-240 VAC
	Compressed Air Required	No		Yes	Yes	Yes	Yes	Yes			Yes			Yes	Yes
Supply Reservoirs		3, 5,10 cc Syringe (most brands)	1,3, 5 cc Syringe	3, 5, 10, 30, 55 cc Syringe	Cartridge or Pressure Pot	Cartridge or Tank	Cartridge or Tank	Cartridge or Pressure Pot			Syringe, Cartridge, or Tank			Cartridge or Tank	Cartridge or Tank Ram Pump
Valve Materials	Valve Body (non-wetted)	N/A			Delrin®	Delrin®	Delrin®	Anodized AL			SS, Anodized AL			SS	SS
	Wetted Path	Syringe and Tip			Delrin®	Delrin®	SS/AL	Selected Tubing			Acetal	Acetal/SS	SS/AL	SS	SS
	Wetted Valve Seals	N/A			Teflon®	Teflon®	Silicone	N/A			UHMW PE	Silicone	Teflon® or Viton®	Teflon®, Kalrez®	Teflon®, Kalrez®
	Tubing	N/A SD-100 needs tubing			Polyethylene	Polyethylene	Polyethylene	Polyethylene			Polyethylene	Polyethylene	Polyethylene	Polyethylene	Polyethylene
CE Approval				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

* If there is any question about material compatibility, please contact Dymax Application Engineering. Valves containing disposable fluid path technology offer several choices of tubing to ensure proper compatibility with the fluid being dispensed.

Application Overview

	Micro-Dot™	Stepper™	SD-100	200	300	400	455	826	830	475	485	775 Series	SG-100	SG-200
Viscosity Range**	Med-High	Med-High	Low-Med-High	Low-Med	Low-Med	Low-Med	Med-High	Low-Med-High	High	Low-Med	Low-Med-High	Med-High	RS: Low-Med HS: Med-High	High
Microdots	●	●	●			●		●			●		N/A	
Dots	●	●	●	●	●	●	●	●	●	●	●	●	N/A	
Beads			●	●	●	●	●	●	●	●	●	●	N/A	
Potting			●	●	●	●	●	●	●	●		●	N/A	
Spray - Conformal Coatings													●	●
Spray - Maskants													●	●

** Low Viscosity= < 1000 cP Medium Viscosity= 1000 cP - 10,000 cP High Viscosity= > 10,000 cP +

Dispensing System Packages

Dymax dispensing valves can be integrated into automated dispensing systems or paired with a controller and a material reservoir to create a bench-top dispensing system. Dymax offers a variety of material reservoirs to accomodate most dispensing applications. Cartridge reservoirs, bottle drop-in reservoirs, larger stainless steel pressure pots, and low-level sensing reservoirs are available from Dymax.

Cartridge Reservoirs
(6, 12, & 20 oz sizes)

1 Gallon Bottle
Drop-In Reservoir

Drop-in Reservoir
(5,10, &15 gallon sizes)

DVC-345 Digital Valve Controller

Dispensing Tips

A variety of both needle and taper dispense tips in various lengths, gauges, and shapes are available from Dymax. Tip selection is critical when precision is required and the length, shape, and size of the tip used will define the shape of the fluid deposit and the performance of your dispense system. Dymax Application Engineering is available for assistance with selecting the optimal tip. Visit www.dymax.com/dispensing_tips to see Dymax's dispensing tip selection.

Additional Dymax Offerings

High-Performance Light-Curable Materials

Dymax adhesives are designed to rapidly bond glass, metal, and plastic substrates upon exposure to UV/Visible light, while providing design engineers with tools to dramatically improve manufacturing efficiency and reduce costs. Dymax solvent-free adhesives are environmentally friendly, RoHS compliant, and meet the demands of challenging applications in a variety of markets. They provide significant manufacturing advantages including reduced labor and assembly costs, improved in-line inspection with fluorescing grades, reduced WIP, shorter cycle times, fewer assembly stations, and elimination of ovens and racking.

Light-Curing Equipment

Dymax offers a wide range of light-curing equipment for curing adhesives, coatings, maskants, and sealants. Available systems include spot lamps for small-area cure or repair, flood -lamp systems for bench-top batch curing, and conveyor systems for automated in-line curing of materials including adhesives, pastes, solvents, and coatings.

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