

PD44  
Dispensing System

**POLY DISPENSING SYSTEMS**

S Y S T E M E S   D E   D O S A G E   I N D U S T R I E L

122, Chemin de la Cavée - 78630 Orgeval • [contact@polydispensing.com](mailto:contact@polydispensing.com) • Tel : 01.39.62.40.92

[www.polydispensing.com](http://www.polydispensing.com)

# PD44 Dispensing System

## A unique Patented Technology for Micro Dispensing Two-Component Materials

The PD44 is specifically designed to dispense small amounts of water thin to paste viscosity materials from 0.005cc's to 5cc's. The metering rods are matched with machined seals for improved seal life. There are no material hoses between the rod pump outlets and mixer inlet which eliminates potential ratio or shot size problems (phasing) due to hose expansion and contraction.

### PD44 Dispensing System features

- Specifically designed to accurately dispense shots of twocomponent epoxies, urethanes, silicone and most reactive resin systems
- Improved low viscosity spool design
- Rod positive displacement metering
- Precise mix ratio and shot repeatability
- Eliminates cleaning and potential hardening of materials in the valve

### How it works

#### Materials remain separate until injected into static mixer

The patented PD44 valve features balanced inlet/outlet spool assemblies that do not displace material while shifting from the reload to the dispense position. This allows pressure feeding of the "A" and "B" components up to 1200 psi during reloading while isolating the materials from the mixer inlet. Upon shifting to the dispense position without any material displacement, an accurate volume of "A" and "B" components is injected into the disposable mixer inlet by rod displacement metering technology.

#### Reload

Spools shift to the right

- Material feed inlets are opened
- Materials are transferred into the metering chambers by a pressurized feed system
- Outlet ports are blocked
- Metering rods are retracted to a precise position determining the volume of each material

#### Shift

The balanced spool assemblies shift to the dispense position

- Material path to the mixer inlet is opened
- Material feed inlet ports are blocked
- Metering rods remain in the retracted position

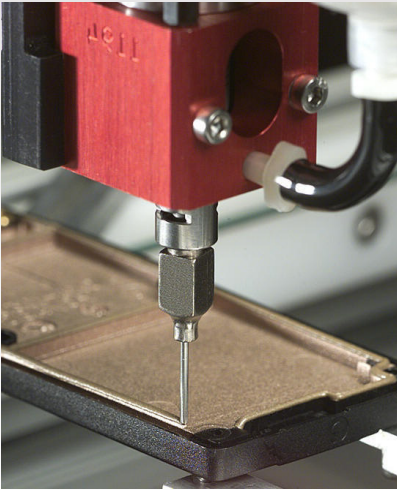
#### Dispense

Metering rods drive down

- A and B materials are simultaneously dispensed from the metering chamber into the disposable mixer
- A and B materials are dispensed at the predetermined ratio.  
Upon completion of the dispense stroke, the metering rod and spool assemblies shift back to the reload position

## SPECIFICATIONS

Ratio Range	1:1 to 25:1 by volume depending on the size of the metering rods selected
Shot Size Capability	0.005 cc's to 5.0 cc's depending on the size of the metering rods selected.
Cycle Rate	Up to 60 cycles per minute with pneumatic drive
Balanced Inlet/Outlet Spool Assemblies	The pneumatically actuated spool assemblies keep the «A» and «B» materials separate in the valve and isolate the material inlets from the outlets to the mixer. The standard construction of the spool assembly is a nitrided tool steel spool and a nitrided tool steel sleeve.
Material Feed System	Pressure feed systems including cartridges, tanks and transfer pumps, can be employed to feed «A» and «B» components up to 1200 PSI.
Accessories	level controls, agitators, follower plates, vacuum degassing, nitrogen blanketing, etc. are readily available.
Mixers	Disposable Posimixers are available in sizes from 1/8" (3.175mm) to 3/8" (9.525mm) in diameter and in a various number of elements to provide thorough blending of most reactive resin systems.
Disposable Needles	from 14 gauge to 30 gauge. A variety of Luer Lock needle sizes are available to adapt to the Posimixer outlets.
Dimensions	Body - 15" (381mm) H x 4 1/8" (105mm) L x 7 9/16" (192mm) W. Mixer - Add 4" (100mm) to 14 3/4" (375mm) H to the height. Pneumatic Controller - 15" (381mm) W x 12" (305mm) D x 13" (330mm) H. Electric Controller - 20" (508mm) W x 8" (203mm) D x 20" (508mm) H.
Weight	PD44 valve only - 6.35 kg - 6.80 kg (depends on drive) PD44 bench stand and controller - 22.68kg to 34.02kg (depends on options).



PDS S.A.S is a french company that commercializes a wide range of dosage equipments, proven and effective.

Distributed in over 20 countries around the world, these equipments provide tailored solutions to many users in order to improve technically their manufacturing and reduce their productions costs.

Our collaborators and sales engineers all have a strong technical competences. They are able to answer your questions and offer you, after analysis, the right solution for your particular need.

FRANCE - SWITZERLAND  
NORTH AFRICA

Poly Dispensing Systems  
122, Chemin de la Cavée  
78630 Orgeval

FRANCE

☎ + 33 (0)1 39 62 40 92

📠 + 33 (0)1 39 62 40 94

[www.polydispensing.com](http://www.polydispensing.com)

BELGIUM- NETHERLANDS  
LUXEMBOURG

Gentec Benelux  
Rue de L'Industrie, 12  
B-1400 Nivelles

BELGIQUE

☎ +32 2 351 1800

📠 +32 2 351 1962

[www.gentec-benelux.com](http://www.gentec-benelux.com)

- NON CONTRACTUAL DOCUMENT -

# POLY DISPENSING SYSTEMS

S Y S T E M E S   D E   D O S A G E   I N D U S T R I E L