797PCP Series Progressive Cavity Pump

Volumetric dispensing for industry-leading process control

The 797PCP progressive cavity pump provides best-in-class deposit volume accuracy and repeatability at ±1%.

Part #	Description
7364197	797PCP-0.01 pump, 0.01 mL per revolution, 0.13–1.95 mL per minute flow rate
7364198	797PCP-0.05 pump, 0.05 mL per revolution, 0.59–8.85 mL per minute flow rate
7364199	797PCP-0.15 pump, 0.15 mL per revolution, 1.63–24.50 mL per minute flow rate
7366147	SS-797PCP-0.15 pump, 0.15 mL per revolution, 1.63–24.50 mL per minute flow rate
7366472	PEEK-797PCP-0.15 pump, 0.15 mL per revolution, 1.63–24.50 mL per minute flow rate
7366004	797PCP-0.30 pump, 0.30 mL per revolution, 3.0–45.0 mL per minute flow rate

Note: Standard pumps come with stainless steel rotors. Specify ceramic rotors for better resistance to abrasive materials.

more info

The 797PCP Series pump dispenses an exact, repeatable volume of fluid as small as 0.01 mL per revolution for applications that require extremely consistent process control. Its modular design is based on the progressive cavity principal where its core components — a rotor and stator — form a perfectly sealed metering chamber.

As it rotates, the fluid moves from one sealed cavity to the next, allowing for continuous volumetric dispensing independent of fluid viscosity or changes in viscosity over time. External factors, such as fluctuating fluid pressures and the full-to-empty effect in syringe barrels, do not impact the amount dispensed.

The continuous seal prevents shear, pulsation, and squeezing of the fluid, making the 797PCP ideal for dispensing abrasive pastes and UV-cure materials.

Nordson EFD's 797PCP pump comes in 0.01 mL, 0.05 mL, 0.15 mL, and 0.30 mL sizes. The 0.15 mL pump size is also available in stainless steel for medical device dispensing applications and PEEK* for reactive fluids like anaerobic adhesives.

Features

- Highly precise fluid volume accuracy and repeatability at ±1%
- Continuous volumetric dispensing independent of viscosity variation
- Modular design with easy disassembly

Benefits

- Perfectly sealed metering chamber provides market-leading deposit volume assurance for improved process control with minimal fluid waste
- Versatility to continuously dispense any fluid viscosity with low pulsation and shear allows for use in a wide range of applications
- Suck-back feature provides clean cut-off for more accurate dispensing without dripping or drooling
- Modular design allows for easy disassembly and cleaning that reduces production downtime required for maintenance

*Polyetheretherketone

Nordson EFD

Specifications

Item	Specification
Size	797PCP-0.01/0.05: 261.4L x 36.0DIA mm (10.29L x 1.42DIA") 797PCP-0.15/0.30: 297.9L x 36.0DIA mm (11.73L x 1.42DIA") SS-797PCP-0.15: 298.8L x 36.0DIA mm (11.76L x 1.42DIA") PEEK-797PCP-0.15 mL/rev: 297.9L x 36.0DIA mm (11.73L x 1.42DIA")
Weight	797PCP-0.01/0.05: 0.55 kg (1.2 lb) 797PCP-0.15/0.30: 0.62 kg (1.4 lb) SS-797PCP-0.15: 1.25 kg (2.8 lb) PEEK-797PCP-0.15 mL/rev: 0.60 kg (1.3 lb)
Rotor speed	10–150 RPM (depending on maximum motor speed)
Flow rate	797PCP-0.01: 0.13–1.95 mL/min 797PCP-0.05: 0.59–8.85 mL/min 797PCP-0.15: 1.63–24.50 mL/min 797PCP-0.30: 3.0–45.0 mL/min
Dispensing volume per revolution	797PCP-0.01: 0.009 mL 797PCP-0.05: 0.047 mL 797PCP-0.15: 0.139 mL 797PCP-0.30: 0.304 mL
Repeatability	±1%
Fluid inlet	1/8 NPT
Fluid outlet	Luer fitting
Mounting	M4
Fluid chamber	Standard: Anodized aluminum Stainless-steel: 303 stainless steel PEEK-797PCP-0.15 mL/rev: PEEK
Rotor	Standard: 316Ti stainless steel PEEK-797PCP-0.15 mL/rev: Ceramic **NOTE:** The optional ceramic rotor can be installed on any 797PCP pump.
Stator	FFKM (perfluoroelastomer)
Operating temperature	10–40° C (50–104° F)
Approvals	CE, UKCA, WEEE
Warranty	1 year, limited

7197PCP Controllers

For best results use 797PCP Series pumps with fully integrated Nordson EFD 7197PCP controllers, which provide multiple programming modes — Line, Volume, Weight, or Timed — to meet the unique needs of your application. Advanced features, such as the ability to change the rotor speed when dispensing a line around corners, deliver a high level of process control.

Automated Dispensing Systems

Nordson EFD automated dispensing systems deliver market-leading repeatability and accuracy in fluid placement and positioning. Specialized dispensing software simplifies setup and programming. Optimize dispensing results with features such as laser height sensing and smart vision CCD cameras.

Request a Process Evaluation

Contact Nordson EFD to configure a precision dispense system that meets your specific needs, with:

- A complimentary process evaluation by experienced fluid dispensing experts.
- Samples processed for customer evaluation and approval prior to purchase.

Nordson EFD

For Nordson EFD sales and service in over 40 countries, contact Nordson EFD or go to www.nordsonefd.com.

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