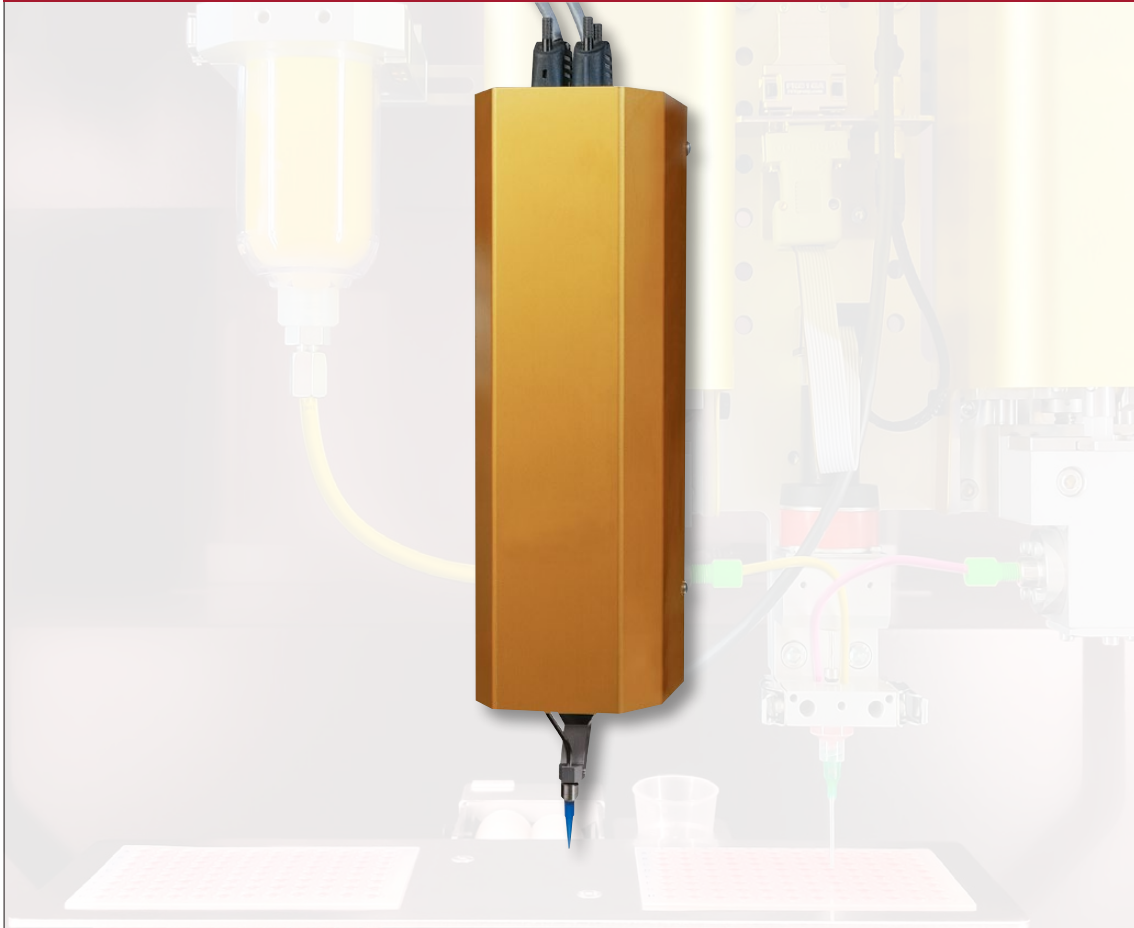


# NVD numerical volumetric dispenser



TR300



MRC500



OEM



Station



*The NVD is a high-precision volumetric dispenser based on reciprocating piston pump technology. The NVD has no seals in the ceramic piston-cylinder system resulting in reduced maintenance.*



## Advantages

- Extremely accurate and repeatable
- Suitable for liquid and viscous materials
- Simple setting of the dispensing parameters via numerical controller
- Repeatable dispensing velocity
- Long life span of ceramic pump
- No seals in the piston-cylinder system resulting in reduced maintenance
- Easy cleanup and purge



## Features

- Adjustable dispensing volume of 0.1 mm<sup>3</sup> to 1'250 mm<sup>3</sup>
- Volumetric dispensing without valve
- Piston and cylinder made of ceramic
- Needle cleaning unit
- Needle according to the application
- Purge bin
- Controller

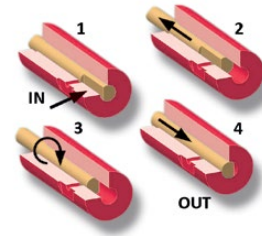


## Options

- Standardized robot platforms: OEM300, OEM500, MRC500 and TR300
- Material supply such as barrel, bucket, cartridge
- Material processing such as degassing, pre-heating, homogenization

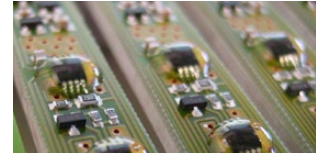
## Working principle

The piston pump operates with a charging stroke, in which material enters into the pump (2) and a dosing stroke, in which material is metered out (4). Between charging and dosing, the piston rotates to open and close the corresponding ports (1 and 3). The dosing stroke is numerically controlled, ensuring highly accurate and repeatable volume and flow rate. Once the material exits the piston pump, it can either proceed directly to a dispensing needle or a mixing chamber.



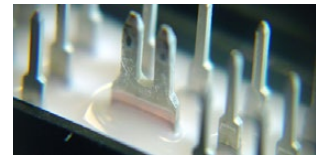
## Typical dispensing applications

- Gluing
- Potting
- Conformal coating
- Dot and line dispensing
- Lubrication



## Typical dispensing materials

- Sealants such as silicone, MS-polymer, polyurethane
- Adhesive such as anaerobic glue, epoxy resin, UV-Acrylat
- Gap fillers
- Grease
- Oil



## NVD technical specifications

<b>Dispenser volume</b>	0.1 to 1'250 mm <sup>3</sup> per stroke
<b>Repeatability</b>	>99%
<b>Power supply controller</b>	230V/50-60Hz
<b>Air pressure</b>	max. 6 bar
<b>Dispenser dimensions</b>	93 x 117.5 x 386 mm
<b>Dispenser weight</b>	~3.5 kg



## NBD two-component numerical volumetric dispenser

For two-component materials, two NVD can be combined to suit a wide range of mixing ratios. The combined unit (NBD) mixes materials using a choice of static or dynamic mixer.

When using the dynamic mixer, a rotating mixing blade mixes the materials inside the chamber. As with the pumps, the blade's speed and number of rotations are also numerically controlled, ensuring the correct number of folds without damaging the material.