

Dos A280

The Dos A280 is a dispensing system for highly abrasive, pasty dispense materials, i.e. thermally conductive adhesives. It comes with a Scheugenpflug Piston Metering Head with tabletop stand (optional) and the A280 material feeding unit with an onboard Microcomputer Controller.

For handling of:

highly viscous and abrasive dispense materials, i.e. thermally conductive adhesives and pastes for thermal management.

Area of application:

For applying material on heat sinks, dissipators or PCBs as beads or dots.

Advantages:

Based on standard modules and components, the user can choose a well-proven and field-tested „customised“ dispensing system at a most economic price-performance ratio.

The unique designed pumps allow the systems to deal with very abrasive material. Our robust pumps are very reliable and will last for an extremely long time. This has vastly increased machine availability and reduced significantly maintenance costs. The patented vacuum barrel follower plate technology allows for clean and automated container replacement without air bubbles entering into the dispensing material. By eliminating material waste and excluding production failure a fast return on investment is guaranteed.



Application examples:
Dispensing of pastes and adhesives in lines, beads or dots



Feeding and Metering Unit for thermally conductive adhesives and pastes: Dos A280

Function A280:

The specially designed A280 feeds pasty and abrasive materials, like thermally conductive resins and pastes. First the Vacuum Barrel Follower Plate is lowered into the container (delivery pail) and it then pushes the dispensing material through the central opening into the double piston pump. The air trapped between the plate and the surface of the dispensing material is removed through the plate by a vacuum pump, avoiding it to enter into the dispensing material or the feeding process. The pail is completely emptied and monitored by an accurate filling-level measurement system. In addition, a pail empty pre-warning is signalled via the operating panel or the programmable interfaces. The single-use Vacuum Barrel Follower Plate can be disposed of with the empty container.

The result: a very safe, fully automated, clean material feeding without material waste and an excellent process quality.

Function Metering System:

The vacuum-sealed design and the fact that the metering cylinders are filled by pushing and not drawing both result in bubble-free metering (the cylinders are only filled using the material feed pressure). The piston diameters for the resin and hardener determine the mechanically fixed mix ratio, regardless of external influences like temperature, air pressure or viscosity. The dispensing material is expressed through an exactly simultaneous piston movement and guarantees a constant mix ratio.

The resin and hardener are met only in the static mixing nozzle. There is no reactive material of both components inside the dispenser, therefore no cleaning and rinsing required.

The rinsing- and protective liquid prevents the piston seals from erosion by removing the filler materials from the rear side of the seals and the cylinder walls and at the same time prevents air moisture damage.

Further advantages: equipped with robust mechanical driving components, precision motor, linear guides and integrated metering monitoring sensors.



Piston Dispenser: Dos P016-2C/01



A280 & CNCCell



A280 & InlineCell

Control Unit Operation:

The intuitive microcomputer controller works PC based and provides full-graphics display of information. It controls all steps from the docking procedure, over the feeding of the dispensing mass into the system, to actuating the metering unit. The control unit makes it easy to fulfil monitoring, maintenance and analysis tasks and thus helps the operator to perform all production processes quickly and flawlessly. It is easy to set up, which allows for quick adaptation on site. On the comfortable and easy-to-use 7" touch screen display the operator can enter and access all programmes in various languages. The display has been designed with user requirements in mind and is based on DIN ISO 9241 standards. Therefore, all process relevant data are readily available on the main menu level. A flat menu structure with very few navigation levels provides quick and easy access to all parameter settings.



Scheugenpflug Microcomputer Controller SCP200

Variants:

The Dos A220 is not only available as a stand-alone unit but can also be easily integrated into existing production lines.



1C



1C with interruption-free feeding



2C