



HIGH-PRESSURE PISTONS

High-performance ceramics

CERAMIC PLUNGERS FOR HIGH-PRESSURE TECHNOLOGY

Ceramic pistons are used in the food and cosmetics industry as homogenisers as well as plungers for conveying liquid media at high pressure. Our high-performance ceramic pistons have special qualities and can be used as alternatives to hard metal.

Pistons made of F99.7, FZT or FZM ceramics are used to transfer media in high-pressure applications ranging from liquids to high viscosity substances, even with an abrasive filler. High resistance to wear and optimal sliding properties ensure a long operational life.

Ceramic pistons are also ideal for homogenising mixtures in the food, pharmaceutical and chemical industries. The oxide ceramic materials are chemically inert, FDA approved and certified according to USP Class VI.

The pistons and ceramic plungers can easily be combined with metals with a sterile joint guarantee. The high surface quality also ensures minimal adhesion of flow-through products.



We supply suitable materials in the required dimensions for all individual applications.



FIELDS OF APPLICATION

- ▶ Water-jet cutting lines
- ▶ Desalination units
- ▶ High-pressure lines
- ▶ Recirculation systems for
 - filtration
 - cooling
 - flushing
- ▶ Homogenisation of food and cosmetics

ADVANTAGES

- ▶ High wear resistance
- ▶ Optimum sliding properties ($R_a < 0.05 \mu\text{m}$)
- ▶ Pressure resistance up to 10,000 bar
- ▶ Service life of up to 4,000 h at 3,000 bar
- ▶ Lower weight compared to pistons made of carbide
- ▶ Low frictional heat generation



Source: Jet Cut Power GmbH, Switzerland



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