



For aggressive chemical applications GEMÜ 490 Edessa series

Areas of application

- Chemical processes
- · Industrial water treatment
- Surface finishing
- Power generation and environmental systems
- · Mechanical engineering and processing industries
- Pharmaceutical, biotechnology and cosmetics industries
- · Foodstuffs and beverages

Features

- · Resistant to chemically corrosive media
- · Flexible combination of high-quality materials
- High level of plant reliability thanks to shaft-disc design from a single casting and spring loaded seal system
- Long service life thanks to shaft bearings and special liner geometry

Description

The GEMÜ 490 butterfly valve is lined with TFM[™] (PTFE)/PFA to suit aggressive chemical applications. It is based on the design of concentric PTFE sealed valves. The construction enables many possible combinations of disc, liner and body. Disc and shaft are one piece, body and liner are available in different designs.

Technische Details

- Media temperature*: -20 to 200 °C
- Ambient temperature*: -20 to 95 °C
- Operating pressure*:
 6 to 10 bar
- Nominal sizes*: DN 25 to 1050
- Body configurations: Wafer, lug
- Connection types: Flange
- Connection standards: AS, ASME, DIN, EN, ISO, JIS
- Body materials: 1.4404 (316L), block material, EN-GJS-400-18-LT, SG cast iron material with epoxy coating, S355J2 + N, cast steel material, Duroplast VE, reinforced
- Liner materials: PTFE/EPDM, PTFE/FKM, PTFE/silicone, PTFE TFM™/EPDM, PTFE TFM™/FKM, PTFE TFM™/silicone
- Disc materials:
 1.4404 (316L), forged material,
 1.4404 (316L), forged material with PFA coating,
 1.4469,
 duplex cast steel material,
 2.4602 (alloy 22),
 block material,
 3.7035, titanium
- Conformities*: ATEX, EAC, FDA, SIL, TA Luft (German Clean Air Act), USP VI
- * depending on version and/or operating parameters

Liner and disc materials can be flexibly combined

Versatile

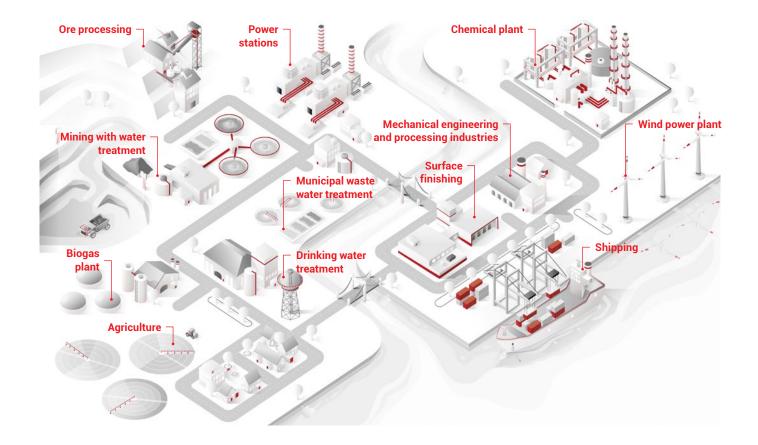
Sophisticated

Flexible

Standardized top flange acc. to ISO 5211 for various actuators

Disc and shaft from a single casting with spring loaded seal system

Efficient Low torque due to special liner geometry



Always find a suitable configuration

| | | | Material | | |
|--------------------------------------------|--------------------------------------|--------------------------------------------|----------------------------------------|-----------------|-------------|
| Chemical substance | Properties | Special considerations | Disc | Liner | Backliner |
| Dry chlorine gas | Gaseous, highly corrosive, oxidizing | Metal corrosion | Hastelloy | TFM™ | FKM |
| Wet chlorine gas (>1% H ₂ O) | Gaseous, highly corrosive, oxidizing | Metal corrosion | Titanium or Hastelloy | TFM™ | FKM |
| Hydrochloric acid | Corrosive, acidic | Metal corrosion | Hastelloy | TFM™ | FKM |
| Sodium hypochlorite | Corrosive, oxidizing | Metal corrosion | PFA encapsulated | PTFE | EPDM |
| Sour gas | Corrosive, explosive | Anti-static protection | Stainless steel or PFA-encapsulated | Conductive TFM™ | FKM |
| Organic solvents | Corrosive against plastic, explosive | Anti-static protection | Stainless steel | Conductive TFM™ | Silicone |
| Ammonia | Gaseous, corrosive | Resistance of sealing material | Stainless steel | PTFE | EPDM |
| Light choroalkanes | Corrosive, explosive | Anti-static protection, metal corrosion | Conductive PFA encapsulation | Conductive TFM™ | FKM |
| Steam | Gaseous, hot | Heat-resistant | Stainless steel | TFM™ | FKM (steam) |

