



# 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<sup>™</sup> (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

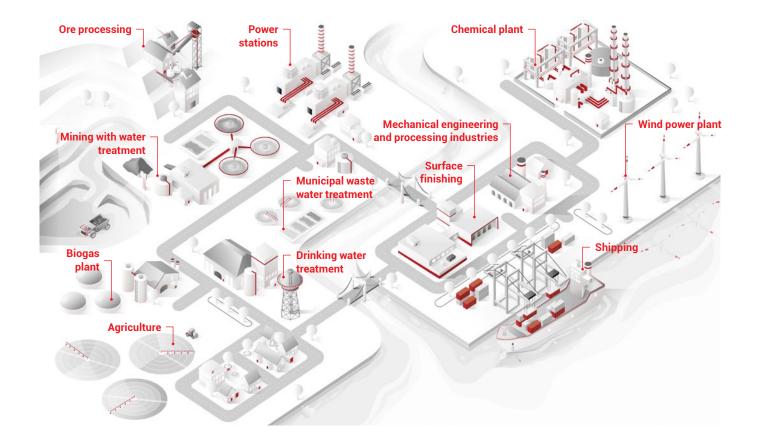
#### Sophisticated

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 <sub>2</sub> 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)



