

# Valves for the chemical and petrochemical industry



# Operating safety where it's needed:

closing without risk with the well  
proved FRIATEC-valves

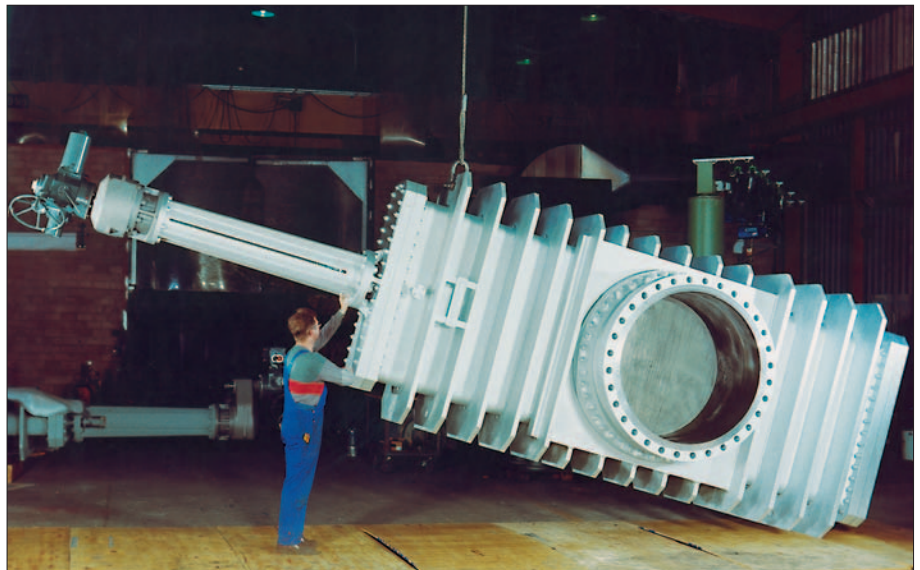
FRIATEC has developed special valves for various shut-off functions in the chemical industry. Our delivery program offers a wide range of valves, bottom globe valves, butterfly and shut-off valves in various special materials for corrosive or toxic media as well as for abrasive or solid particle containing media.

Even very difficult problems in ethylene-, PVC-, DMT-, sulphuric acid- etc. plants will be optimally solved by FRIATEC-Valves. The products correspond to the latest technical standard and will be developed and fabricated according to DIN/ISO 9001.

## RHEFLA- Flat Plate Gate Valve

according to the blank principle for liquid and gaseous media with high temperatures. The protected sealing rings in its different versions guarantee operating safety, also for difficult and dirty media.

This valve is universally applicable by a great variety of materials and designs in cast iron and steel welded version.  
DN 50-1600 (2"-64"); PN 10-100.



## RH-Wedge Gate Valve

made of special alloy for acids, lye's, abrasive and corrosive slurries as well as solid particle containing media. Single metallic tightening valves with special spring loaded spindle tightening and long life by regrindable sealing surfaces.

Optional extras with flushing connections and actuators.  
DN 25-600 (1"-24"); PN 25.

# Specialized valve for the chemical- and petrochemical industries

for the safe shut-off of pure and unpurified gases

TH. JANSEN  
+RHEINHÜTTE  
ARMATUREN



## DGV- Double-Gate-Valve

Zero-Leak Shut-Off valves, in welded construction, available in various materials.  
For dirty, high temperature and erosive shut-off tasks.  
Diverse, field exchangeable sealing elements for diverse operating conditions.  
Field adjustable pre-load sealing forces.  
Easy maintenance design without welding.

**DN 100-1500 (4"-60");**  
**Operating pressures up to 15 bar.**

## Goggle Valve

In welded steel design, for clean, dusty or contaminated gases.  
Anti-corrosion lining for aggressive gases.  
Mechanical and hydraulic clamping / declamping devices available.  
Horizontal or vertical installation position.  
Man-Safe-Shut-Off of pipelines in accordance to international safety regulations.

**DN 400-4000 (16"-160");**  
**Operating pressures up to 3,5 bar**



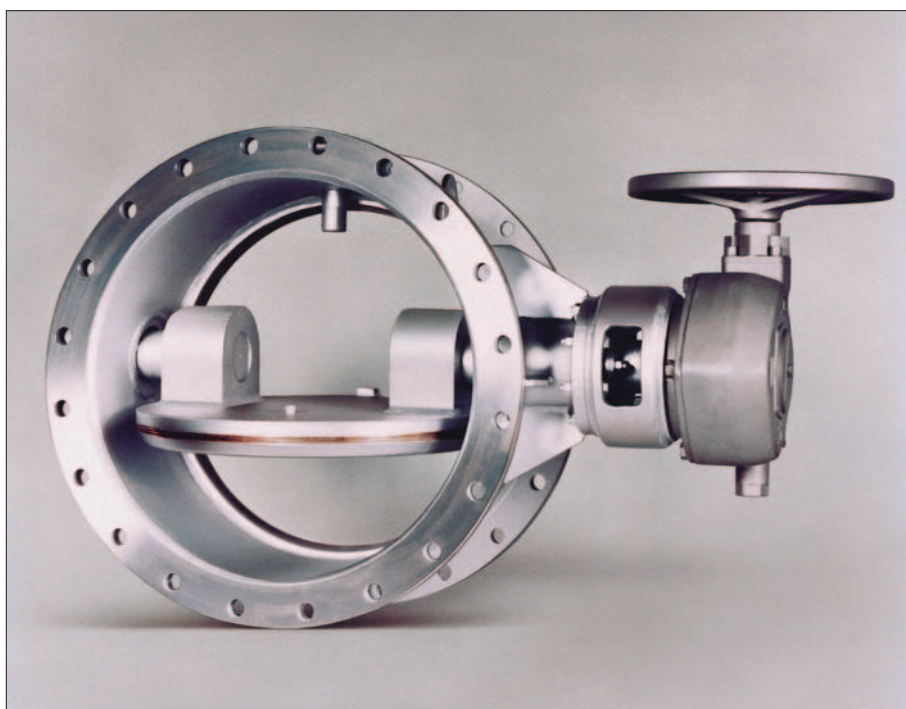
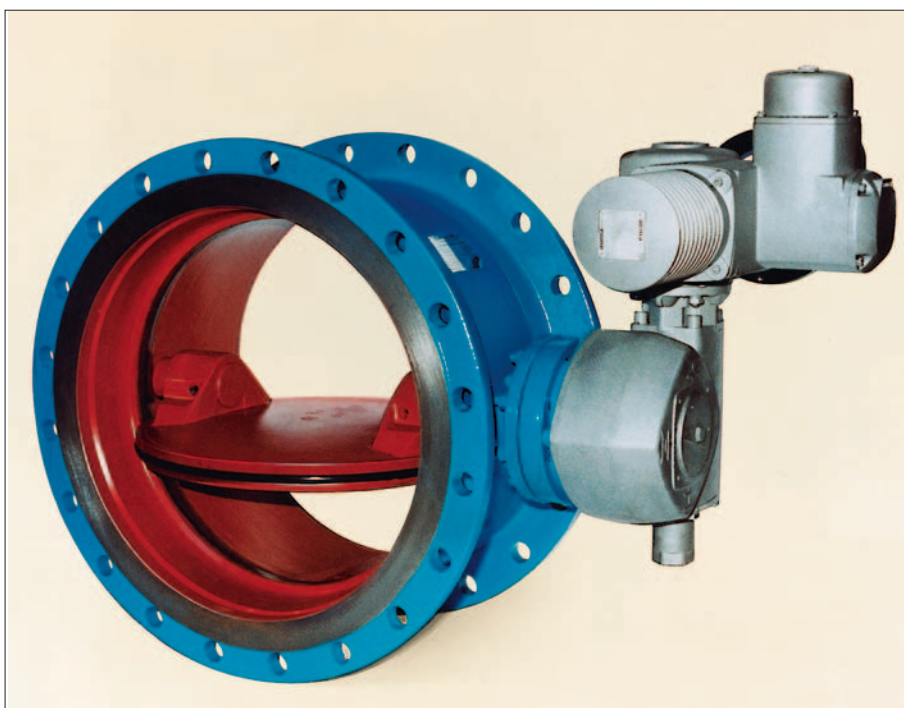
# FRIASEAL® -Valve

for a safe control of your medium

## FRIASEAL® Butterfly Valve

made of spheroidal cast iron or in steel welded execution. Soft sealed for liquids up to 100 °C and gases up to 150 °C.

- flange design acc. to DIN and international norms
- diameters up to DN 3400 (136")
- pres. rates from PN 2,5 up to PN 40
- installation in every positions
- tight closing in both flow directions
- various drive options by modular system
- corrosion protection:
  - epoxy resin powder coated
  - inside enamelling, rubber lining
  - 2-component epoxy coated
- special corrosion protection acc. to customer requirements



## FRIASEAL® Double eccentric Valve

in steel welded execution with flanges acc. to DIN and international norms.

- for gaseous and steam containing media up to 650 °C
- diameters up to DN 4000 (160")
- pres. rates from PN 1 up to PN 6
- installation in every positions
- tight closing
- various drive options by modular system
- special corrosion protection acc. to customer requirements

# Valve and Gate Valve

for a safe locking of oxygen and gaseous media

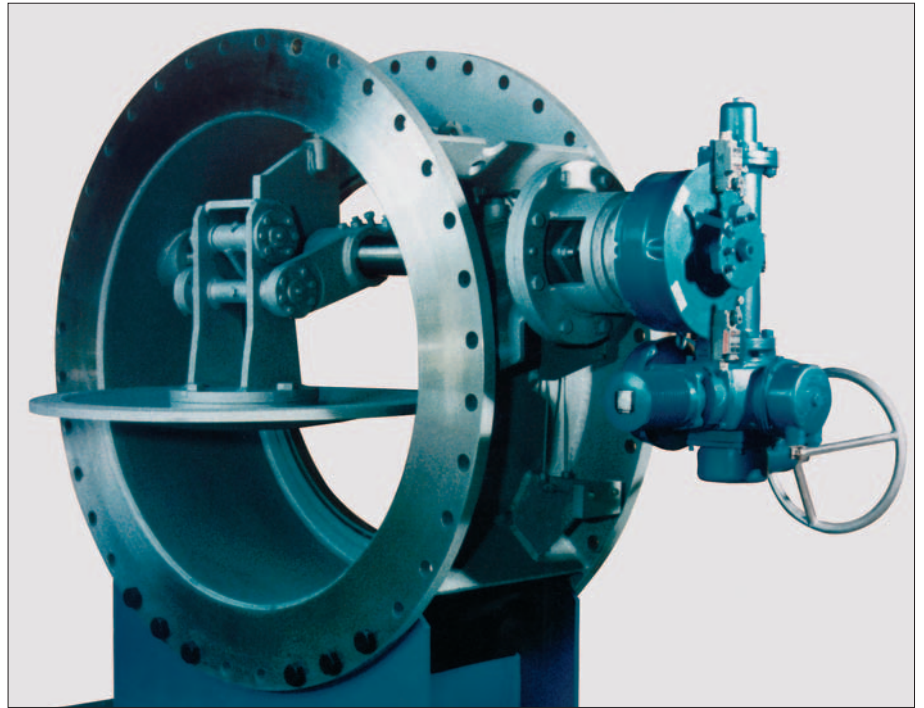
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VALVES

## FRIASEAL® Three Lever Valve

in steel welded version with flanges acc. to DIN and international norms.

Diameters up to DN 3000 (120")  
Nominal pres. from PN 1 up to PN 40

- for various fields of application for gaseous media
- functional safe mechanism
- process orientated seat sealing design guarantees the highest degree of sealing
- wear resistant lifting resp. pressing between valve disc and body sealing
- tightened bearing points
- installation in every positions
- different drive systems



## RHEFLA-Flat Plate Gate Valve for oxygen service

FRIATEC offers in the field of oxygen a wide range of flat plate gate valves with shut-off functions.

The so-called RHEFLA and RHEFLA-II-Valve in various designs, pressure rates and nominal diameters.

DN 50-500 (2"-20");  
PN 10-63

# FRIAFLOW®-Globe Valve in modular system

an economic solution to meet the various requirements in the chemical branch



## FRIAFLOW®- Straight seat and Free Flow Globe Valve

made of stainless steel or of a wide variety of special alloy. Spindle sealing by multi-wall bellows or packed gland. Special designs with heating jacket, several types of actuators and different cone designs are available.

The modular system of the FRIAFLOW®-Globe Valve offers quick and economical solutions to problems for different fields of application.

DN 25-350 (1"-14"); PN 10-100.

## FRIAFLOW®-Bottom Globe Valve

in modular system, adaptable to a wide variety of tank dimensions. Alternatively with cone opening into the tank resp. into the valve body. Replaceable seat bushing for easy maintenance.

- Heating jacket, actuators, bellows sealing and flushing
- connections can be provided as special execution.
- A wide range of materials from stainless steel up to special alloys. DN 25-350 (1"-14"); up to PN 10-100.



# RHEFLA-Flat Plate Gate Valve

an ideal solution for difficult shut-off tasks

TH. JANSEN  
+RHEINHÜTTE  
VALVES

Some high tanks, a tangle of pipelines, pumps and locking devices - this is at first glance a modern petrochemical production site today. Only an expert is able to evaluate correctly that here are going off procedures under very high temperatures and pressure conditions, which requires to each plant component the maximum amount of security and reliability. One example for the successful use of valves is the RHEFLA-flat plate gate valve from the valve division, by which many leading companies from the chemical branch have been equipped in the last decades. Many of them produce among other things ethylene, the fundamental material for further plastic processing.



In VC plants the RHEFLA-Valve guarantees a durable tightness at closing. The RHEFLA-Valve guarantees by a bellows sealing absolute tightness in chlorine electrolysis plants.

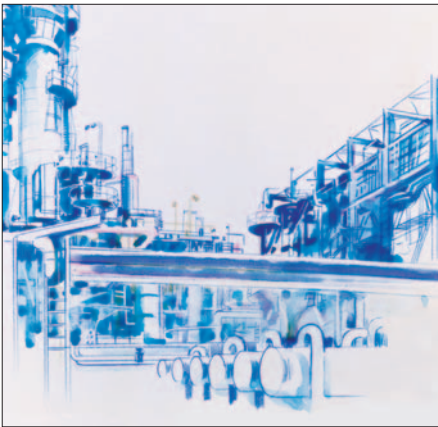


RHEFLA-Valves only require small revision intervals in ethylene plants due to its long service life.



In steel works RHEFLA-Valves are used due to its high operational safety and reliability for O<sub>2</sub>-shut-off.

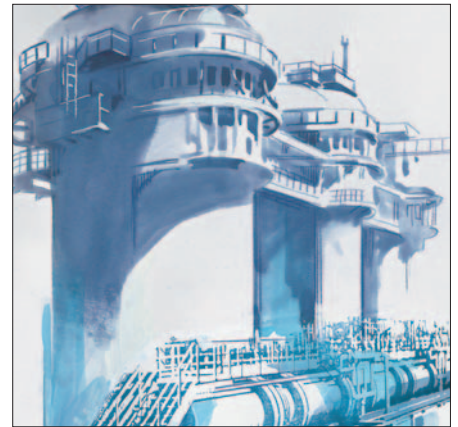
**Areas of activity:  
Shut-off valves for...**



**...Chemical Industry**



**...Power Stations**



**...Smelting Plants**



**...Gas Supply**

The Valve Division of the FRIATEC-Group originated from Messrs Th. Jansen Armaturen & Maschinenfabrik as well as the Valves Division of Messrs Rheinhütte GmbH & Co. and has been specializing for decades in heavy duty and special valves.

Problem solutions for specific application are acquired in close cooperation with the customer. This results in the development of process oriented special valve designs and manufacturing technologies.

The Valve Division offers specific shut-off systems for the chemical industry, power stations, smelting plants, gas supply and water management.

Further strengths and know-how are the application of high-grade corrosion and heat-resistant materials in fabricated and cast technology.



**...Water Management**