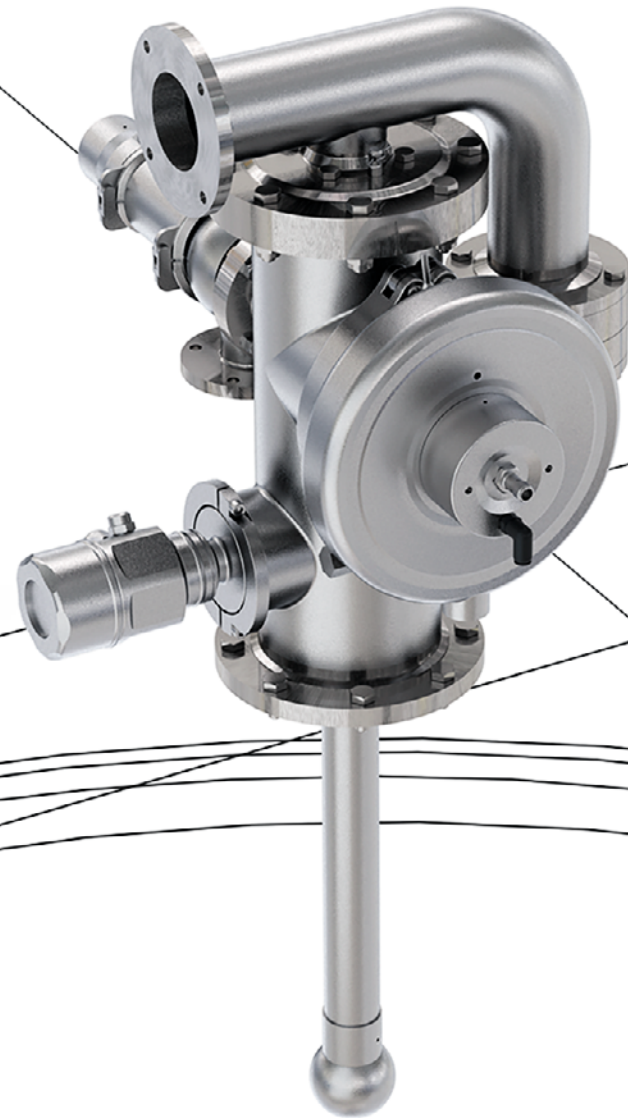


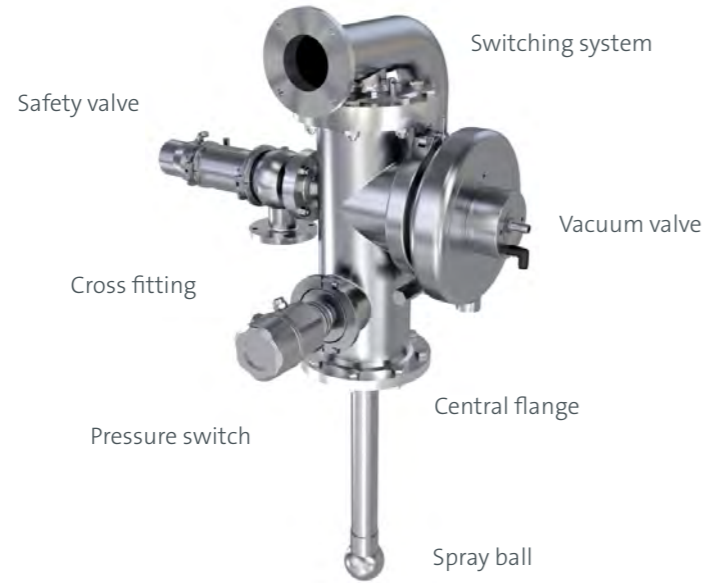
Vessel dome fittings

Tank safety and cleaning system



Vessel dome fittings – tank safety and cleaning system

Highly automated processes for the guidance of product, gas or cleaning fluid require the use of tank safety and cleaning systems. What is so special about our technology: we provide a modular design which can be individually adapted to suit customer requirements. Of course, the system's cleanability and hygiene are intensively tested in accordance with EHEDG guidelines.



Application

- Tank safety system with a safety valve to protect against overpressure and a vacuum valve against negative pressure
- Cleaning system with spray ball (static) or rotational cleaner (dynamic)
- Tank connection with central flange and a flange to the tank cover
- Switching systems for controlling the gas and CIP system
- Optional: pressure measurement in the cross fitting

Tank safety systems

Safety valve

Safeguarding against overpressure

- Checked with component identification from the TÜV SÜD technical inspection authority
- Horizontal and vertical installation possible
- EPDM sealant material (FDA-approved)
- Individually adjustable set pressure
- Optional: pneumatic lifting, feedback and heating



Safety valve

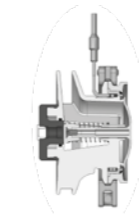


Safety valve with pneumatic lifting device

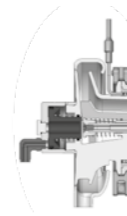
Vacuum valve

Safeguarding against negative pressure

- Responds at a negative pressure of 2.3 – 4.2 mbar
- Horizontal installation position
- Directly welded to the cross fitting
- Sealant material EPDM (FDA-approved)/VMQ
- With or without collector
- Optional: feedback and heating



Vacuum valve without collector



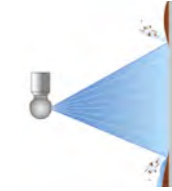
Vacuum valve with collector and pneumatically liftable

Cleaning systems

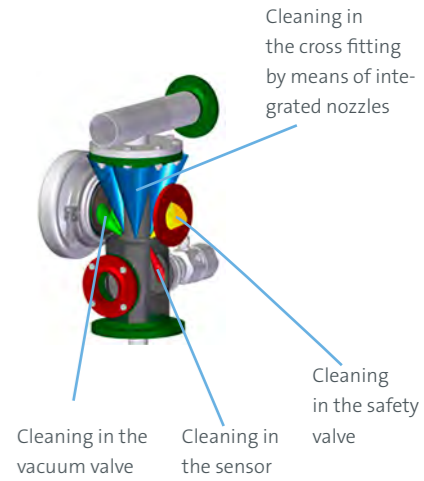
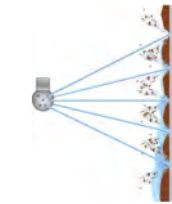
Tanks can be cleaned with a static spray ball or rotational cleaner

Rotational cleaner

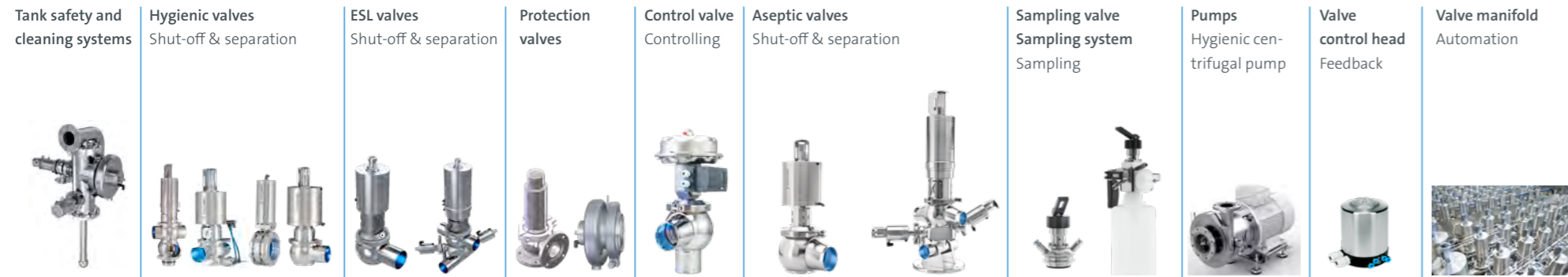
- High process safety
- Shorter cleaning time
- Lower process costs
- Optional: sensor for monitoring the rotation



Spray ball



Overview of our product range



Tank connections

Two alternative connections are possible:

Central connection

- Flange for cross fitting welded onto the tank

Tank dome cover

- Cover with connection geometry for the cross fitting
- Options for tank cover:
 - Cleaner rotation monitoring
 - Sight glass
 - Fill level probe



Switching systems for CIP and gas

BV switching module

- Switching valve
- Automatic
- Without auxiliary energy

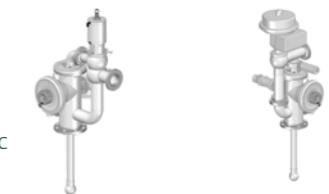


BV switching module

- Butterfly valve
- With auxiliary energy – pneumatic

SC switching module

- Divert valve
- With auxiliary energy – pneumatic



RV switching module

- Butterfly valve and control valve
- With auxiliary energy – electropneumatic

Technical data

Pressures

Product pressure	DN 100 to DN 150: 6 bar/vacuum -0.95 bar DN 200: 5 bar/vacuum -0.95 bar
Control air pressure	Min. 6 bar – max. 8 bar

Material

In contact with the product	1.4404/AISI 316 L
Not in contact with the product	1.4301, 1.4308, 1.4310
Seal	EPDM/FDA VMQ Other materials available upon request

Surface

In contact with the product	Ra ≤ 1.2 µm
Not in contact with the product	Ra ≤ 1.6 µm

Process data

BV switching module Automatic without auxiliary energy	Aeration and deaeration channel open Channel to cleaner open Automatic switching Gas pipe pressure-dependent Conversion to other parameters possible
SC switching module Pneumatic switching	The aeration and deaeration channel is open in the rest position Channel to cleaner closed Suitable for higher gas currents
BV switching module Pneumatic switching	The aeration and deaeration channel is open in the rest position Channel to cleaner closed Suitable for higher gas currents
RV switching module Deaeration control electropneumatic	Deaeration control Channel to cleaner closed

Versions

Connections	Welded end Thread according to DIN 11851 Clamp according to DIN 32676
Actuator	Pneumatic actuator NC
Additional equipment	Control head Proximity switch

company / cust.- ID Kunde / Kundennummer					
1	contact person Ansprechpartner	phone Telefon		email	
	project Projektbezeichnung	reference Referenz		date Datum	
tank data Tankdaten					
	tank size Tankgröße	hl	installation Aufstellung	vertical stehend	
2	tank height Tankhöhe	mm	outlet height Auslaufhöhe	mm	diameter Durchmesser
	design overpressure max. Überdruck	bar (g)	design vacuum zul. Unterdruck	bar (g)	
	max. filling capacity max. Befüllleistung	m³/h	outlet diameter freier Auslassquerschnitt	mm	
3	optional items cross piece Optionen Kreuzstück	inline connection DN 65 Inline Anschluss DN 65		pressure sensor Druckaufnehmer	
4	material of the seals Werkstoff Dichtungen	EPDM		FKM	
vacuum valve ⁽¹⁾ Vakuumventil					
5	optional items Optionen	pneumatic lifting device with drip pan Pneumatische Anlüftung mit Auffangschale		proximity switch Rückmeldung	
6	CIP- / gas management CIP- / Gasumschaltung	type 1 SM: automatic switching Typ 1 SM: automatische Umschaltung		type 2 BV: built-in Typ 2 BV: eingebaut	
		type 3 SC: divert valve Typ 3 SC: Wechsellventil			
	safety valve Sicherheitsventil	supply by custom			
7	optional items Optionen				

Request form for EVOGUARD vessel dome fittings available at: www.evoguard.com