

# HANDTMANN COMPONENTS

Valves and fittings for hygienic processes





# LATERAL THINKING

Products for your industry

**Worldwide breweries, beverage producers, dairies and food processing companies rely on Handtmann components. The high standards of hygiene make them a perfect fit for pharmaceutical, biotechnology and beauty care producers as well.**

For the high demands and special requirements in terms of material, cleanability, documentation and workmanship the Handtmann stainless steel components are best suited.

The extensive Handtmann quality assurance guarantees consistent product quality. Our manufacturing and assembly of components is done by highly qualified employees at our factory in Germany.

Renowned customers and global players trust our fittings due to the high quality material surfaces and welding seams. The production of special valves and fittings according to customers' requirements is also one of our strengths.



**Brewery**



**Food Industry**



**Dairy**



**Beverage Industry**



**Pharmaceutical, Beauty care  
and Biotechnology**



**Chemical Industry**



## Components of the highest quality.

### Your Benefits

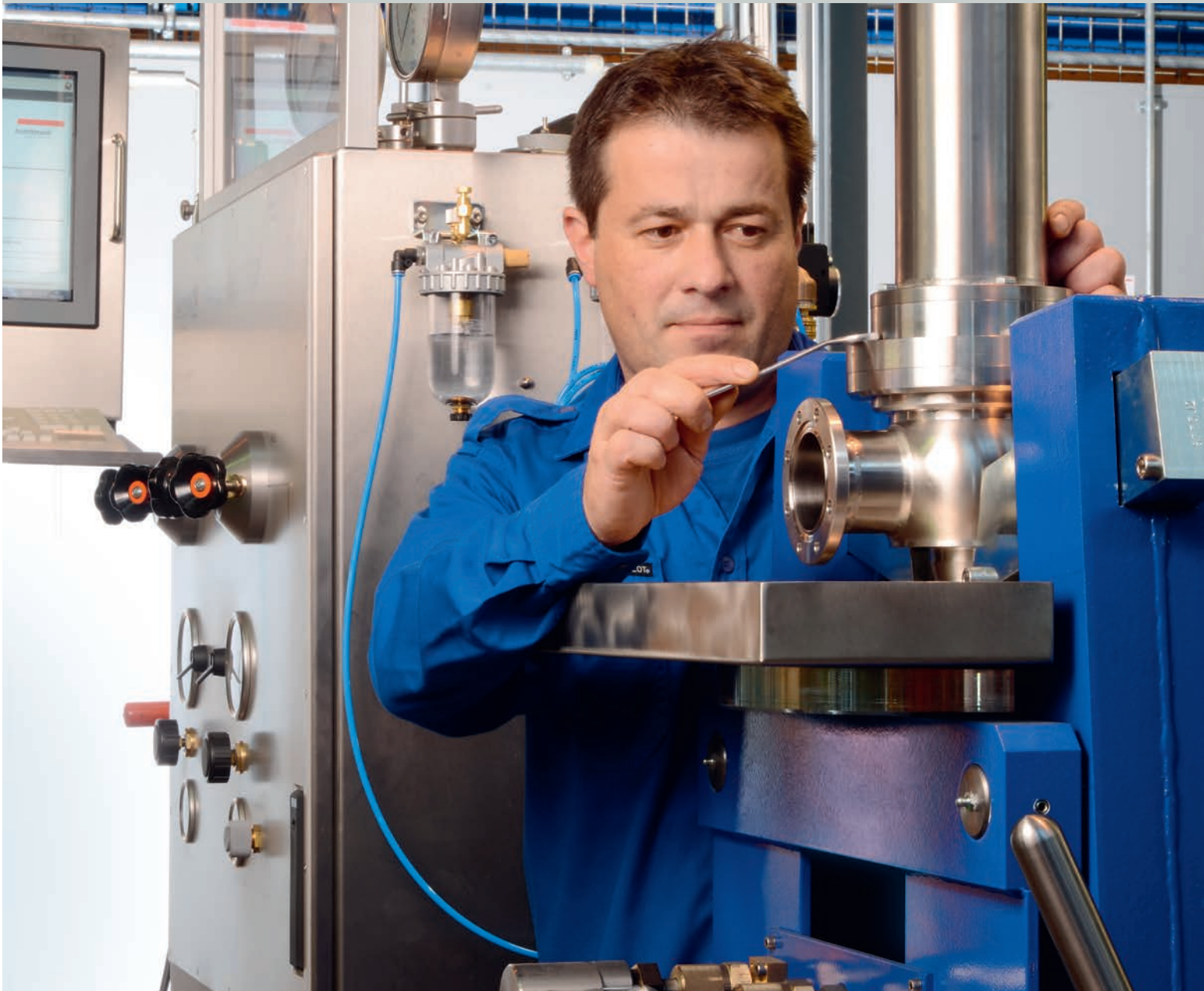
- All components and springs made of high quality stainless steel
- Screw connections as standard for high pressure applications (water hammer)
- Solid housings in "Hygienic Design"
- Optimized flow and discharge capacity
- Two pieces valve plate, defined sealing seat
- Low-maintenance design
- 100% function test - process reliability
- Compact drive concept
- Own production and assembly
- Construction and manufacturing to international standards
- Approvals and certification for global markets
- Worldwide delivery
- Service and customer oriented

→  
Handtmann safety valves  
can be ordered in various  
versions and capacities



# SAFETY & VACUUM VALVES

For fluids, steams and gases





↙  
Weight-loaded safety valve

↑  
Weight-loaded vacuum valve  
with pneumatic actuator

**Safety & vacuum valves of Handtmann are the first choice in hygienically sensitive areas of production, such as the food and beverage industries as well as the chemical-pharmaceutical industries.**

In closed systems, such as pressure vessels, tanks or pipes, safety valves for protection against overpressure and vacuum valves against underpressure are being used. In the context of safety and risk prevention such protection valves are a statutory must for every user.

**Product Properties Safety Valve**

- Pressure protection for fluids, steams and gases
- Nominal widths DN 8 - DN 125 (1/4" - 5")
- Opening pressure range 0.5 - 10 bar
- Surface according to DIN 11866 and ASME BPE-2002
- Temperature range according to customer requirements

**Product Properties Vacuum Valve**

- Underpressure protection
- Valve sizes DN 25 - DN 400 (1" - 16")
- Response pressure 3 - 200 mbar
- Surface according to DIN 11866 and ASME BPE-2002
- Temperature range according to customer requirements

The safety valves are designed, manufactured and tested according to the Pressure Equipment Directive (PED 97/23 / EC), certified and CE marked. You are always on the safe side with the Handtmann safety & vacuum valves.

**Your Benefits**

- Optimum cleanability due to smooth, mechanical or electropolished surfaces in different roughnesses such as Ra 0.8 - 0.38 micron
- "Hygienic Design" with completely gap-free and low dead volume design
- Flexibility due to variable process connections, spring- and weight-loaded valves
- Fully automated operation in a system during production, CIP and SIP by pneumatic lifting
- Safety due to one-piece ball housing, guided spindle and fixed seat
- User friendly and low maintenance
- Maintenance and seal replacement without special tools possible

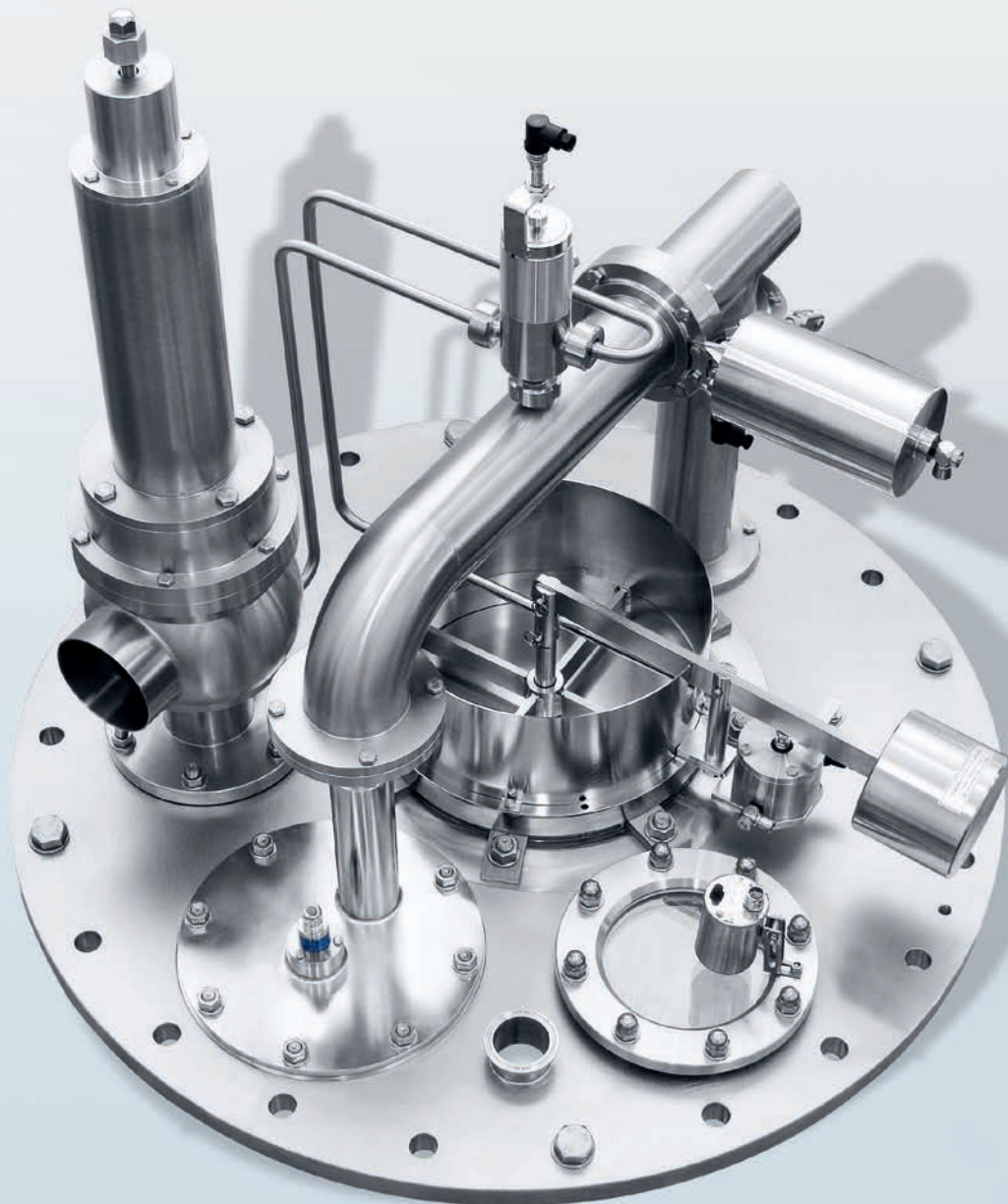
↙  
Handtmann safety valves are checked  
with the latest test bench technology

→  
Spring-loaded safety valve and  
weight-loaded vacuum valve as  
part of a dome cap



## TANK PROTECTION – DOME CAPS

Safety, functionality and hygiene





↶ Safety valve on a bioreactor

↷ Dome caps on a tankfarm

## From years of experience, the Handtmann dome caps became the benchmark for modular functional tank dome units.

Dome caps are designed primarily to protect against under- and overpressure in an otherwise closed tank. They are equipped with liftable safety and vacuum valves, as well as a self-emptying CIP connection (Cleaning In Place) for the cleaning of the tank. The use of controllable

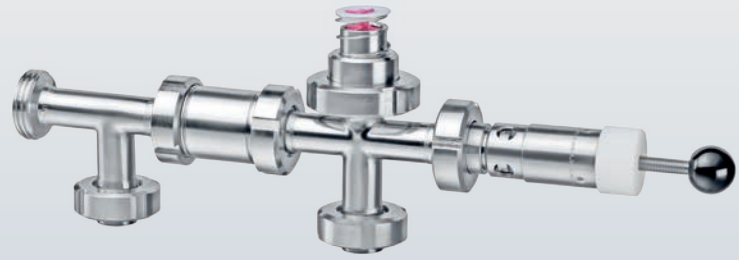
pressure regulation components, as well as level measurement allow the integration in an automated process. Special emphasis is placed on hygiene, i.e., ease of cleanability.

### Product Properties Dome cap

- Simple mechanical design, maintenance-friendly arrangement
- Various diameters available DN 400 - DN 800 (16" - 32")
- Can be equipped with various system components such as vacuum and safety valve, CIP connection
- Pneumatically liftable safety and vacuum valves
- Tank fitting in high quality stainless steel
- Complete unit CIP-able and self-draining
- Optimized hygienic flange
- Customized versions possible
- Integration into automated processes

### Your Benefits

- Product safety (under- and overpressure protection of the tank)
- User friendly and low maintenance due to screw-on version
- Flexibility through modular and customized solutions
- Short delivery time due to standard modular solutions
- Optimum cleanability due to smooth, mechanical or electropolished surfaces in different roughnesses such as Ra from 0.8 - 0.38 micron



→  
2-hole cleaning air valve combination with safety valve, vacuum valve and switch over valve

# TANK PROTECTION - CLEANING AIR VALVE COMBINATION

The compact alternative to dome caps







## TIONS (RLV)

↙  
1-hole cleaning air combination  
with integrated spray ball

↑  
2-hole cleaning air combination  
on a tank

**Especially for smaller tanks and containers a cleaning air valve combination (RLV) can be used instead of a dome cap.**

The compact multi-functional unit controls via an integrated mechanical switch valve the supply and discharge of various gas streams and CIP-liquids. For the protection of the tank it is also possible to directly integrate a

safety valve into this unit. This reduces the necessary number of connections into the tank or container.

### Product Properties RLV

- Maintenance-free switch valve
- Pneumatically liftable safety and vacuum valves
- Various diameters available DN 25 - DN 100 (1" - 4")
- Complete tank fitting in high quality stainless steel
- Combination with one or two tank connections
- Complete unit CIP-abled and self-draining
- Optimized hygienic flange
- Customized versions possible
- Integration into automated processes

### Your Benefits

- Product safety (under- and overpressure protection of the tank)
- User friendly and low maintenance due screw-on design
- Flexibility through modular and customized solutions
- Short delivery time due to standard modular solutions
- Optimum cleanability due of smooth, mechanical or electropolished surfaces in different roughnesses such as Ra from 0.8 - 0.38 micron

→  
Leakage pipes on a double  
seat valve block



## DOUBLE SEAT VALVES INOVA

For safe product and media separation





↩ Double seat valve type INOVA

↑ Valve block

## The innovative double seat valve INOVA exceeds the growing demands of “Hygienic Design”.

In critical product interfaces, double seat valves INOVA are being used. These valves assure the safe product and media separation, as well as a leak-free product and media distribution.

### Product Properties Double seat valve

- Nominal widths DN 50 - DN 150 (2" - 4")
- Working pressure 0 - 10 bar (control air pressure 5 - 8 bar)
- Pressure shock-proof up to 50 bar
- Medium-touched components 1.4404, 1.4435
- Non-wetted parts material 1.4301
- Surface finish medium-touched components Ra ≤ 0.8 micron
- Outside surface Ra ≤ 1.6 micron
- Temperature range 0 - 140°C
- Seal material EPDM (FDA compliant)
- Chambered sanitary gaskets for the upper and lower seat
- Individual CIP-leakage monitoring the sealing areas in the product space
- Independent flow direction from top to bottom and vice versa

The double seat valves are designed according to EHEDG guidelines and certified. Adapted to your process, various types are available.

### Your Benefits

- Balancer cleaning
- All product parts are cleaned during CIP process
- Closed lantern - no accumulation of dirt on moving parts
- Custom ring gap for the seat lift guarantees validated flushing
- Minimum number of seals in the product space for the most stringent hygienic requirements
- Reproducible screw connections guarantee the valve seating position
- Universal actuator covers all process requirements

→  
Handtmann butterfly valves  
in various versions



## BUTTERFLY VALVES & SINGLE SEAT VALVES

For the shut-off of process media





↩ Single seat valve

↑ Precise manufacturing and quality assurance

## Handtmann butterfly valves and single seat valves are a reliable alternative to distribute and shut off liquids and gases.

The variety of valve types, if necessary with a control unit, constitutes for many applications the optimum valve solution. Handtmann butterfly valves are constructed according to the EHEDG guidelines.

### Product Properties Butterfly Valve

- The butterfly valve with various process connections
- High-quality surface  $Ra \leq 0.8$  microns
- Nominal widths DN 25 - DN 200 (1" - 8")
- Working pressure 0 - 10 bar (control air pressure 5 - 8 bar)
- Material of wetted parts 1.4307, 1.4404, 1.4435
- Material non-wetted parts 1.4307, 1.4301
- Surface finish of wetted parts  $Ra \leq 0.8$  micron
- Outside surface  $Ra \leq 1.6$  micron
- Temperature range 0 - 140°C
- Seal material EPDM (FDA compliant)

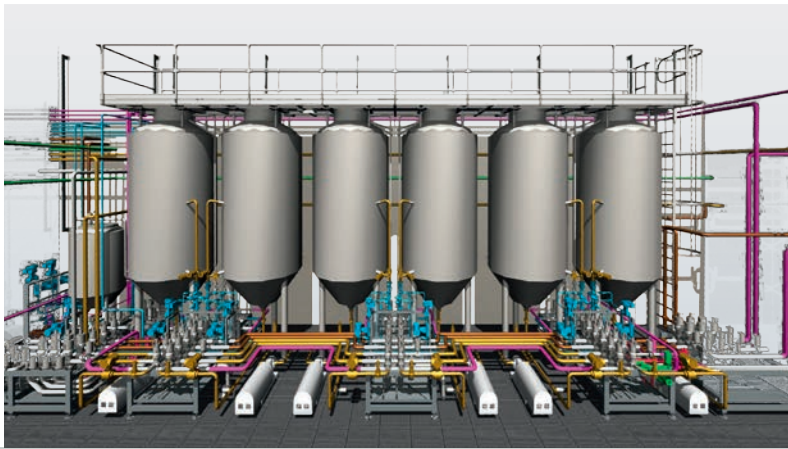
### Product Properties Single Seat Valve

- Process-optimized product design space
- Valve design hermetically closed to the environment
- Ball housing with variable nozzle configuration
- Optional Handtmann control head V.CON

### Your Benefits (Butterfly Valve and Single Seat Valve)

- Easy to clean with high hygienic safety
- High process flexibility due to modular system
- Connections will fit to Handtmann double seat valves
- Reliable low-maintenance design

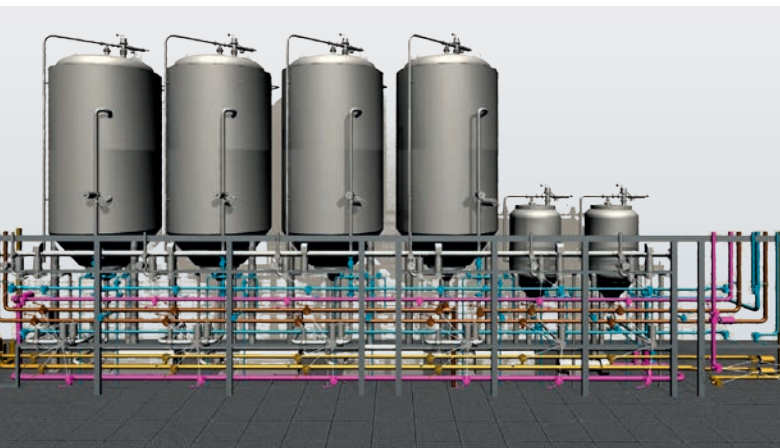
→  
VERSA FLEX Yeast Management,  
the fully automated spa & wellness  
for your yeast cells



# TECHNICALLY PERFECT, RELIABLE AND OF HIGHEST

The systems engineered and manufactured by Handtmann





YEAST WRANGLER semi-automated

## QUALITY

**In addition to manufacturing high quality components, we offer process equipment for the beverage industry, the biotechnology and the chemical-pharmaceutical industries.**

Thoughtful feasible solutions from detailed planning to production and to global commissioning are the pillars of our success. This is especially true for the high hygienic demands in our product-sensitive areas.

Our engineers have many years of experience and process engineering know-how. A personal and professional support is guaranteed.

Our range of services includes engineering systems for yeast cellars, fermenting and storage cellars, filter cellars as well as bright beer tank areas and various CIP-systems.

Furthermore we design and provide all piping systems for the supply media. Our manufacturing facilities are operated by qualified staff and are subject to permanent quality control and assurance.

# YOUR PARTNER.

Made in Germany

