

HANDTMANN COMPONENTS

Valves and Fittings for Hygienic Processes - Technical Data



OUR EXPERIENCE - YOUR SAFETY

Products for your Industry

Handtmann specialises in safe and reliable conveyance of liquid and gaseous media in the food industry. The business segments of Handtmann include components and valves, filtration and separation solutions, plant construction and comprehensive consulting services.

Due to the high hygiene standards of the valves, they can be used by companies active in the fields of hygienic process engineering as well as in the beverage, dairy, chemical, bio and cosmetics industries.



Brewing Industry



Chemical Industry



Beverage Industry



Food Processing Industry



Dairy Industry



Pharmaceutical-,
Cosmetics- and Bio-Industry





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Product film tank protection:

Scan QR code with your smartphone or tablet -> watch the video of the Product film tank protection directly on the Handtmann website.

TANK DOME CAP

Modular, technical platform for a simple combination of different functions

Modular assembly with various customized connection options

YOUR BENEFIT:

Flexibility and tailor-made solutions combined with short delivery times



One modular connection platform only, instead of multiple connections

YOUR BENEFIT:

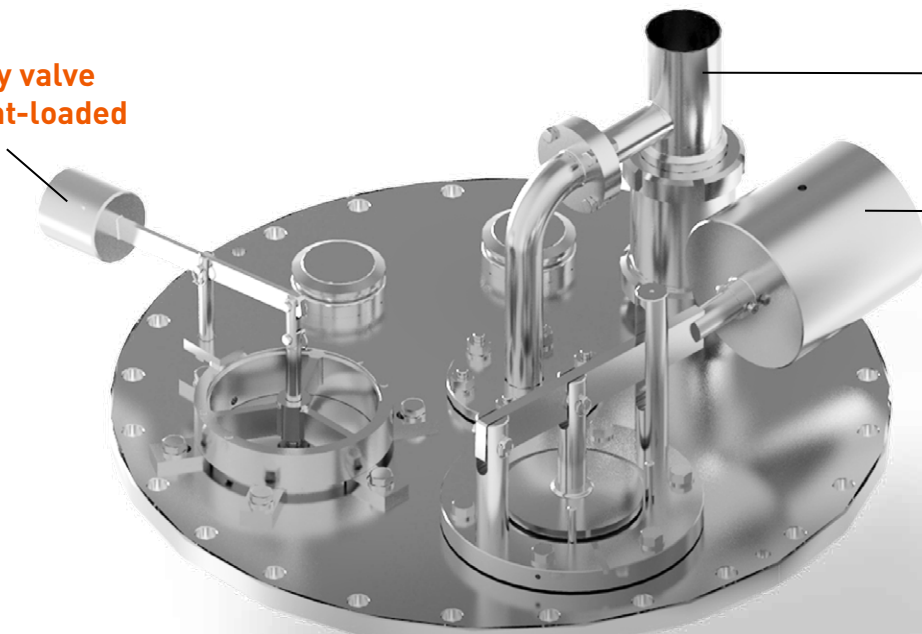
Cost and time saving

TANK DOME CAP TYPE 1 & TYPE 2

Safety valve
weight-loaded

RLV-combination

Vacuum valve
weight-loaded



19500 Type 1
Tank Dome Cap

Vacuum valve weight
loaded with
pneumatic lifting,
proximity switch and
CIP-supply/splash guard

Handtmann spray ball

Safety valve weight
loaded with
pneumatic lifting,
proximity switch and
CIP-supply/splash guard



19500 Type 2
Tank Dome Cap



←
1-hole cleaning-air-valve combination (RLV)
Type 09713



←
1-hole cleaning-air-valve combination (RLV)
Type 09712 DN65

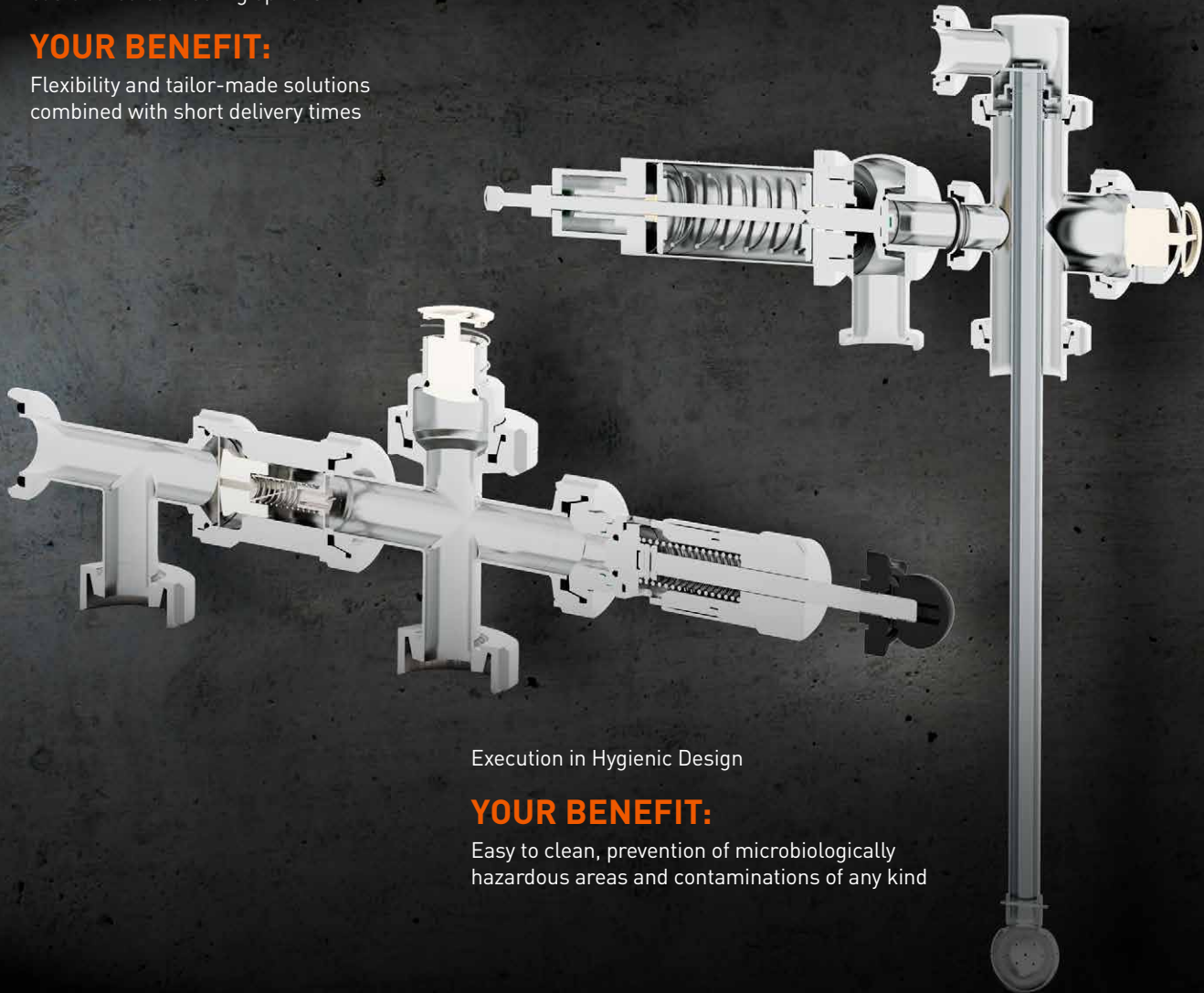
CLEANING-AIR-VALVE COMBINATION (RLV)

Compact, modular, mechanical combination of various functions

Modular assembly with various,
customized connecting options

YOUR BENEFIT:

Flexibility and tailor-made solutions
combined with short delivery times



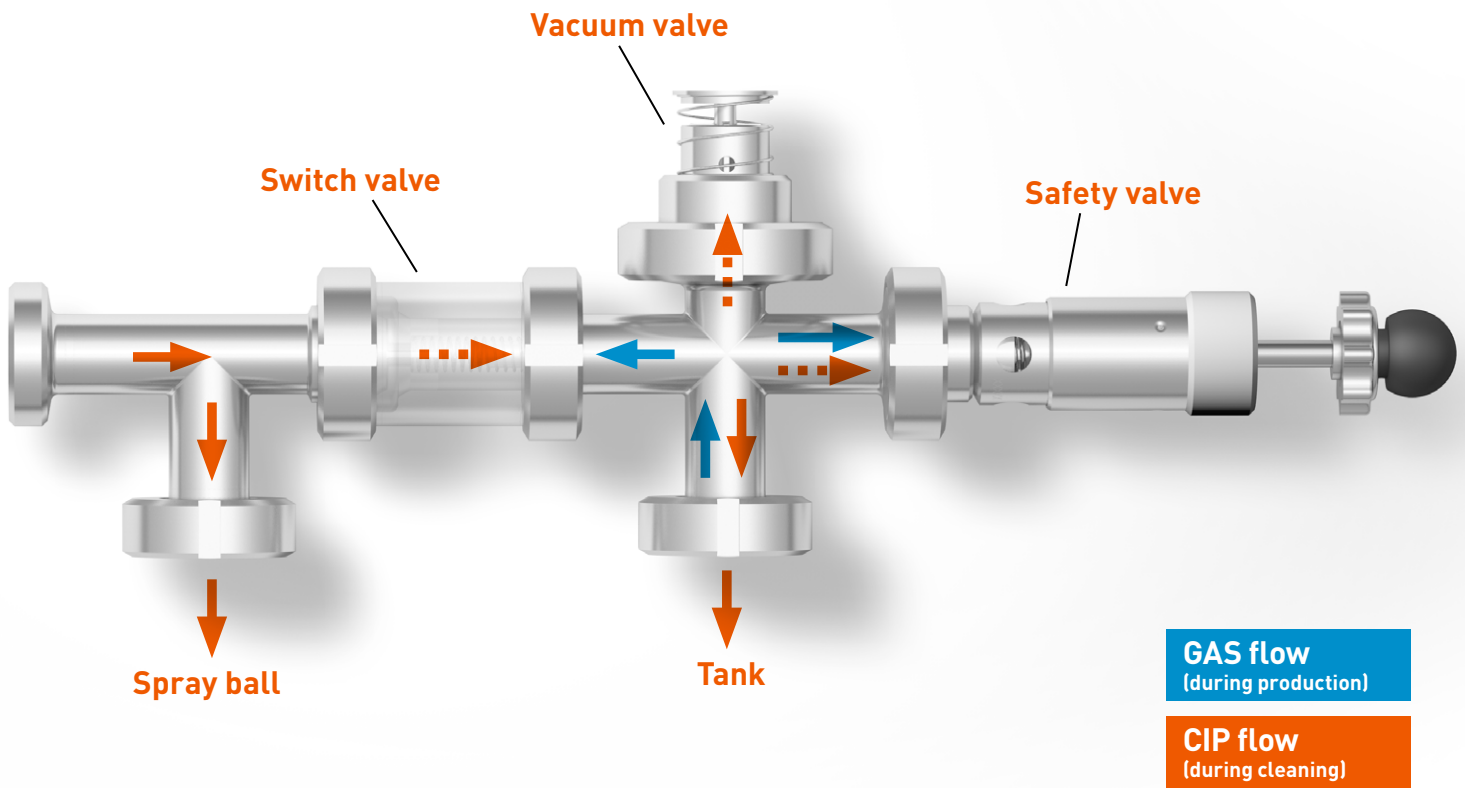
Execution in Hygienic Design

YOUR BENEFIT:

Easy to clean, prevention of microbiologically
hazardous areas and contaminations of any kind



↑
2-hole cleaning-air-valve combination (RLV)
Type 09902



Production

- The tank is secured against overpressure and vacuum

Cleaning

- Tank CIP via spray ball, mounted at the first tank connection.
- Approx. 90 % of the CIP liquid are being led through the spray ball for tank cleaning.
- Approx. 10 % of the CIP liquid flows through switch valve, and cleans the seats of vacuum and pressure relief valve, too.



← Safety valve weight-loaded
Type 32010

SAFETY VALVES

For overpressure protection of tanks and systems

Double guided valve rod,
high quality pressure spring made of stainless steel

YOUR BENEFIT:

Vertical or horizontal installation and
reproducible, safe function even in critical
operating conditions

All valve parts are exclusively
made of stainless steel

YOUR BENEFIT:

Long-lasting, safe and
low-maintenance application



Optimized valve disc construction for an
easy on-site replacement of the seals.

YOUR BENEFIT:

Cost- and time saving



← Minimal dead space safety valve
Type 33503



← INOVA safety valve
ASME (UV) execution
Type 33551

Type	33551 ASME	33651 ASME	33501 33521	33601 33621	33503 33603	33502	33602	32500 32501 32502	32503	32603	32504	32604	32010
Nominal DN-sizes	25 – 80	25 – 80	15 – 80	15 – 80	40 – 80	50	50	15 – 25	15 – 40	15 – 40	25 – 40	25 – 40	65 – 125
Nominal OD-sizes	(1" - 3")	(1" - 3")	(½" - 3")	(½" - 3")	-	50 (2")	50 (2")	(½" - 1")	(½" - 1 ½")	(½" - 1 ½")	(½" - 1 ½")	(½" - 1 ½")	(2½" - 6")
Set pressure (special pressure on request)	1,0 – 10,0 bar	1,0 – 10,0 bar	0,5 – 10,0 bar	0,5 – 10,0 bar	0,5 – 10,0 bar	0,5 – 10,0 bar	0,5 – 10,0 bar	0,5 – 5,0 bar	0,5 – 10,0 bar	0,5 – 10,0 bar	0,5 – 10,0 bar	0,5 – 10,0 bar	0,5 – 5,0 bar
Media: Steams, gases, liquids													
Functional principle	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	■
Options													
Manual lifting	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Pneumatic lifting	-	✓	-	✓	✓	-	✓	-	-	✓	-	✓	✓
Proximity switch	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Heating device	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Scale for pressure adjustment	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-
Sealing against changing the pres- sure, changing the spring and by TÜV	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-

General execution:

Materials: 1.4301, 1.4307, 1.4404

Sealing materials: EPDM, FKM,

- Range of application: from 0-90°C, +140°C short term

Surface roughness of media touched parts: Ra ≤ 0,8 µm [other surface qualities on request]

Connection options:

Tri-clamp connection: DIN 32676, ASME BPE, ISO 2852, DIN 11853/11864

Thread: DIN 11851, DIN 11853/11864

Welding end: DIN 11850

Flange connection: DIN EN 1092, ASME B16.5, DIN 11853/11864

Collar coupling: DIN 11853/11864

Cone/Nut: DIN 11851

Special connections on request

Functional principle:

Δ Spring-loaded

■ Weight-loaded

Liquids

Steams

Gases



←
Vacuum valve weight-loaded
with lifting device
Type 12504

VACUUM VALVES

For the vacuum protection of tanks and systems

Separation of housing and flange; easy on-site replacement of the seals without complete disassembly of the valve, or any special tools

YOUR BENEFIT:

Cost and time saving

Hygienic Design execution

YOUR BENEFIT:

Easy to clean, prevention of microbiologically hazardous areas and contamination of any kind.

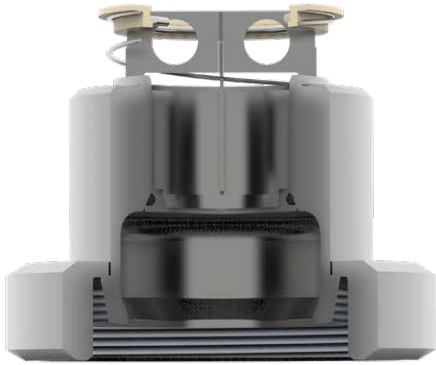


Guided valve disk

YOUR BENEFIT:

Safe function even in
critical operating conditions

→
Cut model
Vacuum valve
Type 12525



→
Vacuum valve
spring-loaded
Type 12537



Type	12501	12525	12537	12515	12502	12519	12504	12819	12507
Nominal DN-sizes	25-80	25-80	50-80	100 -125	25-80	25-65	80-400	80-400	50-100
Opening pressure	3-5 mbar	3-5 mbar	3-5 mbar	3-5 mbar	3-5 mbar	3-5 mbar	3-5 mbar	3-5 mbar	3-5 mbar
Installation	vertical & horizontal	vertical & horizontal	horizontal	vertical	vertical	vertical	vertical	vertical	vertical
Functional principle	Δ	Δ	Δ	Δ	■	■	■	■	■
Options									
Manual lifting	✓	✓	✓	✓	✓	✓	✓	✓	-
Pneumatic lifting	-	-	-	✓	✓	✓	✓	✓	✓
Proximity switch	✓	✓	✓	✓	✓	✓	✓	✓	✓
Heating	✓	✓	✓	✓	✓	✓	✓	✓	✓
External CIP-device with splash guard	-	-	-	-	-	-	✓	-	-
Special opening pressure on request	-	-	-	-	✓	✓	3 - 200 mbar	3 - 200 mbar	-
Plastic valve cone	✓	-	-	-	✓	-	-	-	✓
Stainless steel valve cone	-	✓	✓	✓	at DN 80	✓	✓	✓	-

General execution:

Materials: 1.4307, 1.4404

Sealing materials: EPDM

- Range of application EPDM: from 0-90°C, +140°C short term

Surface roughness of media touched parts: Ra ≤ 0,8 μm (other surface qualities on request)

Functional principle:

Δ Spring-loaded

■ Weight-loaded

Connection options:

Cone/Nut: DIN 11851

Flange connection



←
Butterfly valve with control head
Type 448



←
Manual butterfly valve,
execution between flanges
Type 447

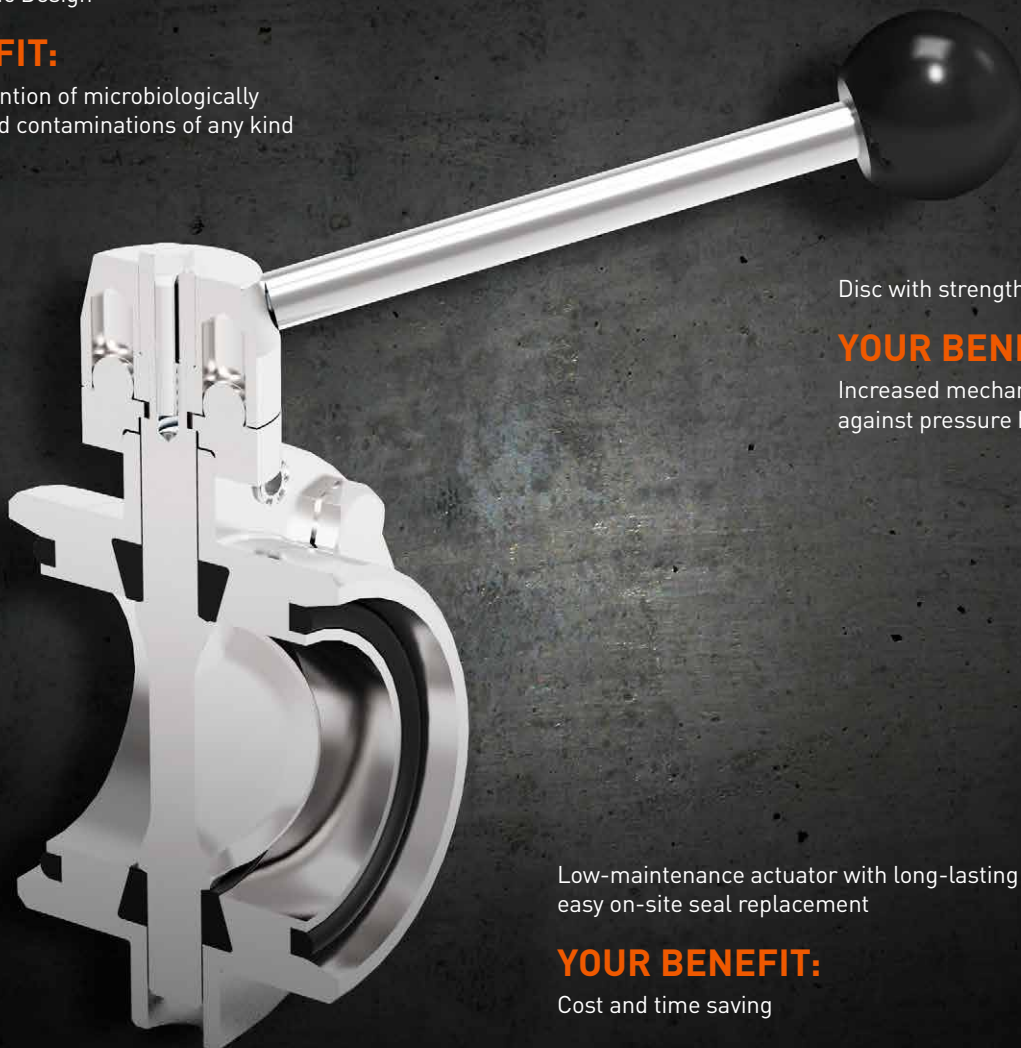
BUTTERFLY VALVES

For the control and regulation of process media

Execution in Hygienic Design

YOUR BENEFIT:

Easy to clean, prevention of microbiologically hazardous areas and contaminations of any kind



Disc with strengthened shaft

YOUR BENEFIT:

Increased mechanical stability
against pressure hammers

Low-maintenance actuator with long-lasting seal;
easy on-site seal replacement

YOUR BENEFIT:

Cost and time saving



←
Butterfly valve with pneumatic actuator
Type 44821



←
Control butterfly valve
Type 44937

Type	440	444	446	447	448 / 449
Nominal DN-sizes	25-150	25-150	25-150	25-200	25-200
Nominal OD-sizes	(1"-6")	(1"-6")	(1"-6")	(1"-8")	(1"-8")
Media: Steams, gases, liquids	  	  	  	  	  
Options					
Air-opening/spring closing	-	-	✓	-	✓
Design, Function					
Operating pressure: 0-10 bar	✓	✓	✓	✓	✓
Temperature: 0° to 95°C /150°C short-term	✓	✓	✓	✓	✓
Control head					
Electrical control: 4 - 20mA, Profibus	-	✓	✓	-	✓

General execution:



Materials: 1.4301, 1.4307, 1.4404

Sealing materials: EPDM, HNBR, FDA compliant

- Range of application EPDM: from 0-90°C, +140°C short term

Surface roughness of media-touched parts: Ra ≤ 0,8 µm (other surface qualities on request)

Functional principle:

-  Liquids
-  Steams
-  Gases

Connection options:

Tri-clamp connection: DIN 32676, DIN 11853/11864, OD

Thread: DIN 11851, DIN 11853/11864

Welding end: DIN 11850, OD

Cone/Nut: DIN 11851

Execution between flanges welding end: DIN 11850, OD

Special connections on request



←
INOVA double seat valve block

DOUBLE SEAT VALVES

For a safe separation of different media

Maintenance-free actuator;
easy on-site seal replacement

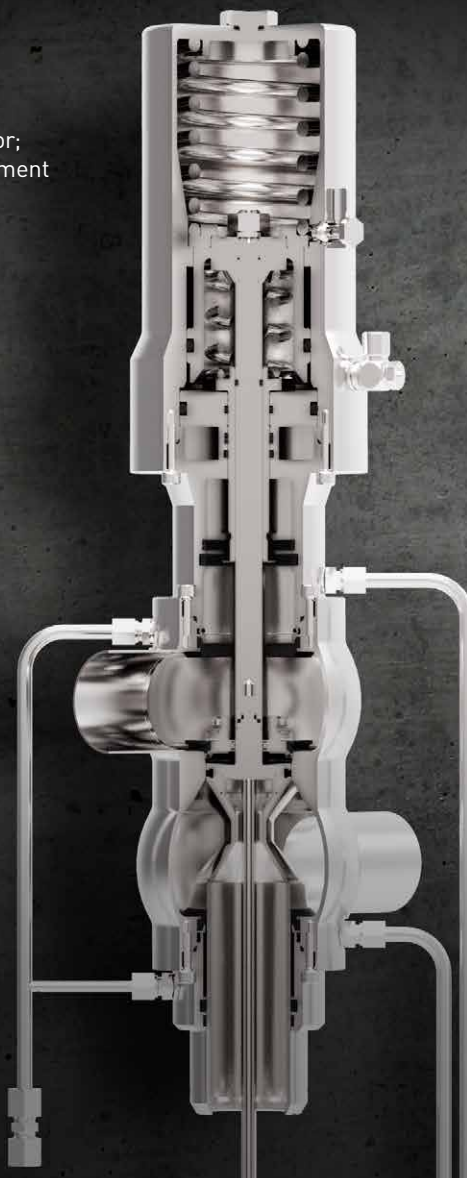
YOUR BENEFIT:

Cost and time saving

Double balancer

YOUR BENEFIT:

Pressure hammer protection



Separate leakage display
for the upper and lower lip seal

YOUR BENEFIT:

Product safety



← INOVA double seat valve
Type 491



← INOVA double seat valve with control head
Type 580

Type	491	580
Nominal DN-sizes Nominal OD-sizes	50 - 150/200 (2"-4")	50 - 150/200 (2"-4")
Media: Steams, gases, liquids		
Control air pressure	> 5 bar	> 5 bar
Pressure hammer protection	✓	✓
Leakage-free switching	✓	✓
Options		
Single seat lifting	-	✓
Leakage chamber cleaning	✓	✓
Balancer cleaning	✓	✓
Control unit (monitoring, control position, reply)	✓	✓
Connection head with display	✓	✓
Compressed air connection Ø 6/4 mm or 8/6 mm	✓	✓
Proximity switch	✓	✓
Various housing shapes (2-3-4 connections combinable with various DN-sizes)	✓	✓
Connection option ASI-Bus-Control	✓	✓
Design, function		
Set pressure: 0-10 bar	✓	✓
Temperature: 0° bis 95°C / 150°C short term	✓	✓

General execution:

Materials: 1.4301, 1.4307, 1.4404

Sealing materials: EPDM

- Range of application EPDM: from 0-90°C, +140°C short term

Surface roughness of media touched parts: Ra ≤ 0,8 µm (other surface qualities on request)

Functional principle:

Liquids

Steams

Gases

BLOCK AND BLEED VALVE COMBINATION

For leakage protection

Standardized components in Hygienic Design

YOUR BENEFIT:

Reliable separation of media and high process dependability and safety at work



Smart Design

YOUR BENEFIT:

Easy maintenance and supply of wear and tear parts

Flexible installation and modular design

YOUR BENEFIT:

Optionally single or multiple control and modular design



← Block and Bleed valve combination
Type 74830



← Block and Bleed valve combination
Type 74830

Type	74830							
Butterfly valves nominal sizes DN	25	40	50	65	80	100	125	150
Butterfly valves nominal sizes OD	(1")	(1½")	(2")	(2½")	(3")	(4")	-	-
Diaphragm valve DN	15	15	15	15	15	15	15	15
Operating pressure: 0-10 bar	✓	✓	✓	✓	✓	✓	✓	✓
Temperature 0 ° to 70 °C hot lye	✓	✓	✓	✓	✓	✓	✓	✓
Temperature 0 ° to 90 °C hot water / 140 °C short-term (with EPDM)	✓	✓	✓	✓	✓	✓	✓	✓

General execution:

Materials: 1.4301, 1.4404

Sealing materials: EPDM, FDA proof

- Range of application EPDM: from 0-90°C, +140°C short term

Surface quality of media touched parts: Ra ≤ 0,8 µm (other surface qualities on request)

Connection options:

Intermediate flange design welding end

Special connections on request

SPECIAL COMPONENTS

For process control, aeration and reliable separation of beer

Compact multi-functional unit for control, monitoring and checking

YOUR BENEFIT:

High durability in the event of pressure surges



Double tank outlet

YOUR BENEFIT:

For reliable separation of clear drainage and drainage of left-overs



Aeration system for yeast and wort aeration

YOUR BENEFIT:

Adaptation and integration for individual requirements



→
Aeration system
VARIO AIR
Type 740



→
System armature
Type 30807



Type	Aeration system type 74002	Aeration system type 74003	Aeration system type 74004
Nominal DN-sizes	25-150	25-100	25-80
Installation position	vertical & horizontal	vertical & horizontal	vertical & horizontal
Output	up to 1,900 hl/h	up to 500 hl/h	up to 250 hl/h
Design, Function			
Operating pressure: 0-10 bar	✓	✓	✓
Temperature 0° to 140°C	✓	✓	✓
CIP/SIP capability	✓	✓	✓

General execution:

Materials: 1.4307, 1.4404

Sealing material: EPDM

- Range of application EPDM: from 0-90°C, +140°C short term

Surface properties of media touched parts: Ra ≤ 0.8 µm (other surface qualities on request)

Connection options:

Coupling: DIN 11851, DIN 11864

Type	System armature type 308
Nominal sizes DN	25-100
Design, Function	
Operating pressure: 0-10 bar	✓
Temperature 0° to 95°C	✓

General execution:

Materials: 1.4307, 1.4404

Sealing materials: EPDM, HNBR

Surface quality of media touched parts: Ra ≤ 0,8 µm (other surface qualities on request)

Connection options:

Welding end: DIN 11851

Type	Double tank outlet type 30301
Nominal sizes DN	25-150
Tank connection DN	50-150
Drainage of clean media DN	25-100
Drainage of left-overs	25-100

General execution:

Materials: 1.4307, 1.4404

Sealing materials: EPDM, HNBR

Surface quality of media touched parts: Ra ≤ 0,8 µm (other surface qualities on request)

Connection options:

Welding end: DIN 11851

Flanges



OVERFLOW VALVES, PRESSURE RETENTION VALVES, BUNGING DEVICES

For process control

Variable 360°- connectivity
with double spherical housing

YOUR BENEFIT:

Flexibility and customer-specific
piping design: short delivery periods

Counter-pressure optimized construction
through valve piston with valve disk; Thus,
no impact of the function by counter-pressure

YOUR BENEFIT:

Protection of the system in case of emergency



One-piece double spherical
housing; Thus, very tiny distance
between the piping levels

YOUR BENEFIT:

Optimized integration into the
customer process



HOP TO THE TOP

Hop pellets will be dispersed on the complete liquid surface of the tank before settling through and getting dissolved into the beer.



The Handtmann Injector System, together with the Dry Hop Tank, enables gentle and continuous conveying of hop pellets to the top of fermentation/storage tanks.

YOUR BENEFITS:

- Safe operation on ground level (accident prevention)
- Easy process handling and moveable unit.
- No oxygen pickup during dry hopping due to preparation with CO₂.
- Dry Hop Tank including all pipes and fittings is fully CIP able.
- CO₂ rousing at the storage tank could be applied for homogenization.

Manufactured under license from patent owner of Port City Brewing Company, Alexandria, VA USA

Please get in contact with us for more solutions to complete the advanced performance for dry hopping, such as handtmann standpipes and semi-automated piping systems.

SERVICE SOLUTIONS

Long-term preservation of your components and systems

- Spare Parts, Care Packages & Service Tools
- Inhouse Service
- Quickcheck
- Full Service Packages
- Training

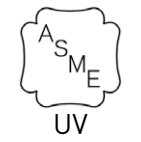
Feel free to contact us!

Handtmann,
Your partner for process safety
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CERTIFICATIONS

ASME



EAC



CE



EHEDG



TÜV Süd



YOUR PARTNER

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