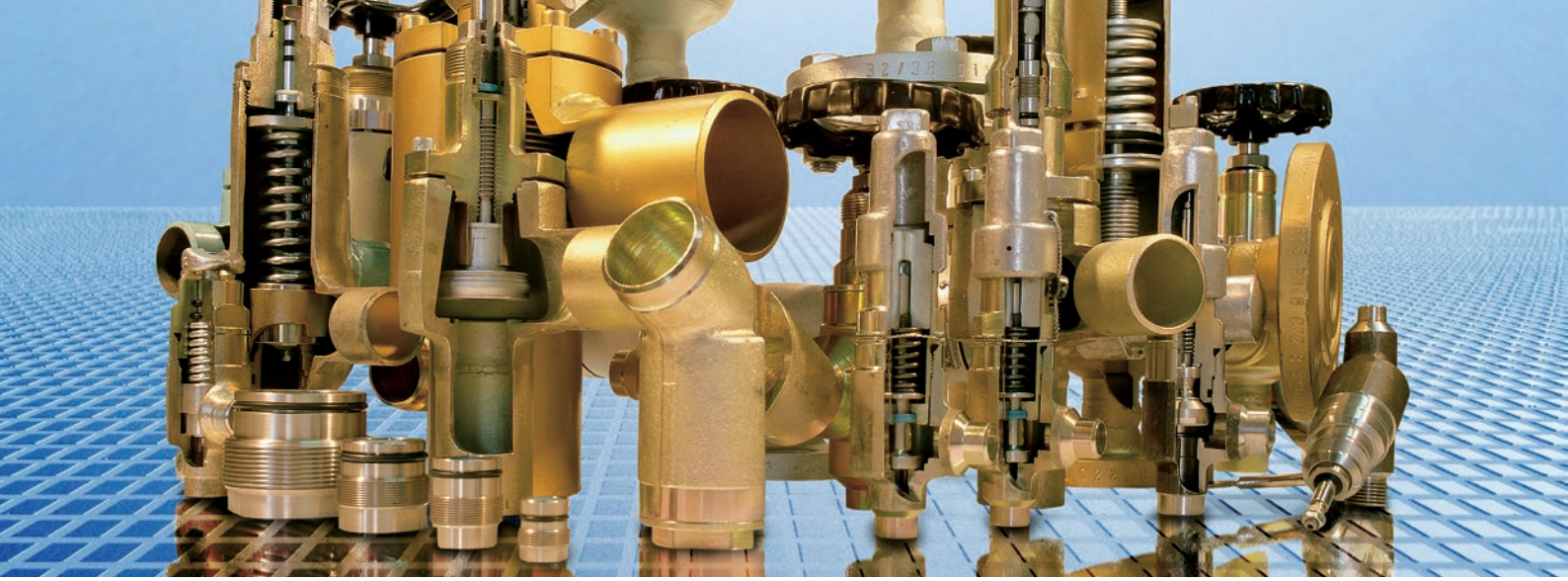
GEA AWP PRODUCT PROGRAM

Individual Engineering Solutions
for Industrial Refrigeration and Heating

GEA Engineering for a better world.

GEA.com



EFFECTIVE CUSTOMER SOLUTIONS FROM A VERSATILE PROGRAM

As specialists for the development and manufacture of key components and solutions for industrial refrigeration and heating, GEA AWP has a comprehensive product portfolio of valves, oil regulation systems and additional equipment.

Industrial Solutions with High Standards of Safety and Reliability

GEA AWP's components are used in facilities such as food and beverage processing, cold storage, industrial chemical plants, concrete cooling, oil, gas, chemical processing, marine equipment and also leisure facilities such as ice rinks and indoor ski slopes. Through close and committed collaboration with our customers and together with leading research institutes world-wide, we supply industrial valves and regulation equipment with a particular emphasis on the durability and reliability required to meet the rigors of industrial plant operation.

To this end, GEA AWP is certified by many of the world's leading certification and accreditation organizations serving industries based on all continents around the globe, meeting obligations in respect of regional and national standards of safety and performance reliability. International customers may have production and safety requirements tailored to individual applications which we are happy to provide.

The following is a selection of major international standards authorities who have awarded over fifty certification and accreditation approvals to GEA AWP's valves and regulation equipment.

STANDARD OR INDIVIDUAL SOLUTIONS

Five Decades of Experience in Designing and Manufacturing of Refrigeration Equipment

The engineering design and development department at GEA AWP works closely with customers on individual solutions and their performance requirements. The company commands a complete in-house manufacturing process using CNC machinery and state-of-the-art welding technologies. The innovative stem-sealing system is based on extremely high surface finishing and precision manufacturing to maintain a smooth operation over the long term and less than 5 grams (0.18 ounces) leakage per year. The materials used to manufacture our valves include steel, stainless steel, low temperature steel and aluminum. We are certified with the ISO 9001 and Pressure Equipment Directive 2014/68/EU to ensure customers of our commitment to international standards.

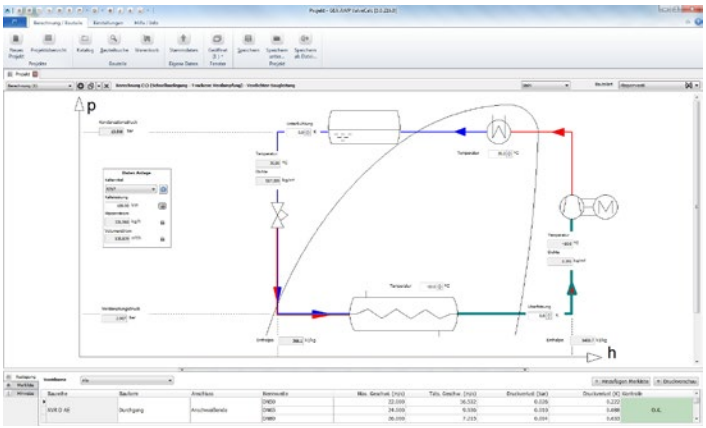
Personal Customer Service and Support

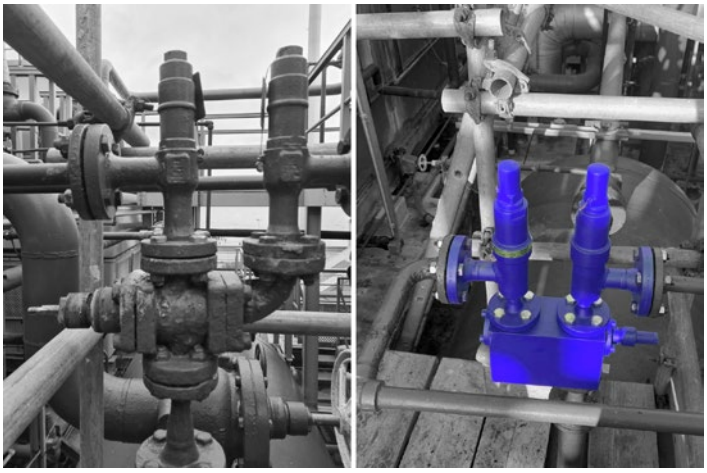
- Design, development and manufacturing in accordance with the customer's requirements
- Materials according to DIN/EN, ASME/ASTM and/or NACE
- Design, testing and official acceptance in accordance with ASME Pressure Vessel Directives, U- and UM-Stamp and Pressure Equipment Directive 2014/68/EU
- Certification according to classification authorities ATEX and/or TA Luft
- Documentation includes material certificates, quality and inspection plans, welding processes and testing results (non-destructive testing by x-ray, ultrasonic and dye-penetration)

Dimensioning Made Easy – with GEA AWP ValveCalc

Our design engineers are happy to assist customers with the dimensioning of valves, however, with GEA AWP's ValveCalc, an in-house developed software which is available free of charge, it is possible for our customers to accurately and independently select valves and piping including supply and blow-off lines for safety valve assemblies. The selection of the best-suited valves and equipment is made considerably easier with regard to the operating processes and conditions.

- Intuitive program operation
- Safety valves and overflow valves, optionally with supply and blow-off lines
- Dual safety-valves, optionally with supply and blow-off lines
- Different calculation standards for safety valves (AD2000 A2 / DIN EN 13136:2020 / API 520/521 / SR 09-592(595)-03)
- Calculation of branched lines as well as different fire zones possible
- Dry and flooded evaporation
- Brine circuits
- Extensive media database for refrigerants and natural gases
- Also available as a web-based application on our homepage





GEA AWP safety valves to easily replace third-party products

GEA AWP offers safety valves with dimensions especially adapted to meet those of third-party products. This makes a simple exchange in the system possible without any additional efforts.

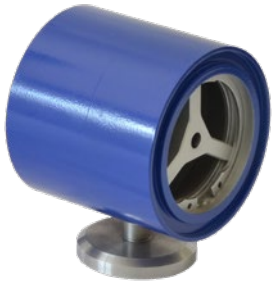
	HRS Service Valves Stem-sealing with Screwed-in Bush	HRSB Service Valves Stem-sealing with Metal Bellows	HRSN Needle Valves Stem-sealing with Screwed-in Bush
Design	straightway or angle type	straightway or angle type	straightway or angle type
Material	steel or stainless steel	stainless steel	steel or stainless steel
Nominal Diameter	DN 8-15	DN 8-15	DN 8-15
Nominal Pressure Level	PS 63	PS 40	PS 63
Temperature Range standard	-60 °C up to +150 °C	-60 °C up to +150 °C	-60 °Cup to +150 °C
Temperature Range HT-ventile	-10 °C up to +200 °C	-10 °C up to +200 °C	-10 °C up to +200 °C
Connections	butt welding ends as per DIN and ANSI, threaded ends	butt welding ends as per DIN and ANSI, threaded ends	butt welding ends as per DIN and ANSI, threaded ends
Additional Information	various fittings available	various fittings available	with pointed regulating cone for fine regulation various fittings available

	AVR Shut-off Valves Stem-sealing with Screwed-in Bush	AVB Shut-off Valves Stem-sealing with Metal Bellows	AVR / AVB Shut-off Valves with Electric Actuator
Design	straightway or angle type	straightway or angle type	straightway or angle type
Material	steel or stainless steel	steel or stainless steel	steel or stainless steel
Nominal Diameter	DN 6-500	DN 10-300	DN 25-500
Nominal Pressure Level	PS 25, PS 40, PS 63, PS 160	PS 25, PS 40	PS 25, PS 40, PS 63
Temperature Range standard	-60 °C up to +150 °C	-60 °C up to +150 °C	-60 °C up to +150 °C
Temperature Range HT-ventile	-10 °C up to +200 °C	-10 °C up to +200 °C	-10 °C up to +200 °C
Connections	butt welding and flanged ends per DIN and ANSI, brazed ends, threaded ends	butt welding and flanged ends per DIN and ANSI, brazed ends, threaded ends	butt welding and flanged ends as per DIN and ANSI
Additional Information	available with cover extension	available with cover extension	equipped with electric actuator

	KV / KVE / KVP Ball Valves	AK / AKE / AKP Butterfly Valves
Design	straightway type	straightway type
Material	steel or stainless steel	steel or stainless steel
Nominal Diameter	DN 15-200	DN 40-500
Nominal Pressure Level	PS 40, PS 63, PS 100	PS 25
Temperature Range	-50 °C up to +200 °C	-50 °C up to +150 °C
Connections	butt welding and flanged ends as per DIN and ANSI	flanged ends as per DIN and ANSI
Additional Information	available with lever for manual operation, as well as with electric or pneumatic actuator	

	HRAR Regulating Valves Stem-sealing with Screwed-in Bush	HRAB Regulating Valves Stem-sealing with Metal Bellows	SGL Inspection Sight Glasses (for Vessels)
Design	straightway or angle type	straightway or angle type	straightway type
Material	steel or stainless steel	steel or stainless steel	steel or stainless steel
Nominal Diameter	DN 6-250	DN 10-125	DN 10-200
Nominal Pressure Level	PS 25, PS 40, PS 63, PS 160	PS 25, PS 40	PS 25, PS 40, PS 63
Temperature Range	-60 °C up to +150 °C	-60 °C up to +150 °C	-50 °C up to +200 °C
Connections	butt welding and flanged ends as per DIN and ANSI, brazed ends, threaded ends	butt welding and flanged ends as per DIN and ANSI, brazed ends, threaded ends	butt welding ends as per DIN and ANSI, threaded ends
Additional Information	available with cover extension	available with cover extension	

	RV Check Valves	RVA Check and Shut-off Valve	RVAK Check and Shut-off Valve with Regulating Cone
Design	straightway or angle type	straightway or angle type	straightway or angle type
Material	steel or stainless steel	steel or stainless steel	steel or stainless steel
Nominal Diameter	DN 6-150	DN 10-250	DN 10-150
Nominal Pressure Level	PS 25, PS 40, PS 63	PS 25, PS 40, PS 63	PS 25, PS 40, PS 63
Temperature Range standard	-60 °C up to +150 °C	-60 °C up to +150 °C	-60 °C up to +150 °C
Temperature Range HT-ventile	-10 °C up to +200 °C	-10 °C up to +200 °C	-10 °C up to +200 °C
Connections	butt welding and flanged ends as per DIN and ANSI, brazed ends, threaded ends	butt welding and flanged ends as per DIN and ANSI, brazed ends, threaded ends	butt welding and flanged ends as per DIN and ANSI, brazed ends, threaded ends
Additional Information		available with cover extension and linear ball bearing	available with cover extension and linear ball bearing



	RVZ Check Valves	SS Strainers	FT Filter Driers
Design	straightway type (clamped design)	straightway or angle type	
Material	steel or stainless steel	steel or stainless steel	steel or stainless steel
Nominal Diameter	DN 25-400	DN 10-350	DN 20-150
Nominal Pressure Level	PS 25, PS 40, PS 63	PS 25, PS 40, PS 63, PS 160	PS 25, PS 40
Temperature Range standard	-60 °C up to +150 °C	-60 °C up to +150 °C	-60 °C up to +150 °C
Temperature Range HT-ventile	-10 °C up to +200 °C	-10 °C up to +200 °C	-10 °C up to +200 °C
Connections	flanged ends as per DIN and ANSI	butt welding and flanged ends as per DIN and ANSI, brazed ends, threaded ends	butt welding and flanged ends as per DIN and ANSI
Additional Information	available with hot gas connection, linear ball bearing and oil drain	available mesh sizes (µ): 63 / 80 / 100 / 135 / 150 / 200 / 250 / 500	

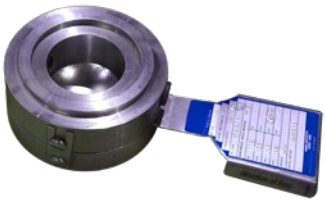
	SF / SFR Suction Filters	SF-AVR / SFR-AVR Suction Filter Combinations	SFCS Suction Filters
Material	steel or stainless steel	steel or stainless steel	steel or stainless steel
Nominal Diameter	DN 80-500	DN 80-500	DN 80-500
Nominal Pressure Level	PS 25, PS 40, PS 63	PS 25, PS 40, PS 63	PS 25, PS 40, PS 63
Temperature Range standard	-60 °C up to +150 °C	-60 °C up to +150 °C	-60 °C up to +150 °C
Temperature Range HT-ventile	-10 °C up to +200 °C	-10 °C up to +200 °C	-10 °C up to +200 °C
Connections	flanged ends as per DIN and ANSI	flanged ends as per DIN and ANSI	flanged ends as per DIN and ANSI
Additional Information	available mesh sizes (µ): 63 / 80 / 100 / 135 / 150 / 200 / 250 / 500 available with integrated check valve		

	TR Thermostatic 3-way Valves	Service and Needle Valves with Electric Actuator
Material	steel or stainless steel	steel or stainless steel
Nominal Diameter	DN 20-150	DN 8-15
Nominal Pressure Level	PS 25, PS 40, PS 63	PS 63
Temperature Range standard	-60 °C up to +150 °C	-60 °C up to +150 °C
Temperature Range HT-ventile		-10 °C up to +200 °C
Connections	butt welding and flanged ends as per DIN and ANSI	butt welding ends as per DIN and ANSI, threaded ends
Additional Information		equipped with electric actuator

	WVR 3-way Valves Stem-sealing with Screwed-in Bush	WVB 3-way Valves Stem-sealing with Metal Bellows	WVR AL 3-way Valves in Compact Design
Material	steel or stainless steel	steel or stainless steel	aluminum
Nominal Diameter	DN 10-100	DN 10-100	DN 15-100
Nominal Pressure Level	PS 25, PS 40, PS 63	PS 25, PS 40	PS 25, PS 40, PS 63
Temperature Range standard	-60 °C up to +150 °C	-60 °C up to +150 °C	-60 °C up to +120 °C
Temperature Range HT-ventile	-10 °C up to +200 °C	-10 °C up to +200 °C	n/a
Connections	flanged ends as per DIN and ANSI, threaded ends	flanged ends as per DIN and ANSI, threaded ends	flanged ends as per DIN and ANSI

	SVA Safety Relief Valves Back-Pressure Dependent Conventional Direct Spring-loaded	SVU Safety Relief Valves Back-Pressure Independent Balanced Direct Spring-loaded
Design	angle type	angle type
Material	steel or stainless steel	steel or stainless steel
Nominal Diameter	DN 15/25 - 100/100	DN 10/10 - 100/100
Nominal Pressure Level	PS 25, PS 40, PS 63	PS 25, PS 40, PS 63
Temperature Range	type A: -60 °C up to +180 °C type B: -50 °C up to +110 °C	type A: -60 °C up to +180 °C type B: -50 °C up to +110 °C
Connections	flanged ends as per DIN and ANSI, threaded ends	flanged ends as per DIN and ANSI, threaded ends
Set Pressure Range	5-63 bar	4-63 bar

	WVR-SVA / -SVU Dual Safety Valves	WVR AL SVA / SVU Dual Safety Valves	DA Flow Indicators (for Dual Safety Valves)
Material	steel or stainless steel	aluminum (3-way valve) steel or stainless steel (safety valves)	steel
Nominal Diameter	DN 10/10 - 100/100	DN 15/15 - 100/100	DN 15 - 50
Nominal Pressure Level	PS 25, PS 40, PS 63	PS 25, PS 40, PS 63	PS 25, PS 40, PS 63
Temperature Range	type A: -60 °C up to +180 °C type B: -50 °C up to +110 °C	type A: -60 °C up to +120 °C type B: -50 °C up to +110 °C	-50 °C up to +200 °C
Connections	flanged ends as per DIN and ANSI, threaded ends	flanged ends as per DIN and ANSI	flanged ends as per DIN and ANSI
Additional Information	optionally available with bursting disc, bursting disc holder, excess flow valve	optionally available with bursting disc, bursting disc holder, excess flow valve	



	KUB Reverse Acting Bursting Discs
Material	stainless steel further materials upon request
Nominal Diameter	DN 20-80 larger sizes on request
Nominal Pressure Level	PS 40
Temperature Range	depending on the material, stainless steel: -80 °C up to +320 °C
Connections	flanged ends as per DIN and ANSI, threaded ends
Additional Information	available for gaseous and liquid mediums, two-phase flow applications and hygiene applications

	SSO Quick Closing Valves	OF Oil Filters	DOF Double Oil Filters
Material	steel or stainless steel	steel	steel
Nominal Diameter	DN 15	DN 15-100	DN 25-80
Nominal Pressure Level	PS 25, PS 40, PS 63	PS 25, PS 40	PS 25, PS 40
Temperature Range	-60 °C up to +150 °C	-60 °C up to +150 °C	-60 °C up to +150 °C
Connections	butt welding and flanged ends as per DIN and ANSI, threaded ends	butt welding and flanged ends as per DIN and ANSI, brazed ends	flanged ends as per DIN and ANSI
Additional Information	optionally available with straightway or angle type shut-off valve	mesh size: 10-40 µ, material: paper / stainless steel	

	UVA Overflow Valves Back-Pressure Dependent	UVU Overflow Valves Back-Pressure Independent	ORVA Oil-Pressure Regulating Valves
Design	angle type	angle type	angle type
Material	steel or stainless steel	steel or stainless steel	steel
Nominal Diameter	DN 10-32	DN 10-32	DN 10-50
Nominal Pressure Level	PS 25, PS 40, PS 63	PS 25, PS 40, PS 63	PS 25, PS 40
Temperature Range	type A: -60 °C up to +180 °C type B: -50 °C up to + 110 °C	type A: -60 °C up to +180 °C type B: -50 °C up to +110 °C	-60 °C up to +150 °C
Connections	butt welding and flanged ends as per DIN and ANSI, brazed ends, threaded ends	butt welding and flanged ends as per DIN and ANSI, brazed ends, threaded ends	butt welding and flanged ends as per DIN and ANSI
Set Pressure Range	1-25 bar	4-63 bar	1-6 bar

	UVR / UVRK Overflow Valves for Hot Gas Defrosting, Back-Pressure Dependent	GPV Gas-Powered Valves	RVD Constant-Pressure Valves for Compressors without Separate Oil Pumps
Design	straightway or angle type	straightway or angle type	straightway or angle type
Material	steel or stainless steel	steel or stainless steel	steel or stainless steel
Nominal Diameter	DN 20	DN 25-32	DN 40-150
Nominal Pressure Level	PS 25, PS 40	PS 40	PS 25, PS 40
Temperature Range	-60 °C up to +150 °C	-60 °C up to +150 °C	-60 °C up to +150 °C
Connections	butt welding ends as per DIN and ANSI	butt welding ends as per DIN and ANSI	butt welding and flanged ends as per DIN and ANSI
Additional Information	optional with control cone (UVRK)		
Set Pressure Range	2-8 bar		1-9 bar

	RVR Constant Pressure Valves
Material	steel or stainless steel
Nominal Diameter	DN 40-150
Nominal Pressure Level	PS 25, PS 40
Temperature Range standard	-60 °C up to +150 °C
Temperature Range HT-ventile	-10 °C up to +200 °C
Connections	butt welding and flanged ends as per DIN and ANSI
Additional Information	1-9 bar

GPV Gas-Powered Valves

GPVs are installed in the oil return line between the lowest point of the flooded evaporator and the compressor. By design the valves are open so the oil-refrigerant mixture runs into the oil reservoir. Once filled, hot-gas pressure closes the GPV and concurrently increases the pressure on the reservoir via an overflow bore. This pressure is used to impel the collected oil back to the compressor.

RVD Constant Pressure Valves

RVDs increase the pressure on the discharge side of the compressor during the start phase and open when the complete oil circulation has been secured

Magnetic Filtration

You can easily expand your system with additional magnetic filtration simply by replacing the covers of the already installed strainers. The illustration shows a strainer cover upside down. The new cover filters magnetic particles out of the medium, which could otherwise flow through the sieve.