


FlowTherm

OPTIONS AND SOLUTIONS



Pharmaceutical & Personal Care

2022/2023 CATALOGUE

A dark blue-tinted background image showing a complex industrial piping system with various valves, elbows, and vertical pipes. The text is overlaid on this image.

Flowtherm is one of
Australia's leading suppliers
of options and solutions for
flow handling equipment.

About us

Flowtherm's purpose is to provide our customers with a better choice of process equipment and services in the Indo-Pacific region, through the application of our Options and Solutions strategy..

Founded in 2001, Flowtherm's main office is in Melbourne, Victoria. We have since spread across the region, and now have offices in Sydney, Brisbane, Auckland (New Zealand), and Singapore. In 2021, Flowtherm's 20th year of operation, we have expanded to include Capital Equipment, as well as opening our service division: Flowtherm Service.

FlowTherm Australia is one of Australia's leading suppliers of hygienic process equipment, such as valves, pumps, heat exchangers, tank equipment, homogenisers, high shear mixers, separators, as well as parts and service.

For the Pharmaceutical and Personal Care industries, FlowTherm offers a complete package of – and service for - hygienic fluid handling and process equipment from world leading brands including Saunders, Habonim, Metenova, CSF Inox, Bardiani, OMAC, MBS, PalPharma, Kelvion, Aerre Inox and many more. We take great pride in providing a variety of options for standard and unique applications, as well as being able to find the right solutions for our customers.

FlowTherm has been providing technical solutions to the Pharmaceutical, Food, Beverage, Personal Care, Dairy and Brewery industries for over twenty years and we have a team of highly trained and experienced staff available to help with any and all requirements.

AS ONE OF AUSTRALIA'S LEADING DISTRIBUTORS OF FLOW EQUIPMENT, WE OFFER:

- The largest range of stock in Australia
- The latest technology
- Professional technical advice for all products
- Excellent customer service
- Long-term support and service
- 100% commitment to the customer



SERVICE

Newly opened in 2021, FlowTherm's Service Department delivers technical experience and full capabilities. We run 24 hours, 365 days a year – if your site is running, chances are that we are too.

Our technicians service all brands and for a broad range of equipment, as well as offering additional support supply for any parts and spares needed. With national reach, we can support you onsite wherever you are, while our fully fitted workshop can handle any offsite repairs and service.

FLOWTHERM SERVICE INCLUDES

- Heat Exchangers
- Separators
- Valves
- Pumps
- Homogenisers
- Mixers
- Onsite and Offsite Servicing and Repair
- Installation and Commissioning
- Upgrades to Equipment
- Breakdown and Planned Maintenance, inc. Shutdown
- Testing, inc. Gas leak testing
- Planning and Scheduling

SPARE PARTS & MAINTENANCE

FlowTherm have been supporting clients in the Pharmaceutical & Personal Care industry with spare parts and experienced aftermarket technical support for over 20 years. We capably deliver nation-wide, from coast to coast, and do so for orders ranging from a single o-ring to contract arrangement for ongoing and complete site supply.

FlowTherm is your reliable one-stop shop for any and all hygienic spare parts and boasts a full range of genuine OEM spare parts and quality generic options. With local stock right here in Australia, there's nothing we can't do.

OEM SPARE PARTS

- | | | | |
|----------------|--------------|----------------|--------------|
| • Saunders | • Bürkert | • Kelvion | • Servinox |
| • Metanova | • ITT | • Avantapure | • Rieger |
| • Habonim | • Millipore/ | • CPC | • Modentic |
| • Alfa Laval | NovAseptic | • Saint-Gobain | • MBS |
| • Rubberfab/ | • Steridose/ | • Sawa | • Ampco |
| Garlock | Sterimixer | • Cipriani | • Kest |
| • SPX Flow/APV | • Bardiani | • KingLai | • BEEI |
| • Newman | • CSF Inox | • Omac | • Artesyn |
| • Venair | • Scanjet | • Palpharma | • Pentair |
| • Gemu | • YGros | • Aerre Inox | • Sterivalve |

FLOWTREND

Included in our range of quality generic options are Flowtrend hygienic spares. Flowtrend offers a wide range of like-for-like alternative parts that match OEM in terms of quality and are an ideal option for reducing maintenance costs. Flowtrend uses FDA approved and Batch traceable materials and uses adapted OEM part numbers and descriptions to assist in loading details into procurement systems. Comparable to OEM parts in every way, Flowtrend spares are:

- | | |
|---------------------------------|--|
| • Same dimensions | • Same quality, in some case even improved quality |
| • Same materials | • Same performance and life |
| • Same validation certification | • Same moulding, forging, extrusion and manufacturing platforms. |
| • Fully interchangeable | |



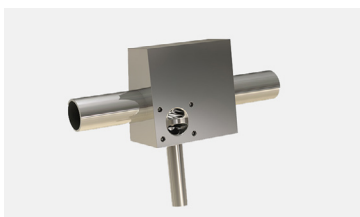
2-WAY DIAPHRAGM BODY

Saunders 2-way valve forged body is the basic building block of diaphragm valve technology providing cavity free bi-directional flow and optimum drainability.



MULTI-PORT

Saunders standard Multi Weir Diverters offer a compact, high integrity machined block solution compared with traditional fabricated 2-Way valves clusters and play a valuable role in achieving optimum process design with reduced internal wetted area.



SERIAL WEIR

Saunders Serial Weir design typically incorporates a common chamber shared by two weirs or operating points. The Tandem valve (Sterile Access Valve) is the most common design variation and is available in machined block or fabrication welded orientation to suit customer specification.



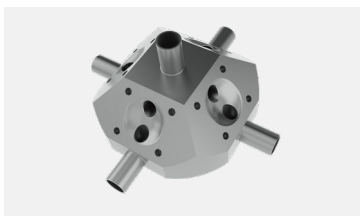
STANDARD MACHINED BLOCK

Saunders range of standard machined block bodies incorporate Zero Deadleg T pattern and U Bend (Point of Use) body variations to provide high integrity branch or sample points from high purity water loops. The design optimises drainability, eliminates dead-leg or hold up volume and is available with additional back sample weirs to comply with customer specification.



TANK OUTLET

Saunders Tank Outlet valve incorporates the performance and features of a diaphragm valve into a Machined Block tank outlet design and is designed for use at the bottom of a tank or vessel to drain or sample. The design enhances structural integrity, minimises deadleg and reduces potential for contamination.



BIO BLOCK

Saunders Bio Block bodies are a unique platform of custom designs. These innovative Machined Block solutions may be driven by process, space constraints, system design, piping challenges, orientation requirements or regulatory issues. We work closely with our customers to design and develop fast track menus of Bio Block solutions to meet the unique challenges of Life Science applications.



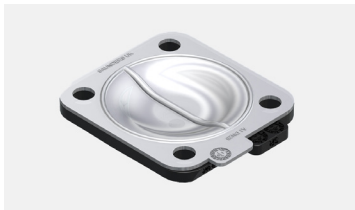
ER RESISTANCE DIAPHRAGM

Saunders elastomer diaphragms consist of a range of proprietary materials specifically developed by Saunders team of in-house polymer technologists to meet the demands of Life Science applications.



PR PURE RESILIENCE PTFE DIAPHRAGM

Saunders PR Pure Resilience diaphragms are robust two-piece leaf type. The design incorporates a virgin PTFE wetted face backed with a fabric reinforced support diaphragm.



SR STEAM RESILIENCE TFM DIAPHRAGM

Saunders Life Science Modified PTFE (TFM) diaphragms are robust two-piece leaf type. The design incorporates a TFM wetted face backed with a fabric reinforced support diaphragm.



MANUAL DIAPHRAGM VALVE BONNET

Manual Actuation from Saunders include the Para Manual (Polyaryl Amide), PES (Polyether Sulphone), Pure Performance (Bioseal), and Stainless Steel in either sealed or non-sealed.



S360 ACTUATOR

The Saunders S360 piston actuator permits remote operation of the valve, either as an alternative to manual operation or as an integral part of a control system. The S360 is a compact, lightweight, piston-type pneumatic actuator which has been developed to deliver superior performance for sterile BioPharm applications.



ANGLE SEAT VALVE

Applying our core engineering and design philosophy, SAUNDERS® Angle Seat Valves have been engineered to meet the exacting demands of process/utility applications across the spectrum of hygienic process industries.



M-VUE SENSOR

The Saunders M-VUE is an intelligent valve sensor designed specifically for aseptic diaphragm valve applications in the Life Science industry. Saunders M-VUE has been engineered to compensate for the behaviour of diaphragm valves under multiple processing conditions including process, CIP, SIP and varying operating air supply.



I-VUE SENSOR

The Saunders I-VUE is an Intelligent valve sensor delivering enhanced diagnostics to optimize plant efficiency and providing industry leading accuracy and reliability.



ZERO-G MIXER

ZG mixers are very versatile and are the base line of Metenova's mixer range. The high efficiency mix head design allows for both effective and gentle mixing at the same time. The ZG mixer covers a vast range of applications throughout the process chain. The excellent aseptic design, FDA compliance, combined with the benefits of the new and innovative bearing design make it perfect for use in the pharmaceutical and biotechnology industries.



HIGH SHEAR MIXER

The Metenova HS High Shear mixer offers a rotor/stator aseptic magnetic mixer for critical fine emulsions and dispersions. Metenova's High Shear mixers disperse droplets and create an even particle size distribution, enabling down-stream high pressure emulsification processing, whilst also improving the suspension characteristics of the product. The Metenova HS is ideal for emulsification applications, difficult to dissolve solids and particle downsizing.



HIGH POWER MIXER

The Metenova High Power mixer features an open design and highpower input, making it perfect for breaking down lump forming powders and for the rapid mixing of buffer solutions. The products extensive volume range makes it ideal for a wide span of tank sizes.



ZERO-G PLASTIC

Metenova's ZGP plastic mixer provides a cost-effective version of the ZG mixer, particularly targeting chemical applications. Zero-g Plastics unique mixing technology can also be used in Carboys with integrated mixers and can deliver the same powerful mixing result in a Carboy as in a conventional mixing tank. This product line is a great alternative to expensive high alloy versions for demanding chemical applications.



ZF – "TRUELEV" (ZERO-FRICTION)

The Truelev Mixer is an astonishing breakthrough in engineering, eliminating all known flaws of previous mixer designs in one giant technological leap. The revolutionary Truelev, with its bearing-less fully levitating technology, is perfect for shear sensitive products. This product is Metenova's high-end mixer that offers a unique control and measuring capability that can be leveraged in all tanks, final drug substance holding tanks or bioreactors.



DISHED END MIXER

Integrates the high efficiency mixing performance of your choice of Metenova mixer platform into a single dish free of welding with high aseptic design and optimised location of the mixer for the best results.



SANITARY BALL VALVES

ASME BPE Tubore 48 series

Habonim Sanitary Ball valves are in service by the thousands for decades in leading bio-pharmaceutical, pharmaceutical, food and beverages manufacturing and processing facilities around the globe, by the leading companies of the industry.



CONTROL VALVE

Habonim control packages are compact, lightweight and a long-lasting solution with step-less characterized pressure and flow control for fast response times, wide rangeability, and bubble-tight shutoff. Critical performance features include high pressure drop capacity with straight-through flow, high Cv, and large exhaust capacity. The package design features ensure ease of maintenance and zero backlash.



COMPACT ACTUATOR II

The Compact Actuator is a quarter-turn rack and pinion pneumatic actuator that doubles the torque of standard pneumatic actuators. The superior performance is achieved by Habonim's patented four piston design, which generates torque around a centrally located piston. This translates into double the power for the same size actuator or half the size for the same amount of power.



HERMETIX SEAL

Graphite-Free Fire-safe Valve

Habonim's durable fire safe stem seal design is a polymer-based stem seal and a unique trim construction that hold the stem aligned and preloaded even after a fire. A fully graphite-free solution to stem sealing, The HermetiX fire safe valve offers the ultimate solution: an exclusive durable stem seal that eliminates the risk of graphite disintegration after prolonged stem wear which protects both line media and air quality.



BASICMASTER

The BasicMaster represents the newer and more energy-efficient generation of mixing solutions for the process industry. Powder is added manually through the manhole and is instantly incorporated into the liquid. The mixer generates a controlled vortex in the tank, which contributes to separating air from the liquid and generates a perfect homogeneous dispersion within seconds.



VACUUMMASTER

The VacuumMaster is more compact and perfectly optimised for energyefficient high shear mixing, it is also virtually maintenance-free. The vacuum feature allows automatic handling of the powder dosing directly from big bags or silos. By means of vacuum the powder is drawn into the mixer below liquid level and instantly wetted.



PROCESSMASTER

By means of vacuum, the ProcessMaster draws powder from the funnel into the mixer below liquid level and instantly wetted. The powerful, high shear mixer and scraper agitator generates a controlled vortex in the tank. The combination of vortex and vacuum effectively separates air from the liquid and generates a perfect homogeneous dispersion within seconds. Many different options can be selected for a flexible batch process.



INLINE MASTER

The Inline Master allows automatic handling of the powder dosing directly from big bags or silos. By means of vacuum the powder is drawn into the mixer below liquid level and instantly wetted. The powerful, high shear mixer generates a controlled vortex in the tank. The combination of vortex and vacuum effectively separates air from the liquid and generates a perfect homogeneous dispersion within seconds..



SHEARMASTER

The mixer unit is designed to be welded onto existing or new tanks, where better and more efficient mixing is needed. The ShearMaster is welded into the bottom or side of the tank. It is also possible to install more units onto the silo tanks. The result is a highly stable and homogenous end product, which is lump-free and contains a minimum of air.



LABMASTER

The mixer is a plug and play solution designed to work as a pilot mixer for developing new recipes, but can also be used for small scale productions. By means of vacuum, the powder is drawn from the funnel into the mixer below liquid level and instantly wetted. The powerful, high shear mixer and scraper agitator generates a controlled vortex in the tank. The unit comes with an isolated jacket for fast heating and cooling with steam or ice water. For extra quick heating the unit is equipped with a direct steam valve.



LIQUID MASTER

The LiquidMaster is the most energy-efficient solution for inline High Shear mixing on the market. The powder is dosed manually into the vessel, where the liquid level is manually controlled by a butterfly valve on the inlet pipe. The mixer works according to the rotor-stator principle, where a special closed mixing wheel distributes the product through the patented slots. The unit circulates approx.



INJECTMASTER

The mixer works according to the rotor-stator principle, where a special mixing wheel passes the product through patented slots. The special designed injector creates a strong suction of powder. During operation the mixing wheel accelerates the liquid and creates pressure in the injector pipe, which sucks in the powder from the powder funnel. The mixer unit is very versatile and can be used in many setups and applications. For low to medium viscosity the mixer performs the pumping action itself.



MIXMASTER & ULTRA MIXMASTER

The MixMaster is versatile, compact solution for inline High Shear mixing. The mixer works according to the rotor-stator principle, where a special closed mixing wheel passes the product through patented slots. The unit is very versatile and can be used in many setups and application.



SICCADANIA POWDER HANDLING SYSTEMS

SiccaDania Powder Handling Systems offer turnkey powder handling including transportation, dosing and batching of the powder. Apportioning of the powder happens in a mixer often set up before the process line. These powder handling systems can also include gentle powder transport to silos and packing lines after the process.



VVF

Butterfly Valve

A manual butterfly valve which cuts off and monitors fluids in the process flow by movements of opening and closing. Characterised by a simple, elegant design, and engineered to be extremely reliable, it is commonly used in many different applications requiring ample product passage.



ZVF

Butterfly Valve

A butterfly valve with pneumatic actuator which cuts off and monitors fluids in the process flow by movements of opening and closing. Characterised by a simple, elegant design, and engineered to be extremely reliable, it is commonly used in many different applications requiring extensive product passage.



BBZQ

High Pressure Single Seat Stop & Diverter Valve

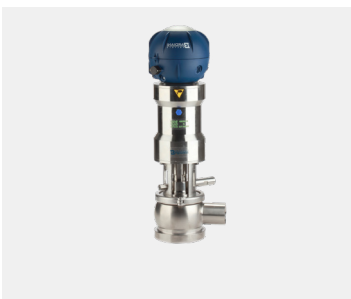
This single seat valve has been designed for application in all health-hygiene sectors with pressures up to 150 bar. Made from top quality raw materials, it features an extremely modern and sturdy design that can be utilised for all applications requiring maximum reliability in cutting off and directing a fluid or product.



B925

Mixproof Double Seat line Valves

A double seat valve extremely effective in production plants for health-hygiene applications, as it allows a reduction in the number of single seat valves required which optimises available installation space.



B935

Mixproof Double Seat Tank Bottom Valves

A double seat (mix-proof) valve with an extremely modern and compact design. The valve directs and controls the flow of two different liquids simultaneously, guaranteeing total separation between them in order to avoid any risk of contamination.



BZAW3

Double Seal Leak Detection Mixproof Valve

A double seal valve designed to guarantee separation between two fluids. The special design of the shutter provides a separation chamber between the two seals which ensures that any product leakage flows out through the two auxiliary valves located on the separation chamber, avoiding any contact between the two fluids.



BBZK & BBZPM

Modulating - Control Valves

BBZK is a modulating valve designed to regulate the flow rate and maintain a constant level, pressure, or temperature value. Its special membrane actuator, connected to the positioner, allows partial opening and closing of the shutter, accommodating intermediate flow rates and consequent pressure drops in the valve. The BBZPM offers a compact design, and the connection of the positioner to the actuator allows it to regulate the partial opening and closing of the valve member to achieve intermediate levels of flow rate and a resulting valve pressure drop.



GIOTTO360

Control Top Series

Bardiani's Giotto Top Range has been designed to ensure effective control and monitoring of valve operations. Each control unit can manage all the operations linked to valve functioning. Both the position indicators (proximity switches and micro switches) and the solenoid valves are installed inside the Giotto Top. Installation on the top of the valve actuator is quick and easy.



BBTRD

Sight Glass

Valve body with flat glass closure which allows the user to inspect the product constantly and reliably.



CS Centrifugal Pump

The special design of the "CS" pump range means it can guarantee high levels of operation and top-of-the range performance. Of note is the 6-vane impeller, and shaft support bearing making these pumps able to be bought with a bare shaft for subsequent quick and easy coupling with standard IEC electric motors. The CSD comes with a sterile steam protection barrier between the pumped product and the external environment.



CNH Self-Priming Centrifugal Pump

The CNH series is made up of single-stage centrifugal pumps with self-priming device, axial suction port, open centrifugal impeller, and independent shaft. The self-priming devices is made up of a helical rotor installed in front of the impeller and a rotor chamber which is off-centre in relation to the axis of the centrifugal stage.



A & AS Liquid Ring Pumps

Single-block self-priming sanitary pumps with independent support and standard IEC motors. The materials and easy to disassemble construction make these pumps ideal for different sectors. The A Series includes the impeller supported directly by the electric motor shaft.



CN Centrifugal Pump

Design optimized to guarantee high levels of hygiene in the food, dairy, beverage, chemical, cosmetic and pharmaceutical industries. The open 5-vane impeller means it can be used for low-pressure transfer of fruit juices, creams, ice-creams, dairy cream, milk, wine, alcohol and whey.



TS Twin Screw Pump

The TS twin-screw volumetric pump represents the perfect union of high performance and stringent requirements thanks to its hygienic design. Its main characteristics is that this pump can operate at both low and high speeds and is therefore ideal for CIP washing phases. Thus, fully replacing the need to use another centrifugal pump for CIP. With an excellent suction capacity, it is suitable for vacuum applications or when the suction head is low.



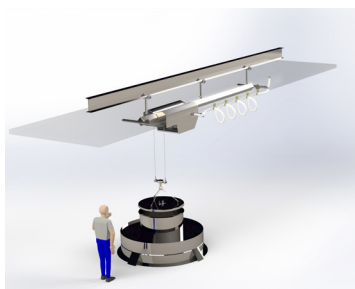
PALPHARMASAGE

The PalPharMassage is a mobile drum conditioning system to assist with the process infeed or tipping of powdered or granular product in drums which has hardened or settled in storage and transit.



PAL-TRAC

The system consists of an electric wire rope hoist suspended from a Monorail Crane system. The advantages of this low-cost option are that the crane fits into low headroom areas and is suspended horizontally from the ceiling, so the walkway is not impeded by a fixed structure such as with a post hoist. The walkway is not impeded by a fixed structure like a post hoist.



PAL-TRAC CLEANROOM MONORAIL HOIST

Introducing Palpharma's Pal-Trac Cleanroom Monorail Hoist, an 1000kg capacity version in Palpharma's Pal-Trac line, based on a 400v power requirement. The Monorail Hoist could – for example – be used for lifting things for maintenance of vessels, removing tank agitators/impellers, or moving BioBags/Sacks, Chargebags, bottles for charging, and moving centrifuge bowls.



PALPHARMASSIST

The PalPharmAssist cGMP designed pneumatic lifting systems designed to give the operator full and safe control when docking drums, kegs or plastic containers onto process machinery. Loads of up to 350kg/770lb can be handled.



PALPHARMAVAC

The PalPharmaVac fully GMP stainless steel Vacuum tube lifter has been uniquely designed to meet the requirements of the Pharmaceutical, BioTech, Cosmetic and Nutraceutical industries. It can lift and tip drums, and can handle sacks/ bags, boxes, and cartons up to 100kg.



PAL TROLLEY

The new PAL Trolley range of rechargeable IP65 stainless steel trolleys can be electric or pneumatic. A big advantage is their compact footprint. The trolleys are used in the food and pharmaceutical sectors for transporting products, with various attachments for carrying, holding, lifting and pouring for drums, carboys, bags and reels.



PALPHARMAHOIST

System for discharging, docking, feeding, tipping and blending of product in IBC's, Bins and Totes. It can lift heights of 6m/ 20ft can be reached with a lateral reach of 2m/7ft achieved dependent on weight of your product and is suitable for drums up to 2000kg. Available in mid steel through to 316 stainless steel / Hastelloy UK design and manufacture with CE approval.



PALPHARMATIP

PalPharmaTip drum dispensing solution offers cost effective and operator friendly disposable containment technologies for in process powder transfer between a container and a receptacle vessel.



PALPHARMAMOVE

The PalPharma Move range of powered and manual push/pull mobile trucks have been developed to address the materials handling needs of the modern pharmaceutical production environment.



DEBEE 2000

Pilot Plant Homogenizer

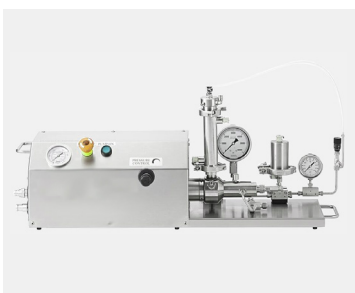
The DeBEE 2000 is the smallest unit available that offers ALL process configurations that is available with our versatile technology, including: Dual Feed, Dual Jet and Automatic CIP. The 2000 also offers validation packages, hazardous environment protection, feed solutions, and additional process monitoring.



DEBEE 4000

Automated Industrial Homogenizer

Utilizing BEEI's innovative synchronization of multiple intensifier pumps, combined with flexible modular system design, this series offers a very wide range of production capacities and levels of automation. DeBEE 4000 models are suitable for wide range of applications including for injectable drugs with the highest levels of regulatory compliance.



NANO DEBEE

Laboratory Homogenizer

Considered to be the most versatile benchtop homogenizer on the market, the Nano DeBEE combines a variety of mixing tools into one advanced instrument. With unique process setups you can select the intensity and force of mixing parameters.



MICRO DEBEE

Laboratory Homogenizer

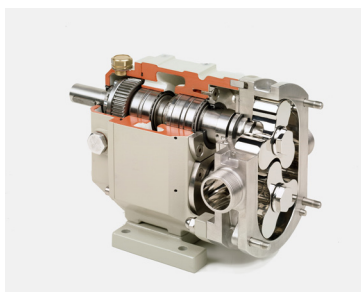
An innovation in process equipment, the air operated Micro DeBee homogenizer combines a variety of mixing tools into one advanced instrument. With unique process setups you can select the intensity and force of mixing parameters.



MINI DEBEE

Laboratory Homogenizer

A leader in process technology, the Mini DeBEE combines a variety of mixing tools into one advanced instrument. With unique process setups you can select the intensity and force of mixing parameters.



B SERIES

Rotary Lobe Pumps

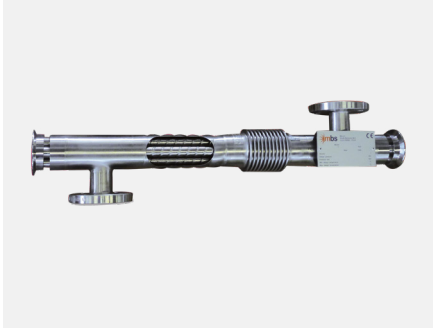
The volumetric lobe pumps of the B series are traditional and reliable. A clear separation chamber between pumping body and support, allows the housing of the sealing members, preventing any contamination between pumped fluid and lubricant. The foot of the removable support simplifies installation (inversion of the shaft position) for connection with horizontal or vertical pipes. B lobe pumps are modular and designed so that parts can be added or exchanged according to changes in the application requirements.



C SERIES

Multi-Lobe Pumps

The C series incorporates new front-loading seals design for easier and quick servicing. In addition, maintenance is also simplified by a new external axial adjustment system. All the parts that contact the product are made in stainless steel 1.4404, pump body is cast with integral connections without welding. The rotors have been designed as to reach the best efficiency and cause less damage to the product at the same time.



PHARMAFLO

Heat Exchanger

Pharmaflo Heat Exchanger is designed to meet the strict pharmaceutical industry hygiene requirements. It is manufactured using small diameter corrugated tubes within an external jacket as well as tube plates on both ends. This design removes the possibility of any contamination between sterile products and service fluids. An expansion joint is fitted on the external jacket. Products requiring thermal processing flow inside the small diameter tubes, whilst service fluid flows within the external jacket.



SANITARY SAMPLING VALVES

The sanitary sampling valves are completely autoclavable, they allow for sampling at the centre of the line, obtaining the desired representative sample. Inexpensive and easy to use, these sampling valves in AISI 316L can be installed on distribution loops or tanks, they are available with CLAMP, butt weld or gas threaded connections.



ASEPTIC IN-LINE VALVES

Aerre Inox manufactures in-line aseptic valves suitable for installation on the process lines of pharmaceutical and biotechnological plants. Available in "L", "T" or "ZDL Zero Dead Leg" versions, and in different sizes, the Aerre Inox inline aseptic valves are equipped with a manual or pneumatic actuator.



ASEPTIC SAMPLING VALVES

The aseptic sampling valves are designed to take samples aseptically, thanks to their particular configuration they can be sterilized with pure steam by SIP process or washed by CIP process, to create a protective barrier on the diaphragm. These sampling valves are completely autoclavable, in manual or pneumatic execution, perfectly interchangeable with each other.



ASEPTIC TANK BOTTOM VALVES

The available models are suitable for direct installation on the bottom of tanks and preparation reactors for product discharge; these valves guarantee the complete draining whilst reducing the "Dead Leg" to a minimum. Available in different versions, such as to be welded directly to tank bottom, with TKC connection or with removable flange, and in different sizes, Aerre Inox aseptic tank bottom valves can be operated by manual or pneumatic actuator.



FITTINGS

Aerre Inox manufactures and commercialize clamp and butt weld fittings for sanitary installations in the pharmaceutical, biotechnological, cosmetic, food & beverage and chemical sectors.



TKC CONNECTIONS

Aerre Inox manufactures TKC stainless steel connections for tanks and sanitary plants in the pharmaceutical, biotechnological, cosmetic, food & beverage and chemical sectors. Our TKC connections are an extremely versatile solution, having a compact design and allowing the installation of accessories and/or clamp valves on the top, bottom or side part of a tank.



TKS SYRINGE

The TKS Syringe sampling device has a compact design that allows to take more samples of low viscosity products from a tank or a process line in the pharmaceutical sector with a hypodermic syringe. Once installed, the Silicone or EPDM membrane is flush positioned with the inner wall of the tank, minimizing the "Dead Leg".



SAMPLING BOTTLE

Aerre Inox can offer bottles for sterile and aseptic sampling of chemical/pharmaceutical products. Our sampling bottles are equipped with a diaphragm multi-valve sterilizable with pure steam, sterile filter, bottles of borosilicate glass and adjustable bottle holder with removable handle, customizable for every need.



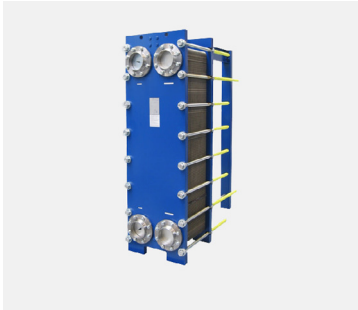
SIGHT GLASSES

Aerre Inox takes care of the realization of in-line and flat sight glasses for sanitary systems. Each product has a clean design and each sight glass is particularly suitable for installation on tanks, preparation dissolvers, or directly on pipes.



LAMPADA

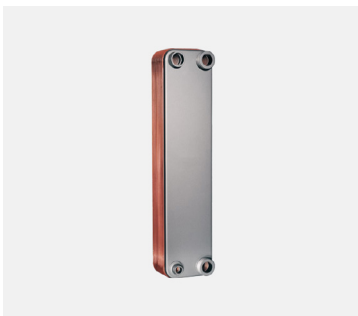
Powerful stainless steel luminaire can be mounted directly to any standard sight glass or TKC-Connections welded on vessel or pipeline and provides up to 200 Lumens of intense glare free illumination through a safety glass lens. Extremely compact, without any wire, this battery lamp are ideally suited for use with fittings in aseptic conditions such as small vessels trolley mounted or pipeline in pharmaceutical industries where strict cleanliness codes are required.



GASKETED PLATE

Heat Exchangers – Sanitary and Services

Highly efficient and versatile Heat exchangers that run at low operating costs. The range of plate corrugations, connection sizes, plate widths and lengths enable them to be made to measure to your requirements. In addition, maintenance-friendly assembly and sealing technologies are applied, which assure that service and maintenance costs are kept low.



BRAZED PLATE

Heat Exchangers

A brazed heat exchanger range that offers tailor-made solutions for the greatest possible range of applications. There is a choice between copper- and nickel-brazed or Vacnnox plate heat exchangers depending on the field of application. Kelvion searches for the most economical solution from the various sizes and diverse accessories available and adapt them precisely to your requirements with customized connections. Copper and Stainless Brazed options are available.



Cipriani Harrison Valves Corp.

Hygienic Stainless Steel Valves



CIPRIANI 63/64 CHECK VALVES

Cipriani Harrison 63/64-Series Check Valve are used in process piping system where the fluid is to be passed through one direction and the reverse flow is to be avoided. Cipriani Harrison Check valves are designed keeping in mind the stringent hygienic design criteria and available with different version to suite its respective application. Sizes 1/2" – 4"



BIO ROTARY Spray Balls

The Bio rotary spray heads are suitable for small to medium sized process vessels where moderate cleaning is needed. The spray heads are low pressure devices, where rotation is powered by the eccentric flow of the cleaning liquid through the spray head. A limited amount of cleaning liquid is required to efficiently remove residues. The Scanjet Bio 5SB and 7SB are very efficient replacements to traditional static cleaning devices, offering 360 impact coverage, self-cleaning and self-draining.



BIO ROTARY Jet Heads

The Scanjet Bio rotary jet heads are hygienic tank cleaning machines that provides 360 coverage within a tank or process vessel. The Bio Jet Head is self-powered by the flow of the fluid through the inlet cone of the machine. An increase in pressure and flow will correspondingly increase the length of the jet and impact upon the tank or vessel surfaces. The Bio Jet Head employs exclusive self-washing features that allow it to be completely covered.



PIGGING SYSTEMS

The Servinox pigging system is designed to integrate transfer lines perfectly. It recovers the residual mass in the piping using a pig. The pig is positioned upstream of the zone to be evacuated, then sent in the piping by a thrusting fluid (gas or liquid). The standard equipment comprises a launching station, a receiving station, and a pig. It can be completed by full flow multi-way valves (MV), which can be used to adapt the lines to optimise the pigging phases. Pigging control can be manual or automatic with a pig speed control unit (RVO).



MULTIPOINT MV/MVH VALVE

The multiport valve is intended to close one or more circuits or to distribute pressurised fluids to one or more channels. The MV valve is comprised of a body including 2 to 4 channels and a key (cylindrical ball) that orients the fluid's circulation.



SAMPLING VALVES

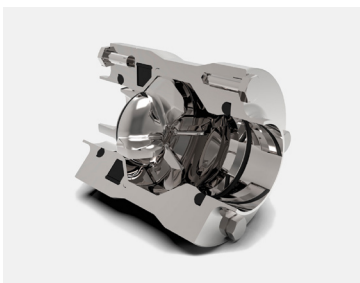
A sampling valve range that offers versatility and precision for any and every application. Dependent on which option selected, you can take liquid samples from tanks and within the process line, whether clear, viscous, sticky, or solid bearing, in order to carry out quality and/or bacterial controls.



EDF

"Spring-less" Magnetic Check Valve

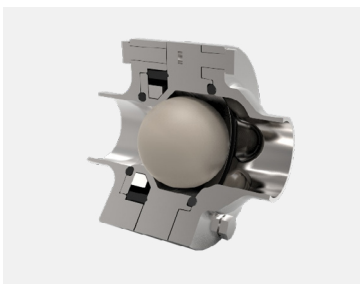
The Ygros EDF is the innovative spring less non return valve for clean applications, a smart solution for your clean applications in the food & beverage industry. Includes no springs that can break or misfire, no flow obstruction or stagnation points, and maintenance free.



YSV

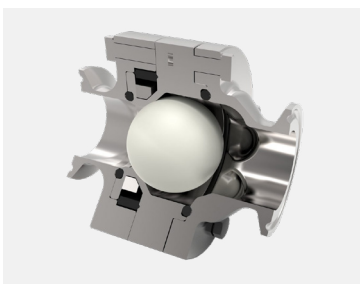
Extractable "Spring-less" Magnetic Check Valve

The Ygros YEV is the first extractable spring less check valve, which can be quickly removed from the plant, without removing flanges or pipes and other components. Fully hygienic design. Maintenance free. Suitable for horizontal, vertical up and down installation (even in vertical pipes with flow down).



AGGROBALL

The chemical version of Ygros. Specially engineered for handling of aggressive media. Extra strong chemical resistance. Springless. Maintenance free. Suitable for horizontal, vertical up and down installation (even in vertical pipes with flow down).



PHARMABALL

YGROS patented technology sets new standards in the world of plant design, thanks to a patented magnetic principle replacing the conventional spring in Non-Return Valves. No more springs that can break or misfire, no flow obstructing components, no stagnation point, no media entrapment, and maintenance free.



ZP2

Circumferential Piston Pump

The ZP2 Pump with its stainless-steel gear case, like all Ampco positive displacement pumps, is built for CIP-ability with enclosed rotor nuts. It is designed to withstand higher pressures with its larger 17-4ph stainless steel shafts. In fact, the ZP2 is capable of withstanding pressures of up to 500 PSI and is 3A Certified.



ZP3

Circumferential Piston Pump

The most enhanced design of Ampco's patented ZP series positive displacement pumps is now leading the industry. It sets the standard for PD circumferential piston pump technology with a simplified yet state-of-the-art design that's reliable, durable, and available fast – within two weeks.



3-PIECE SANITARY BALL VALVE

Available in both forged and cast pieces of stainless steel, all wetted metallic surfaces of clean ball valves are constructed from stainless steel, which are capable of withstanding the temperature, pressure, and chemical corrosiveness assuring the purity and integrity of the product.



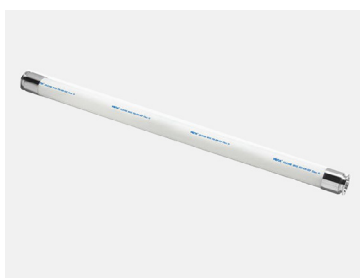
HIGH PURITY CAST BALL VALVE

Available in both forged and cast pieces of stainless steel, all wetted metallic surfaces of clean ball valves are constructed from stainless steel. To minimize the pressure drops and to facilitate the drainability, the valve's tube bore design creates an uninterrupted flow throughout the flow path including ball, seats and end connections.



VENA SIL 630

It is especially recommended for the transport of liquid or semi-liquid fluids in the food, cosmetic and pharmaceutical industries. It offers an extremely broad field of applications. It is especially recommended for the transport of liquid or semi-liquid fluids in pharmaceutical industries, offering an extremely broad field of applications.



VENA SIL 640

FDA and USP VI platinum cured silicone hose with polyester fabric reinforcement for pharma processing. It is especially recommended for the transport of liquid or semi-liquid fluids in the food, cosmetic, and pharmaceutical industries. For use in straight sections equipped with metal fittings connections, where flexibility is not required.



VENA SIL 650V LASTIC

Highly flexible FDA and USP VI platinum cured silicone hose with stainless steel wire and polyester fabric reinforcement for pharma processing. It offers an extremely broad field of applications, while its design ensures a balance between strength and lightness, making it easy to handle.



VENA BIO PURE

Translucent silicone tubing, recommended for the transfer of fluids at very low pressure in filling processes of liquids and semi-liquids. It compensates for vibrations and level differences. Typical applications are media and buffer preparation, downstream processing, formulations, filling, drug delivery and with peristaltic pumps.



PHARMALoader

Elastic and totally smooth FDA and USP VI silicone compensator to convey powder materials in pharmaceutical applications. It is the ideal solution for all tank, hopper, pump and weighing tank outlets to compensate vibrations and level differences.



HEATED HOSE

FDA and USP VI silicone heated hose that provides a regular temperature along its length, useful in applications which require a constant temperature to help maintain the fluidity of the conveyed product. The fully integrated electrical system ensures a full safety system and a highly smooth finishing and makes it as the perfect solution for the most hygienic processes.



COOLING HOSE

FDA and USP VI silicone cooled hose that provides regular cold temperature along its length, useful in accurately adjusting the temperature of the flowed product by circulating a coolant within the outer coil.



VENA BIO BAG

The Vena Bio Bag is a single-use bioprocessing container suitable for media and buffers formulation, storage, mixing and transportation. They help increase plant productivity by avoiding cleaning validation. The ethylene-vinyl alcohol 0,01mm layer provides high oxygen and eliminates moisture permeability equivalent to 1m thick of PE.



HD Centrifugal Pump

Sawa's HD Centrifugal Pump allows for gentle and quiet product pumping of a variety of media. The HD features an impressive suction capacity (up to 7 m), and an excellent pumping behaviour with liquids that contain gas. It can also be operated in both directions of rotation and its robust design keeps maintenance costs low.



ZA/ZAL Single-Stage Centrifugal Pump

The Sawa ZA/ZAL Centrifugal pump, with its specially designed impeller, is capable of reaching delivery heads up to 10 bar with a single stage. An advantage of the single stage pump against a multi stage pump is the better drainability which is of importance in many applications in the pharmaceutical industry. This characteristic is often used for cleaning applications with spray balls.



LE/LEM Centrifugal Pump

The Sawa LE (or LEM for Magnetic Coupling) Centrifugal Pump allows for quiet, gentle and efficient product pumping thanks to its optimised fluid-dynamic design, volute-casing and impeller geometry. The dead space-free design allows hygienic operation and fast pump cleaning.



LES Hybrid Pump

The Sawa LES stainless-steel hybrid centrifugal pump is an excellent alternative to side channel pumps. It has a specially developed pump cover with an inducer and an integrated recirculation system, thus allowing it to be used successfully as a selfpriming pump.



P/MP Peripheral Pump

The SAWA P/MP peripheral pump is a remarkable pump that can gently pump low volume product at high pressures, and without pulsations. Despite its compact design the peripheral pump can reach delivery heads up to 10 bar. Because of its linear performance curve it can be easily adjusted with a frequency converter.



RE15 Residual Drainage Valve

The SAWA residual-drainage valve RE15 was developed to resolve dead spaces in the area of the drainage vent. The sealing is done with O-rings inside the pump body and assures a high degree of biological safety. On the SAWA residualdrainage valve RE15 the sealing to the wetted inner part of the pump is done directly at the inside surface of the pump. This means that the RE15 is an absolutely dead space-free alternative to all conventional diaphragm valves..



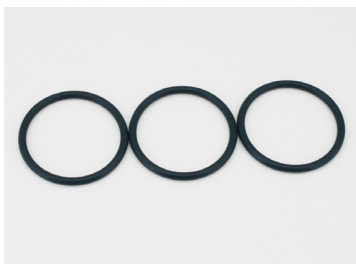
RUBBERFAB HOSES

Rubber Fab offers a variety of rubber hoses in different materials to meet virtually any sanitary hose application. Our hose and hose assemblies always adhere to quality standards set forth by both the Pharmaceutical and Food Industries. Hose covers and accessories are also available.



CLAMP GASKETS

Garlock gasketing is offered in a wide range of materials, including GYLON restructured PTFE, compressed fibre gasketing, GRAPH-LOCK flexible graphite sheet, THERMa-PUR Extreme Temperature gasketing and high performance rubber sheet products.



RUBBERFAB O-RINGS

Rubber Fab o-rings are FDA Compliant for use in food applications and Class VI tested for pharmaceutical applications. They come with a certification for each and are perfect for validation and food processing, where these certifications are important. Let us help you find the o-ring that is right for your process.



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