

The company, a synonym of quality and high specialisation, offers the international market a full range of products which meet the needs of diverse applications.

CSF Inox offers a series of centrifugal, self-priming, progressive cavity, twin screw, sinusoidal rotor and pneumatic pumps.

## CSF Inox – Our strengths



### **ORGANISATION AND PERSONNELL**

- A lean and efficient organisation with precise levels of competence and responsibilities.
- Continuous training and refresher courses for all operational personnel.

### **QUALITY IN DESIGN AND DEVELOPMENT**

- Computer-aided design.
- Careful analysis of information and experience acquired on the market.
- Execution of meticulous testing

### **COMMERCIALISATION AND MARKETING**

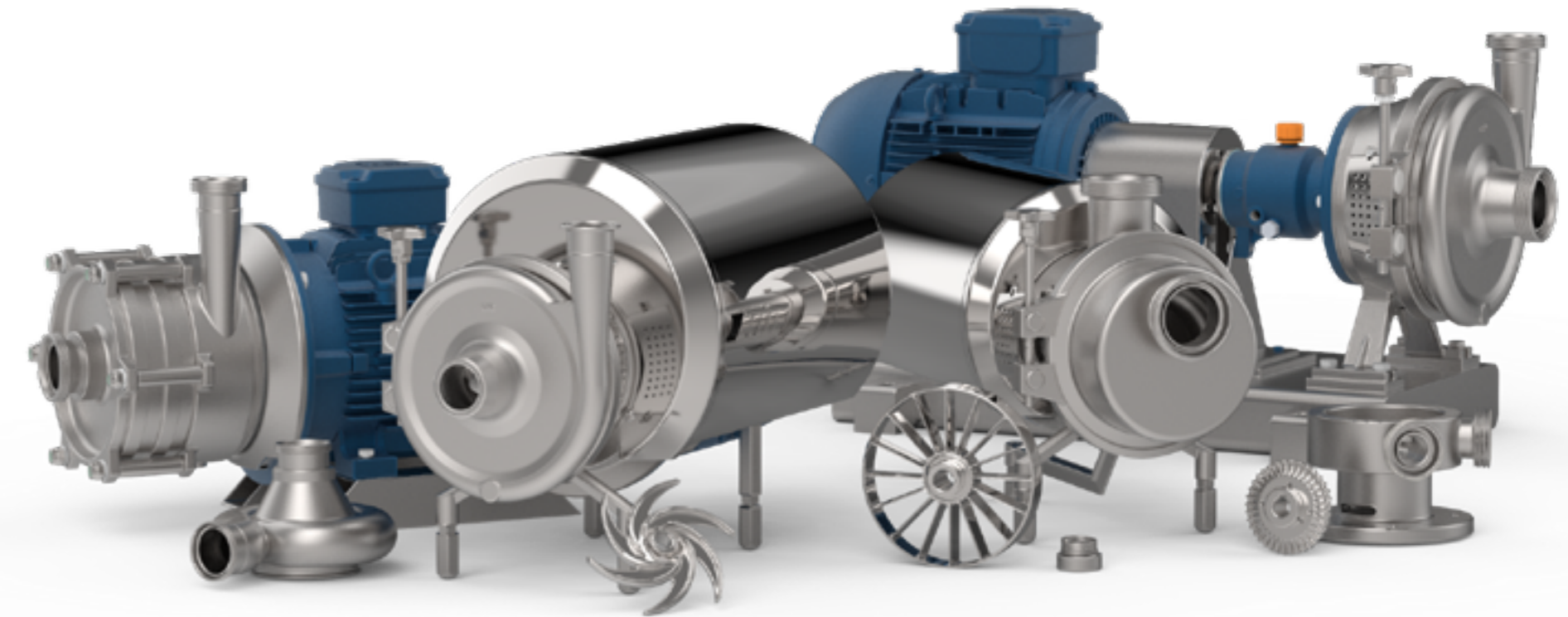
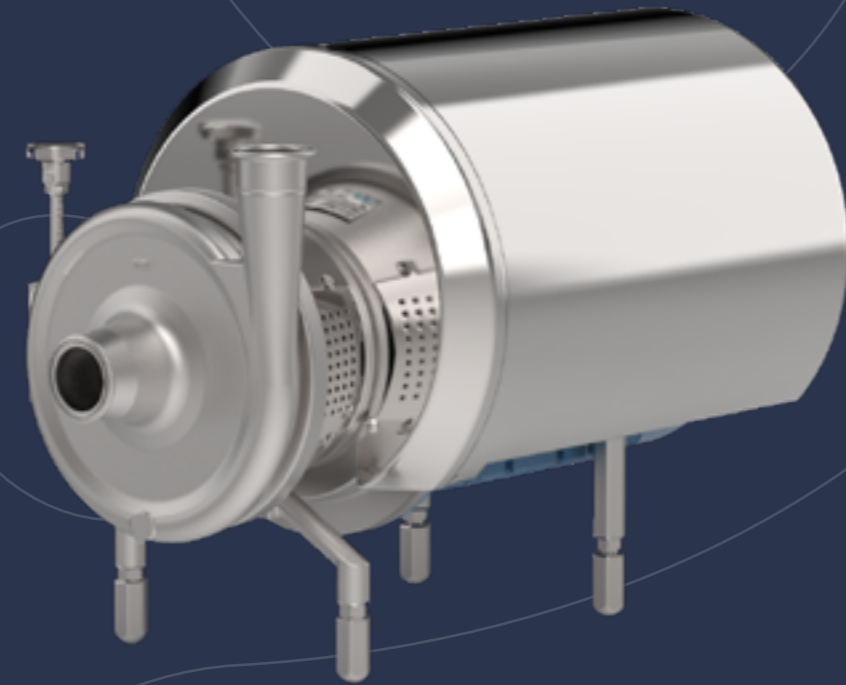
- Careful product choice.
- Market research to follow the evolution of the market and technology.
- Effective orders management to ensure fast and punctual delivery times.
- Maximum production flexibility (motors and components) and collaboration with customers.

### **SUPPLIERS AND PRODUCTION**

- Careful selection of strategic suppliers.
- Modern production technologies.
- Planned and monitored production.
- Pre-established checks and tests at each stage of the process.

# CENTRIFUGAL PUMPS

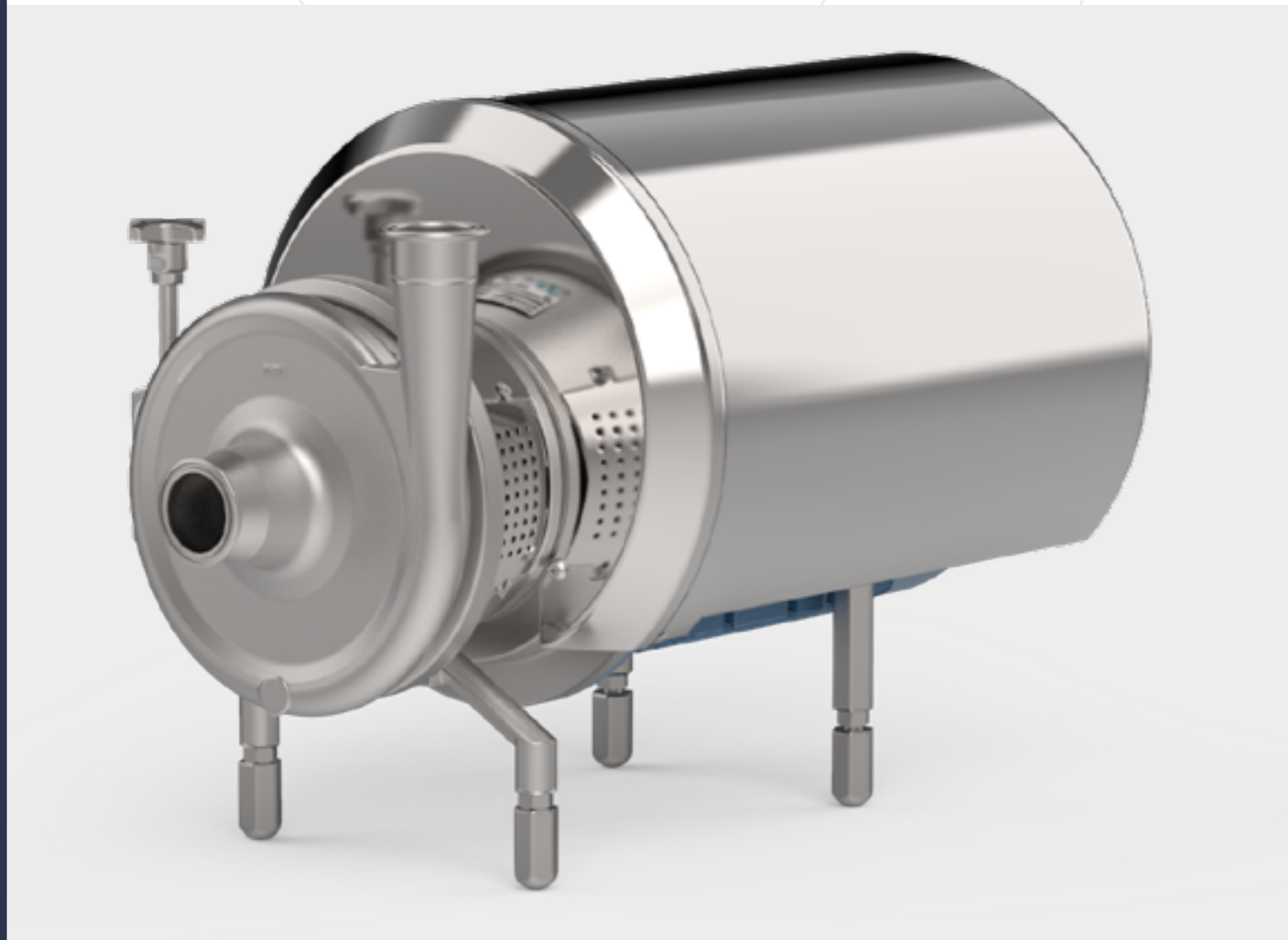
CSF produces the widest range of sanitary centrifugal pumps available on the market, starting from an entry-level series for light operation and service uses up to the highest standards in terms of efficiency and sanitary and pharmaceutical certification.



## CS, CSX, CSA, CSD, CSK SERIES

The "CS" single-stage centrifugal pumps are made in a large range of models for specific uses, mainly in the food, beverage, pharmaceutical and chemical industries

Thanks to the maximum modularity of its components, no less than 29 different sizes are available for a precise and correct selection for the requested application.



## CS, CSX, CSA SERIES

The special design of the "CS" pump range means it can guarantee high levels of operation and top-of-the range performance. The parts in contact with the product are cast in AISI 316L stainless steel using the lost-wax process and are electrochemically polished. They can be supplied (on request) made from special alloys such as Super Duplex and Hastelloy for use in particularly aggressive operating environments.

The design of the open 6-vane impeller is optimized to guarantee delicate handling of the pumped liquids. The special construction with shaft support bearing means that the "CS" series pumps can be bought with a bare shaft for subsequent quick and easy coupling with standard IEC electric motors. In the hygienic version, they have a stainless steel casing to protect the motor, supported on adjustable feet. It is possible to install an inducer on the pump intake to reduce the required NPSH value.



## CSK SERIES

Standard execution for electric motors with power ratings over 30kW, but also available (on request) for smaller sizes, it is coupled on the base to a separate support with oil-lubricated double bearing.

**ATEX 2G versions available (For CS, CSX, CSA and CSK series)**



## CSD SERIES

A model derived from the "CS" series with a sterile steam protection barrier between the pumped product and the external environment.

It is used in food and filling applications in aseptic systems for pasteurised products that must not come into contact with the atmosphere, such as milk, other.

# CENTRIFUGAL PUMPS



## CL-CLC, CN, CNH SERIES

The single-block multistage centrifugal pumps are designed and manufactured for high pressure applications with medium-low flow rates, thanks to the possibility of mounting more than one impeller on each shaft.



### SERIE CL-CLC

Made with an open three-vane impeller installed directly on the motor shaft for use in a wide range of applications. Made entirely from AISI 316L polished stainless steel, these pumps guarantee a high level of hygiene and consequently can be used for the low pressure transfer of juices, creams, ice-cream, dairy cream, milk, wine, alcohol and whey.

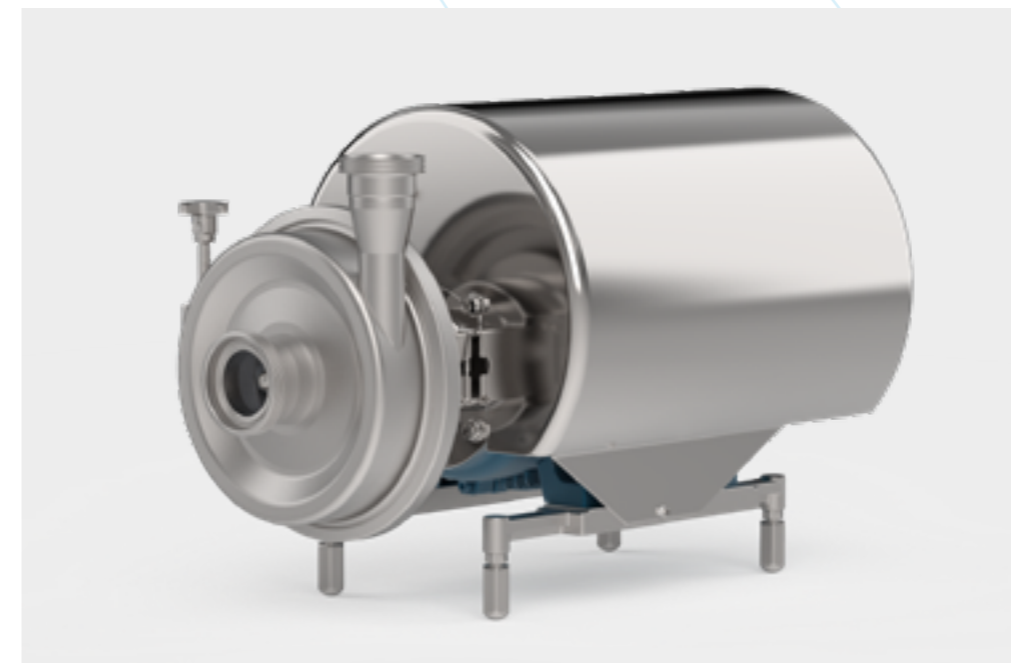
**ATEX 3G versions available.**

## CN SERIES

Mixed rolled/cast AISI-316L (1.4404) stainless steel construction, these pumps are also available with 3A sanitary standards compliance. Made up of three models with independent pump shaft and standard IEC electric motor. NEMA standard motor supports available.

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.

**Versions available: ATEX 2G - 3A / EHEDG.**

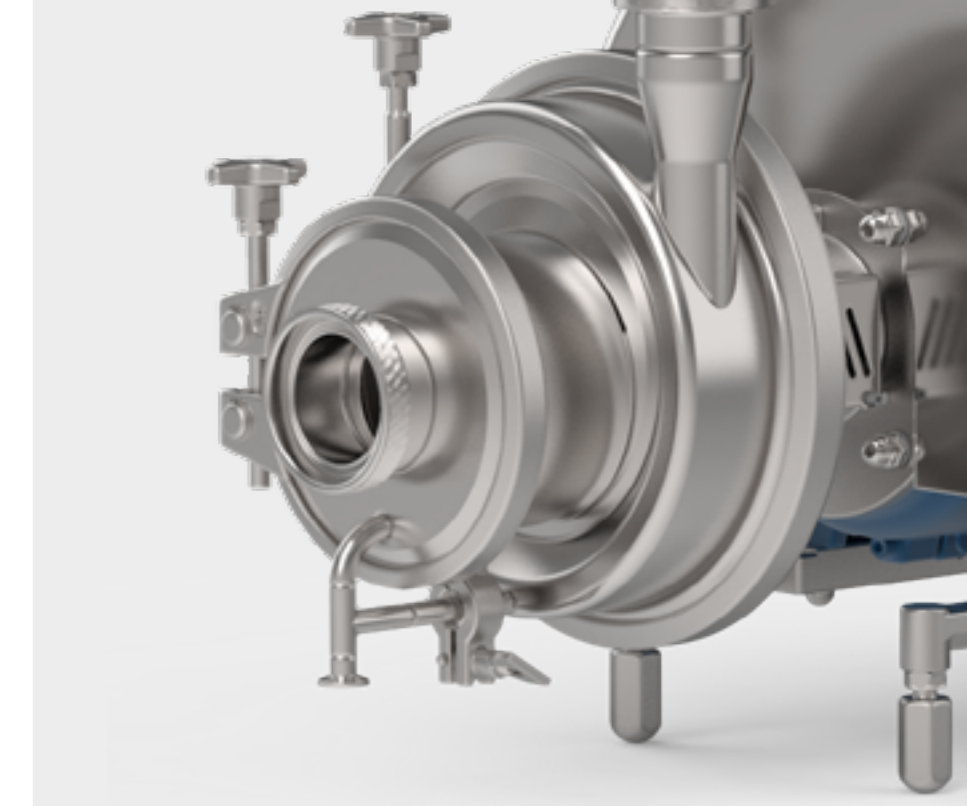


## CNH SERIES

Range of single-stage centrifugal pumps equipped with a self-priming device. This component guarantees pump operation in applications handling biphasic fluids. Open 5-vane impeller.

Made in three models with combined pressed/cast AISI 316L (1.4404) stainless steel. They have internal surfaces polished to Ra 0.8 microns and are therefore particularly popular when a high level of interior finish is required.

**Available with 3-A Certification on request.**

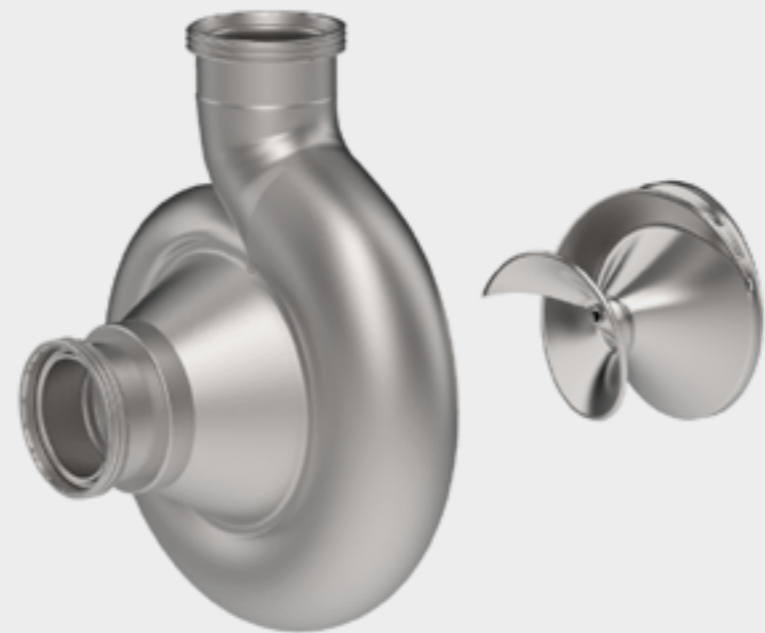


# CENTRIFUGAL PUMPS



## CR, CV, CSM, CP SERIES

The peripheral pumps are ideal for handling clean liquids with no abrasive particles at very low flow rates and with high heads in various food and/or industrial sectors.



### CR SERIES

The special spiral impeller, together with the casing shape, large volute and reduced operating speed (max. 1750 rpm) make this pump suitable for handling delicate liquids with suspended particles, combining the properties of a centrifugal pump with the delicate handling of a progressive cavity pump.

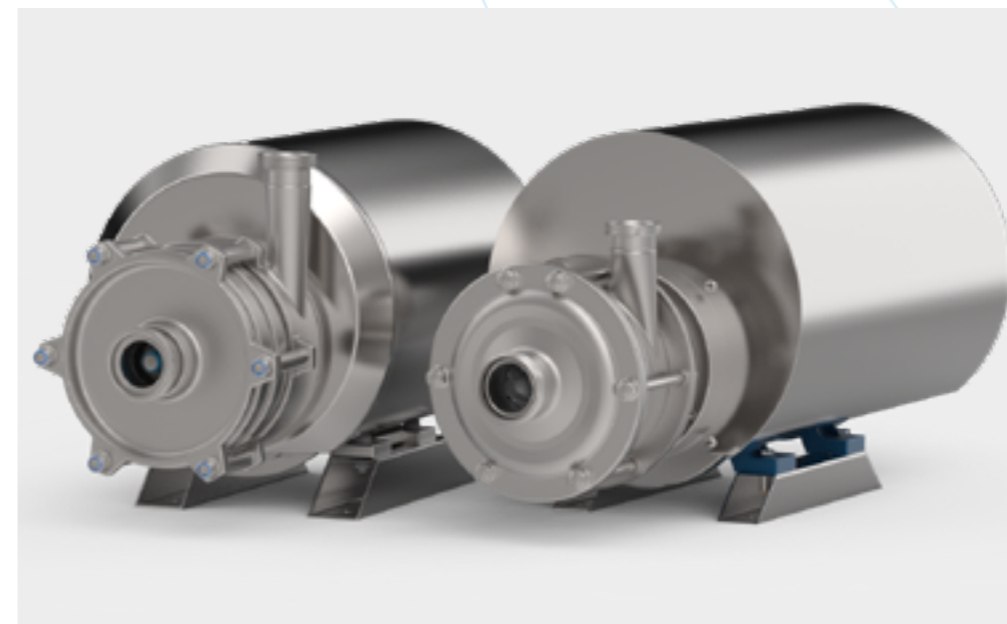
In fact, the "CR" is widely used to handle high consistency products containing solids. For example in the production of wine, beer, transfer of cereals, chopped fruit, vegetables, meat and poultry.

### CV SERIES

Made entirely from AISI 316 stainless steel, the "CV" pumps are single-block components with closed vane impellers, installed directly on the electric motor shaft. Widely used for industrial duties such as washing, filtering, racking and water treatment circuits.

### CSM SERIES

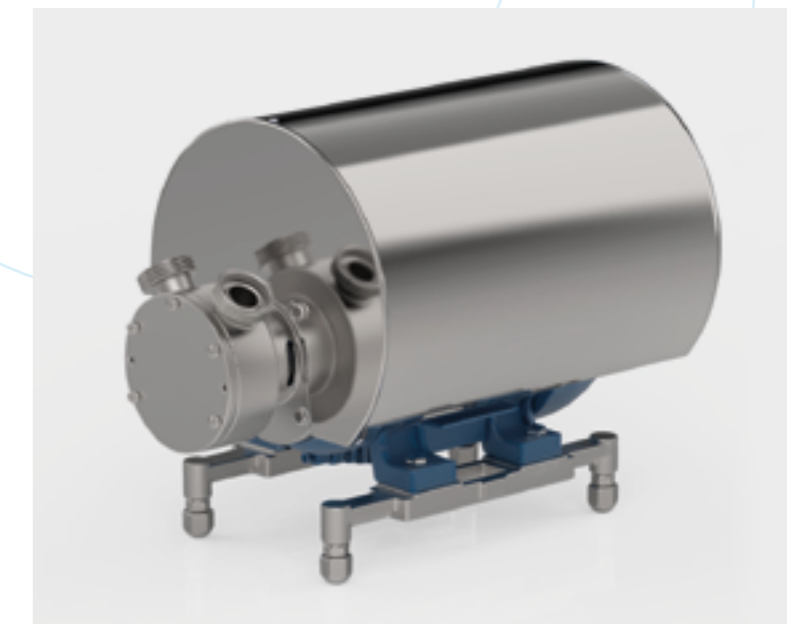
The "CSM" is built for use in high pressure applications, operating at up to 40 bar. It is made from solid AISI 316L stainless steel with an excellent surface finish. Available in both single- and multistage versions with up to 4 impellers.



### CP SERIES

Thanks to the special design of the casing and impeller and the absence of pulsations, these single-block peripheral impeller pumps are widely used for dosing liquids, in laboratory micro-systems, in-line measuring systems, spray systems and applications where medium-high heads and low flow rates are required.

They are also used to transfer clean, non-abrasive liquids with no suspended solids with a maximum viscosity of 250 cps in the food, dairy, beverages and syrups, oil and liqueur industries, in CIP process or in the chemical sector with acid and base solutions as well as in the cosmetic and pharmaceutical sectors. Made from laminated AISI 316L steel they have excellent levels of surface finish.

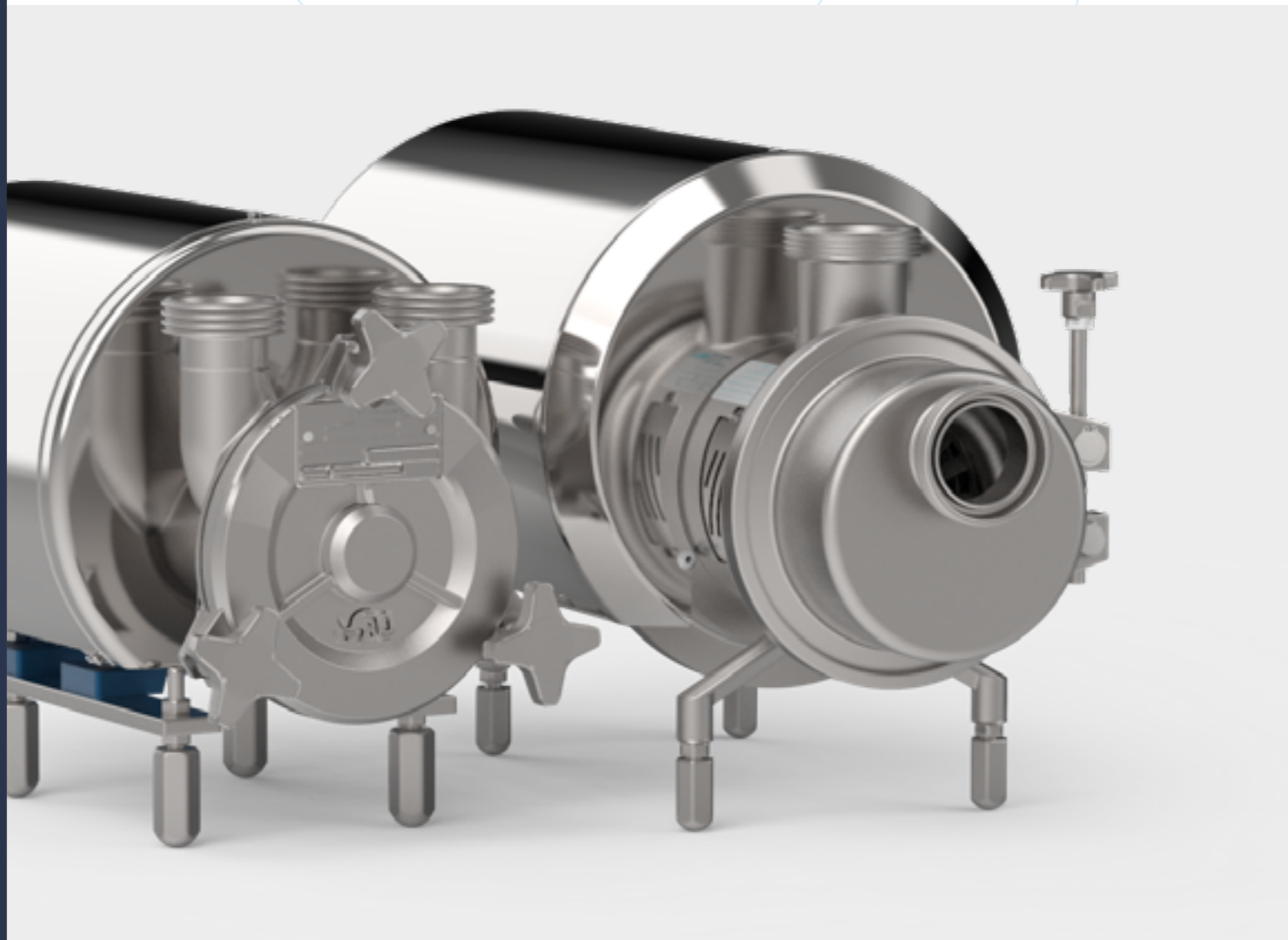


# CENTRIFUGAL PUMPS

## A, AS, ASH SELF-PRIMING SERIES

CSF Inox self-priming pumps come in a wide range of models, both hygienic and industrial. They are able to handle liquids containing bubbles or which create foam or with the suction pipe only partly filled.

The parts in contact with the product are made from AISI 316L or AISI 316 stainless steel and the quick disassembly make them particularly suitable for all uses.



### A SERIES

Single-block version with the impeller supported directly by the electric motor shaft on the "A21" and "A31" models and with independent IEC motor with elastic coupling on the rest of the range.

There is also a model with a special flange support for hydraulic motors for installation on tanker trucks. These pumps are suitable for transporting various types of liquid, such as oil, wine, liquors and chemical products.

**ATEX 3G version available on request**

### AS SERIES

Single-block self-priming sanitary pump with independent support and standard IEC motors. The materials and easy to disassemble construction make these pumps ideal for different sectors. They are widely used in CIP cleaning recovery systems, tank filling/emptying and for transferring various types of clear liquids. The parts in contact with the fluid are made from AISI 316L stainless steel using the lost-wax casting process and electrochemical polishing to guarantee optimum surface finishes.

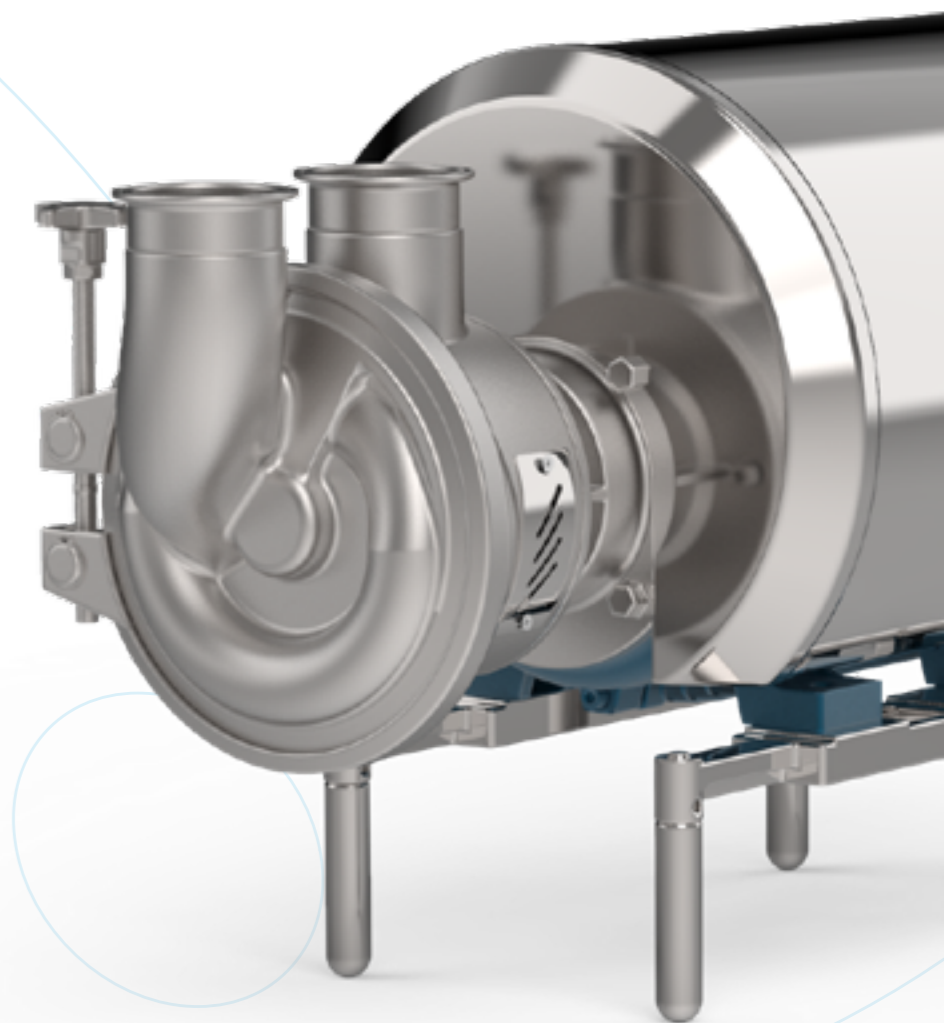
**ATEX 2G versions available**

### ASH SERIES

The "ASH" self-priming pumps are approved in accordance with US 3A sanitary standards. Made for different application needs, they are a top product thanks to the design features, materials and technologies used.

They can handle liquids which release gas or create foam and with the suction pipe only partly filled. Made from AISI 316L using the lost-wax casting process, product contact parts are polished to Ra 0.8 microns.

**ATEX 2G versions available**



# CENTRIFUGAL PUMPS



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