RD RG

RB RE

RC SEALS

<u>ARRA</u>NGEMENT

HD

HG RS

VERTICAL

CANTILEVER

RN

TS

RAM

technical catalogue

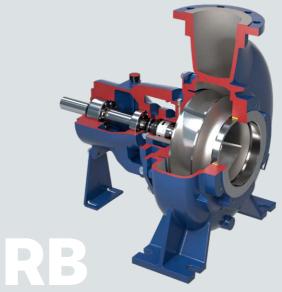
Pompe centrifughe per ogni esigenza Centrifugal pumps for any need

Le pompe Salvatore Robuschi sono utilizzate in molti settori dell'industria: grazie alle varie tipologie di girante, possono essere impiegate nei settori chimico e petrolchimico, farmaceutico di base (preparazione dei principi attivi), distillazione, depurazione, alimentare (lavaggio, veicolazione, evaporazione e concentrazione), trattamento acque, tessile, conciario, cartario, minerario e in tutti quei processi che prevedono problematiche di pompaggio (solidi in sospensione, alte viscosità, prodotti difficili da veicolare, ecc.)

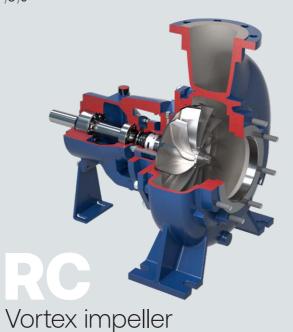
Salvatore Robuschi pumps are used for various applications: thanks to the different types of impeller, they can be used in the chemical and petrochemical sectors, pharmaceutical industry (preparation of active ingredients), distillation, purification, food industry (washing, conveying, evaporation and concentration), water treatment, textiles, tannery, paper pulp, mining and in all those processes where pumping problems arise (suspended solids, high viscosity, liquids that are difficult to convey, etc.).

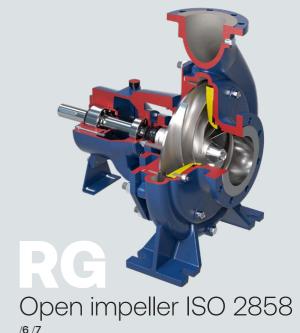


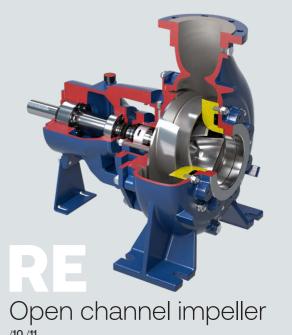
Closed impeller ISO 2858



Channel impeller

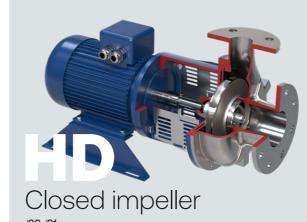








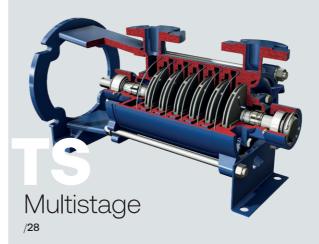














Peripheral impeller





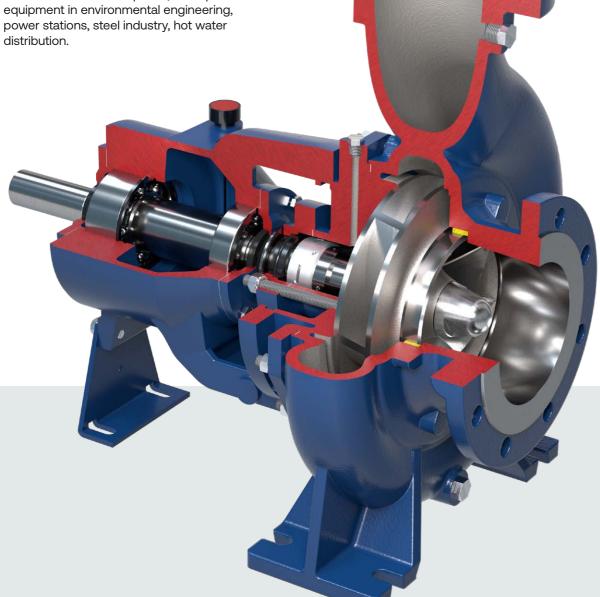
Centrifugal pumps built according to ISO 2858 /ISO 5199 norms.

FIELDS OF APPLICATION

Handling aggressive organic and inorganic liquids in the chemical and petrochemical industries.

THEY ARE ALSO USED IN

sea water desalination plants, absorption





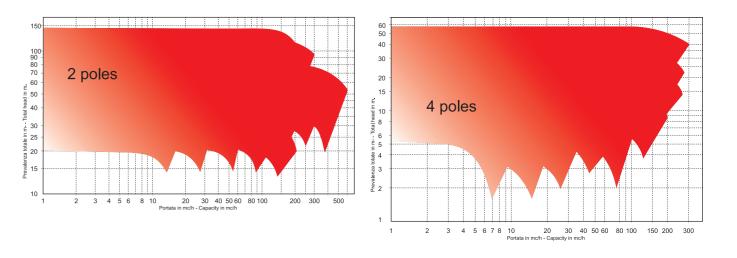
 Impeller type 	Closed
Discharge sizes	From DN 32 to DN 125
 Maximum working pressure 	16 bar
Flow rate	Up to 500 m³/hr
Differential head	Up to 140 m
Temperature	Up to 220°C according to the pumped liquid
Flanges	UNI 2278 PN 16, on request ANSI 150 drilled
Materials	Standard: AISI 316, Superduplex (sizes from 32 to 80).

On request: AISI 904L and other alloys

RD

- High hydraulic efficiency and low NPSH value (investment casting impellers).
- · Heavy duty shaft and bearings.
- Only 3 bearing brackets for the whole range.
- Only 1 casing cover fits every seal arrangement (see page "Seals").

Selection Charts









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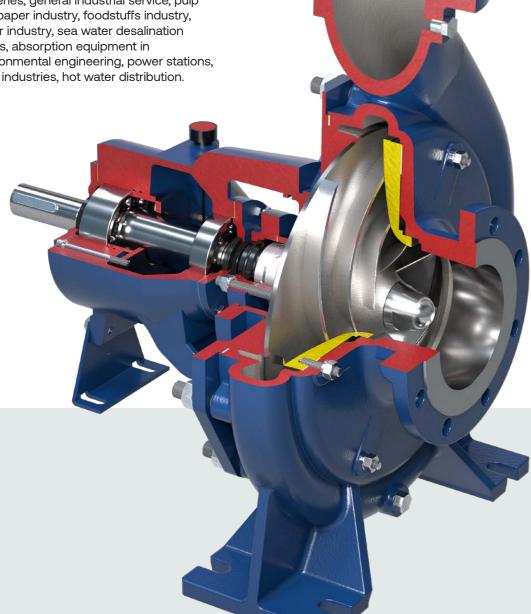
RG Centrifugal pumps built according to ISO 2858 /ISO 5199 norms.

FIELDS OF APPLICATION

Handling slightly contaminated liquids or not abrasive slurries in the chemical and petrochemical industries. Well suited for handling liquids with gas contents up to 15%.

THEY ARE ALSO USED IN

refineries, general industrial service, pulp and paper industry, foodstuffs industry, sugar industry, sea water desalination plants, absorption equipment in environmental engineering, power stations, steel industries, hot water distribution.





Maximum working pressure

· Impeller type Discharge sizes

Differential head

Temperature

Flow rate

Flanges

Materials

Open with wear plate and external adjustment	
From DN 32 to DN 125	
16 bar	
Up to 300 m³/hr	
Up to 95 m	_

Standard: AISI 316, Superduplex (sizes from 32 to 80).

Up to 220°C according to the pumped liquid UNI 2278 PN 16, on request ANSI 150 drilled

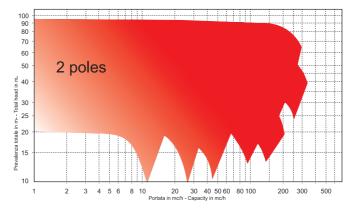
On request: AISI 904L and other alloys

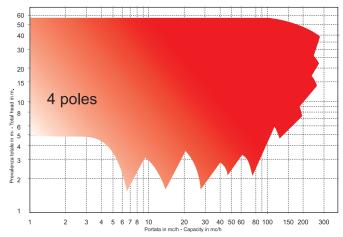
• High hydraulic efficiency and low NPSH value (investment casting impellers).

RG

- · Heavy duty shaft and bearings.
- Only 3 bearing brackets far the whole range.
- Only 1 casing cover fits every seal arrangement (see page "Seals").

Selection Charts





Arrangement

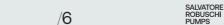












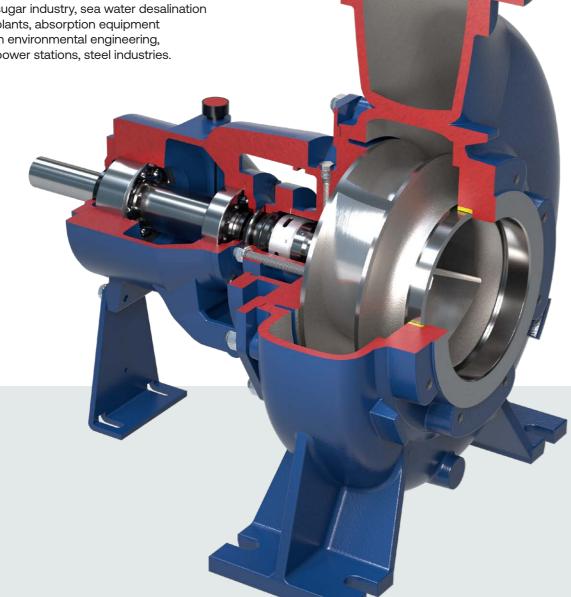
Centrifugal pumps built according to ISO 5199 norms.

FIELDS OF APPLICATION

Handling slightly contaminated liquids in waste water treatment plants, clean water for cooling towers or condensate recovery plants, viscous liquids in evaporators in food or chemical industry.

THEY ARE ALSO USED IN

refineries, general industrial service, pulp and paper industry, foodstuffs industry, sugar industry, sea water desalination plants, absorption equipment in environmental engineering, power stations, steel industries.

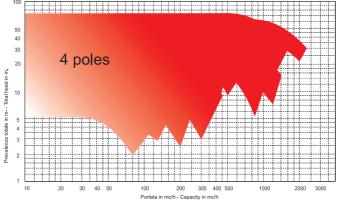


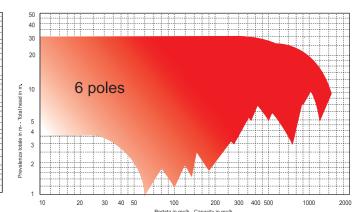
Characteristics

Impeller type	Channel
Discharge sizes	From DN 65 to DN 300
Maximum working pressure	10 bar
Flow rate	Up to 2,400 m ³ /hr
Differential head	Up to 70 m
Temperature	Up to 220°C according to the pumped liquid
Materials	Standard: Cast Iron, AISI 316, Superduplex (sizes from 80 to 125).
	On request: AISI 904L and other alloys

- Impeller with special blades geometry for low NPSH and high free passage.
- · Heavy duty shaft and bearings.
- Only 4 bearing brackets for the whole range.
- Only 1 casing cover fits every seal arrangement (see page "Seals").

Selection Charts











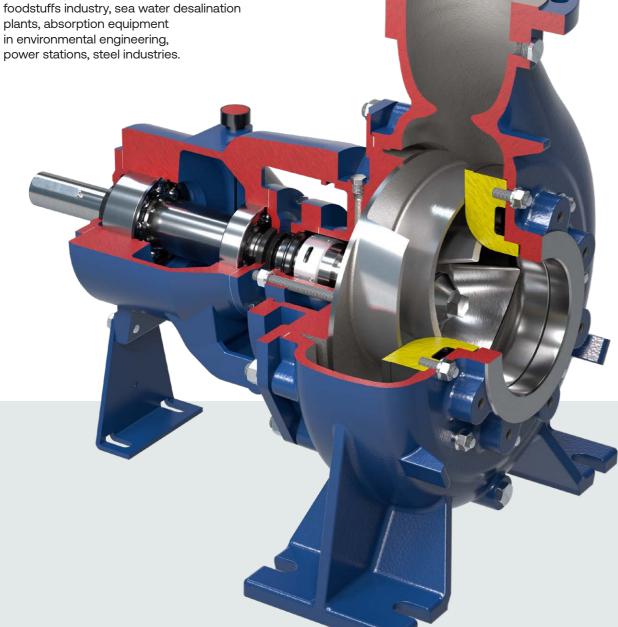
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Centrifugal pumps built according to ISO 5199 norms.

FIELDS OF APPLICATION

Handling slightly contaminated liquids in waste water treatment plants, paper pulp up to 8%, sugar industry, fertilizer, viscous liquids in evaporators in food or chemical industry.

THEY ARE ALSO USED IN refineries, general industrial service, foodstuffs industry, sea water desalination plants, absorption equipment



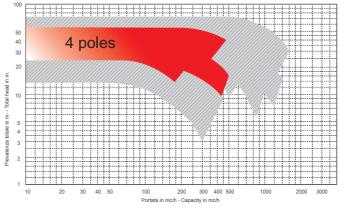
Characteristics

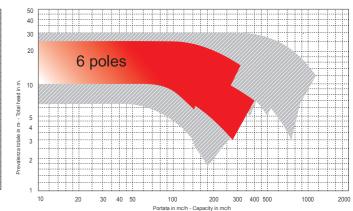
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 Impeller type 	Open-channel
Discharge sizes	From DN 80 to DN 125 (up to 250 in progress)
 Maximum working pressure 	10 bar
Flow rate	Up to 500 m ³ /hr
Differential head	Up to 50 m
Temperature	Up to 220°C according to the pumped liquid
Materials	Standard: Cast Iron, AISI 316.
	On request: Superduplex, AISI 904L and other alloys

- Impeller with special blades geometry for low NPSH and high free passage.
- · Heavy duty shaft and bearings.
- Only 4 bearing brackets for the whole range.
- Only 1 casing cover fits every seal arrangement (see page "Seals").

Selection Charts





Arrangement











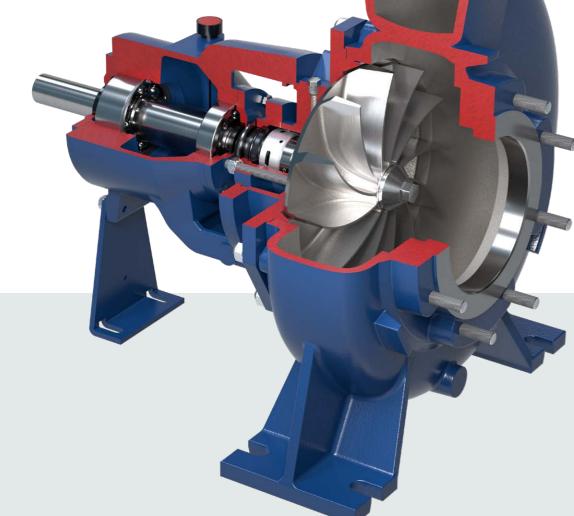
Centrifugal pumps built according to ISO 5199 norms.

FIELDS OF APPLICATION

Handling chemical and crystalline suspensions, all viscous liquid, liquid with high concentrations of fibrous suspensions, municipal and industrial wastewater, every kind of sludge.

THEY ARE ALSO USED IN

textile, tannery, refineries, general industrial service, pulp and paper industry, foodstuffs industry, sugar industry, sea water desalination plants, absorption equipment in environmental engineering, power stations, steel industries.



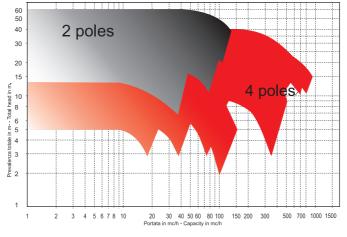
Characteristics

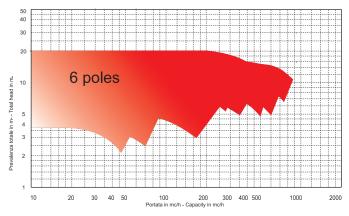
KU

 Impeller type 	Vortex
Discharge sizes	From DN 32 to DN 250
 Maximum working pressure 	10 bar
Flow rate	Up to 800 m ³ /hr
Differential head	Up to 60 m
Temperature	Up to 220°C according to the pumped liquid
Materials	Standard: Cast Iron, AISI 316
	On request: Superduplex, AISI 904L and other alloys

- Large free passage clearance up to 150 mm due to the completely recessed impeller.
- · Heavy duty shaft and bearings.
- Only 4 bearing brackets for the whole range.
- Only 1 casing cover fits every seal arrangement (see page "Seals").

Selection Charts











ONLY ONE CASING COVER FOR DIFFERENT MECHANICAL SEAL ARRANGEMENT

Cylindrical seal chamber built according to EN 12756 standards can be fitted with any type of mechanical seal or cartridge. Single mechanical seals, double mechanical seals (tandem or back to back) or packing can be obtained using few components. This modular system allows the customer to change seal arrangements using the same casing cover replacing just few parts.

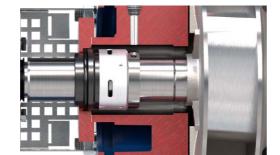
Up to 15 different seal arrangements to cover all the customer needs.

Seal arrangements can be fitted with flushing plans in according to API 682 standards (such as PLAN 11, PLAN 52, PLAN 53, PLAN 54).

Red color parts used in the execution.

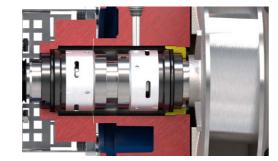
SINGLE MECHANICAL **SEAL**





DOUBLE BACK TO BACK MECHANICAL SEAL





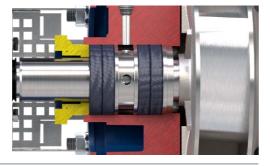
DOUBLE TANDEM MECHANICAL SEAL





PACKING GLAND





CARTRIDGE SEAL

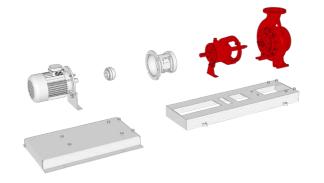




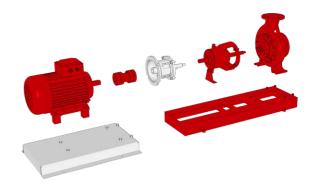
BARE SHAFT

Red color parts used in the arrangement.



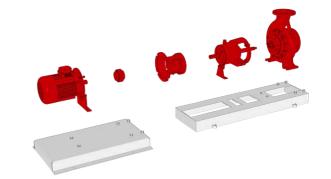


BARE SHAFT ON BASE

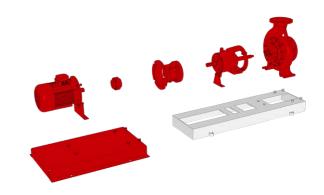


LANTERN BRACKET



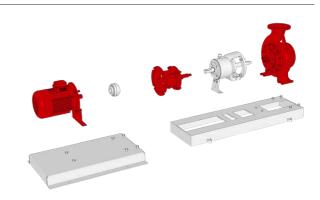






CLOSE-COUPLED





PRODUCT LINE





VERTICAL

Vertical immersible sump pump (ISO 5199 norms) line-shaft with bearing bushes.

The pump casing is immersed into the liquid, and the motor is mounted above the plate, keeping it away from the liquid. The discharge pipe is separated from the column pipe and the lubrication of the line bearings is normally obtained by the same pumped fluid, or from an external lubricating source (such as clean liquid or grease) in abrasive services. The possibility to customize mounting plate shape and dimensions, discharge flange position and column length, allows designers and end-users to match sump or tank plates or flanges.

FIELDS OF APPLICATION

Used in all industrial applications, refining, oil and gas production, chemical, pulp & paper, and water facilities.

THEY ARE ALSO USED IN

drainage sumps, oily water sumps, tank transfer.

Characteristics

VERTICAL

 Pump length 	Up to 6 meters
Mounting plate	Rectangular, circular or according to customer's specifications
Materials	Standard: Cast Iron, AISI 316.
	On request: Superduplex, AISI 904L and other alloys
Bearing bush materials	According to the pumped liquid

- · Suction strainer and suction extension on request.
- · PTFE LIP SEAL or CARTRIDGE SEAL for vapor proof construction or pressurized designs.

Arrangement

A ARRANGEMENT

Lubrication with pumped liquid.

Pumped fluid lubricates all the bearing bushes (bottom and intermediates), the liquid must be clean as suspended solids could clog the small flushing pipes. Pumps without intermediate bearing bushes can also work with liquids containing non-abrasive solids.



Impeller type

Closed impeller For clean liquids.



Open impeller

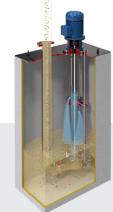
For slightly contaminated liquids or fluids containing gas up to 15%.



B ARRANGEMENT

Lubrication by external flushing liquid.

A clean external liquid lubricates all the bearing bushes. Used when the liquid is dirty, sticky or with suspended solids. This arrangement allows the pump to work also if the sump is empty or with suction extension as the bushes are always lubricated. The flushing fluid is pumped together with the liquid in the tank.



Channel impeller

For non abrasive slurries, applications with low NPSHa and liquids with non abrasive solids up to 5%.



Open channel impeller For slightly contaminated

liquids, with wide free passage.



Vortex impeller For liquids with fibers and solids up to 10%, max. 150 mm.

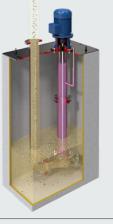


E ARRANGEMENT

Lubrication by fluid into the pipe column.

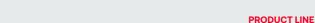
Used when the liquid is aggressive, dirty, sticky or with suspended solids if external lubrication is not possible.

A mechanical seal is installed between the shaft and the casing cover to fill the pipe column with clean liquid to lubricate the bearing bushes. Before startup, the pipe column must be filled with antifreeze solution, the level can be controlled by a dip-stick or level probe on request.









CANTILEVER

Vertical cantilever sump pumps with non-clogging vortex and channel impeller.

The pump casing is immersed into the liquid, and the motor is mounted above the plate, keeping it away from the liquid.

The heavy duty support with bearings can be installed above or below the mounting plate and the oversized shaft allows the pumps to work without bearing bushes. This means that this kind of pump can run dry, can handle aggressive liquids, can be used for fluids containing solids and also for hot liquids, all without external lubrication needed.

FIELDS OF APPLICATION

Used for sludges, slurries and liquids containing large or long solids.

THEY ARE ALSO USED IN

drainage sumps, oily water sumps, tank transfer,



Characteristics

Up to 1,8 meters with bearing house above the plate. Up to 2,2 meters with bearing house below the plate. Total lenght can be improved with a suction extension pipe Mounting plate Rectangular, circular or according to customer's specifications

On request: Superduplex, AISI 904L and other alloys

- PTFE LIP SEAL for vapor proof construction.
- · Suction strainer and suction extension on request.
- · The possibility to customize mounting plate shape and dimensions, discharge flange position and column length, allows designers and end - users to match sump or tank plates or flanges.

Standard: Cast Iron, AISI 316.

CANTILEVER

Installation

· Pump length

Materials

TYPICAL INSTALLATION

The cantilever pump is installed at the top of sump/tank and can operate even without level control and run dry if the tank empties. When the level raises again, the pump primes automatically and starts emptying the tank, until the suction port is again uncovered.



Impeller type

Vortex impeller

For liquids with fibers and solids up to 10%, max. 150 mm.



Channel impeller

For non abrasive slurries. applications with low NPSHa and liquids with non abrasive solids up to 5%.



Closed impeller For clean liquids.



TYPICAL INSTALLATION WITH SUCTION EXTENSION

The cantilever pump is installed at the top of sump/tank and works without level control. Thanks to the suction extension, can work up to 5m under the pump's casing. The pump can run dry until the level reaches the suction port. Once primed, the pump can empty the tank until the suction port



EXTERNAL INSTALLATION

is uncovered.

The cantilever pump is installed beside of sump/tank and works without level controls. When the liquid level inside the tank is above the pump casing the pump can operate normally. As soon as the liquid level is below the suction port, the pump will be unprimed and works dry. The pump will start again to work when the liquid level inside the tank is above the pump casing. The liquid level inside the tank has to be lower than recirculation pipe in order to allow the liquid going back into the tank and don't damage the motor.









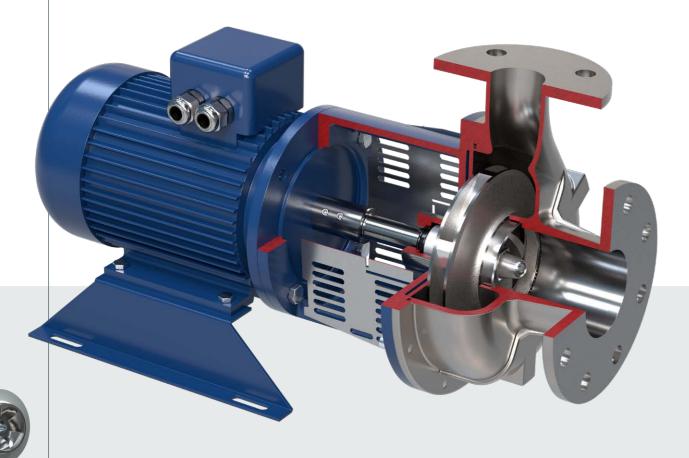


FIELDS OF APPLICATION

Handling aggressive organic and inorganic liquids in the chemical industries.

THEY ARE ALSO USED IN

general industrial service, foodstuffs industry, water/solvent recovery process, power stations, steel industry, small evaporator plants.



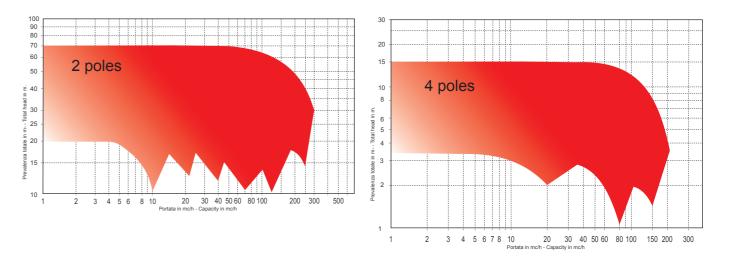
Characteristics



Impeller type	Closed
Discharge sizes	From DN 32 to DN 80
Maximum working pressure	Up to 8 bar - according to the pump size
Flow rate	Up to 250 m³/hr
Differential head	Up to 60 m
Temperature	Up to 120°C according to the pumped liquid
Materials	AISI 316
Flanges	PN 16 reduced thickness, DIN 11851 food connections or
	ANSI drilled on request
Seal arrangement	Single, double tandem, double back to back, packing gland

- Same interaxis of ISO 2858 chemical norm pumps: easy interchangeability.
- · Casing and impeller manufactured with investment casting technology.
- Standard IEC motor (different brand available) stub shaft design.

Selection Charts



Seals

- Tenuta singola. Single mechanical seal.
- 2. Tenuta contrapposta.

 Back to back mechanical seal.
- **3.** Tenuta baderna. Packing gland.
- **4.** Tenuta in tandem. Tandem mechanical seal.









PRODUCT LINE



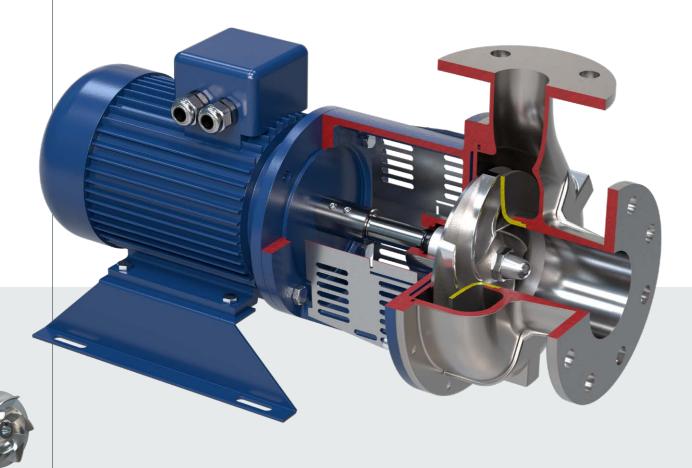
Heavy duty close-coupled centrifugal pumps.

FIELDS OF APPLICATION

handling slightly contaminated liquids or non abrasive slurries in the chemical and petrochemical industries. Well suited far handling liquids with gas contents up to 10%.

THEY ARE ALSO USED IN

general industrial service, foodstuffs industry, dissolved air flotation systems, small evaporator plants, sugar industry, water/solvent recovery process, power stations, steel industry, textile.





Maximum working pressure

Impeller typeDischarge sizes

Differential headTemperature

Seal arrangement

Flow rate

Materials

Flanges

Open with wear plate
From DN 32 to DN 80
Up to 8 bar - according to the pump size
Up to 250 m³/hr
Up to 60 m
Up to 120°C according to the pumped liquid

PN 16 reduced thickness, DIN 11851 food connections or

Single, double tandem, double back to back, packing gland

• Same interaxis of ISO 2858 chemical norm pumps: easy interchangeability.

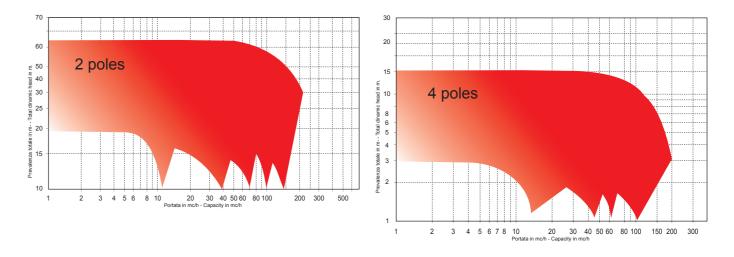
HG

AISI 316

ANSI drilled on request

- · Casing and impeller manufactured with investment casting technology.
- Standard IEC motor (different brand available) stub shaft design.

Selection Charts



Seals

- Tenuta singola.
 Single mechanical seal.
- 2. Tenuta contrapposta.

 Back to back mechanical seal.
- Tenuta baderna. Packing gland.
- **4.** Tenuta in tandem. Tandem mechanical seal.











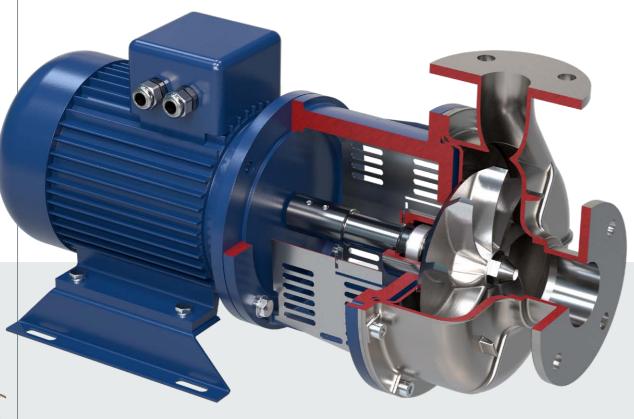
RS Heavy duty close-coupled centrifugal pumps.

FIELDS OF APPLICATION

Handling chemical and crystalline suspensions, all viscous liquid, liquid with high concentrations of fibrous suspensions, municipal and industrial wastewater, every kind of sludge.

THEY ARE ALSO USED IN

general industrial service, foodstuffs industry, dissolved air flotation systems, waste water treatment plant, sugar industry, water/solvent recovery process, power stations, steel industry, textile and tannery.



Characteristics

Seal arrangement

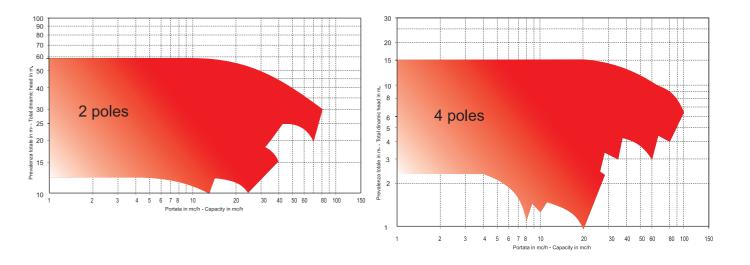
Impeller type	Vortex
Discharge sizes	From ¾" M to DN 65
Maximum working pressure	Up to 8 bar - according to the pump size
Flow rate	Up to 100 m ³ /hr
Differential head	Up to 60 m
Temperature	Up to 120°C according to the pumped liquid
Materials	AISI 316
Flanges	PN 16 reduced thickness, DIN 11851 food connections or
	ANSI drilled on request

Single, double tandem, double back to back, packing gland

RS

- Same interaxis of ISO 2858 chemical norm pumps: easy interchangeability.
- Casing and impeller manufactured with investment casting technology.
- Large free passage clearance up to 50 mm due to the recessed impeller.
- Standard IEC motor (different brand available) stub shaft design.

Selection Charts



Seals

SALVATORE ROBUSCHI PUMPS

- 1. Tenuta singola. Single mechanical seal.
- 2. Tenuta contrapposta.

 Back to back mechanical seal.
- **3.** Tenuta baderna. Packing gland.
- 4. Tenuta in tandem.
 Tandem mechanical seal.













Centrifugal pumps built according to EN 733 norms.

FIELDS OF APPLICATION

Clean and non-aggressive liquids for the pump materials (contents of solids up to 0,2% max).

THEY ARE ALSO USED IN

non aggressive industrial liquids, water supply, heating, conditioning, cooling and circulation plants, civil and industrial applications,

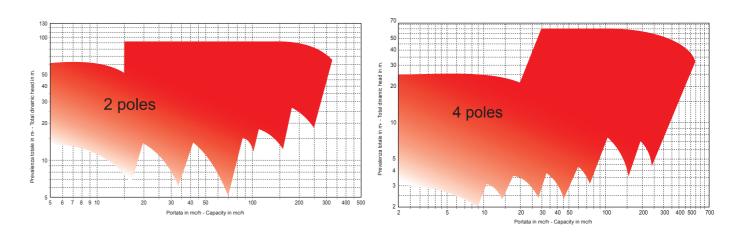


Characteristics

K	N	

Impeller type	Closed
Discharge sizes	From DN 32 to DN 150
Maximum working pressure	10 bar
Flow rate	Up to 480 m³/hr
Differential head	Up to 90 m
Temperature	Up to 130°C according to the pumped liquid
Materials	Casing in Cast Iron GJL200 EN1561.
	Shaft in AISI 430.
	Impeller in Cast Iron GJL200 EN1561 or Brass according to
	the pump size
Seal arrangement	Single mechanical seal or packing gland

Selection Charts



Arrangement





PRODUCT LINE



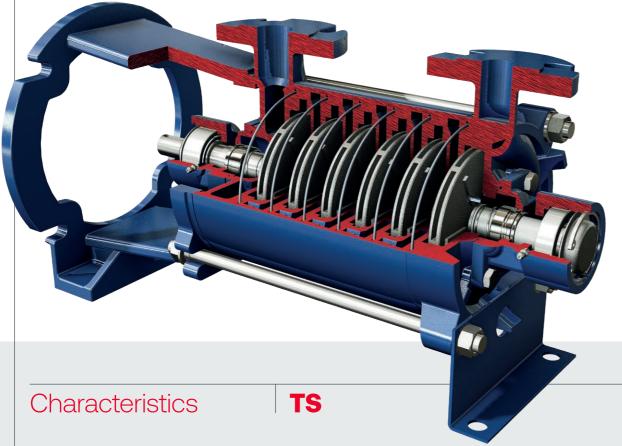


FIELDS OF APPLICATION

Clean or slightly contaminated liquids.

THEY ARE USED FOR

boiler feeding, fire fighting plants, autoclaves, water supply systems, washing plants, irrigation, to pump hydrocarbons and whenever high pressures are required.



Impeller type	Closed
Discharge sizes	From DN 32 to DN 50
Maximum working pressure	Up to 40 bar
Flow rate	Up to 45 m ³ /hr
Differential head	Up to 350 m
Temperature	Up to 140°C
Materials	Casing and diffusers in Cast Iron GJL250, shaft in
	AISI 420, bearing bushes in Bronze. Upon request
	AISI 316 shaft and special bearing bushes
Flanges	PN 16 (suction), PN 40 (discharge)
Seals	TS 31-32 range is only available with mechanical seal.
	TS 40-50 range is available both with mechanical
	seal and gland packing and cooling chambers are
	supplied as standard equipment











FIELDS OF APPLICATION

Clean liquids without solid parts in suspension.

THEY ARE USED IN

boiler feeding, washing plants, flotation plants in waste water treatment, and whenever low capacity and high pressure are required.



 Impeller type 	Peripheral
Discharge sizes	DN 25
Maximum working pressure	Up to 25 bar
Flow rate	Up to 6,3 m ³ /hr
Differential head	Up to 180 m
Temperature	Up to 120°C
Materials	Casing and diffusers in Cast Iron GJL250, shaft in
	AISI 420, impellers in Brass or AISI 316 SS upon request
Flanges	PN 25



Arrangement









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 $\langle \epsilon_x \rangle$

La nostra storia ha inizio nel 1935 in una piccola officina nel centro di Parma dove Salvatore Robuschi, il fondatore dell'azienda, costruiva e riparava piccole pompe.

Nel corso degli anni l'assistenza si è trasformata in produzione e oggi, quasi 90 anni dopo, la Salvatore Robuschi è uno dei principali produttori di pompe di processo in Italia e ricopre un ruolo strategico anche a livello mondiale.

La gamma odierna comprende pompe centrifughe orizzontali e verticali con girante chiusa, aperta, a canali ed arretrata utilizzate in settori quali trattamento acque, chimico, alimentare e molto altro.

Ciò che contraddistingue la Salvatore Robuschi dalla concorrenza è il supporto tecnico: grazie alla continua crescita degli ultimi decenni è stato possibile creare uno staff tecnico-commerciale altamente qualificato che, con competenza e rapidità, è in grado di sviluppare soluzioni personalizzate per ogni esigenza del cliente.

L'ampia gamma, l'affidabilità, la totale modularità dei prodotti, i brevi tempi di consegna ed il supporto puntuale sono i motivi principali per cui la Salvatore Robuschi continua ad accrescere la propria quota di mercato anno dopo anno, senza però tralasciare l'attenzione per l'ambiente ed il benessere dei dipendenti.

La struttura organizzativa

L'ufficio tecnico commerciale è in grado di affiancare il cliente nella scelta del prodotto, intesa come vera e propria guida nell'identificazione della corretta macchina da destinare all'uso specifico.

Direttiva ATEX

L'azienda è anche in grado di fornire pompe certificate secondo le norme ATEX, categorie 2 e 3, per l'utilizzo in atmosfera esplosiva.

Attenzione per l'ambiente

L'attenzione che la Salvatore Robuschi riserva all'ambiente ha portato l'azienda a sviluppare una politica ecosostenibile investendo nella posa di un impianto fotovoltaico composto da 1.000 m² di pannelli di ultima generazione con capacità produttiva media annuale di 1 MW.





OL HISTOF

Our history starts back in 1935 in a small workshop in Parma where Salvatore Robuschi, the company founder, built and repaired small pumps.

Over the years service has turned into production and today, almost 90 years later, Salvatore Robuschi is one of the largest manufacturers of process pumps in Italy and plays a strategic role worldwide too.

Today's range includes horizontal and vertical centrifugal pumps with closed, open, channel and vortex impeller used in applications such as water treatment, chemicals, food and much more.

The main difference between Salvatore Robuschi and other competitors is the technical support: thanks to the continuous growth in the last decades it has been possible to create a highly qualified technical-sales staff that, with competence and rapidity, is able to develop tailor-made solutions for every customer need.

The wide range, the reliability, the total modularity of its products, the short delivery times and the punctual support are the main features that allow Salvatore Robuschi to keep on increasing its market year after year, always keeping in mind the attention to the environment and the employees' welfare.

Organisational structure

The sales-technical department is well-qualified to assist the customer in choosing the most suitable machine and meet customers specific needs.

Atex directive

Salvatore Robuschi is able to supply pumps according to the ATEX rule, category 2 & 3, suitable to be installed in hazardous area.

Environment

Salvatore Robuschi concern with the environment led to an eco-friendly policy investing in a photovoltaic system that has an avarage capacity per year of 1 MW thanks to its 1,000 m² panels.













































































































































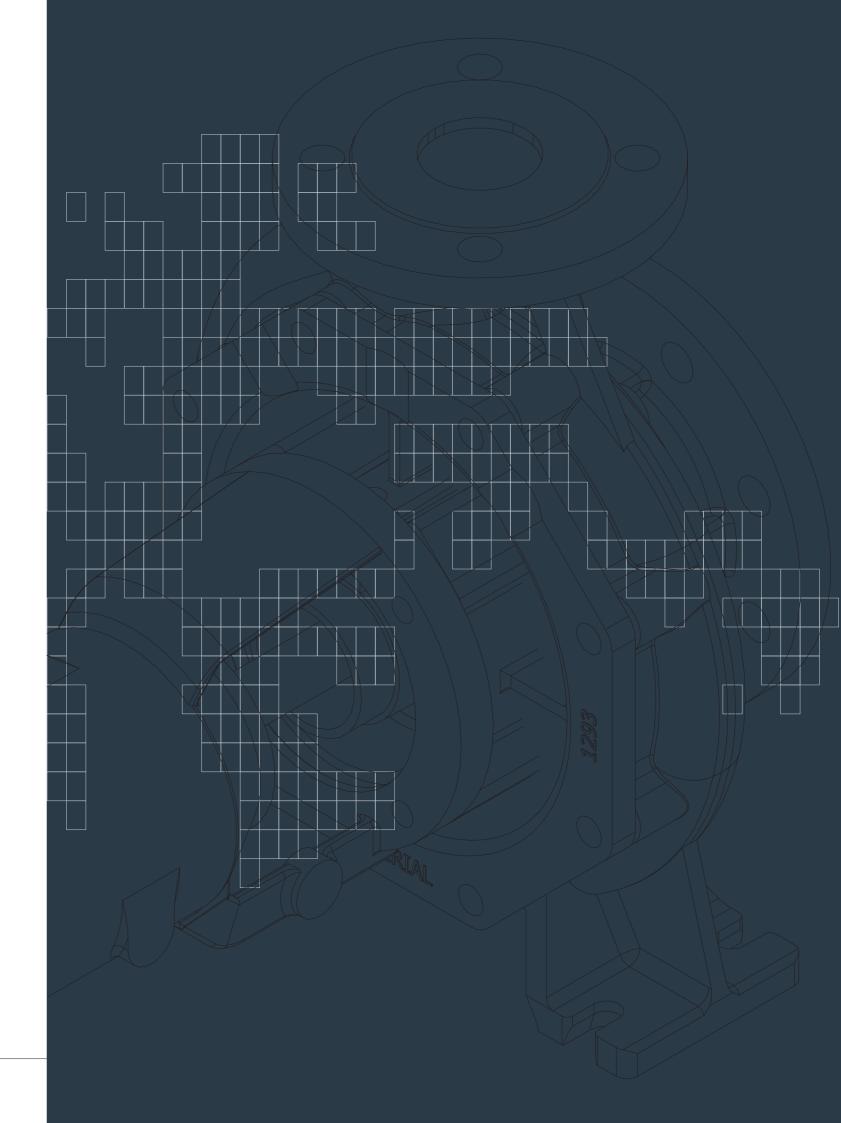














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