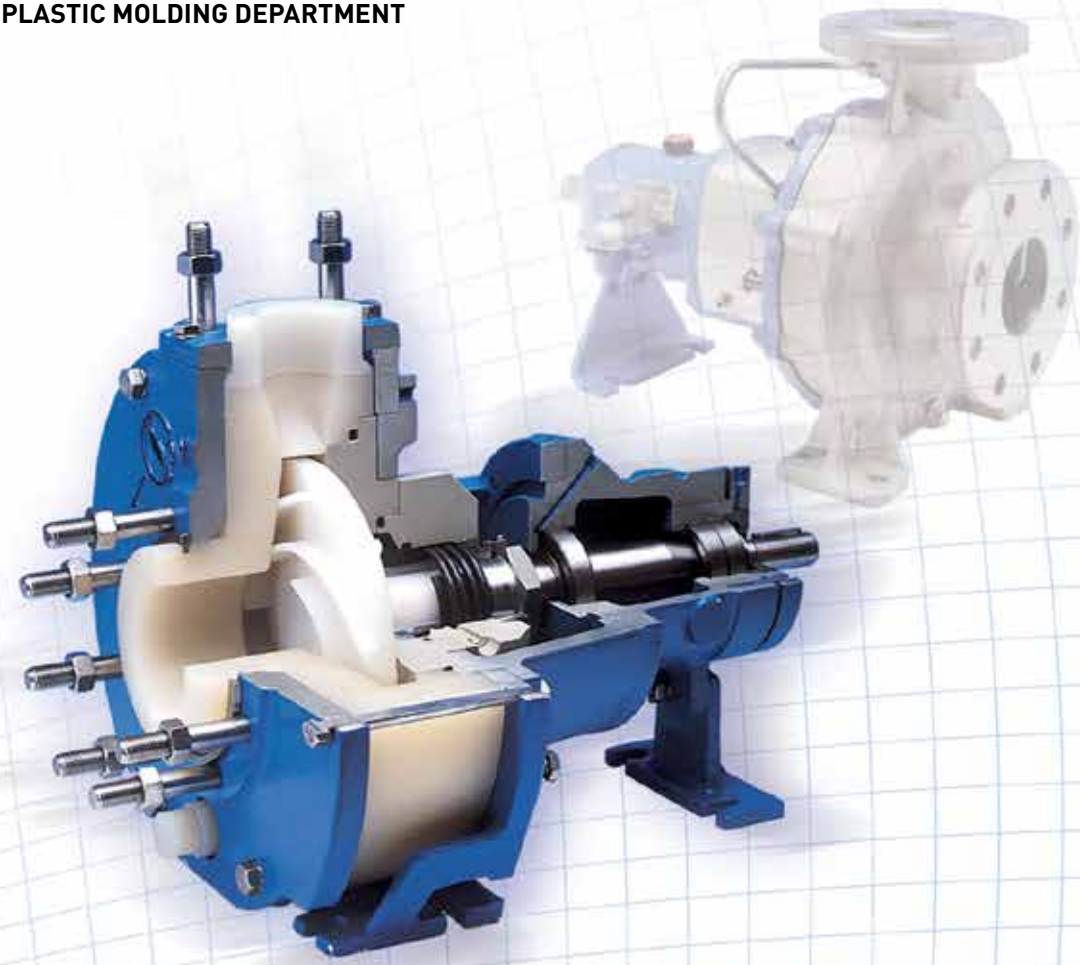
Product Range

Abrasion and corrosion resistant pumps

PP / PVDF / PE / PE-HD / PFA / PTFE
AISI 316 / AISI 316 L / AISI 904 L / HASTELLOY

- NON-METALLIC NORMALIZED
- NON-METALLIC CLOSE COUPLED
- STAINLESS STEEL NORMALIZED
- STAINLESS STEEL CLOSE COUPLED
- VERTICAL NON-METALLIC & STAINLESS STEEL
- PLASTIC MOLDING DEPARTMENT



Facility in BAGNOLET

Sales in 2011: € 10,000,000
Annual production: 3900 pumps
Total area: 11 000 m²
Production area: 4000 m²

SOMEFLU has been specialized for more than 45 years in design and manufacture of anticorrosive centrifugal pumps. These are designed for pumping corrosive liquids (which may be clear or charged), regardless of their version - horizontal or vertical - and material - synthetic material or stainless steel. The outputs range from 1 to 1500 m^3/h with a differential head from 1 to 110 meters.

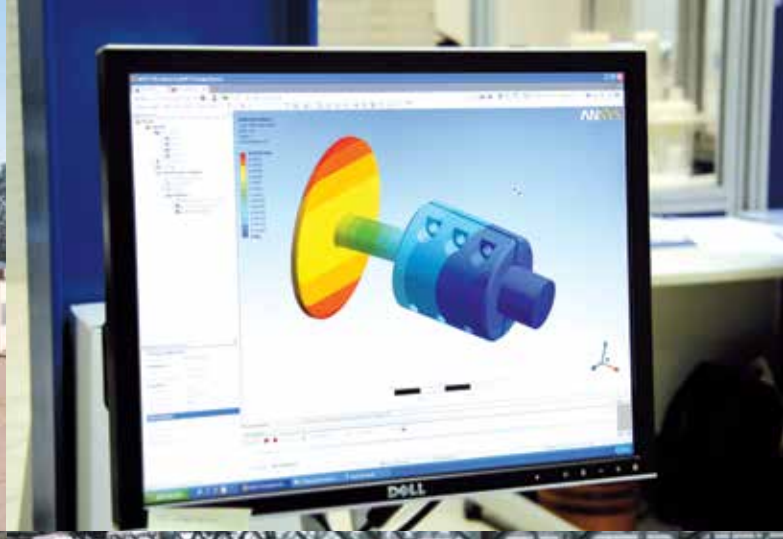
The SOMEFLU pump production unit is located near Paris, in a facility covering 11,000 m^2 that meets the most recent environmental and safety standards.

The APLAST department located in Savoie is specialized in extrusion/compression molding of high-performance plastics designed to be manufactured for machined electronics, aeronautics and various parts.
APLAST works in close collaboration with the pump department of SOMEFLU.

SOMEFLU offers its customers the most effective and the most economical solutions.
Our sales engineers are in close contact with the customers and use the experience of the Research & Development department for designing, making and installing the pumps.
The technical team endeavors to always offer the best possible solution.

SOMEFLU pumps are made on demand on the basis of the constraints specific to the pumped product (concentration, temperature, viscosity) and the characteristics of the installation.
Our experience in the use of plastics and stainless steel gives the users the guarantee of obtaining the solution that is best suited to their needs.

The research, machining, assembly and testing units use the most advanced technics to ensure that the pumps supplied to the customers are particularly reliable and will perform as required in their conditions of use.



ATEX DIRECTIVE 94/9/CE

SOMEFLU works in close collaboration with certification bodies to offer a complete range of plastic or stainless steel pumps for installations in zones 1-21-2-22.
The pumps are supplied with a type examination certificate approved by an official office to guarantee full conformity with Directive ATEX 94/9/EC.
In particular, the internal and external components of all the series in plastic are made out of electricity conducting materials such as PP-EL, PE-EL and PVDF-EL.

APPLICATIONS

- WATER TREATMENT
- ODOUR CONTROL
- DESALINATION
- CHEMICAL INDUSTRY
- AQUARIUM
- MINING
- GAZ SCRUBBERS
- POWER STATION
- THALASSOTHERAPY
- PICKLING
- SURFACE TREATMENT

Someflu has developped over the years some key technologies, like cartridge mechanical seals or PVDF vortex pumps and many more, which have enabled us to meet the most various and demanding applications.

NP

Normalized NFE 44121 - ISO 2858 - ISO 5199 - DIN 24256

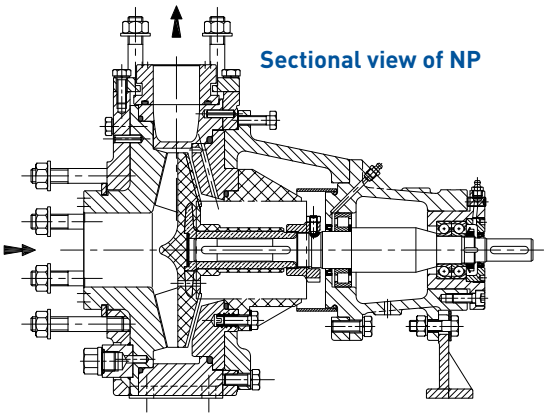
WITH MECHANICAL SEAL OR MAGNETIC DRIVE

NP

GENERAL

Single-stage centrifugal pumps of the NP series are designed for transferring clear or slightly charged corrosive fluids in the most diverse industry areas.

The range of pumps in the NP series covers a flow rate up to 1500 m^3/h and a discharge head up to 90 mlc, with a temperature range from -20°C to 120°C.



Sectional view of NP

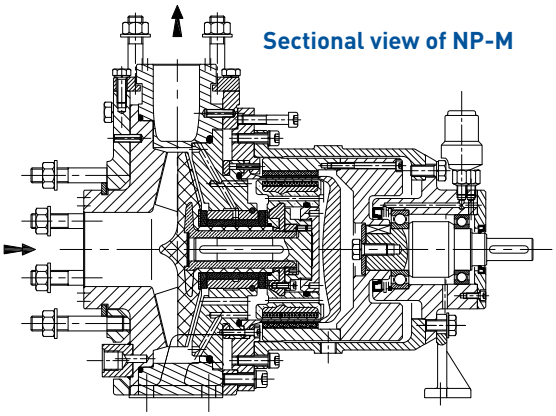
NORMALIZED

The sizes and specifications of the pumps of the NP series comply with standards NFE 44121- DIN 24256 - ISO 2858 and 5199.
NP pumps are designed for heavy-duty use in the most severe conditions.

NP-M WITH MAGNETIC DRIVE

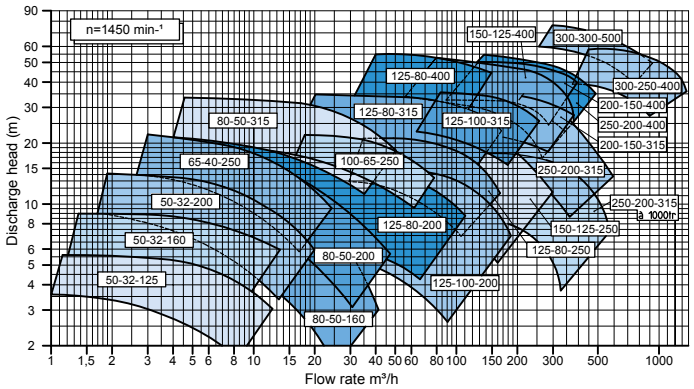
These are different from conventional pumps because of absolute sealing thanks to their magnetic drive (no shaft sealing).
They comply with the following:

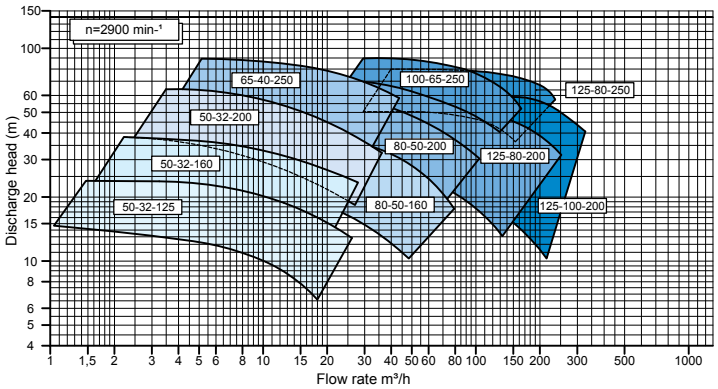
- Machinery Directive 2006/42/CE annex II A
- Electromagnetic compatibility Directive 2004/108/CE annex I
- Low voltage Directive 2006/95/CE annex III B



Sectional view of NP-M

NP DIAGRAMS

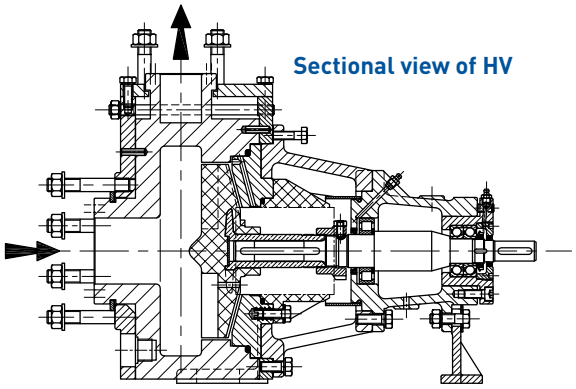




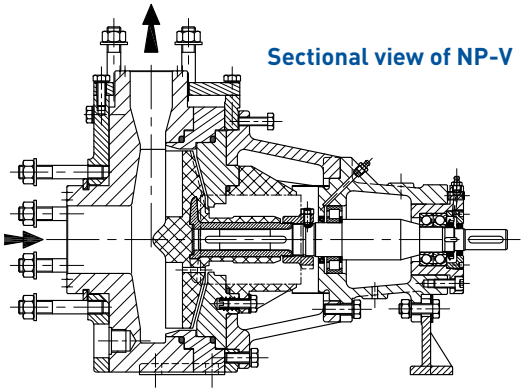
CONSTRUCTION VARIANTS

NP-V / HV

These pump series are designed for pumping corrosive fluids that are highly abrasive or highly charged with suspended material.
HV series pumps have a tangential outlet volute and a vortex impeller to enable the passage of solid particles.

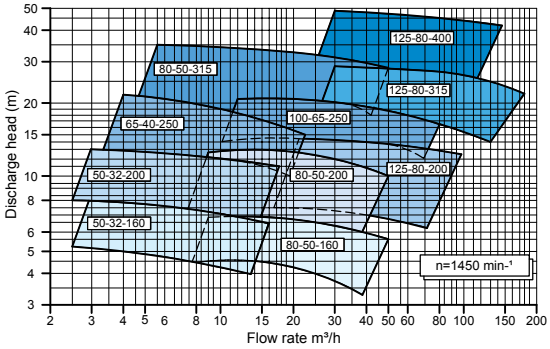


Sectional view of HV

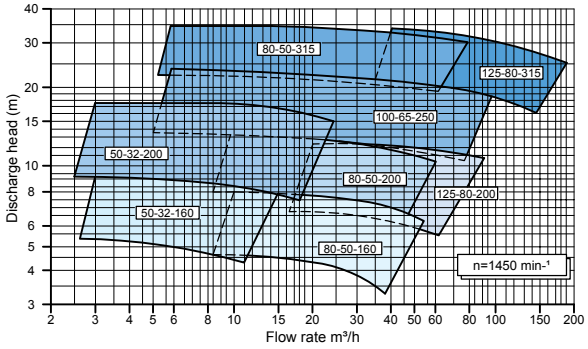


Sectional view of NP-V

HV DIAGRAM



NP-V DIAGRAM



CLOSE COUPLED PUMP WITH ISO 2858 CONNECTIONS

All the NP, NP-M, NP-V and HV pumps can be made close coupled up to a drive power rating of 15 kW according to their service conditions.

ECO-N

ATEX CONFORMITY

NP and derivative pumps are available in ATEX 94/9/CE versions.
Voluntary INERIS 04 ATEX 3008X certification

NP with ATEX certification

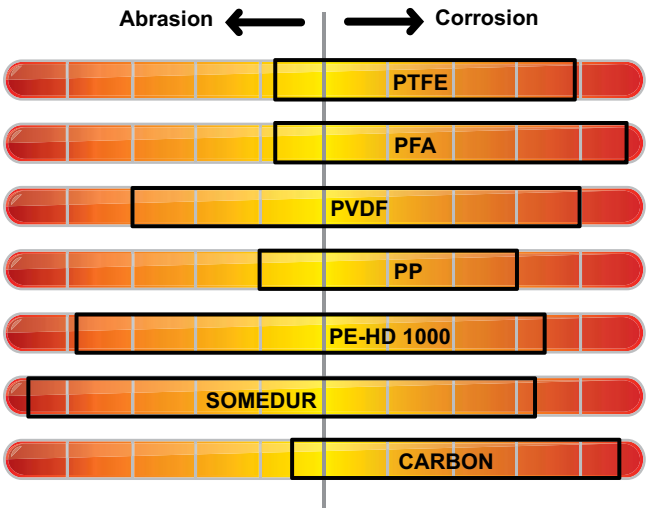
MATERIALS

The entire hydraulic part is made out of thick plastics:

- PP or PP-EL
- PE-HD or PE-EL
- PVC
- PVDF or PVDF-EL
- PTFE
- PFA
- SOMEDUR® for abrasive liquids

No metal part comes in contact with the pumped fluid.

SOMEDUR® is a material developed by SOMEFLU for specific use with corrosive, charged and abrasive fluids at temperatures up to 90°C.

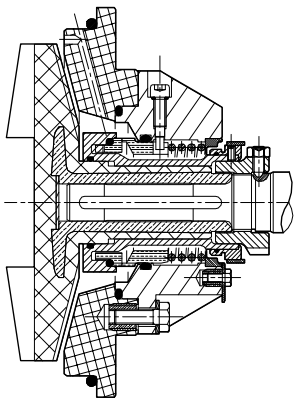


CARTRIDGE MECHANICAL SEAL

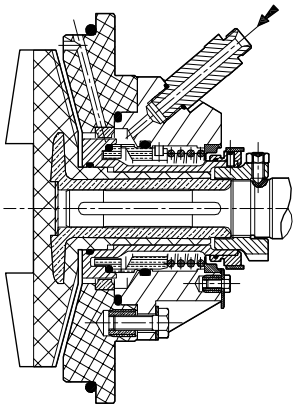
A cartridge type mechanical seal developed by SOMEFLU ensures the shaft sealing.
The seal is factory adjusted to simplify assembly and maintenance operations.
Depending on the fluid nature and the process type, the cartridge seal may be made with the following variants:

- Injection of clean liquid for fluids charged with abrasive materials. If the process allows it, clean water may be used.
- Rinsing upon shut-down for crystallizing products or charged products.
- The seal chamber may be filled with grease to limit the effects of crystallization if the process does not allow the addition of water.
- Double mechanical seal with external lubrication for hazardous or charged liquids.

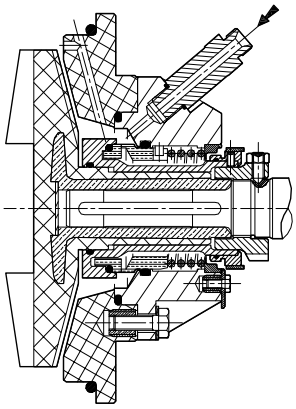
STANDARD SEAL



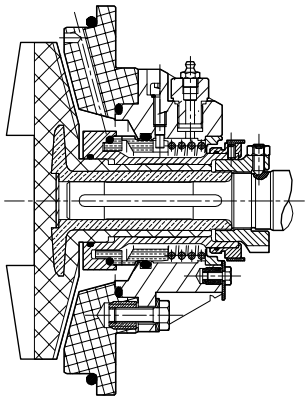
INJECTION



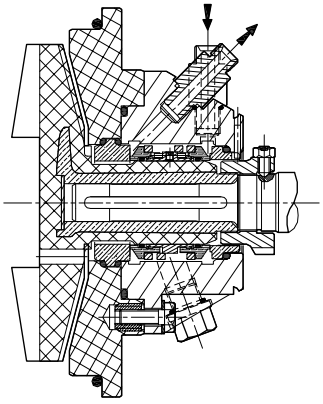
RINSING



GREASE FILLING



DOUBLE SEAL



APPLICATIONS

SOMEFLU plastic pumps are being used in the most advanced industries: nuclear power, chemicals, petroleum etc.
SOMEFLU is also a valuable partner of environmental companies.

USES

- Sea water (aquarium - sea water thalassotherapy - nuclear power plants - desalination) (1)
- Installations for the neutralization of gas from incineration units (2)
- Lifting and transfer of chemicals, effluent etc. (3)
- Petrochemicals (4)
- Installations for the deodorization of gas from treatment processes (5 & 6)
- Surface treatment
- Metallurgy (pickling, storage of baths etc.)

1

2

3

4

5

6

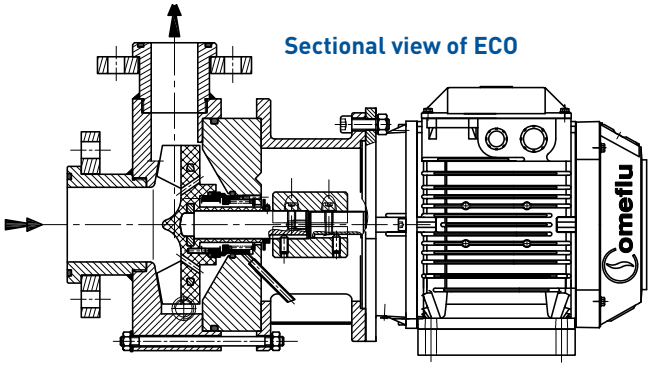
ECO

GENERAL

Centrifugal pumps of the ECO series are designed for pumping corrosive fluids. They are fitted with a mechanical seal that meets the requirements of high technology and industry.
These pumps supplement the HMP series with over 100,000 pumps in service.

The range of pumps in the ECO series covers a flow rate up to 300 m³/h and a discharge head up to 60 mlc, with a temperature range from -10°C to 120°C.

ECO



Sectional view of ECO

MATERIALS

The whole hydraulic part is made out of thick plastics:
- PP or PP-EL
- PVDF or PVDF-EL

The mechanical seal may be supplied with a SiC/SiC or SiC/C friction running faces and with grease filing as an option.

BENEFITS

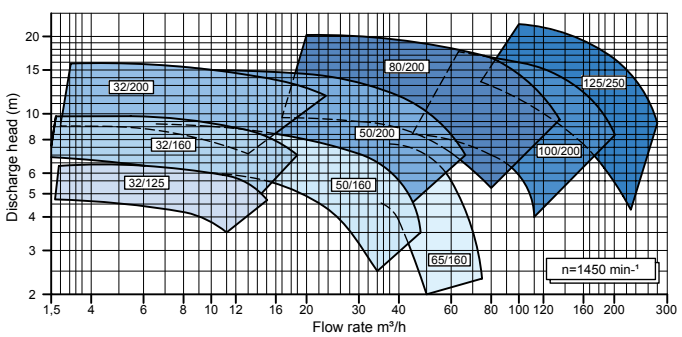
- New hydraulic systems that offer particularly efficient characteristics
- A pump motor coupling that allows easy removal after several years in a corrosive atmosphere
- Semi open impeller for slightly charged fluids
- Simplified maintenance: the seal is identical for the entire range
- Fixed position without adjustment

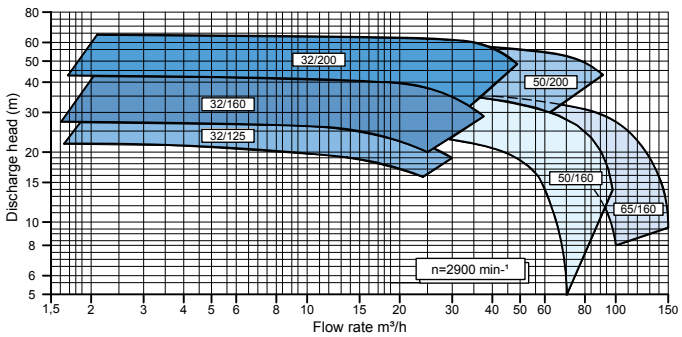
ATEX CONFORMITY

ECO pumps are available in ATEX 94/9/CE versions.
Voluntary INERIS 04 ATEX 3008X certification

ECO 125/250

ECO DIAGRAMS



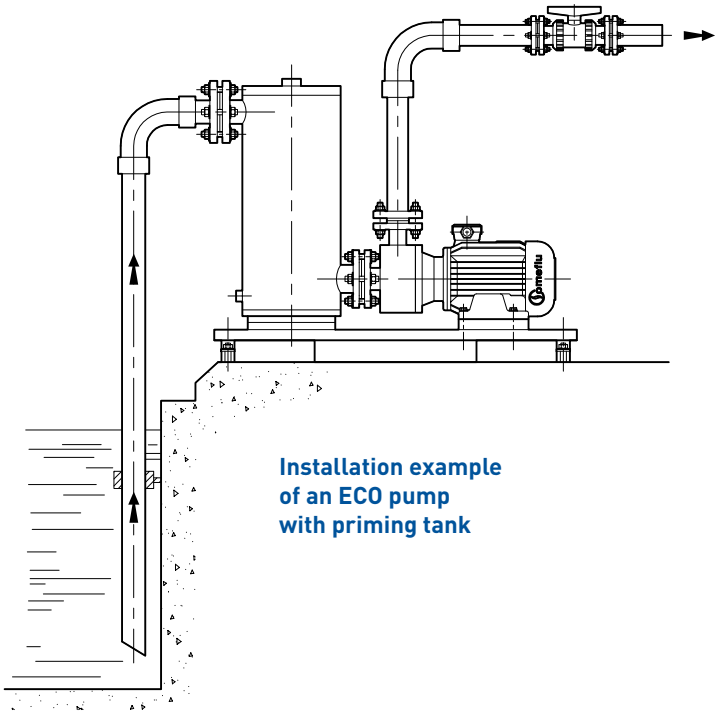


PRIMING TANK

The series of horizontal single-stage centrifugal pumps are designed to be installed with suction head. With suction lift, they have priming tanks specially designed for very severe operating conditions.

MOTORS

ECO pumps have normalized motors (to CE standards) with power ratings ranging from 2.2 kW to 18.5 kW and rotation speeds from 1450 to 2900 min^{-1}.



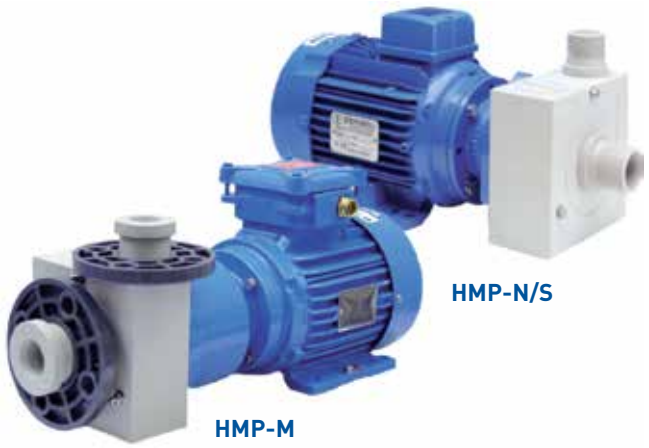
Installation example of an ECO pump with priming tank

USES

- Surface treatment units
- Waste water treatment
- Particularly well suited for gas scrubbing units
- Deodorizing units
- Lifting and transfer of all acid and alkaline solutions
- Sea water for aquariums and sea water thalassotherapy

HMP

WITH MECHANICAL SEAL OR MAGNETIC DRIVE



HMP-N/S

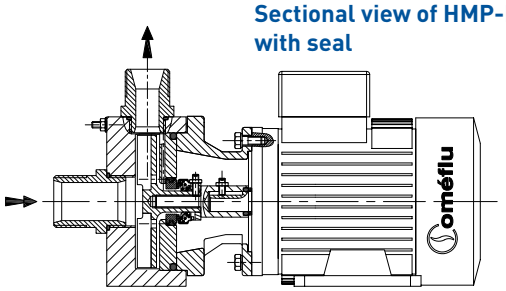
HMP-M

GENERAL

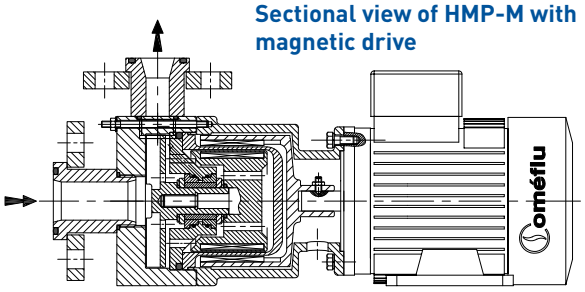
Horizontal single-stage centrifugal pumps of the HMP series are designed for transferring clear or slightly charged corrosive fluids in the most diverse areas of industry.

The range of pumps in the HMP series covers a flow rate up to 60 m^3/h and a discharge head up to 80 mlc, with a temperature range from -10°C to 120°C.

Sectional view of HMP-N/S with seal



Sectional view of HMP-M with magnetic drive



MATERIALS

The hydraulic part is entirely made out of thick plastics:

- PP or PP-EL
- PE-HD or PE-EL
- PVC
- PVDF or PVDF-EL
- PTFE or PTFE-EL
- PFA or PFA-EL

SEALING

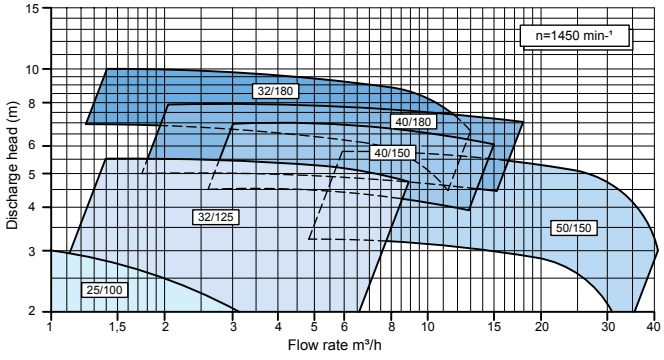
HMP pumps may be fitted with different sealing systems.
Depending on the pumped fluid, we offer:

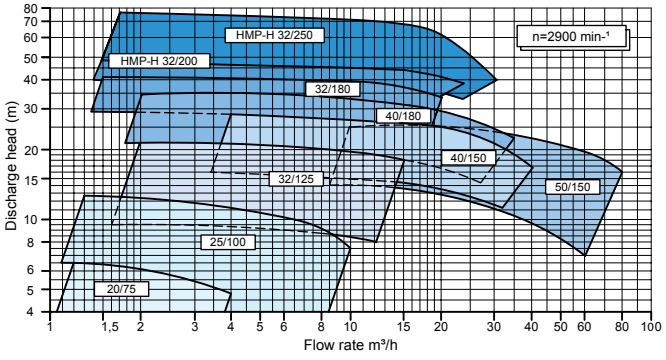
- Single mechanical seal
- Double mechanical seal
- Magnetic drive for clear liquids

ATEX CONFORMITY

HMP and derivative pumps are available in ATEX 94/9/CE versions.
Voluntary INERIS 04 ATEX 3008X certification

HMP DIAGRAMS





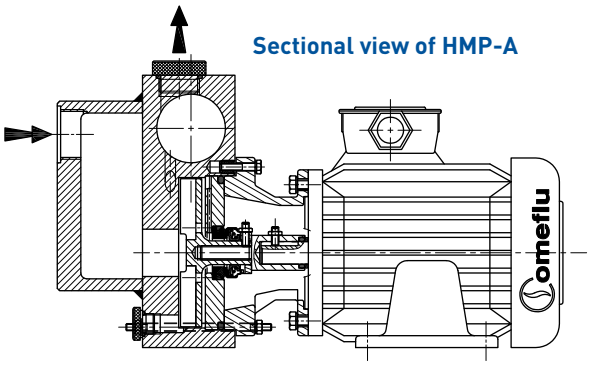
PRIMING TANK

HMP pumps may be installed with a foot valve near the suction side. As a variant, they may be fitted with a priming tank.
Such installations represent an alternative for vertical pumps.

HMP with priming tank

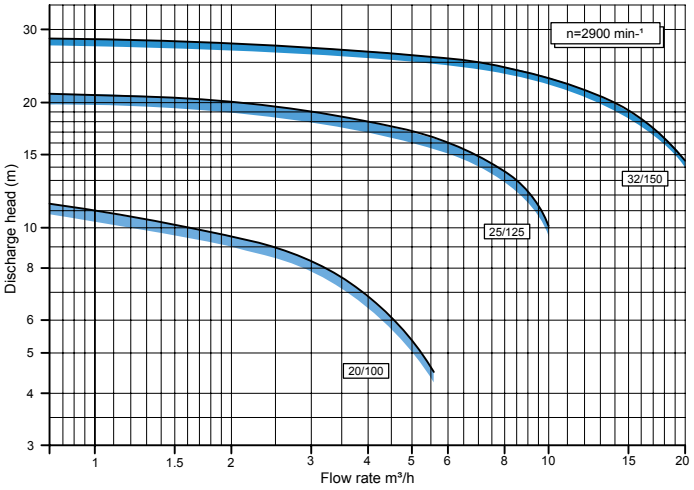
HMP-A SELF PRIMING

HMP-A pumps are built using HMP pump as the basis, and have a volute with an integrated priming tank.
They are designed to carry clear or slightly charged liquids.



Sectional view of HMP-A

HMP-A DIAGRAM



CONNECTIONS

As required, the pumps may be fitted with flanges, threaded end pieces or fluted end pieces.

MOTORS

HMP pumps are fitted with normalized motors from renowned manufacturers.

NI

Normalized NFE 44121 - ISO 2858 - ISO 5199 - DIN 24256

WITH MECHANICAL SEAL OR MAGNETIC DRIVE

NI

GENERAL

Horizontal single-stage centrifugal pumps of the NI series are designed for pumping liquids that require stainless steel construction, in the most diverse areas of industry.

The range of pumps in the NI series covers a flow rate up to 300 m^3/h and a discharge head up to 100 mlc, with a temperature range from -80°C to 220°C.

SEALING

NI pumps may be fitted with different sealing systems.
Depending on the pumped fluid, we offer:

- Single mechanical seal
- Double mechanical seal
- Magnetic drive for clear liquids

MATERIALS

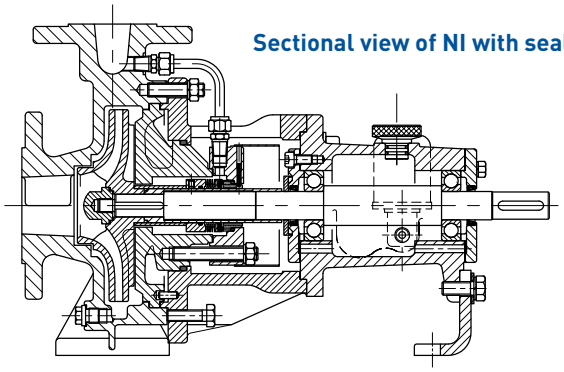
All the parts in contact with the pumped liquid are made out of stainless steel:

- AISI 316 / 1.4408

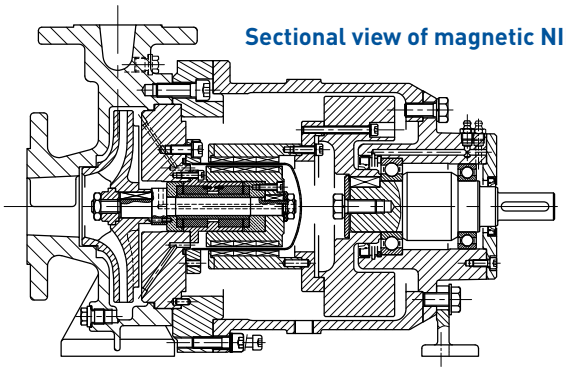
ATEX CONFORMITY

NI pumps are available in ATEX 94/9/CE versions.
Voluntary INERIS 06 ATEX 3005X certification

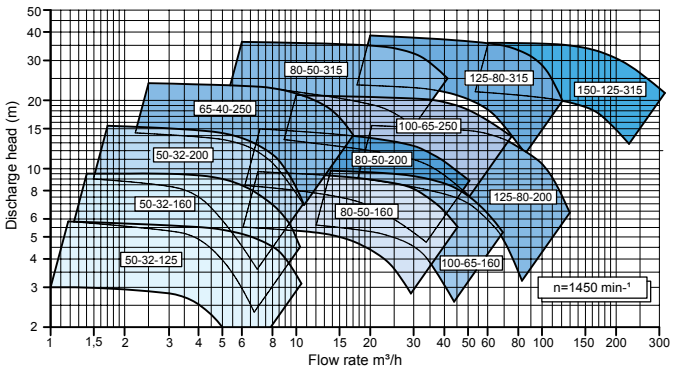
Sectional view of NI with seal

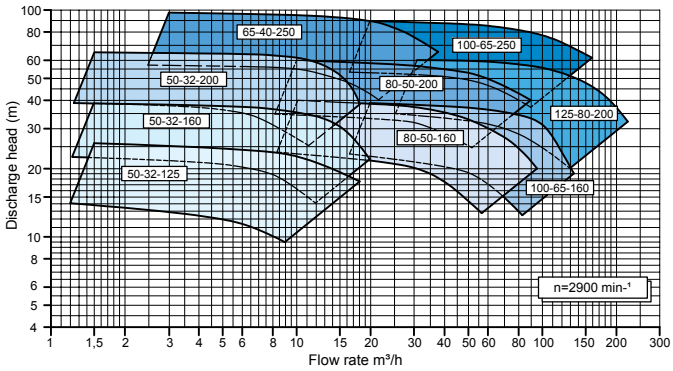


Sectional view of magnetic NIM



NI DIAGRAMS





CLOSE COUPLED PUMP WITH ISO 2858 CONNECTIONS

Close coupled HMI with mechanical seal.
Close coupled HMI-M with magnetic drive.

ECO-I

ECO-I

GENERAL

Centrifugal pumps of the ECO-I series are designed for pumping liquids that require stainless steel construction, in the most diverse areas of industry.
These pumps supplement the HMI series (over 40,000 pumps in service). They are an alternate to ISO 2856-DIN 24256 normalized pumps if you are looking for a cost-effective and reliable pump.

The range of pumps in the ECO-I series covers a flow rate up to 100 m^3/h and a discharge head up to 70 mlc, with a temperature range from -50°C to 150°C.

ATEX CONFORMITY

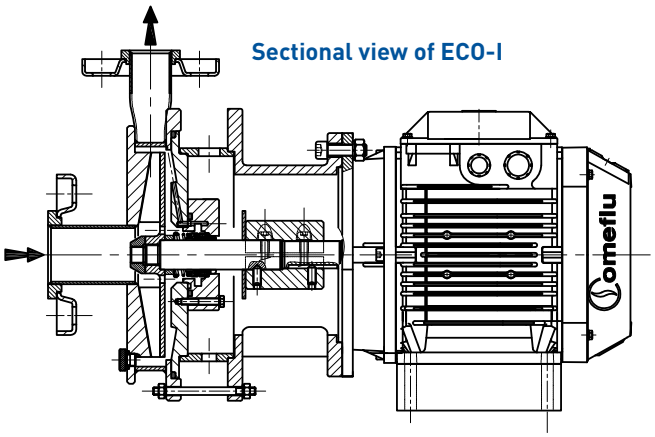
ECO-I pumps are available in ATEX 94/9/CE versions.
Voluntary INERIS 06 ATEX 3005X certification

MATERIALS

All the parts in contact with the pumped liquid are made out of stainless steel:
- AISI 316 L / 1.4404

The mechanical seal may be supplied with SiC/SiC or SiC/C running faces.

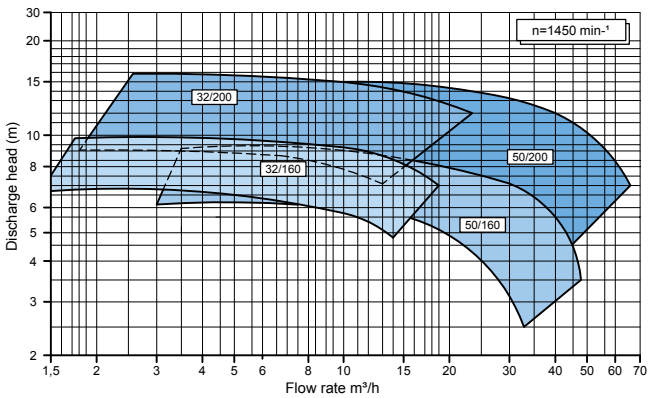
Sectional view of ECO-I

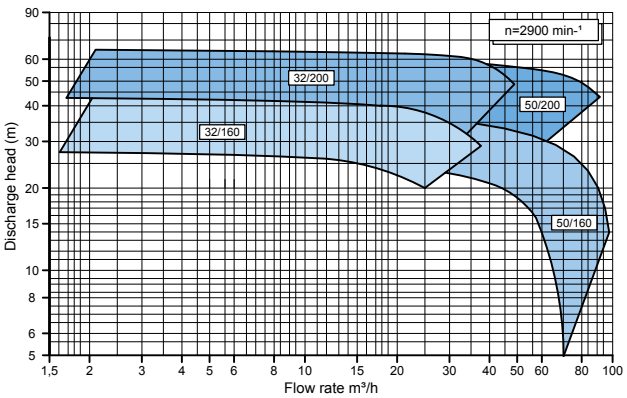


BENEFITS

- New hydraulic systems that offer particularly efficient characteristics
- A pump motor coupling that allows easy removal after several years in a corrosive atmosphere
- Molded semi open impeller
- Simplified maintenance: the mechanical seal is identical in the entire range
- Fixed position without adjustment

ECO-I DIAGRAMS





HMI

WITH MECHANICAL SEAL OR MAGNETIC DRIVE

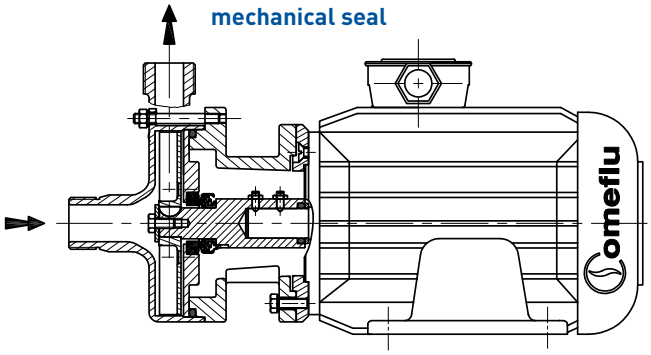
HMI-N/S

GENERAL

Horizontal single-stage centrifugal pumps of the HMI series are designed for transferring clear or slightly charged corrosive fluids in the most diverse areas of industry.
These pumps are particularly suitable for pumping solvents, heating fluids or cooling liquid at temperatures ranging from -70°C to +200°C.

The range of pumps in the HMI series covers a flow rate up to 60 m³/h and a discharge head up to 80 mlc.

Sectional view of HMI-N with mechanical seal



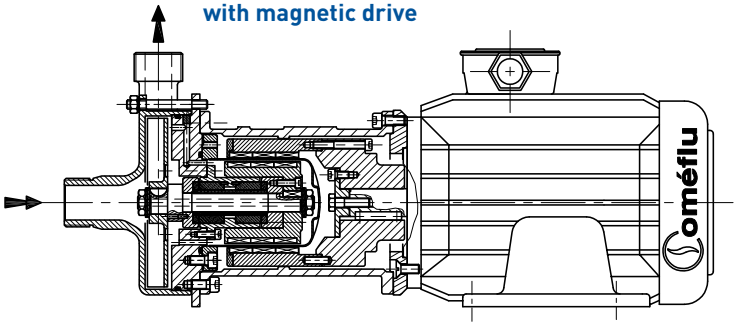
MATERIALS

The hydraulic part is entirely made out of stainless steel. The parts are manufactured using the lost wax casting method. That process guarantees high quality for very severe operating conditions of use.
Depending on the fluid pumped, we offer the following materials:

- AISI 316 L / 1.4404
- AISI 904 L / 1.4939
- Hastelloy

904 L steel is particularly well suited for highly concentrated sulfuric acid applications, even with major temperature variations.

Sectional view of IMA with magnetic drive

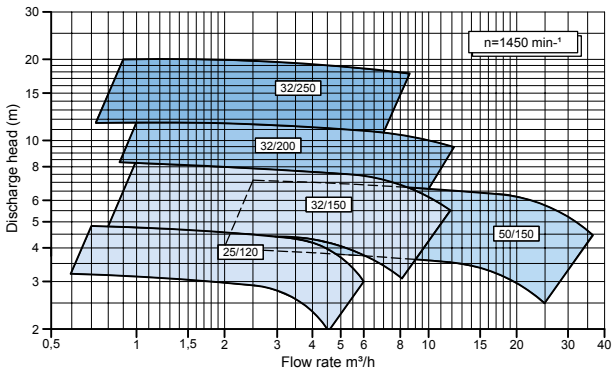


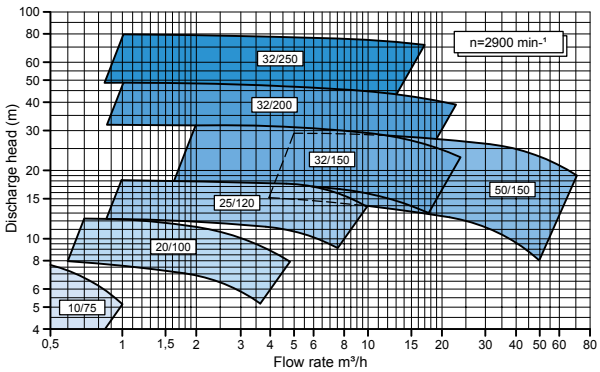
SEALING

HMI pumps may be fitted with different sealing systems:

- Single mechanical seal
- Double mechanical seal
- Magnetic drive for clear liquids

HMI DIAGRAMS





CONNECTIONS

As required, the pumps may be fitted with flanges, threaded end pieces or fluted end pieces.

MOTORS

HMI pumps have normalized motors from reputed manufacturers.

IMA with magnetic drive

HMI-X HIGH STATIC PRESSURE

HMI-X pumps are used for closed-circuit applications with static pressures up to 50 bar.
HMI-X pumps have volutes machined from block material.

HMI-X high pressure

HMI-A AND HMI-B SELF PRIMING

HMI-A and HMI-B pumps are built using HMI pump as the basis, and have a volute with an integrated priming tank.
These pumps are designed for pumping clear or slightly charged liquids.

HMI-A self priming

HMI-MT FOR MEDIUM TEMPERATURE

HMI-MT horizontal single-stage centrifugal pumps are designed for pumping hot liquids.
Maximum service temperature: 200°C.

HMI-MT

ATEX CONFORMITY

HMI pumps are available in ATEX 94/9/CE versions.
Voluntary INERIS 06 ATEX 3005X certification

HMI-DE zone 1
with lubrication vessel

NON-METALLIC AND STAINLESS STEEL

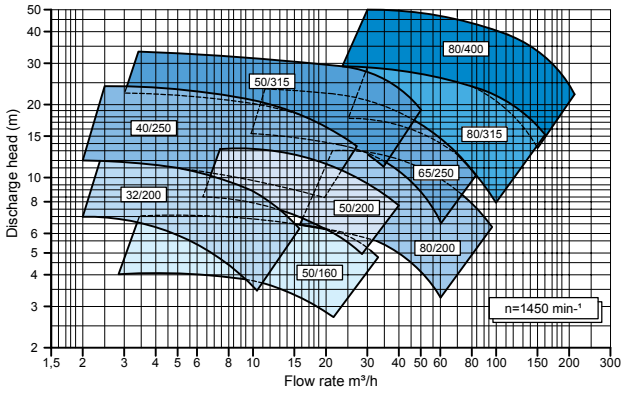
GENERAL

Vertical pumps are made on the basis of the hydraulics of horizontal close coupled pumps or normalized pumps.
SOMEFLU vertical pumps are used for pumping clear or slightly charged liquids.
VP, VLP-A, VI, VLI-A pumps have a semi-elastic coupling.
VCP-M, VLP-M, VCI-M, VLI-M pumps are close coupled.
Their rotation speeds go up to 3600 min^{-1} with shaft lengths up to 2000 mm.

VLI-M

VP

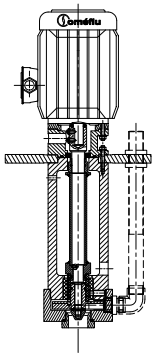
VP DIAGRAM



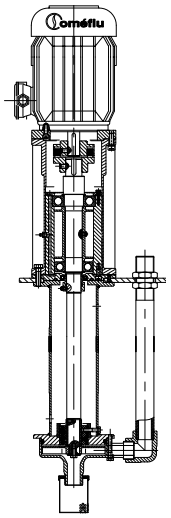
VARIANTS

Cantilever type, up to 1200 mm, the lower bearing sleeve has been removed to enable the transfer of highly abrasive corrosive liquids.
Depending on the service conditions, these pumps are made up close coupled or with a single or double upper bearing.

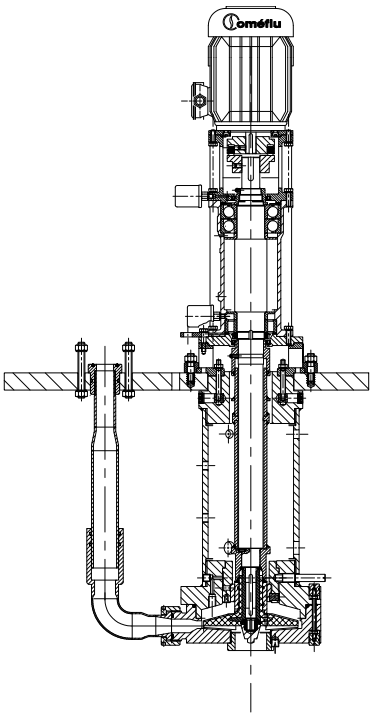
Sectional view of VCP-M



Sectional view of VLI-A



Sectional view of VP



MATERIALS

Depending on the liquid, we offer the following materials:

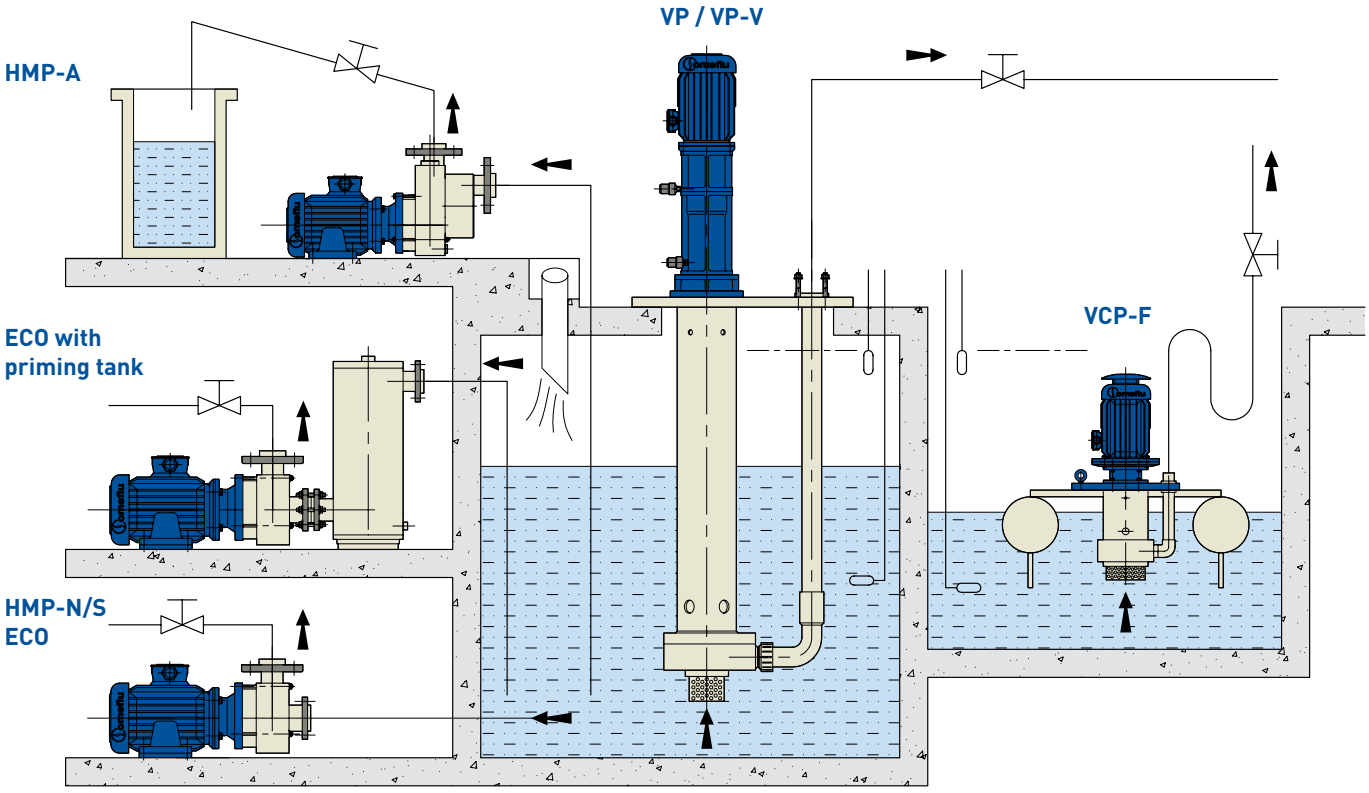
- PP or PP-EL
- PE or PE-EL
- PVDF or PVDF-EL
- SOMEDUR® for abrasive liquids
- AISI 316 L / 1.4404
- AISI 904 L / 1.4939

ATEX CONFORMITY

Vertical pumps are available in ATEX 94/9/CE versions.

VCP-M zone 2

EXAMPLES OF INSTALLATIONS



OTHER PRODUCTS

- Filtration unit
- Descaling unit
- Accessories for protection and regulation

GFP filtration unit

GDP descaling unit

Pressure gauge with separator

aplast MOLDING DEPARTMENT

GENERAL

APLAST is specialized in compression molding of high-performance plastics.
APLAST does not merely process plastics, but also works as contract manager for large-scale projects. Once the finished products are complete, they are used in leading-edge areas such as electronics, aeronautics and defense.

Press

Extrusion - Compression

Centrifuges

MAIN BENEFITS

- Our manufacturing process (extrusion/compression), ensures the highest quality in finished products
- The last operation consists in heat treating the parts in a stove to eliminate any residual stresses so as to guarantee high dimensional stability over time
- Customized manufacturing of components provides substantial material savings and reduces machining times

PROCESSED MATERIALS

ECTFE	ABS
ETFE	PC
PCTFE	PEEK
PFA	PEI
PVDF	PES
PSU	PPO
PPSU	TEEE
TPX	

AREAS OF BUSINESS

The customers of APLAST work in the following areas of industry:

Aeronautics	Automobiles
Food processing	Chemicals
Pollution control	Cryogenics
Defense	Electro-chemicals
Surface treatment	Space
Electrical engineering	Optics
Electronics	Textiles
Sealing	Medical engineering
Filtration	Shipbuilding
Semiconductors	

HOLLOW BLANKS

- Outer diameters and thicknesses: identical to disks
- Inner diameters: on demand

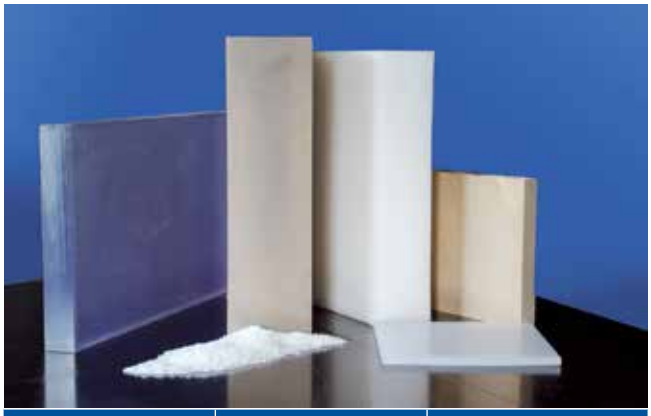
ROUND RODS

Ø in mm	Lengths in mm	Ø in mm	Lengths in mm
6	610	65	450
8	610	70	450
12	610	75	450
15	610	80	450
25	610	85	450
30	610	90	450
35	610	100	450
38	610	105	450
40	610	110	450
45	610	115	450
50	610	120	450
55	610	125	450
60	610	130	450

BLANKS MOLDED ACCORDING TO DRAWINGS

- Work on demand, on the basis of preliminary design and user requirements

SHEETS



Lengths in mm	Widths in mm	Thicknesses in mm
610	195	de 6 à 60
450	450	de 6 à 130
510	510	de 6 à 30
610	510	de 8 à 40

DISKS

Ø in mm	Thicknesses in mm
100 à 220	5 à 120
225 à 260	5 à 160
265 à 335	10 à 160
340 à 425	10 à 200
430 à 550	10 à 200
555 à 700	10 à 90
705 à 950	10 à 150

SOMEFLU is at your service

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SOMEFLU
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