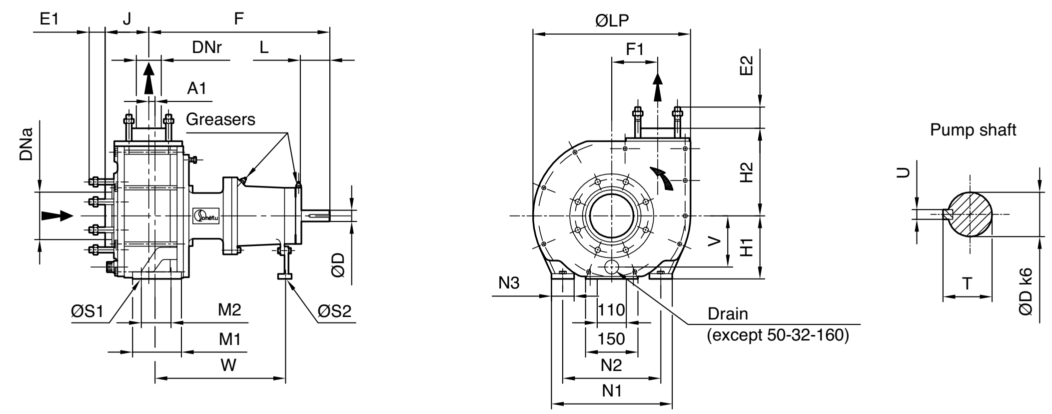
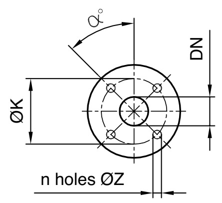


Type	DNa	DNr	Dimensions																						Pump weight
			Pump dimensions										Shaft end				Support dimensions								
			E1	J	F	A1	F1	H1	H2	E2	V	ØLP	ØD	L	T	U	M1	M2	W	S1	S2	N1	N2	N3	Somedur®
50-32-160	50	32	62	85	416	31	85	132	180	53	-	300	24	50	26,9	8	100	70	285	14	14	240	190	50	42
50-32-200	50	32	"	"	"	"	110	160	205	"	115	350	"	"	"	"	"	"	"	"	"	"	"	"	46
80-50-160	80	50	57	105	430	45	100	"	"	"	"	"	"	"	"	"	"	"	"	"	"	265	212	"	60
80-50-200	80	50	"	"	"	"	110	"	215	"	120	370	"	"	"	"	"	"	"	"	"	"	"	"	70
65-40-250	65	40	"	117	533	33	130	180	235	61	134	410	32	80	35,3	10	140	95	370	"	"	320	250	70	85
80-50-315	80	50	62	130	546	46	160	225	275	"	168	484	"	"	"	"	125	"	370	"	"	345	280	65	100
100-65-250	100	65	60	140	551	51	145	200	265	56	160	451	"	"	"	"	160	120	"	18	"	360	"	80	102
125-80-200	125	80	67	135	564	64	"	"	270	61	155	465	"	"	"	"	125	95	"	14	"	345	"	65	100
125-80-315	125	80	"	"	596	66	190	280	320	"	-	580	42	110	45,1	12	160	120	"	18	"	400	315	80	130

Connect pipes on pump without strain

Flanges ISO PN16				
DN	ØK	n	ØZ	α°
32	100	4	18	45°
50	125	"	"	"
65	145	"	"	
80	160	8	"	22°30'
100	180	"	"	"
125	210	"	"	"



Non-contractual document - 02.2014

SF_design - 06 74 16 02 64

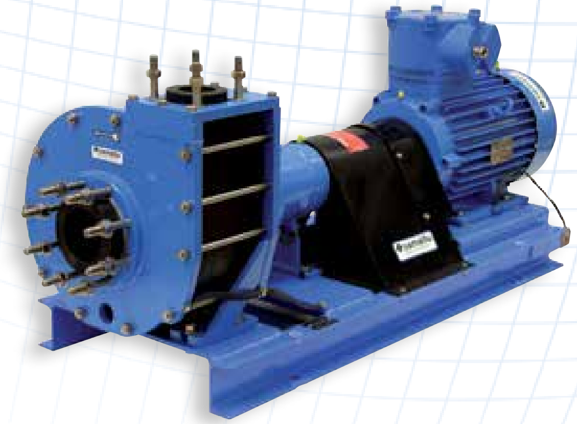
BP 72 - F 93172 BAGNOLET cedex - FRANCE
Tel.: +33 (0)1 43 60 27 02 - Fax: +33 (0)1 43 60 51 08
export@someflu.com - www.someflu.com

THERMOPLASTIC FREEFLOW PUMP EROSIVE AND CORROSIVE APPLICATION

HV

with mechanical seal

Someflu
Corrosion Resistant Centrifugal Pumps



OVERVIEW

The centrifugal pumps of the HV range are designed for pumping corrosive and erosive fluids. They are equipped with mechanical seal specially created for the highest industrial and technological requirements.

ADVANTAGES

- Freeflow vortex casing design
- ISO 9906 Tested with test report provided
- Flanges: ISO PN 16 or ANSI B16.5
- Designed to resist to the most corrosive atmospheres
- Lifetime increased up to 24 times compare to a Duplex pump

APPLICATIONS

- Mining
- H_2SO_4 leaching with particules
- Fertilizer
- Steel industry (pickling, surface treatment, ...)
- Transfert of acid with particules
- Gas scrubber

RAW MATERIALS

All wetted parts are machined from solid blocks of plastic for the ultimate in robust construction. No metallic component is in contact with the pumped fluid.

WETTED PARTS	O-RINGS	SEALS
SOMEDUR®	EPDM	SiC / SiC
PVDF/ PVDF-EL	FKM	SiC / SiC + SiC / C

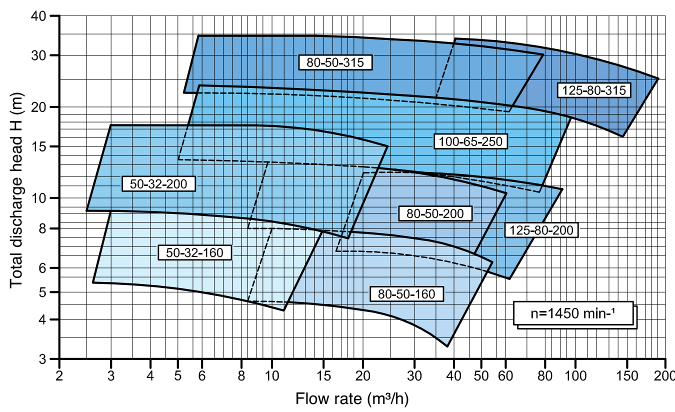
ATEX STANDARDS

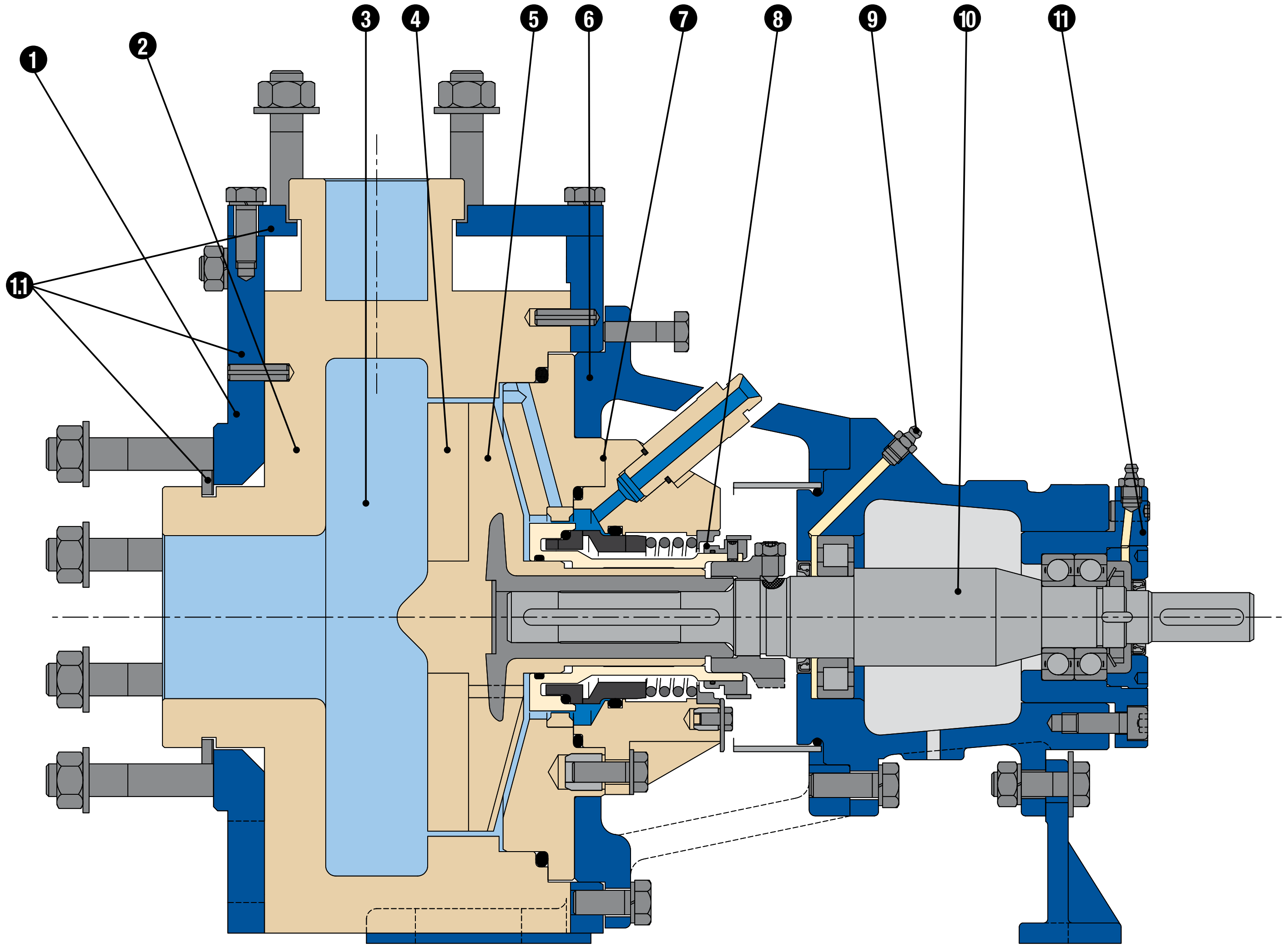
The HV range is available for ATEX explosion-proof atmospheres:
- Plastics mixed with carbon to conduct static electricity, like PE-EL (polypropylene electro-conductive)
- Ex II 2/3 G/GD c IIB/IIC T4 (others upon request)
- Voluntary certification by INERIS (Public French certification organization)

PERFORMANCES

Available in 50Hz or 60Hz:
- Flow rates up to 190 m^3/h (840 GPM) at 50Hz
- Total differential head up to 35 mlc (115 ft) at 50Hz
- Temperature range from 0°C to 120°C (30°F to 250°F)

DIAGRAM





❶ **Rugged steel plates:**
- Absorbes both pipe loads and internal pressure

⓫ **Casing reinforced with metal pins,** and protected with metal at suction and discharge:
- Avoids any distortion because of the pipes load

❷ **Thermoplastic raw material:**
- All wetted parts are machined from solid blocks of plastic for the ultimate in robust construction, with a casing thickness up to 80 mm
- No metallic component is in contact with the pumped fluid

❸ **Front clearence** between the impeller and the casing up to 80 mm

❹ **Semi-open impeller** with straight blades which creates a vortex

❺ Impeller wetted parts moulded over a bronze insert, by our **own moulding department:**
- Mechanical resistance of the metal
- Corrosion resistance of the thermoplastic

❻ Maintenance-friendly:
- **Quick change of the back pull-out unit**

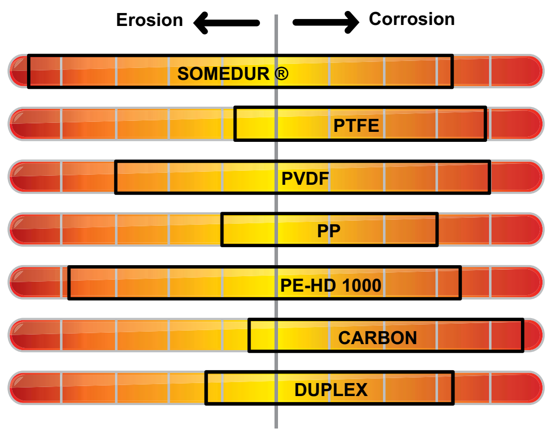
❼ **Cartridge mechanical seal designed by SOMEFLU:**
- Different options: single, flushing, standstill flushing, grease filling or double

❽ **The impeller is maintained by the pump rear:**
- No leakage at the pump nose
- Impossible to unscrew the impeller, in case of reverse running

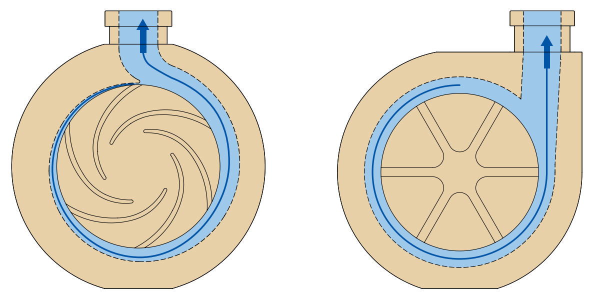
❾ **Bearings lubricated with greasers:**
- Automatic greasers can be installed as an option

❿ **Large-capacity bearings** ensure operating life well in excess of the minimum specified by ISO 5199:
- The steel shaft, which is completly isolated from the fluid, is oversized to minimize shaft deflection and increase the life-time of the mechanical seal

⓫ **Easy maintenance:**
- Front clearance setting from behind

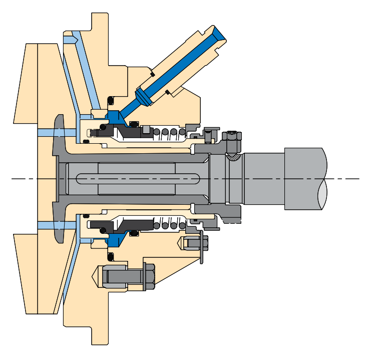


No fluid direction change at the cutwater: less erosion

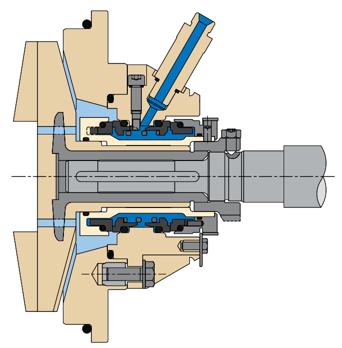


NP CASING **HV CASING**

FLUSHING



DOUBLE SEAL



SOMEDUR®

SOMEDUR® is a PE-UHMW specially developped and registered by Someflu. It is currently one of the best raw materials to resist both corrosion and erosion.
Different grades of PE-UHMW are present in the market, the molecular weight for a standard PE-UHMW is about 1M g/mol. The SOMEDUR® gets a molecular weight of 10M g/mol.
This special feature provides to our raw material a really higher resistance to erosion, this results a lower maintenance cost and a longer service life time.

VORTEX FREE FLOW EXPLANATION

The impeller straight blades create a vortex where most of the particles remain. Those ones don't came into contact neither with the impeller nor the casing.
The front clearance, up to 80 mm, between the impeller and the casing also reduce the erosion of these two parts and allow to pump up to 50% particles of 70 mm.
The discharge, not on the axis but on the side, reduces the erosion at the cutwater thanks to no fluid direction at this point.

CARTRIDGE MECHANICAL SEAL

SOMEFLU has developped its own cartridge mechanical seal for a friendly maintenance. This one is pre-adjusted in our factory to make the installation easier.

A PVDF shaft sleeve protects the impeller in case of lubrication defect of both friction areas: maintenance costs reduction.

Depending on the fluid and the process, the mechanical seal can be designed with the following alternatives:

FLUSHING

In case of particles and so abrasion, clean water is flushed to the seal friction faces. To minimize the flushing of clean water inside the process fluid, a throttle bush is located in the rear casing. The mechanical seal is lubricated with only one water inlet.

DOUBLE MECHANICAL SEAL

In case of highly concentrated fluid, when absolutely no process fluid leakage can be accepted, double mechanical seal can be installed:
- On the fluid side: the mechanical seal is lubricated with the process fluid
- On the atmosphere side: the mechanical seal is lubricated with an external input of water.

In case of failing of the process side seal, due to a higher pressure of the outside inlet, there will be no fluid process leakage towards the outside.