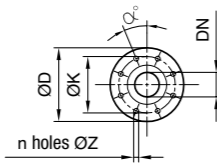


Type	DNa	DNr	Pump dimensions										Dimensions Shaft end										Pump weight	
			E1	A	F	H1	H2	E2	V	ØLP	ØD	L	T	U	M1	M2	W	S1	S2	N1	N2	B	PP	PVDF
50-32-125			62	80	385	112	140	53	-	260	24	50	26,9	8	100	70	285	14	14	190	140	50	37	40
50-32-160	50	32	"	"	"	132	160	"	"	300	"	"	"	"	"	"	"	"	"	240	190	"	42	46
50-32-200			"	"	"	160	180	"	"	345	"	"	"	"	"	"	"	"	"	"	"	"	55	60
65-40-250	65	40	60	100	500	180	225	50	134	405	32	80	35,3	10	125	95	370	14	14	320	250	65	82	90
80-50-160			57	100	385	160	180	53	115	336	24	50	26,9	8	100	70	285	14	14	265	212	50	50	56
80-50-200	80	50	"	"	"	200	52	120	370	"	"	"	"	"	"	"	"	"	"	"	"	"	58	64
80-50-315			62	125	500	225	280	49	168	496	32	80	35,3	10	125	95	370	"	"	345	280	65	108	121
100-65-250	100	65	62	125	500	200	250	55	148	456	32	80	35,3	10	160	120	370	18	14	360	280	80	94	115
125-80-200			67	125	500	180	250	61	146	450	32	80	35,3	10	125	95	370	14	14	345	280	65	92	107
125-80-250	125	80	57	"	"	225	280	51	170	496	"	"	"	"	160	120	"	18	"	400	315	80	120	132
125-80-315			67	"	530	250	315	61	200	566	42	110	45,1	12	"	"	"	"	"	"	"	"	126	143
125-80-400			"	"	"	280	355	56	222	626	"	"	"	"	"	"	"	"	435	355	"	"	145	170
125-100-200	125	100	65	125	500	200	280	60	158	500	32	80	35,3	10	160	120	370	18	14	360	280	80	108	119
125-100-315			66	140	530	250	315	61	200	566	42	110	45,1	12	"	"	"	"	400	315	"	"	135	160
150-125-250	150	125	96	140	530	250	355	90	188	566	42	110	45,1	12	160	120	370	18	14	400	315	80	119	140
S150-125-315			57	"	"	280	"	56	230	670	"	"	"	"	200	150	"	22	"	500	400	100	190	226
150-125-400			62	"	"	315	400	62	245	720	"	"	"	"	"	"	"	"	"	"	"	220	295	
200-150-315	200	150	86	160	670	315	400	86	206	720	48	110	51,8	14	200	150	500	22	18	550	450	100	395	480
200-150-400	200	150	73	250	800	315	450	66	245	730	55	110	59	16	250	150	630	22	18	590	450	120	410	500

Connect pipes on pump without restraint.

Flanges ISO PN16					
DN	ØD	ØK	n	ØZ	α°
32	140	100	4	18	45°
40	150	110	"	"	"
50	165	125	"	"	"
65	185	145	"	"	"
80	200	160	8	"	22°30'
100	220	180	"	"	"
125	250	210	"	"	"
150	285	240	"	22	"
200	340	295	12	"	15°



Non-contractual document - 02.2014
SF design - 08.11.16.02.04

THERMOPLASTIC PROCESS PUMP NP

with mechanical seal
ISO 2858 - ISO 5199

OVERVIEW

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

ADVANTAGES

- ISO 2858 Dimensions
- ISO 9906 Tested with test report provided
- Flanges: ISO PN 16 or ANSI B16.5
- Designed to resist to the most corrosive atmospheres
- 20 years old pumps still running

APPLICATIONS

- Highly concentrated acids (98% H₂SO₄, 36% HCl, 70% HF)
- Waste water treatment
- Odor control / Gas scrubber
- Steel industry (pickling, surface treatment, ...)
- Chemical industry
- Fertilizer
- Mining

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
PP / PP-EL	EPDM	SiC / SiC
PVDF / PVDF-EL	FKM	SiC / C
SOMEDUR® / PEHD-EL	FFKM	SiC / SiC + SiC / C
PEEK		

ATEX STANDARDS

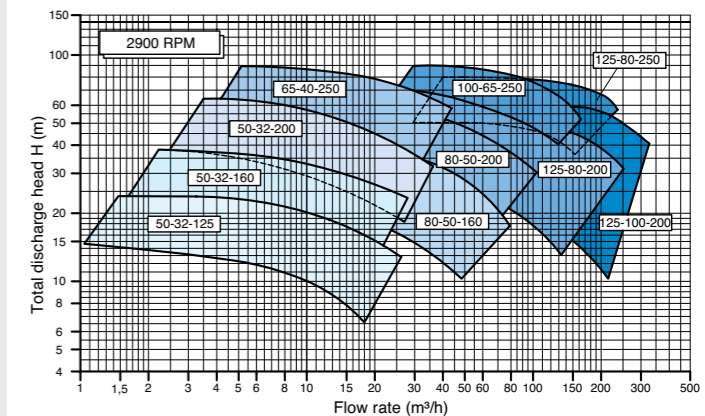
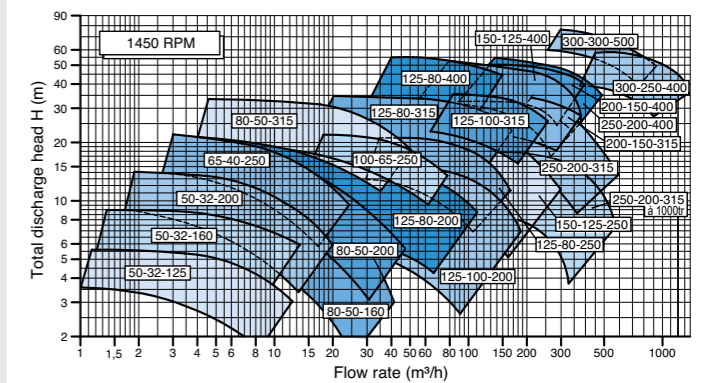
- The NP range is available for ATEX explosion-proof atmospheres.
- Plastics mixed with carbon to conduct static electricity, like PP-EL (polypropylene electro-conductive)
 - Ex II 2/3 G/GD c IIB/IIC T4 (others upon request)
 - Voluntary certification INERIS (Public French Certification Organization)

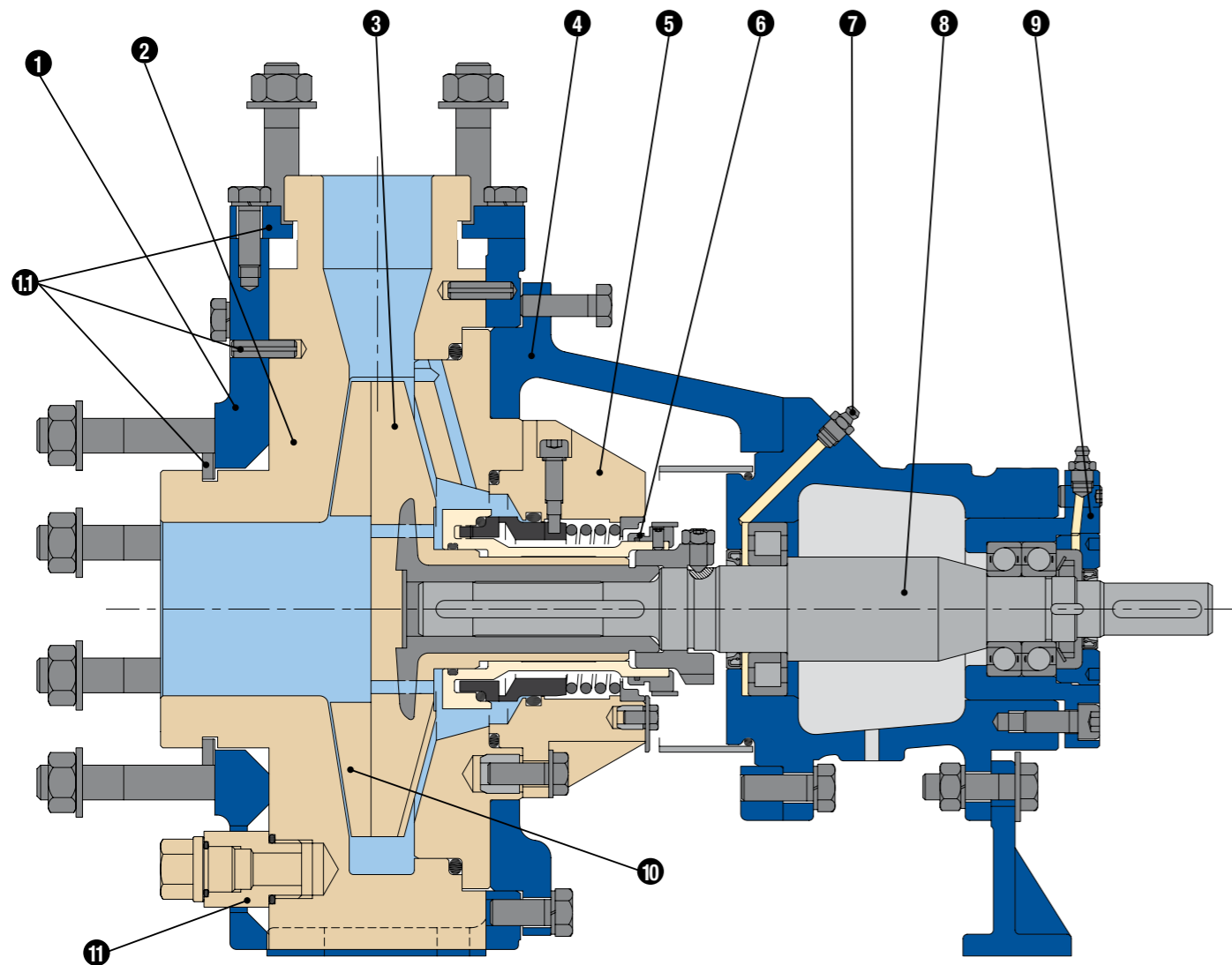
PERFORMANCES

- Available in 50Hz or 60Hz
- Flow rates up to 1500 m³/h (6600 GPM) at 50Hz
 - Total differential head up to 90 mlc (295 ft) at 50Hz
 - Temperature range from -60°C to 200°C (-75°F to 400°F)



DIAGRAMS





❶ Rugged steel plates:

- Absorbes both pipe loads and internal pressure

❷ Casing reinforced with metal pins, and protected with metal at suction and discharge:

- Avoids any distortion because of the pipes load

❸ 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

❹ Impeller wetted parts moulded over a bronze insert, by our own moulding department:

- Mechanical resistance of the metal
- Corrosion resistance of the thermoplastic

❺ Maintenance-friendly:

- **Quick change of the back pull-out unit**

❻ Cartridge mechanical seal designed by SOMEFLU:

- Different options: single, flushing, standstill flushing, grease filling or double

❼ The impeller is maintained by the pump rear:

- No leakage at the pump nose
- Impossible to unscrew the impeller, in case of reverse running

❽ Bearings lubricated with greasers:

- Automatic greasers can be installed as an option

❾ Large-capacity bearings ensure operating life well in excess of the minimum specified by ISO 5199:

- The steel shaft, which is completely isolated from the fluid, is oversized to minimize shaft deflection and increase the life-time of the mechanical seal

❿ Easy maintenance:

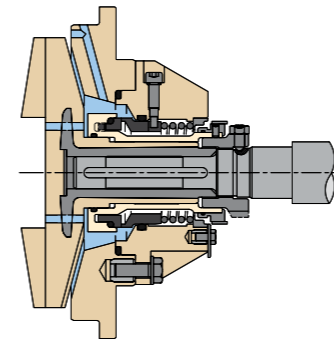
- Front clearance setting from behind

⓫ 0.8 mm front clearance:

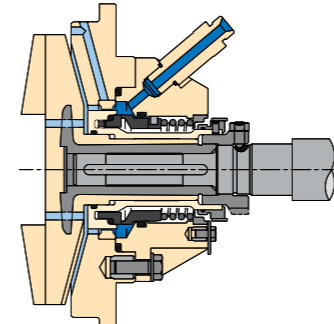
- Hydraulic designed to provide the highest efficiency with the lowest NPSHr
- Possibility to design the hydraulic for your own duty point

⓬ Different drain connections available.

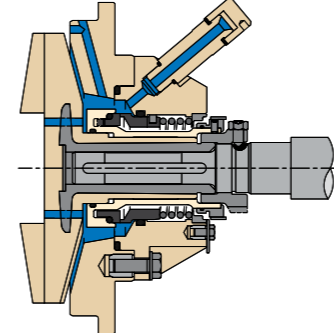
STANDARD SEAL



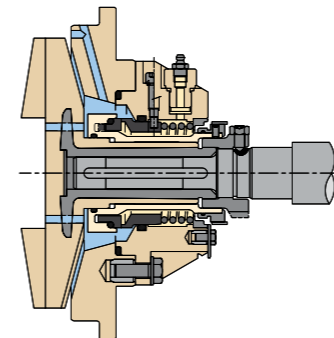
FLUSHING



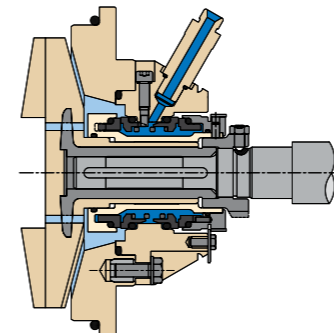
STANDSTILL FLUSHING



GREASE FILLING



DOUBLE SEAL



CARTRIDGE MECHANICAL SEAL

SOMEFLU has developed 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:

STANDARD SEAL

The cartridge seal is lubricated with the pumped fluid through openings located in the wetted parts:

- No external flushing needed
- No maintenance
- No adjustment (already adjusted during the manufacture)
- Easy dismantling and reassembly

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.

STANDSTILL FLUSHING

In case of crystallization or solids deposition, the mechanical seal is flushed with clean water every time the pump is stopped, to protect the seal friction faces (max. pressure 3 bar for some minutes).

GREASE FILLING

In case of crystallization or particles and if water can't be flushed inside the fluid process, this one can be filled up with grease. An input of lubricant (40 g) every 4000 hours is sufficient to maintain the efficiency of the grease filling. We also can install an automatic greaser.

DOUBLE 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.