

VERTICAL NCV LINE

Centrifugal vertical single-stage pumps, directly derived from our series NCM (design according to ISO2858). Maximum length of shaft is 5m. Standard construction for rotational velocities up to 2900 rpm. The discharge pipe is always separated from the support one. Radial bearings are normally lubricated by pumped liquid, if it is completely free of suspended abrasive particles. Either a packing gland or a mechanical seal can be assembled on the shaft whenever dealing with special liquids or high pressures. In these cases seals are flushed with the handled liquid and forced lubrication is designed for radial bearings. If pumped liquid is slightly abrasive radial bearings can be lubricated through clear fluids from an external source.



CONSTRUCTION

Independent thrust bearing, sleeve bearings lubricated by pumped liquid, lateral discharge column.
Mechanical seal is generally not required.
Maximum shaft length 5000mm.

SMV Line

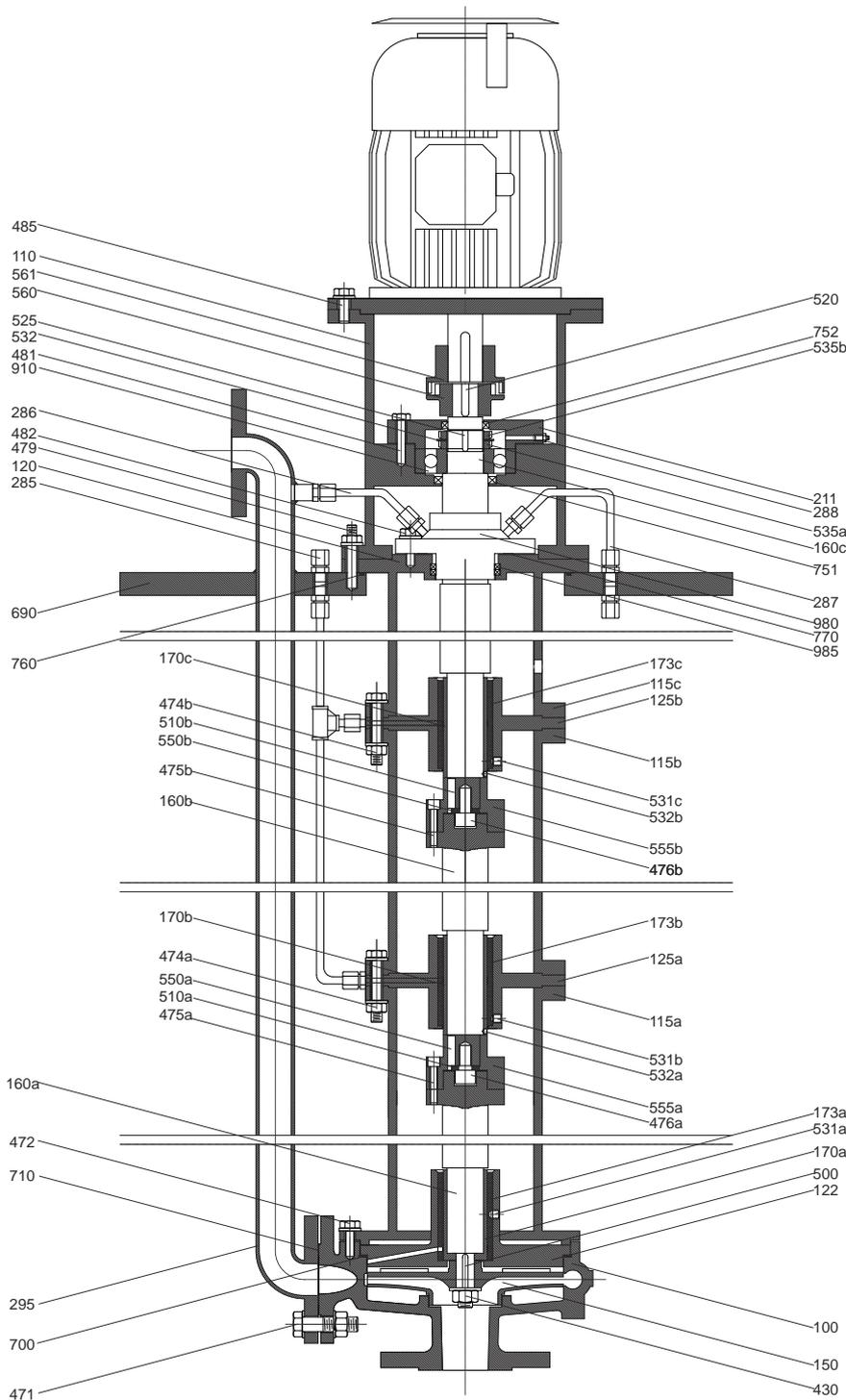
Open impeller suitable for liquids containing solid suspensions. Bearings are positioned into the motor support and they are not in contact with pumped liquid.
Shaft is designed for maximum length up to 1500mm at 1450rpm and up to 1200mm at 2900rpm.

SUPPORTING SCHEME

axis length [m]	top thrust ball bearing	bottom bushing	intermediate bushing	
			n O 1450 rpm	n up to 2900 rpm
1	1	1	0	0
1.5	1	1	0	1
2	1	1	1	1
2.5	1	1	1	2
3	1	1	1	2
3.5	1	1	2	3
4	1	1	2	3
4.5	1	1	2	-
5	1	1	3	-

SECTION - NCV LINE

Top sealing available with packing seal, single mechanical seal, double mechanical seal or no sealing if not needed

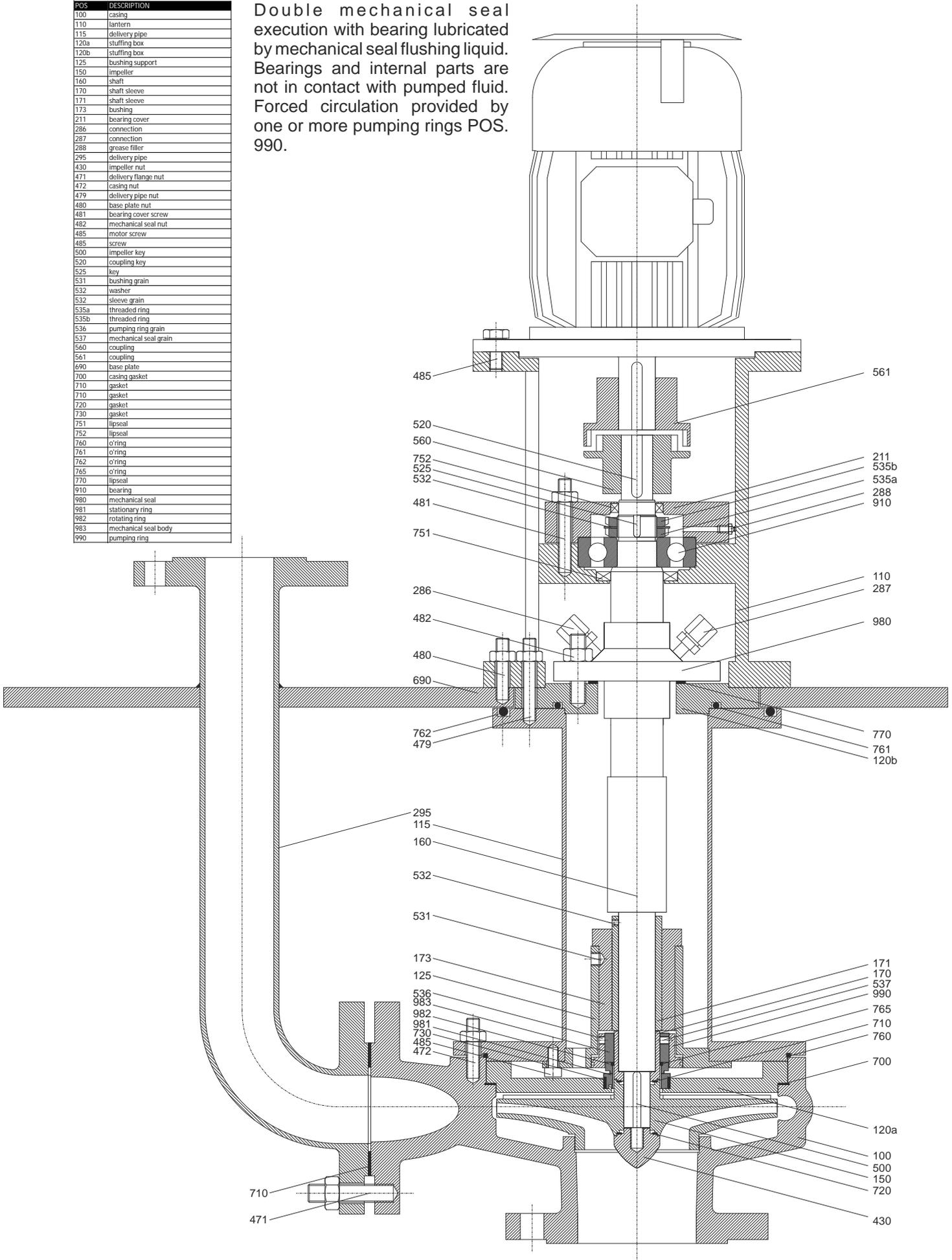


POS	DESCRIPTION	POS	DESCRIPTION	POS	DESCRIPTION
100	casing	430	impeller nut	533	sleeve grain
110	lantern	471	delivery flange nut	535	threaded ring
115	supporting pipe	472	casing screw	550	washer
120	stuffing box	474	supporting pipe nut	555	rigid coupling
122	bushing housing	475	rigid coupling screw	560	rigid coupling
125	bushing housing	476	rigid coupling screw	561	flexible coupling
150	impeller	479	base plate nut	690	base plate
160	shaft	481	bearing cover screw	700	casing gasket
170	shaft sleeve	482	mechanical seal nut	710	gasket
173	bushing	485	motor screw	751	lipseal
211	bearing cover	500	impeller key	752	lipseal
285	bearing lubrication connection	510	rigid coupling key	760	o'ring
286	connection	520	flexible coupling key	770	gasket
287	connection	525	key	910	bearing
288	greaser	531	bushing grain	980	mechanical seal (optional)
295	delivery pipe	532	washer	985	

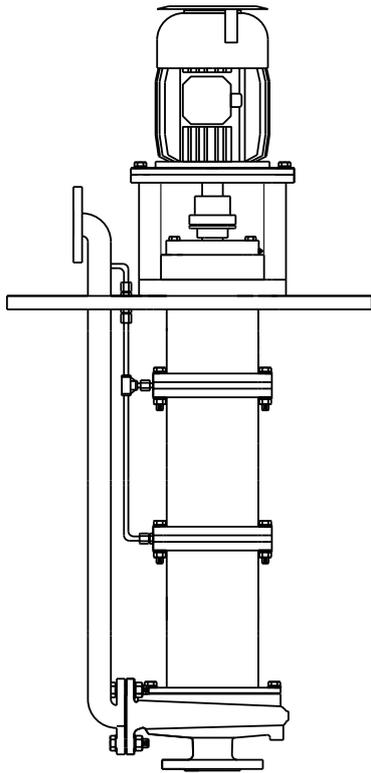
SECTION - NCV LINE (double mechanical seal)

POS	DESCRIPTION
100	casing
110	lantern
115	delivery pipe
120a	stuffing box
120b	stuffing box
125	bushing support
150	impeller
160	shaft
170	shaft sleeve
171	shaft sleeve
173	bushing
211	bearing cover
286	connection
287	connection
288	grease filler
295	delivery pipe
430	impeller nut
471	delivery flange nut
472	casing nut
479	delivery pipe nut
480	base plate nut
481	bearing cover screw
482	mechanical seal nut
485	motor screw
485	screw
500	impeller key
520	coupling key
525	key
531	bushing grain
532	washer
532	sleeve grain
535a	threaded ring
535b	threaded ring
536	pumping ring grain
537	mechanical seal grain
560	coupling
561	coupling
690	base plate
700	casing gasket
710	gasket
710	gasket
720	gasket
730	gasket
751	lipseal
752	lipseal
760	O-ring
761	O-ring
762	O-ring
765	O-ring
770	lipseal
910	bearing
980	mechanical seal
981	stationary ring
982	rotating ring
983	mechanical seal body
990	pumping ring

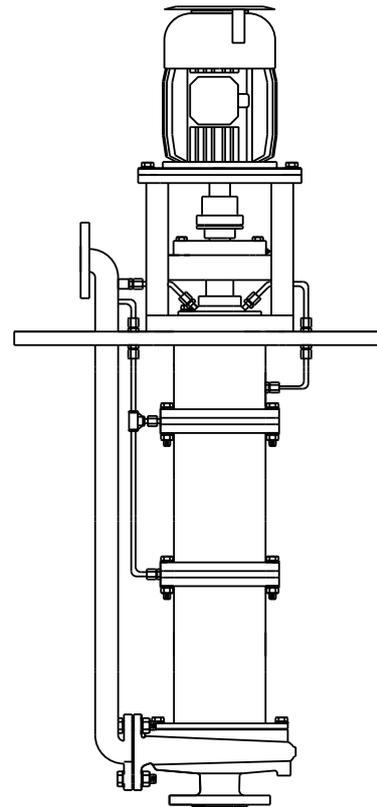
Double mechanical seal execution with bearing lubricated by mechanical seal flushing liquid. Bearings and internal parts are not in contact with pumped fluid. Forced circulation provided by one or more pumping rings POS. 990.



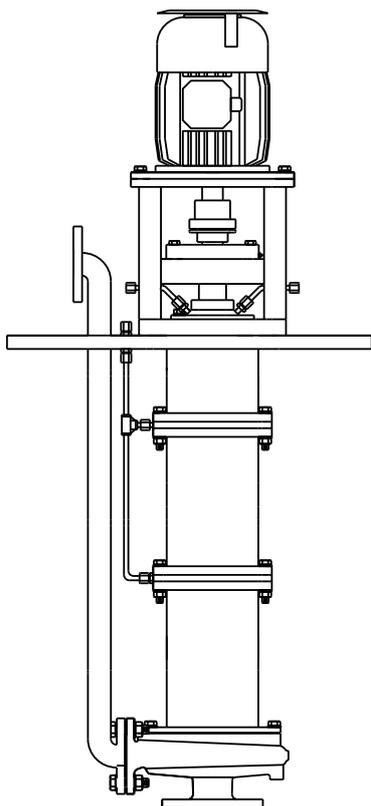
LUBRICATION LAYOUTS



No mechanical seal and bearings lubricated by pumped liquid



Mechanical seal execution. Mechanical seal and bearings lubricated by pumped liquid



Single or double mechanical. Mechanical seal and bearings lubricated by external source