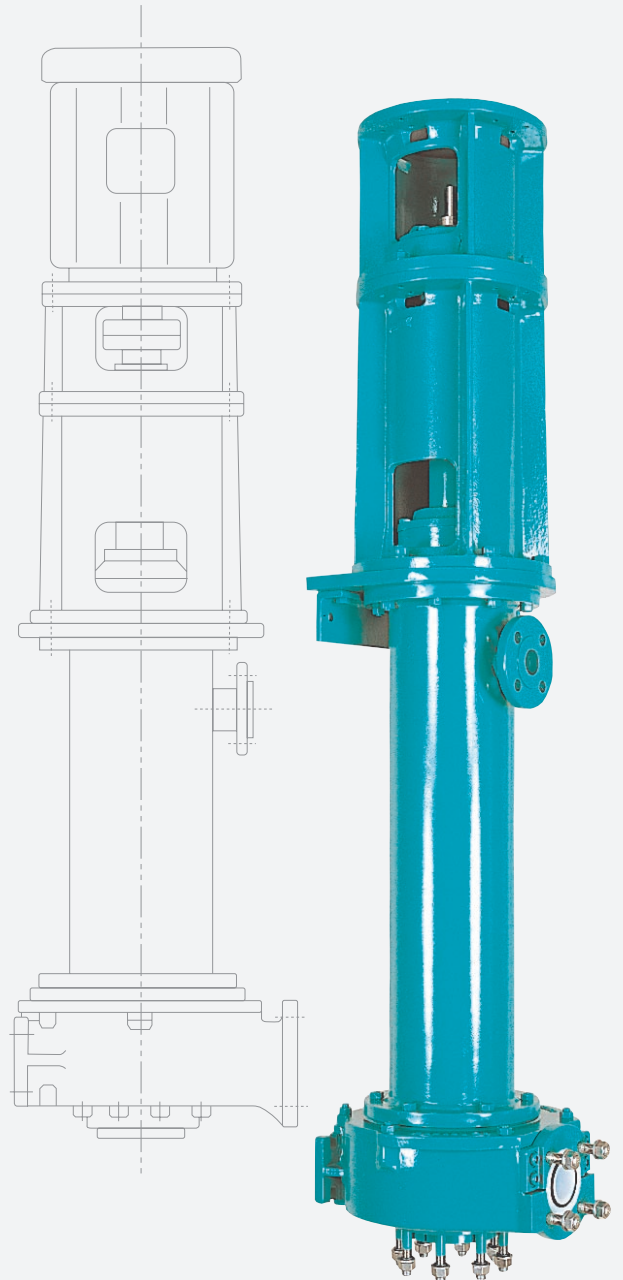


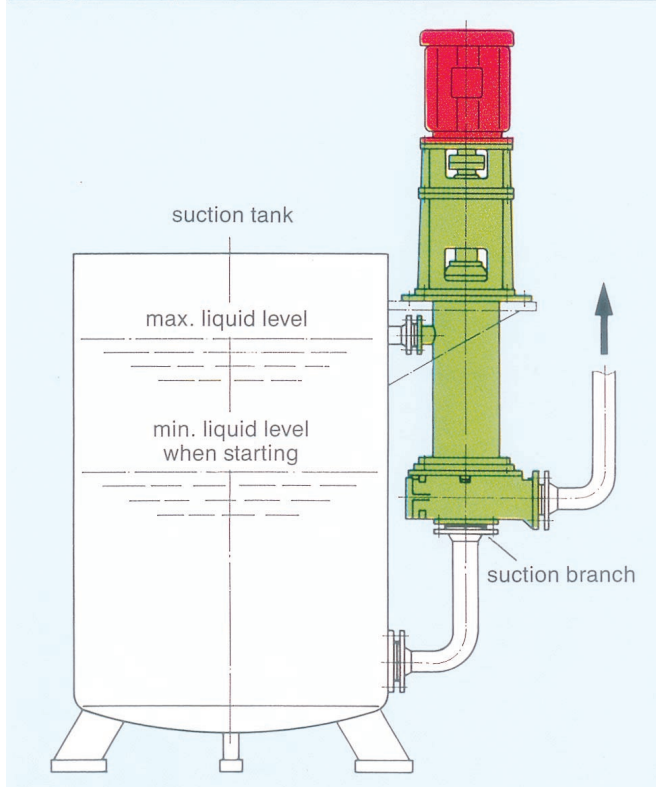
Vertical Chemical Pump of Plastic Material Type series NKPF



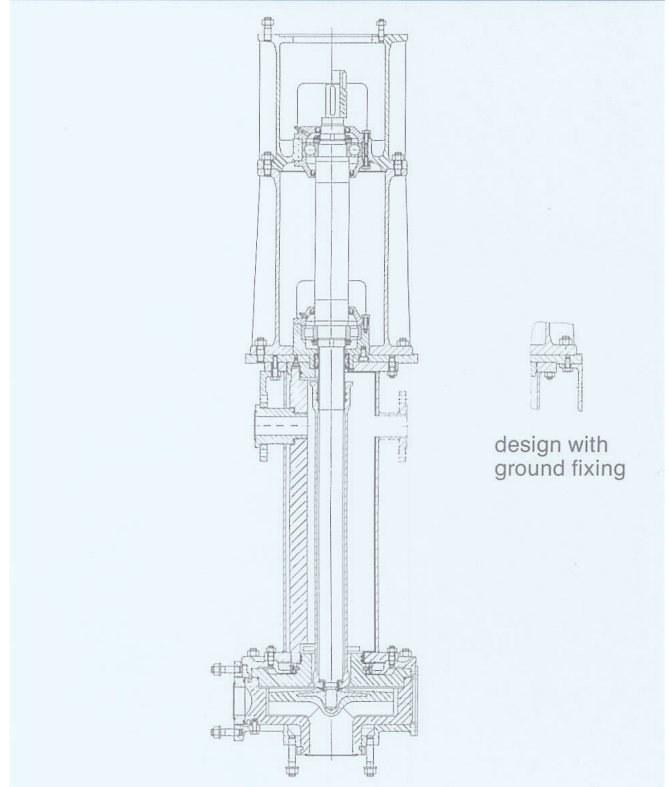
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diagram of pump NKPF



sectional drawing



Design and Function

The WERNERT vertical pump made of plastic material, type NKPF *), is a single stage centrifugal pump used on the outside of a suction tank.

The distance between the lower bearing and the impeller is governed by constructive and dynamic limits, as the shaft bearings are located only above the maximum suction sided liquid level. (See dimensional drawing). The delivery suspension pipe has an acid resistant inner coating and links the bearing lantern to the pump casing. This pipe may have different acid resistant coatings or the inside may be coated with corresponding plastic parts, e.g. PP or PVDF. (See dimensional drawing). All other constructional elements of this pump are manufactured out of serial parts of standard chemical pumps, type NK and VKPF.

The pump has the stability of a comparable metallic pump, due to the outer metallic constructional elements. Consequently, forces and moments can be imposed at the pump branches similar to those occurring in the pumps made of cast iron.

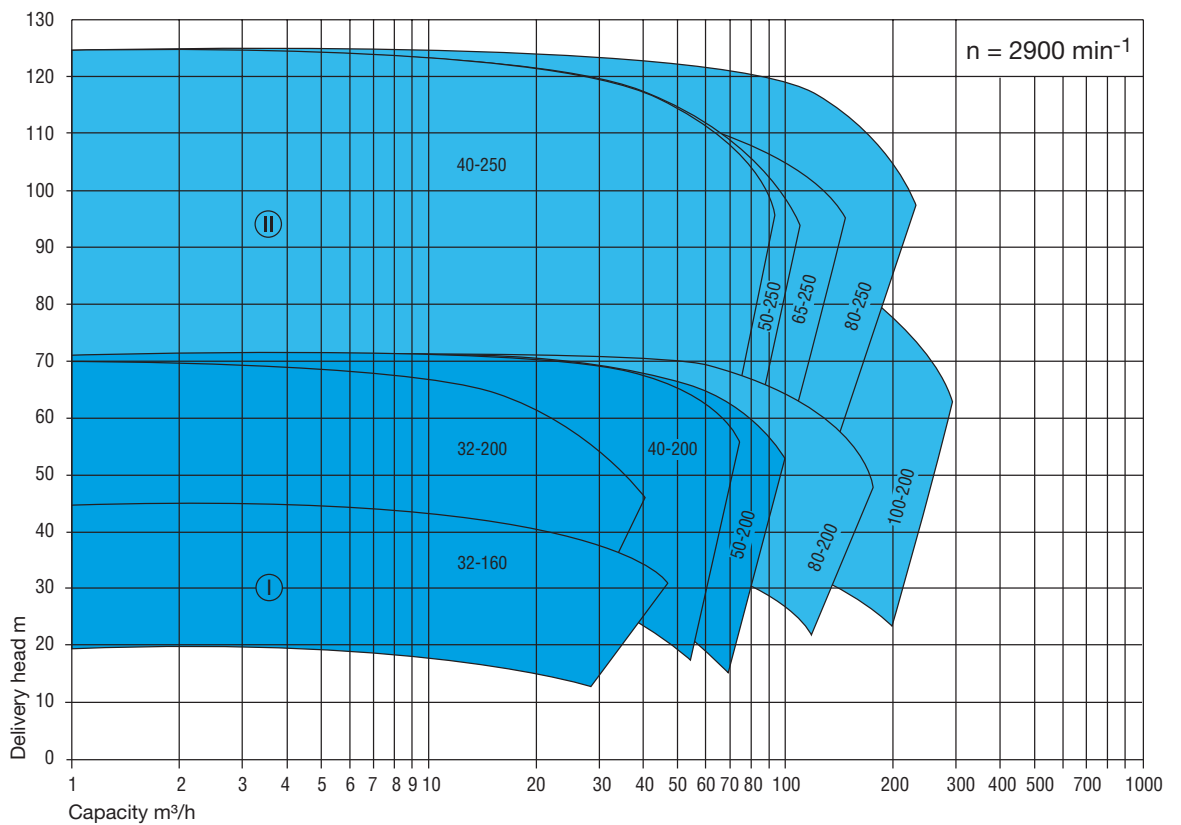
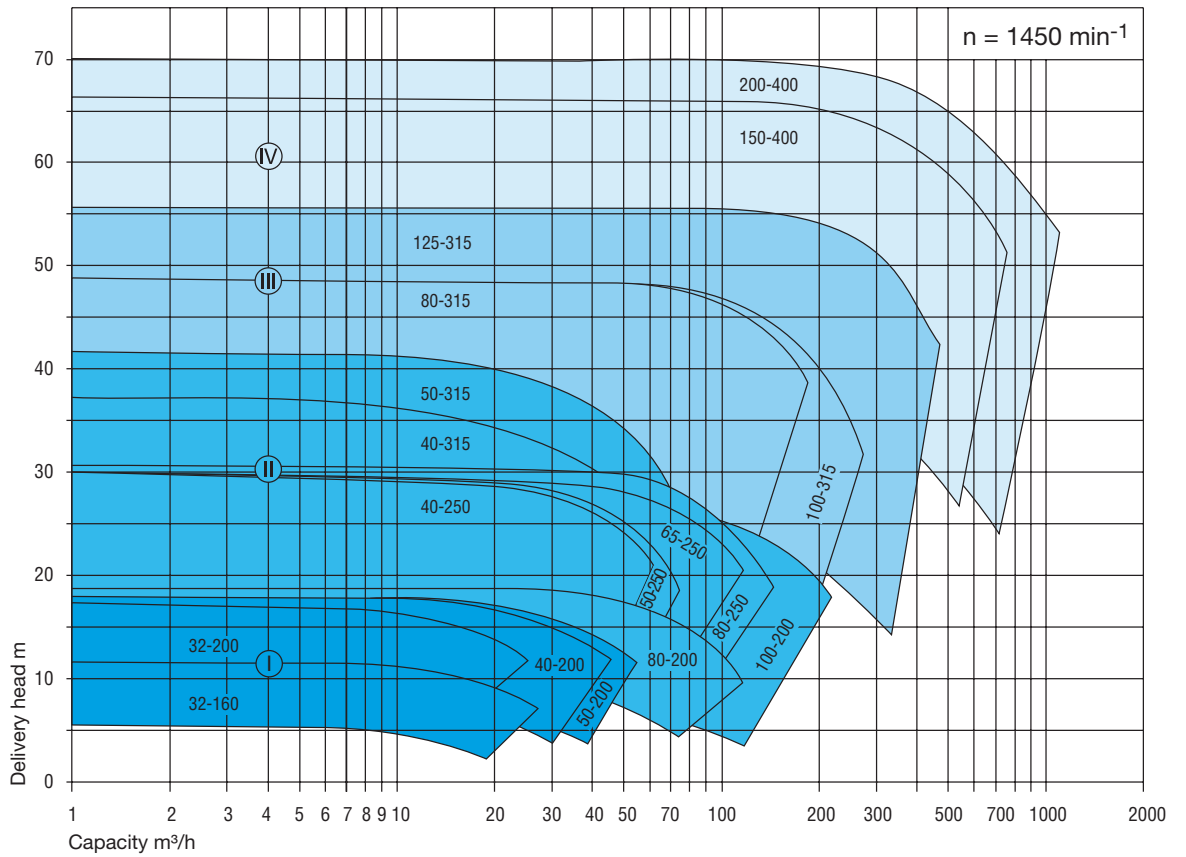
Neither a bearing nor a shaft seal is required in the liquid region of the pump. As a result there is no danger in case of dry running for a short time or if inadmissible suction

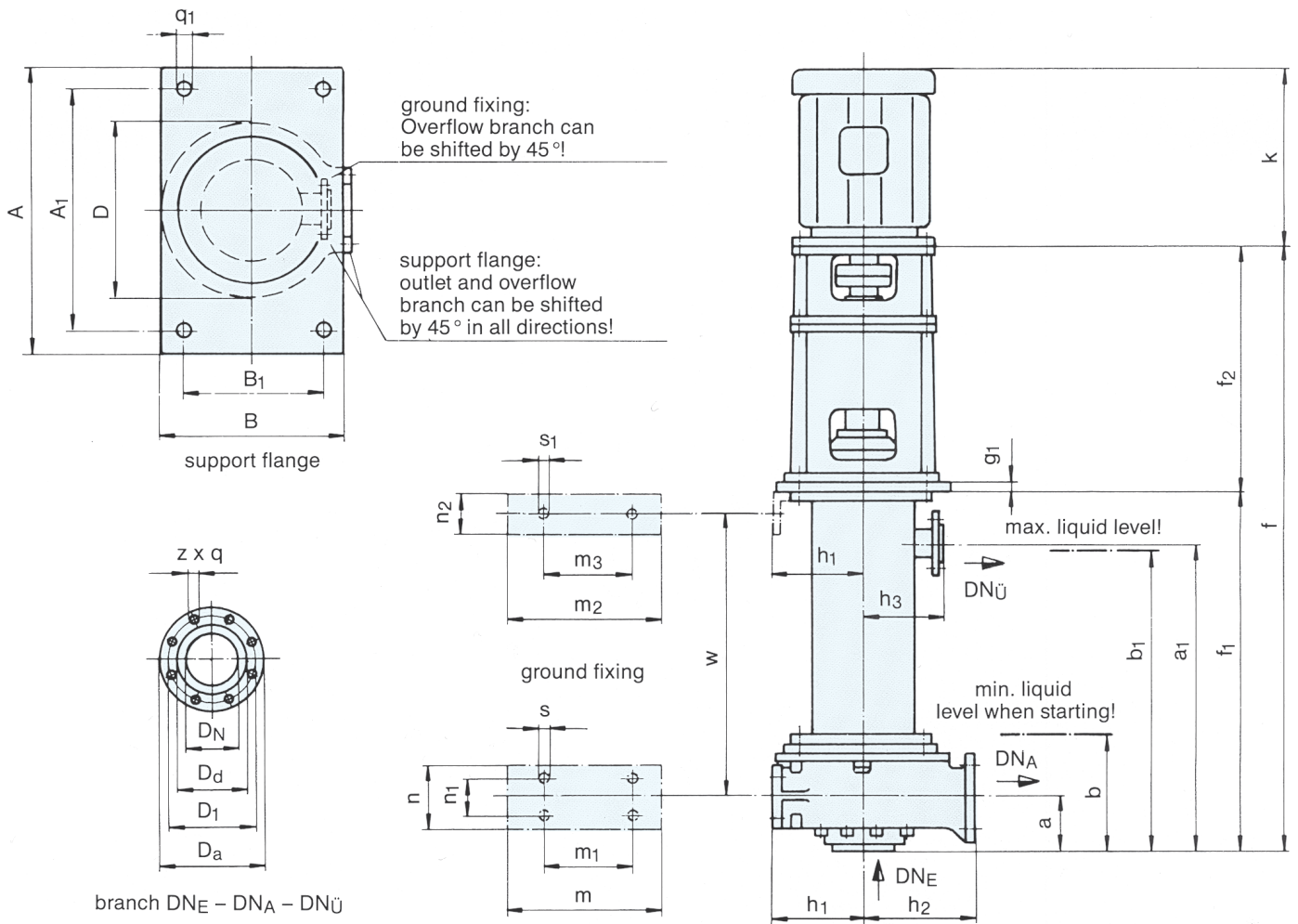
conditions occur. The shaft drilling of the casing is hydraulically discharged by the back vanes of the impeller. The suction sided liquid level must be above the impeller before starting, as the pump is not self priming. (See diagram of pump). However, after starting the suction operation may be commenced. Below the gas seal, which is superposed on the lower bearing, there is an emergency overflow branch. Liquid rising in the delivery suspension pipe, caused by starting thrusts, is lead through this branch above the maximum suction sided liquid level back to the suction tank.

Application

A further advantage of this pump in addition to its capability of dry running for a short time, is the small space required due to the absence of a ground •plate. Delivery head and capacity are identical with corresponding standard chemical pumps in the range. (See opposite performance diagrams). The pump, having no shaft seal problems which may occur with horizontal pumps, is especially suitable for delivery of suspensions, oversaturated solutions and corrosive liquids being subject to sedimentation at wetted areas.

*) NKPF, letter P designates the main material of plastic, ultra-high molecular weight, high-density polyethylene; the pump is called NKKF if the material PVDF is used and NKTF if the material is PTFE/PFA.





size	pump dimension											inlet branch				outlet branch				overflow branch				support plate				ground fixing																		
	a	a ₁	b	b ₁	D	f	f ₁	f ₂	h ₁	h ₂	h ₃	DN _E	D _a	D ₁	D _d	q	z	DN _A	D _a	D ₁	D _d	q	z	DN _Ü	D _a	D ₁	D _d	q	z	A	A ₁	B	B ₁	g ₁	q ₁	h ₁	m	m ₁	m ₂	m ₃	n	n ₁	n ₂	s	s ₁	w
32-160	80	845	120	840	320	1695	957	738	160	160	145	50	165	125	107	M16	4	32	140	100	70	M16	4	32	140	100	78	18	4	500	450	320	270	20	23	160	320	280	320	212	100	70	80	14	14	840
32-200	80	845	120	840	340	1695	957	738	160	180	145	50	165	125	107	M16	4	32	140	100	70	M16	4	32	140	100	78	18	4	500	450	320	270	20	23	160	240	190	320	212	100	70	80	14	14	840
40-200	100	865	140	860	360	1715	977	738	160	180	145	65	185	145	127	M16	4	40	150	110	85	M16	4	32	140	100	78	18	4	500	450	320	270	20	23	160	265	212	320	212	100	70	80	14	14	840
40-250	100	740	150	735	400	1650	885	765	200	225	175	65	185	145	127	M16	4	40	150	110	85	M16	4	50	165	125	102	18	4	650	600	400	350	20	23	200	400	360	400	280	140	95	100	14	14	735
40-315	125	765	175	760	450	1675	910	765	200	250	175	65	185	145	127	M16	4	40	150	110	85	M16	4	50	165	125	102	18	4	650	600	400	350	20	23	200	345	280	400	280	125	95	100	14	14	735
50-200	100	865	140	860	360	1715	977	738	160	200	145	80	200	160	142	M16	8	50	165	125	85	M16	4	32	140	100	78	18	4	500	450	320	270	20	23	160	265	212	320	212	100	70	80	14	14	840
50-250	125	765	175	760	400	1675	910	765	200	225	175	80	200	160	142	M16	8	50	165	125	85	M16	4	50	165	125	102	18	4	650	600	400	350	20	23	200	400	360	400	280	140	95	100	14	14	735
50-315	125	765	175	760	450	1675	910	765	225	280	175	80	200	160	142	M16	8	50	165	125	85	M16	4	50	165	125	102	18	4	650	600	400	350	20	23	225	345	280	400	280	125	95	100	14	14	735
65-250	125	765	175	760	450	1675	910	765	200	250	175	100	220	180	162	M16	8	65	185	145	110	M16	4	50	165	125	102	18	4	650	600	400	350	20	23	200	360	280	400	280	160	120	100	18	14	735
80-200	125	765	175	760	450	1675	910	765	200	250	175	125	250	210	192	M16	8	80	200	160	130	M16	8	50	165	125	102	18	4	650	600	400	350	20	23	200	440	390	400	280	140	95	100	14	14	735
80-250	125	765	175	760	450	1675	910	765	225	280	175	125	250	210	192	M16	8	80	200	160	130	M16	8	50	165	125	102	18	4	650	600	400	350	20	23	225	400	315	400	280	160	120	100	18	14	735
80-315	125	1350	185	1345	560	2747	1497	1250	250	315	215	125	250	210	192	M16	8	80	200	160	130	M16	8	80	200	160	138	18	8	800	750	500	450	25	23	250	400	315	500	315	160	120	120	18	18	1310
100-200	125	765	175	760	500	1675	910	765	200	280	175	125	250	210	192	M16	8	100	220	180	135	M16	8	50	165	125	102	18	4	650	600	400	350	20	23	200	360	280	400	280	160	120	100	18	14	735
100-315	140	1365	200	1360	560	2762	1512	1250	250	315	215	125	250	210	192	M16	8	100	220	180	135	M16	8	80	200	160	138	18	8	800	750	500	450	25	23	250	400	315	500	315	160	120	120	18	18	1310
125-315	140	1365	200	1360	660	2762	1512	1250	280	355	215	150	285	240	215	M20	8	125	250	210	212	M16	8	80	200	160	138	18	8	800	750	500	450	25	23	280	500	400	500	315	200	150	120	23	18	1310

Dimensions in mm



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