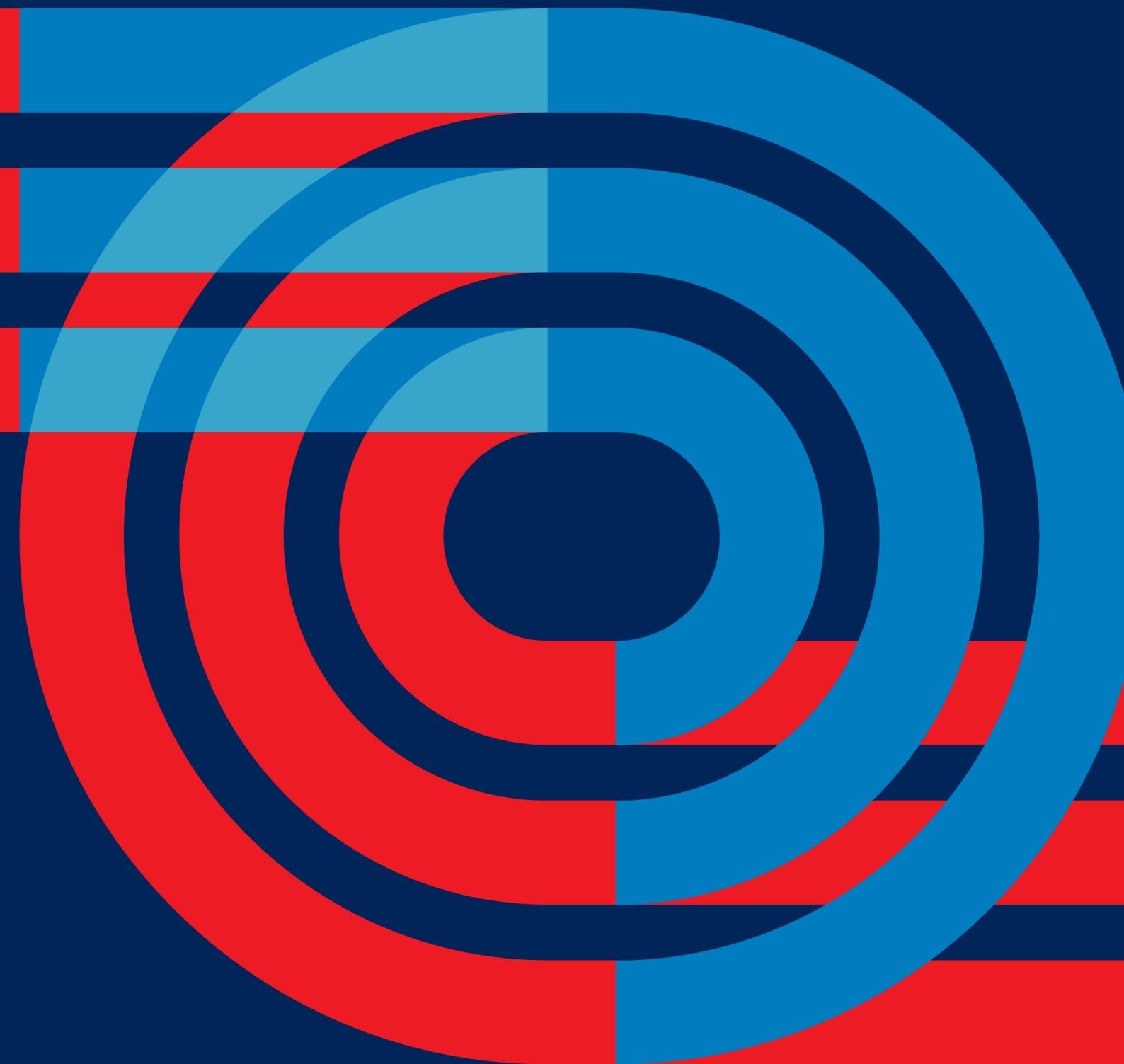


Agregati niskotlačnih pumpa Tipa NK



CROATIA PUMPE

Agregati niskotlačnih pumpa Tipa NK

Primjena

Za čiste i u manjem stupnju zamućene tekućine, temperatura do 100°C. Nalaze primjenu za cirkulaciju tople i rashladne vode, u vodovodima, industriji, poljoprivredi, za umjetnu kišu, navodnjavanje i odvodnjavanje itd.

Ležaji

Dva valjkasta ležaja podmazuju se uljem i rade vrlo taho.

Temeljna ploča

Od sivog lijeva ili varene izvedbe iz čeličnih profila.

Položaj prirubnica

Usisna prirubnica: horizontalno - aksijalno

Tlačna prirubnica: normalno vertikalno - gore. Na zahtjev se isporučuje u položaju horizontalno - desno ili koso dolje pod kutem od 45°, a na poseban upit mogući su i drugi potrebni položaji prirubnice.

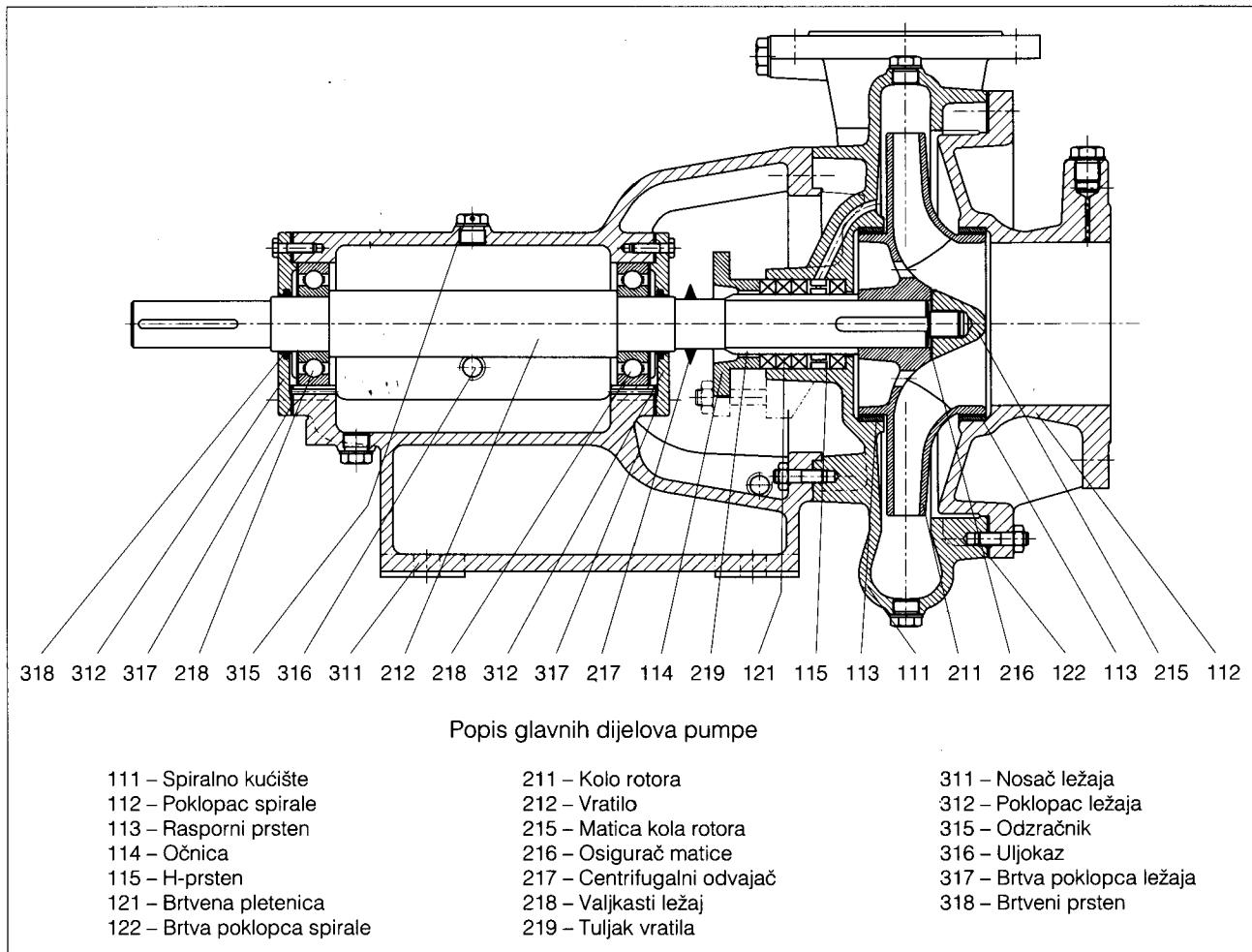
Spojka

Elastična sa zaštitnim limom.

Elektromotor

Isključivo kratkospojeni motori, oblik B 3, zaštita IP 54

Presjek kroz pumpu



Materijali

Pozicija	Naziv	Materijali
111	Spiralno kućište	Sivi lijev
112	Poklopac spirale	Sivi lijev
113	Rasporni prsten	Sivi lijev ili bronca
114	Očnica	Sivi lijev
115	H-prsten	Bronca
211	Kolo rotora	Sivi lijev ili bronca
212	Vratilo	Čelik
219	Tuljak vratila	Bronca
311	Nosač ležaja	Sivi lijev

Iz našeg obimnog proizvodnog programa iz reda NK pumpi ovdje prikazujemo tipove pumpi koje nalaze najčešću primjenu, tj. za količine dobave do oko 300 l/sek (1080 m³/h) i visine dobave do oko 80 m.

Proizvodimo NK pumpe i za veće dobave i specijalnih izvedbi, između ostalog s kliznim ležajima, valjkastim ležajima podmazivanim mašću, me-

haničkim brtvama, kućištima od bronce za dobavu morske vode, pumpe vertikalne izvedbe za pričvršćenje na zid, s cijevnim nastavcima ili za posebne pogonske uvjete.

U svim takvim slučajevima molimo da se obratite na našu tvornicu, koja će vam u najkraćem roku dostaviti ponudu sa svim potrebnim tehničkim podacima.

Primjer za izbor pumpnog agregata

Za neku vodovodnu mrežu potrebna nam je pumpa količine dobave 20 l/sek (72 m³/h). Ona treba crpiti vodu iz bunara i tlačiti je u rezervoar. Ukupna visina dobave od H = 50 m izračunata je na slijedeći način:

Geodetska usisna visina	4,0 m
Otpori u usisnom vodu	1,5 m
Geodetska tlačna visina	39,0 m
Otpori u tlačnom vodu	5,5m
Ukupna visina H =	50,0 m

Za dobavu Q = 20 l/sek, H = 50 m, u tablici nalažimo polje:

Redni broj	147	Ugrađena snaga motora (kW)
Potrebna snaga za pumpu (kW)	14,3	18,5

U mjerenoj skici pod rednim brojem 147 nalazi se:

- 1 – Tip pumpe: NK 25-6,5
- 2 – Snaga elektromotora 18,5 kW, 2900 min⁻¹
- 3 – Podaci o težinama te dimenzijama pumpe i agregata

Potrebna snaga za pumpu važi za vodu gustoće 1000 kg/m³. Svi motori su odabrani s dovoljnom rezervom snage.

Visina do bave H (m)

Količina

	1	1,5	2	3	4	5	6	7	8	9	10	12	14	16	18	20	25
--	---	-----	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----

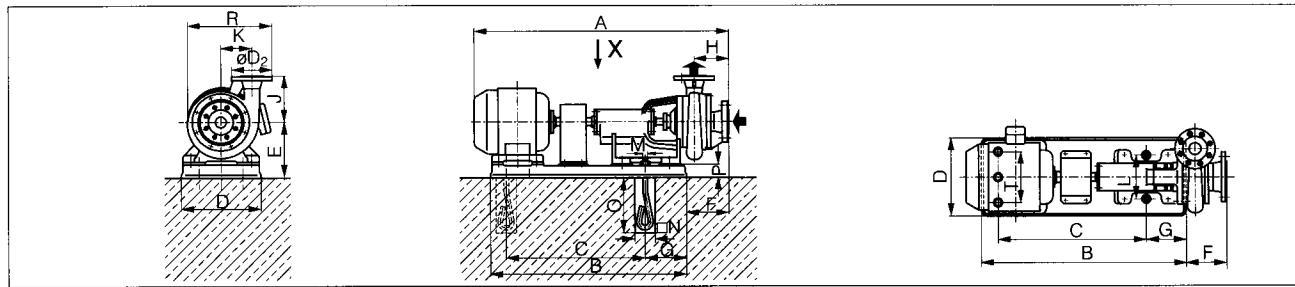
85																	
80																	
75																	
70	n = 2900 min⁻¹																
65																	
60																	
55																	
50																	
48																	
46																	
44																	
42																	
40																	
38																	
36																	
34																	
32																	
30																	
28																	
26																	
24																	
22																	
20																	
19																	
18																	
17																	
16																	
15																	
14	112																
13	112	112	135	116A	116	116	142	142	142	143	143	143	143	144	144	151	151
12	112	112	135	116A	116A	116	121	126	126	132	132						
11	112	112	112	116A	116A	116A	116	121	121	121	121	121	121	125	126	126	132
10	112	112	112	116A	116A	116	116	121	121	121	121	122	125	125	126	131	132
9	112	112	112	116A	116A	116A	116	116	121	121	121	121	125	126	131	131	131
8	101	112	105	105	116A	116A	116	111A	121	121	121	122	125	125	126	131	
7	101	101	101	105	105	108A	108A	111A	111A	111	111	125	125	125			
6	101	101	101	101	105	105	108A	108A	118A	111A							
5	101	101	101	101	105	105	108A	108A	108A	108A	108A	108A	111A	111A	111A	111A	111A
4							101	105	108A	108A	108A	108A	111A	111A	111A	111A	111A

	1	1,5	2	3	4	5	6	7	8	9	10	12	14	16	18	20	25
--	---	-----	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----

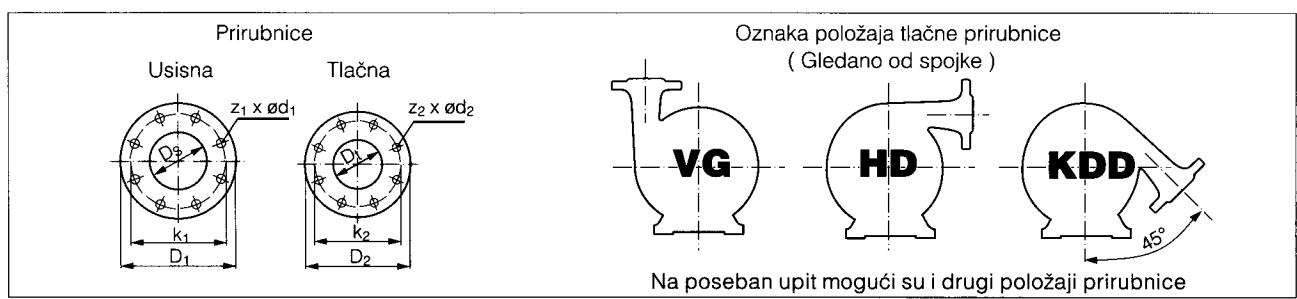
d o b a v e Q (l/s)

30	35	40	45	50	60	70	80	90	100	120	140	160	180	200	250	300	350	
156	151B				193	193	193	194	194								85	
36	45 41	55			90.4	110	94.3	110	98.4	110	104	132	109	132			80	
156	156	160	160		193	193	193	193	194	194	195	197	197	198			75	
33.5	45 38.4	45 44.7	55 47.2	55	82.5	110	86.2	110	90.7	110	96	110	101	132	116	132	250	
155	156	160	160	160	192	192	193	193	193	194	195	195	197	197	197		70	
31.1	37 36.9	45 41.1	55 43.9	55 48.3	55 75	90	78.5	90	83.4	110	88.2	110	93	110	107	132	120	
155	156	159	160	160	192	192	192	193	193	193	193	197	197	197	198		65	
28.7	37 33.3	45 37.5	45 40.5	55 44.8	55 67.6	90	70.9	90	76	90	80.6	110	85.5	110	98.2	110	112	
155	155	159	159	160	161	192A	192	192	192	193	193	194	194	194	197A	197	198	
26.3	37 30.7	37 34.1	45 37.2	45 41.4	55 63.5	75 69	90	73.2	90	76	90	89.8	110	103	132	116	132	
154	155	159	159	159	160							193	193	194	197A	197A	198	
24	30 27.7	37 30.8	45 33.8	45 37.9	45 48.2	55						81.5	100	94.2	110	107	132	
154	154	155	156	181	182	182	182	183				193	194	195	197	197	55	
21.7	30 25.2	30 29.8	37 34	45 38.5	45 43.2	55 48.7	55 55.2	75				97	110	112	132	129	160	
130	154	131B	155	181	182	182	182	183	185	185	186		194	195			48	
21.7	30 24.2	30 29.4	37 32.6	37 36.6	45 41.2	55 46.8	55 53	75 59.5	75 63.3	75 72.5	90		108	132	125	160		
130	131B	131B	131B	181	181	182	183	185	185	186			194	194			46	
20.8	30 26.1	37 27.9	37 29.9	37 34.8	45 39.4	45 44.8	55 50.8	75 56.6	75 60.2	75 69	90		104	132	121	132		
130	130	131B	131B	181	181	182	182	185	185	186			194	194			44	
19.9	30 23.3	30 26.5	37 26.4	37 33	45 37.6	45 42.9	55 48.6	55 53.7	75 57.1	75 65.8	90	76.5	110	94.7	110			
129	130	131A	131B	180	181	182	182	185	185	186		190	190	194			42	
19	22 22.2	30 25.1	30 26.9	37 31.2	37 35.8	45 40.9	55 46.4	55 50.8	75 54.1	75 62.6	75 73	90	89.5	100	97.5	110	113	
129	130	131A	131A	180	181	181	182	184	185	185		186	190	190			40	
8.1	22 21.1	30 23.7	30 25.4	30 29.5	37 33.9	45 38.9	45 44.2	55 48	55 51.2	75 59.5	75 69.6	90	84.6	110	92.0	110	102	
129	130	131A	131A	180	180	180	181	182	184	184		185	186	189	190		38	
17.2	22 20.1	30 22.3	30 23.9	30 27.7	37 32.1	37 37	45 42	55 45.2	55 48.3	55 56.2	75 66.1	90	80	90	88.2	110	99	
129	129	131A	131A	180	181	182	184	184	185	185		189	190				36	
16.3	22 19	22 20.9	30 22.5	30 24.5	30 30.3	37 35	45 40.9	55 42.5	55 45.4	55 53.1	75 62.6	75 75.2	90	83.5	110	95		
128	129	131A	131A	181	181	182	182	185	185	185		189	189	190			34	
15.4	18.5	18	22 19.6	30 21.1	30 23.1	30 27.8	37 33.1	45 37.6	45 42.1	55 48	55 50	75 59.1	75 70.8	90	79	90	91.1	110
128	129	130	131A	131A	181	182	182	182	185	185	186		189	189	190		32	
172A	172A	172	172	173	173	131B		181	182			188	189	190			30	
14.9	18.5	15.1	18.5	17.2	22 18.6	22 20	30 22.9	30 30.7	37	38.4	45 44.1	55	61.5	75 69.6	90	83	110	
172A	172A	172	172	172	173	173						185	188	189			28	
13.6	18.5	14.1	18.5	15.9	22 17.1	22 18.5	22 21.3	30 24.6	30	36.4	45 42	55	58.5	75 65.6	75 78.5			
111C	170	172A	172A	172	173	173	174	177	177								26	
10.5	15	13.3	18.5	14.6	18.5	15.6	18.5	17	22 19.7	30 23.8	30 26.7	37 32	37 34.6	45	74	90		
111C	169	170	172A	172A	172	173	173	177	177								24	
9.7	15	12.3	15	13.9	16.5	14.2	18.5	15.5	18.5	18.1	22 21.3	30 25.2	30 29	37 31.7	37	69.1	90	
111C	169	170	172A	172A	172	173	173	177	177								22	
8.93	15	11.3	15	12.9	18.5	12.9	18.5	14.1	18.5	18.5	22 19.6	30	23.5	30 26.2	37 28.8	37 33.9	45	
111B	169	169	170	171	171	172A	172	173	176	176	176	177					20	
8.17	11	10.3	15	11.9	15	14.2	18.5	17.2	22 15	18.5	17.9	22 21.8	30	23.4	30 26	30 31	37	
111B	169	169	170	171		172	172	173	176	176	177						19	
7.8	11	9.73	15	11.4	15	13.7	18.5	16.3	22	17	22 21.1	30	22	30 24.5	30 29.6	37 35.5	45	
111B	164	164	164	170	170			173		176	177	178					18	
7.45	11	10.2	15	10.8	15	13.2	18.5	15.4	18.5	20.3	30	23	30	28.2	37 34	45		
111B	164	164	164	164				173		176	177	177					17	
7.1	11	9.41	15	10.9	15	10.6	15	11.5	15	19.5	30	21.6	30	26.8	37 32.5	37		
158	163	164	164	164	164	164						176	177				16	
6.82	11	8.72	11	9.28	15	9.85	15	10.7	15	12.4	15	25.4	30	30.9	37			
158	163	163	164	164	164	164						176	177				15	
6.63	11	8.04	11	8.58	11	9.13	15	9.9	15	11.6	15	24	30	29.2	37			
158	163	163	163	164	164	164	167					176	177				14	
6.42	11	7.37	11	7.9	11	8.44	11	9.17	15	10.8	15	14.4	18.5	22.5	30	27.6	37	
158	163	163	163	164	164	164	167	167									13	
5.89	7.5	7.7	11	7.75	11	8.42	11	9.01	15	13.3	18.5	15.1	18.5					
157					163	164	166	166	167	167							12	
5.58	7.5	8.5	11	10.9	15	12.5	15	14.1	18.5	14.1	18.5						11	
132						164	166	166	167	167							10	
4.1	5.5	10.2	15	11.2	15	12.8	15	13	18.5									
132	132	134				163	164	166	166	167	167						9	
3.72	5.5	4.24	5.5	4.55	7.5	5.02	7.5	9.18	15	11.5	15	11.9	15				8	
131	132	133	134	134								10.7	15				7	
2.94	4	3.92	5.5	3.92	5.5	4.4	7.5	4.97	7.5								6	
132	132	133	134	134								166					5	
3.54	5.5	3.77	5.5	4.36	7.5												4	
132	132	133	134	134								133						
3.1	5.5	3.72	5.5	4.98	7.5													
30	35	40	45	50	60	70	80	90	100	120	140	160	180	200	250	300	350	

n = 1450 min⁻¹



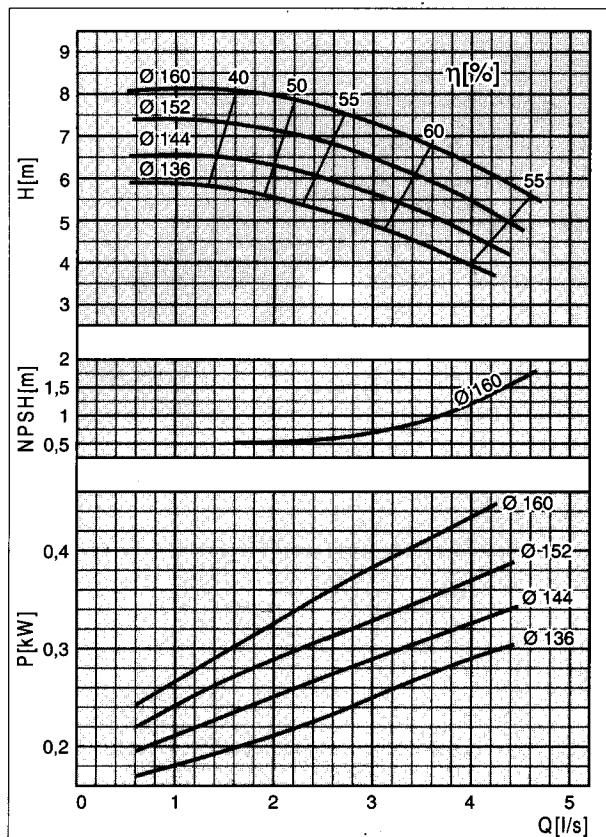
Broj agregata	Tip pumpe	Broj okretaja min ⁻¹	Snaga motora (kW)	Masa (kg)			Dimenzijske vrijednosti							
				Pumpa	Motor KONČAR	Agregat KONČAR	A	B	C	D	E	F	G	H
101		1450	1.1		16.5	88	893							
101A			2.2		19	89	921							
102		2900	3.0	48	28.5	99	957							
103			4.0		38	107	959							
104			5.5		53	127	1036	890	680	342				
105		1450	1.1		16	93	867	735	525	290				
106	NK 16-5	2900	5.4	54	53	133	1010	890	680	342	210	142	150	109
107			7.5		61	142								
108			11		19	98	908	735	525	290				
108A		1450	1.1		16.5	96	886							
109		2900	7.5	56	6	143	1026	890	680	342	210	158	150	113
110			11		100	180	1171							
111		1450	2.2		27.5	108	988							
111A	NK 16-10	2900	1.5	58		19	99	952	735	525	290			
111B			11		100	182	1213	890	680	342	210	200	150	145
111C			15		110	192								
112		1450	1.1		16.5	93	908							
112A		2900	3.0	54	28.5	105	984	735	525	290				
113	NK 20-4	2900	4.0	54	38	114								
114			5.5		53	133	1151	890	680	342				
115			7.5		61	141								
116		1450	1.5		19	102	926							
116A			1.1		16.5	100	904	735	525	290				
116B		2900	5.5		53	139	1044	890	680	342				
117	NK 20-5	1450	2.2	60	27.5	110	945	735	525	290	210	176	150	138
118		2900	7.5		61	148	1044							
119			11		100	194	1189	890	680	342				
120			15		110	203								
121		1450	2.2		27.5	127	1039	810	565	290				
121A		2900	18.5		130	243	1310	1015	760	375				
122	NK 20-6,5	1450	3.0	63	32	131	1039	810	565	290	230	175	175	137
123		2900	11		100	195	1263	967	730	345				
124			15		110	205								
125			3.0		32	134	1069	810	565	290				
126		1450	4.0		42	142	1081							
127			5.5		58	161	1148	967	730	345	230	205	175	153
128		2900	18.5		130	246	1337	1015	760	375				
129			22		160	275	1353							
130			30		230	345	1452	1105	740	425	300			
131		1450	4.0		42	171	1106	810	565	290	230	175	170	
131A		2900	30	95	230	377	1477	1105	740	425	300	230	175	170
131B			37		250	397								
132	NK 20-15	1450	5.5	108	58	190	1173	967	730	345	230			
133			7.5		72	203	1193	967	730	345	230	250	175	190
134			11		19	214								
135		1450	1.5		129	1020								
136			2.2		27.5	136								
137			3.0		32	140	1059	810	567	290				
138	NK 25-5	1450	11	72	100	204	1281	967	730	345	230	195	175	150
139		2900	18.5		110	214								
140			22		130	257	1327	1015	760	375				
141			30		160	360	1343							
142			37		250	380	1442	1105	740	425	300			
143		1450	3.0		32	146								
144			4.0		42	154	1071							
145			5.5		58	173	1138							
146	NK 25-6,5	1450	15	78	110	220	1281	967	730	345	230	195	175	150
147		2900	18.5		130	258	1327	1015	760	375				
148			22		160	287	1343							
149			30		230	360	1442							
150			37		250	380								
151		1450	5.5		58	206	1235	970	710	340	292	210		
151A			4.0		42	190	1168							
151B		2900	55		390	595	1699	1335	880	600	400	215		
152	NK 25-10	1450	7.5	102	72	220	1235	972	710	340		200	165	
153		2900	11		106	275	1380	1135	850	380	292			
154			30		230	416	1539	1200	790	475	332	210		
155		2900	37		250	436								
156			45		330	516	1579							
157		1450	7.5		72	233	1238	970	710	340	292			
158			11		106	288	1383	1135	850	380				
159	NK 25-12,5	2900	45	115	330	531	1582	1200	790	475	332	225	200	163
160			55		390	614	1698	1335	880	600	430			
161			45		495	719	1463							
162		90	55		555	795	1814	1400						
163	NK 25-15	1450	11	125	106	298	1642							
164			15		130	322	1506							
165			11		106	310	1548							
166	NK 25-20	1450	15	137	130	334	1592	1135	850	380	292	380	200	300
167			18.5		145	342	1608							
168			11		106	294	1389							
169		1450	15	121	130	318	1432							
170		2900	18.5		145	326	1448	1135	850	380	292	219	200	166
171			22		320	361	1579							
172		1450	18.5	182	145	405	1595	1280	820	440	370	265	210	
173		30	255		515	1691								
174			37		320	631	1736	1435	915	605	435	278	238	
175			22		175	481	1679	1225	800	385	360	324	223	
176	NK 31,5-20	1450	30	232	255	565	1737	1280	820	440	370	309	240	240
177			37		320	681	1782	1432	915	605	435	322	235	
178			45		360	721	1807							
179			30		255	555	1714	1280	820	440	370	286	240	
180			37		320	661	1759							
181	NK 40-15	1450	45	222	360	711	1784							
182			55		415	756	1870	1435	915	605	435	299	235	225
183			75		535	866	1935							
184			55		415	769	1887							
185	NK 40-20	1450	75	235	535	879	1952	1435	915	605	435	316	235	240
186			90		605	991	2004	1500	940	620	400			
187			110		795	1181	2089							
188			75		535	1039	2153							
189	NK 40-25	1450	90	302	605	1109	2204	1750	1090	660	435	349	285	272
190			110		795	1276	2289							
191			132		900	1381	2340							
192			90		605	1121	2179				</			



Pojedinačni dijagrami

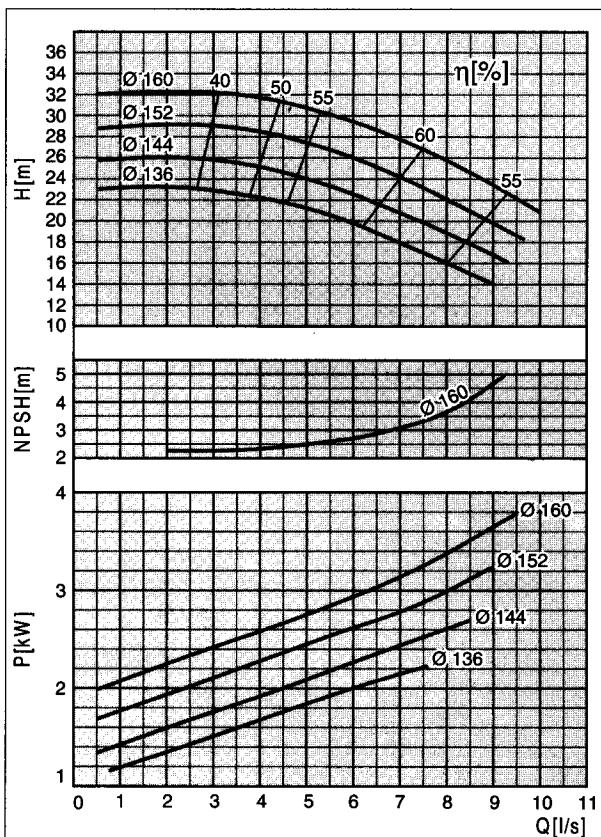
NK 16-4

$n=24,2\text{s}^{-1}$



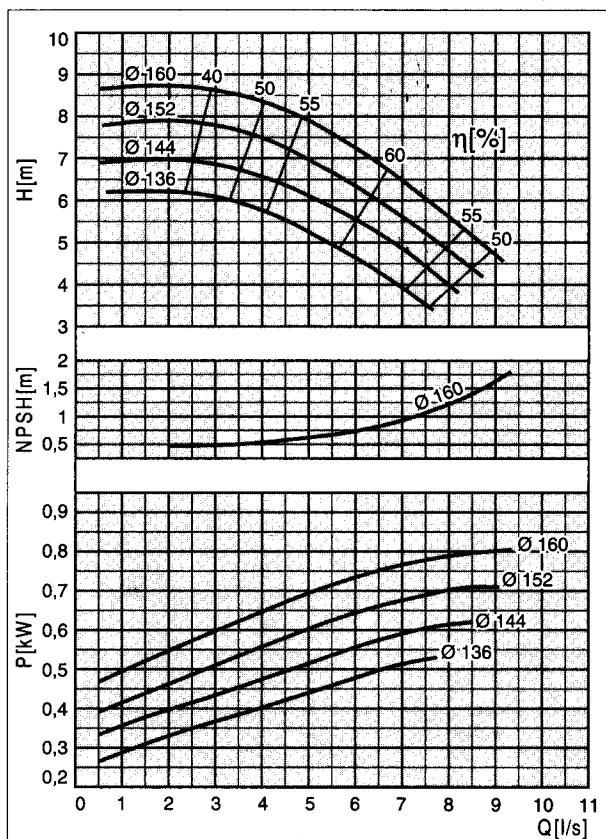
NK 16-4

$n=48,3\text{s}^{-1}$



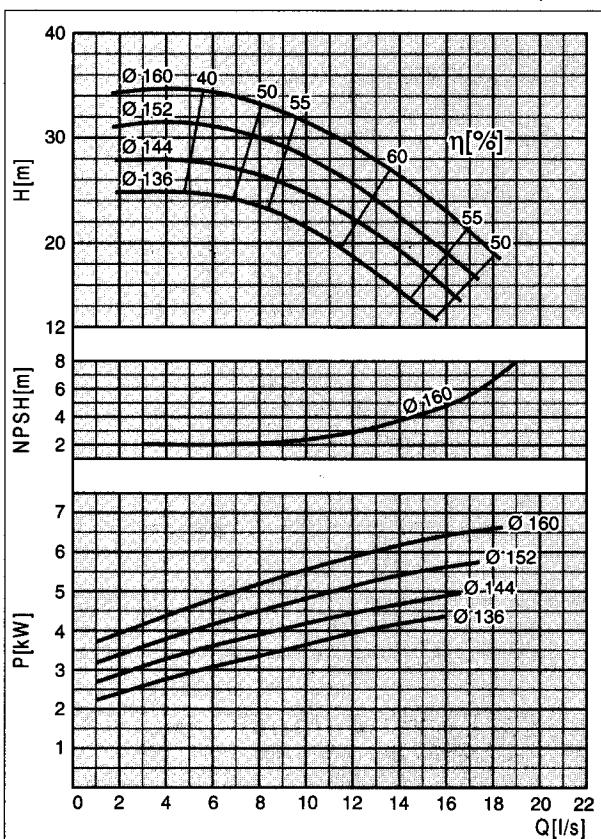
NK 16-5

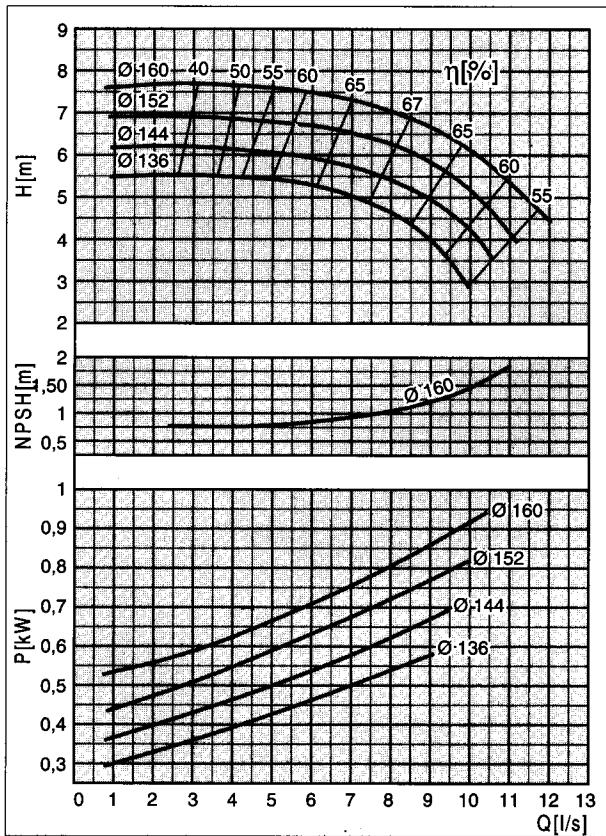
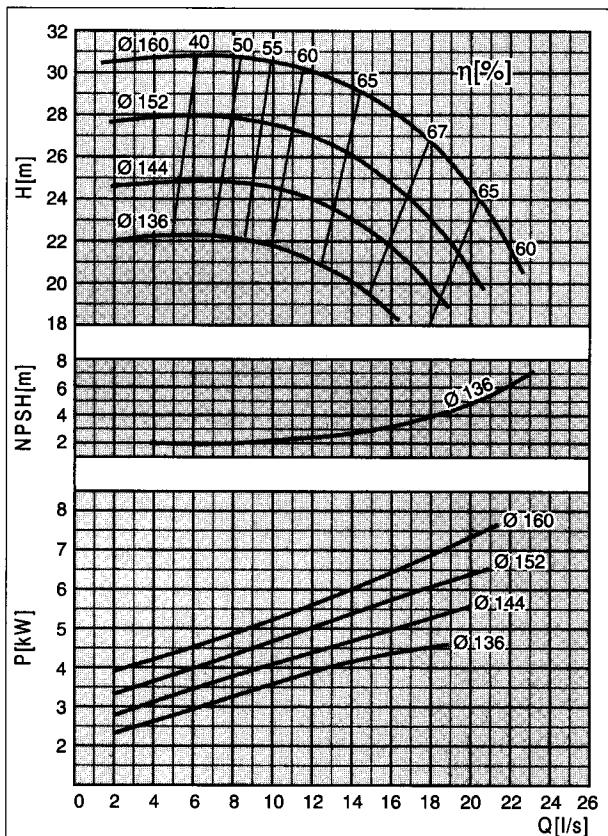
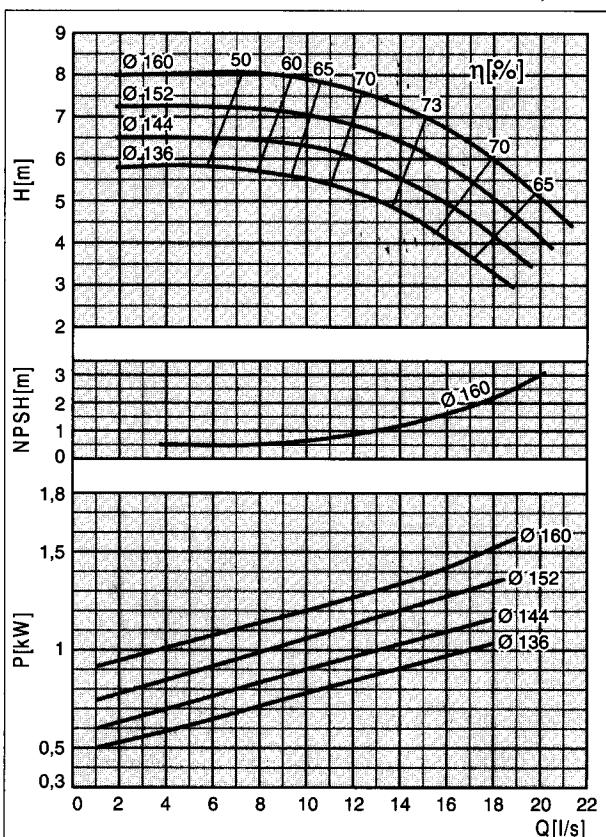
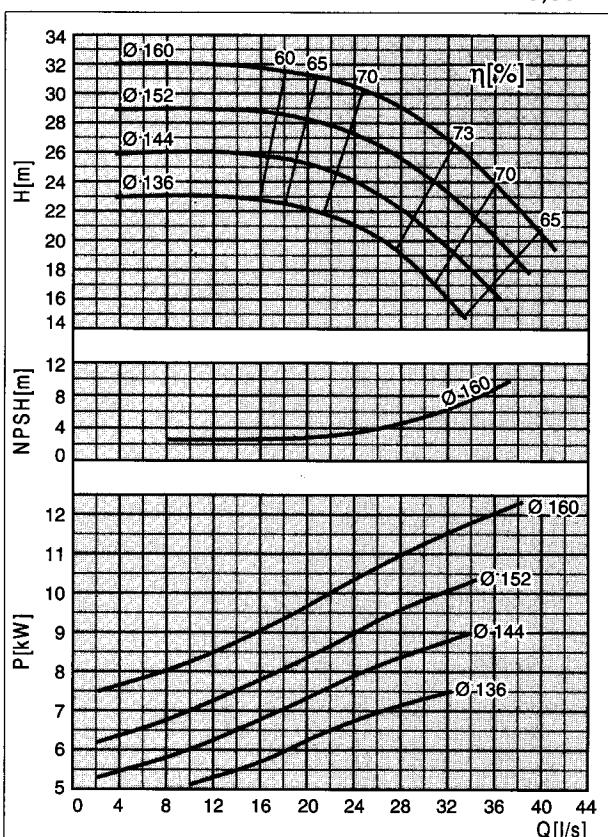
$n=24,2\text{s}^{-1}$

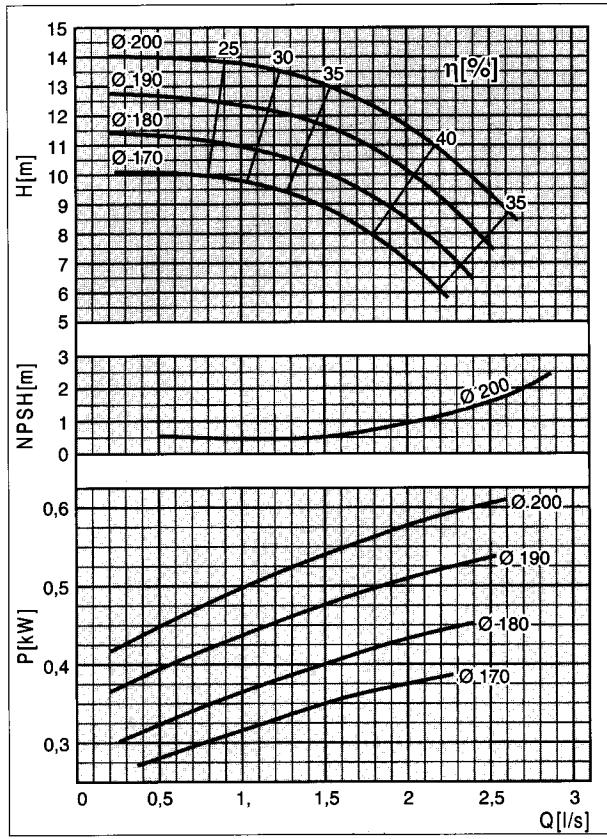
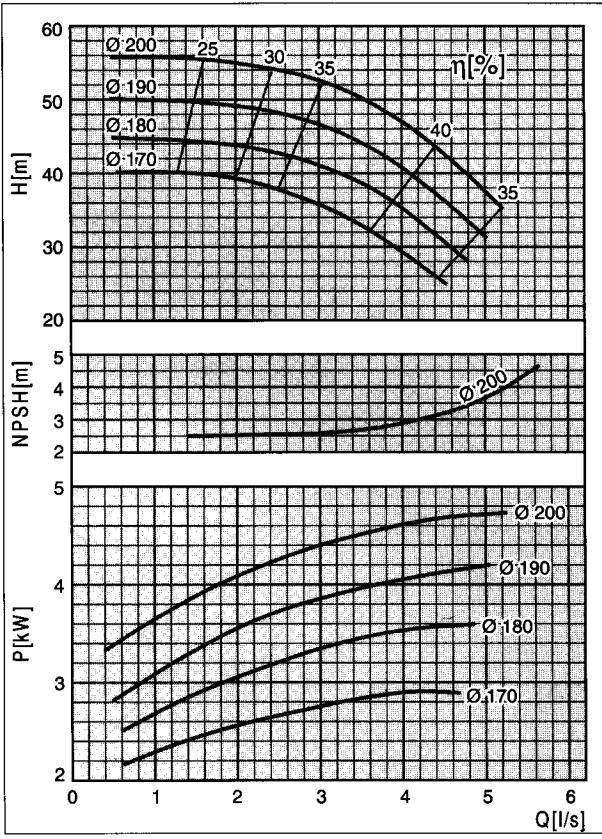
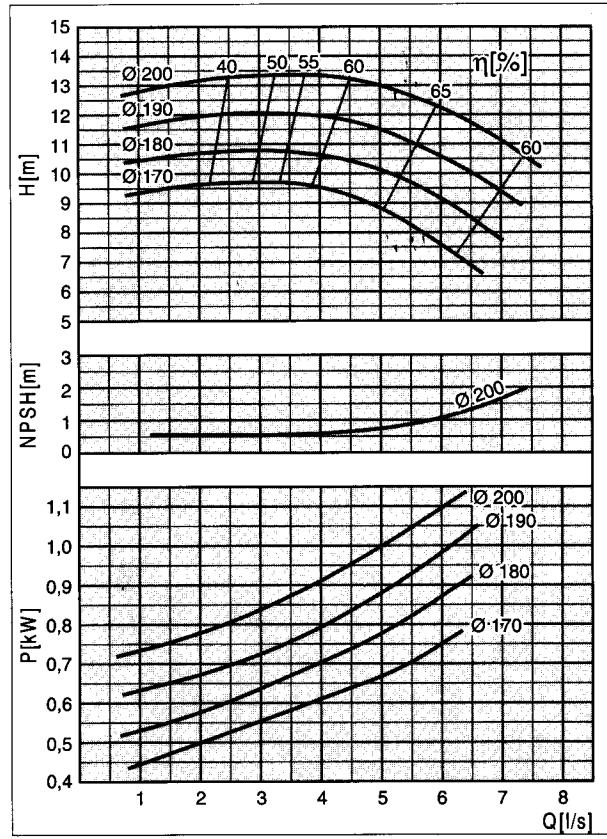
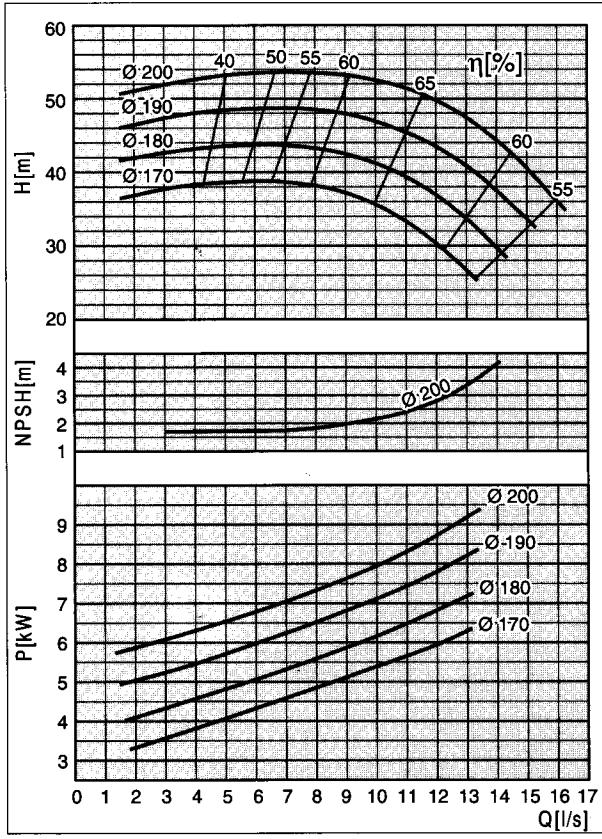


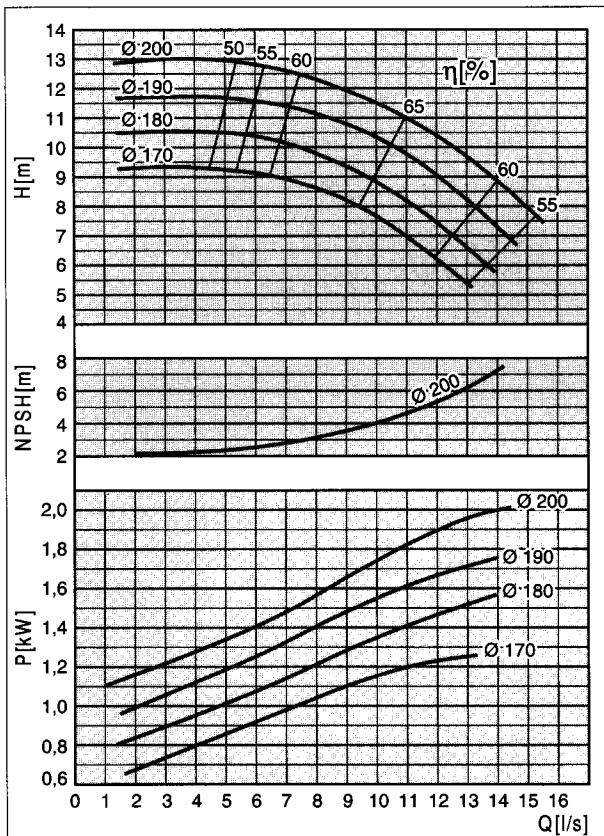
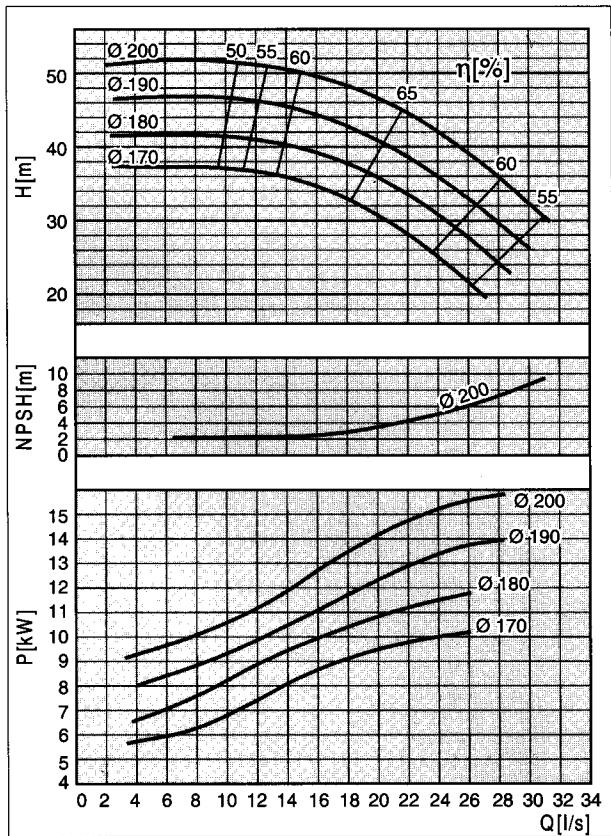
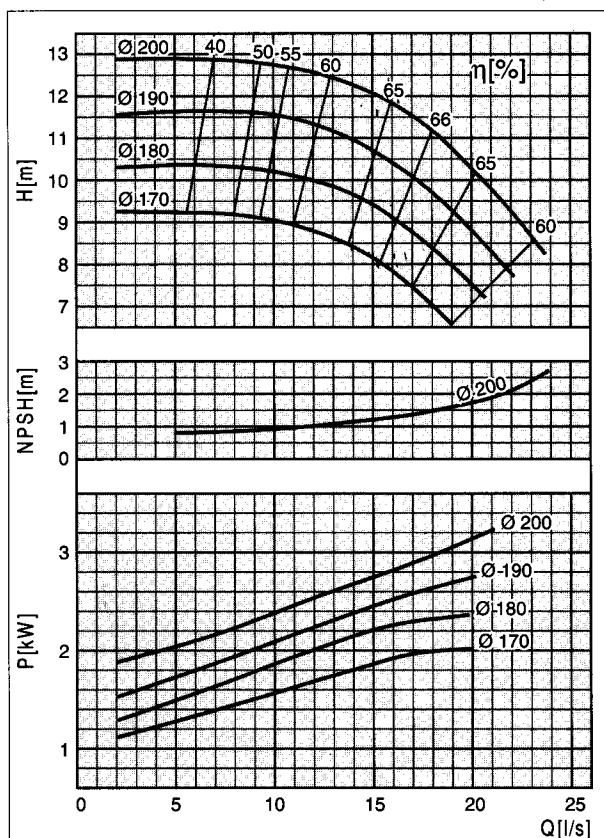
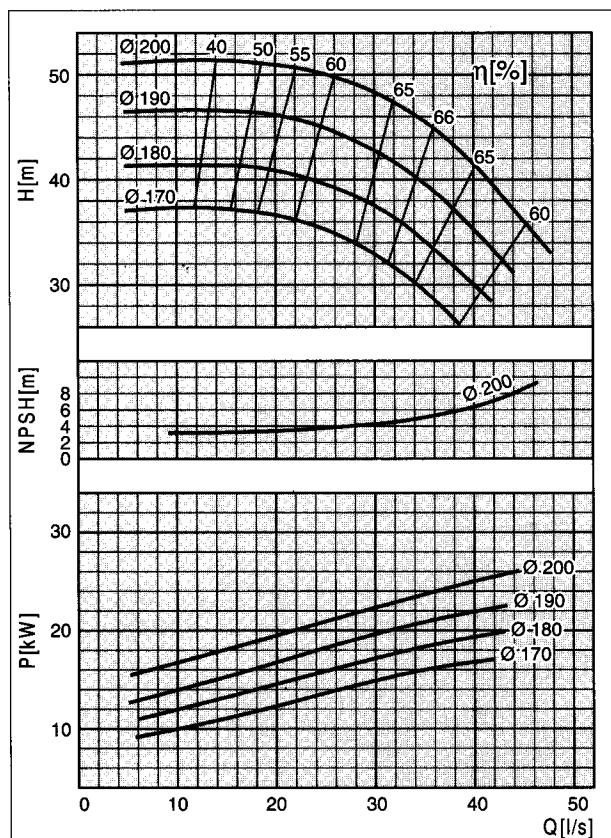
NK 16-5

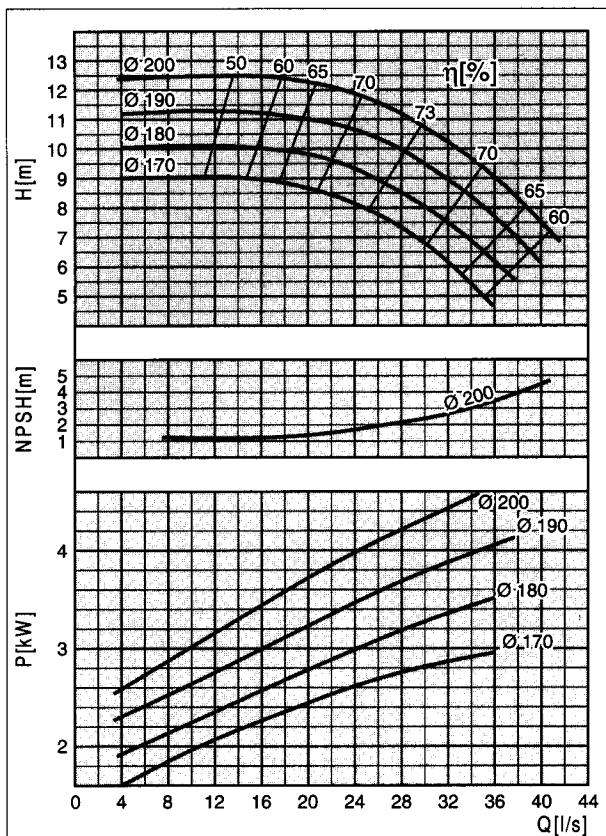
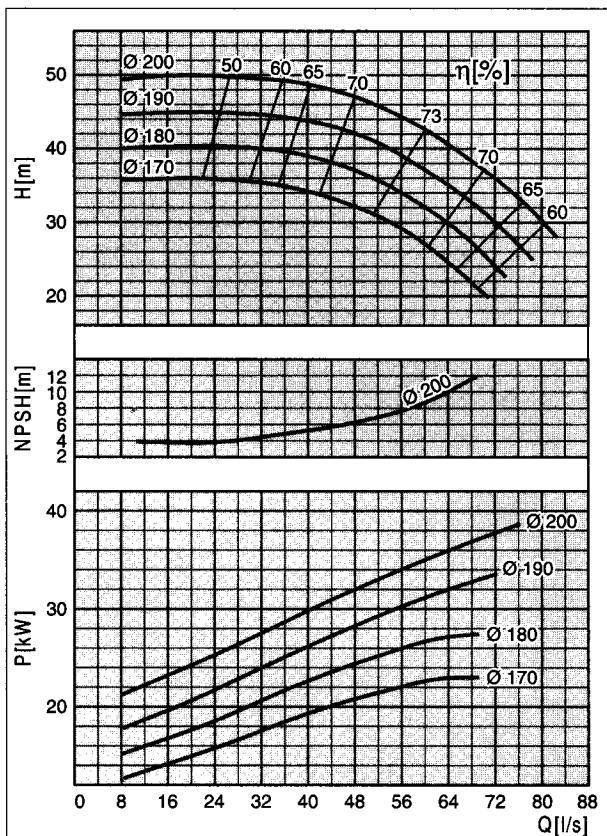
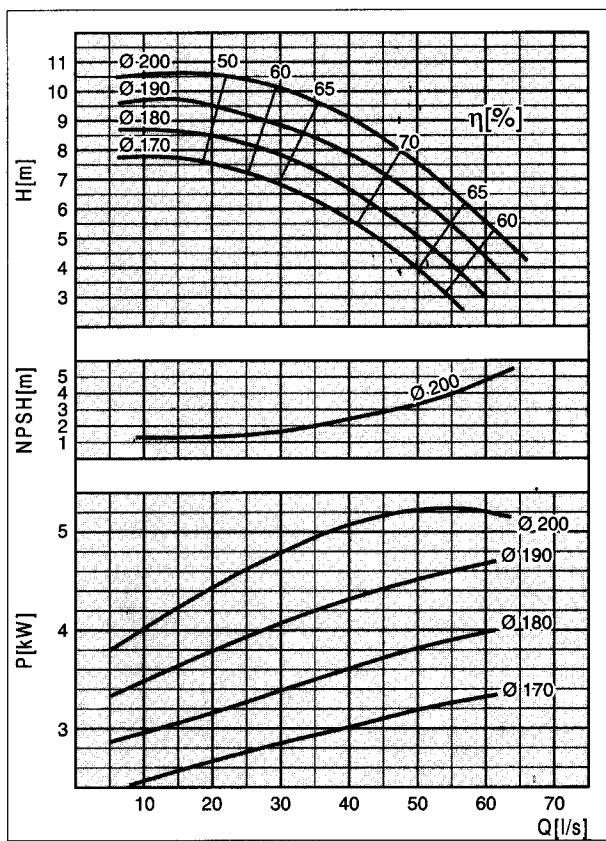
$n=48,3\text{s}^{-1}$

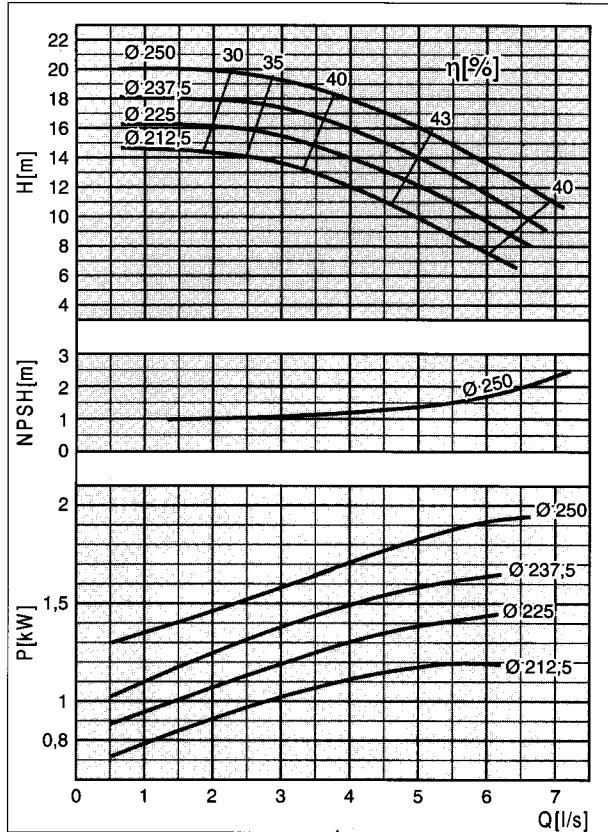
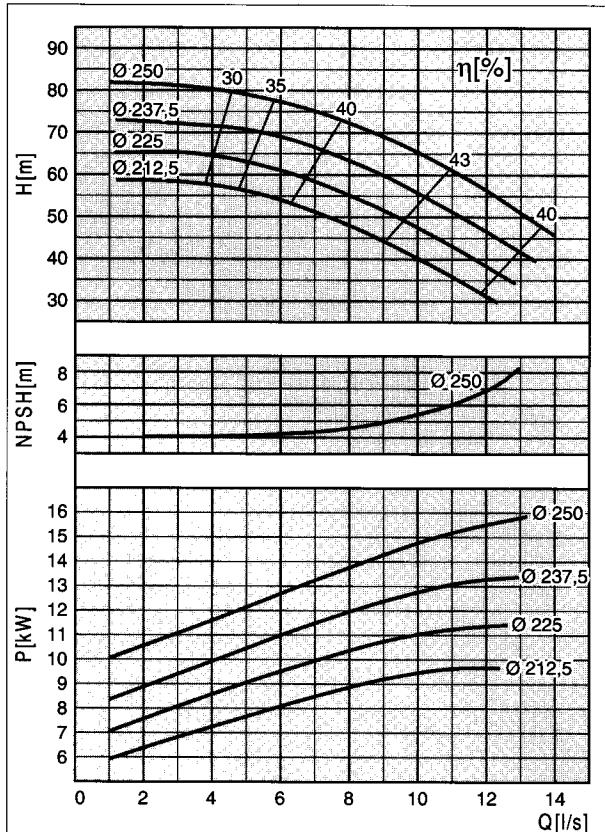
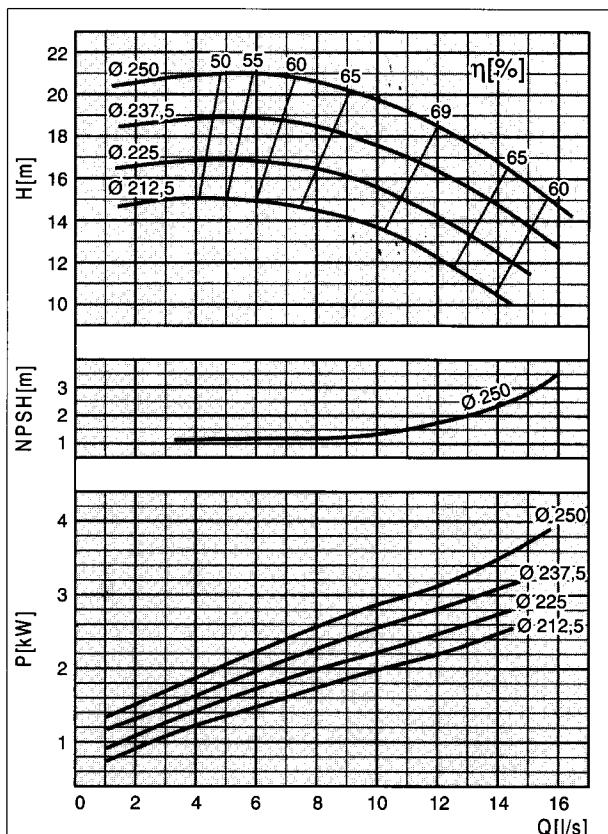
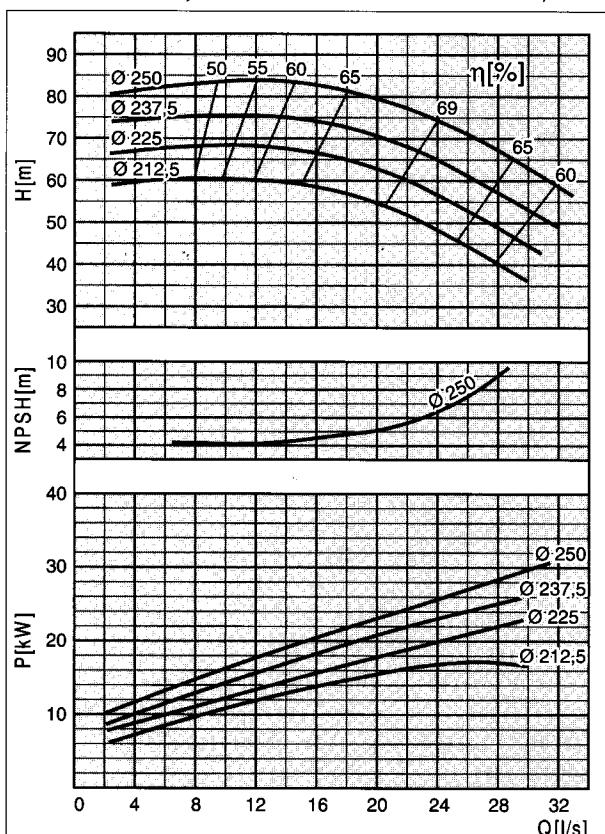


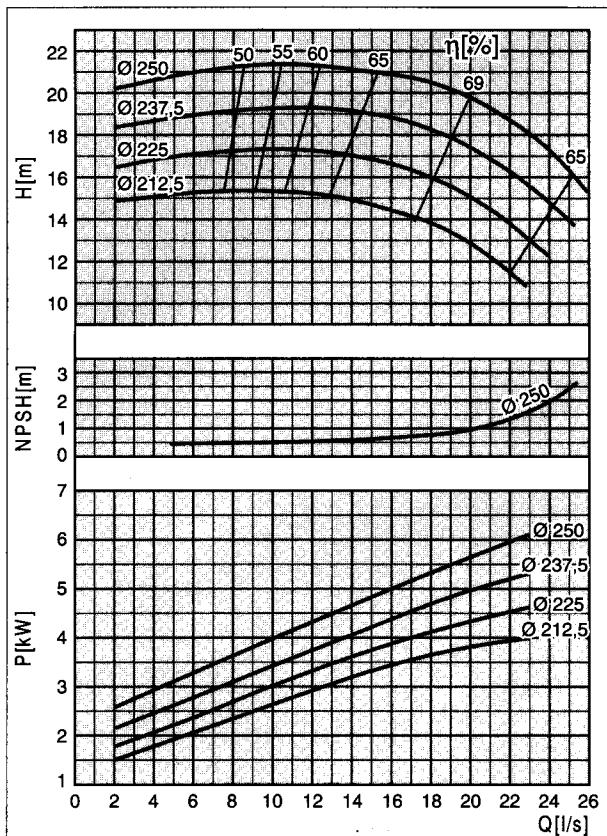
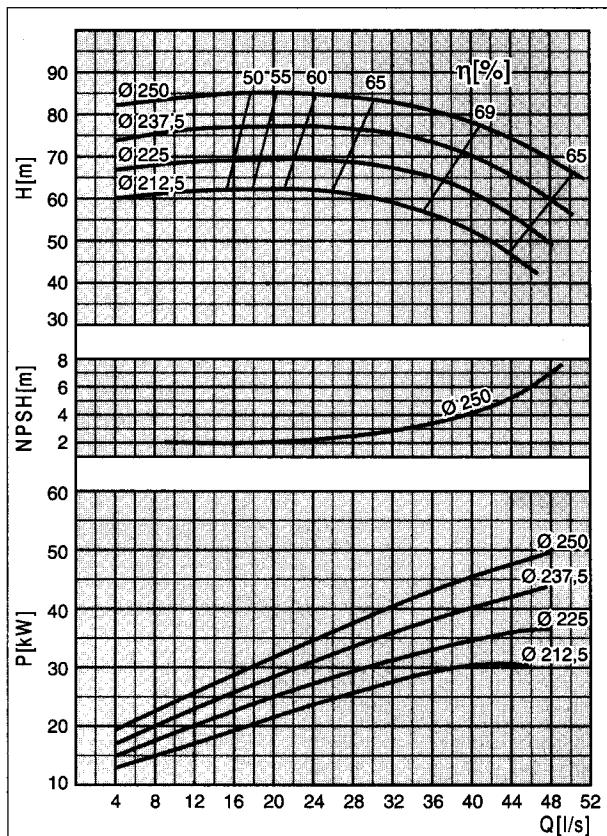
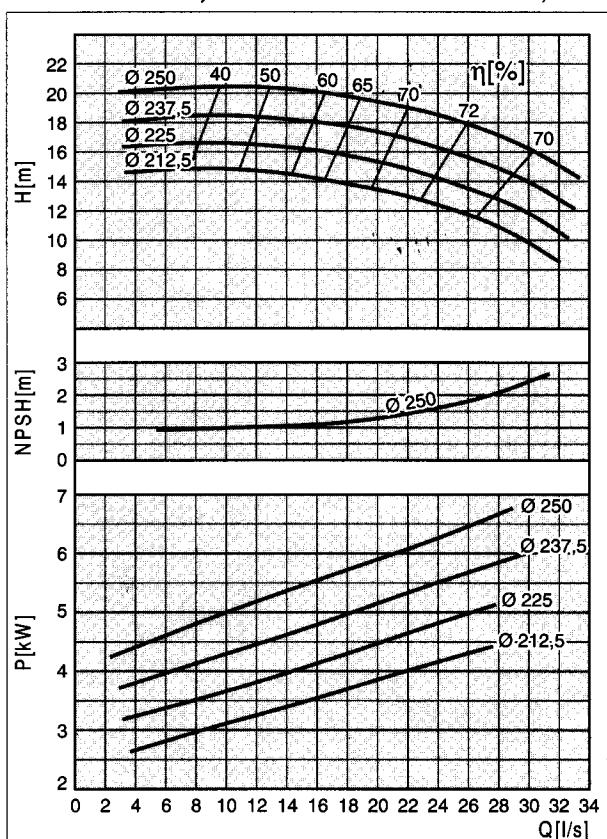
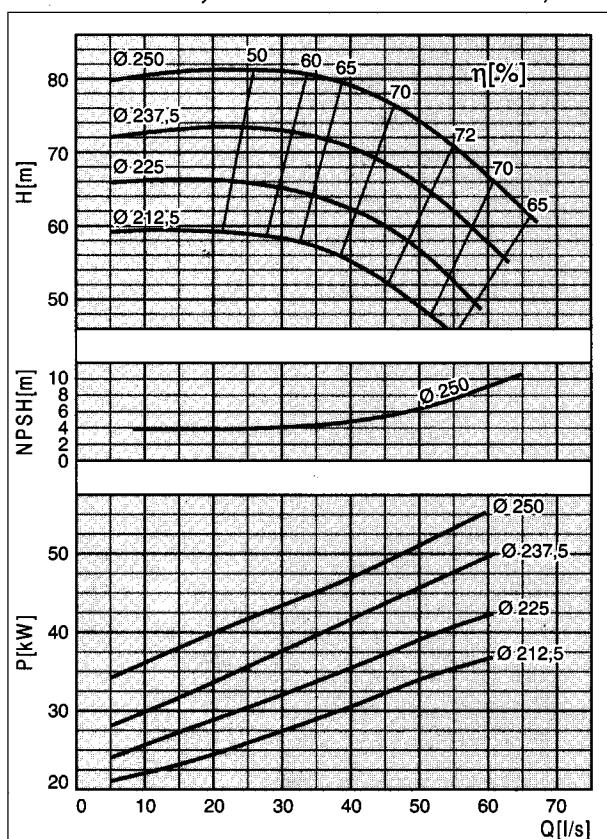
NK 16-6,5 $n=24,2\text{s}^{-1}$ **NK 16-6,5** $n=48,3\text{s}^{-1}$ **NK 16-10** $n=24,2\text{s}^{-1}$ **NK 16-10** $n=48,3\text{s}^{-1}$ 

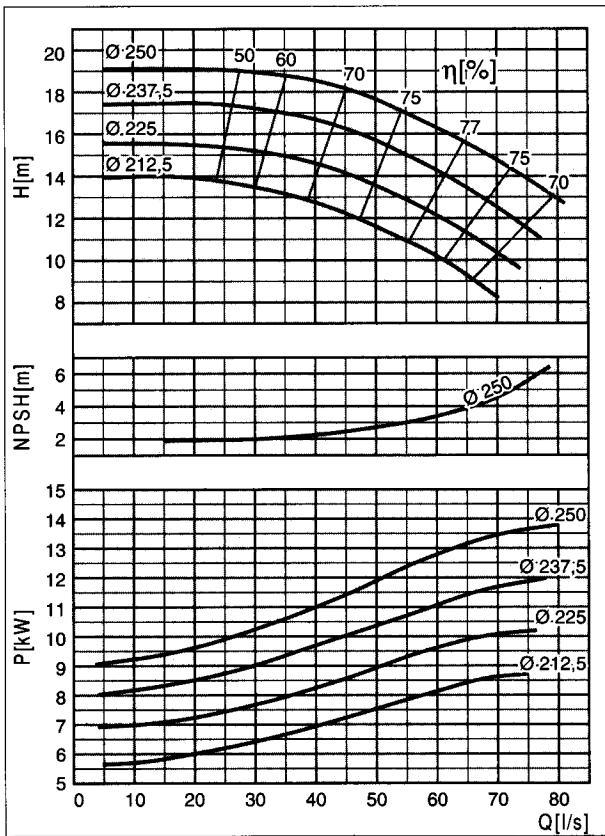
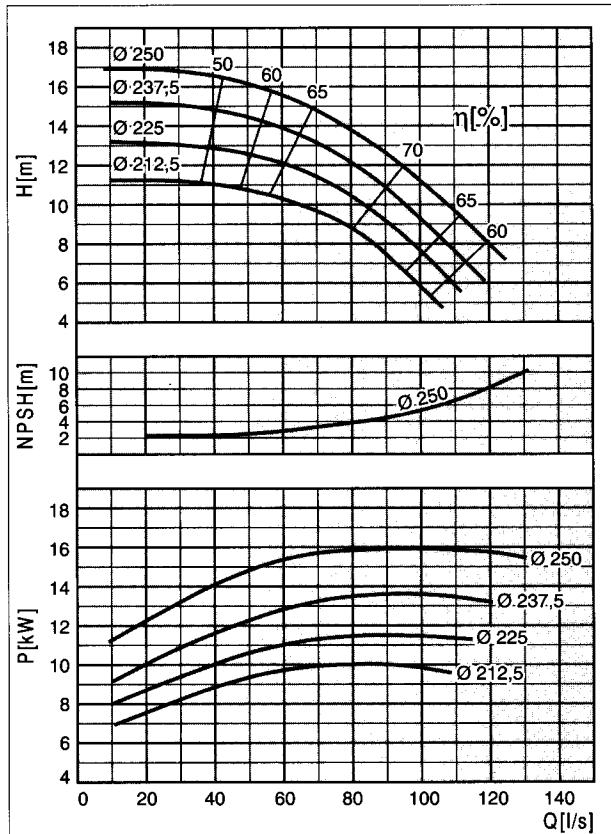
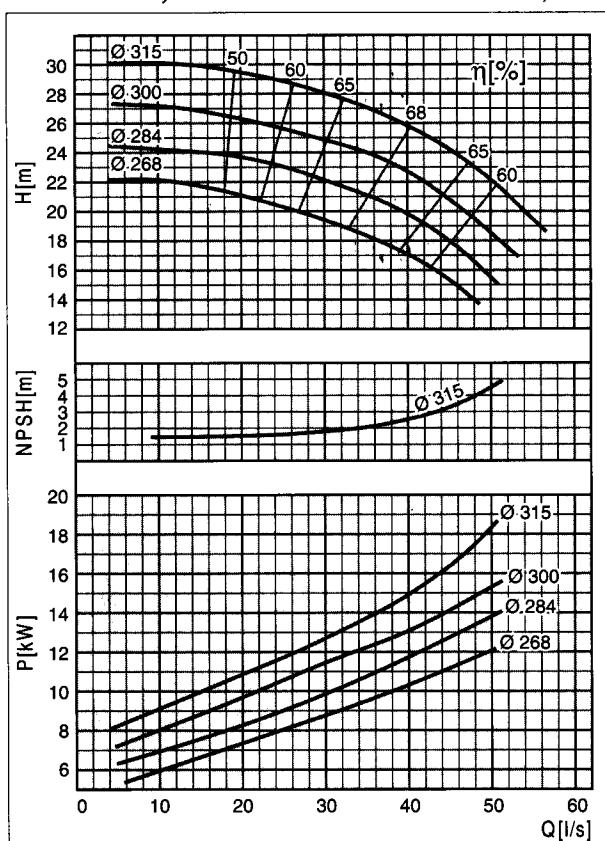
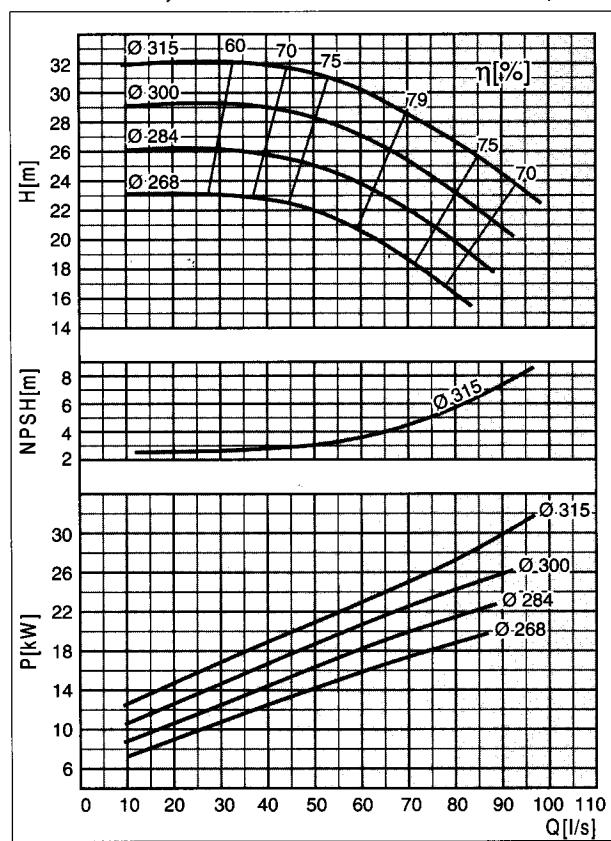
NK 20-4 $n=24,2\text{s}^{-1}$ **NK 20-4** $n=48,3\text{s}^{-1}$ **NK 20-5** $n=24,2\text{s}^{-1}$ **NK 20-5** $n=48,3\text{s}^{-1}$ 

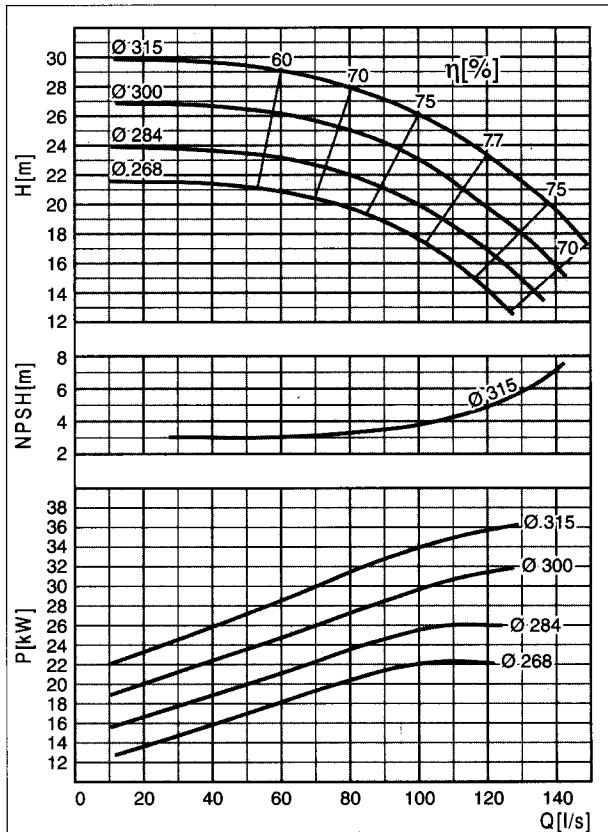
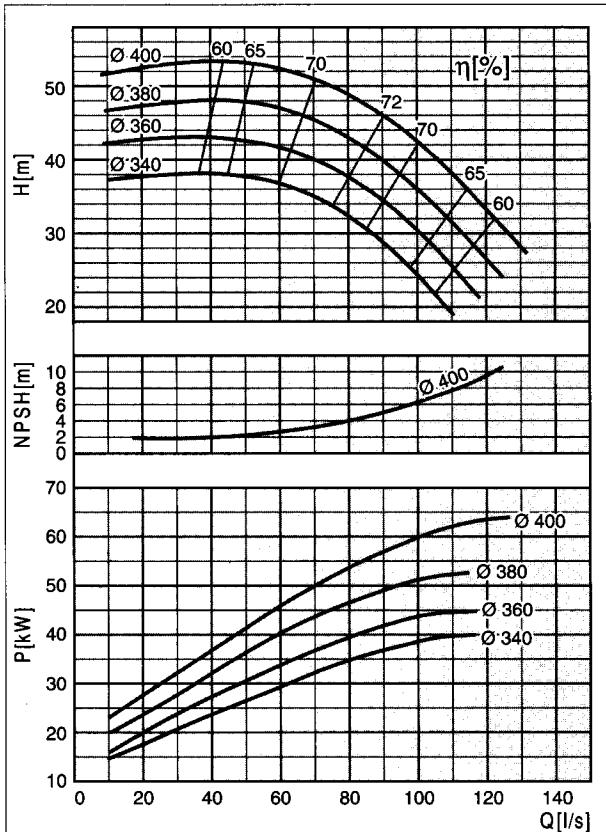
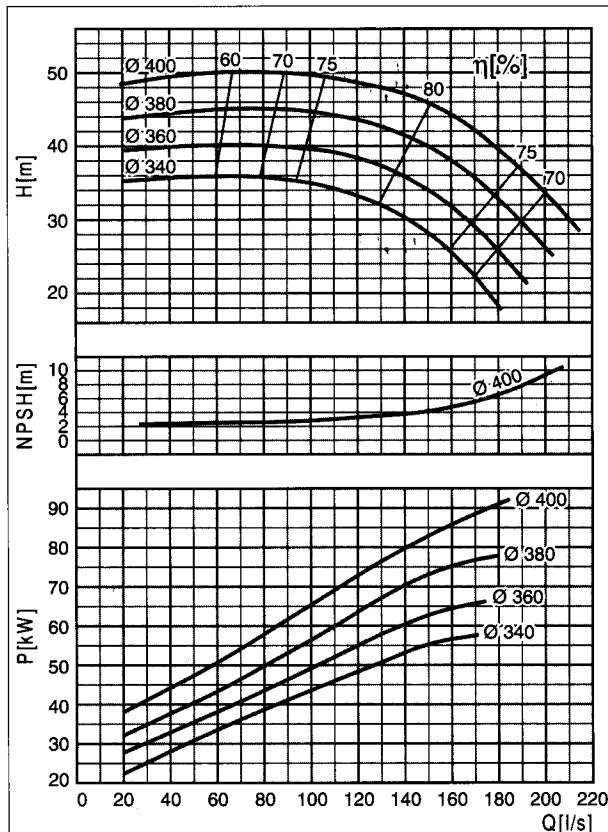
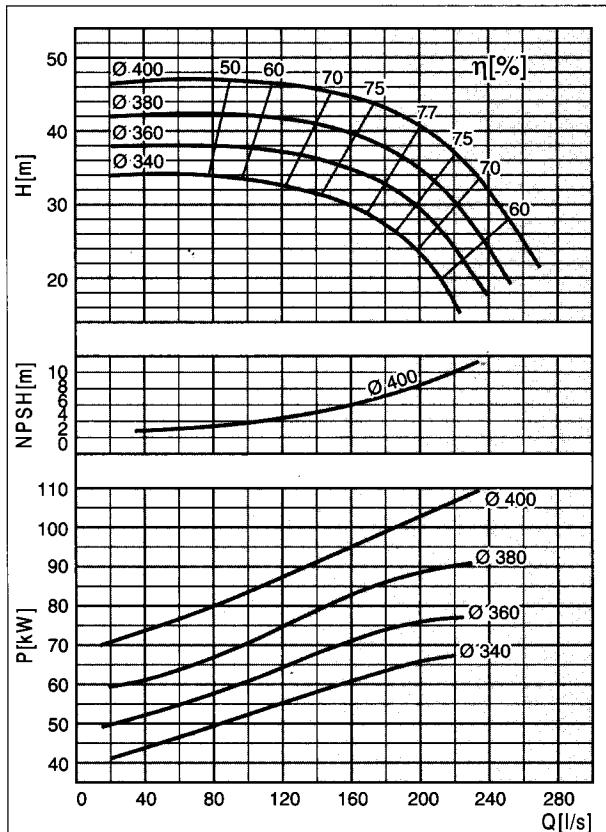
NK 20-6,5 $n=24,2\text{s}^{-1}$ **NK 20-6,5** $n=48,3\text{s}^{-1}$ **NK 20-10** $n=24,2\text{s}^{-1}$ **NK 20-10** $n=48,3\text{s}^{-1}$ 

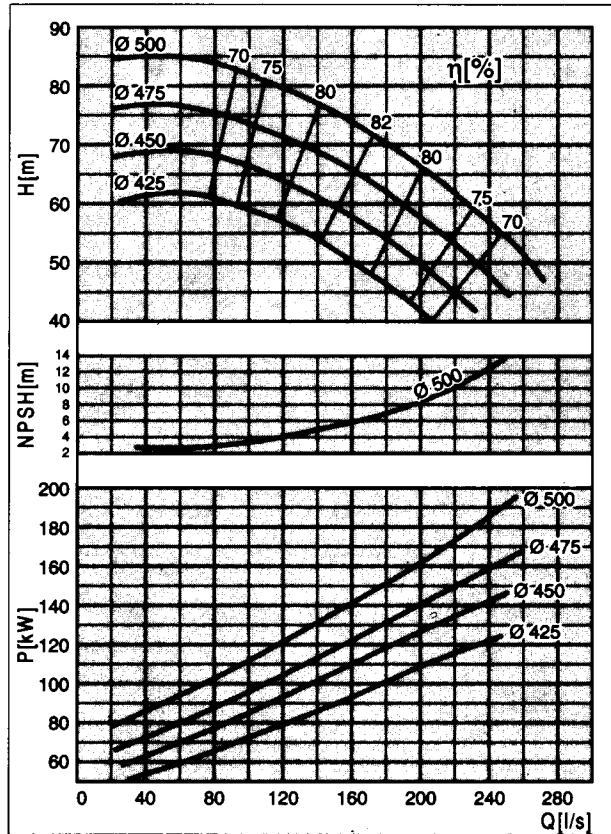
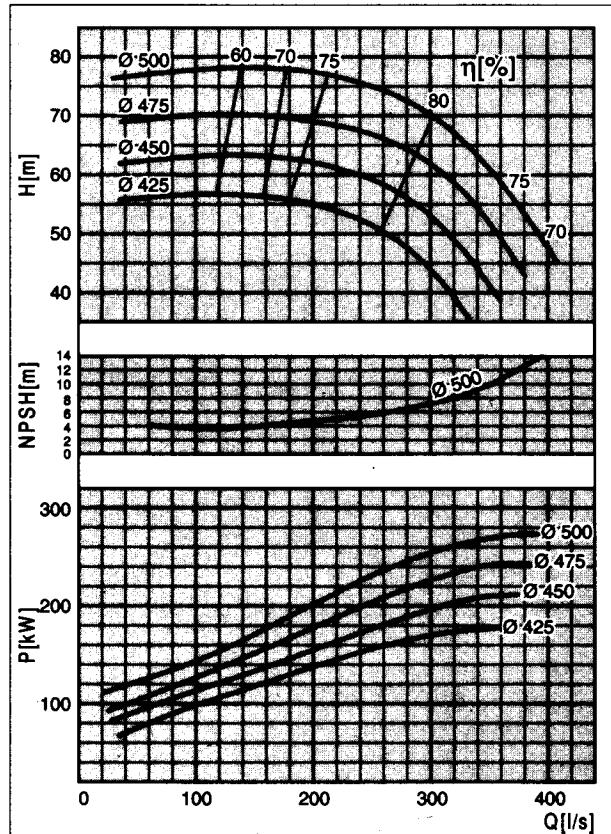
NK 20-12,5 $n=24,2\text{s}^{-1}$ **NK 20-12,5** $n=48,3\text{s}^{-1}$ **NK 20-15** $n=24,2\text{s}^{-1}$ 

NK 25-5 $n=24,2\text{s}^{-1}$ **NK 25-5** $n=48,3\text{s}^{-1}$ **NK 25-6,5** $n=24,2\text{s}^{-1}$ **NK 25-6,5** $n=48,3\text{s}^{-1}$ 

NK 25-10 $n=24,2\text{s}^{-1}$ **NK 25-10** $n=48,3\text{s}^{-1}$ **NK 25-12,5** $n=24,2\text{s}^{-1}$ **NK 25-12,5** $n=48,3\text{s}^{-1}$ 

NK 25-15 $n=24,2\text{s}^{-1}$ **NK 25-20** $n=24,2\text{s}^{-1}$ **NK 31,5-10** $n=24,2\text{s}^{-1}$ **NK 31,5-15** $n=24,2\text{s}^{-1}$ 

NK 31,5-20 $n=24,2\text{s}^{-1}$ **NK 40-15** $n=24,2\text{s}^{-1}$ **NK 40-20** $n=24,2\text{s}^{-1}$ **NK 40-25** $n=24,2\text{s}^{-1}$ 

NK 50-20 $n=24,2\text{s}^{-1}$ **NK 50-25** $n=24,2\text{s}^{-1}$ 



**CROATIA
PUMPE**

Croatia Pumpe Nova d.o.o.
Mala Švrača 155
47000 Karlovac
HRVATSKA

Telefon: +385 47 434 022, 47 434 032
Fax: +385 47 434 110
E-mail: info@croatia-pumpe.com

Prodaja:
Telefon: +385 47 434 033, 47 434 038, 47 434 121

Marketing:
Telefon: +385 47 434 099
E-mail: info@croatia-pumpe.com