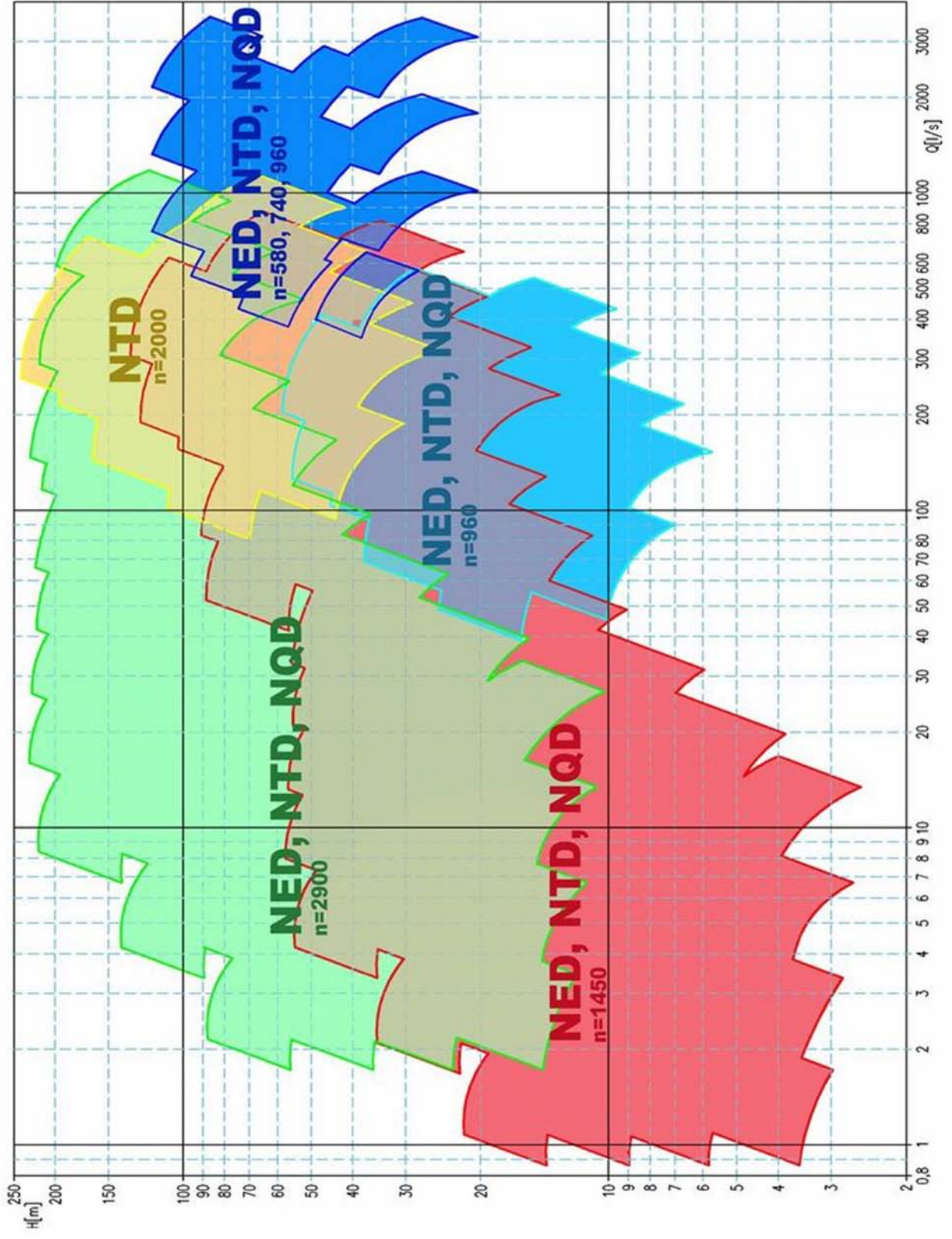


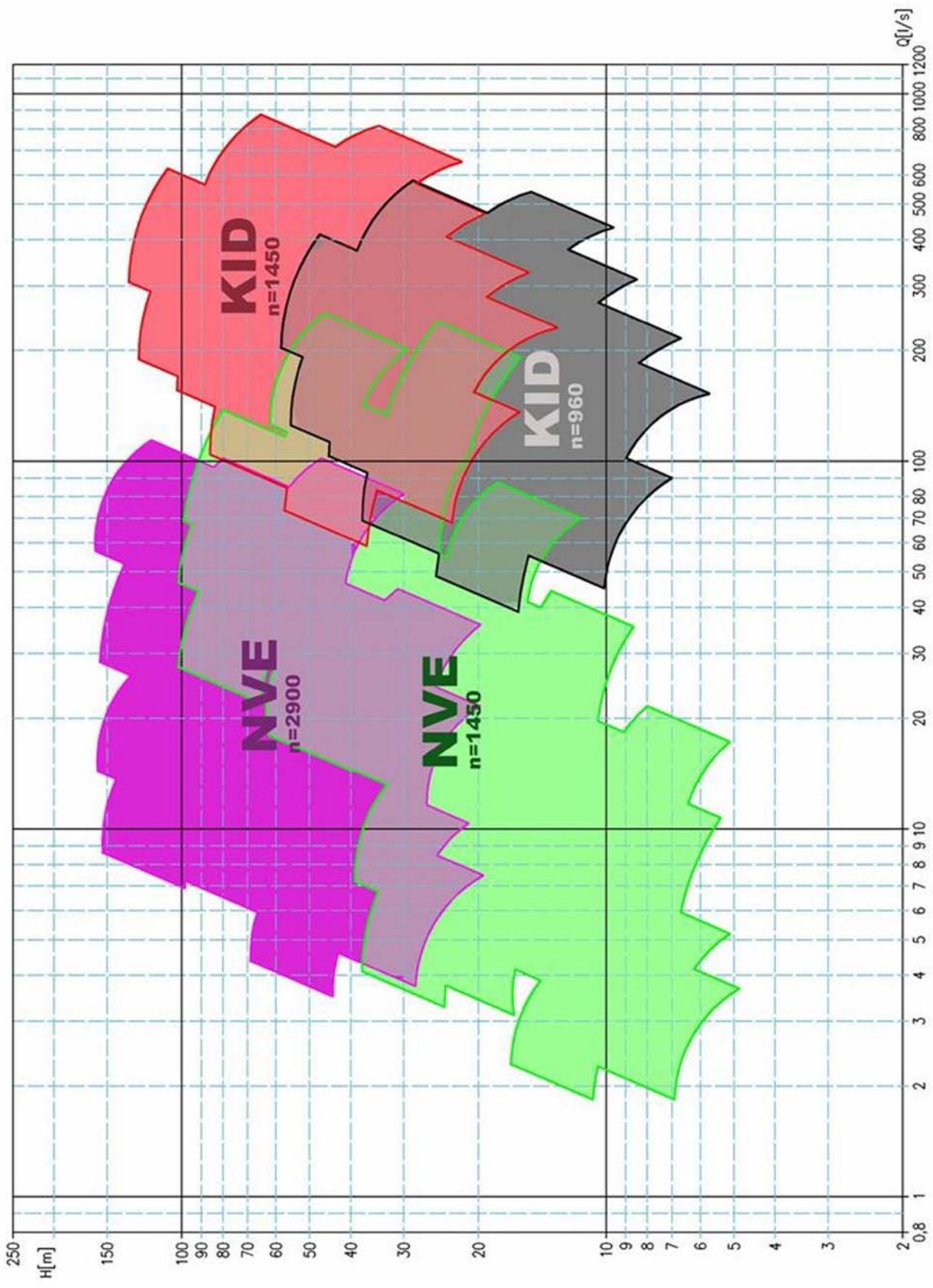


NED, NTD, NQD
Volute Casing Pumps

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PERFORMANCE RANGE





GENERAL

APPLICATION

NED pumps are applied for pumping clean volatile liquids, or slightly polluted with solid impurities up to 2% of the liquid volume, with maximum grain size 0.25mm. The temperature of the pumped medium can be -40°C to $+450^{\circ}\text{C}$, working pressure up to 6.4 MPa (10MPa) and density from 550 to 1200 $\text{kg}\cdot\text{m}^{-3}$.

NED pumps are used not only in refineries for pumping heavy and light fractions of hydrocarbons (kerosene, oils, petrol, fuel oils, propane, butane, ammonia, etc.), but also in hot chemical processes for pumping various liquid chemicals. The pumps are designed for the minimum service life as long as 20 years (excepting the parts currently expendable in operation) and 3 years of continuous operation. The design enables increase of the total head for 5% by replacement of impeller of larger diameter and the pump can continuously run at the speed increased for 105% above the rated speed. Other operation conditions can be applied only after approval of the pump manufacturer.

NTD pumps are designed for pumping volatile liquids, clean, or slightly polluted with solid impurities up to 2% of the liquid volume with maximum grain size 0.25mm. The pumped medium temperature can vary between -20°C and $+230^{\circ}\text{C}$, working pressure up to 4 MPa and density up to 1050 $\text{kg}\cdot\text{m}^{-3}$.

The used construction elements conform to API 610. The pumps NTD are used for pumping heat-transfer media (hydrocarbons), circulating and feeding water, aggressive organic and inorganic compounds, in accessory equipment in refineries, paper, sugar and foodstuff industry, sea water desalination plants, etc. Other operation conditions can be applied only after approval of the pump manufacturer.

NQD pumps are applicable for pumping clean liquids, or slightly polluted with solid impurities up to 3% of the liquid volume with

maximum grain size 0.3mm. The pumped medium temperature can be between -20°C to $+180^{\circ}\text{C}$, operation pressure up to 2.5 MPa and density up to 1050 $\text{kg}\cdot\text{m}^{-3}$.

NQD pumps can pump food products, drinking, service, hot, cooling and desalinated water, oils, alkalies, and condensate. Other operation conditions can be applied only after approval of the pump manufacturer.

MODEL DESIGNATION

100	NED	315	22	A8	FE	Z100
100	NTD	315	22	S5	S	T180
100	NQD	315	22	L2	F/E	F
Discharge branch diameter	Pump type denomination	Pump impeller diameter [mm]	Impeller channel width [mm]	Index of pump material execution	Pump (pumping set) arrangement denomination	Informative (optional) pump design denomination

DESIGN OF NED, NTD, NQD

The pumps are manufactured in several design versions

(see table of indexes of design versions).

The pump is of single-stage, volute-casing design, with single-suction impeller. The discharge branch is tangentially arranged, oriented upwards, the suction branch is axially oriented.

The pump stator consists of the volute casing, replaceable front and back wear rings, inter-stage plate and stuffing box. The pump stator is tested by hydrostatic test.

The pump rotor consists of the shaft and im-

PELLER with replaceable wear rings. The rotor is supported by non-friction bearings, fixed in removable bearing housing. The bearing housing is designed so that each one can be used in several models of the model range. The whole range is covered by several sizes of bearing housings, depending on bearing size beginning from the bearing range 308 to 338. The selected bearings are made by SKF and are dip lubricated from oil bath by means of dip ring. In some models for bearings 322 to 338 jet lubrication system is applied. The bearing life is not less than 40 000 operating hours. The bearing chamber is sealed with special labyrinth contactless sealing of PTFE effectively preventing oil leak from the bearing housing and oil pollution. The sealing can withstand temperatures up to 150°C. **The bearing housing is provided with oil replenisher of heat-resistant glass with protection strainer as standard.**

DESIGN OF NED

The design of the pumps is made according to standards **ISO 5199, Class II., EN ISO 13709 and API 610, 9th Edition** that is based on collected knowledge of users of centrifugal pumps in chemical, petrochemical and gas-processing industries and corresponds with regulations of **ATEX for equipment applicable in explosive atmosphere** (see Chapter "Application of pumps in explosive atmosphere").

The pump stator is designed for **PN64, PN100 on request.**

The rotor assembly is balanced so that it can meet the requirements of the strictest grade G2 acc. ISO 1940-1. To reach high reliability of the mechanical seal the rotor is designed with minimum deflection in the place of the contact of the sealing elements of the mechanical seal, neglecting the influence of rigidity of

the clearance of wear rings. **The maximum permissible flexion is 0.05 mm.**

For castings and their repairing by welding the strictest requirements are applied **requiring complete recording of defects (defect maps) and methods of their repairing.**

The bearing housings are made solely in cast steel and are provided with holes necessary for bearing diagnostics (bearing housing versions -S, -S-K).

In standardized version the pumps are equipped with mechanical seal acc. API 682, ISO 21049.

The mechanical seals are selected in accordance with pumped liquids, performance parameters and client's requirements. The basic versions are as follows:

- Single seal, API PLAN 01, (02, 11)
- Single seal with internal cooling circuit with cooler, API PLAN 21
- Single seal with internal cooling circuit and flushing (cooling) of flange and seat (quench), API PLAN 21, 62
- Double mechanical seal with barrier protection
- API PLAN 52, (53).

Depending of the operation mode various mechanical seals of various producers can be installed.

DESIGN OF NTD

The pump design conforms to technical requirements for pumps acc. ISO 5199, Class II. The pump stator is designed for **PN40.**

The rotor assembly is balanced so that it can meet the requirements of the strictest grade G2 acc. ISO 1940-1.

The bearing housing is made in cast iron without holes necessary for bearing diagnostics (bearing housing version -L), or in steel, provided with the standardized holes for bearing

diagnostics (bearing housing version **-S, -S-K**). The pumps are equipped with mechanical seal as standard.

The design of the mechanical seal housings corresponds with ISO 3069.

The mechanical seals are selected in accordance with pumped liquids, performance parameters and client's requirements.

The basic versions are as follows:

- Single seal,
- Single seal with internal cooling circuit with cooler, API PLAN 21

Depending of the operation mode various mechanical seals of various producers can be installed.

rameters and client's requirements. The basic version is provided with single mechanical seal. Depending of the operation mode various mechanical seals of various producers can be installed.

DESIGN OF NQD

The pump design conforms to technical requirements for pumps acc.ISO 9908 třída III.

The pump stator is designed for **PN25**.

The rotor assembly is balanced so that it meets the requirements of the G6.3 acc. ISO 1940-1.

The pumps can be supplied with another branch orientation, design index **-T**** - for discharge branch sizes from DN300.

The bearing housing is made in cast iron without holes necessary for bearing diagnostics (bearing housing version **-L**), or in steel, provided with the standardized holes for bearing diagnostics (bearing housing version **-S, -S-K**).

The pumps are equipped with mechanical seal as standard.

The design of the mechanical seal housings corresponds with ISO 3069.

The mechanical seals are selected in accordance with pumped liquids, performance pa-

TABLE OF DESIGN VERSION INDEXES

The volute-casing pumps of model ranges NED, NTD, NQD are applicable in all industrial branches as well as at other user's plants. They are manufactured in various design versions in line with long-term experience in volute-casing pump production and client's requirements, respecting the most possible interchangeability

of various components the production of which is focused on large-scale production with application of up-to-date technologies. The range of performance parameters is covered by several pump model sizes that are modified into three pump model ranges (NED, NTD, NQD) and design versions (see table of indexes).

Pump (pumping set) arrangement denomination

Symbol	Applicable for pumps of type	Description
-S-	NED, NTD, NQD	Single pump with the free end of the shaft (bare-shaft pump)
-SP-	NED, NTD, NQD	Single pump with a shaft coupling
-FE-	NED, NTD, NQD	Pump with an electric motor on a common base plate (frame)
-FT-	NED, NTD, NQD	Pump with a turbine on a common base plate (frame)
-F2 -	NED, NTD, NQD	Pump, coupling, base plate (frame) for the pump only
-F2/E-	NED, NTD, NQD	Pump, coupling, electric motor, separate pump and motor frames

Pump (pumping set) arrangement denomination

Symbol	Applicable for pumps of type:	Description
-F	NED	Joints of parts in contact with the pumped liquid are of a flanged execution – threaded connections are excluded
-T45	NTD, NQD	Pump discharge branch orientation. Numbers behind the index indicate an angle of slew from the standard execution (tangential branch oriented to the up) by 45° in direction of the pump rotor rotation
-V__	NED, NTD, NQD	Version (deviation) from the standard execution with a numeric symbol after "V" (example V27) Deviation is elaborated acc. the customer's request for any other than standard design
-Z100	NED	Pump body in a reinforced execution for PN100

The pump designation can consist of more indexes in alphabetical order; see Chapter „Examples of Machine Designation“.

TABLE OF MATERIAL VERSION INDEXES

The volute-casing model ranges NED, NTD, NQD are currently produced in material versions covering the most of possible applications in hu-

man activities. On request combination of various material versions can be supplied, or a standard material can be substituted with another material demanded by the Client. For applications in chemical industry the surface treatment with nickel, titanium or PTFE-plating can be provided.

Index	Description
L-1	Version in cast iron with shaft of carbon steel
L-2	Version in cast iron with bronze impeller, shaft of carbon steel
L-3	Version in cast iron with impeller of 12% chromium steel, shaft of carbon steel
S-1	Version in carbon steel with impeller of cast iron, shaft of carbon steel
S-5	Version in carbon steel
S-6	Version in carbon steel, impeller of 12% chromium steel
S-8	Version in carbon steel, impeller of chromium-nickel-molybdenum austenitic steel 18/9/2
C-6	Alloyed version based on 12% chromium corrosion-resistant steel
A-7	Alloyed version based on chromium-nickel austenitic steel 18/8
A-8	Alloyed version based on chromium-nickel-molybdenum austenitic steel 18/9/2
D-1	Version based on Duplex

Examples of the pump (pump set) denomination

Example	Description
200-NED-330-32-A8-FE	Basic execution with branches of the basic 1. line, with threaded joints of auxiliary circuits and with a standard bearing bracket. Material group A8. Pump and electric motor on a common base plate (frame)
200-NED-330-32-S5-FE-Z100	Suction and discharge branches of PN100. Material group S5.
200-NQD-330-32-S5-FE-T180	Execution with the discharge branch slewed for a 180° in this case tangential downwards. Material group S5
200-NED-330-32-S5-FE-F	Threaded joints of auxiliary circuits are replaced by the flanged ones
A200-NQD-330-32-S5-FE	Execution for nuclear power plants according to a special prescription.

COOLING (HEATING)

Owing to the fact that the pumps NED, NTD, NQD are applicable for pumping media that can achieve very high (low) temperatures, the pumps are provided with several cooling (heating) systems.

Informative differentiation, depending on individual assessment of various operation conditions:

- No cooling up to approx. 100°C;
- Water cooling through cooling chamber of interstage plate;
- Water cooling through cooling chamber of interstage plate, internal circulation of stuffing box through external cooler;
- Water cooling through cooling chamber of interstage plate, internal circulation of stuffing box through external cooler and flushing of seat and flange with cooling water;
- For highest temperatures up to 450°C water cooling through cooling chamber of interstage plate, internal circulation of stuffing box through external cooler and flushing of seat and flange with cooling water in combination with cooling chamber of bearing housing is used.

Heating system for applications for low temperatures from -40°C is arranged similar way.

COUPLING

The multi-plate coupling, connecting the pump with the electric motor, enables flexible connection allowing large misalignment of shafts and axial movement of the rotor caused by thermal elongation. The part of the coupling is a spacer enabling disassembly of the bearing housing and interstage plate with the rotor so that the drive need not be removed. In pumping sets working in the explosive atmosphere the couplings acc. API 671 are applicable.

BASE FRAME

For mounting on the base frame the pumps and the frames are provided with guiding keys enabling thermal dilatation alongside one axis only. The keys are on footings in the y-axis, the guiding key is on the volute casing rib in the x-axis. The base frame is fabricated by welding and corresponds with dimensions that are designed so that the frame covers the horizontal projection of the whole pump for the case of a pumped liquid leakage that can be caught in the sump.

QUALITY ASSURANCE

NED – acc. API 610

For mounting on the base frame the pumps and the frames are provided with guiding keys enabling thermal dilatation alongside one axis only. The keys are on footings in the y-axis, the guiding key is on the volute casing rib in the x-axis. The base frame is fabricated by welding and corresponds with dimensions that are designed so that the frame covers the horizontal projection of the whole pump for the case of a pumped liquid leakage that can be caught in the sump.

NTD – acc. ČSN ISO 5199

Checks and possible acceptance tests of single parts are registered in the Quality Plan (QP) that is made in two copies during the pump manufacture by Quality Control Department, independent on manufacturing workshops, and the scope is approved by the Client before start of the pump manufacture. On request checks, tests and documenting can be made according to Client's demands.

NQD – acc. ČSN ISO 9908

The checks are registered in the Quality Plan (QP) that is made during the pump manufacture by the Quality Control Department, independent on manufacturing workshops. The client approves the QP and its scope before starting manufacture. On checks, tests and documenting can be made according to Client's demands.

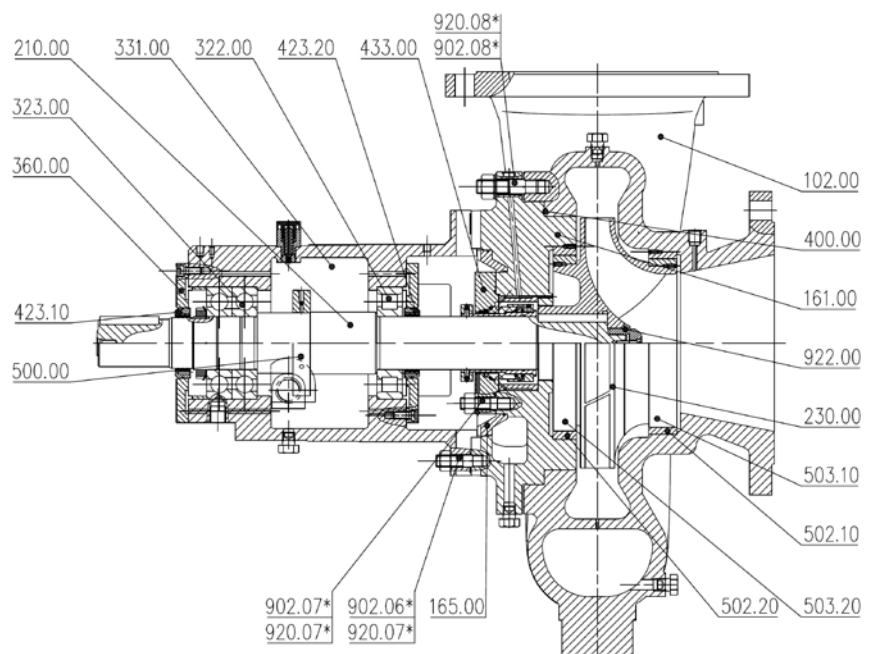
APPLICATION OF PUMPS IN POTENTIALLY EXPOSIVE ATMOSPHERE

Inside petrochemical industry as the main application field of pumps, there is often potentially explosive atmosphere of flammable gases, vapours or mists present. For such explosive atmospheres the pumps are delivered in accordance with EU Directive ATEX 94/9/EC (newly 2014/34/EU) with explosion protection of category 2G (for zone 1) or 3G (for zone 2). The pumps are also certified as per Technical Regulations of the Customs Union TP TC 012/2011 for Russian Federation, Belorussia and Kazakhstan, having level of equipment protection level Gb (for zone 1) or Gc (for zone 2).

The pump may be as well delivered in category M2 for mines with methane and/or coal dust or in category 2D or 3D for atmospheres with present of flammable dust inside food industry or agriculture.

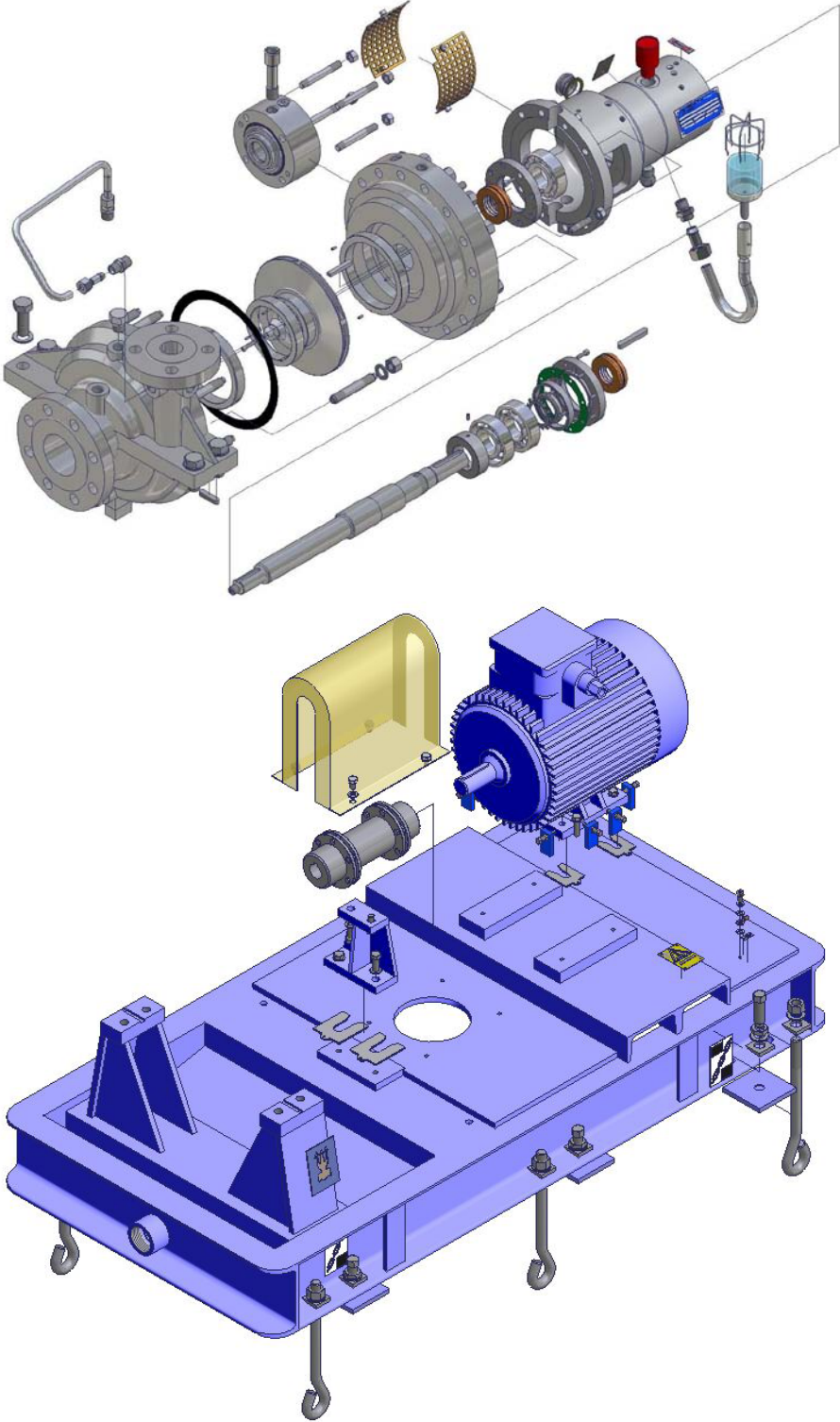
CROSS SECTIONAL DRAWING OF PUMP TYPE NED, BEARING BODY OF EXECUTION - S

Item	Part name
102.00	Volute casing
161.00	Casing cover
165.00	Cover of cooling chambers
210.00	Shaft
230.00	Impeller
322.00	Radial bearing
323.00	Thrust bearing
331.00	Bearing housing
360.00	Cover
400.00	Gasket ring
423.10	Ring SIG
423.20	Ring SIG
433.00	Mechanical seal
500.00	Sprayer
502.10	Wearing ring of volute casing
502.20	Wearing ring of casing cover
503.10	Wearing ring of impeller front
503.20	Wearing ring of impeller rear
902.06	Screw
902.07	Screw MS
902.08	Screw casing cover



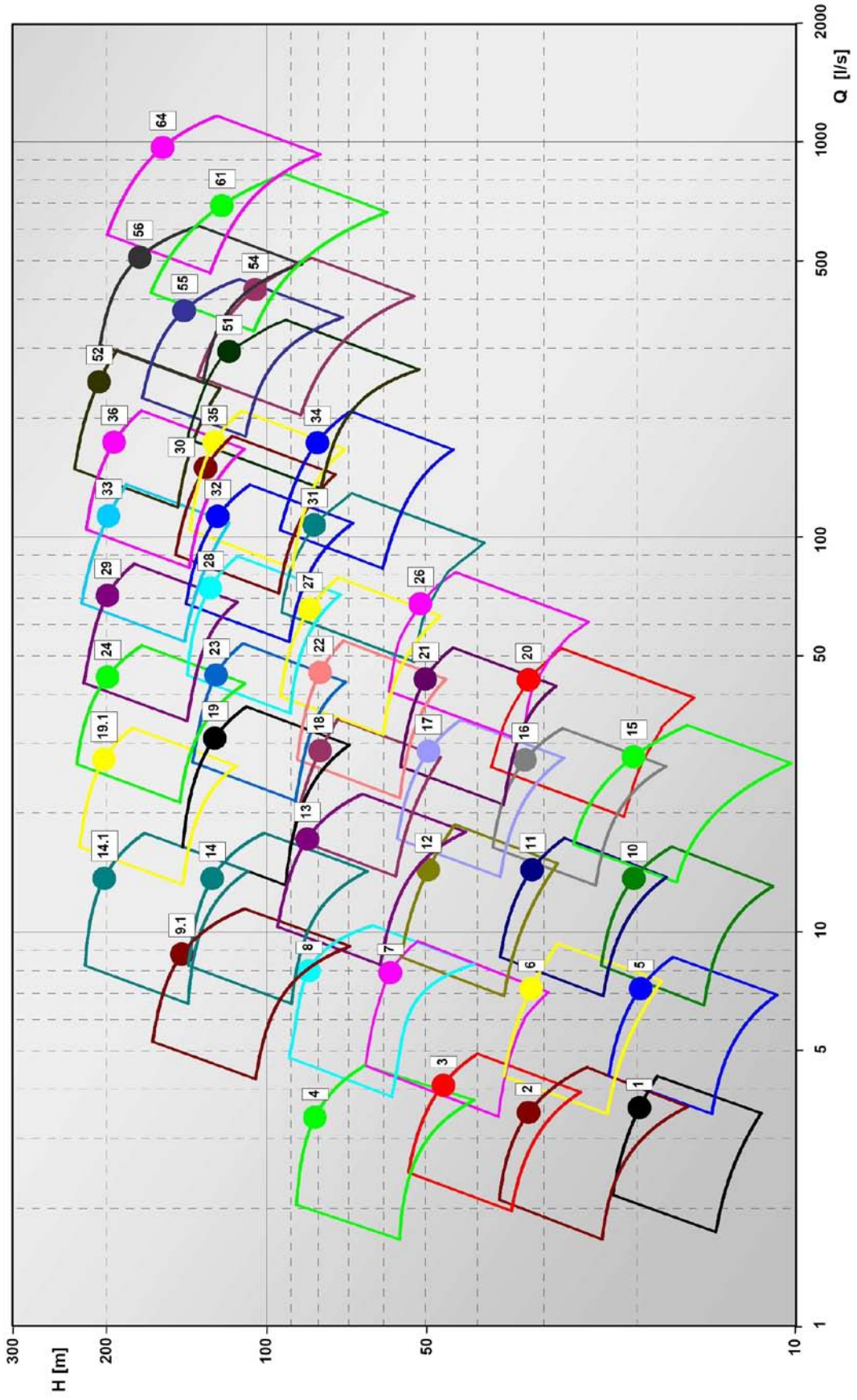
920.07	Nut
920.08	Nut
922	Impeller nut

INFORMATIVE AXONOMETRIC VIEW – PUMP NED

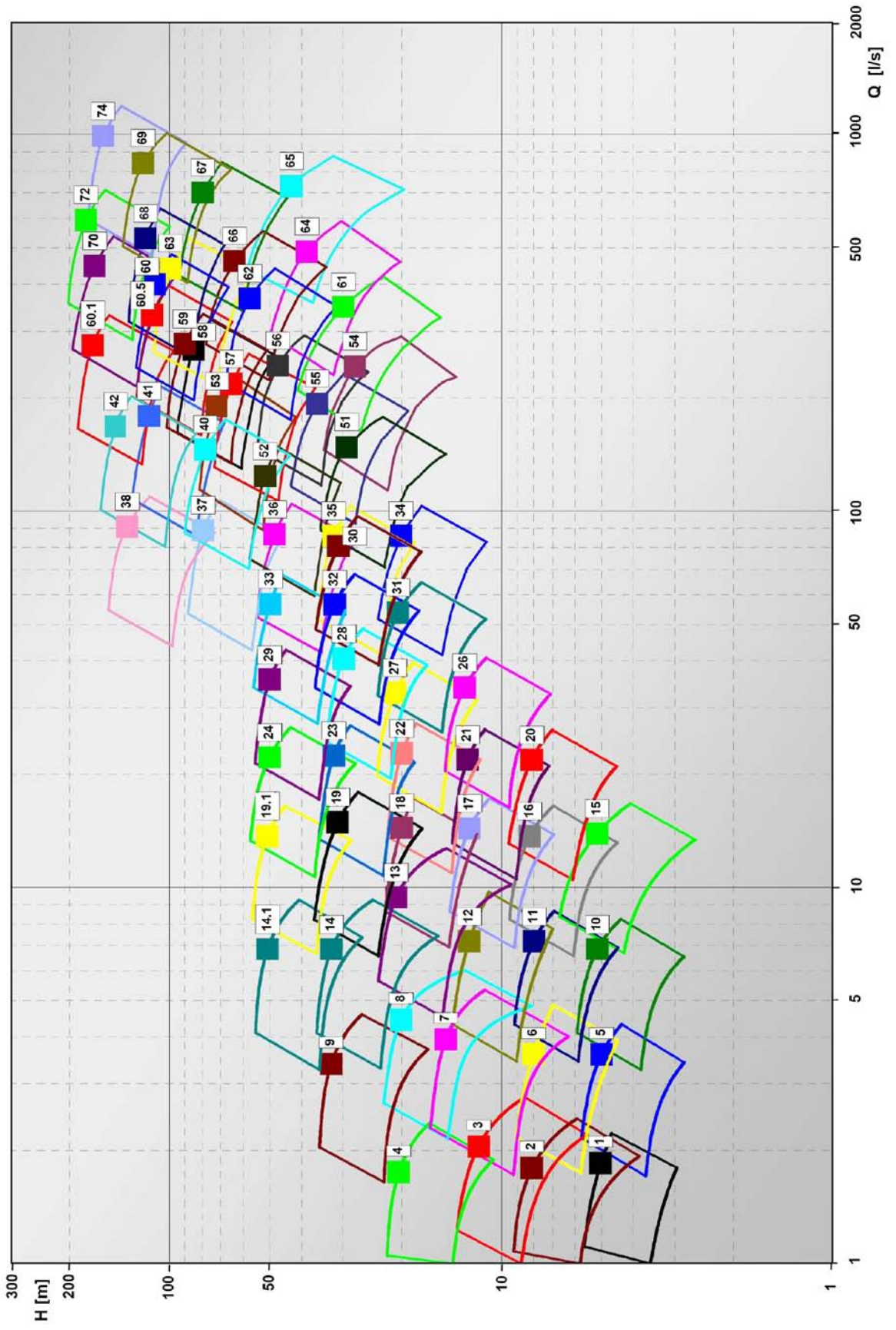


PERFORMANCE RANGE

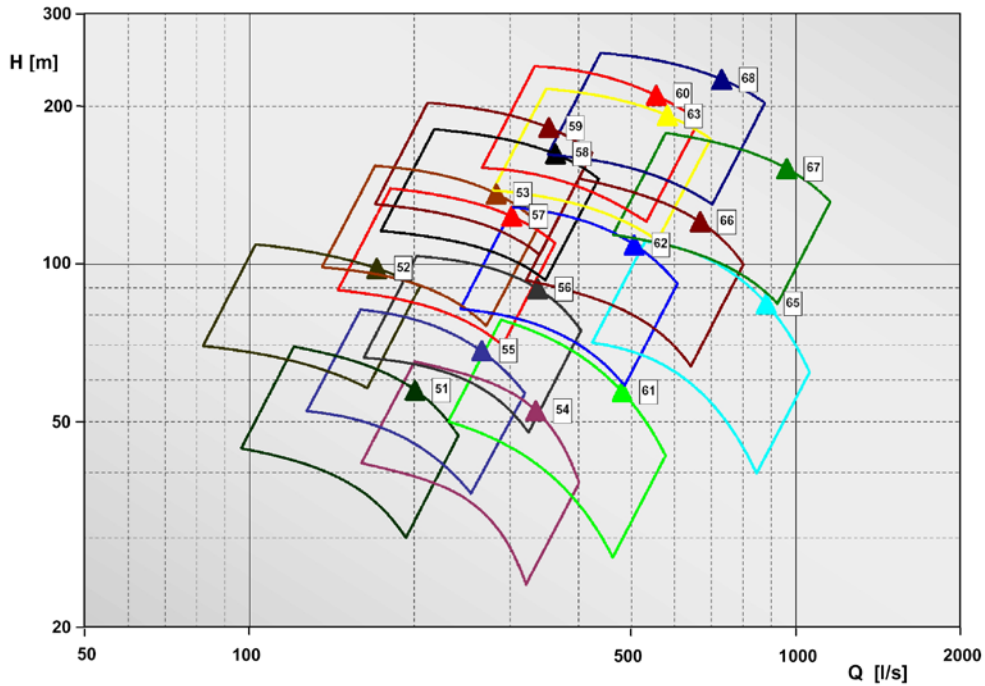
Types NED, NTD, NQD
n=2900 1/min



TYPES NED, NTD, NQD
n=1450 1/min

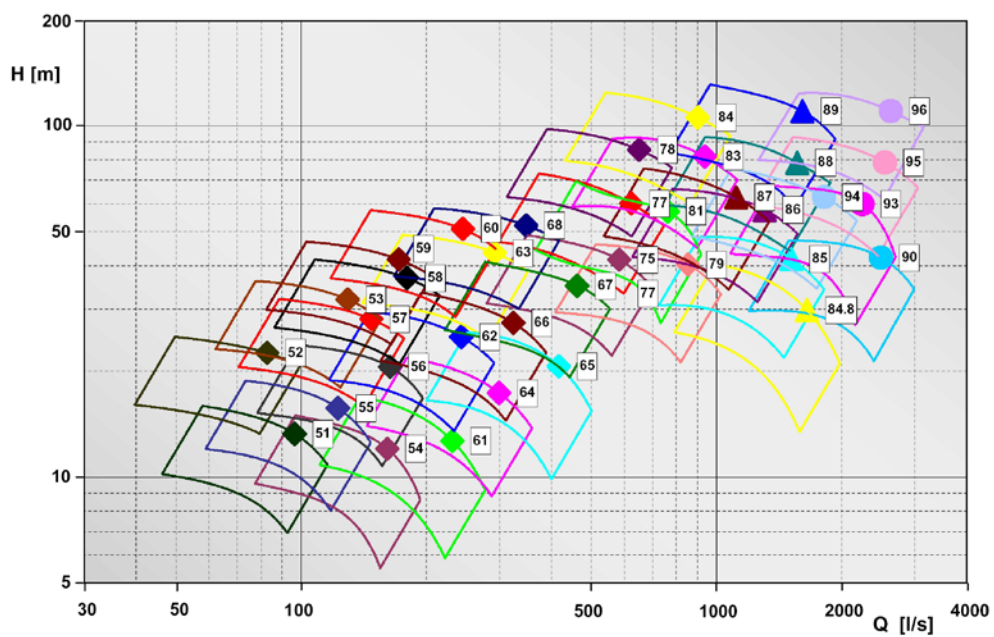


TYPE NTD
n=2000 1/min



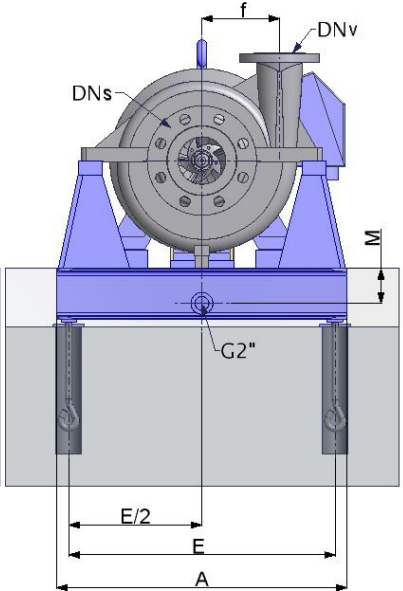
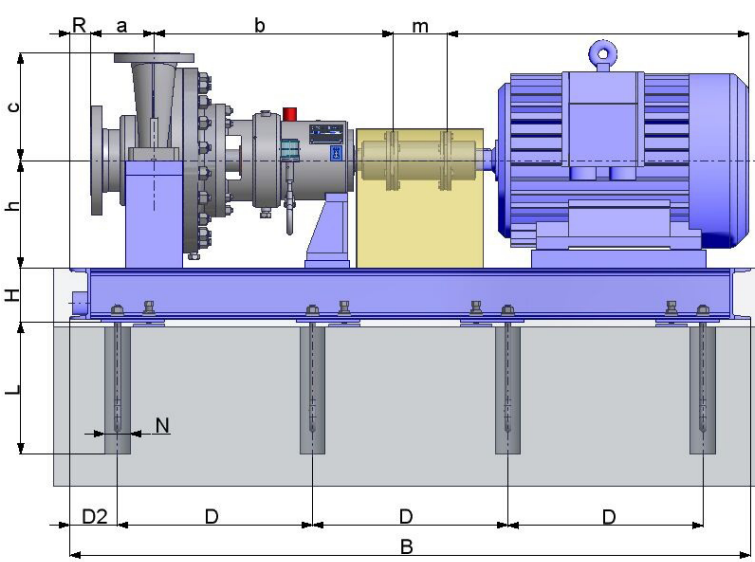
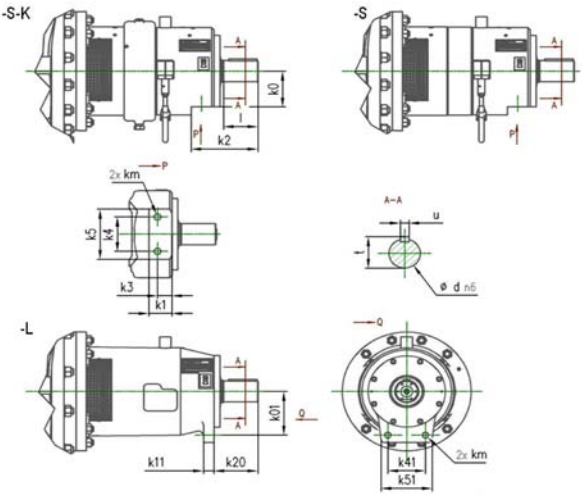
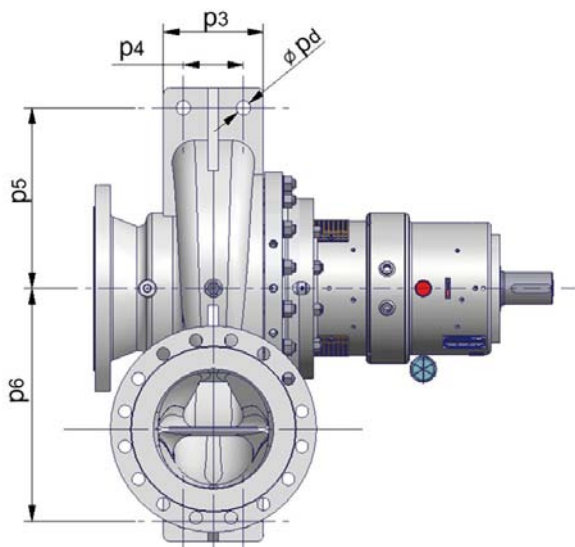
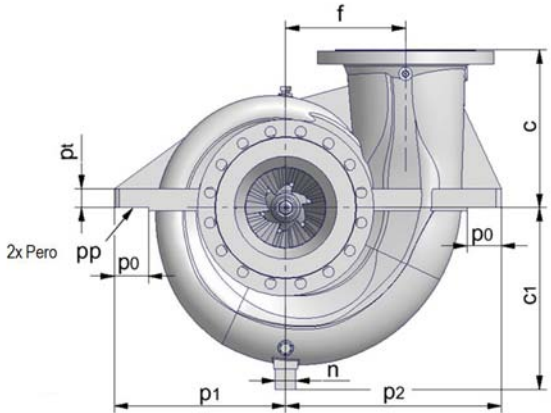
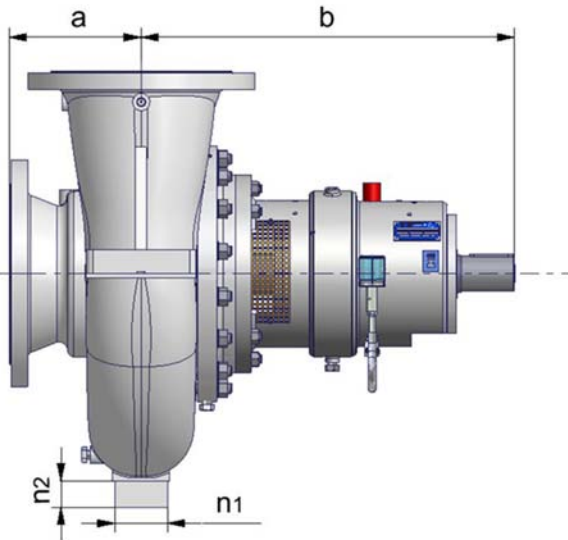
Additional area for sizes 51 to 68. The selected sizes (sizes < 51) can operate at speed up to $n=3600 \text{ min}^{-1}$ if approved by manufacturer.

TYPES NED, NTD, NQD
n=580, 740, 960, 1/min



Pump sizes 78 to 96 with diffuser, size 84.8 anti-clockwise rotation
 ($n = 960$ diamond, 740 triangle, 540 circle)

DIMENSIONS



NED - DIMENSIONS

Size	Type	Weight m [kg] *)	Bearing housing	Dimensions [mm]																							
				DNs	DNv	a	b	c	f	m	R	c1	n	n1	n2	pd	pt	pp	p0	p1	p2	p3	p4	p5	p6	h	
1	40-NED-125-6	110	K108	50	40	130	540,5	150	80	140	60	150	25	40	25	23	30	10x08-045	50	215	215	100	55	190	190	220	
2	40-NED-160-6	116	K108	50	40	130	540,5	180	95	140	60	160	25	40	25	23	30	10x08-045	50	215	215	100	55	190	190	220	
3	40-NED-200-6	122	K108	50	40	130	540,5	210	110	140	60	180	25	40	25	23	30	10x08-045	50	215	215	100	55	190	190	220	
4	40-NED-250-5	183	K210	50	40	140	602	230	150	140	60	220	25	40	25	23	30	10x08-040	50	250	250	110	60	235	235	220	
5	40-NED-125-9	126	K108	80	40	140	541	150	95	140	60	170	25	40	25	23	30	10x08-045	50	215	215	100	55	190	190	220	
6	40-NED-160-9	132	K108	80	40	140	541	180	100	140	60	180	25	40	25	23	30	10x08-045	50	230	240	100	55	205	215	220	
7	40-NED-200-7	138	K108	80	40	145	541,5	220	120	140	60	195	25	40	25	23	30	10x08-045	50	230	240	110	60	205	215	220	
8	40-NED-250-9	178	K210	80	40	140	603	230	135	140	60	220	25	40	25	23	30	10x08-045	50	250	250	110	60	225	225	220	
9	40-NED-315-6	228	K210	80	40	160	612	250	185	140	60	260	20	80	20	23	30	12x08-056	60	300	300	140	90	275	275	270	
9,1	50-NED-315-6	238	K210	80	50	160	612	286	190	140	60	265	25	80	25	23	30	12x08-056	60	300	300	140	90	275	275	270	
10	50-NED-125-13	152	K108	80	50	155	545	160	80	140	60	160	25	40	25	23	30	10x08-045	50	230	230	110	60	205	205	220	
11	50-NED-160-12	155	K108	80	50	160	544	190	115	140	60	170	25	40	25	23	30	10x08-045	50	240	240	110	60	215	215	270	
12	50-NED-215-11	179	K210	80	50	150	604,5	235	125	140	60	200	25	40	30	23	30	10x08-045	50	250	250	110	60	225	225	270	
13	50-NED-250-8	183	K210	80	50	150	602,5	245	155	140	60	220	25	40	25	23	30	10x08-040	50	250	250	110	60	225	225	270	
14	50-NED-315-8	215	K210	80	50	150	605	255	160	140	60	220	25	40	25	27	35	16x10-050	55	260	260	115	65	230	230	300	
14,1	50-NED-400-7	420	K312	80	50	180	708,5	330	225	140	60	315	25	40	25	30	35	16x10-050	70	370	370	120	70	340	340	270	
15	80-NED-145-25	179	K108	80	80	140	543	170	105	140	60	170	25	40	25	23	30	10x08-045	50	235	235	110	60	210	210	220	
16	80-NED-160-18	186	K108	80	80	170	545	195	100	140	60	195	25	40	25	23	30	10x08-045	50	240	240	110	60	215	215	270	
17	100-NED-200-17	204	K108	100	100	150	546,5	230	150	140	60	225	25	40	25	23	30	10x08-045	50	225	265	110	60	200	240	270	
18	80-NED-250-15	229	K108	100	80	175	545	250	165	140	60	235	30	40	25	27	35	10x08-045	50	250	270	130	80	225	245	270	
19	80-NED-315-11	281	K210	100	80	175	594,5	260	200	180	60	270	40	70	30	30	40	16x10-050	70	320	320	140	85	290	290	270	
19,1	80-NED-400-10	352	K314	100	80	175	699	280	220	180	60	320	40	70	30	30	35	16x10-050	70	350	350	140	85	315	315	340	
20	100-NED-185-19	199	K210	100	100	175	599,5	225	145	180	60	230	30	70	30	23	30	10x08-045	50	240	280	130	80	215	255	270	
21	100-NED-220-20	250	K108	150	100	170	548	240	165	180	70	240	25	60	19	23	30	10x08-045	50	250	300	130	80	225	275	270	
22	100-NED-265-22	282	K210	150	100	170	612	255	190	180	70	260	30	60	30	23	35	10x08-045	50	305	305	110	60	280	280	270	
23	100-NED-315-16	306	K210	150	100	200	601,5	300	190	180	70	275	40	70	30	32	40	16x10-050	70	320	320	150	90	290	290	270	
24	100-NED-420-14	511	K314	150	100	200	733,5	300	240	180	70	320	40	70	30	32	40	16x10-050	70	380	380	150	90	345	345	340	
26	150-NED-220-24	288	K210	150	150	200	609,5	290	200	180	70	310	40	65	40	27	35	16x10-050	60	295	370	160	90	265	340	380	
27	150-NED-275-20	288	K210	150	150	200	615	300	210	180	70	310	40	70	40	27	35	16x10-050	60	295	370	140	85	265	340	340	
28	100-NED-315-22	374	K312	150	100	200	704	275	210	180	70	300	30	100	40	30	40	12x8x056	65	345	345	140	80	315	315	280	
29	100-NED-400-22	511	K314	150	100	200	734,5	340	250	180	70	340	40	70	40	30	40	16x10-050	70	380	380	160	90	345	345	340	
30	200-NED-330-32	482	K312	200	200	210	711	400	250	180	70	350	40	120	40	36	40	16x10-063	70	347	407	180	110	315	375	430	
31	150-NED-260-45	415	K312	150	150	200	733,5	300	200	180	70	300	40	70	40	33	40	16x10-063	70	300	360	180	110	265	325	270	
32	150-NED-330-28	425	K312	150	150	175	689,5	330	230	180	70	330	40	70	40	33	40	16x10-050	70	330	380	180	110	295	345	340	
33	150-NED-400-18	530	K314	150	150	230	750	350	290	250	70	380	40	70	40	36	45	16x10-050	70	410	440	180	110	375	405	430	
34	200-NED-250-38	495	K312	200	200	215	733	300	250	250	80	370	40	70	40	33	40	16x10-063	70	350	435	180	110	315	400	340	
35	200-NED-330-42	579	K314	200	200	250	760	400	250	250	80	360	40	90	40	36	45	16x10-050	80	360	430	200	120	320	390	430	
36	200-NED-400-35	784	K416	200	200	225	820	380	310	250	80	420	40	70	40	36	50	16x10-070	90	430	500	190	110	385	455	430	
37	150-NED-530-20	822	K314	200	150	225	731	450	325	250	80	435	40	70	40	36	40	16x10-070	90	480	560	200	120	435	515	590	
38	150-NED-690-15	1198	K416	200	150	250	810,5	500	400	250	80	510	40	70	40	36	50	16x10-070	100	540	610	190	110	490	560	430	
40	200-NED-530-27	892	K314	250	200	245	734,5	450	340	250	80	460	40	70	40	36	50	16x10-070	90	480	560	200	120	435	515	430	
41	250-NED-580-26	1086	K416	250	250	245	825,5	520	390	250	80	570	40	70	40	36	45	16x10-070	100	520	620	190	110	470	570	430	
42	200-NED-680-38	1329	K420	250	200	245	843	550	400	250	80	600	40	70	40	36	50	16x10-070	120	550	640	200	120	490	580	430	
51	250-NED-350-35	732	K314	250	250	250	748,5	420	320	250	80	470	50	120	50	36	50	16x10-070	90	440	550	230	150	395	505	430	
52	250-NED-415-34	901	K416	250	250	200	820,5	450	330	250	80	470	50	120	50	36	50	16x10-070	120	530	610	240	150	470	550	460	
53	250-NED-495-43	821	K314	300	250	200	755	500	350	250	80	500	40	100	60	36	45	16x10-090	120	530	610	240	150	470	550	530	
54	300-NED-350-65	1191	K416	300	300	250	825,5	400	320	250	80	460	50	150	40	36	45	20x12-080	90	485	585	300	200	440	540	460	
																										530	
																										590	

Size	Type	Weight m [kg]	Bearing housing	Dimensions [mm]																			h			
				DNs	DNv	a	b	c	f	m	R	c1	n	n1	n2	pd	pt	pp	p0	p1	p2	p3		p4	p5	p6
55	250-NED-385-38	773	K314	300	250	250	752	400	300	250	80	450	50	150	40	36	50	18x11-080	90	450	540	240	150	405	495	430
																										530
																										590
																										540
56	300-NED-420-42	1055	K418	300	300	300	847	460	350	250	90	530	60	120	60	36	60	18x11-080	100	500	630	250	150	450	580	590
																										670
57	250-NED-475-39	909	K314	250	250	250	745	460	360	250	90	520	60	120	60	36	55	18x11-080	100	505	600	235	150	455	550	500
58	300-NED-525-44	1211	K416	300	300	300	845,5	550	400	250	90	565	60	120	60	36	55	18x11-080	130	590	690	260	160	525	625	530
																										590
59	250-NED-550-48	1236	K416	300	250	250	826,5	540	410	250	90	560	40	100	60	36	50	20x12-080	130	590	690	260	160	525	625	530
																										590
59,5	250-NED-610-33	1508	K522	300	250	250	991	540	400	250	90	560	50	120	50	36	50	20x12-080	120	560	670	240	160	500	610	550
																										590
60	300-NED-610-54	1769	K420	350	300	250	849	600	450	300	90	615	50	140	60	42	70	20x12-100	130	645	730	300	200	580	665	520
																										550
																										590
60,1	250-NED-760-32	1669	K420	300	250	250	863	600	490	250	90	650	50	140	60	35	70	20x12-100	110	670	770	300	200	615	715	530
																										590
60,5	300-NED-620-54	1809	K420	350	300	250	858	585	475	300	90	615	50	140	60	35	70	20x12-100	110	645	730	300	200	590	675	550
																										590
																										670
61	350-NED-390-73	1328	K420	350	350	300	899,5	455	375	250	90	550	50	180	60	48	70	20x12-080	120	550	710	400	230	490	650	540
																										590
																										670
62	350-NED-475-47	1506	K416	350	350	250	819	530	400	250	90	600	60	150	60	48	70	20x12-080	120	570	730	320	200	510	670	540
																										590
																										670
63	350-NED-590-50	1743	K420	350	350	250	853	700	470	250	100	640	60	180	70	35	70	20x12-110	135	665	750	300	200	595	680	600
																										670
64	400-NED-440-81	1854	K420	400	400	350	873	450	420	300	100	600	60	180	70	40	70	22x14-110	140	660	840	320	175	590	770	550
																										590
																										670
65	400-NED-480-90	1968	K416	400	400	375	841,5	570	450	300	100	650	60	180	70	48	70	22x14-110	150	630	820	340	175	555	745	550
																										590
66	400-NED-515-52	1895	K418	400	400	400	847	600	450	250	100	680	60	180	70	48	75	22x14-110	150	670	850	320	175	595	775	600
																										670
67	400-NED-580-60	1945	K418	400	400	400	853	620	470	300	100	700	60	180	70	48	75	22x14-110	150	700	900	350	205	625	825	670
																										800
68	350-NED-650-55	2173	K522	400	350	400	1020	650	510	300	100	720	60	150	70	48	75	22x14-110	160	710	860	330	205	630	780	670
																										800
69	400-NED-660-114	2475	K526	400	400	400	1085	720	580	300	100	720	70	200	70	48	70	22x14-110	170	850	1000	350	205	765	915	670
																										800
70	300-NED-760-42	2529	K524	400	300	400	1040	700	570	300	100	720	60	180	70	48	75	22x14-110	170	790	950	350	205	705	865	670
																										800
72	350-NED-740-64	2670	K526	400	350	400	1085	730	600	300	100	780	70	200	70	48	75	22x14-110	170	850	980	350	205	765	895	670
																										800
74	400-NED-750-95	2820	K526	400	400	400	1085	750	600	300	100	800	70	200	70	48	75	22x14-110	170	880	1050	350	205	795	965	670
																										800
75	500-NED-600-77	2544	K416	500	500	365	845,5	800	620	300	100	880	60	180	70	48	75	25x14-140	170	900	1100	460	345	815	1015	800
																										800
77	400-NED-705-58	2635	K418	400	400	275	853	995	680	300	100	900	60	180	70	48	75	25x14-140	170	950	1050	460	345	865	965	800
																										800
78	400-NED-800-63	3193	K420	400	400	280	863	870	755	300	150	1080	70	200	70	48	75	25x14-140	180	1150	1150	500	375	1060	1060	1000
																										1000
79	600-NED-606-118	3265	K418	600	600	320	853	887	685	300	150	980	60	180	70	48	75	25x14-140	180	1000	1200	680	510	910	1110	900
																										900
81	500-NED-690-85	3539	K420	500	500	320	863	885	690	300	150	1050	60	180	70	48	75	25x14-140	180	1050	1240	700	525	960	1150	900
																										900
83	500-NED-795-82	4164	K524	500	500	350	1060	900	765	300	150	1050	70	200	70	48	75	25x14-140	200	1100	1280	740	555	1000	1180	900
																										900
84	500-NED-890-70	5665	K628	500	500	350	1245	970	840	300	150	1100	70	200	70	48	75	25x14-140	200	1180	1300	760	570	1080	1200	1000
																										1000
85	800-NED-800-157	5070	K526	800	800	400	1085	1000	880	300	150	1180	70	200	70	48	75	25x14-140	200	1200	1360	760	570	1100	1260	1100
																										1100
86	600-NED-900-112	5682	K628	600	600	500	1245	1250	900	300	150	1200	70	200	70	48	75	25x14-140	200	1200	1400	760	570	1100	1300	1100
																										1100
87	500-NED-934-77	5665	K628	600	500	440	1162	855	900	300	150	1250	70	200	70	48	75	25x14-140	220	1250	1400	600	450	1140	1290	1200
																										670
87,4	600-NED-755-97	4945	K628	600	600	650	1182	974	780	300	150	1100	70	200	70	48	75	25x14-140	220	1350	1250	760	570	1240	1140	800
																										670
87,5	600-NED-950-95	6745	K628	600	600	480	1171	1140	950	300	150	1300	70	200	70	48	75									

NTD – DIMENSIONS

Size	Type	Weight m [kg] *)	Bearing housing Dimensions [mm] DN _s	Dimensions [mm]																											
				DN _s	DN _v	a	b	c	f	m	R	c1	n	n1	n2	pd	pt	pp	p0	p1	p2	p3	p4	p5	p6	h					
1	40-NTD-125-6	98	K108	50	40	130	540,5	150	80	140	60	150	25	40	25	23	25	10x08-045	50	215	215	100	55	190	190	220					
2	40-NTD-160-6	101	K108	50	40	130	540,5	180	95	140	60	160	25	40	25	23	25	10x08-045	50	215	215	100	55	190	190	220					
3	40-NTD-200-6	103	K108	50	40	130	540,5	210	110	140	60	180	25	40	25	23	25	10x08-045	50	215	215	100	55	190	190	220					
4	40-NTD-250-5	171	K210	50	40	140	602	230	150	140	60	220	25	40	25	23	25	10x08-040	50	250	250	110	60	235	235	220					
5	40-NTD-125-9	113	K108	80	40	140	541	150	95	140	60	170	25	40	25	23	25	10x08-045	50	215	215	100	55	190	190	220					
6	40-NTD-160-9	117	K108	80	40	140	541	180	100	140	60	180	25	40	25	23	25	10x08-045	50	230	240	100	55	205	215	220					
7	40-NTD-200-7	122	K108	80	40	145	541,5	220	120	140	60	195	25	40	25	23	25	10x08-045	50	230	240	110	60	205	215	220					
8	40-NTD-250-9	167	K210	80	40	140	603	230	135	140	60	220	25	40	25	23	25	10x08-045	50	250	250	110	60	225	225	220					
9	40-NTD-315-6	217	K210	80	40	160	612	250	185	140	60	260	20	80	20	23	25	12x08-056	60	300	300	140	90	275	275	270					
9,1	50-NTD-315-6	227	K210	80	50	160	612	286	190	140	60	265	25	80	25	23	25	12x08-056	60	300	300	140	90	275	275	270					
10	50-NTD-125-13	140	K108	80	50	155	545	160	80	140	60	160	25	40	25	23	25	10x08-045	50	230	230	110	60	205	205	220					
11	50-NTD-160-12	141	K108	80	50	160	544	190	115	140	60	170	25	40	25	23	25	10x08-045	50	240	240	110	60	215	215	270					
12	50-NTD-215-11	161	K210	80	50	150	604,5	235	125	140	60	200	25	40	30	23	30	10x08-045	50	250	250	110	60	225	225	270					
13	50-NTD-250-8	159	K210	80	50	150	602,5	245	155	140	60	220	25	40	25	23	25	10x08-040	50	250	250	110	60	225	225	270					
14	50-NTD-315-8	191	K210	80	50	150	605	255	160	140	60	220	25	40	25	27	30	16x10-050	55	260	260	115	65	230	230	300					
14,1	50-NTD-400-7	397	K312	80	50	180	708,5	330	225	140	60	315	25	40	25	30	30	16x10-050	70	370	370	120	70	340	340	340					
15	80-NTD-145-25	165	K108	80	80	140	543	170	105	140	60	170	25	40	25	23	25	10x08-045	50	235	235	110	60	210	210	220					
16	80-NTD-160-18	170	K108	80	80	170	545	195	100	140	60	195	25	40	25	23	25	10x08-045	50	240	240	110	60	215	215	270					
17	100-NTD-200-17	176	K108	100	100	150	546,5	230	150	140	60	225	25	40	25	23	30	10x08-045	50	225	265	110	60	200	240	270					
18	80-NTD-250-15	204	K108	100	80	175	545	250	165	140	60	235	30	40	25	27	30	10x08-045	50	250	270	130	80	225	245	340					
19	80-NTD-315-11	256	K210	100	80	175	594,5	260	200	180	60	270	40	70	30	30	35	16x10-050	70	320	320	140	85	290	290	340					
19,1	80-NTD-400-10	327	K312	100	80	175	680	280	220	180	60	320	40	70	30	30	30	16x10-050	70	350	350	140	85	315	315	340					
20	100-NTD-185-19	167	K108	100	100	175	571,5	225	145	180	60	230	30	70	30	23	25	10x08-045	50	240	280	130	80	215	255	270					
21	100-NTD-220-20	220	K108	150	100	170	548	240	165	180	70	240	25	60	19	23	30	10x08-045	50	250	300	130	80	225	275	340					
22	100-NTD-265-22	249	K210	150	100	170	612	255	190	180	70	260	30	60	30	23	35	10x08-045	50	305	305	110	60	280	280	340					
23	100-NTD-315-16	270	K210	150	100	200	601,5	300	190	180	70	275	40	70	30	32	40	16x10-050	70	320	320	150	90	290	290	340					
24	100-NTD-420-14	488	K314	150	100	200	733,5	300	240	180	70	320	40	70	30	32	40	16x10-050	70	380	380	150	90	345	345	430					
26	150-NTD-220-24	268	K210	150	150	200	609,5	290	200	180	70	310	40	65	40	27	30	16x10-050	60	295	370	160	90	265	340	380					
27	150-NTD-275-20	275	K210	150	150	200	615	300	210	180	70	310	40	70	40	27	35	16x10-050	60	295	370	140	85	265	340	380					
28	100-NTD-315-22	286	K210	150	100	200	619	275	210	180	70	300	30	100	40	30	35	12x8x056	65	345	345	140	80	315	315	430					
29	100-NTD-400-22	471	K314	150	100	200	734,5	340	250	180	70	340	40	70	40	30	35	16x10-050	70	380	380	160	90	345	345	480					
30	200-NTD-330-32	444	K312	200	200	210	711	400	250	180	70	350	40	120	40	36	35	16x10-063	70	347	407	180	110	315	375	430					
31	150-NTD-260-45	395	K312	150	150	200	733,5	300	200	180	70	300	40	70	40	33	35	16x10-063	70	300	360	180	110	265	325	340					
32	150-NTD-330-28	416	K312	150	150	175	689,5	330	230	180	70	330	40	70	40	33	40	16x10-050	70	330	380	180	110	295	345	430					
33	150-NTD-400-18	511	K314	150	150	230	750	350	290	250	70	380	40	70	40	36	45	16x10-050	70	410	440	180	110	375	405	530					
34	200-NTD-250-38	474	K312	200	200	215	733	300	250	250	80	370	40	70	40	33	40	16x10-063	70	350	435	180	110	315	400	430					
35	200-NTD-330-42	524	K314	200	200	250	760	400	250	250	80	360	40	90	40	36	40	16x10-050	80	360	430	200	120	320	390	530					
36	200-NTD-400-35	724	K416	200	200	225	820	380	310	250	80	420	40	70	40	36	45	16x10-070	90	430	500	190	110	385	455	590					
37	150-NTD-530-20	773	K314	200	150	225	731	450	325	250	80	435	40	70	40	36	40	16x10-070	90	480	560	200	120	435	515	430					
38	150-NTD-690-15	1154	K416	200	150	250	810,5	500	400	250	80	510	40	70	40	36	50	16x10-070	100	540	610	190	110	490	560	480					
40	200-NTD-530-27	808	K314	250	200	245	734,5	450	340	250	80	460	40	70	40	36	45	16x10-070	90	480	560	200	120	435	515	430					
41	250-NTD-580-26	1012	K416	250	250	245	825,5	520	390	250	80	570	40	70	40	36	35	16x10-070	100	520	620	190	110	470	570	430					
42	200-NTD-680-38	1285	K420	250	200	245	843	550	400	250	80	600	40	70	40	36	45	16x10-070	120	550	640	200	120	490	580	430					
51	250-NTD-350-35	699	K314	250	250	250	748,5	420	320	250	80	470	50	120	50	36	45	16x10-070	90	440	550	230	150	395	505	590					
52	250-NTD-415-34	802	K416	250	250	200	820,5	450	330	250	80	470	50	120	50	36	45	16x10-070	120	530	610	240	150	470	550	590					
53	250-NTD-495-43	848	K416	300	250	200	825,5	500	350	250	80	500	40	100	60	36	40	16x10-090	120	530	610	240	150	470	550	590					
54	300-NTD-350-65	929	K314	300	300	250	755	400	320	250	80	460	50	150	40	36	39	20x12-080	90	485	585	300	200	440	540	590					

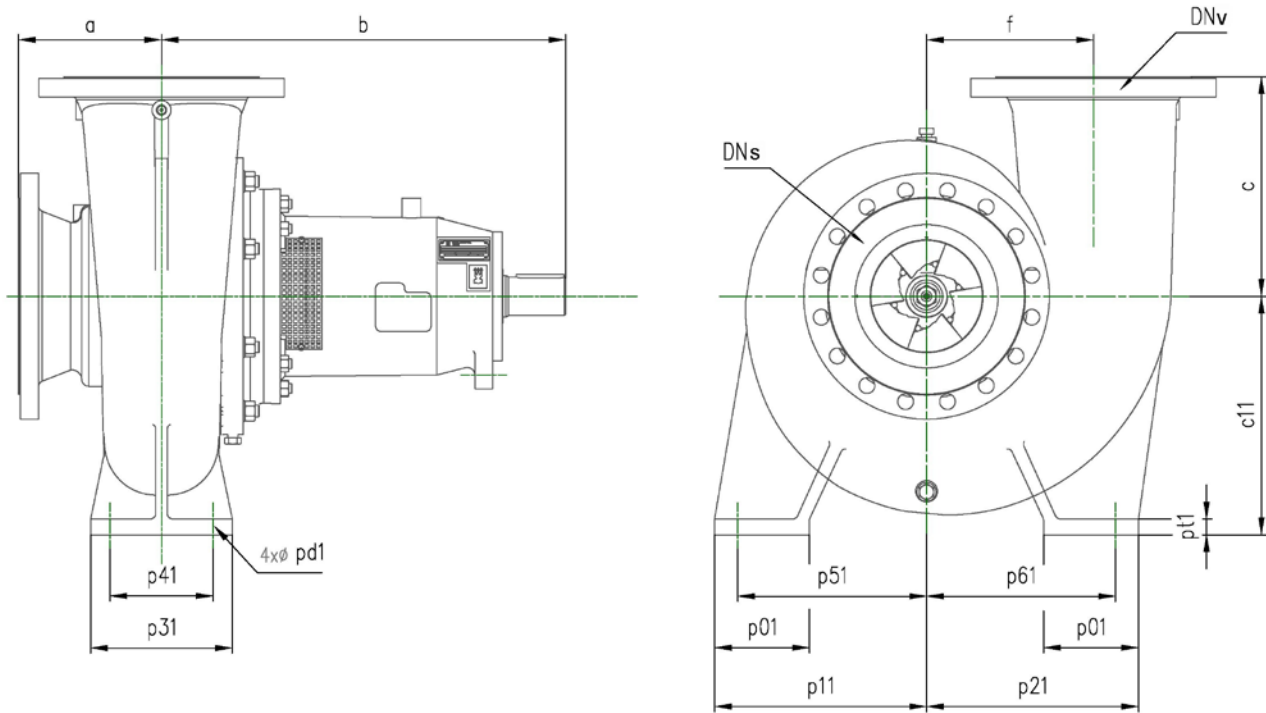
Size	Type	Weight m [kg]	Bearing housing	Dimensions [mm]																						
				DNs	DNv	a	b	c	f	m	R	c1	n	n1	n2	pd	pt	pp	p0	p1	p2	p3	p4	p5	p6	h
55	250-NTD-385-38	694	K314	300	250	250	752	400	300	250	80	450	50	150	40	36	40	18x11-080	90	450	540	240	150	405	495	430
																										530
																										590
																										540
56	300-NTD-420-42	994	K418	300	300	300	847	460	350	250	80	530	60	120	60	36	55	18x11-080	100	500	630	250	150	450	580	590
																										670
57	250-NTD-475-39	897	K314	250	250	250	745	460	360	250	90	520	60	120	60	36	50	18x11-080	100	505	600	235	150	455	550	500
58	300-NTD-525-44	1081	K418	300	300	300	853	550	400	250	90	565	60	120	60	36	50	18x11-080	130	590	690	260	160	525	625	530
																										590
59	250-NTD-550-48	1180	K418	300	250	250	834	540	410	250	90	560	40	100	60	36	45	20x12-080	130	590	690	260	160	525	625	530
																										590
59,5	250-NTD-610-33	1488	K522	300	250	250	991	540	400	250	90	560	50	120	50	36	50	20x12-080	120	560	670	240	160	500	610	550
																										590
																										670
60	300-NTD-610-54	1823	K522	350	300	250	996	600	450	300	90	615	50	144	62	42	50	20x12-100	130	645	730	300	200	580	665	520
																										550
																										590
60,1	250-NTD-760-32	1595	K420	300	250	250	863	600	490	250	90	650	50	140	60	35	60	20x12-100	110	670	770	300	200	615	715	530
																										590
																										550
60,5	300-NTD-620-54	1660	K420	350	300	250	858	585	475	300	90	615	50	144	62	35	60	20x12-100	110	645	730	300	200	590	675	590
																										670
																										540
61	350-NTD-390-73	1246	K418	350	350	300	889,5	455	375	250	90	550	50	180	60	48	50	20x12-080	120	550	710	400	230	490	650	590
																										670
																										540
62	350-NTD-475-47	1462	K416	350	350	250	819	530	400	250	90	600	60	150	60	48	60	20x12-080	120	570	730	320	200	510	670	590
																										670
63	350-NTD-590-50	1782	K522	350	350	250	1000	700	470	250	100	640	50	150	70	35	50	20x12-110	135	665	750	300	200	595	680	600
																										670
																										550
64	400-NTD-440-81	1740	K420	400	400	350	873	450	420	300	100	600	50	150	70	40	60	22x14-110	140	660	840	320	175	590	770	590
																										670
65	400-NTD-480-90	1842	K418	400	400	375	849	570	450	300	100	650	60	180	70	48	60	22x14-110	150	630	820	340	175	555	745	550
																										590
66	400-NTD-515-52	1771	K418	400	400	400	847	600	450	250	100	680	60	180	70	48	75	22x14-110	150	670	850	320	175	595	775	600
																										670
67	400-NTD-580-60	2023	K522	400	400	400	1010	620	470	300	100	700	60	180	70	48	75	22x14-110	150	700	900	350	205	625	825	670
																										800
68	350-NTD-650-55	2034	K524	400	350	400	1040	650	510	300	100	720	60	150	70	48	75	22x14-110	160	710	860	330	205	630	780	670
																										800
69	400-NTD-660-114	2355	K526	400	400	400	1085	720	580	300	100	720	70	200	70	48	70	22x14-110	170	850	1000	350	205	765	915	670
																										800
70	300-NTD-760-42	2429	K524	400	300	400	1040	700	570	300	100	720	60	180	70	48	70	22x14-110	170	790	950	350	205	705	865	670
																										800
72	350-NTD-740-64	2530	K526	400	350	400	1085	730	600	300	100	780	70	200	70	48	70	22x14-110	170	850	980	350	205	765	895	670
																										800
74	400-NTD-750-95	2650	K526	400	400	400	1085	750	600	300	100	800	70	200	70	48	70	22x14-110	170	880	1050	350	205	795	965	670
																										800
75	500-NTD-600-77	2351	K416	500	500	365	845,5	800	620	300	100	880	60	180	70	48	70	25x14-140	170	900	1100	460	345	815	1015	800
77	400-NTD-705-58	2435	K418	400	400	275	853	995	680	300	100	900	60	180	70	48	70	25x14-140	170	950	1050	460	345	865	965	800
78	400-NTD-800-63	2966	K420	400	400	280	863	870	755	300	150	1080	70	200	70	48	70	25x14-140	180	1150	1150	500	375	1060	1060	1000
79	600-NTD-606-118	3015	K418	600	600	320	853	887	685	300	150	980	60	180	70	48	70	25x14-140	180	1000	1200	680	510	910	1110	900
81	500-NTD-690-85	3270	K420	500	500	320	863	885	690	300	150	1050	60	180	70	48	70	25x14-140	180	1050	1240	700	525	960	1150	900
83	500-NTD-795-82	3869	K524	500	500	350	1060	900	765	300	150	1050	70	200	70	48	70	25x14-140	200	1100	1280	740	555	1000	1180	900
84	500-NTD-890-70	5290	K628	500	500	350	1245	970	840	300	150	1100	70	200	70	48	70	25x14-140	200	1180	1300	760	570	1080	1200	1000
85	800-NTD-800-157	4700	K526	800	800	400	1085	1000	880	300	150	1180	70	200	70	48	70	25x14-140	200	1200	1360	760	570	1100	1260	1100
86	600-NTD-900-112	5300	K628	600	600	500	1245	1250	900	300	150	1200	70	200	70	48	70	25x14-140	200	1200	1400	760	570	1100	1300	1100
87	500-NTD-934-77	5235	K628	600	500	440	1162	855	900	300	150	1250	70	200	70	48	70	25x14-140	220	1250	1400	600	450	1140	1290	1200
87,4	600-NTD-755-97	4805	K628	600	600	650	1182	974	780	300	150	1100	70	200	70	48	70	25x14-140	220	1350	1250	760	570	1240	1140	670
																										800
87,5	600-NTD-950-95	6575	K628	600	600	480	1171	1140	950	300	150	1300	70	200	70	48	70	25x14-140	220	1550	1400	760	570	1440	1290	670
																										800
88	600-NTD-1045-86	7172	K630	600	600	465	1285	1230	1005	300	150	1300	70	200	70	48	70	25x14-140	220	1300	1500	760	570	1190	1390	1200
89	700-NTD-1179-93	8230	K634	800	700	500	1425	1250	1050	300	150	1340	70	200	70	48	70	25x14-140	220	1320	1540	780	585	1210	1430	1200
90	1000-NTD-1025-200	9975	K634	1000	1000	500	1425	1300	1080	300	150	1280	70	200	70	48	70	25x14-140	250	1300	1540	800	600	1175	1415	1200
93	800-NTD-1170-146	9545	K634	900	800	500	1425	1280	1100																	

NQD – DIMENSIONS

Size	Type	Weight m [kg]	Bearing housing	Dimensions [mm]																						
				DNs	DNv	a	b	c	f	m	R	c1	n	n1	n2	pd	pt	pp	p0	p1	p2	p3	p4	p5	p6	h
1	40-NQD-125-6	87	K108	50	40	130	540,5	150	80	140	60	150	25	40	25	23	20	10x08-045	50	215	215	100	55	190	190	220
2	40-NQD-160-6	90	K108	50	40	130	540,5	180	95	140	60	160	25	40	25	23	20	10x08-045	50	215	215	100	55	190	190	220
3	40-NQD-200-6	92	K108	50	40	130	540,5	210	110	140	60	180	25	40	25	23	20	10x08-045	50	215	215	100	55	190	190	220
4	40-NQD-250-5	157	K210	50	40	140	602	230	150	140	60	220	25	40	25	23	20	10x08-040	50	250	250	110	60	235	235	220
5	40-NQD-125-9	104	K108	80	40	140	541	150	95	140	60	170	25	40	25	23	20	10x08-045	50	215	215	100	55	190	190	220
6	40-NQD-160-9	108	K108	80	40	140	541	180	100	140	60	180	25	40	25	23	20	10x08-045	50	230	240	100	55	205	215	220
7	40-NQD-200-7	113	K108	80	40	145	541,5	220	120	140	60	195	25	40	25	23	20	10x08-045	50	230	240	110	60	205	215	220
8	40-NQD-250-9	152	K210	80	40	140	603	230	135	140	60	220	25	40	25	23	30	10x08-045	50	250	250	110	60	225	225	220
9	40-NQD-315-6	202	K210	80	40	160	612	250	185	140	60	260	20	80	20	23	20	12x08-056	60	300	300	140	90	275	275	270
9,1	50-NQD-315-6	212	K210	80	50	160	612	286	190	140	60	265	25	80	25	23	20	12x08-056	60	300	300	140	90	275	275	270
10	50-NQD-125-13	131	K108	80	50	155	545	160	80	140	60	160	25	40	25	23	20	10x08-045	50	230	230	110	60	205	205	220
11	50-NQD-160-12	131	K108	80	50	160	544	190	115	140	60	170	25	40	25	23	20	10x08-045	50	240	240	110	60	215	215	270
12	50-NQD-215-11	146	K210	80	50	150	604,5	235	125	140	60	200	25	40	30	23	30	10x08-045	50	250	250	110	60	225	225	270
13	50-NQD-250-8	145	K210	80	50	150	602,5	245	155	140	60	220	25	40	25	23	20	10x08-040	50	250	250	110	60	225	225	270
14	50-NQD-315-8	177	K210	80	50	150	605	255	160	140	60	220	25	40	25	27	25	16x10-050	55	260	260	115	65	230	230	300
14,1	50-NQD-400-7	360	K312	80	50	180	708,5	330	225	140	60	315	25	40	25	30	25	16x10-050	70	370	370	120	70	340	340	270
15	80-NQD-145-25	154	K108	80	80	140	543	170	105	140	60	170	25	40	25	23	20	10x08-045	50	235	235	110	60	210	210	220
16	80-NQD-160-18	159	K108	80	80	170	545	195	100	140	60	195	25	40	25	23	20	10x08-045	50	240	240	110	60	215	215	270
17	100-NQD-200-17	152	K108	100	100	150	546,5	230	150	140	60	225	25	40	25	23	30	10x08-045	50	225	265	110	60	200	240	270
18	80-NQD-250-15	187	K108	100	80	175	545	250	165	140	60	235	30	40	25	27	25	10x08-045	50	250	270	130	80	225	245	340
19	80-NQD-315-11	241	K210	100	80	175	594,5	260	200	180	60	270	40	70	30	30	30	16x10-050	70	320	320	140	85	290	290	270
19,1	80-NQD-400-10	303	K312	100	80	175	680	280	220	180	60	320	40	70	30	30	25	16x10-050	70	350	350	140	85	315	315	340
20	100-NQD-185-19	155	K108	100	100	175	571,5	225	145	180	60	230	30	70	30	23	20	10x08-045	50	240	280	130	80	215	255	270
21	100-NQD-220-20	206	K108	150	100	170	548	240	165	180	70	240	25	60	19	23	30	10x08-045	50	250	300	130	80	225	275	340
22	100-NQD-265-22	230	K210	150	100	170	612	255	190	180	70	260	30	60	30	23	35	10x08-045	50	305	305	110	60	280	280	270
23	100-NQD-315-16	248	K210	150	100	200	601,5	300	190	180	70	275	40	70	30	32	40	16x10-050	70	320	320	150	90	290	290	340
24	100-NQD-420-14	464	K314	150	100	200	733,5	300	240	180	70	320	40	70	30	32	30	16x10-050	70	380	380	150	90	345	345	430
26	150-NQD-220-24	251	K210	150	150	200	609,5	290	200	180	70	310	40	65	40	27	25	16x10-050	60	295	370	160	90	265	340	380
27	150-NQD-275-20	263	K210	150	150	200	615	300	210	180	70	310	40	70	40	27	35	16x10-050	60	295	370	140	85	265	340	380
28	100-NQD-315-22	265	K210	150	100	200	619	275	210	180	70	300	30	100	40	30	30	12x8x056	65	345	345	140	80	315	315	280
29	100-NQD-400-22	440	K314	150	100	200	734,5	340	250	180	70	340	40	70	40	30	30	16x10-050	70	380	380	160	90	345	345	340
30	200-NQD-330-32	394	K312	200	200	210	711	400	250	180	70	350	30	100	40	36	30	16x10-063	70	347	407	180	110	315	375	430
31	150-NQD-260-45	353	K312	150	150	200	733,5	300	200	180	70	300	40	70	40	33	30	16x10-063	70	300	360	180	110	265	325	270
32	150-NQD-330-28	399	K312	150	150	175	689,5	330	230	180	70	330	40	70	40	33	40	16x10-050	70	330	380	180	110	295	345	340
33	150-NQD-400-18	482	K314	150	150	230	750	350	290	250	70	380	40	70	40	36	45	16x10-050	70	410	440	180	110	375	405	430
34	200-NQD-250-38	444	K312	200	200	215	733	300	250	250	80	370	40	70	40	33	40	16x10-063	70	350	435	180	110	315	400	340
35	200-NQD-330-42	486	K314	200	200	250	760	400	250	250	80	360	40	90	40	36	35	16x10-050	80	360	430	200	120	320	390	430
36	200-NQD-400-35	575	K314	200	200	220	750	375	310	250	80	420	40	70	40	36	40	16x10-070	90	430	500	190	110	385	455	590
37	150-NQD-530-20	734	K314	200	150	225	731	450	325	250	80	435	40	70	40	36	40	16x10-070	90	480	560	200	120	435	515	430
38	150-NQD-690-15	1077	K416	200	150	250	810,5	500	400	250	80	510	40	70	40	36	50	16x10-070	100	540	610	190	110	490	560	480
40	200-NQD-530-27	764	K314	250	200	245	734,5	450	340	250	80	460	40	70	40	36	40	16x10-070	90	480	560	200	120	435	515	430
41	250-NQD-580-26	935	K416	250	250	245	825,5	520	390	250	80	570	40	70	40	36	30	16x10-070	100	520	620	190	110	470	570	430
42	200-NQD-680-38	1219	K420	250	200	260	843	550	400	250	80	520	40	70	40	36	40	16x10-070	120	600	640	200	120	540	580	430
51	250-NQD-350-35	669	K314	250	250	250	748,5	420	320	250	80	470	50	120	50	36	45	16x10-070	90	440	550	230	150	395	505	430
52	250-NQD-415-34	740	K416	250	250	200	820,5	450	330	250	80	470	50	120	50	36	40	16x10-070	120	530	610	240	150	470	550	460
53	250-NQD-495-43	668	K314	300	250	200	755	500	350	250	80	500	40	100	60	36	30	16x10-090	120	530	610	240	150	470	550	460
54	300-NQD-350-65	852	K314	300	300	250	755	400	320	250	80	460	50	150	40	36	35	20x12-080	90	485	585	300	200	440	540	530
																										590

Size	Type	Weight m [kg] *)	Bearing housing	Dimensions [mm]																						
				DNs	DNv	a	b	c	f	m	R	c¹	n	n¹	n²	pd	pt	pp	p³	p¹	p²	p³	p⁴	p⁵	h	
55	250-NQD-385-38	620	K314	300	250	250	752	400	300	250	80	450	50	150	40	36	40	18x11-080	90	450	540	240	150	405	495	430
																										530
																										590
56	300-NQD-420-42	926	K416	300	300	300	839,5	460	350	250	90	530	60	120	60	36	40	18x11-080	100	500	630	250	150	450	580	540
																										590
																										670
57	250-NQD-475-39	864	K314	250	250	250	745	460	360	250	90	520	60	120	60	36	45	18x11-080	100	505	600	235	150	455	550	500
58	300-NQD-525-44	908	K314	300	300	300	775	550	400	250	90	565	60	120	60	36	40	18x11-080	130	590	690	260	160	525	625	530
59	250-NQD-550-48	1105	K416	300	250	250	826,5	540	410	250	90	560	40	100	60	36	45	20x12-080	130	590	690	260	160	525	625	530
59,5	250-NQD-610-33	1425	K522	300	250	250	991	540	400	250	90	560	50	120	50	36	50	20x12-080	120	560	670	240	160	500	610	550
																										590
																										670
60	300-NQD-610-54	1571	K418	350	300	250	839	600	450	300	90	615	50	144	62	42	50	20x12-100	130	645	730	300	200	580	665	520
																										550
																										590
60,1	250-NQD-760-32	1509	K420	300	250	250	863	600	490	250	90	650	50	140	60	35	50	20x12-100	110	670	770	300	200	615	715	530
																										590
60,5	300-NQD-620-54	1504	K420	350	300	250	858	585	475	300	90	615	50	140	60	35	50	20x12-100	110	645	730	300	200	590	675	550
																										590
61	350-NQD-390-73	1107	K418	350	350	300	889,5	455	375	250	90	550	50	180	60	48	50	20x12-080	120	550	710	400	230	490	650	540
																										590
																										670
62	350-NQD-475-47	1044	K314	350	350	250	748,5	530	400	250	90	600	60	150	60	48	50	20x12-080	120	570	730	320	200	510	670	540
																										590
																										670
63	350-NQD-590-50	1421	K418	350	350	250	843	700	470	250	100	640	50	150	70	35	50	20x12-110	135	665	750	300	200	595	680	600
																										670
64	400-NQD-440-81	1594	K420	400	400	350	873	450	420	300	100	600	50	150	70	40	50	22x14-110	140	660	840	320	175	590	770	550
																										590
																										670
65	400-NQD-480-90	1655	K314	400	400	375	771	570	450	300	100	650	60	180	70	48	50	22x14-110	150	630	820	340	175	555	745	550
66	400-NQD-515-52	1654	K418	400	400	400	847	600	450	250	100	680	60	180	70	48	55	22x14-110	150	670	850	320	175	595	775	600
67	400-NQD-580-60	1751	K418	400	400	400	853	620	470	300	100	700	60	180	70	48	55	22x14-110	150	700	900	350	205	625	825	670
68	350-NQD-650-55	1679	K420	400	350	400	872,5	650	510	300	100	720	60	150	70	48	55	22x14-110	160	710	860	330	205	630	780	670
																										800
69	400-NQD-660-114	2207	K526	400	400	400	1085	720	580	300	100	720	70	200	70	48	70	22x14-110	170	850	1000	350	205	765	915	670
																										800
70	300-NQD-760-42	2290	K524	400	300	400	1040	700	570	300	100	720	60	180	70	48	65	22x14-110	170	790	950	350	205	705	865	670
																										800
72	350-NQD-740-64	2322	K526	400	350	400	1085	730	600	300	100	780	70	200	70	48	65	22x14-110	170	850	980	350	205	765	895	670
																										800
74	400-NQD-750-95	2502	K526	400	400	400	1085	750	600	300	100	800	70	200	70	48	65	22x14-110	170	880	1050	350	205	795	965	670
																										800
74,2	400-NQD-775-75	2677	K526	450	400	400	1025	700	590	300	100	790	70	150	70	56	75	28x16-135	170	800	970	430	300	715	885	670
																										800
75	500-NQD-600-77	2135	K416	500	500	365	845,5	800	620	300	100	880	60	180	70	48	65	25x14-140	170	900	1100	460	345	815	1015	800
77	400-NQD-705-58	2216	K418	400	400	275	853	995	680	300	100	900	60	180	70	48	65	25x14-140	170	950	1050	460	345	865	965	800
78	400-NQD-800-63	2727	K420	400	400	280	863	870	755	300	150	1080	70	200	70	48	65	25x14-140	180	1150	1150	500	375	1060	1060	1000
79	600-NQD-606-118	2746	K418	600	600	320	853	887	685	300	150	980	60	180	70	48	65	25x14-140	180	1000	1200	680	510	910	1110	900
81	500-NQD-690-85	2989	K420	500	500	320	863	885	690	300	150	1050	60	180	70	48	65	25x14-140	180	1050	1240	700	525	960	1150	900
83	500-NQD-795-82	3545	K524	500	500	350	1060	900	765	300	150	1050	70	200	70	48	65	25x14-140	200	1100	1280	740	555	1000	1180	900
84	500-NQD-890-70	4832	K628	500	500	350	1245	970	840	300	150	1100	70	200	70	48	65	25x14-140	200	1180	1300	760	570	1080	1200	1000
85	800-NQD-800-157	4302	K526	800	800	400	1085	1000	880	300	150	1180	70	200	70	48	65	25x14-140	200	1200	1360	760	570	1100	1260	1100
86	600-NQD-900-112	4835	K628	600	600	500	1245	1250	900	300	150	1200	70	200	70	48	65	25x14-140	200	1200	1400	760	570	1100	1300	1100
87	500-NQD-934-77	4867	K628	600	500	440	1162	855	900	300	150	1250	70	200	70	48	65	25x14-140	220	1250	1400	600	450	1140	1290	1200
87,4	600-NQD-755-97	4572	K628	600	600	650	1182	974	780	300	150	1100	70	200	70	48	65	25x14-140	220	1350	1250	760	570	1240	1140	670
																										800
87,5	600-NQD-950-95	6212	K628	600	600	480	1171	1140	950	300	150	1300	70	200	70	48	65	25x14-140	220	1550	1400	760	570	1440	1290	670
																										800
88	600-NQD-1045-86	6554	K630	600	600	465	1285	1230	1005	300	150	1300	70	200	70	48	65	25x14-140	220	1300	1500	760	570	1190	1390	1200
89	700-NQD-1179-93	7515	K634	800	700	500	1425	1250	1050	300	150	1340	70	200	70	48	65	25x14-140	220	1320	1540	780	585	1210	1430	1200
90	1000-NQD-1025-200	9105	K634	1000	1000	500	1425	1300	1080	300	150	1280	70	200	70	48	65	25x14-140	250	1300	1540	800	600	1175	1415	1200
93	800-NQD-1170-146	8715	K634	900	800	500	1425	1280	1100	300	150	1190	70	200	70	48	65	25x14-140	250	1340	1600	840	630	1215	1475	1100
94	700-NQD-1190-98	8275	K634	800	700	500	1425	1120	1050	300	150	1200	70	200	70	48	65	25x14-140	250	1300	1540	800				

NQD – ADDITIONAL SIZES OF THE PUMP WITH SINGE VOLUTE CASING



Size	Type	Weight m [kg] *	Bearing housing	Dimensions [mm]																		
				DNs	DNv	a	b	c	f	m	R	c11	pd1	pt1	p01	p11	p21	p31	p41	p51	p61	h
51	200-NQD-350-35	355	K314	250	200	190	715	350	270	250	80	325	28	30	110	300	300	265	170	250	250	355
52	200-NQD-415-34	430	K314	250	200	170	674	400	270	250	80	350	28	30	120	275	275	250	180	225	225	275 340
53	200-NQD-490-43	640	K420	300	200	200	813	400	320	250	80	400	27	30	120	295	295	250	180	240	240	430
54	250-NQD-350-65	571	K314	300	250	250	755	350	320	250	80	450	28	35	140	350	350	300	210	290	290	485
55	250-NQD-385-37	474	K314	300	250	220	715	400	300	250	80	400	30	35	120	325	325	280	190	275	275	435
56	250-NQD-420-42	688	K416	300	250	220	815,5	450	330	250	90	450	33	35	140	350	350	300	210	290	290	485
57	250-NQD-475-38	651	K418	250	250	200	823	450	320	250	90	450	30	40	120	295	295	290	200	240	240	490
58	250-NQD-525-44	905	K522	300	250	301	1010	500	350	250	90	450	33	35	140	350	350	290	210	290	290	485
59	200-NQD-550-48	906	K522	300	200	220	1010	450	360	250	90	450	30	35	140	350	350	280	210	290	290	485
60	250-NQD-610-54	1231	K526	350	250	250	1050	550	400	300	90	500	36	40	160	390	390	350	250	325	325	540
61	300-NQD-390-73	807	K418	350	300	280	853	400	350	250	90	500	36	40	150	390	390	350	250	325	325	540
62	300-NQD-475-46	837	K418	350	300	230	843	500	370	250	90	500	36	40	150	390	390	350	250	325	325	540
63	300-NQD-580-50	1162	K526	350	300	250	1065	600	400	250	90	500	36	40	160	390	390	330	250	325	325	540
64	350-NQD-440-81	1068	K420	400	350	300	873	400	390	300	90	600	36	45	175	460	460	370	270	385	385	645
65	350-NQD-480-90	1520	K522	400	350	300	1040	450	430	300	90	650	36	45	175	460	460	370	270	385	385	695
66	350-NQD-515-52	1395	K522	400	350	260	990	550	410	250	90	600	36	45	175	430	430	370	270	350	350	645

MOMENTS OF INERTIA (VALID FOR THE PUMP ROTOR WITHOUT WATER)

Size	Pump type	I [kg m ²]
1	40-NQD-125-6	0,011
2	40-NQD-160-6	0,013
3	40-NQD-200-6	0,016
4	40-NQD-250-5	0,045
5	40-NQD-125-9	0,013
6	40-NQD-160-9	0,014
7	40-NQD-200-7	0,027
8	40-NQD-250-9	0,041
9	40-NQD-315-6	0,11
9,1	50-NQD-315-6	0,11
10	50-NQD-125-13	0,014
11	50-NQD-160-12	0,016
12	50-NQD-215-11	0,03
13	50-NQD-250-8	0,054
14	50-NQD-315-8	0,12
14,1	50-NQD-400-7	0,4
15	80-NQD-145-25	0,02
16	80-NQD-160-18	0,025
17	100-NQD-200-17	0,103
18	80-NQD-250-15	0,288
19	80-NQD-315-11	0,16
19,1	80-NQD-400-10	0,41
20	100-NQD-185-19	0,029
21	100-NQD-220-20	0,275
22	100-NQD-265-22	0,275
23	100-NQD-315-16	0,14
24	100-NQD-420-14	0,48
26	150-NQD-220-24	0,06
27	150-NQD-275-20	0,11
28	100-NQD-315-22	0,15
29	100-NQD-400-22	0,46
30	200-NQD-330-32	0,21
31	150-NQD-260-45	0,18
32	150-NQD-330-28	0,22
33	150-NQD-400-18	0,45
34	200-NQD-250-38	0,204
35	200-NQD-330-42	0,36
36	200-NQD-400-35	0,65
37	150-NQD-530-20	1,4
38	150-NQD-690-15	3,6
40	200-NQD-530-27	1,5
41	250-NQD-580-26	1,7
42	200-NQD-680-38	2,9
51	250-NQD-350-35	0,38
52	250-NQD-415-34	0,61
53	250-NQD-495-43	0,95
54	300-NQD-350-65	0,48
55	250-NQD-385-38	0,498
56	300-NQD-420-42	0,92
57	250-NQD-475-39	1,05
58	300-NQD-525-44	1,1
59	250-NQD-550-48	2,4
59,5	250-NQD-610-33	4,5
60	300-NQD-610-54	4,25
60,1	250-NQD-760-32	5,2
60,5	300-NQD-620-54	3,3
61	350-NQD-390-73	1,2
62	350-NQD-475-47	1,4
63	350-NQD-590-50	3,38
64	400-NQD-440-81	1,95
65	400-NQD-480-90	2,3
66	400-NQD-515-52	2,52
67	400-NQD-580-60	3,8
68	350-NQD-650-55	5,36
69	400-NQD-660-114	6,8
70	300-NQD-760-42	6,8
72	350-NQD-740-64	6,8
74	400-NQD-750-95	6,8
74,2	400-NQD-775-75	15,8
75	500-NQD-600-77	3,55
77	400-NQD-705-58	7,72
78	400-NQD-800-63	13,44
79	600-NQD-606-118	6,1
81	500-NQD-690-85	8,7
83	500-NQD-795-82	14,4
84	500-NQD-890-70	29,6
84,8	700-NQD-800-150	19,5
85	800-NQD-800-157	19,5
86	600-NQD-900-112	28,7
87	500-NQD-934-77	31,5
87,4	600-NQD-755-97	17,7
87,5	600-NQD-950-95	38
88	600-NQD-1045-86	47,2
89	700-NQD-1179-93	59,8
90	1000-NQD-1025-200	52,2
93	800-NQD-1170-146	75,5
94	700-NQD-1190-98	69,8
95	800-NQD-1334-110	106
96	800-NQD-1505-118	137

Size	Pump type	I [kg m ²]
1	40-NTD-125-6	0,011
2	40-NTD-160-6	0,013
3	40-NTD-200-6	0,016
4	40-NTD-250-5	0,045
5	40-NTD-125-9	0,013
6	40-NTD-160-9	0,014
7	40-NTD-200-7	0,027
8	40-NTD-250-9	0,041
9	40-NTD-315-6	0,11
9,1	50-NTD-315-6	0,11
10	50-NTD-125-13	0,014
11	50-NTD-160-12	0,016
12	50-NTD-215-11	0,03
13	50-NTD-250-8	0,054
14	50-NTD-315-8	0,12
14,1	50-NTD-400-7	0,4
15	80-NTD-145-25	0,02
16	80-NTD-160-18	0,025
17	100-NTD-200-17	0,103
18	80-NTD-250-15	0,288
19	80-NTD-315-11	0,16
19,1	80-NTD-400-10	0,41
20	100-NTD-185-19	0,029
21	100-NTD-220-20	0,275
22	100-NTD-265-22	0,275
23	100-NTD-315-16	0,14
24	100-NTD-420-14	0,48
26	150-NTD-220-24	0,06
27	150-NTD-275-20	0,11
28	100-NTD-315-22	0,15
29	100-NTD-400-22	0,46
30	200-NTD-330-32	0,21
31	150-NTD-260-45	0,18
32	150-NTD-330-28	0,22
33	150-NTD-400-18	0,45
34	200-NTD-250-38	0,204
35	200-NTD-330-42	0,36
36	200-NTD-400-35	0,65
37	150-NTD-530-20	1,4
38	150-NTD-690-15	3,6
40	200-NTD-530-27	1,5
41	250-NTD-580-26	1,7
42	200-NTD-680-38	2,9
51	250-NTD-350-35	0,38
52	250-NTD-415-34	0,61
53	250-NTD-495-43	0,95
54	300-NTD-350-65	0,48
55	250-NTD-385-38	0,498
56	300-NTD-420-42	0,92
57	250-NTD-475-39	1,05
58	300-NTD-525-44	1,1
59	250-NTD-550-48	2,4
59,5	250-NTD-610-33	4,5
60	300-NTD-610-54	4,5
60,1	250-NTD-760-32	5,2
60,5	300-NTD-620-54	3,3
61	350-NTD-390-73	1,2
62	350-NTD-475-47	1,4
63	350-NTD-590-50	3,39
64	400-NTD-440-81	1,95
65	400-NTD-480-90	2,3
66	400-NTD-515-52	2,52
67	400-NTD-580-60	3,8
68	350-NTD-650-55	5,36
69	400-NTD-660-114	6,8
70	300-NTD-760-42	6,8
72	350-NTD-740-64	6,8
74	400-NTD-750-95	6,8
75	500-NTD-600-77	3,55
77	400-NTD-705-58	7,72
78	400-NTD-800-63	13,44
79	600-NTD-606-118	6,1
81	500-NTD-690-85	8,7
83	500-NTD-795-82	14,4
84	500-NTD-890-70	29,6
85	800-NTD-800-157	19,5
86	600-NTD-900-112	28,7
87	500-NTD-934-77	31,5
87,4	600-NTD-755-97	17,7
87,5	600-NTD-950-95	38
88	600-NTD-1045-86	47,2
89	700-NTD-1179-93	59,8
90	1000-NTD-1025-200	52,2
93	800-NTD-1170-146	75,5
94	700-NTD-1190-98	69,8
95	800-NTD-1334-110	106
96	800-NTD-1505-118	137

Size	Pump type	I [kg m ²]
1	40-NED-125-6	0,011
2	40-NED-160-6	0,013
3	40-NED-200-6	0,016
4	40-NED-250-5	0,045
5	40-NED-125-9	0,013
6	40-NED-160-9	0,014
7	40-NED-200-7	0,027
8	40-NED-250-9	0,041
9	40-NED-315-6	0,11
9,1	50-NED-315-6	0,11
10	50-NED-125-13	0,014
11	50-NED-160-12	0,016
12	50-NED-215-11	0,03
13	50-NED-250-8	0,054
14	50-NED-315-8	0,12
14,1	50-NED-400-7	0,4
15	80-NED-145-25	0,02
16	80-NED-160-18	0,025
17	100-NED-200-17	0,103
18	80-NED-250-15	0,288
19	80-NED-315-11	0,16
19,1	80-NED-400-10	0,41
20	100-NED-185-19	0,029
21	100-NED-220-20	0,275
22	100-NED-265-22	0,275
23	100-NED-315-16	0,14
24	100-NED-420-14	0,48
26	150-NED-220-24	0,06
27	150-NED-275-20	0,11
28	100-NED-315-22	0,15
29	100-NED-400-22	0,46
30	200-NED-330-32	0,21
31	150-NED-260-45	0,18
32	150-NED-330-28	0,22
33	150-NED-400-18	0,45
34	200-NED-250-38	0,204
35	200-NED-330-42	0,36
36	200-NED-400-35	0,65
37	150-NED-530-20	1,4
38	150-NED-690-15	3,6
40	200-NED-530-27	1,5
41	250-NED-580-26	1,7
42	200-NED-680-38	2,9
51	250-NED-350-35	0,38
52	250-NED-415-34	0,61
53	250-NED-495-43	0,95
54	300-NED-350-65	0,48
55	250-NED-385-38	0,498
56	300-NED-420-42	0,92
57	250-NED-475-39	1,05
58	300-NED-525-44	1,1
59	250-NED-550-48	2,4
59,5	250-NED-610-33	4,5
60	300-NED-610-54	4,4
60,1	250-NED-760-32	5,2
60,5	300-NED-620-54	3,3
61	350-NED-390-73	1,2
62	350-NED-475-47	1,4
63	350-NED-590-50	3,41
64	400-NED-440-81	1,95
65	400-NED-480-90	2,3
66	400-NED-515-52	2,52
67	400-NED-580-60	3,8
68	350-NED-650-55	5,36
69	400-NED-660-114	6,8
70	300-NED-760-42	6,8
72	350-NED-740-64	6,8
74	400-NED-750-95	6,8
75	500-NED-600-77	3,55
77	400-NED-705-58	7,72
78	400-NED-800-63	13,44
79	600-NED-606-118	6,1
81	500-NED-690-85	8,7
83	500-NED-795-82	14,4
84	500-NED-890-70	29,6
85	800-NED-800-157	19,5
86	600-NED-900-112	28,7
87	500-NED-934-77	31,5
87,4	600-NED-755-97	17,7
87,5	600-NED-950-95	38
88	600-NED-1045-86	47,2
89	700-NED-1179-93	59,8
90	1000-NED-1025-200	52,2
93	800-NED-1170-146	75,5
94	700-NED-1190-98	69,8
95	800-NED-1334-110	106
96	800-NED-1505-118	137

ASSIGNATION OF BASE PLATES TO MOTORS

Size	[mm]	Electric motor shaft size																		
	h	80	90	100	112	132	160	180	200	225	250	280	315	355	400	450	500	560	630	710
1	220	0,5	1	1	1	1	1	1												
2	220	0,5	1	1	1	1	1,5	1,5	1,5											
3	220		1	1	1	1	1,5	1,5	1,5											
4	220		1	1	1	1	1,5	1,5	1,5	1,5										
5	220		1	1	1	1	1,5	1,5	1,5											
6	220		1	1	1	1	1,5	1,5	1,5											
7	220		1	1	1	1	1,5	1,5	1,5											
8	220			1	1	1,5	1,5	1,5	1,5	1,5										
9	270		1	1	1	1,5	1,5	1,5	1,5	1,5										
9,1	270				1	1,5	1,5	1,5	1,5	2	2	2								
10	220		1	1	1	1	1,5	1,5	1,5											
11	270			1	1	1	1,5	1,5	1,5											
12	270				1	1,5	1,5	1,5	1,5	1,5										
13	220				1	1,5	1,5	1,5	1,5											
	270								1,5	2										
14	300				1	1	1,5	1,5	1,5	2	2	2,5								
14,1	270				1,5	2	1,5	1,5	2	2	2									
	340										2	2,5								
15	220			1	1	1	1,5	1,5	1,5											
16	270				1	1	1,5	1,5	1,5	2										
17	270				1	1	1,5	1,5	1,5	2										
18	270				1,5	1,5	1,5	1,5	1,5	2										
	340										2									
19	270				1,5	2	1,5	1,5	1,5	2										
	340										2	2,5	2,5							
19,1	340				2	2	2	1,5	2	2	2,5	2,5								
20	270				1,5	1,5	1,5	1,5	1,5	2	2									
21	340				1,5	1,5	1,5	1,5	1,5	2	2	2								
22	270				2	2	1,5	1,5	1,5	2	2									
	340										2	2,5								
23	270				2	2	2	1,5	1,5	2	2									
	340											2	2,5							
24	340				3	3	3	3	3	3	3,5	4								
	430												4,5							
26	270				2	2	1,5	1,5	1,5	2	2									
	380											2	2,5							
27	340				2	2	1,5	1,5	1,5	2	2	2	2,5							
	380													4,5						
28	430				2	2	2	2	2	2	2	2,5	2,5	4,55	4,55					
29	340				3	3	3	3	3	3	3	3,5	4							
	430													4,5						
30	340				3,5	3,5	3,5	3,5	3,5	3,5	3,5	4	4							
	430													4						
31	270				2	2	2	2	2	2										
	340											2,5	2,5							
32	340				3,5	4	3,5	3,5	3,5	3,5	4	4	4,55							
	430													4,55						
33	430				3,5	4	4	4	4	4	4	4	4,58	4,58	4,6					
	530															4,6				
34	340				3,5	4	3,5	3,5	3,5	4	4	4	4							
	430													4,5						
35	430				4	4	4	4	4	4	4	4	4,58	4,58	4,58					
	530															4,6				
36	430									6	6	6	6,58	6,58	6,58					
	590															6,6				
37	430				7	7,5	7	7	7	7,5	7,5	7,5	8	8						
38	480				7,5	7,5	7,5	7,5	7,5	7,5	7,5	8	8	8,5	8,5					
40	430				7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5	8,5	8,5	8,5					
41	430				7,5	7,5	7,5	7,5	7,5	7,5	7,5	8	8,5	8,5	8,5	7,5				
42	430									10	10	10	11	11	11	11				
	430									7	7,5	7,5	8,5	8,5	8,5					
51	530															8,55	8,55			
	590																	8,6		
52	460												8,5	8,5	8,5	8,5				
	530															8,55				
	590																8,55	8,6		
53	460				7,5	7,5	7,5	7,5	7,5	7,5	7,5	8,5	8,5	8,5	8,5					
	530															8,55				
54	460											8,5	8,5	8,5	8,5					
	530															8,55				
	590																8,55			
55	430										7,5	8,5	8,5	8,5	8,5					
	530															8,55	8,55			
	590																	8,55	8,55	

Size	[mm] h	Electric motor shaft size																		
		80	90	100	112	132	160	180	200	225	250	280	315	355	400	450	500	560	630	710
56	540												10,55	10,55	10,55	14,55	10,55			
	590																	10,55		
	670																		10,58	
57	530							9,5	9,5	9,5	10	10,55	10,55	10,55	10,55	10,55	10,55			
	590							10	10	10	10	10,55	10,55	10,55	10,55	10,55				
58	530																	10,55		
	590																			
59	530								11,5	11,5	12	12,55	12,55	12,55	12,55	12,55				
	590																	12,55		
60	550									12	12	12,55	12,55	12,55	12,55	12,55				
	590																	12,58		
	670																		12,58	
60,1	530										12,55	12,55	12,55	12,55	12,55	12,55				
	590																	12,58		
60,5	550										12,55	12,55	12,55	12,55	12,55	12,55				
	590																	12,55		
	670																		12,58	
61	540										12,5	12,5	12,5	12,5	12,55	12,55				
	590																	12,58		
	670																		12,58	
62	540								11,5	11,5	12	12,5	12,5	12,5	12,5	12,5				
	590																	12,55		
	670																		12,58	
63	600										12,55	12,55	12,55	12,55	12,58	12,55	12,58			
	670																	12,58		
	710																		12,58	
64	550											14,55	14,55	14,55	14,55	14,55				
	590																	14,55		
	670																		14,58	
65	550									13,5	13,5	14,5	14,5	14,5	14,5	14,55				
	590																	14,55		
66	600									13,5	13,5	14,5	14,5	14,55	14,55	14,5	14,55			
	670																		14,55	
	800																			14,58
67	670										14,5	14,5	14,5	14,55	14,55	14,55	14,55	14,55	14,58	
	800																			14,58
68	670										14,5	14,5	14,55	14,55	14,55	14,55	14,55	14,55	14,55	
	800																			14,58
	1100																			14,58
69	670											15,55	15,55	15,55	15,55	15,55	15,55	15,55	15,58	
	800																			15,58
70	670											15,55	15,55	15,55	15,55	15,55	15,55	15,55	15,55	
	800																			15,58
72	670											15,55	15,55	15,55	15,55	15,55	15,55	15,55	15,58	
	800																			15,58
	1100																			15,58
74	670											15,55	15,55	15,55	15,55	15,55	15,55	15,55	15,55	
	800																			15,58
75	800								15	15	15	15,5	15,5	15,5	15,5	15,5				
77	800									15	15	15,5	15,5	15,5	15,5	15,5	15,5	15,5	15,5	
78	1000											16,5	16,5	16,5	16,55	16,55	16,5	16,55	16,55	16,55
79	900											16,1	16,1	16,5	16,5	16,55	16,5	16,5	16,55	16,55
81	900											16,1	16,1	16,5	16,5	16,55	16,5	16,5	16,55	16,55
83	900												17,5	17,5	17,6	17,6	17,6	17,6	17,6	17,6
84	1000												17,6	17,6	17,6	17,6	17,6	17,6	17,6	17,6
84,8	800											10,58	10,58	10,58	10,58	10,58	10,58	10,58	10,58	10,58
85	1100												18,6	18,6	18,6	18,6	18,6	18,6	18,6	18,6
86	1100												18,6	18,6	18,6	18,6	18,6	18,6	18,6	18,6
87	1200												18,6	18,6	18,6	18,6	18,6	18,6	18,6	18,6
87,4	670												16,58	16,58	16,58	16,58	16,58	16,58	16,58	
	800																			16,58
87,5	670												18,6	18,6	18,6	18,6	18,6	18,6	18,6	
	800																			18,6
88	1200														18,6	18,6	18,6	18,6	18,6	
89	1200														18,6	18,6	18,6	18,6	18,6	
90	1200														18,6	18,6	18,6	18,6	18,6	
93	1100														18,6	18,6	18,6	18,6	18,6	
94	1100														18,6	18,6	18,6	18,6	18,6	

Číslo základové desky.

The table figures are for orientation purposes only. The choice of base plate depends on the dimension of the drive, according to the formula:

$$A > p2*2$$

$$B > R + a + b + m + Lp$$

Where:

A - width base plate

Lp - total length of the drive

B - length base plate

a,b,m - overall dimensions of the pump

CONSTRUCTIONAL COMPONENTS

BASE PLATES – DIMENSIONS

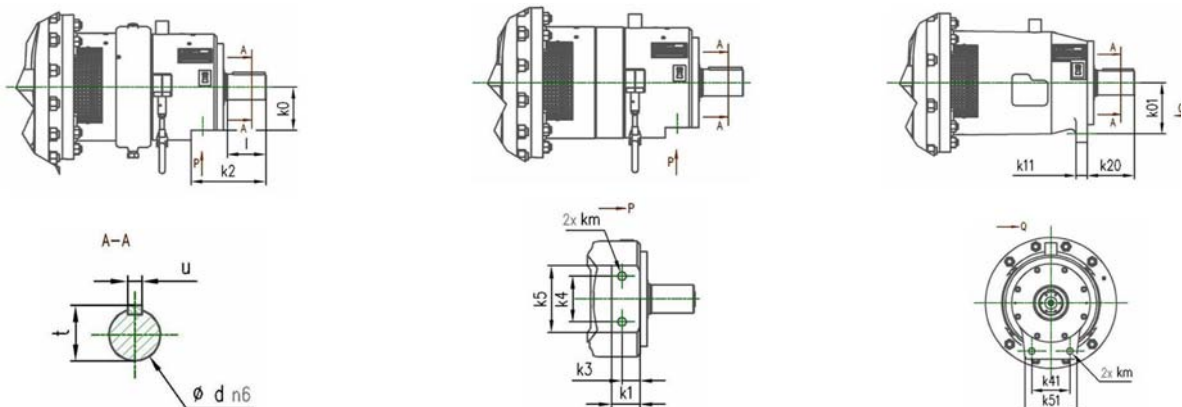
Base Plate Number	Weight [kg]	The number of holes on one side	Dimensions [mm]							Foundation bolts in accordance to ČSN021391 (DIN529)			Chemical anchor KOTE-CH a KOTE-CH6 *)		
			A	B	D	D2	E	H	M	Velikost	L	N	Velikost	L	N
0,5	180	3	760	1230	465	150	685	170	110	M20x320	280	100	M20x300	210	25
1	215	3	760	1530	615	150	685	170	110	M20x320	280	100	M20x300	210	25
1,5	295	3	760	1840	770	150	685	170	110	M20x320	280	100	M20x300	210	25
2	305	4	760	2145	615	150	685	170	110	M20x320	280	100	M20x300	210	25
2,5	320	4	760	2445	715	150	685	170	110	M20x320	280	100	M20x300	210	25
3	310	3	915	1840	770	150	840	195	130	M20x400	350	100	M20x300	210	25
3,5	350	4	915	2145	615	150	840	195	130	M20x400	350	100	M20x300	210	25
4	400	4	915	2445	715	150	840	195	130	M20x400	350	100	M20x300	210	25
4,5	475	5	915	2760	615	150	840	195	130	M20x400	350	100	M20x300	210	25
4,55	580	5	915	3260	715	200	840	235	170	M20x400	350	100	M24x300	210	28
4,58	680	6	915	3975	715	200	840	275	210	M20x500	450	100	M30x380	280	35
5,05	385	3	1065	1530	615	150	990	215	150	M20x500	450	100	M20x300	210	25
5,5	410	4	1065	2145	615	150	990	195	130	M20x400	350	100	M20x300	210	25
6	450	4	1065	2445	715	150	990	195	130	M20x400	350	100	M20x300	210	25
6,5	510	5	1065	2760	615	150	990	195	130	M20x400	350	100	M20x300	210	25
6,55	620	5	1065	3260	715	200	990	235	170	M20x400	350	100	M24x300	210	28
6,58	710	6	1065	3975	715	200	990	275	210	M20x500	450	100	M30x380	280	35
7,05	480	3	1245	1530	615	150	1170	215	150	M20x500	450	100	M20x300	210	25
7	540	4	1245	2145	615	150	1170	215	150	M20x500	450	100	M20x300	210	25
7,5	590	4	1245	2445	715	150	1170	215	150	M20x500	450	100	M20x300	210	25
8	640	5	1245	2760	615	150	1170	215	150	M20x500	450	100	M20x300	210	25
8,5	705	5	1245	3260	715	200	1170	235	170	M20x500	450	100	M24x300	210	28
8,55	790	6	1245	3975	715	200	1170	275	210	M20x500	450	100	M30x380	280	35
9,05	520	3	1395	1840	770	150	1320	250	170	M20x500	450	100	M24x300	210	28
9	580	4	1395	2145	615	150	1320	250	170	M20x500	450	100	M24x300	210	28
9,5	650	4	1395	2445	715	150	1320	250	170	M20x500	450	100	M24x300	210	28
10	870	5	1395	2760	615	150	1320	275	210	M20x500	450	100	M30x380	280	35
10,5	1100	5	1395	3260	715	200	1320	275	210	M20x500	450	100	M30x380	280	35
10,55	1390	6	1395	3975	715	200	1320	315	240	M20x600	550	100	M36x460	330	50
10,58	1720	7	1395	4690	715	200	1320	315	240	M20x600	550	100	M36x460	330	50
11,05	590	3	1550	1840	770	150	1475	250	170	M20x500	450	100	M24x300	210	28
11	720	4	1550	2145	615	150	1475	250	190	M20x500	450	100	M24x300	210	28
11,5	950	4	1550	2445	715	150	1475	275	210	M20x500	450	100	M30x380	280	35
12	1110	5	1550	2760	615	150	1475	275	210	M20x600	550	100	M30x380	280	35
12,5	1300	5	1550	3260	715	150	1475	295	240	M20x600	550	100	M30x380	280	35
12,55	1550	6	1550	3975	715	200	1475	315	240	M20x600	550	100	M36x460	330	50
12,58	1920	7	1550	4690	715	200	1475	315	240	M20x600	550	100	M36x460	330	50
13,05	770	3	1840	1840	770	150	1765	250	170	M20x500	450	100	M24x300	210	28
13	1550	4	1840	2445	715	150	1765	295	240	M20x600	550	100	M30x380	280	35
13,5	1620	5	1840	2760	615	150	1765	295	240	M20x600	550	100	M30x380	280	35
14	1750	5	1840	3260	715	200	1765	315	240	M20x600	550	100	M36x460	330	50
14,5	1890	6	1840	3975	715	200	1765	315	240	M20x600	550	100	M36x460	330	50
14,55	2350	7	1840	4690	715	200	1765	315	240	M20x600	550	100	M36x460	330	50
14,58	2680	6	1840	5000	900	200	1765	315	240	M20x600	550	100	M36x460	330	50
15	2180	5	2250	3260	715	200	2170	315	240	M20x600	550	100	M36x460	330	50
15,5	2650	6	2250	3975	715	200	2170	315	240	M20x600	550	100	M36x460	330	50
15,55	2900	7	2250	4690	715	200	2170	315	240	M20x600	550	100	M36x460	330	50
15,58	3250	6	2250	5000	900	200	2170	315	240	M20x600	550	100	M36x460	330	50
16,05	1780	4	2500	2145	615	150	2400	275	210	M20x600	550	100	M36x460	330	50
16,06	2100	4	2500	2445	715	150	2420	315	240	M20x600	550	100	M36x460	330	50
16,1	3200	5	2500	3260	715	200	2420	315	240	M20x600	550	100	M36x460	330	50
16,5	3300	6	2500	3975	715	200	2420	315	240	M20x600	550	100	M36x460	330	50
16,55	3500	7	2500	4690	715	200	2420	315	240	M20x600	550	100	M36x460	330	50
16,58	3950	6	2500	5000	900	200	2420	315	240	M20x600	550	100	M36x460	330	50
17,05	2200	4	2700	2445	715	150	2620	315	240	M20x600	550	100	M36x460	330	50
17,1	3350	5	2700	3260	715	200	2620	315	240	M20x600	550	100	M36x460	330	50
17,5	3500	6	2700	3975	715	200	2620	315	240	M20x600	550	100	M36x460	330	50
17,6	3900	6	2700	5000	900	200	2620	315	240	M20x600	550	100	M36x460	330	50
18,05	3500	4	3200	2445	715	150	3120	315	240	M20x600	550	100	M36x460	330	50
18,5	4000	6	3200	3975	715	200	3120	315	240	M20x600	550	100	M36x460	330	50
18,6	5200	6	3200	5000	900	200	3120	315	240	M20x600	550	100	M36x460	330	50

*) Permissible tension capacity / shear capacity of the chemical anchor C20/C25 in the concrete is: M20 - 31/26kN, M24 - 45/37kN, M30 - 72/60 kN, M36 - 101/ 77kN

BEARING HOUSINGS – DIMENSIONS

Bearing housing	Version of housing -	Weight [kg]	Version of housing -	Weight [kg]	Version of housing -SK	Weightt [kg]	Diameter of shaft for mechanical seal [mm]	Shaft end [mm]			
								d	l	u	t
K108	100-08-L	25	100-08-S	31,2	100-08-S-K	35,7	40	32	80	10	35,3
K210	200-10-L	35	200-10-S	44,5	200-10-S-K	51	50	42	90	12	45,1
K312	300-12-L	78	300-12-S	95	300-12-S-K	104	60	50	90	14	53,5
K314	300-14-L	72,5	300-14-S	92	300-14-S-K	101	70	65	110	18	69,2
K416	400-16-L	155	400-16-S	192	400-16-S-K	206	80	70	115	20	74,6
K418	400-18-L	146	400-18-S	180	400-18-S-K	195	90	80	120	22	85,5
K420	400-20-L	149	400-20-S	175	400-20-S-K	189	100	90	130	25	95,3
K522	500-22-L	265	500-22-S	328	500-22-S-K	348	110	100	150	28	106,1
K524	500-24-L	275	500-24-S	324	500-24-S-K	344	120	110	170	28	116,1
K526	500-26-L	262	500-26-S	310	500-26-S-K	330	130	120	190	32	126,9
K628	600-28-L	752	600-28-S	865	600-28-S-K	895	140	130	210	36	137,7
K630	600-30-L	739	600-30-S	850	600-30-S-K	880	150	140	230	36	147,7
K634	600-34-L	725	600-34-S	835	600-34-S-K	865	170	160	290	40	178,5
K638	600-38-L	712	600-38-S	820	600-38-S-K	850	190	180	330	40	198,5

-S-K (version in steel, with cooling chamber) -S (version in steel, without cooling chamber) -L (version in cast iron, without cooling chamber)



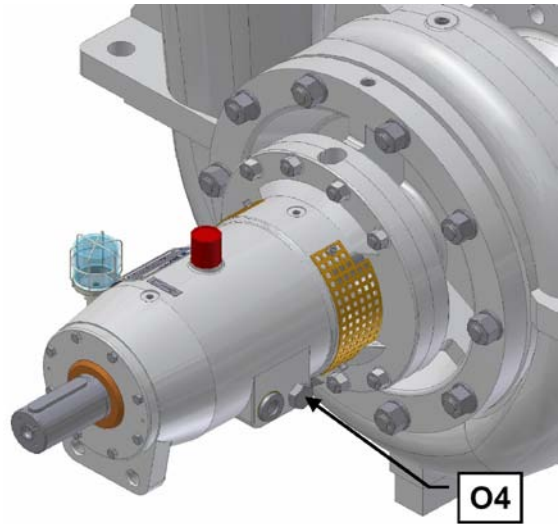
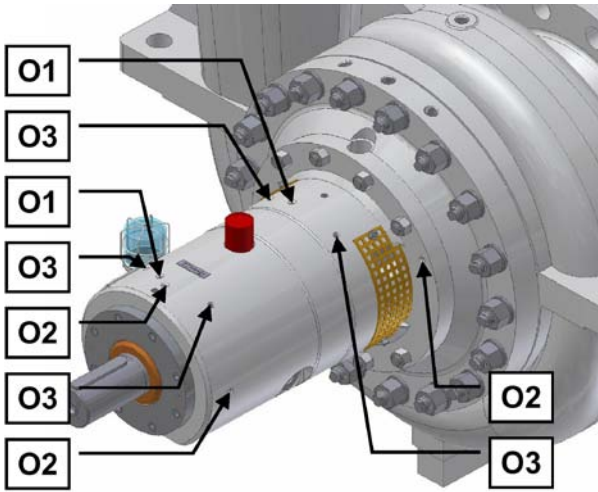
Bearing housing	Fitting dimensions [mm]													Oil quantity [liter]
	k0	k1	k2	k3	k4	k5	km	k01	k11	k20	k41	k51	L	
K108	63	50	151	30	55	81	M12	70	16	101	48	72	(30)	0,3
K210	75	65	181	40	60	90	M16	80	22	116	52	78	(32,5)	0,6
K312	100	72	192,5	40	100	150	M24	120	32	120,5	100	150	(60)	1,6
K314	100	72	211,5	40	100	150	M24	120	32	139,5	100	150	(50)	1,4
K416	135	80	223	50	130	190	M27	155	37	143	110	165	(80)	2,6
K418	135	80	233	50	130	190	M27	155	37	153	110	165	(70)	2,5
K420	135	80	243	50	130	190	M27	155	37	165	110	165	(57,5)	2,4
K522	165	95	285	60	160	217	M30	215	55	180	136	205	(77,5)	3,5
K524	165	95	305	60	160	217	M30	215	55	200	136	205	(67,5)	3,4
K526	165	95	325	60	160	217	M30	215	55	220	136	205	(57,5)	3,3
K628	235	140	415	85	220	300	M39	350	65	270	190	285	(150)	5,5
K630	235	140	435	85	220	300	M39	350	65	290	190	285	(120)	5,3
K634	235	140	495	85	220	300	M39	350	65	350	190	285	(100)	4,9
K638	235	140	535	85	220	300	M39	350	65	390	190	285	(80)	4,7

Pump bearings are (as standard) lubricated by oil. Used oil type Mobil SHC623 or SHC624. May be replaced upon request by an equivalent oil. Grease lubricated version is negotiable.
Used greases are of SKF type LGHP.2

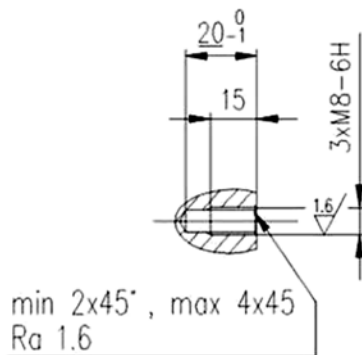
BEARING DIAGNOSTICS, JOINTS FOR MEASURING DEVICES - DIMENSIONS

In versions -S, -S-K bearing housing is provided with following connecting spots as standard:
O1 - spots for diagnostics SPM
O2 - spots for vibration sensors
O3 - spots for temperature sensors

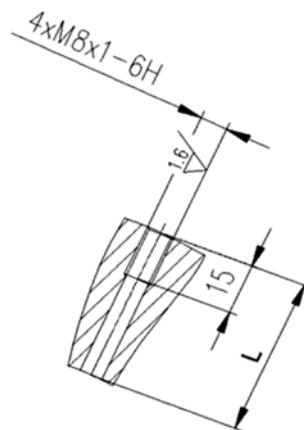
In version -L bearing housing is provided in standard with tapped hole **O4** - dimension M27x2 for thermometer well in oil bath.
 Connecting spots O1, O2, O3 upon customer request only.



O1, O2



O3





SIGMA GROUP a. s.
Jana Sigmunda 79
783 49 Lutín, Czech Republic
+420 585 652 011, +420 585 652 060
+420 585 652 051, +420 585 944 294
info@sigma.cz
2014

www.sigma.cz