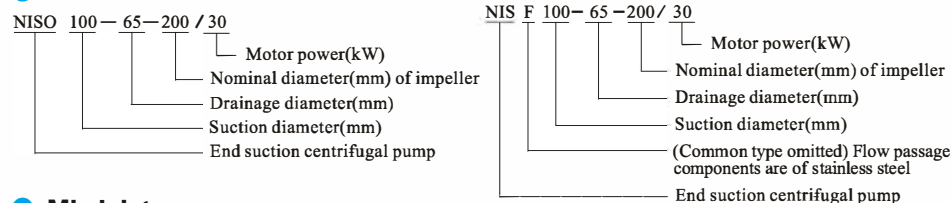


## Definition of Model



## Min inlet pressure

Min inlet pressure depends on NPSH + 0.5m safety margin + gasified pressure. It should be re-calculated the inlet pressure if one of the following happens.

- The liquid is more warm.
- The flow speed exceeds the nominate value.
- Suction distance is very long or inlet pipe is very long.
- System pressure is too little.
- Inlet pressure is low, working pressure is low.

## Typical application

- Clean, thin, non-corrosive, non-flammable or non-explosive liquid without grain or fiber.
- Water supply system
- Heat, air condition system
- Booster, constant pressure water supply
- Firefighting, splitting system
- Irrigating, farming
- Industry cooling, heater circulation system
- Industry transferring, drainage system

## Construction

- Non-self-priming, single stage, single suction, horizontal, axial suction and radical discharge, pump body is fixed by base.
- NISO Pump use bearing cradle, which can orientate bearing, prevent from radical vibration, improve the rigidity of rotary part.
- NISO Pump use compacted shaft, use deep groove grease lubricated roller bearing.
- NISO Pump use connect pump and motor with semi-flexible coupling.
- Use standard wearable mechanical seal.
- TEFC motor, size complies to IEC standard.
- NISO Pump dimensions is conform to ISO 2858.
- NIS, NISF Pump are stub shaft.

## Specification

- Flow: Max 800m<sup>3</sup>/h
- Head: Max 160m
- Working pressure: Max 16 bar
- Inlet pressure: Max 6 bar
- Power: Max 160kW
- Liquid temperature: -15℃ ~ 110℃
- Inlet and Outlet diameter: Inlet diameter: DN50~DN250  
Outlet diameter: DN32~DN200

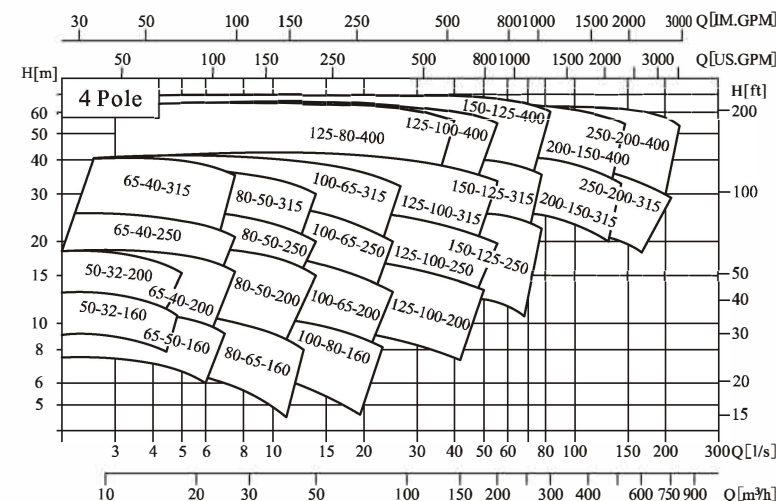
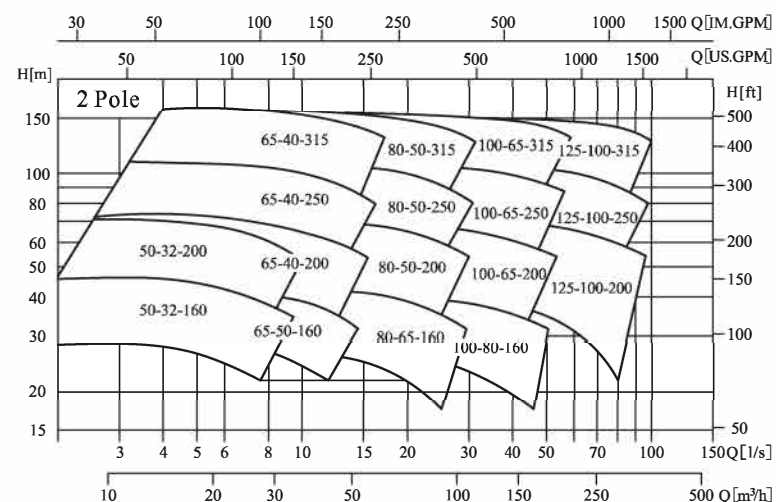
## Curve conditions

- Curves tolerance is according to ISO9906, Annex A;
- All curves are based on the measured value of constant motor speed 2900rpm, 2950rpm, 1450rpm or 1480rpm.
- The measurements were made with airless water at temperature of 20℃. The curves apply to a kinematic viscosity of 1mm<sup>2</sup>/s(1 cst)

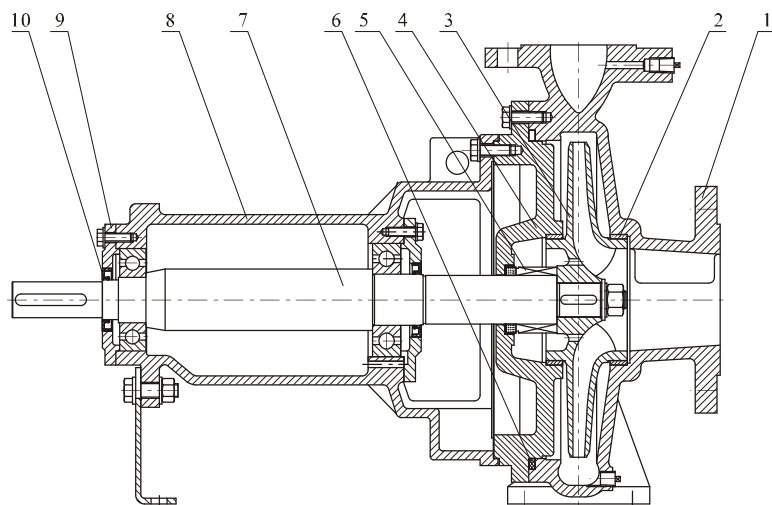
## Features

- Back-pull-out design, without having to disturb pump body and pipelines when servicing.
- All the NISO Pump models only use 4 kinds of pump shafts and bearing cover, make many parts exchangeable.
- Impeller is optimum design, inlet is enlarged, no whirlpool, deduct the water pump NPSH efficiently, which makes pump work stable with little noise.
- NIS, NISF Pump are small, compact, easy to install.

## Model performance drawing



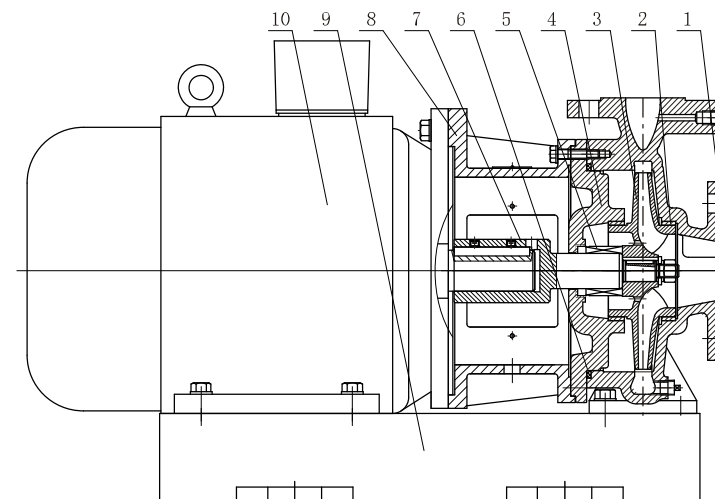
## ● NISO Sectional drawing



## ● NISO Part list

No.	Name	Material	Code/AISI/ASTM
1	Casing	Cast Iron HT200	ASTM25B
2	Wear ring	Cast Iron HT200	ASTM25B
3	Impeller	Cast Iron HT200/SS 304	ASTM25B/AISI304
4	Casing cover	Cast Iron HT200	ASTM25B
5	Mechanical seal	Carbon/Silicon Carbide	
6	O ring	NBR	
7	Shaft	SS 20Cr13	AISI420
8	Bearing housing	Cast Iron HT200	ASTM25B
9	Bearing cover	Cast Iron HT200	ASTM25B
10	Oil seal	NBR	

## ● NIS,NISF Sectional drawing



## ● NIS,NISF Part list

No.	Name	Material	Code/AISI/ASTM
1	Casing	Cast Iron HT200/ZG07Cr19Ni9	ASTM25B/AISI304
3	Impeller	Cast Iron HT200/ZG07Cr19Ni9	ASTM25B/AISI304
4	Casing cover	Cast Iron HT200/ZG07Cr19Ni9	ASTM25B/AISI304
5	Mechanical seal	Carbon/Silicon Carbide	
6	O ring	NBR	
7	Shaft	SS 20Cr13/06Cr19Ni10	AISI304
8	Head	Cast Iron HT200	ASTM25B
9	Baseplate	Q235-A	AISA570
10	Motor		

# General Data

## Models

2 Pole

No.	Model	Q [m³/h]	H [m]	Motor [kW]	n [r/min]
1	50-32-160/3	12.5	28	3	2900
2	50-32-160/4		36	4	
3	50-32-160/5.5		44	5.5	
4	50-32-200/7.5		55	7.5	
5	50-32-200/11		74	11	2950
6	65-40-200/7.5	25	48	7.5	2900
7	65-40-200/11		62	11	2950
8	65-40-200/15		72	15	
9	65-40-250/18.5		84	18.5	
10	65-40-250/22		95	22	
11	65-40-250/30		105	30	
12	65-40-315/22		105	22	
13	65-40-315/30		120	30	
14	65-40-315/37		145	37	
15	65-40-315/45		165	45	
16	65-50-160/4		28	4	2900
17	65-50-160/5.5		36	5.5	
18	65-50-160/7.5		42	7.5	2950
19	80-50-200/11	50	44	11	
20	80-50-200/15		57	15	
21	80-50-200/18.5		64	18.5	
22	80-50-200/22		71	22	
23	80-50-250/30		84	30	
24	80-50-250/37		100	37	
25	80-50-315/37		105	37	
26	80-50-315/45		125	45	
27	80-50-315/55		140	55	
28	80-50-315/75		152	75	

# General Data

## Models

2 Pole

No.	Model	Q [m³/h]	H [m]	Motor [kW]	n [r/min]
29	80-65-160/5.5	50	22	5.5	2900
30	80-65-160/7.5		29	7.5	
31	80-65-160/11		38	11	2950
32	80-65-160/15		44	15	
33	100-65-200/18.5	100	36	18.5	2950
34	100-65-200/22		43	22	
35	100-65-200/30		56	30	
36	100-65-200/37		67	37	
37	100-65-250/45		80	45	
38	100-65-250/55		88	55	
39	100-65-250/75		108	75	
40	100-65-315/90		128	90	
41	100-65-315/110		148	110	
42	100-80-160/11		23	11	
43	100-80-160/15		30	15	
44	100-80-160/18.5		35	18.5	
45	100-80-160/22		40	22	
46	125-100-200/30	200	34	30	2950
47	125-100-200/37		41	37	
48	125-100-200/45		48	45	
49	125-100-200/55		55	55	
50	125-100-200/75		66	75	
51	125-100-250/75		75	75	
52	125-100-250/90		86	90	
53	125-100-250/110		100	110	
54	125-100-315/90		93	90	
55	125-100-315/110		108	110	
56	125-100-315/132		124	132	
57	125-100-315/160		144	160	

# General Data

# General Data

## Models

4 Pole

No.	Model	Q [m³/h]	H [m]	Motor [kW]	n [r/min]
1	50-32-160/0.55	6.3	8.5	0.55	1450
2	50-32-160/0.75		11	0.75	
3	50-32-200/1.1		14	1.1	
4	50-32-200/1.5		18	1.5	
5	65-40-200/1.1	12.5	12	1.1	
6	65-40-200/1.5		15	1.5	
7	65-40-200/2.2		17.5	2.2	
8	65-40-250/3		25	3	
9	65-40-315/4		34	4	
10	65-40-315/5.5		40	5.5	
11	65-50-160/0.55		7	0.55	
12	65-50-160/0.75		9	0.75	
13	65-50-160/1.1		10.5	1.1	
14	80-50-200/1.5	25	11	1.5	
15	80-50-200/2.2		15	2.2	
16	80-50-200/3		17.5	3	
17	80-50-250/4		21	4	
18	80-50-250/5.5		25	5.5	
19	80-50-315/5.5		30	5.5	
20	80-50-315/7.5		37	7.5	
21	80-65-160/0.75		6	0.75	
22	80-65-160/1.1		8	1.1	
23	80-65-160/1.5		10.5	1.5	
24	100-65-200/3	50	11.5	3	
25	100-65-200/4		14	4	
26	100-65-200/5.5		16	5.5	
27	100-65-250/5.5		20	5.5	
28	100-65-250/7.5		25	7.5	
29	100-65-315/11		32	11	
30	100-65-315/15		40	15	
31	100-80-160/1.5		6.5	1.5	
32	100-80-160/2.2		9	2.2	
33	100-80-160/3		10.5	3	

## Models

4 Pole

No.	Model	Q [m³/h]	H [m]	Motor [kW]	n [r/min]
34	125-80-400/15	50	39	15	1480
35	125-80-400/18.5		45	18.5	
36	125-80-400/22		50	22	
37	125-80-400/30		60	30	
38	125-80-400/37		67	37	
39	125-100-200/4	100	9	4	1450
40	125-100-200/5.5		11.5	5.5	
41	125-100-200/7.5		14	7.5	
42	125-100-200/11		16.5	11	
43	125-100-250/15		25	15	
44	125-100-315/11		23	11	1480
45	125-100-315/18.5		32	18.5	
46	125-100-315/22		36	22	
47	125-100-315/30		40	30	
48	125-100-400/30		50	30	
49	125-100-400/37	200	58	37	
50	125-100-400/45		65	45	
51	150-125-250/11		12.5	11	
52	150-125-250/15		16	15	
53	150-125-250/18.5		20	18.5	
54	150-125-250/22		24	22	
55	150-125-315/30		32	30	
56	150-125-315/37		39	37	
57	150-125-400/45		50	45	
58	150-125-400/55	400	57	55	
59	150-125-400/75		68	75	
60	200-150-315/37		23	37	
61	200-150-315/45		27	45	
62	200-150-315/55		32	55	
63	200-150-315/75		38	75	
64	200-150-400/75		43	75	
65	200-150-400/90		50	90	
66	200-150-400/110		62	110	
67	250-200-315/37	500	20	37	
68	250-200-315/45		23	45	
69	250-200-315/55		24	55	
70	250-200-315/75		32	75	
71	250-200-400/90	630	37	90	
72	250-200-400/110		44	110	
73	250-200-400/132		53	132	
74	250-200-400/160		60	160	

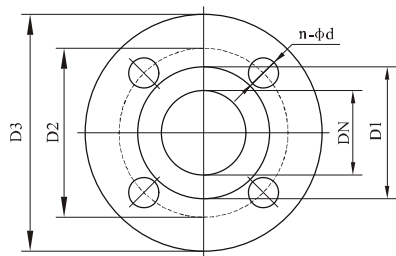
# Technical Data

## ● To be continued

4 Pole

Model	Power (kW)	H	H1	H2	HC1	HC2	BW	BL	BP	BH	OH	UL	FC	DN1	DN2	Total weight (kg)
150-125-315	30	665	715	360	580	500	620	800	150	22	50	1028	140	150	125	430
	37	715	735	380	585	550	625	950	200	22	100	1071	140	150	125	507
	45	750	815	415	585	550	625	950	200	22	100	1103	140	150	125	561
150-125-400	55	780	815	415	585	550	625	950	200	22	100	1187	140	150	125	620
	75	815	815	415	630	600	670	1000	200	22	100	1262	140	150	125	776
200-150-315	37	750	815	415	605	500	670	900	200	22	100	1116	160	200	150	541
	45	750	815	415	605	500	645	900	200	22	100	1146	160	200	150	579
	55	780	815	415	605	600	645	1000	200	22	100	1254	160	200	150	650
	75	815	815	415	630	600	675	1100	250	22	150	1329	160	200	150	806
200-150-400	75	815	865	415	630	600	675	1100	250	22	150	1329	160	200	150	859
	90	815	865	415	630	600	675	1100	250	22	150	1379	160	200	150	956
	110	945	865	415	720	700	760	1220	260	22	160	1614	160	200	150	1325
250-200-315	37	750	865	415	605	500	670	900	200	22	100	1136	180	250	200	592
	45	750	865	415	605	500	645	900	200	22	100	1166	180	250	200	630
	55	780	865	415	605	600	645	1100	250	22	150	1274	180	250	200	695
	75	815	865	415	630	600	675	1100	250	22	150	1349	180	250	200	840
250-200-400	90	845	930	480	630	600	675	1100	250	22	150	1399	180	250	200	1015
	110	1010	930	480	720	750	760	1250	250	22	150	1634	180	250	200	1400
	132	1010	930	480	720	700	760	1220	260	22	160	1744	180	250	200	1495
	160	1010	930	480	720	700	760	1220	260	22	160	1744	180	250	200	1564

## NIS,NISF flange



NIS,NISF flange dimensions						
DN	D1	D2	D3	n	d	
32	78	100	140	4	18	
50	102	125	165	4	18	
65	122	145	185	4	18	
80	133	160	200	8	18	
100	158	180	220	8	18	
125	184	210	250	8	18	
150	212	240	285	8	22	
200	268	295	340	12	22	
250	320	355	405	12	26	

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