

NTS series

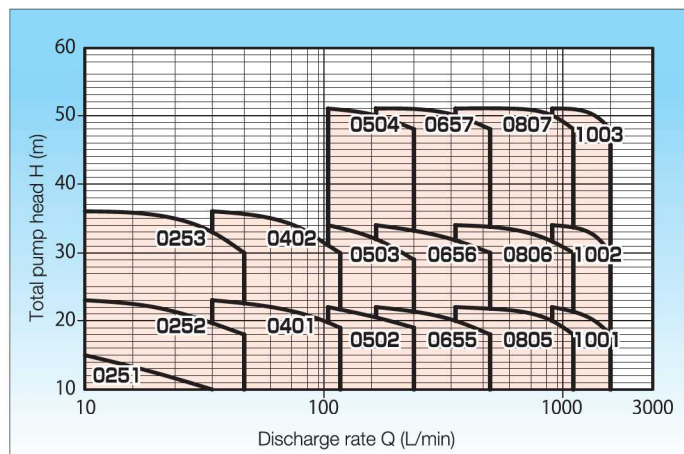


These general-purpose mechanical seal pumps feature the corrosion resistance of PVC and high cost performance. The NTS series has an extensive track record in applications for chemical transfer and high-temperature liquid chemical circulation.

Standard specifications

Structure	Drive: Motor direct-driven type Shaft seal: Mechanical seal / Packing seal Impeller: Closed type Bearing: Oilless sealed ball bearing
Operating temperature range	PVC: 0 to 50°C HTPVC: 0 to 80°C
Rotating direction	Clockwise (When viewed from motor side)
Flange	Equivalent to JIS 10K FF
Motor	General-purpose horizontal motor with base
Paint color	Equivalent to Munsell 2.5B4/8 (Metal exposed parts, except for pump shaft)

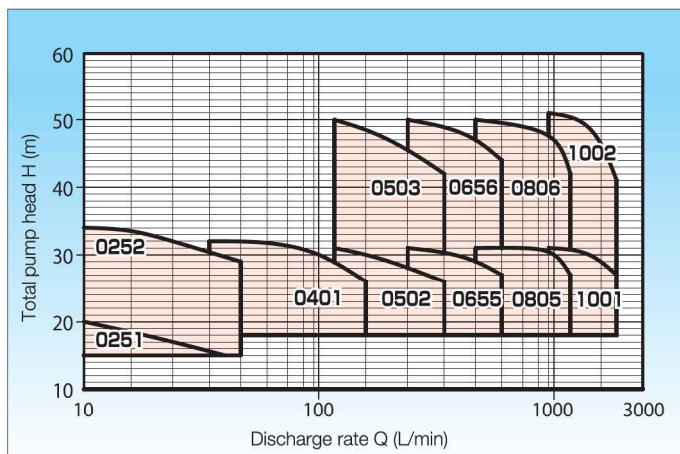
Capacity chart and specification table: 50 Hz (2P)



Model	Bore diameter (Suction × Dis.) (mm)	Discharge rate (L/min)	Total head (m)	Motor output (kW)	Frame No.
NTS-0251	25×20	20	12	0.4	F2
NTS-0252			20	0.75	F2
NTS-0253			32	1.5	F2
NTS-0401	40×32	105	20	1.5	F2
NTS-0402			32	2.2	F2
NTS-0502	50×40	210	12	1.5	F2
NTS-0503			15	3.7	F3
NTS-0504			15	7.5	F4
NTS-0655	65×50	420	20	3.7	F3
NTS-0656			32	5.5	F3
NTS-0657			50	11	F4
NTS-0805	80×65	840	20	5.5	F3
NTS-0806			32	7.5	F4
NTS-0807			50	15	F4
NTS-1001	100×80	1670	20	11	F4
NTS-1002			32	15	F4
NTS-1003			50	30	F4

Motor output is given for liquids with a specific gravity of 1.0 at the target point.

Capacity chart and specification table: 60 Hz (2P)



Model	Bore diameter (Suction × Dis.) (mm)	Discharge rate (L/min)	Total head (m)	Motor output (kW)	Frame No.
NTS-0251	25×20	20	18	0.75	F2
NTS-0252			32	1.5	F2
NTS-0401	40×32	125	29	2.2	F2
NTS-0502	50×40	250	29	3.7	F2
NTS-0503	65×50	500	46	5.5	F3
NTS-0655			29	5.5	F3
NTS-0656	80×65	1000	46	7.5	F3
NTS-0805			29	5.5	F3
NTS-0806	100×80	2000	46	15	F4
NTS-1001			29	15	F4
NTS-1002			46	30	F4

Motor output is given for liquids with a specific gravity of 1.0 at the target point.

Frame No.	Applicable motor (kW)	
	2P	4P
F2	0.4–3.7	—
F3	0.75–11	0.75–7.5
F4	3.7–30	3.7–30
F5	11–45	11–45

Model identification

NTS - 150 1 F 15 S A 1 1

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

- ① Name
- ② Bore diameter
- ③ Frame No.
- ④ O-ring material F: FPM E: EPDM Z: Other
- ⑤ Motor output
 - 01 : 0.75 kW 02 : 1.5 kW 03 : 2.2 kW
 - 05 : 3.7 kW 07 : 5.5 kW 10 : 7.5 kW
 - 15 : 11 kW 20 : 15 kW 25 : 18.5 kW
 - 30 : 22 kW 40 : 30 kW 50 : 37 kW
- ⑥ Body material (Casing, casing cover, etc.)
 - S: PVC
 - H: HTPVC
 - Z: Other

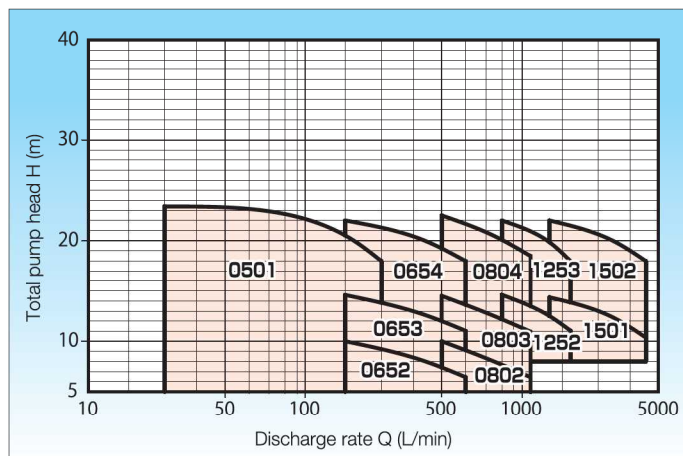
- ⑦ Shaft seal structure
- ⑧ Shaft seal type

- ⑨ Shaft seal configuration

A: External mechanical seal	B: Internal mechanical seal	P: Packing seal
1: MA1	1: MB1	S: Internally cooled
W: MAW	2: MB1Q1	W: Externally cooled
Z: Other	3: MB1Q2	
	D: DEM	
	Z: Other	
Rotating ring	Stationary ring	1: SUS316 (Straight shaft)
1: Resin-impregnated carbon	Alumina	2: Hastelloy C
4: Filler-contained PTFE	Alumina	3: Titanium
6: SiC	SiC	4: SiC
Z: Other than above	Other than above	5: Silicon nitride
		Z: Other than above

* Double mechanical seal and dead-end types: SiC only

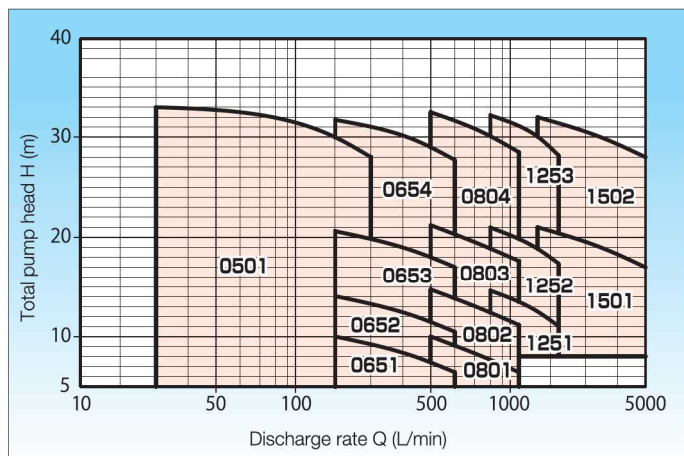
Capacity chart and specification table: 50 Hz (4P)



Model	Bore diameter (Suction × Dis.) (mm)	Discharge rate (L/min)	Total head (m)	Motor output (kW)	Frame No.
NTS-0501	50×40	210	20	2.2	F3
NTS-0652	65×50	420	8	1.5	F3
NTS-0653			12.5	2.2	F3
NTS-0654			20	3.7	F4
NTS-0802	80×65	840	8	2.2	F3
NTS-0803			12.5	3.7	F4
NTS-0804			20	5.5	F4
NTS-1252	125×100	1670	12.5	7.5	F4
NTS-1253			20	15	F5
NTS-1501	150×125	3340	12.5	15	F5
NTS-1502			20	30	F5

Motor output is given for liquids with a specific gravity of 1.0 at the target point.

Capacity chart and specification table: 60 Hz (4P)

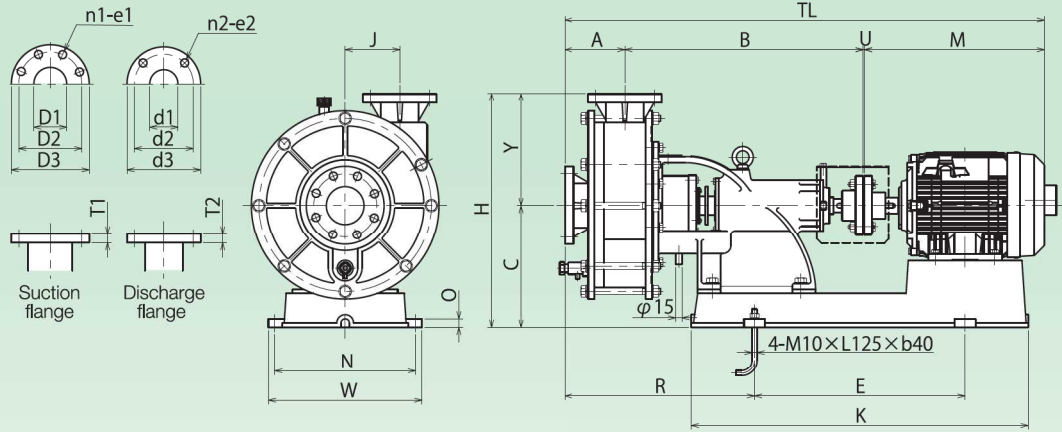


Model	Bore diameter (Suction × Dis.) (mm)	Discharge rate (L/min)	Total head (m)	Motor output (kW)	Frame No.
NTS-0501	50×40	250	29	3.7	F3
NTS-0651	65×50	500	7	1.5	F3
NTS-0652			11.5	2.2	F3
NTS-0653			18	3.7	F3
NTS-0654			29	5.5	F4
NTS-0801	80×65	1000	7	3.7	F3
NTS-0802			11.5	5.5	F3
NTS-0803			18	7.5	F4
NTS-0804			29	11	F4
NTS-1251	125×100	2000	11.5	7.5	F4
NTS-1252			18	15	F4
NTS-1253			29	22	F5
NTS-1501	150×125	4000	18	22	F5
NTS-1502			29	37	F5

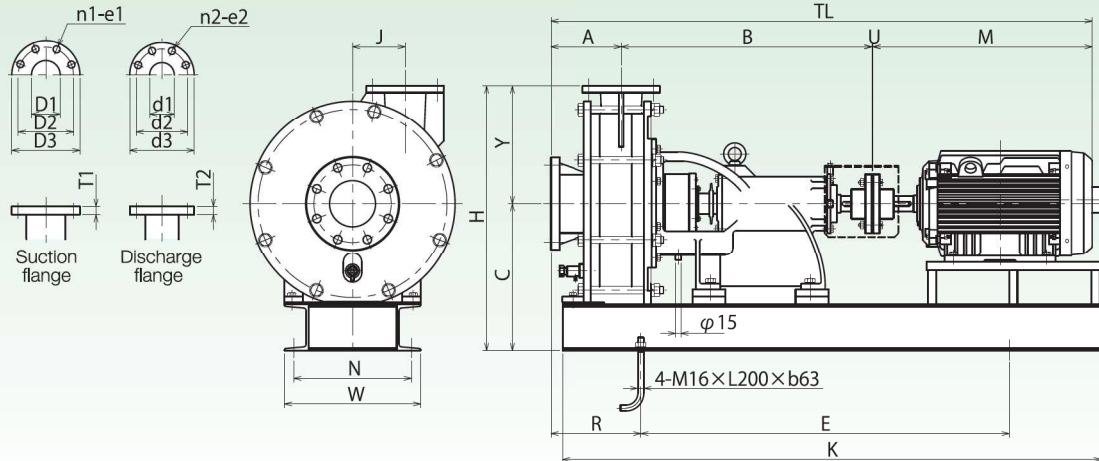
Motor output is given for liquids with a specific gravity of 1.0 at the target point.

Outer dimensions drawing and table

● Frame Nos.: F2 and F3



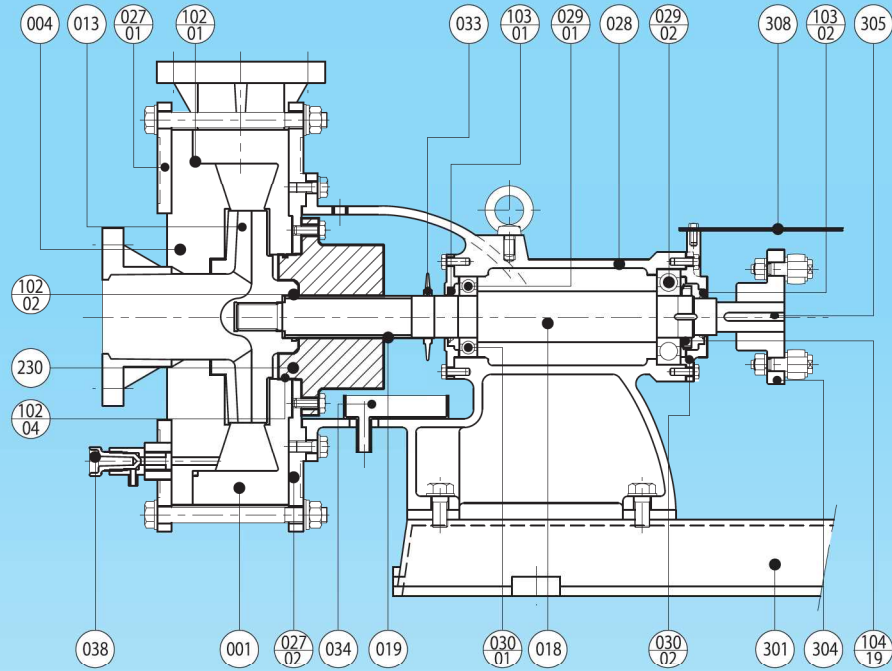
● Frame Nos.: F4 and F5



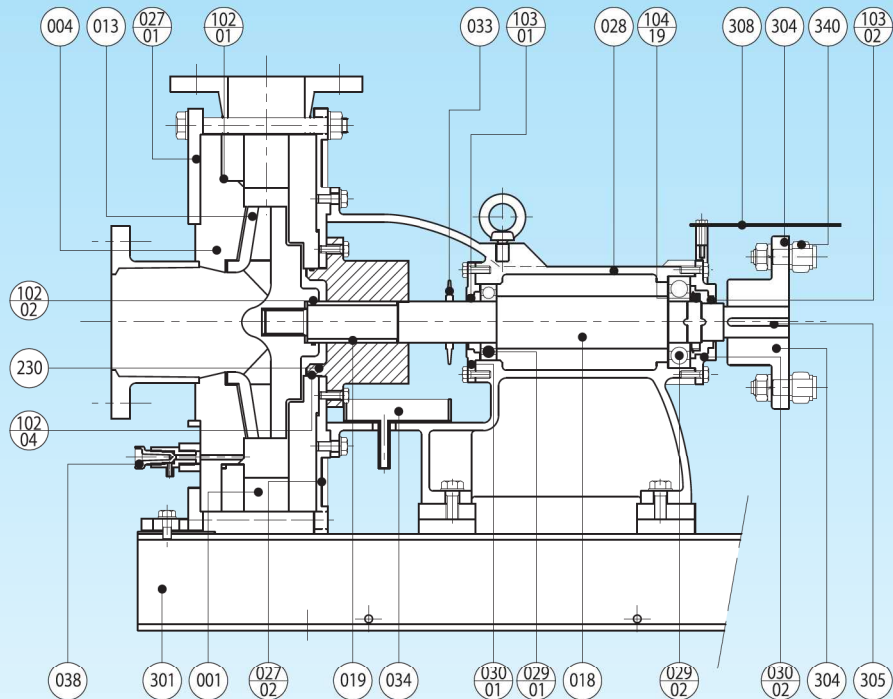
Model	Motor (kW)	Body								Base					Hange JIS 10K												Frame No.
		A	B	R	J	C	Y	H	U	E	K	N	W	O	D1	D2	D3	n1-e1	T1	d1	d2	d3	n2-e2	T2			
NTS-0251	0.75	92	369	285	80	160	161	321	3	310	490	215	240	15	25	90	125	4-19	15	20	75	100	4-19	15	F2		
NTS-0252	1.5	92	369	295	80	160	161	321	3	335	535	230	255	15	25	90	125	4-19	15	20	75	100	4-19	15	F2		
NTS-0253	1.5	91	372	297	83	160	181	341	3	335	535	230	255	15	25	90	125	4-19	15	20	75	100	4-19	15	F2		
NTS-0401	2.2	120	388	340	65	160	185	345	3	335	535	230	255	15	40	105	140	4-19	16	32	100	135	4-19	16	F2		
NTS-0402	2.2	116	388	336	80	160	185	345	3	335	535	230	255	15	40	105	140	4-19	16	32	100	135	4-19	16	F2		
NTS-0501	3.7	139	517	424	125	220	241	461	3	400	680	290	320	20	52	120	155	4-19	20	40	105	140	4-19	16	F3		
NTS-0502	3.7	126	388	346	65	195	196	391	3	400	600	285	310	15	52	120	155	4-19	20	40	105	140	4-19	16	F2		
NTS-0503	5.5	124	510	409	80	240	241	481	3	425	725	330	356	20	52	120	155	4-19	20	40	105	140	4-19	16	F3		
NTS-0504	7.5	131	556	439	100	340	236	581	3	500	800	250	300	12	52	120	155	4-19	20	40	105	140	4-19	16	F4		
NTS-0651	1.5	134	517	399	90	220	250	470	3	400	640	260	290	20	67	140	175	4-19	22	52	120	155	4-19	22	F3		
NTS-0652	2.2	138	517	423	95	220	250	470	3	400	680	290	320	20	67	140	175	4-19	22	52	120	155	4-19	22	F3		
NTS-0653	3.7	136	517	421	115	220	250	470	3	400	680	290	320	20	67	140	175	4-19	22	52	120	155	4-19	22	F3		
NTS-0654	5.5	137	563	442	135	290	265	555	3	500	800	335	365	20	67	140	175	4-19	22	52	120	155	4-19	22	F4		
NTS-0655	5.5	133	517	425	70	240	250	490	3	425	725	330	356	20	67	140	175	4-19	22	52	120	155	4-19	22	F3		
NTS-0656	7.5	133	517	425	85	240	250	490	3	425	725	330	356	20	67	140	175	4-19	22	52	120	155	4-19	22	F3		
NTS-0657	11	133	563	448	95	340	245	585	3	750	1050	320	370	12	67	140	175	4-19	22	52	120	155	4-19	22	F4		
NTS-0801	3.7	146	522	436	90	220	250	470	3	400	680	290	320	20	78	150	185	8-19	22	67	140	175	4-19	22	F3		
NTS-0802	5.5	141	522	438	110	240	265	505	3	425	725	330	356	20	78	150	185	8-19	22	67	140	175	4-19	22	F3		
NTS-0803	7.5	144	566	452	130	290	265	555	3	500	800	335	356	20	78	150	185	8-19	22	67	140	175	4-19	22	F4		
NTS-0804	11	141	566	449	135	290	265	555	3	750	1050	465	495	20	78	150	185	8-19	22	67	140	175	4-19	22	F4		
NTS-0805	7.5	147	522	444	90	240	250	490	3	425	725	330	356	20	78	150	185	8-19	22	67	140	175	4-19	22	F3		
NTS-0806	15	136	566	454	110	340	245	585	3	750	1050	320	370	12	78	150	185	8-19	22	67	140	175	4-19	22	F4		
NTS-0807	15	142	566	460	110	340	245	585	3	750	1050	320	370	12	78	150	185	8-19	22	67	140	175	4-19	22	F4		
NTS-1001	15	165	576	493	110	340	280	620	3	750	1050	320	370	12	100	175	210	8-19	22	78	150	185	8-19	22	F4		
NTS-1002	30	157	568	477	110	340	280	620	3	750	1050	320	370	12	100	175	210	8-19	22	78	150	185	8-19	22	F4		
NTS-1003	30	159	568	479	110	340	280	620	3	750	1050	320	370	12	100	175	210	8-19	22	78	150	185	8-19	22	F4		
NTS-1251	7.5	202	578	277	143	400	320	720	3	800	1300	320	370	12	125	210	250	8-23	24	100	175	210	8-19	22	F4		
NTS-1252	15	194	578	269	143	400	320	720	3	800	1300	320	370	12	125	210	250	8-23	24	100	175	210	8-19	22	F4		
NTS-1253	22	194	680	247	143	400	320	720	4	1000	1500	320	370	12	125	210	250	8-23	24	100	175	210	8-19	22	F5		
NTS-1501	22	241	695	309	150	440	400	840	4	1000	1500	370	420	12	146	240	280	8-23	26	125	210	250	8-23	24	F5		
NTS-1502	37	230	691	294	150	440	400	840	4	1000	1500	370	420	12	146	240	280	8-23	26	125	210	250	8-23	24	F5		

Cross-sectional drawing

● Frame Nos.: F2, F3 and F4 (Suction diameter of 100 A or less)



● Frame Nos.: F4 (Suction diameter of 125 A or more) and F5



Part No.	Part name	Material	Q'ty
001	Casing	PVC/HTPVC	1
004	Suction cover	PVC/HTPVC	1
013	Impeller	HTPVC	1
018	Shaft	SUS420J2	1
019	Shaft sleeve	FEP/PVDF	1
027-01	Tie ring (Front)	FC200/SS400	1
027-02	Tie ring (Rear)	FC200	1
028	Bracket	FC200	1
029-01	Bearing (Pump)	SUJ2	1
029-02	Bearing (Motor)	FC200	1
030-01	Bearing cover (Pump)	FC200	1
030-02	Bearing cover (Motor)	FC200	1
033	Deflector	EPDM	1
034	Drain pan	PP	1

Part No.	Part name	Material	Q'ty
038	Drain plug	HTPVC	1
102-01	O-ring (Casing)	FPM/EPDM	1
102-02	O-ring (Impeller)	FPM/EPDM	1
102-04	O-ring (Stuffing box)	FPM/EPDM	1
103-01	Oil seal (Pump)	NBR	1
103-02	Oil seal (Motor)	NBR	1
104-19	Bearing nut and washer	SS400	1 set
230	Stuffing box	HTPVC	1
301	Base	FC200	1
304	Coupling	FC200	1 set
305	Coupling key	SS400	1
308	Coupling guard	SS400	1
340	Pin and rubber (Coupling)	SS400 & NBR	1 set