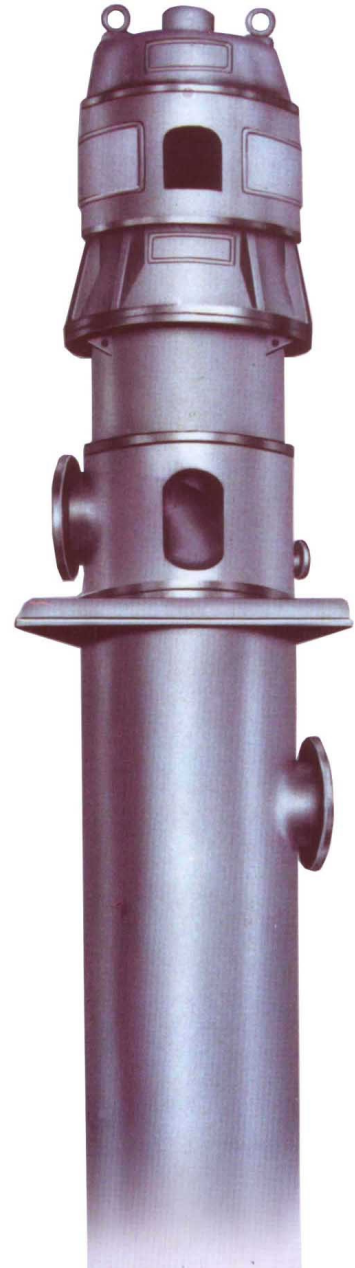




NLTD

Condensate Pump



NLTD(A) Series pumps, vertical multi-stage barrel casing construction, are designed for pumping condensed water in thermal and nuclear power stations, as well as similar liquids in chemical process where NPSH or installation base is limited.

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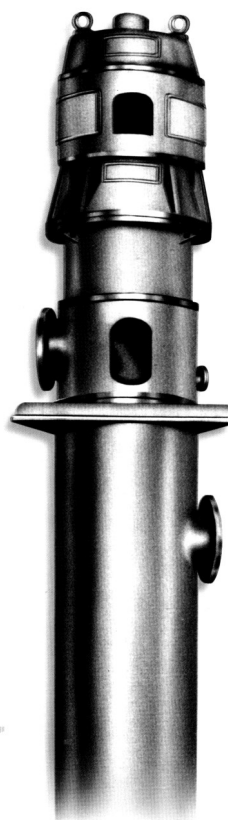
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Features

- Vertical multi-stage barrel casing construction with suction and discharge nozzles designed respectively on the barrel casing and discharge seat, discharge direction may be arranged to required positions.
- Close impellers, first impeller may be designed into single or double suction.
- Soft packing as standard shaft sealing, mechanical seal also available for specific requirement.
- Several water lubricated bearings shall be designed to support the radial thrust of rotor, while the axial thrust of the rotor shall be balanced by thrust bearings install Ted in the motor.
- Pump rotor shall be rigidly flanged with driving motor , while the pump shaft shall be coupled by adapters.
- Auxiliary Water Systems: Condensed water shall be used as shaft sealing water for a capacity of $0.3 \sim 0.5 \text{ m}^3/\text{h}$, pressure between $0.2 \sim 0.4 \text{ Mpa}$ and less than 38°C ; Bearing water cooling system shall be designed for motors with horsepower's larger than 560 kw, and industrial soften water shall be applicable with a capacity of $8 \sim 12 \text{ m}^3/\text{h}$, pressure between $0.2 \sim 0.2 \text{ Mpa}$ and less than 38°C .

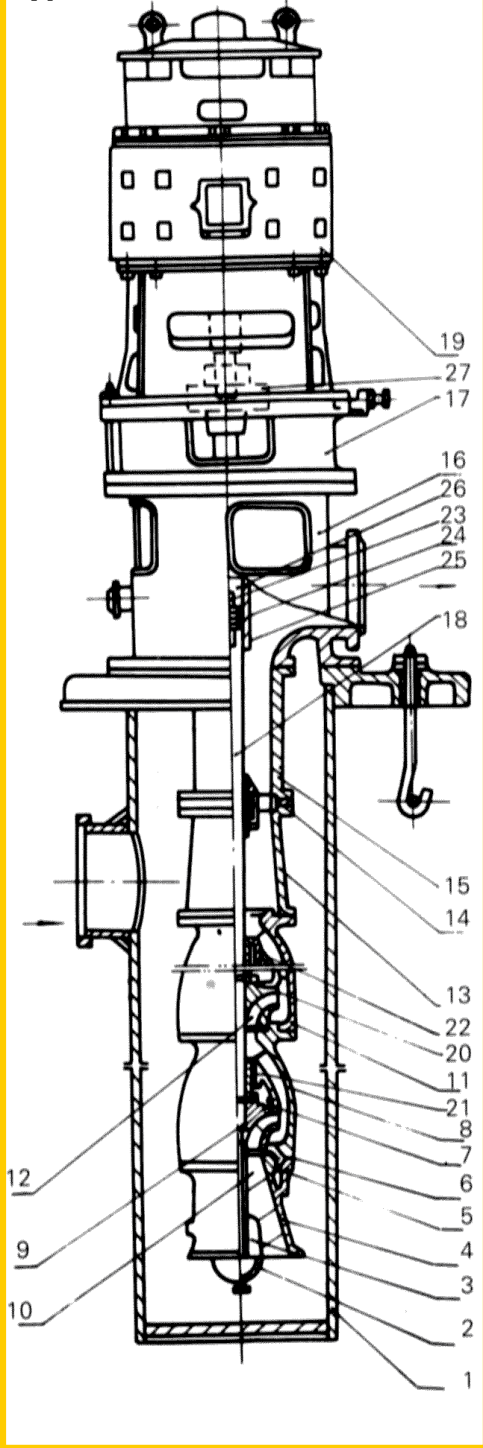
Performance Data

Capacity Range: $90 \sim 1700 \text{ m}^3/\text{h}$
Head Range: $48 \sim 326 \text{ m}$.
Temp. Range: up to 120°C



Configuration Drawings

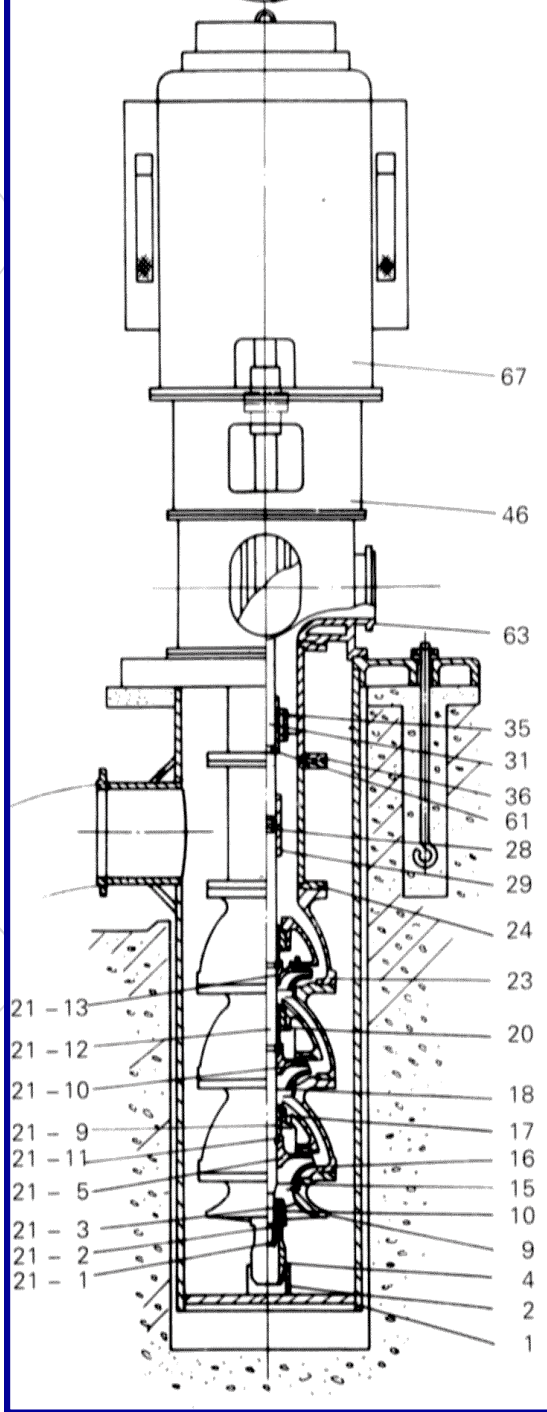
Type NLTD



1. Barrel
2. Low bearing gland
3. Low bearing
4. Low bearing bracket
5. Bush of inducers
6. Casing wear ring of first stage
7. Impeller wear ring of first stage
8. Diversion casing of first stage
9. Impeller of first stage
10. Inducers
11. Diversion casing of second stage
12. Impeller of second stage
13. Reducer
14. Bearing housing
15. Joint
16. Pump seat
17. Support
18. Shaft
19. Motor
20. Collar
21. Location sleeve
22. Guide bearing
23. Fixed key
24. Cutting sleeve
25. Fixed key
26. Driving shaft
27. Rigid coupling

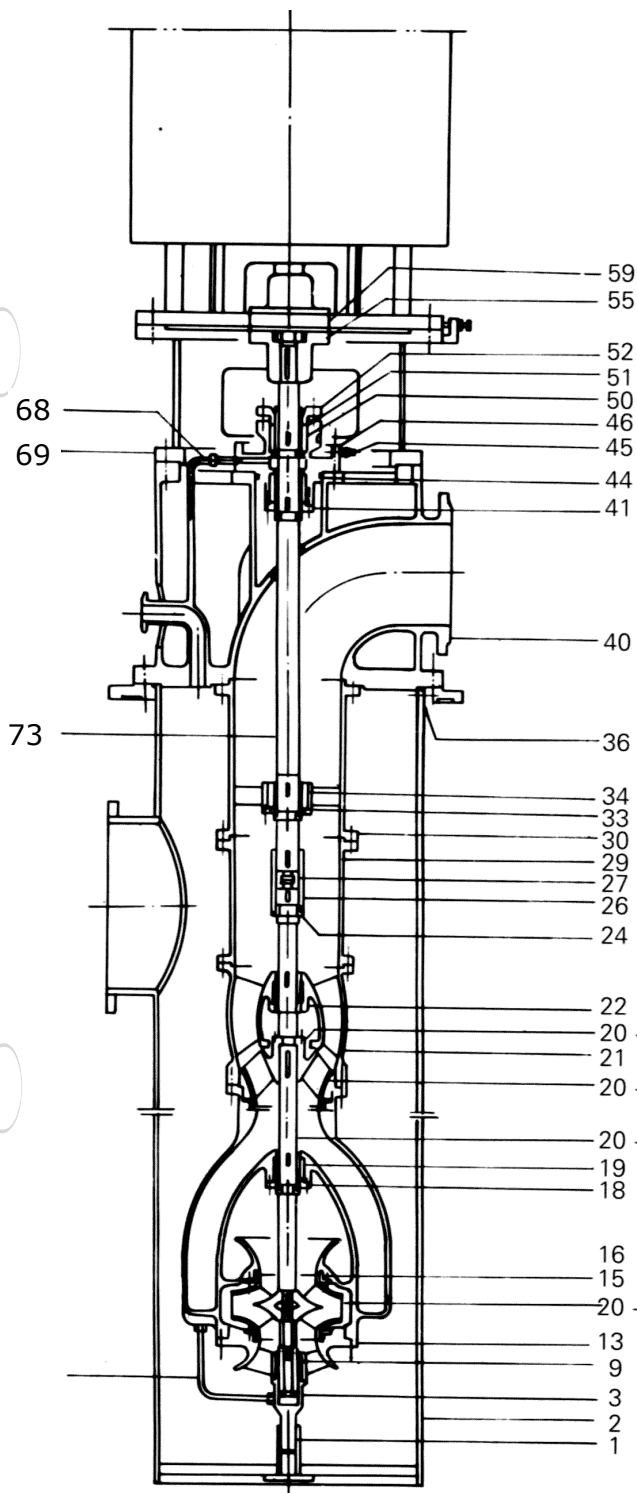
1. Barrel
2. Support
4. Low bearing gland
9. Suction bell mouth
10. Guide bearing A
15. First stage wear ring
16. Diversion casing
17. Guide bearing B
18. Wear ring
20. Gland of bearing B
23. Diversion casing of end stage
24. Reducer
28. Cutting sleeve A
29. Location sleeve A
31. Driving shaft
35. Shaft sleeve C
36. Joint
46. Support of motor
61. Location ring
63. Discharge head
67. Motor
- 21-1. Impeller nut
- 21-2. Small nut
- 21-3. Sleeve A
- 21-5. First stage impeller
- 21-9. Sleeve B
- 21-10. Second stage impeller
- 21-11. Collar 105
- 21-12. Pump shaft
- 21-13. End stage impeller (or not)

Type NLTD— 1st Stg. Double Suction



- 21 - 13
- 21 - 12
- 21 - 10
- 21 - 9
- 21 - 11
- 21 - 5
- 21 - 3
- 21 - 2
- 21 - 1

Type NLDTA with Double Suction for 1st Stg. Impeller



1. O-ring
2. Barrel
3. Low bearing gland
4. Inlet
9. Guide bearing A
13. Suction bell mouth
15. Wear ring
16. First stage volute
18. Bearing gland A
19. Guide bearing B
- 20-7. First stage impeller
- 20-11. Second stage impeller
- 20-13. Location plate
- 20-16. Pump shaft
21. Second stage diversion casing
22. Bearing gland B
24. Location ring A
26. Cylindrical coupling
27. Collar
29. Conical pipe
30. Pipe
33. Bearing gland C
34. Guide bearing C
36. Rubber ring
40. Discharge seat
41. Bearing gland D
44. O-ring
45. Joint
46. Stuffing box
50. Packing ring
51. Packing
52. Gland
55. Coupling
59. Adjusting gasket
68. Pressure relief pipe
69. Support of motor
73. Driving shaft

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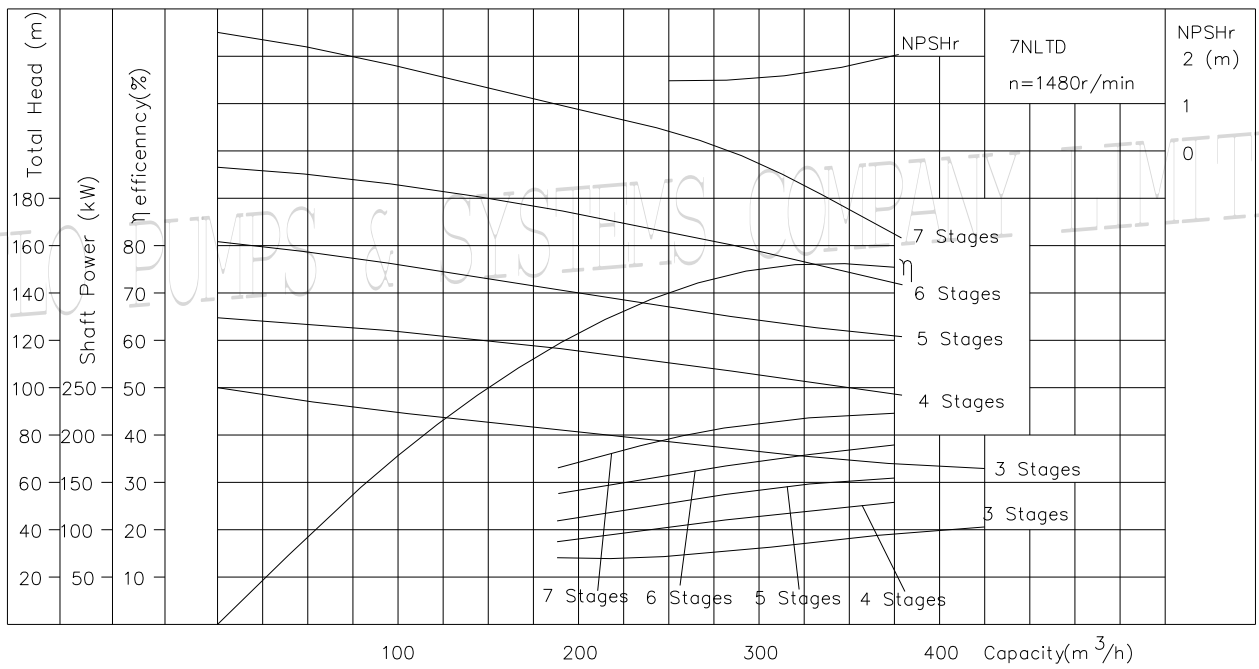
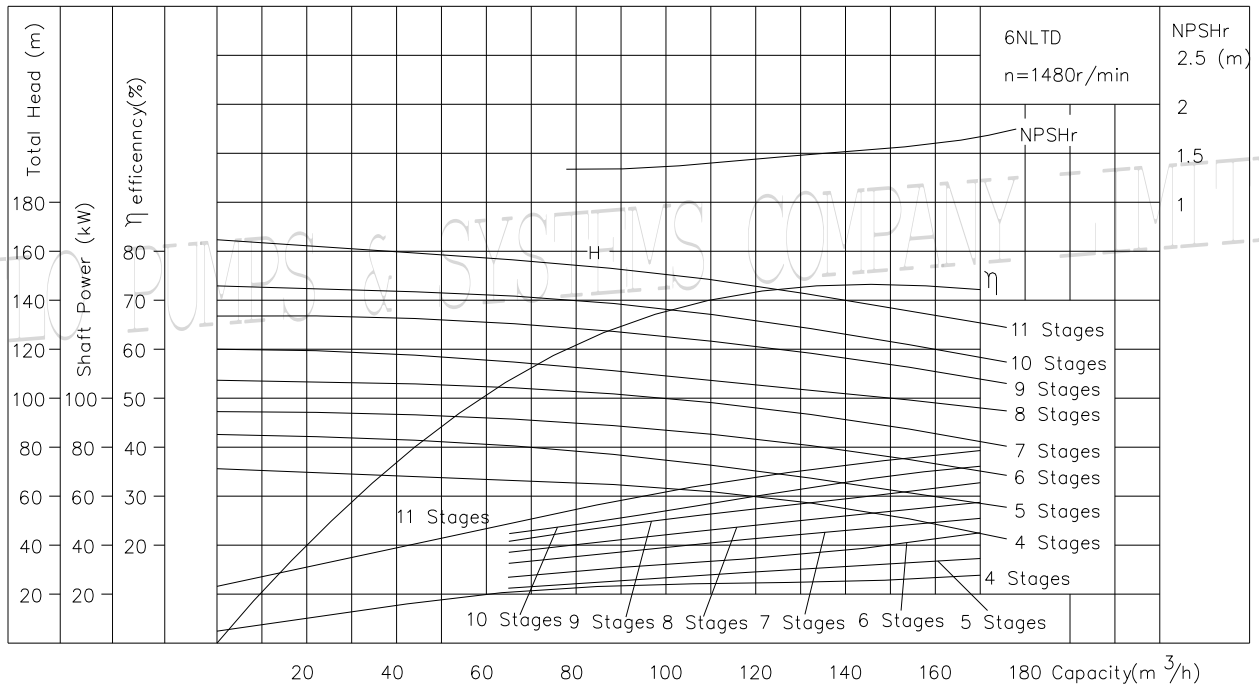
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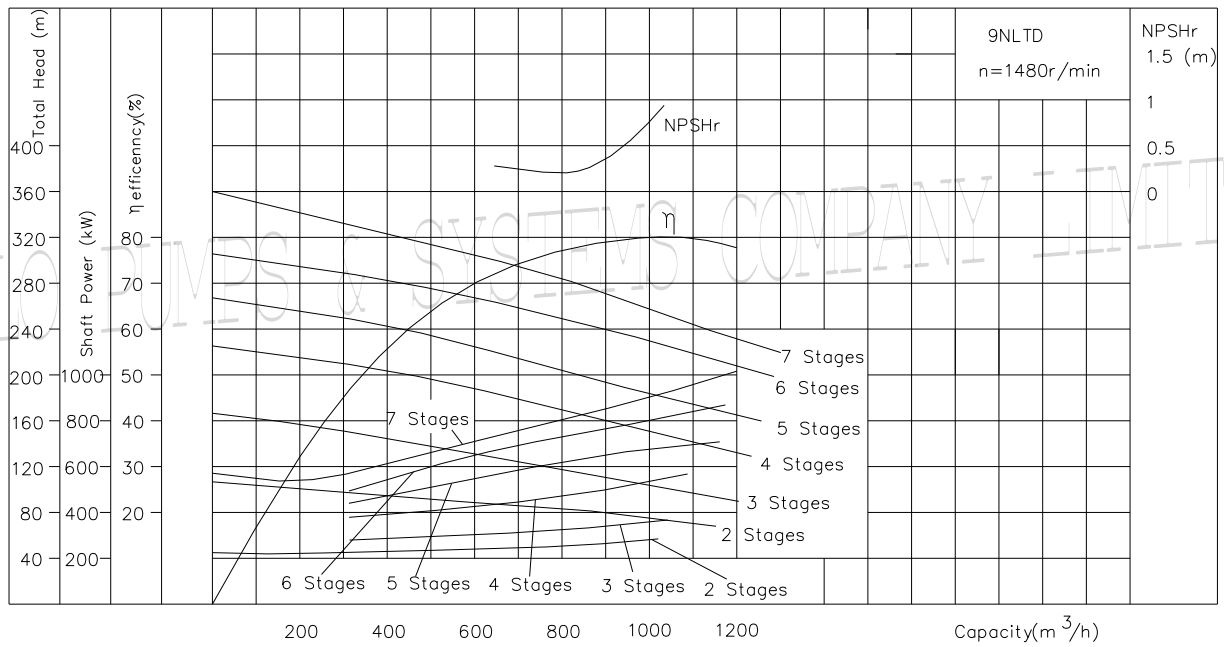
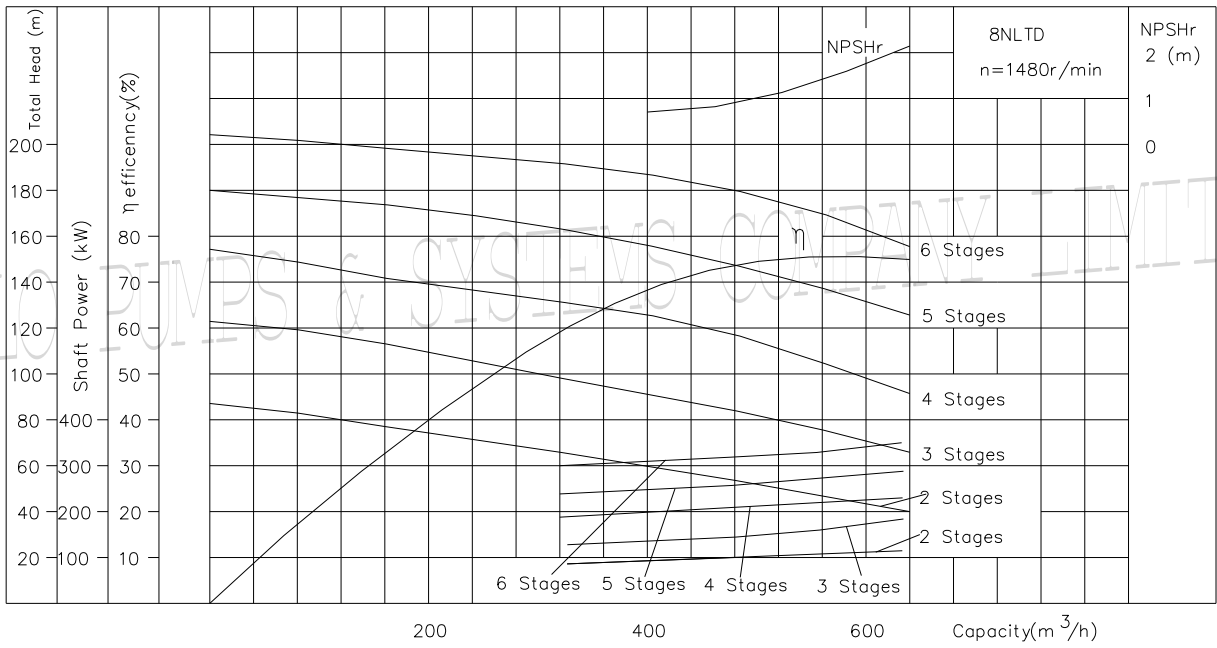
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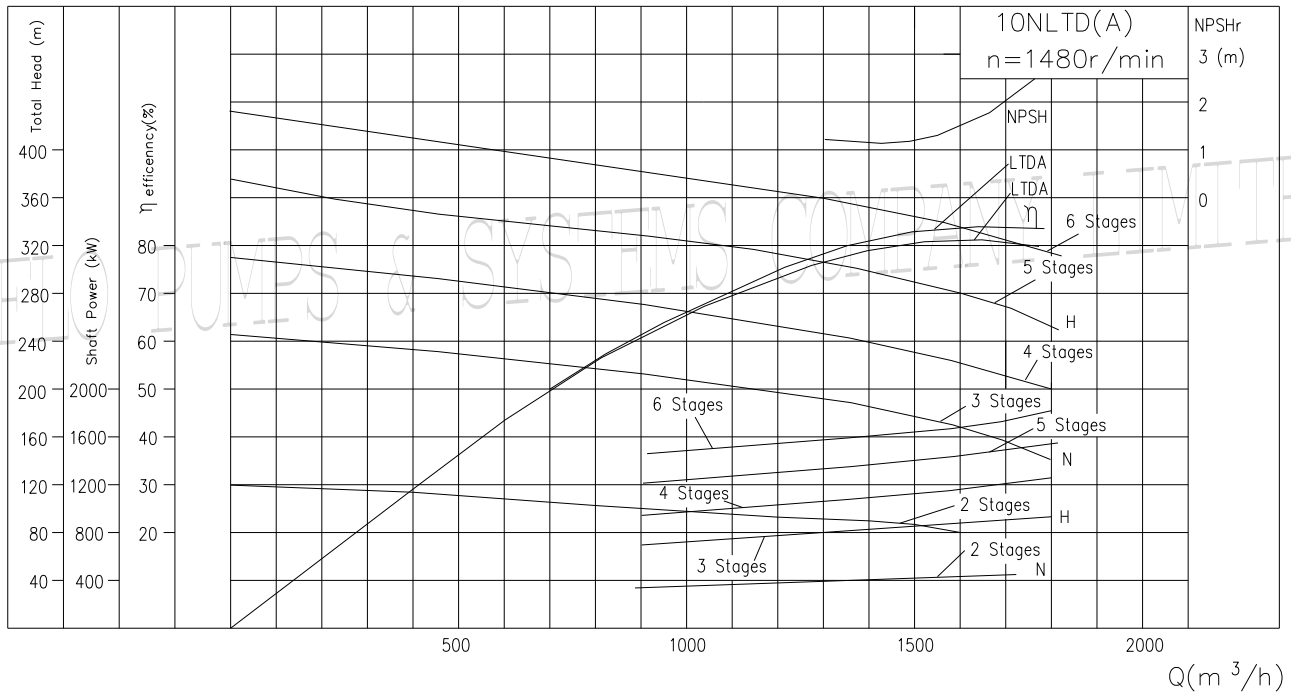
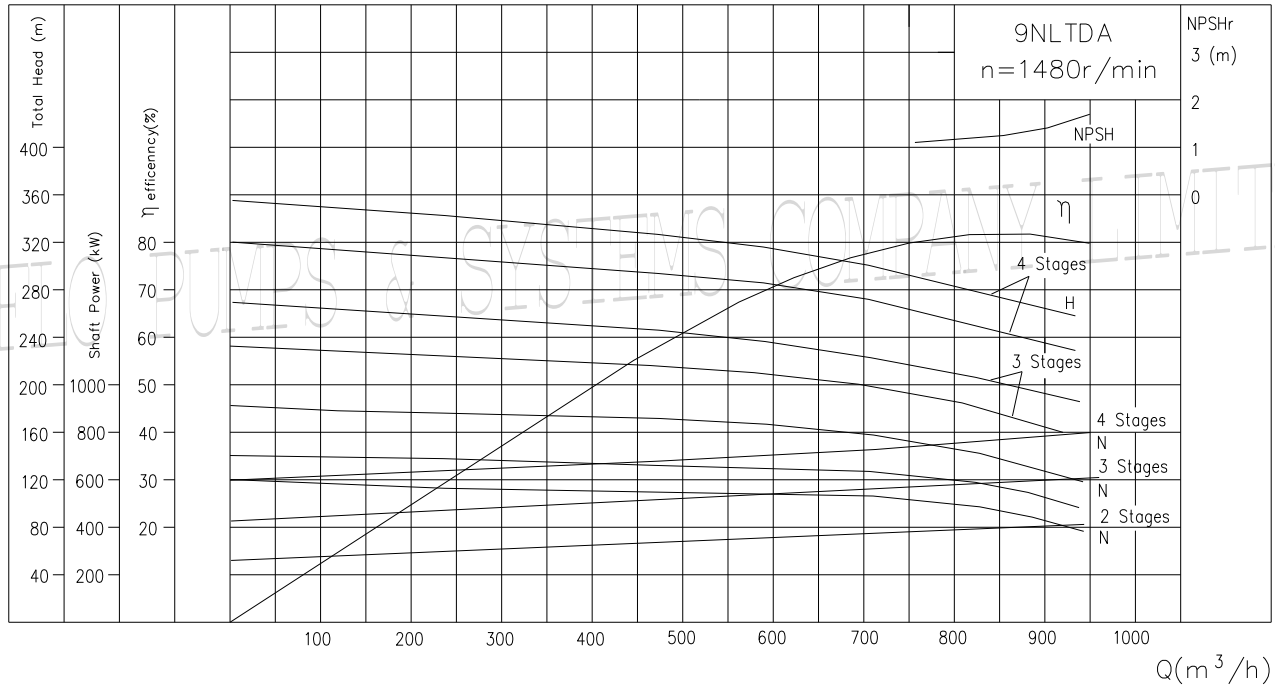
Performance Curves



Performance Curves



Performance Curves



Performance Data Charts & Weights (Partial)

MODEL	CAPACITY	HEAD	SPEED	EFF.	NPSH	MOTOR POWER	OUTLINE DIM	TOTALW	Q. X C.	NOTE			
	m ³ /h	m	r/min	%	* m	kw	OD. X TH.	t					
6NLTD-4	160	48	1480	75	1.6	55	Φ426 X 4625	2	2 X 100% (50MW) 3 X 50% (100MW)	THE PRICE WITH SYMBOL* ARE BASED ON CENTRE OF SUCTION FLANGE			
6NLTD-5		60											
6NLTD-6		72											
6NLTD-7		84											
6NLTD-8		96				100							
6NLTD-9		108											
6NLTD-10		120											
6NLTD-11		132											
7NLTD-3	410	63	78	1.5	160	Φ680 X 5696	5.5	2 X 100% (100MW) 3 X 50% (200MW)					
7NLTD-4	350	100	75	1	225								
7NLTD-5		125			250								
7NLTD-6		150											
7NLTD-7		175											
7NLTD-7-A		275					175		76	1.5			
8NLTD-2A		530			52		1485		1.11	160	Φ830 X 7575	9	2 X 100% (200MW)
8NLTD-3	560	86	73	250	10								
8NLTD-4		114	75	315	11								
8NLTD-5		142	76	400									
8NLTD-6Z		170											
9NLTD-2	900	79	1480	0.2	315	Φ960 X 8515	10.2	2 X 100% (300MW)					
9NLTD-2A		74											
9NLTD-2B	745	68							78				
9NLTD-2C	900	84							74				
9NLTD-3	850	109			77	400							
9NLTD-3A		87											
9NLTD-3B	750	80			75	315							
9NLTD-4	870	166			77	630	Φ960 X 8838		13.5				
9NLTD-5		205			77	710							
9NLTD-6		244			78	800							
9NLTD-6A		816	250	1000									
9NLTD-7	869	270	80	0.8	560	Φ1200 X 10230	14	2 X 100% (600MW)					
10NLTD-2	1660	84	80	0.8	1000								
10NLTD-3	1677	161	81	1000	Φ1200 X 10400								
10NLTD-4		216	82	1400									
10NLTD-5		271	82	1800									
9NLTD-2	870	135	1480	1.4	560	Φ960 X 8913	12	2 X 100% (300MW)					
9NLTD-2A		110			400								
9NLTD-2V	900	84			315				10.2				
9NLTD-3	870	200			81				710	13			
9NLTD-3U		176			81				630	12			
9NLTD-4		270			82				1000	13.5			
9NLTD-4U		240			82				800	13			
10NLTD-2V	1660	84			83				0.8	560	Φ1200 X 10230	14	2 X 100% (600MW)
10NLTD-3U	1680	160								1000		14.5	
10NLTD-4U		216								1600	15		
10NLTD-5U	1680	270	1600	15.5									
10NLTD-6U		326	2000	16									

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Installation Dimensions

MODEL	H	H ₁	H ₂	H ₃	H ₄	H ₅	H ₆	H ₇	H _M	A	A ₁	A ₂	B1 X B1	B2 X B2	n ₄ -d ₄
6NLTD-4	3040	440			500	100	80	210	1145	426	380	500	800 X 800	600 X 600	4-F34
6NLTD-5															
6NLTD-6															
6NLTD-7															
6NLTD-8															
6NLTD-9															
6NLTD-10															
6NLTD-11	3280			2000											
				2367											
7NLTD-3	3360	836		1765	1000	170	120	310	1500	680	520	600	1200 X 1200	950 X 950	4-F48
7NLTD-4															
7NLTD-5															
7NLTD-6															
7NLTD-7															
8NLTD-2	4175	942	200	2390	975	230	175	392	2120	830	800	650	1500 X 1500	1200 X 1200	4-F48
8NLTD-2															
8NLTD-3															
8NLTD-4															
8NLTD-5															
8NLTD-6Z			300						2158						
9NLTD-2	5335	860	200	3500	1000	340	135	380	2120	960	600	920	1600 X 1600	1400 X 1400	4-F54
9NLTD-3															
9NLTD-4															
9NLTD-5															
9NLTD-6															
9NLTD-7			505						2138			970			
10NLTD-2	5900	900	700	4000	1100	300	100	500	2724	1200	750	820			
10NLTD-3															
10NLTD-4															
10NLTD-5															
9NLTDA-2	5335	770	670	3585	1000	340	135	380	2138	960	600	970	1600 X 1600	1400 X 1400	4-F54
9NL TDA-2U															
9NL TDA-2V															
9NL TDA-3															
9NL TDA-3U															
9NL TDA-4															
9NL TDA-4U															
10NL TDA-2V									2138						
10NL TDA-2V	5900	900	700	4000	1100	300	100	500	2724	1200	750	820			
10NL TDA-3V															
10NL TDA-4U															
10NL TDA-5U															
10NL TDA-6U															
10NL TDA-6U															

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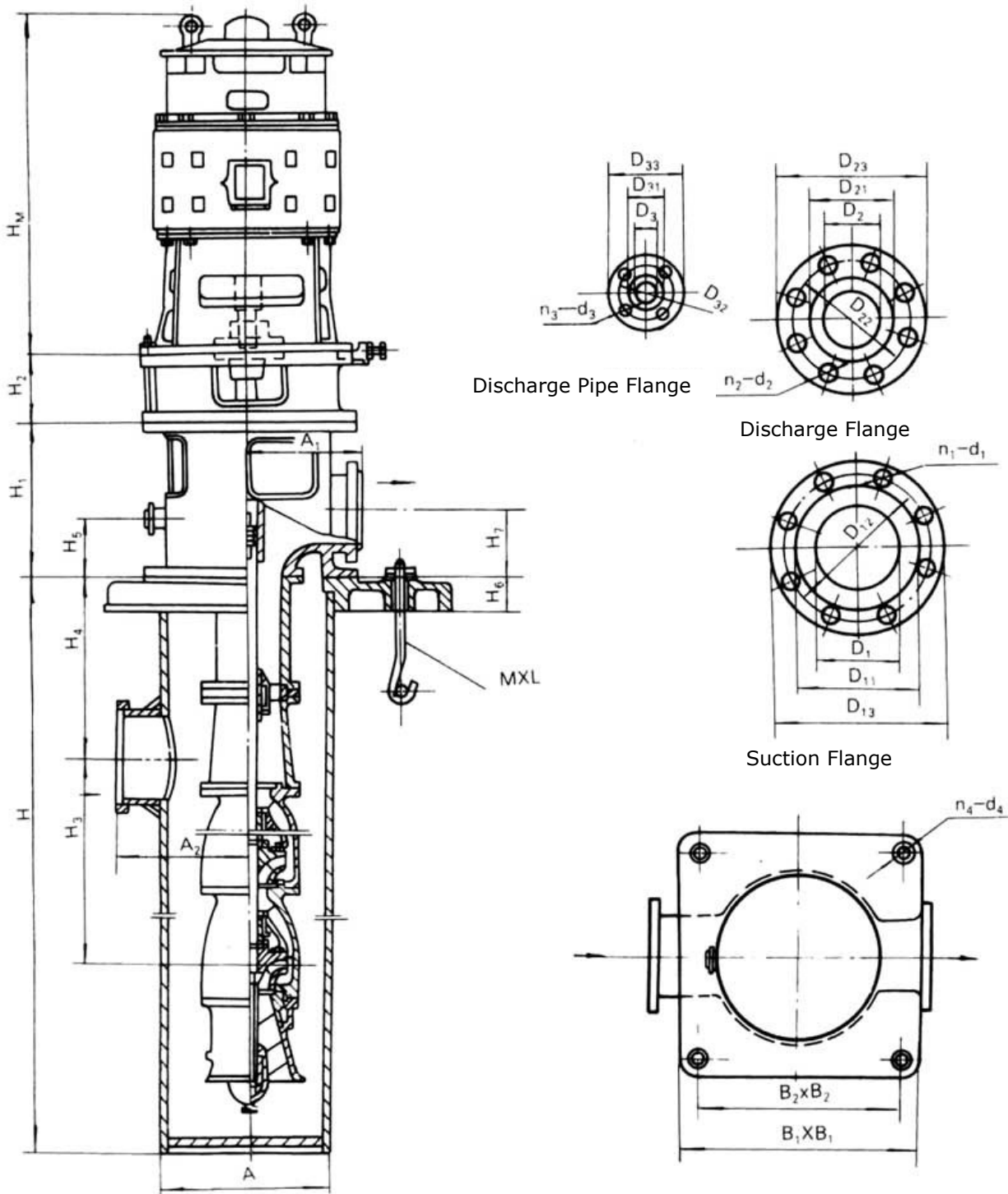
Installation Dimensions

MODEL	SUCTION FLANGE					DISCHARGE FLANGE					DESTEAMING PIPE FLANGE					ANCHOR BOLT	MOTOR			
	D ₁	D ₁₁	D ₁₂	D ₁₃	n ₁ -d ₁	D ₂	D ₂₁	D ₂₂	D ₂₃	n ₂ -d ₂	D ₃	D ₃₁	D ₃₂	D ₃₃	n ₃ -d ₃	MXL	MODEL	POWER KW	VOLTAGE V	
6NLTD-4	200	255	280	315	8-F18	150	210	240	280	8-F23	25	60	75	100	4-F12		JLB ₂ -83-4	55	380	
6NLTD-5																				
6NLTD-6																				
6NLTD-7																				
6NLTD-8																				
6NLTD-9																				
6NLTD-10																				
6NLTD-11																				
7NLTD-3	350	412	445	485	12-F23	250	332	370	425	12-F30	90	110	140	4-F14	M42 X 800		YL355-4	160	6000	
7NLTD-4																				
7NLTD-5																				
7NLTD-6																				
7NLTD-7																				
8NLTD-2	450	532	565	615	20-F25	300	390	430	485	16-F30	50	100	125				YL355-4	160	6000	
8NLTD-2																				
8NLTD-3																				
8NLTD-4																				
8NLTD-5																				
8NLTD-6Z																				
9NLTD-2																				
9NLTD-2	500	568	600	640	13-F23	350	465	510	570	16-F34	65	110	130				YLST450-4	315	6000	
9NLTD-3																				
9NLTD-4																				
9NLTD-5																				
9NLTD-6																				
9NLTD-7																				
10NLTD-2																				
10NLTD-2	800	880	920	975	24-F30	500	612	670	755	20-F48	80	125	150	185	4-F18			YLST500-4	400	6000
10NLTD-3																				
10NLTD-4																				
10NLTD-5																				
9NLTDA-2																				
9NLTDA-2U	500	568	600	640	16-F23	350	465	510	580	16-F37	65	118	145				M48 X 1000	YL400-4	560	6000
9NLTDA-2V																				
9NLTDA-3																				
9NLTDA-3U																				
9NLTDA-4																				
9NLTDA-4U																				
10NLTDA-2V																				
10NLTDA-2V	800	880	920	975	24-F30	500	612	670	755	20-F48	80	125	150					YLST450-4	710	6000
10NLTDA-3V																				
10NLTDA-4U																				
10NLTDA-5U																				
10NLTDA-6U																				
10NLTDA-6U																				

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Installation Drawings



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