

naklank

ANSI B 73.1M STANDARD

New Series

NSTR. NMTR. NLTR. NXTR.



Naklank Engineering

Plot No. 312, II Phasa G.I.D.C. Gundlav - 396 035, Valsad, Gujarat.
Email : naklankpumps@gmail.com, Website : www.naklankpumps.in
Mo. +91 99784 44236, +91 88068 08545.

naklank



**Manufacturing Of :
Investmentcast Chemicals Process Pumps**

SEMI OPEN IMPELLER



- Semi Open Radial impellers for higher efficiencies
- Smooth back veins and balanced holes reduces load on shaft and bearings.
- Helps in smooth passage of clear Liquids and slurries.

STUFFING BOX OPTIONS



Standard Bore :
Designed for packing.
Also accommodates Mechanical Seals.



Taper Bore (Conical Stuffing Box) :
Lower Seal face temperatures, self-venting
& draining. Solids & Vapours Circulated away from seal faces.



Big Bore : Enlarged chamber for
increased seal life through improved
lubrication & cooling.

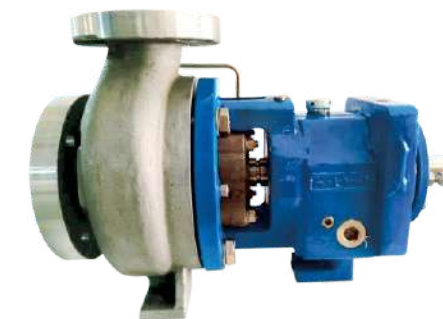
DYNAMIC SEALING ARRANGEMENT

- For handling slurries / solids up to 35-40%
- Eliminate use of slurry mechanical seals and also eliminates pumpage contamination and product dilution

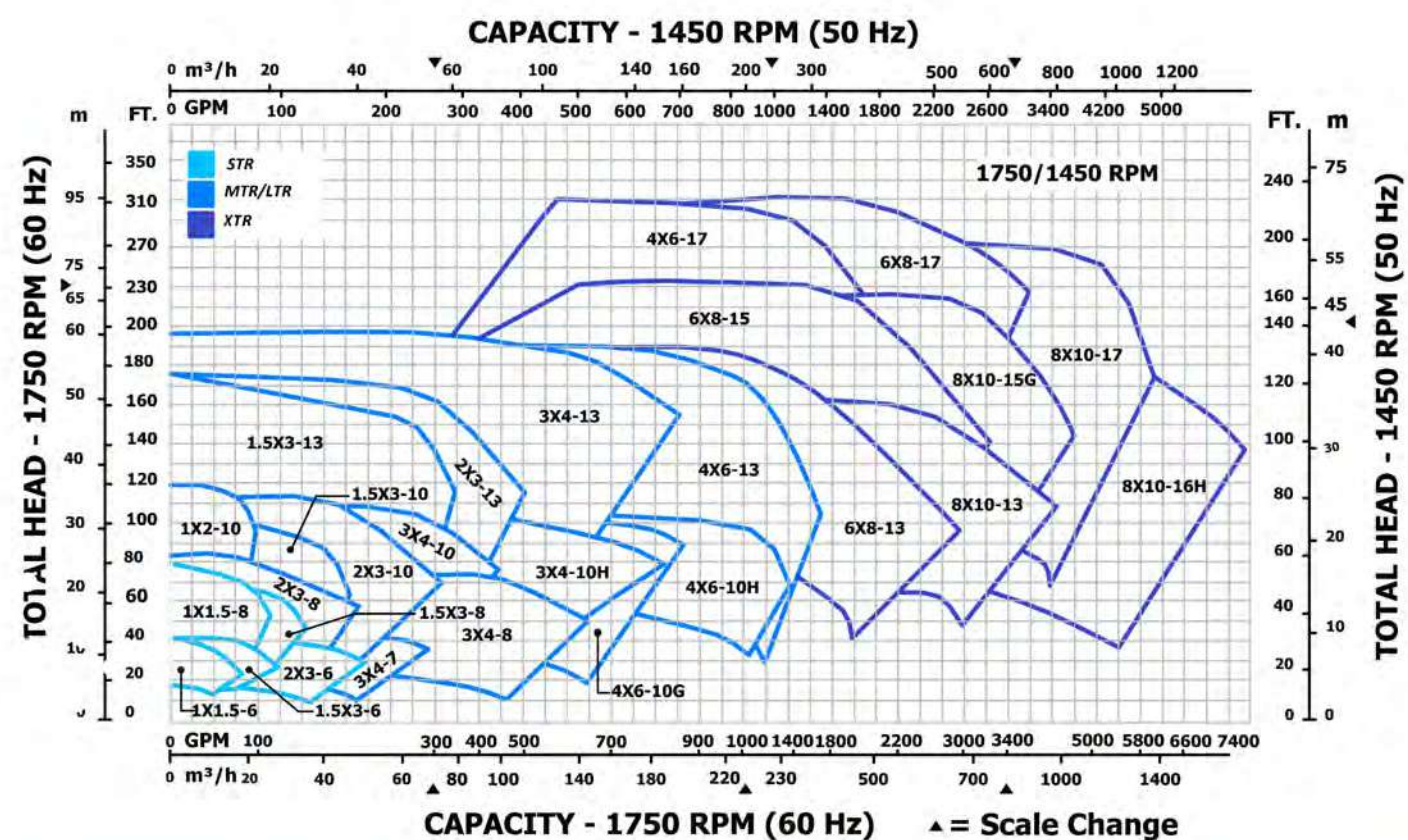
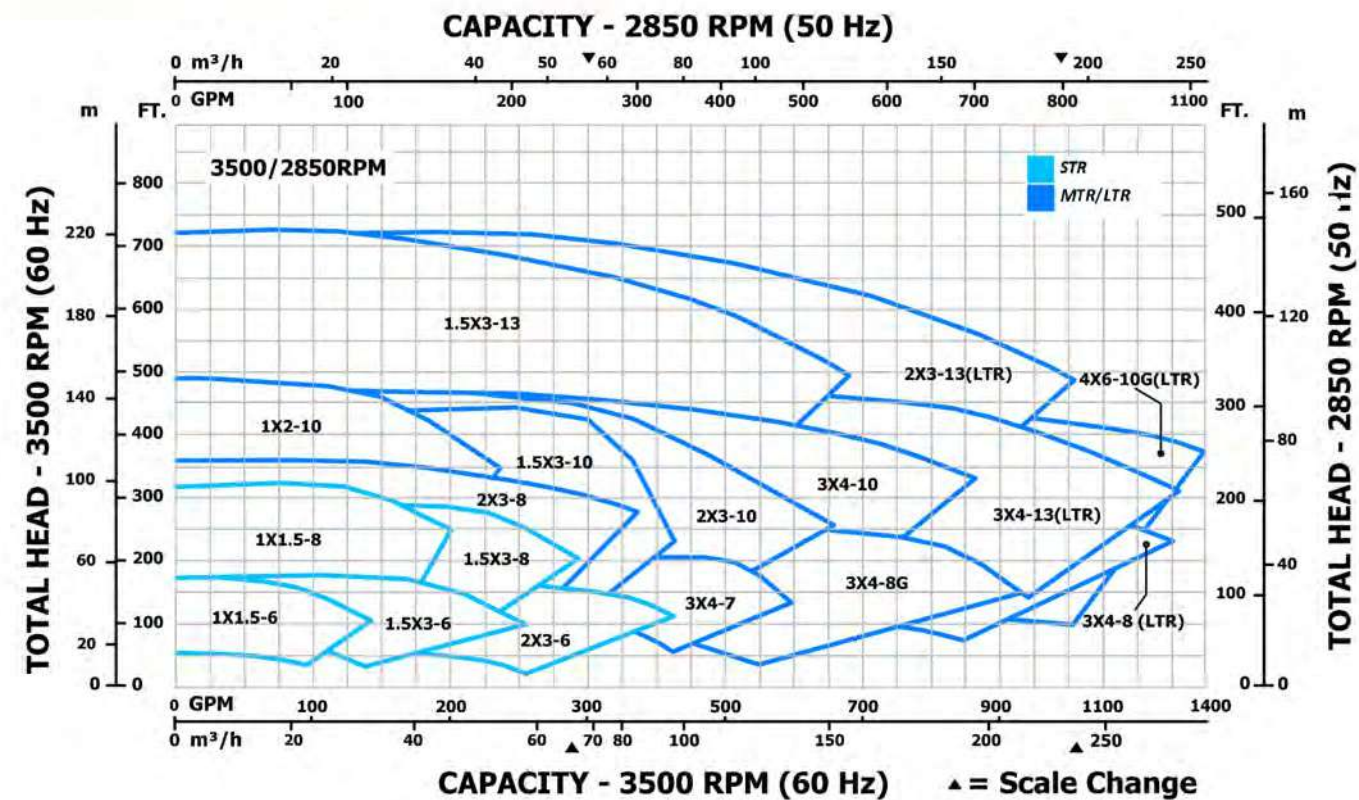


Why Naklank ?

- Precision parts to closest tolerances.
- On-time global & domestic deliveries.
- Offered in wide range of alloys.
- Wide range of process applications.
- Global distribution & service network.
- 30+ Years of Pump Manufacturing Experience.



PERFORMANCE CURVES



CONSTRUCTION DETAILS

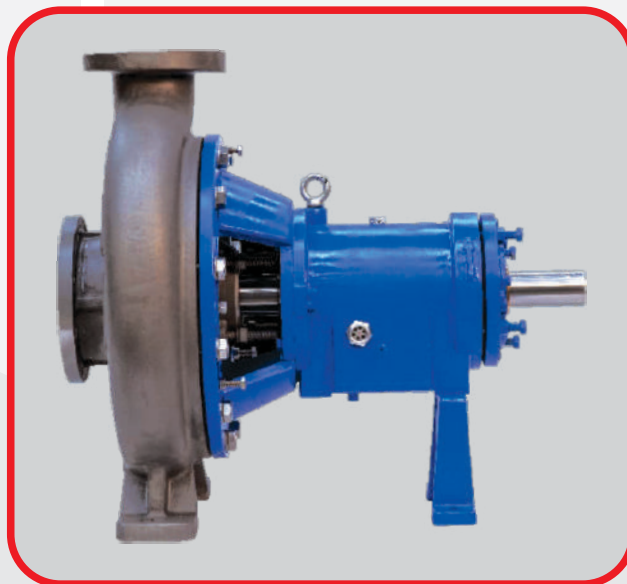
		STR	MTR	LTR	XTR
Shaft	Diameter at Impeller	0.75 (19)	1 (25)	1.25 (32)	1.5 (38)
	Diameter in Stuffing Box/Seal Chamber (Less Sleeve) (With Sleeve)	1.375 (35) 1.125 (29)	1.75 (45) 1.5 (38)	2.125 (54) 1.875 (48)	2.5 (64) 2 (51)*
	Diameter Between Bearings	1.5 (38)	2.125 (54)	2.5 (64)	3.125 (79)
	Diameter at Coupling	0.875 (22)	1.125 (29)	1.875 (48)	2.375 (60)
	Overhang	6.125 (156)	8.375 (213)	8.375 (213)	9.969 (253)
	Maximum Shaft Deflection	0.002 (0.05)			
	Shaft Deflection Index (L^3/D^4) (With Sleeve) (Less Sleeve)	143 64	116 63	48 29	62 25
Sleeve	O.D. thru Stuffing Box/Seal Chamber	1.375 (35)	1.75 (45)	2.125 (54)	2.5 (64)*
Bearings	Radial	6207	6309	6311	6313
	Thrust	3306	3309	7310	3313
	Bearing Span	4.125 (105)	6.75 (171)	6.875 (164)	9.25 (235)
BigBore Seal Chamber	Bore	2.875 (73)	3.5 (89)	3.875 (98)	4.75 (120)*
Stuffing Box	Bore	2 (51)	2.5 (64)	2.875 (73)	3.375 (86)*
Power Limits	HP (kW) per 100 RPM	1.1 (.82)	3.4 (2.6)	5.6 (4.2)	14 (10.5)**
Temperature	Maximum Liquid Temperature – Oil/Grease Lubrication without Cooling	350°F (177°C)			
	MAWP PSI (kPa)	up to 280 PSI (1931 kPa) at 100°F with 150 # flanges			
		Up to 375 PSI (2586 kPa) at 100°F with 300 # flange			
		°Consult Pressure Temperature chart for various temperature			
Casing	Maximum Liquid Temperature – Oil Lubrication with High Temp. Option	700°F (370°C)			
	Corrosion Allowance	.125 (3)			

* 17 inch sizes have 2.25 inch (57) shaft diameters in stuffing box/seal chamber with sleeve. shaft sleeve O.D. is 2.75 inches (70) for packing and 2.5 inches (64) for mechanical seals. seal chamber bore is 4.75 inches (121). stuffing box bore is 35/8 inches (92)

** 17 inch sizes power limit per 100 RPM is 20 HP (15kW).

All dimensions in inches and (mm). Not to be used for construction

HIGH CAPACITY PUMPS



- Concentric Casing.
- Semi Open Impeller.
- High efficiency capacities.
- Maximum Capacity : Up to 1000 m3/hr.
- Maximum Head : Up to 150 mtr.
- Offer in 2900/1440 RPM @ 50 Hz.
- Offer in 960/1750/3500 RPM @ 60 Hz.

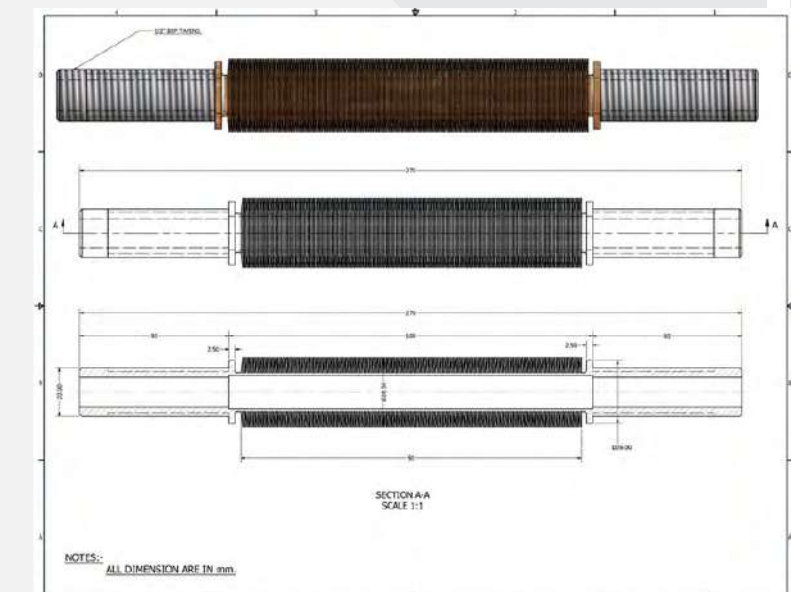
AVAILABLE RANGE

- NSTR Series Offer with Expeller Design
- NMTR/NLTR Series Offer with Expeller Design
- NXTR Series Offer with Expeller Design
- NSCP-NMD Series
- NSCP-NSM Series
- NSCP-NLC Series
- NCIP-1/2/3 Close Impeller Series (ISO-2858)
- NTCIP-1/2 Thermic Fluid Pumps
- NSPP/NSTP-Self Priming Pumps Series (Horizontal & Vertical)

JACKETS FOR CASING & ST BOX FOR (HIGH TEMPERATURE & CRYSTALLISING LIQUIDS)



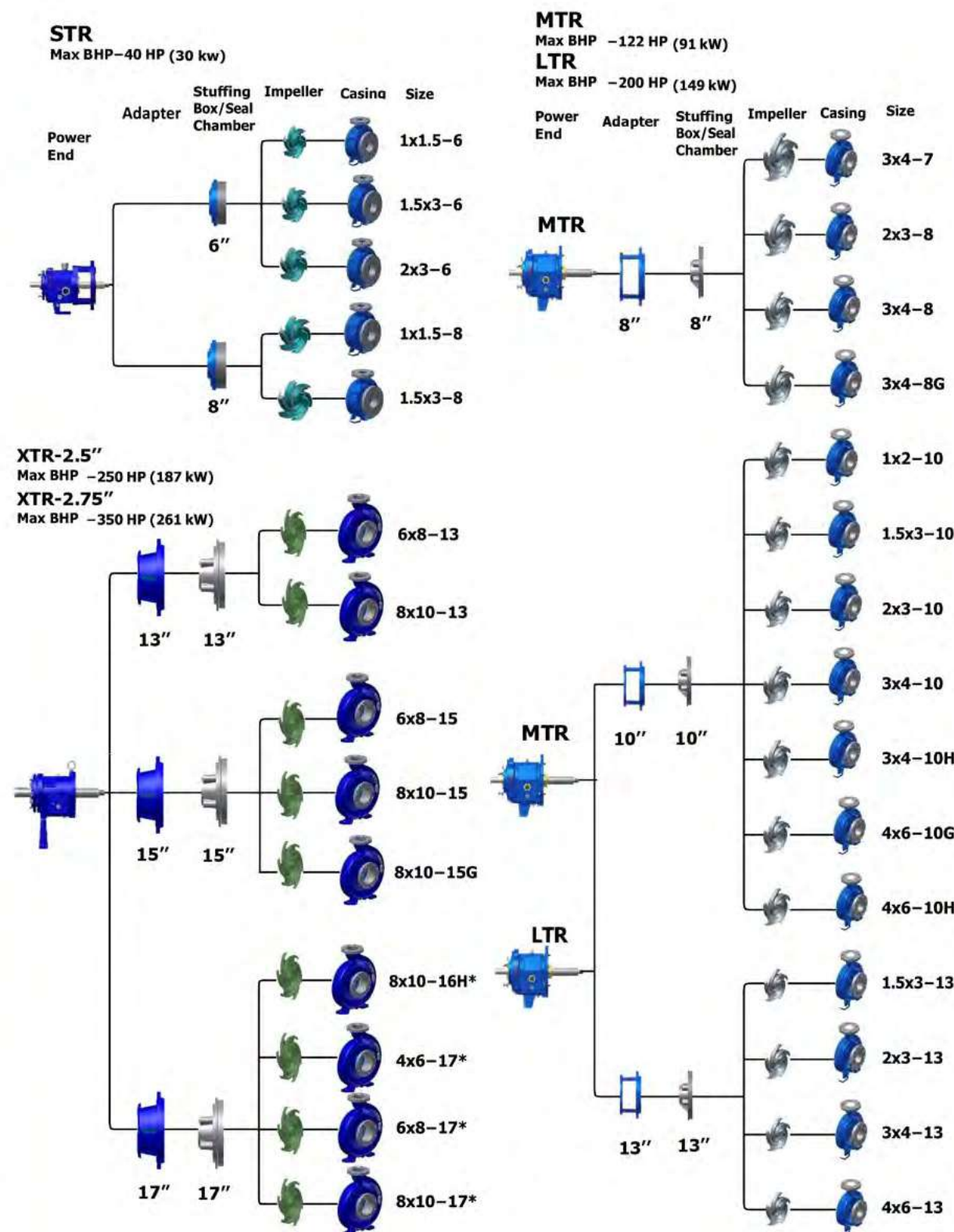
FINNED TUBE COOLER ASSEMBLY FOR HIGH TEMPERATURE APPLICATIONS



ADDITIONAL FEATURES

- 300 Class Flanges can be offered as optional with the same ANSI Pump Casings for high pressure requirements.
- Labyrinth seals (Bearing Protectors) are Provided as Standard Feature in various material to suit the outside environment.
- Non Wet ends can be offered in 304SS/316SS and other Alloys.

MODULAR INTERCHANGEABILITY



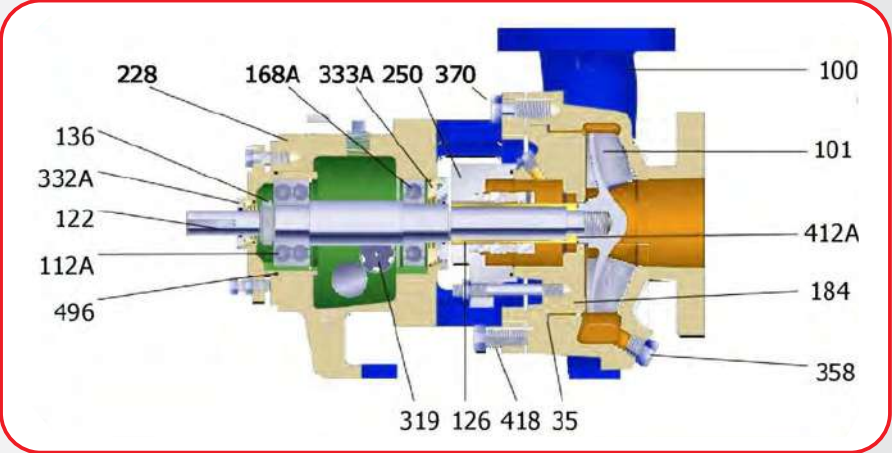
*Uses 350 BHP shaft.

PART LIST & MATERIALS OF CONSTRUCTION

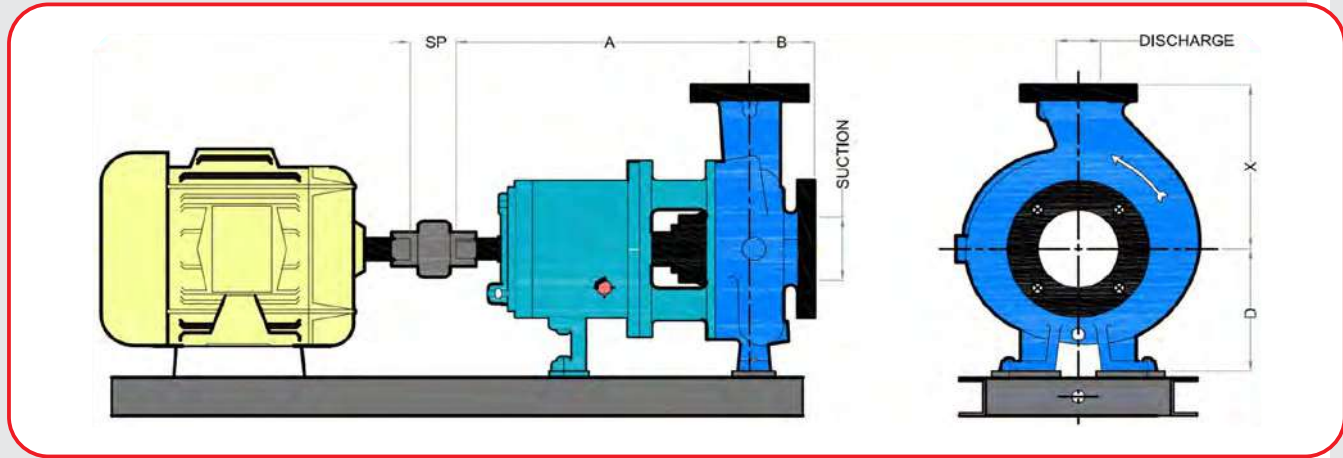
Item Number	Part Name	Material							
		CS	316SS	CD4MCuN/DuplexSS	Alloy 20	Monel	Nickel	Hastelloy B&C	Titanium
100	Casing	CS	316SS	CD4MCuN/DuplexSS	Alloy 20	Monel	Nickel	Hastelloy	Titanium
101	Impeller	CS	316SS	CD4MCuN/DuplexSS	Alloy 20	Monel	Nickel	Hastelloy	Titanium
105	Lantern Ring	Glass-Filled PTFE							
106	Stuffing Box Packing	PTFE							
108	Frame Adapter	Ductile Iron							
112A	Thrust Bearing	Double Row Angular Contact**							
122	Shaft - Less Sleeve (Optional)	316SS			Alloy 20	Monel	Nickel	Hastelloy	Titanium
122	Shaft - With Sleeve	SAE4140/316SS				316SS			
126	Shaft Sleeve	316SS		CD4MCuN/DuplexSS	Alloy 20	Monel	Nickel	Hastelloy	Titanium
136	Bearing Locknut and Lock washer	Steel							
168A	Radial Bearing	Single row Deep Groove							
184	Stuffing Box Cover (Packed Box)	CS	316SS	CD4MCuN/DuplexSS	Alloy 20	Monel	Nickel	Hastelloy	Titanium
184	Seal Chamber (Mechanical Seal)	CS	316SS	CD4MCuN/DuplexSS	Alloy 20	Monel	Nickel	Hastelloy	Titanium
228	Bearing Frame	Ductile Iron							
250	Gland	CS	316SS	CD4MCuN/DuplexSS	Alloy 20	Monel	Nickel	Hastelloy	Titanium
262	Repeller/Sleeve (Dynamic Seal Option)	316SS		CD4MCuN/DuplexSS	Alloy 20	Monel	Nickel	Hastelloy	Titanium
264	Gasket, Cover-to-Back plate (Dynamic Seal)	PTFE							
370H	Stud/Nut, Cover-to-Adapter	304SS							
319	Oil Sight Glass	Glass/Aluminium							
332A	Labyrinth Oil Seal (Outboard)	Stainless Steel/Bronze							
333A	Labyrinth Oil Seal (inboard)	Stainless Steel/Bronze							
351	Casing Gasket	PTFE							
358	Casing Drain Plug (Optional)	316SS		CD4MCuN/DuplexSS	Alloy 20	Monel	Nickel	Hastelloy	Titanium
360F	Gasket, Frame-to-Adapter	Natural Rubber							
360C	Gasket, Bearing End Cover	Oil Paper Gasket							
370	Cap Screw, Adapter-to-Casing	Steel							
412A	O-ring, Impeller	Glass-Filled PTFE							
418	Jacking Bolt	304SS							
444	Back plate (Dynamic Seal Option)	CS	316SS	CD4MCuN/DuplexSS	Alloy 20	Monel	Nickel	Hastelloy	Titanium
469B	Dowel Pin, Frame-to-Adapter	Steel							
496	O-ring, Bearing Housing	Buna Rubber							

*NLTR Power End features standard Duplex Angular Contact : Optional NSTR, NMTR, NXTR Other Alloys Available : 304SS/316L/317L/904L etc.

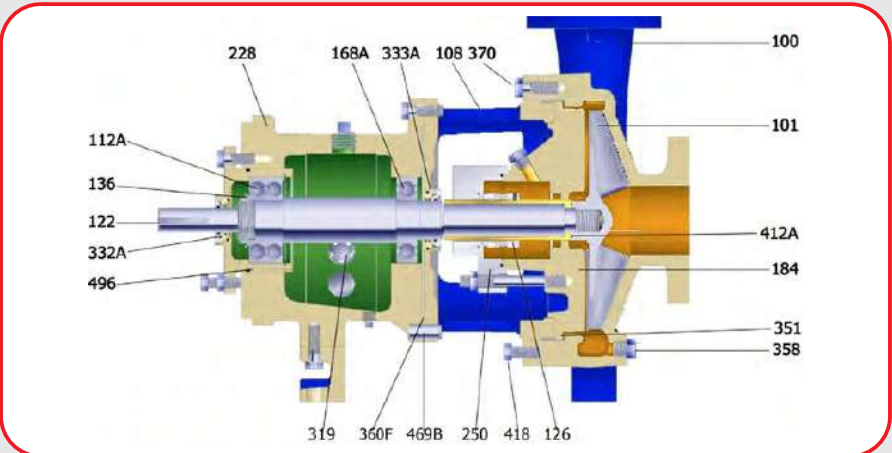
NSTR



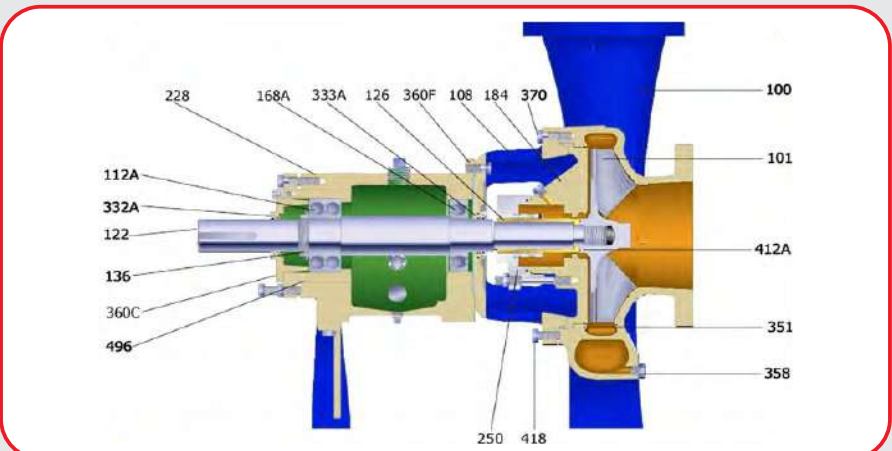
DIMENSIONS



NMTR / NLTR



NXTR



DIMENSIONS

DIMENSIONS										
Group	Pump Size	ANSI Designation	Discharge Size	Suction Size	X	A	B	D	SP	Bare Pump Weight Lbs. (kg)
NSTR	1x1.5-6	AA	1	1.5	6.5 (165)	13.5 (343)	4 (102)	5.25 (133)	3.75 (95)	104 (47)
	1.5x3-6	AB	1.5	3						110 (50)
	2x3-6	AC	2	3						106 (48)
	1x1.5-8	AA	1	1.5						115 (52)
	1.5x3-8	AB	1.5	3						121 (55)
NMTR/NLTR	3X4-7	A70	3	4	11 (280)	19.5 (495)	4 (102)	8.25 (210)	3.75 (95)	236 (107)
	2X3-8	A60	2	3	9.5 (242)					231 (105)
	3X4-8	A70	3	4	11 (280)					242 (110)
	3X4-8G	A70	3	4						
	1X2-10	A05	1	2						
	1.5X3-10	A50	1.5	3	8.5 (216)	264 (120)				
	2X3-10	A60	2	3	9.5 (242)	275 (125)				
	3X4-10	A70	3	4	11 (280)	287 (130)				
	3X4-10H	A40	3	4	12.5 (318)	19.5 (495)	4 (102)	10 (254)		353 (160)
	4X6-10G	A80	4	6	13.5 (343)					375 (170)
	4X6-10H	A80	4	6						
	1.5X3-13	A20	1.5	3	10.5 (267)					326 (148)
	2X3-13	A30	2	3	11.5 (292)					348 (158)
	3X4-13	A40	3	4	12.5 (318)					357 (162)
4X6-13	A80	4	6	13.5 (343)	386 (175)					
NXTR	6X8-13	A90	6	8	16 (406)				27.875 (708)	6 (152)
	8X10-13	A100	8	10	18 (457)	805 (365)				
	6X8-15	A110	6	8		732 (332)				
	8X10-15	A120	8	10	19 (483)	794 (360)				
	8X10-15G	A120	8	10		1098 (498)				
	8X10-16H	A120	8	10		1098 (498)				
	4X6-17	A105	4	6	16 (406)	705 (320)				
	6X8-17	A110	6	8	18 (457)	838 (380)				
	8X10-17	A120	8	10	19 (483)	926 (420)				

All dimensions in inches and (mm). Not to be used for construction