

APPLICATIONS

Crude oil
 Hydrocarbon
 Liquefied gas
 Fire fighting
 Cooling circuit
 Sea water

DESIGN

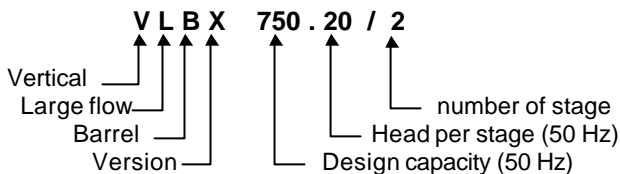
Vertical shaft pump with or without barrel (suction can)
 Multistage with single suction mixed flow impeller
 Discharge elbow above or under the support level
 Inducer in option

OPERATING DATA

DN (discharge)	mm	250 to 800
	inches	10 to 32
Capacity	m ³ /h	300 to 8000
	USgpm	1300 to 35000
TDH (head)	m	up to 350
	ft	" 1150
Discharge pressure	bar	up to 55
	psi	" 800
Temperature (standard)	°C	- 50 to + 200
	°F	- 60 to + 390
option	°C	- 110 to + 300
	°F	- 170 to + 570

DESIGNATION

VLX : without barrel
 VLBX : with barrel



MATERIAL

- According to API 610 – last edition :
 I1, S1, S5, S6, S8, A8, D1, D2
- Specific construction for cryogenic and sea water applications

SHAFT SEAL

Mechanical seal or packing

BEARINGS

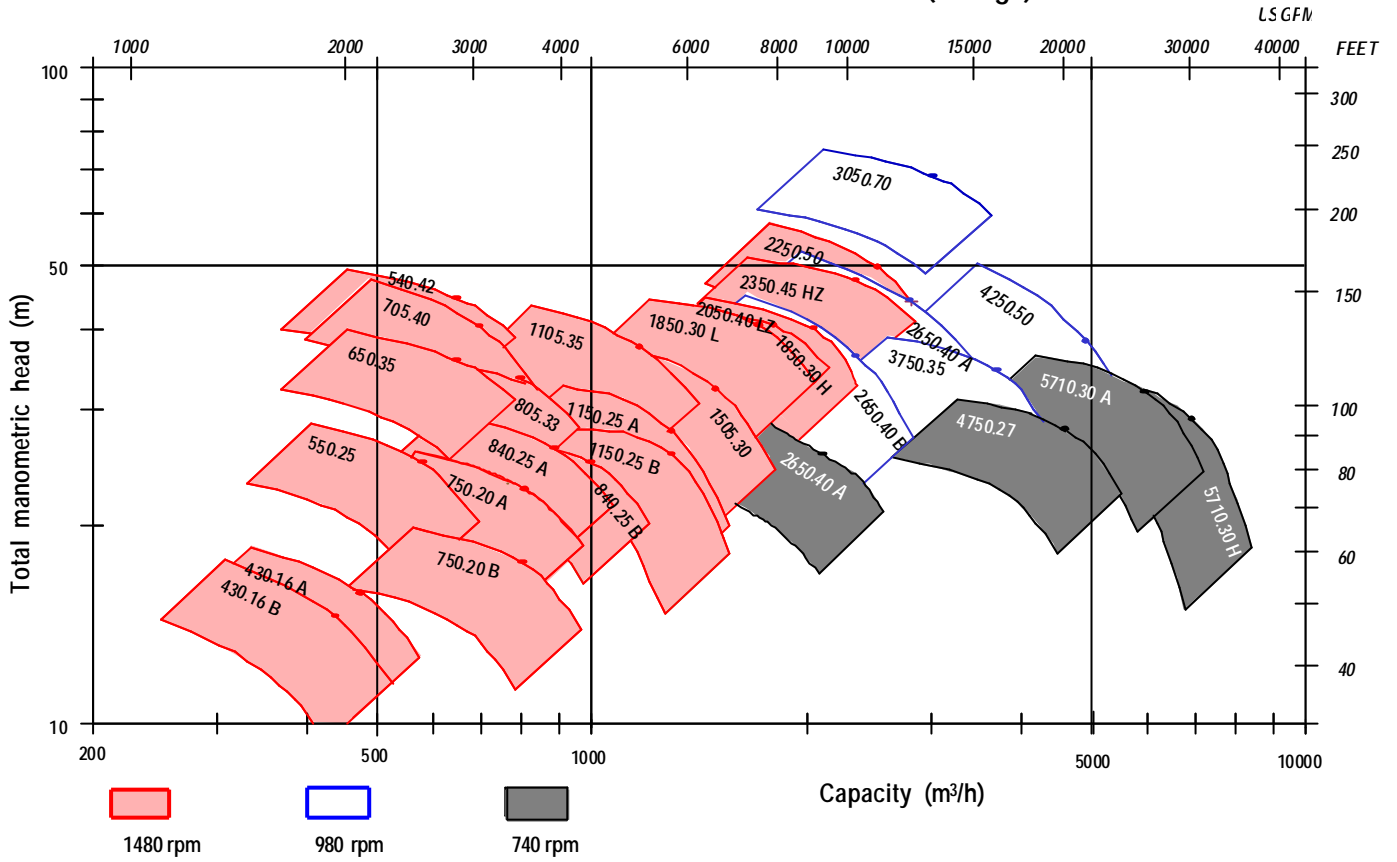
Radial : sleeve bearing on transmission shaft
 Axial thrust : ball bearing in pump (except right angle gear construction) or inside motor if required
 Oil lubricated

DRIVE

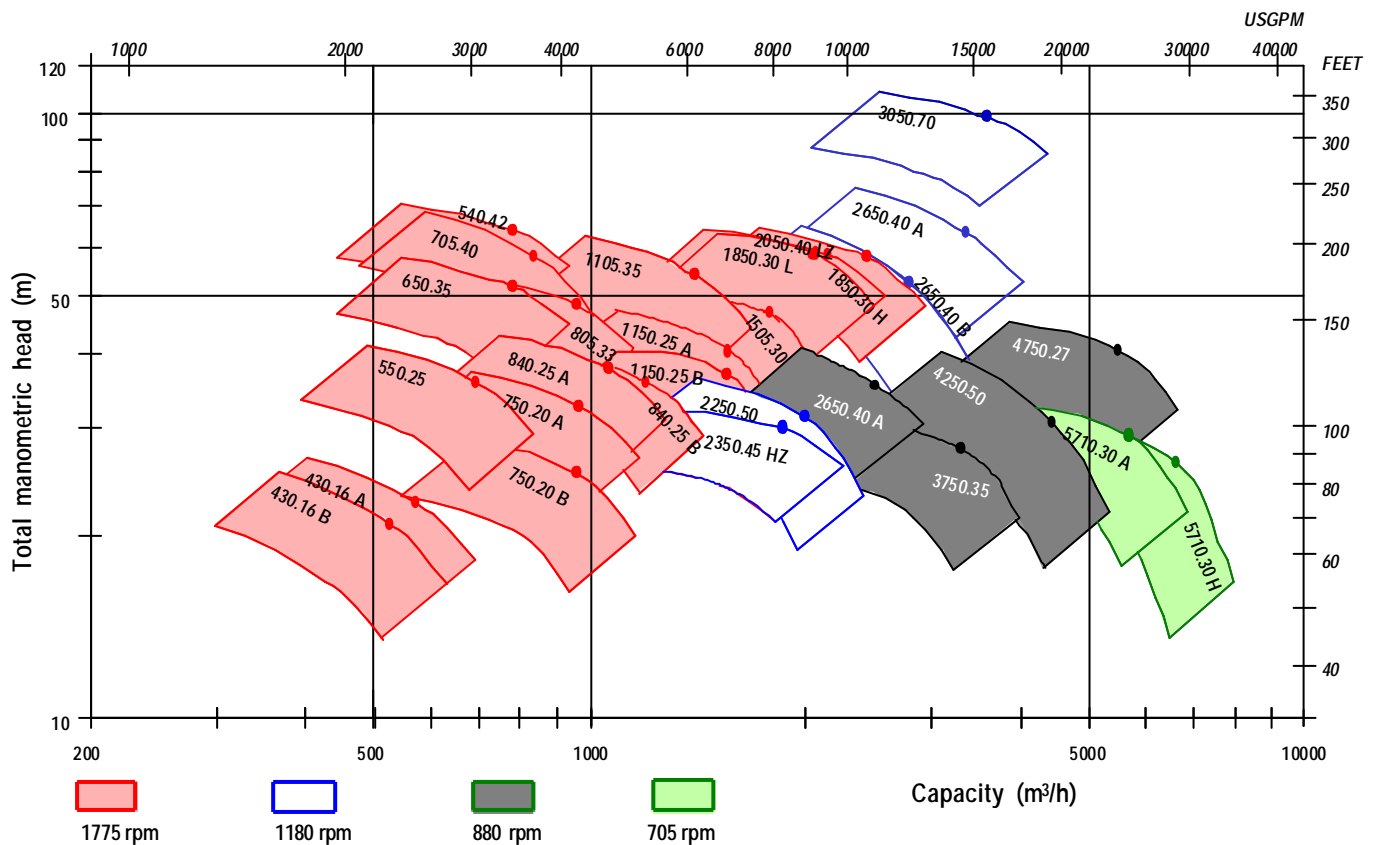
Vertical standard solid shaft electric motor
 Possible with hollow shaft for NFPA 20
 Diesel engine or turbine with right angle gear



HYDRAULIC CHARACTERISTICS 50 Hz (1 stage)

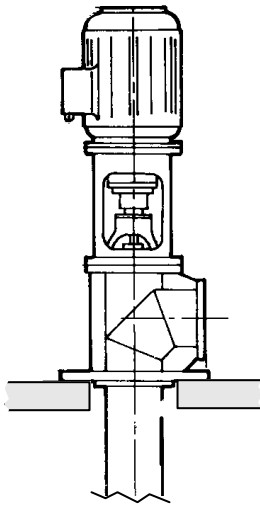


HYDRAULIC CHARACTERISTICS 60 Hz (1 stage)

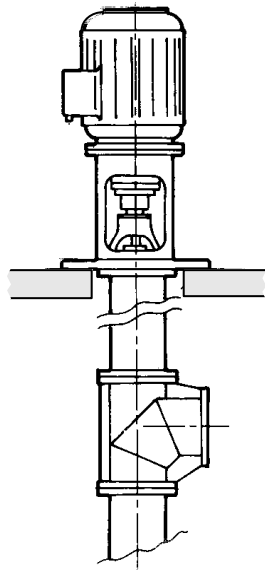


EXAMPLES of POSSIBLE CONFIGURATIONS

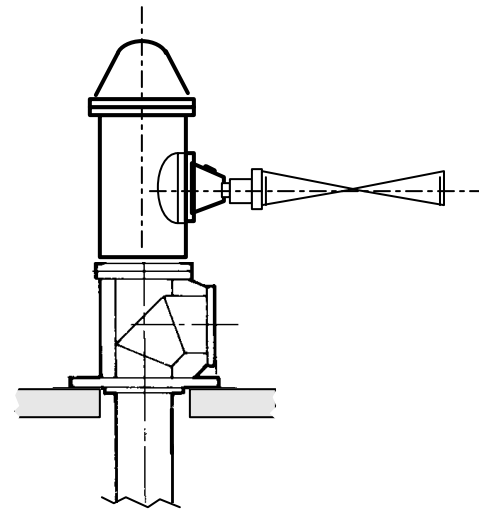
UPPER DISCHARGE



LOWER DISCHARGE



RIGHT ANGLE GEAR DRIVE



MAIN PARTS MATERIAL

DESIGNATION	API 610								SEA WATER applications	
	I - 1	S - 1	S - 5	S - 6	S - 8	A - 8	D - 1	D - 2	Ni-resist (4)	Alu. Bronze (4)
Motor stool	Carbon steel								Carbon steel	
Drive shaft	Carbon steel	Alloy carbon steel	Chrome steel	Austenitic stainless steel		Duplex	Super Duplex	Duplex	Monel K500	
Pump shaft				Austenitic stainless steel						
Transmission shaft	Carbon steel		Chrome steel	Austenitic stainless steel		Duplex	Super Duplex	Ni-resist	Aluminium bronze	
Suction impeller	Cast iron	Carbon steel		Austenitic stainless steel						
Stage impeller	Carbon steel	Chrome steel	Austenitic stainless steel		Duplex	Super Duplex	Ni-resist	Alu. bronze		
Diffuser bowl			Austenitic stainless steel						Duplex	Super Duplex
Shaft sleeve	Chrome steel hardened			Austenitic stainless steel		Duplex	Super Duplex	Duplex		
Diffuser bowl wear ring	Cast iron	Chrome steel hard.		Austenitic stainless steel + Stellite (2) or Colmonoy					Duplex + Stellite (2)	Super Duplex + Stellite (2)
Impeller wear ring	Chrome steel hardened			Austenitic stainless steel		Duplex	Super Duplex	Ni-resist (casted) Duplex (fabricated)		
Discharge elbow	Carbon steel				Austenitic Stainless Steel				Duplex	Super Duplex
Barrel (suction can)	Carbon steel				Austenitic Stainless Steel					
Column pipe	Carbon steel				Austenitic Stainless Steel		Duplex	Super Duplex	Ni-resist (casted) Duplex (fabricated)	Alu. Bronze or fiberglass
Bearing bush	P.E.E.K									
Shaft coupling	Carbon steel + Sursulf		Chrome steel + Stanal	Duplex + Stanal			Super Duplex + Stanal	Duplex + Stanal	Monel K500	
Main bolting	Alloy carbon steel (threaded rod) + carbon steel (nut)						Duplex	Super Duplex + Stanal	Austenitic stainless steel	
Inner bolting	Austenitic stainless steel								Duplex	Duplex

1/ RAILKO for water handling pumps. Consult the Engineering Department for other product
 2/ Possible optional Stanal execution for water filtered application
 3/ According to pressure
 4/ Execution for VLX only

In accordance with API 610 last edition

