



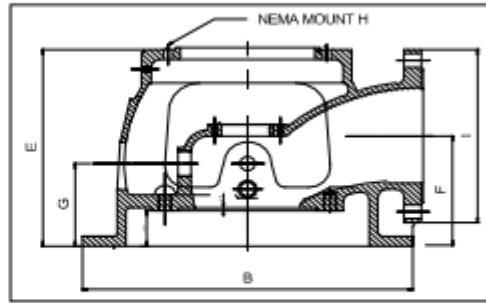
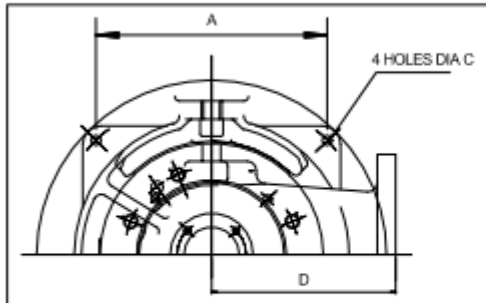
Cast Vertical Turbine Design Data



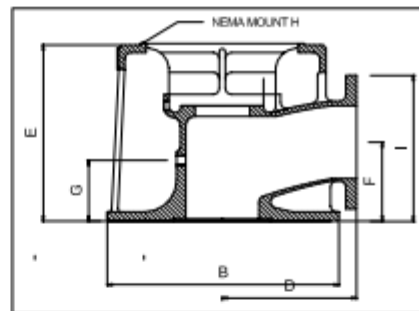
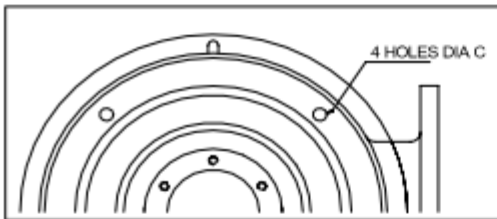


Standard Discharge Heads

Type A



Type B



Type	A	B	C	D	E	F	G	H	FLANGE
A4X10	280	432	15	228	302	152		10"	4" Table E
A6X12	320	482	15	254	318	178	133	12"	6" Table E
A8X16	400	590	15	305	419	235	133	16.5"	8" Table E
B6X16	310	483	15	279	368	165	127	16.5"	6" Table E
B8X16	310	483	15	305	394	190	127	16.5"	8" Table E
B10X16	410	635	15	356	483	267	140	16.5"	10" Table E
B12X16	410	635	15	380	559	305	140	16.5"	12" Table E



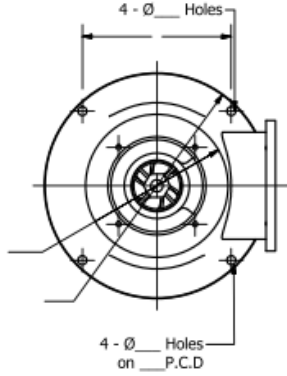
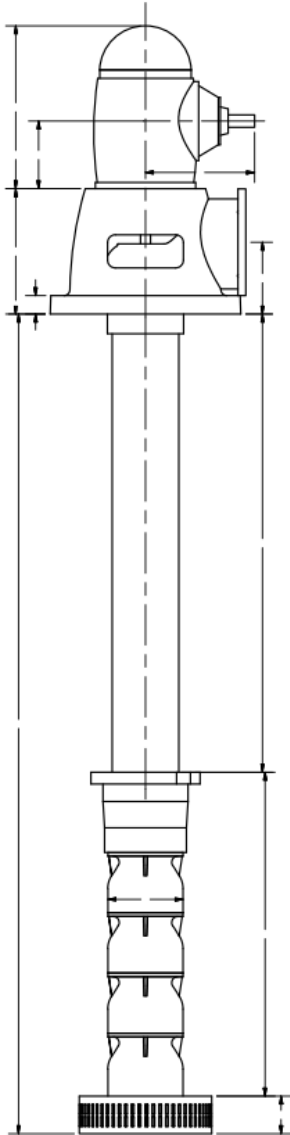
Column and Shaft Friction Loss

Friction Loss in meters per 30m of product lube column and shaft

Column	100mm		125mm		150mm			200mm			250mm			300mm			
Shaft Size	25	32	25	32	25	32	38	25	32	38	32	38	45	32	38	45	50
L/s																	
10	0.60	1.50	0.29	0.37		0.12	0.14										
12	1.30	2.20	0.44	0.53		0.15	0.17										
14	1.70	2.80	0.56	0.67	0.14	0.19	0.26										
16	2.30	3.50	0.72	0.85	0.17	0.27	0.33										
18	3.10	4.40	0.94	1.10	0.26	0.34	0.44										
20	4.20	5.50	1.10	1.30	0.33	0.42	0.55										
22			1.30	1.60	0.44	0.53	0.67										
24			1.50	1.80	0.55	0.63	0.79										
26			1.70	2.10	0.67	0.73	0.92										
28			2.00	2.40	0.79	0.83	1.05										
30			2.30	2.70	0.92	0.94	1.18										
35			2.80	3.50	1.05	1.05	1.35										
40			3.90	4.60	1.18	1.40	1.75			0.25							
45				5.60	1.35	1.80	2.43		0.25	0.31		0.12	0.15				
50					1.75	2.20	2.70	0.27	0.31	0.37	0.12	0.15	0.19				
60					2.43	2.70	3.10	0.32	0.37	0.51	0.15	0.22	0.25				
70					2.70	3.10	4.40	0.38	0.51	0.65	0.22	0.29	0.35				0.12
80					3.10	4.40		0.52	0.65	0.86	0.29	0.38	0.40			0.12	0.15
90					4.40			0.67	0.87	1.05	0.38	0.47	0.54		0.12	0.15	0.19
100								1.90	1.08	1.27	0.47	0.57	0.64	0.11	0.15	0.19	0.22
120								1.09	1.27	1.77	0.57	0.78	0.89	0.14	0.19	0.22	0.32
140								1.31	1.79	2.30	0.78	1.04	1.10	0.18	0.22	0.32	0.41
160								1.80	2.30	3.00	1.04	1.31	1.50	0.21	0.32	0.41	0.62
180								2.50	3.10	3.60	1.31	1.63	1.80	0.30	0.41	0.62	0.65
200								3.20	3.60	4.30	1.63	1.94	2.10	0.40	0.62	0.65	0.76
225								3.80	4.40		1.94	2.30	2.7	0.60	0.65	0.76	0.94
250								4.50			2.30	3	3.4	0.62	0.76	0.94	1.2
300											3	4.1	4.7	0.73	0.94	1.2	1.7
350											4.1	5.5	6.1	0.92	1.2	1.7	2.3



Vertical Turbine Gear Box Drive



DISCHARGE FLANGE

GEAR DRIVE

MAKE _____
 RATIO _____
 N.R.R. _____ NO _____
 K.W. _____ S.F. _____
 R.P.M. _____

DATE _____
 DISTRIBUTOR _____

 JOB _____

 JOB/QUOTE # _____
 QUANTITY _____

L/sec _____
 T.D.H. _____
 STRAINER TYPE _____

 BOWL MODEL # _____

 COLUMN ASSY. _____

FOUNDATION PLATE _____

 DISCHARGE HEAD _____

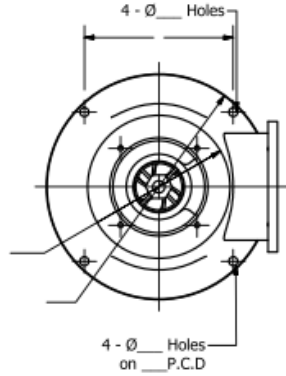
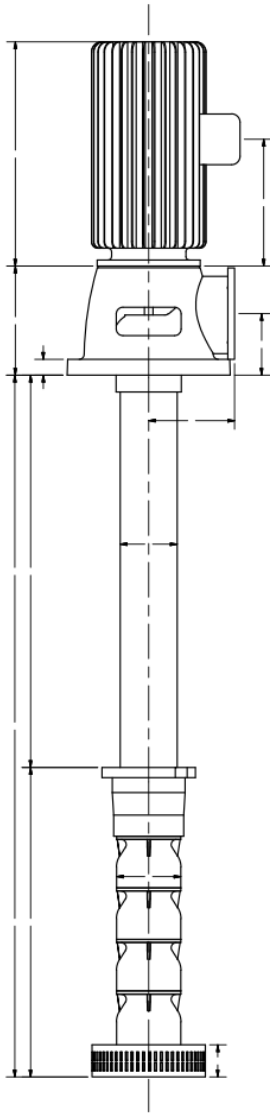
SEAL TYPE _____

 IMP. DIA _____
 IMP. TYPE _____
 SPECIAL _____

OTHER _____



Vertical Turbine Electric



DATE _____
 DISTRIBUTOR _____

 JOB _____

 JOB/QUOTE # _____
 QUANTITY _____

DISCHARGE FLANGE

MOTOR

MAKE _____
 ENCLOSURE _____
 N.R.R. OR S.R.C. _____
 K.W. _____ S.F. _____
 R.P.M. _____
 PHASE _____ CYCLE _____
 VOLTAGE _____
 V.H.S. OR V.S.S. _____
 OTHER MOTOR INFO:

L/sec _____
 T.D.H. _____
 STRAINER TYPE _____

 BOWL MODEL # _____

 COLUMN ASSY. _____

 FOUNDATION PLATE _____
 DISCHARGE HEAD _____

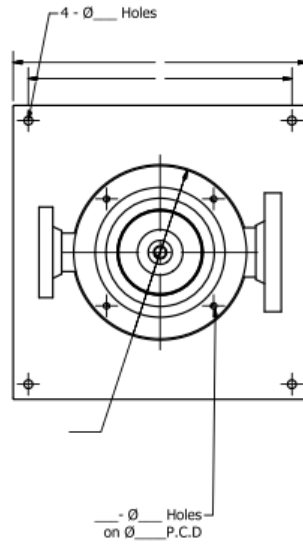
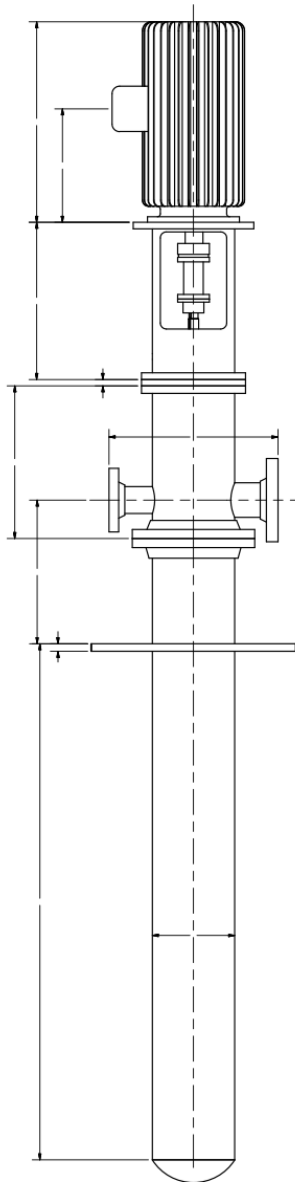
 SEAL TYPE _____

 IMP.DIA _____
 IMP.TYPE _____
 SPECIAL _____

 OTHER _____



Canned Turbine



SUCTION FLANGE

DISCHARGE FLANGE

MOTOR

MAKE _____
 ENCLOSURE _____
 N.R.R. _____
 K.W. _____ S.F. _____
 R.P.M. _____
 PHASE _____ CYCLE _____
 VOLTAGE _____
 V.H.S. OR V.S.S. _____
 OTHER MOTOR INFO: _____

DATE _____
 DISTRIBUTOR _____

 JOB _____

 JOB/QUOTE # _____
 QUANTITY _____

L/sec _____
 T.D.H. _____
 STRAINER TYPE _____

 BOWL MODEL # _____
 COLUMN ASSY. _____

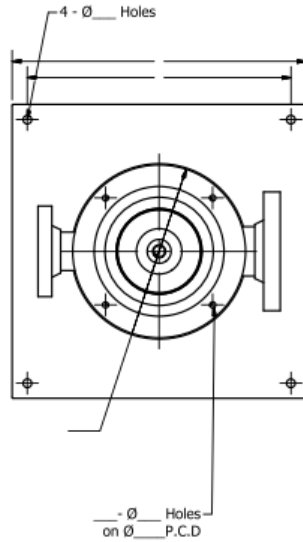
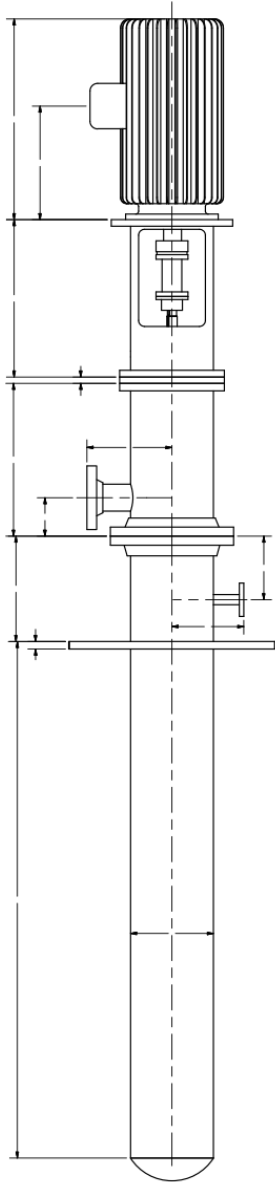
 MOUNTING PLATE _____
 DISCHARGE HEAD _____
 SEAL TYPE _____

 IMP. DIA _____
 IMP. TYPE _____
 SPECIAL _____

 OTHER _____



Turbine Booster



SUCTION FLANGE

DISCHARGE FLANGE

MOTOR

MAKE _____

ENCLOSURE _____

N.R.R. _____

K.W. _____ S.F. _____

R.P.M. _____

PHASE _____ CYCLE _____

VOLTAGE _____

V.H.S. OR V.S.S. _____

OTHER MOTOR INFO: _____

DATE _____

DISTRIBUTOR _____

JOB _____

JOB/QUOTE # _____

QUANTITY _____

L/sec _____

T.D.H. _____

STRAINER TYPE _____

BOWL MODEL # _____

COLUMN ASSY. _____

MOUNTING PLATE _____

DISCHARGE HEAD _____

SEAL TYPE _____

IMP. DIA _____

IMP. TYPE _____

SPECIAL _____

OTHER _____



SUBMERSIBLE PUMP DIMENSIONS & WEIGHT

Pump Model	Weight		NRV Size (mm)	Length (mm)					Bowl Outside Dia (mm)
	First Stage	Additional		Suction Case	Bowl	Discharge Case	NRV	Discharge Case NRV	
150A	20.5	7.7	100	186	92	100	178	118	150
150GM	24.5	6.8	100	143	116	--	--	171	134
150RE	22.7	5.9	100	143	95	--	--	171	134
150TM	22.7	5.9	100	143	130	--	--	133	144
150E	24.5	6.8	100	186	92	--	--	143	150
180A	54.5	15.9	100	152	150	114	197	117	170
180B	54.5	15.9	100	152	150	114	197	117	170
180C	45.4	13.6	100	152	150	114	197	117	170
200A	59.1	18.2	125/150	203	140	127	210	165	197
200B	59.1	18.2	125/150	203	152	127	210	140	197
200C	59.1	18.2	125/150	203	152	127	210	140	197
200E	59.1	18.2	150	203	152	--	--	140	197
225GM			150	203	194	130	225	--	216
240B	72.7	34.1	150	292	165	--	--	235	238
240C	72.7	34.1	150	292	165	--	--	235	238
240D	72.7	34.1	150	229	165	160	229	--	238
250GM	81.8	38.6	150	229	222	140	230	--	248
250GH	81.8	38.6	150	--	--	--	--	--	248
240E	72.7	34.1	150/200	229	165	160	229	--	238
250RF	72.7	34.1	200	229	229	160	229	--	249

VERTICAL TURBINE PUMP TECHNICAL DATA

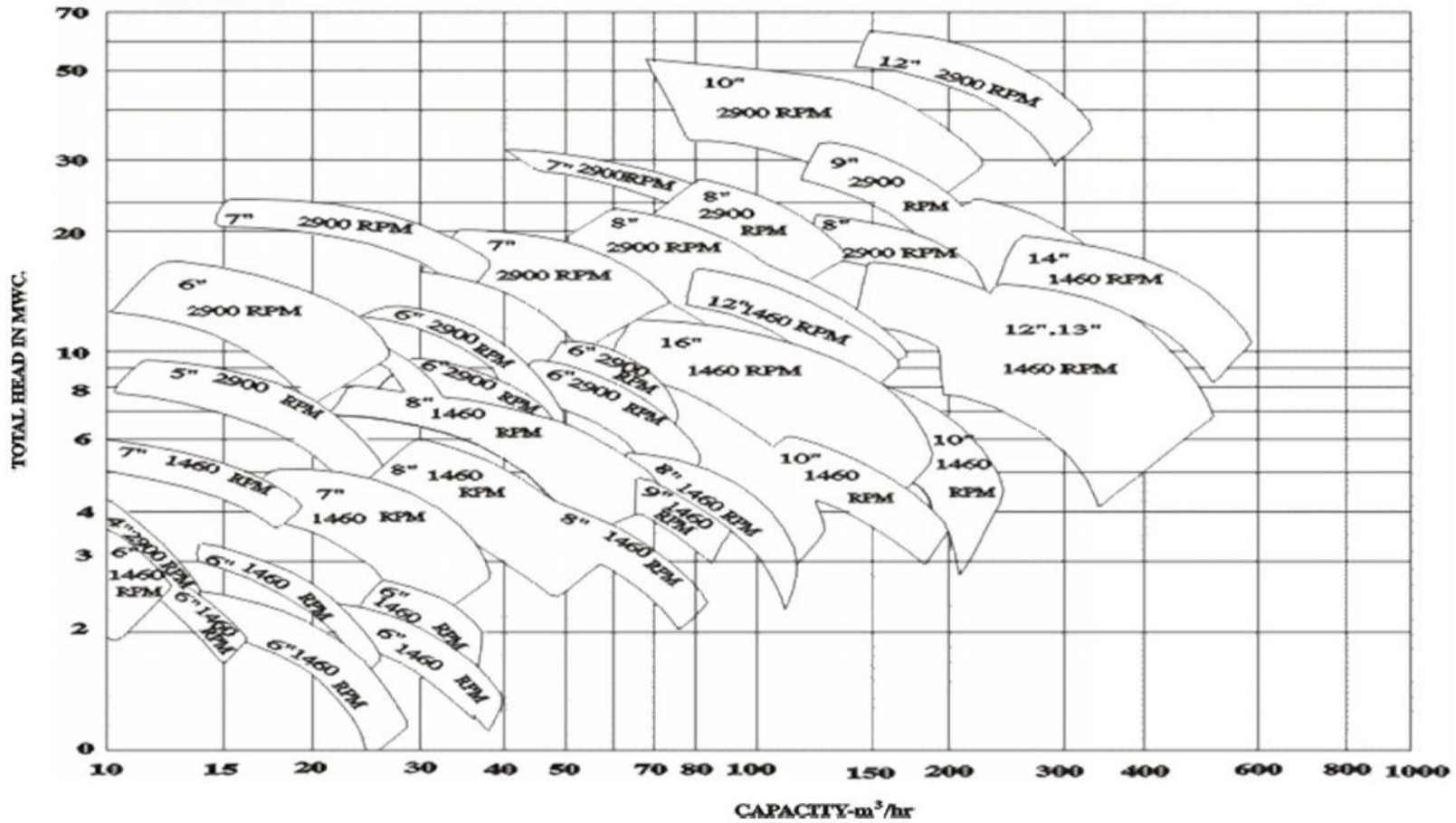
PUMP BOWL ASSEMBLIES – WEIGHTS & DIMENSIONS

Bowl Size	Weight (kg)		Std Col. Size	Suction Pipe Size	Length 1: Stage(mm)		Length (mm)			Diam Bowl (mm)	
	1st Stage	Add.			Produc Lub.	Oil Lub.	Add Stage	Suction Case	Suction Bell	Inter Bowl	Suction Bell
150A	20.5	7.7	3-4	3-4	412.8	412.8	92.1	29.7	165.1	165.1	
150B-C-D	24.5	6.8	3-4-5	3-4-5	346.1	371.5	92.1	123.8	123.8	139.7	
150GM	22.7	5.9	4-5	4-5	381	381	115.9	138.1	133.4	133.4	
150RE	22.7	5.9	4-5	4-5	381	381	158.7	158.8	---	133.4	
150E	24.5	6.8	3-4-5	3-4-5	349.3	377.8	92.1	127	127	139.7	
180A	54.5	15.9	4-5-6	3-4-5	449.2	449.2	123.8	136.5	---	168.3	
180C	45.4	13.6	4-6	4		514.3	149.2	146.1		168.3	
200A	59.1	18.2	4-5-6	4-5	492.1	492.1	139.7	158.8	88.9	190.5	
200B-C	59.1	18.2	4-6	4-6	501.7	501.7	139.7	158.8	---	190.5	
200E	59.1	18.2	6	5-6	488.9	488.9	152.4	158.8	133.4	190.5	
240C-D-E	72.7	34.1	5-6-8	5-6-8	498.5	498.5	165.1	196.9	247.7	238.1	
250GM-G	81.8	38.6	6-8	6-8	512.2	512.2	222.3	177.8	139.7	247.7	
250RF	65.9	31.8	8-10	8-10	577.8	577.8	228.6	152.4	152.4	247.7	
300GM	147.7	59.1	8-10	8-10	630.2	630.2	263.5	254	177.8	298.5	355.6
300RH	125	45.9	8-10	BELL	624.7	624.7	304.8	---	91.3	292.1	330.2
350D-E	227.3	72.7	8-10-12	BELL	711.2	711.2	228.6	260.4	260.4	339.7	406.4
400HM	295.5	127.3	10-12	BELL	920.8	920.75	355.6	---	311.2	393.7	457.2
450D-E	318.2	136.4	10-12-14	BELL	965.2	965.2	317.5	355.6	355.6	439.7	508
450HFA	305.5		14	BELL	627.9	627.9			272.3	451.2	531.8
475TM	388.6	186.4	16	BELL	965.2	965.2	431.8	---	196.9	483.4	563.5
500D-E-F	454.5	193.2	12-14-16	BELL	1076	1076.3	368.3	374.7	374.7	501.7	563.5
550RM	856.8	163.6	18-20	BELL	1257	1257.3	571.5	---	122.2	573.1	914.4
575M	486.4	248.6	16	BELL	1029	1028.7	495.3	---	330.2	577.9	609.6
600RD	441.8 (4)		14-16	BELL	766.8	766.8 (4)	---	---	223	581	641.4
M1000	1250			BELL	1257	914	---	---		943	1066



Turbine Pump Performance Coverage Chart

50 Hz Turbine Pump 4"-14"





Turbine Pump Performance Coverage Chart
 50 Hz Turbine Pump 16"-90"

