FLO FAB
SINCE 1981

Vertical Turbine Pump

7000

www.flofab.com

001-cat-2016-7000

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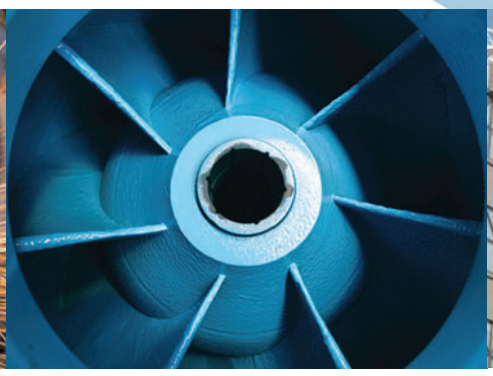
HISTORY

Flo Fab was established in 1981 by Denis Gauvreau who created and developed the products line and constantly being perfected by Marc Gauvreau, as well as by a team of professional engineers and designers. It's a combination of existing designs from several renowned products and the innovative ideas of a new generation professionals.

Through the years, Flo Fab has acquired several companies and service entities including : AQUA-PROFAB (ASME Tanks manufacturer), MÉNARD, LÉONARD ÉLECTRIQUE, PMA. , Furthermore Flo Fab purchased equipment, fabrication designs and patterns from IDEALCO, a manufacturer of shell and tube type heat exchangers.
The after sales services, sales, engineering, R&D, production, quality control, accounting and administration departments of all the above companies share the same location.

In December 2014, Marc Gauvreau, son of the founder, acquired all shares of The company. Flo Fab and is constantly investing in new state of the art innovations new product like the XRI series and Prefab Skid for Hydronic Hearing 8 cooling system, pumping systems. This has allowed Flo Fab to retain competent and experienced staff of professionals with varied and specialized abilities that constantly work on improving our existing products and add new engineered solutions that exceeding customer's expectations .
Flo Fab has grown quite rapidly and now proudly offers of a wide range of products available directly from one manufacturer. This includes pumps & pump packages, tanks, heat exchangers & hydronic accessories. This allows each project stakeholders to enjoy economical savings, peace of mind, best value for their investment and optimized total cost of ownership.


7000 – Vertical Turbine

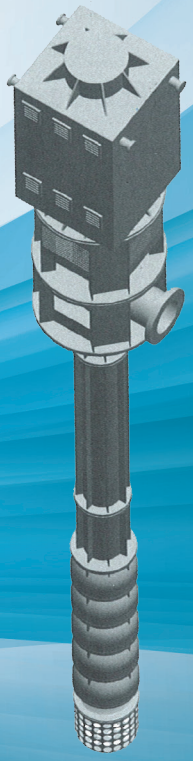
The 4 different model vertical turbine pumps have one thing in common the hydraulic design of the pump bowl assembly. Using a new techniques in turbine pump design. It covers a wide range of hydraulic conditions to meet virtually every pumping service with optimum efficiency.

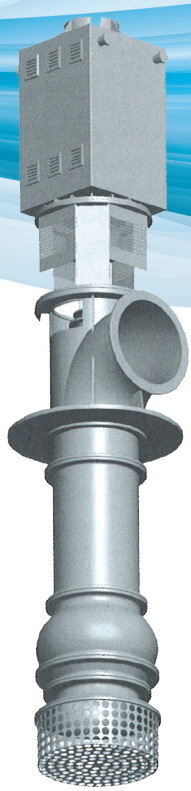
FloFab flexibility of design allows the use of a wide range of material and design features to meet the custom requirements of user. No matter what the requirements, whether low first cost, ease of maintenance, optimum

Model VTC

Vertical Industrial Turbine Pumps

VTC series is a single or multistage pump with centrifugal or mixed–flow enclosed type impeller, designed for high pressure services.



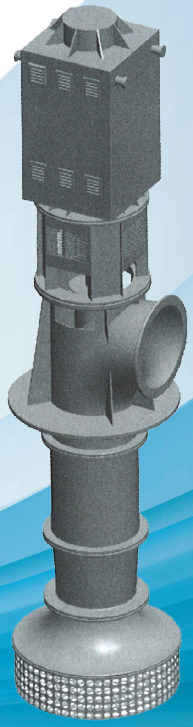


Model VTM

High Capacity Vertical Turbine Pumps

VTM series is a single stage pump with mixed–flow semi–open or enclosed type impeller, designed for high capacity, medium to high head services.

General Data



Model VTA

Low Head Vertical Turbine Pumps

VTA series is a single stage pump with axial–flow impeller, designed for high capacity, low head services.

Model VTG

Right Angle Gear Box Driven Vertical Turbine Pumps

VTG series is vertical turbine pump designed for engine driven through a right angle gear box, for the place where electric power is not available services.

Standard Design Features of VTP

Standard Design Features of VTP

The bowl assembly is the heart of the VTP . The impeller and diffuser type casing are designed to deliver the head and capacity that your system requires in the most efficient way possible. The fact that the VTP can be multi—staged allows maximum flexibility both in the initial pump selection and in the event that future system modifications require a change in the pump rating. Submerged impellers allow pump to be started without priming.

A variety material options allows the selection of a pump best suited for even the most severe services. The many bowl assembly options available assure that the VTP satisfies the user's need for safe, efficient, reliable and maintenance—free operation.

1. Strainers
31688 Basket strainers to provide protection from large solids.

2. Suction bell
Allows smooth entry of liquid into impeller eye, minimizes vortex formation. Scotchkote custom fusion bonded epoxy coating inside.

3. Suction bell bearing
Provided for shaft stability.

4. Sand collar
Prevents solids from entering suction bearing.

5. Impeller
Hydraulic balancing to reduce axial down thrust and achieve long thrust bearing life. Dynamic balancing of impellers are available.

6. Pump shaft
Heavy duty, 41688 standard, other alloys for strength and corrosion resistance. Hollow pump shaft with flushing hole special for bearing flushing on corrosive/abrasive services.

7. Diffuser bowl
Available in variety of cast material. Scotchkote custom fusion bonded epoxy coating inside to

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6. Pump shaft
Heavy duty, 41688 standard, other alloys for strength and corrosion resistance. Hollow pump shaft with flushing hole special for bearing flushing on corrosive/abrasive services.

7. Diffuser bowl
Available in variety of cast material. Scotchkote custom fusion bonded epoxy coating inside to improved the efficiency and longer life. Registered fits assure positive alignment, ease of maintenance.

General Data

8. Sleeve type bearing
Provided at each stage to assure stable operation away from critical speed.

9. Wear rings
Dual wear rings for enclosed impellers and bowls, permits re—establishing initial running clearances and efficiency at lower cost. Hard facing of wear surface available for longer life.
Wear ring can be flushed when solids are present in the pumping liquid.

10. Keyed impeller
Keyed impeller for all the pumps, suitable for pumping liquid in high temperatures. Keyed impellers provide ease if maintenance and positive locking under fluctuating load and temperature conditions.

11. Flangedcolumn
Heavy duty seamless column pipe sections are provided with flanged ends incorporating registered fits for ease of alignment during assembly.

12. Lineshaft and coupling

a.) Openlineshaft
Flanges column/product lubricated lineshaft is recommended for ease of maintenance or whenever a special bearing material is required. Precision keyed lineshaft coupling available in all sizes for ease of maintenance. Various bearing material available. Renewable shaft sleeve or hard facing of shaft available for longer life.

b.) Enclosed lineshaft
The lineshaft is protected by waterflushing tube, flushing water for bearing and wear ring on corrosive/abrasive services.

13. Bearing retainer and lineshaft bearing
Ductile cast iron bearing retainer for size smaller that 24”.
Various bearing material available.

General Data

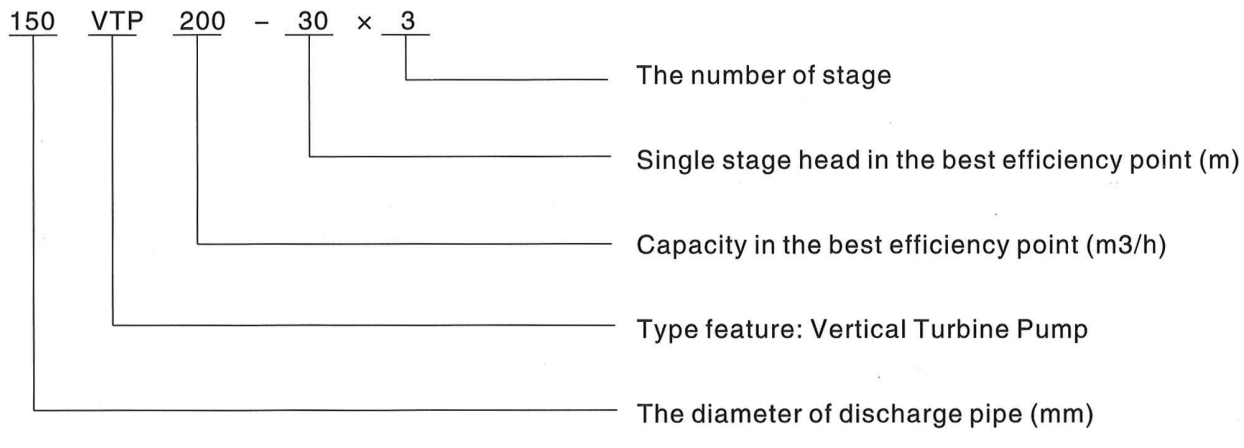
14. Discharge head and motor riser
Discharge head and motor riser designed for all modes of drivers including hollow shaft or solid shaft motors, right angle gears, vertical steam turbines, etc. Fabricated elbow discharge head engineered to minimize losses. Large access holes provide easy access to coupling and stuffing box. Above ground and below ground discharge head for requirement.

15. Thrust bearing
Oil lubricated thrust bearing assembly set with water cooling system make the pumps running safely in longer life.

16. Packing box
Whenever packing lubrication leakage can be tolerated and the discharge pressure does not exceed 800psi, a packed box may be used. Optional headshaft sleeve available to protect shaft.

17. Coupling for pump and motor
Flexible coupling for pump and motor when pump with thrust bearing.
Impeller adjustment by the nut on the top shaft.

Definition of Model



VTC, VTG Industrial Turbine Pumps

(Above Ground Discharge)

Specification range

- Capacities to 4000m3/h (18,000GPM)
- Heads to 380m (1250ft)
- Temperatures to 200°C(388°F)

Design Advantages

1. Fabricated discharge head for 10” or larger sizes. Suitable fortemperaturer liquid pumping.

2. Seamless flanged ends column pipe and flanges bowl construction incorporating registered fits for ease of assembly during assembly.

3. Alloy construction with external tube flush of critical wear areas available for abrasive services.

4. Build—in alignment and simple piping for less costly installation and ease of maintenance reduced downtime.

5. 416SS shafting. Keyed lineshaft coupling available in all size for ease of maintenance. The lineshaft can be protected by water flushing the enclosing tube bearing on corrosive/abrasive services.

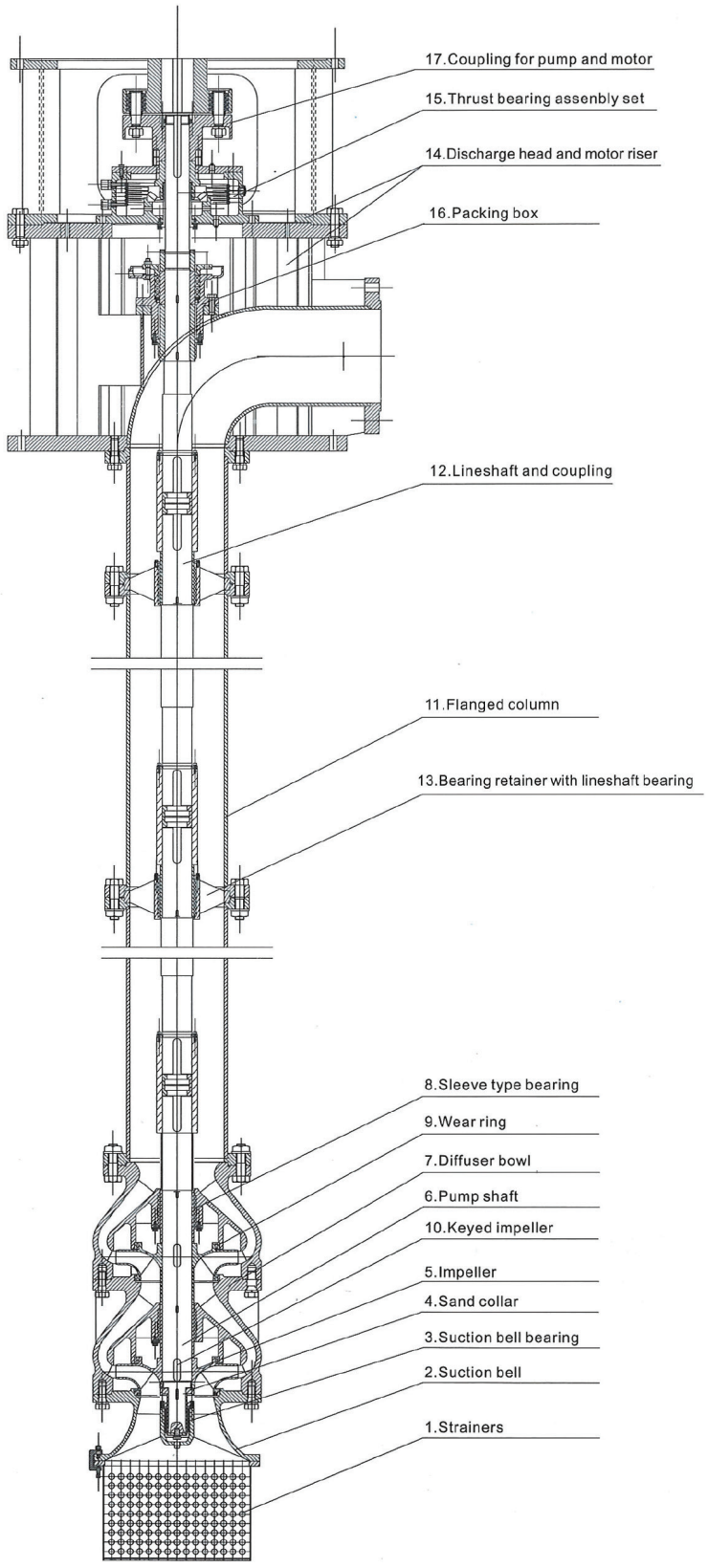
6. Various bearing material available.

7. Renewable shaft sleeve or hard facing of shaft available for long life.

8. Dual wear rings for impellers and bowls. Hard facing wear surfaces available for longer life. Wear rings can be flushed when solids are present in pumpage.

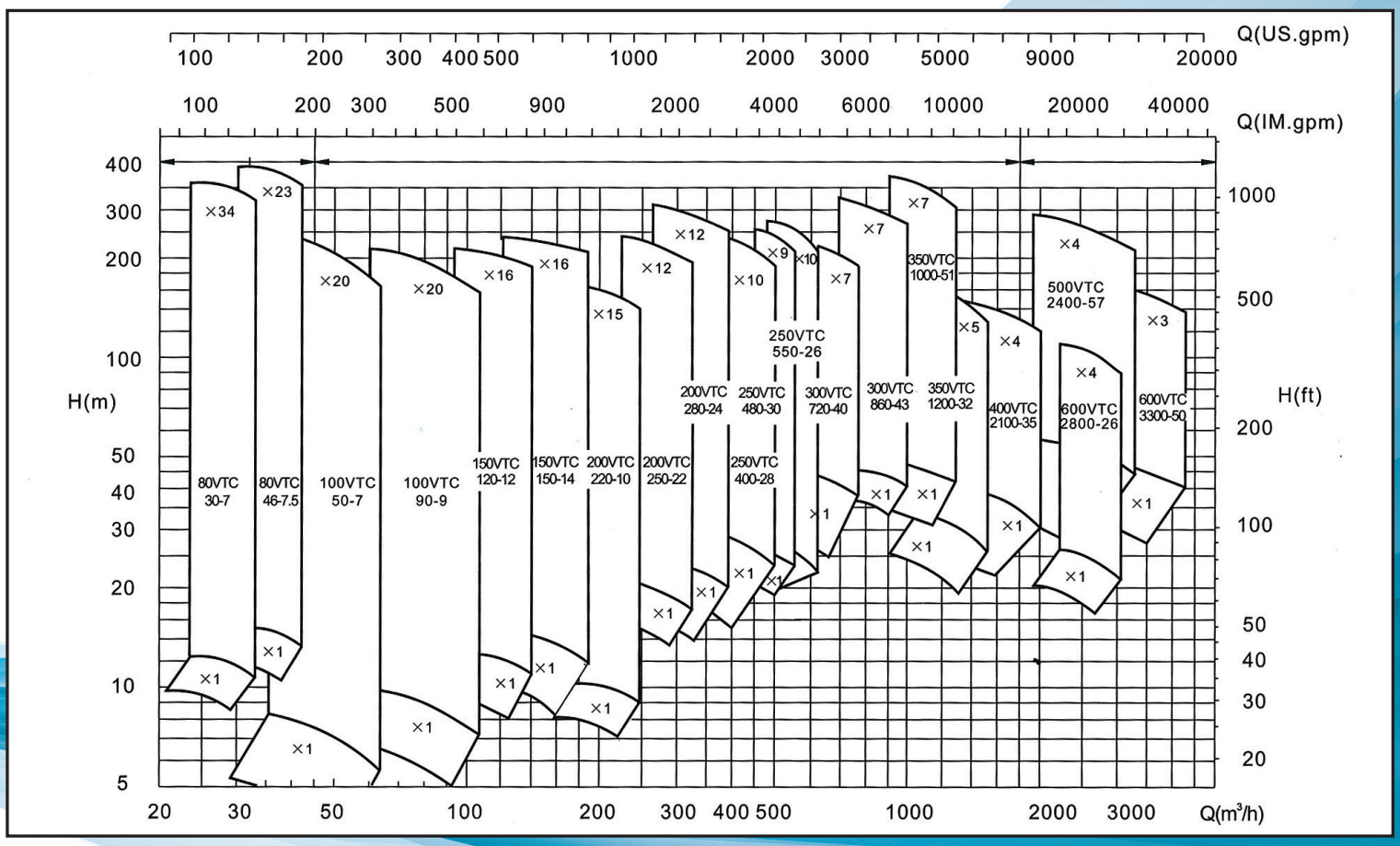
Services

Cooling Water
Seawater and Raw Water Intake
industrial Process Pumps
Utility Circulating Water
Condenser Circulating Water Pumps
Ash Sluice
Fire—fighting



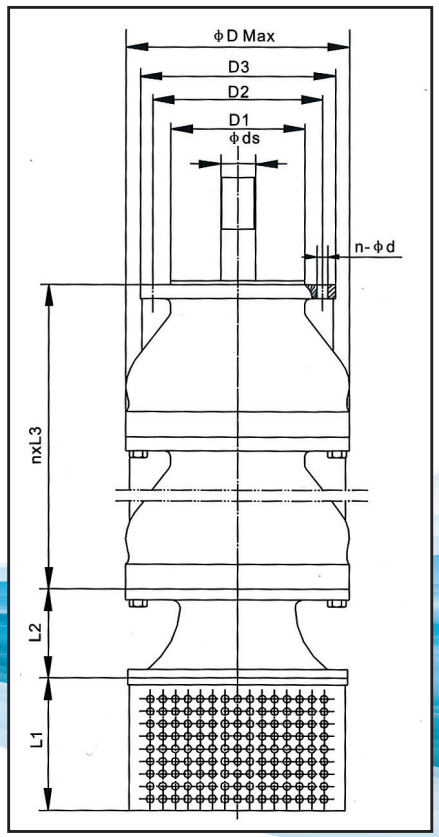
Technical Data

VTC Selection Charts



VTC Pump Bowl

Assembly Dimensions

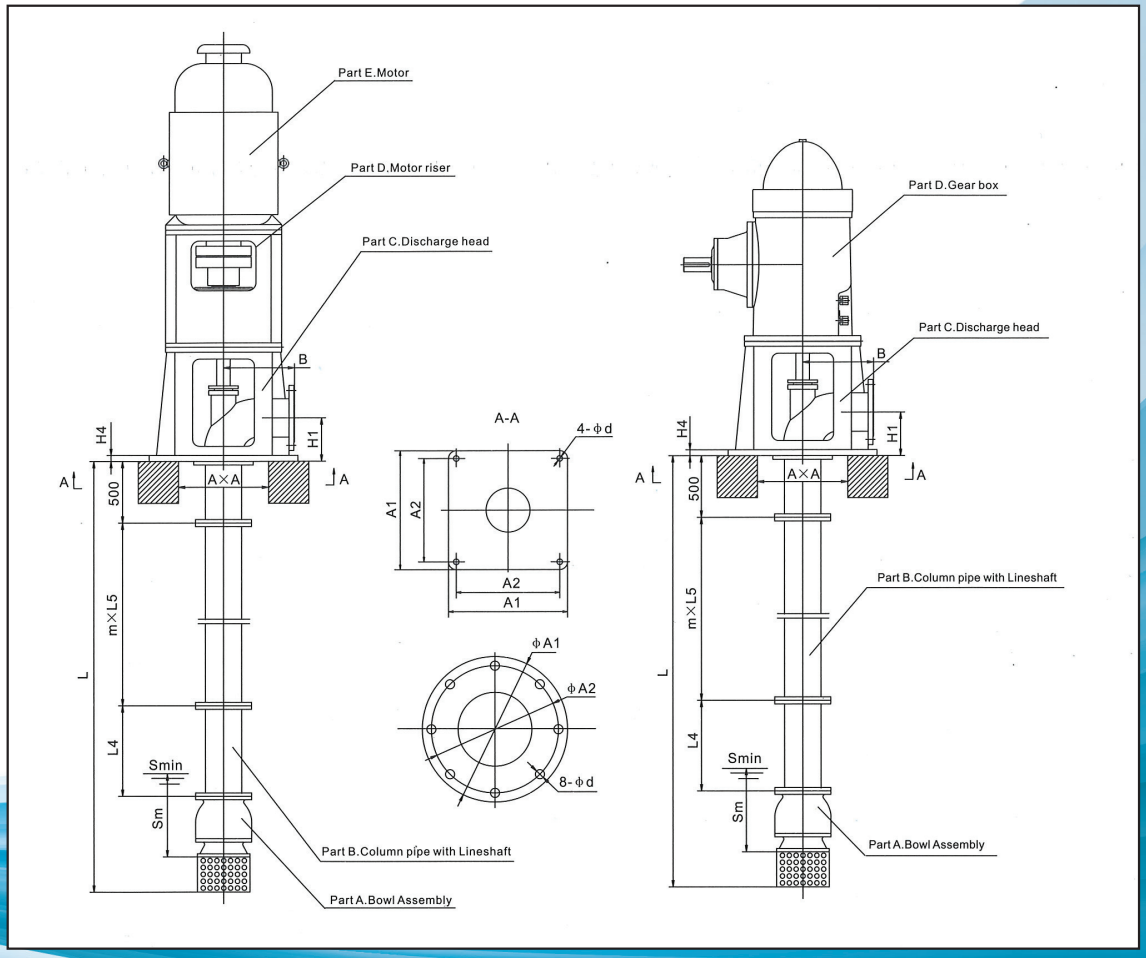


√	measures (in)										
	Model	**D Max**	**L1**	**L2**	**L3**	**Max n**	**D1**	**D2**	**D3**	**Ø d**	**n-Ø d**
	80VTC30-7	5.24	7.87	3.15	3.54	34	5.20f7	6.30	7.87	0.87	8-ø.71
	80VTC30-7.5	5.67	7.87	3.15	3.94	23	5.20f7	6.30	7.87	0.87	8-ø.71
	100VTC50-7	9.65	10.24	3.15	7.28	20	5.12f7	6.61	7.87	0.87/1.18	8-ø.53
	100VTC90-9	9.65	10.24	3.15	8.07	20	5.12f7	6.61	7.87	0.79/1.18	8-ø.53
	150VTC120-12	12.72	11.02	4.33	9.06	16	9.65f7	11.22	12.72	0.79/1.57	8-ø.71
	150VTC150-14	12.72	11.02	4.33	9.06	16	9.65f7	11.22	12.72	1.18/1.57	8-ø.71
	200VTC220-10	11.22	11.81	3.94	9.65	15	9.06f7	10.08	11.22	1.18/1.57	8-ø.71
	200VTC250-22	16.54	11.81	4.72	11.81	12	12.99f7	14.96	16.54	1.57/50/2.36	12-ø.87
	200VTC280-24	16.54	11.81	4.72	11.81	12	12.99f7	14.96	16.54	1.57/1.97/2.36	12-ø.87
	250VTC550-26	16.93	12.60	4.72	14.37	10	13.78f7	15.55	16.93	1.97/2.36/2.76	12-ø.87
	250VTC400-28	18.78	12.60	5.91	12.99	10	14.76f7	16.73	18.78	1.97/2.36/2.76	12-ø.87
	250VTC480-30	18.78	12.60	5.91	12.99	9	14.76f7	16.73	18.78	1.97/2.36/2.76	12-ø.87
	300VTC720-40	22.44	12.60	8.66	15.35	7	13.39f7	15.16	16.73	2.36/2.76/3.15	12-ø.87
	300VTC860-43	22.44	12.60	8.66	15.35	7	13.39f7	15.16	16.73	2.76/80/3.54	12-ø.87
	350VTC1200-32	20.67	12.60	9.06	23.62	5	16.54f7	18.90	20.67	2.36/2.76/3.15	16-ø.87
	350VTC1000-51	24.80	12.60	9.84	16.93	7	15.55f7	18.90	21.65	2.76/3.54/4.33	16-ø1.30
	400VTC2100-35	21.65	12.60	9.06	23.62	5	17.32f7	19.69	21.65	2.76/3.54/3.94	16-ø.87
	500VTC2400-57	37.60	12.60	15.35	26.57	4	23.82f7	29.13	33.46	3.54/3.94/4.72	16-ø1.18
	500VTC2800-26	28.35	12.60	13.78	37.01	4	24.41f7	29.13	33.46	3.15/3.94/4.33	16-ø1.18
	600VTC3300-50	34.65	12.60	11.02	29.92	3	25.59f7	28.54	30.71	3.54/4.33/5.12	16-ø1.18

√	measures (mm)										
	Model	**D Max**	**L1**	**L2**	**L3**	**Max n**	**D1**	**D2**	**D3**	**Ø d**	**n-Ø d**
	80VTC30-7	133	200	80	90	34	132f7	160	200	22	8-ø18
	80VTC30-7.5	144	200	80	100	23	132f7	160	200	22	8-ø18
	100VTC50-7	245	260	80	185	20	130f7	168	200	20/30	8-ø13.5
	100VTC90-9	245	260	80	205	20	130f7	168	200	20/30	8-ø13.5
	150VTC120-12	323	280	110	230	16	245f7	285	323	30/40	8-ø18
	150VTC150-14	323	280	110	230	16	245f7	285	323	30/40	8-ø18
	200VTC220-10	285	300	100	245	15	230f7	256	285	30/40	8-ø18
	200VTC250-22	420	300	120	300	12	330f7	380	420	40/50/60	12-ø22
	200VTC280-24	420	300	120	300	12	330f7	380	420	40/50/60	12-ø22
	250VTC550-26	430	320	120	365	10	350f7	395	430	50/60/70	12-ø22
	250VTC400-28	477	320	150	330	10	375f7	425	477	50/60/70	12-ø22
	250VTC480-30	477	320	150	330	9	375f7	425	477	50/60/70	12-ø22
	300VTC720-40	570	320	220	390	7	340f7	385	425	60/70/80	12-ø22
	300VTC860-43	570	320	220	390	7	340f7	385	425	70/80/90	12-ø22
	350VTC1200-32	525	320	230	600	5	420f7	480	525	60/70/80	16-ø22
	350VTC1000-51	630	320	250	430	7	395f7	480	550	70/90/110	16-ø33
	400VTC2100-35	550	320	230	600	5	440f7	500	550	70/90/100	16-ø22
	500VTC2400-57	955	320	390	675	4	605f7	740	850	90/100/120	16-ø30
	500VTC2800-26	720	320	350	940	4	620f7	740	850	80/100/110	16-ø30
	600VTC3300-50	880	320	280	760	3	650f7	725	780	90/110/130	16-ø30

VTC, VTG Pump Dimensions

(Above Ground Discharge)



√	measures (in)										
	Model	**A1**	**A2**	**d**	**H1**	**H2**	**H4**	**L5**	**B**	**Sm**	**AxA**
	80VTC	17.72	15.75	0.98	5.71	13.78	0.79	78.74 or 98.43	9.84	9.84	11.81 X 11.81
	100VTC	17.72	15.75	0.98	5.71	13.78	0.79	78.74 or 98.43	9.84	11.81	11.81 X 11.81
	150VTC	20.47	18.50	0.98	6.50	15.75	0.98	78.74 or 98.43	11.81	13.78	14.96 X 14.96
	200VTC	23.62	21.26	1.18	8.46	18.90	0.98	78.74 or 98.43	13.78	15.75	18.90 X 18.90
	250VTC	28.74	26.38	1.18	10.43	22.05	1.18	98.43	15.75	17.72	21.65 X 21.65
	300VTC	32.68	30.31	1.18	12.60	25.20	1.38	98.43	17.72	19.69	25.59 X 25.59
	350VTC	36.61	34.25	1.18	14.57	28.35	1.38	98.43	19.69	23.62	26.77 X 26.77
	400VTC	40.55	37.80	1.30	16.54	31.50	1.38	98.43	21.65	27.56	600 X 600
	450VTC	44.49	41.73	1.30	18.50	34.65	1.57	98.43	23.62	31.50	1000 X 1000
	500VTC	48.43	45.67	1.30	20.47	37.80	40	98.43	25.59	35.43	1000 X 1000
	600VTC	54.33	51.57	1.30	20.47	1120	44.09	98.43	29.53	39.37	1000 X 1000

√	measures (mm)										
	Model	**A1**	**A2**	**d**	**H1**	**H2**	**H4**	**L5**	**B**	**Sm**	**AxA**
	80VTC	450	400	25	145	350	20	2000 or 2500	250	250	300 X 300
	100VTC	450	400	25	145	350	20	2000 or 2500	250	300	300 X 300
	150VTC	520	470	25	165	400	25	2000 or 2500	300	350	380 X 380
	200VTC	600	540	30	215	480	25	2000 or 2500	350	400	480 X 480
	250VTC	730	670	30	265	560	30	2500	400	450	550 X 550
	300VTC	830	770	30	320	640	35	2500	450	500	650 X 650
	350VTC	930	870	30	370	720	35	2500	500	600	680 X 680
	400VTC	1030	960	33	420	800	35	2500	550	700	600 X 600
	450VTC	1130	1060	33	470	880	40	2500	600	800	1000 X 1000
	500VTC	1230	1160	33	520	960	40	2500	650	900	1000 X 1000
	600VTC	1380	1310	33	620	1120	45	2500	750	1000	1000 X 1000

VTM, VTG Vertical Turbine Pumps

(Above Ground Discharge)

Specification range

- Capacities to 25,000 m3/h (110,000GPM)
- Heads to 70 m (210ft)

Design Advantages

1.Fabricated discharge head for all sizes.

2.Seamless flanged ends column pipe and flanges bowl construction incorporating registered fits for ease of assembly during assembly.

3. Alloy construction with external tube flush of critical wear areas available for abrasive services.

4. Available with semi—open or enclosed impeller, with or without wear rings, optimum diffuser and impeller match for maximum efficiency.

5. 41688 shafting. Keyed lineshaft coupling available in all size for ease of maintenance. The lineshaft can be protected by water-flushing the enclosing tube bearing on corrosive/abrasive services.

6. Various bearing material available.

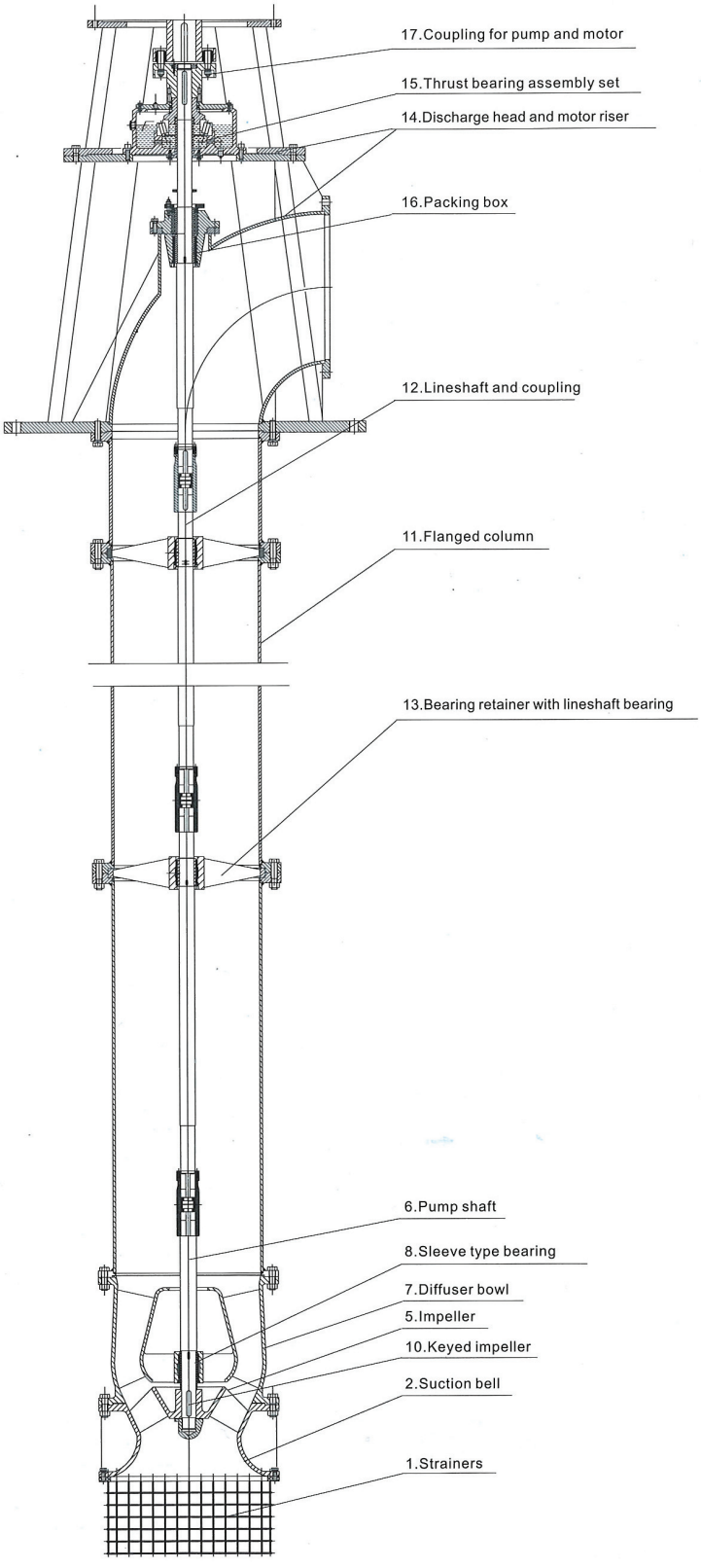
7. Wide range of corrosion and erosion resistant materials.

8. Hollow shaft for bowl bearing flushing.

9. Flexible design to accommodate fixed or existing dimensions above and below ground discharge.

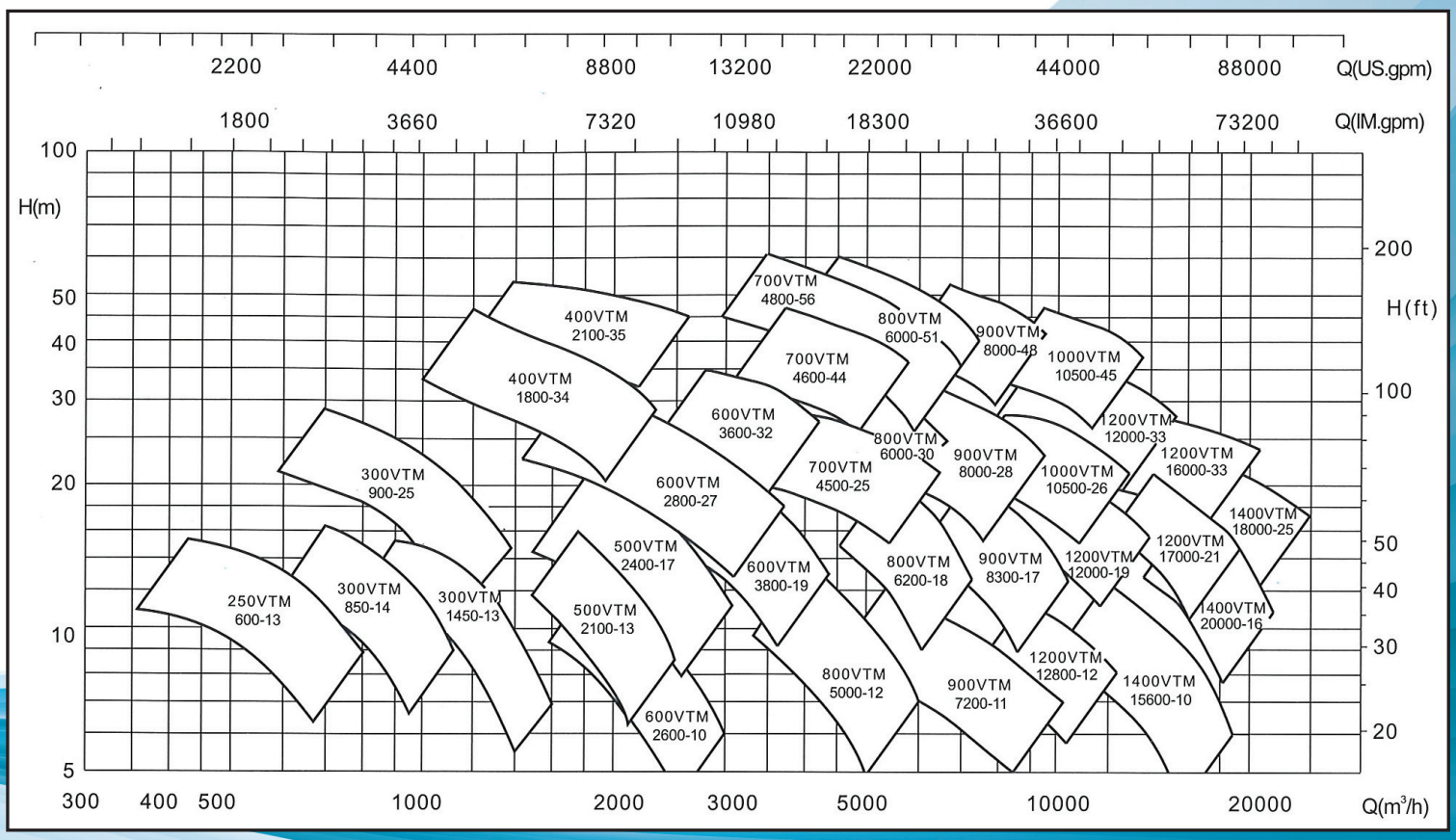
Services

Cooling Water
Seawater and Raw water intake
Industrial Process Pumps
Utility Circulating Water
Condenser Circulating Water Pumps
Irrigation and Drainage
Storm and Flood water
River Water Intake
Municipal Water Supply



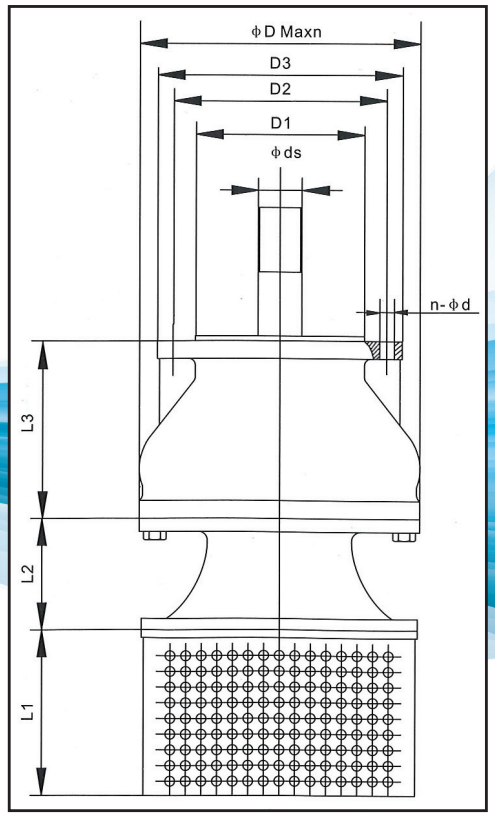
Technical Data

VTM Selection Charts



VTM Pump Bowl

Assembly Dimensions



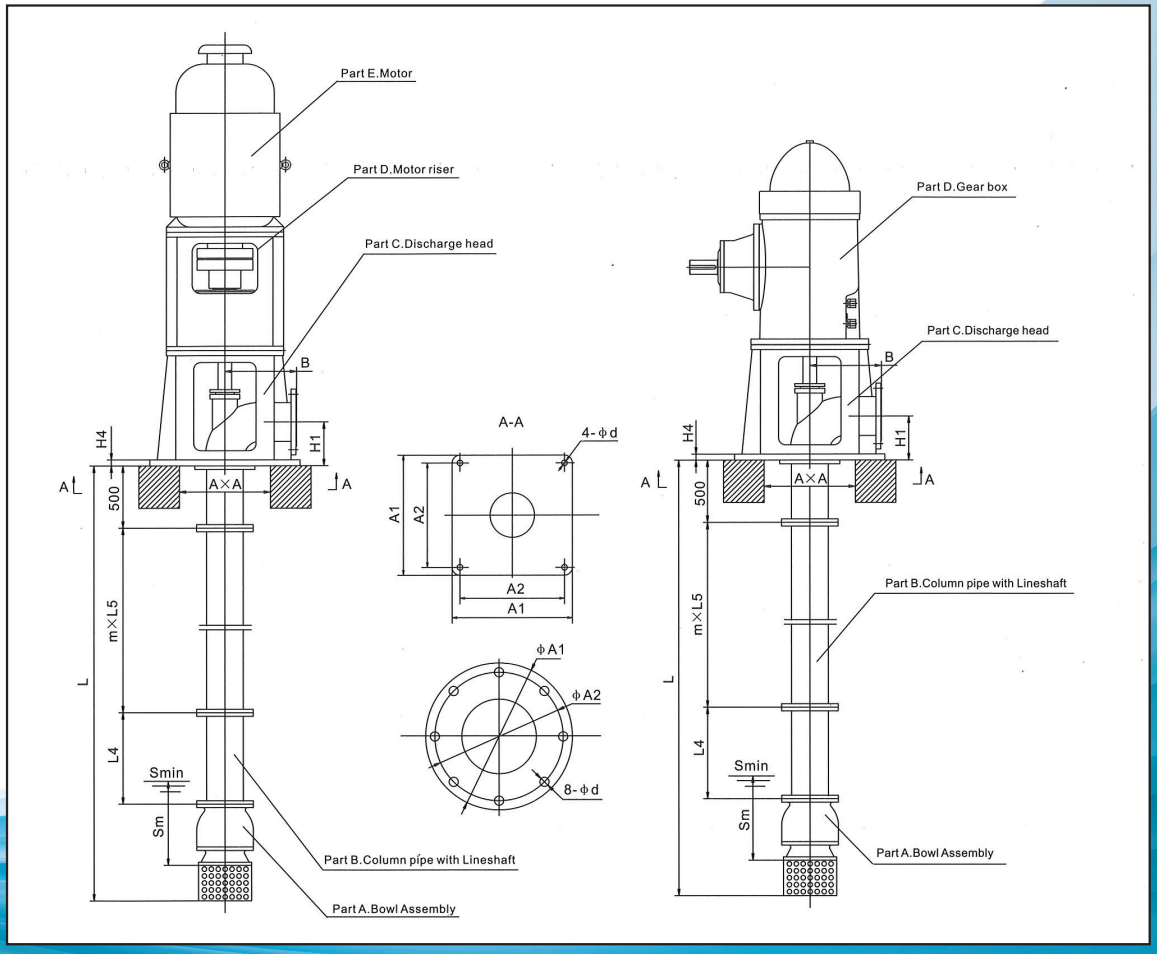
*** = Semi-open Impeller**

√	measures (mm)									
	Model	**D max**	**L1**	**L2**	**L3**	**Ø ds**	**D1**	**D2**	**D3**	**n-Ø d**
	250VTM600-13	15.47	12.60	4.33	15.16	1.57	12.01	13.78	15.47	12-Ø0.91
	300VTM850-14	16.81	12.60	4.72	16.34	1.57	12.99	15.16	16.81	12-Ø0.91
	300VTM900-25	17.13	12.60	7.09	20.20	1.97	12.60	14.17	15.75	12-Ø0.91
	*** 350VTM1450-13**	18.90	12.60	9.45	16.14	1.57	15.55	17.32	18.90	16-Ø0.91
	400VTM1800-34	21.65	12.60	9.06	23.62	2.76	17.32	19.69	21.65	16-Ø0.98
	400VTM2100-35	21.65	12.60	9.06	23.62	2.76	17.32	19.69	21.65	16-Ø0.98
	***500VTM2100-13**	26.38	12.60	13.78	17.72	1.97	20.47	24.41	26.38	20-Ø0.98
	500VTM2400-17	29.53	12.60	15.75	18.70	2.36	21.65	23.62	25.59	20-Ø0.98
	***600VTM2600-10**	29.33	12.60	11.61	20.87	2.36	24.80	27.36	29.33	20-Ø1.18
	600VTM3600-32	29.13	12.60	18.90	24.41	3.15	24.80	28.54	30.71	20-Ø1.18
	600VTM2800-27	27.95	12.60	11.81	28.94	2.76	24.80	28.54	30.71	20-Ø1.18
	***600VTM3800-19**	29.92	12.60	12.99	25.20	2.76	24.80	28.54	30.71	20-Ø1.18
	700VTM4500-25	34.45	12.60	22.44	28.74	3.54	28.74	33.07	35.24	24-Ø1.18
	700VTM4600-44	42.32	12.60	13.78	36.42	4.33	28.74	33.07	35.24	24-Ø1.18
	700VTM4800-56	50.98	12.60	15.94	35.04	4.72	28.74	33.07	35.24	24-Ø1.18
	***800VTM5000-12**	38.58	12.60	16.14	28.94	3.15	32.68	37.40	39.76	24-Ø1.34
	800VTM6000-51	45.87	12.60	14.96	39.37	4.72	32.68	37.40	39.76	24-Ø1.34
	800VTM6000-30	37.99	12.60	24.61	31.89	3.94	32.68	37.40	39.76	24-Ø1.34
	***800VTM6200-18**	38.98	12.60	16.93	32.87	3.54	32.68	37.40	39.76	24-Ø1.34
	***900VTM7200-11**	45.67	12.60	19.29	35.04	3.54	36.61	41.34	43.70	28-Ø1.34
	900VTM8000-28	44.69	12.60	37.80	29.13	4.72	36.61	41.34	43.70	28-Ø1.34
	***900VTM8300-17**	45.87	12.60	20.28	38.98	3.94	36.61	41.34	43.70	28-Ø1.34
	900VTM8000-48	54.53	12.60	17.72	46.85	5.51	36.61	41.34	43.70	28-Ø1.34
	1OOOVTM10500-26	52.17	12.60	34.06	43.70	5.12	40.55	45.67	48.03	28-Ø1.34
	1OOOVTM10500-45	63.39	12.60	20.67	54.72	6.30	40.55	45.67	48.03	28-Ø1.34
	1200VTM12000-19	59.06	12.60	38.78	49.80	5.12	48.43	54.33	57.09	32-Ø1.61
	1200VTM12000-33	72.05	12.60	23.62	62.60	6.30	48.43	54.33	57.09	32-Ø1.61
	***1200VTM12800-12**	61.42	12.60	27.56	52.36	4.72	48.43	54.33	57.09	32-Ø1.61
	1200VTM16000-33	59.06	12.60	38.78	49.80	6.30	48.43	54.33	57.09	32-Ø1.61
	1200VTM17000-21	61.42	12.60	27.56	52.36	5.51	48.43	54.33	57.09	32-Ø1.61
	***1400VTM20000-16**	70.87	12.60	31.69	60.83	6.30	56.30	62.60	65.94	36-Ø1.89
	1400VTM18000-25	67.72	12.60	44.49	57.09	6.69	56.30	62.60	65.94	36-Ø1.89
	1400VTM15600-10	67	13	30	52.76	4.72	56.30	62.60	65.94	36-Ø1.89

√	measures (mm)									
	Model	**D max**	**L1**	**L2**	**L3**	**Ø ds**	**D1**	**D2**	**D3**	**n-Ø d**
	250VTM600-13	393	320	110	385	40	305	350	393	12-Ø23
	300VTM850-14	427	320	120	415	40	330	385	427	12-Ø23
	300VTM900-25	435	320	180	513	50	320	360	400	12-Ø23
	*** 350VTM1450-13**	480	320	240	410	40	395	440	480	16-Ø23
	400VTM1800-34	550	320	230	600	70	440	500	550	16-Ø25
	400VTM2100-35	550	320	230	600	70	440	500	550	16-Ø25
	***500VTM2100-13**	670	320	350	450	50	520	620	670	20-Ø25
	500VTM2400-17	750	320	400	475	60	550	600	650	20-Ø25
	***600VTM2600-10**	745	320	295	530	60	630	695	745	20-Ø30
	600VTM3600-32	740	320	480	620	80	630	725	780	20-Ø30
	600VTM2800-27	710	320	300	735	70	630	725	780	20-Ø30
	***600VTM3800-19**	760	320	330	640	70	630	725	780	20-Ø30
	700VTM4500-25	875	320	570	730	90	730	840	895	24-Ø30
	700VTM4600-44	1075	320	350	925	110	730	840	895	24-Ø30
	700VTM4800-56	1295	320	405	890	120	730	840	895	24-Ø30
	***800VTM5000-12**	980	320	410	735	80	830	950	1010	24-Ø34
	800VTM6000-51	1165	320	380	1000	120	830	950	1010	24-Ø34
	800VTM6000-30	965	320	625	810	100	830	950	1010	24-Ø34
	***800VTM6200-18**	990	320	430	835	90	830	950	1010	24-Ø34
	***900VTM7200-11**	1160	320	490	890	90	930	1050	1110	28-Ø34
	900VTM8000-28	1135	320	960	740	120	930	1050	1110	28-Ø34
	***900VTM8300-17**	1165	320	515	990	100	930	1050	1110	28-Ø34
	900VTM8000-48	1385	320	450	1190	140	930	1050	1110	28-Ø34
	1OOOVTM10500-26	1325	320	865	1110	130	1030	1160	1220	28-Ø34
	1OOOVTM10500-45	1610	320	525	1390	160	1030	1160	1220	28-Ø34
	1200VTM12000-19	1500	320	985	1265	130	1230	1380	1450	32-Ø41
	1200VTM12000-33	1830	320	600	1590	160	1230	1380	1450	32-Ø41
	***1200VTM12800-12**	1560	320	700	1330	120	1230	1380	1450	32-Ø41
	1200VTM16000-33	1500	320	985	1265	160	1230	1380	1450	32-Ø41
	1200VTM17000-21	1560	320	700	1330	140	1230	1380	1450	32-Ø41
	***1400VTM20000-16**	1800	320	805	1545	160	1430	1590	1675	36-Ø48
	1400VTM18000-25	1720	320	1130	1450	170	1430	1590	1675	36-Ø48
	1400VTM15600-10	1700	320	750	1340	120	1430	1590	1675	36-Ø48

VTM, VTG Pump Dimensions

(Above Ground Discharge)

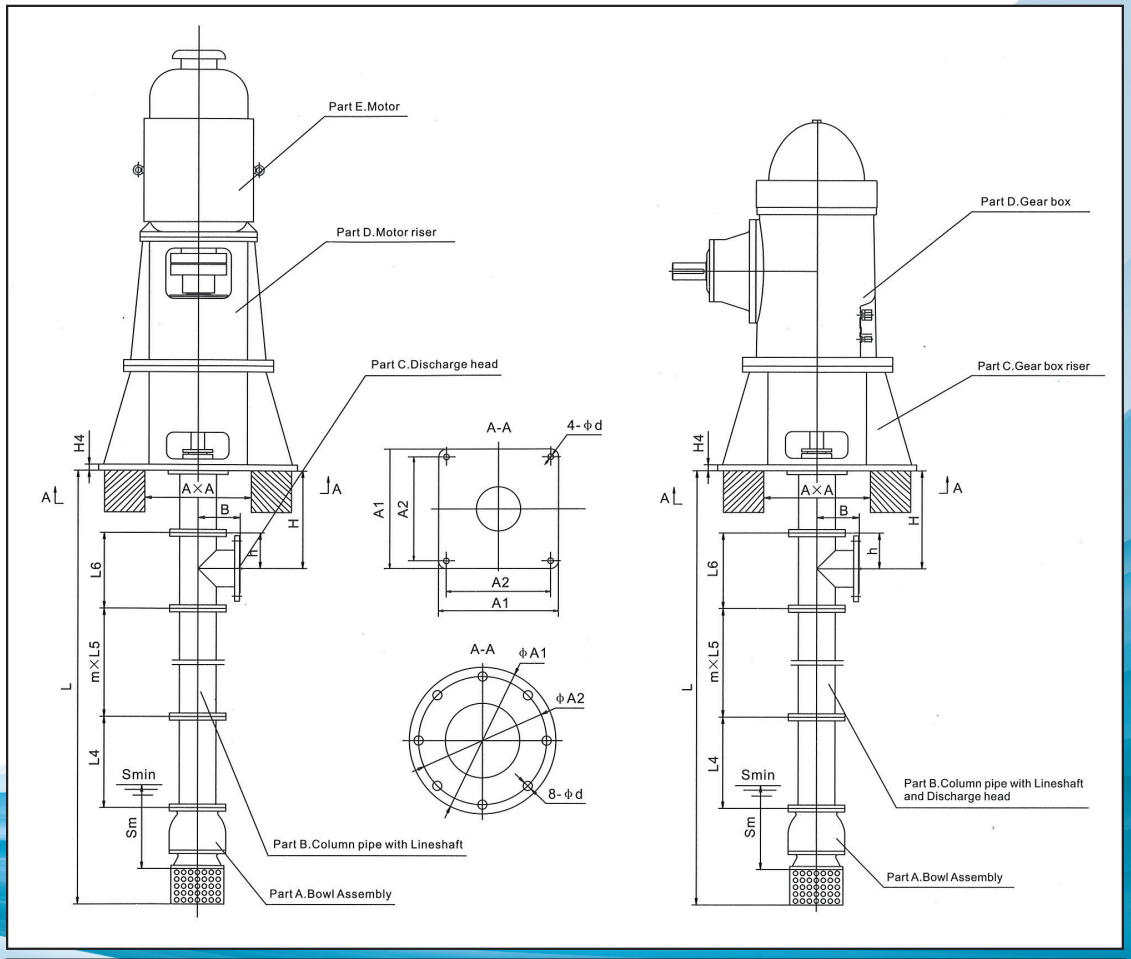


√	measures (in)											
	Model	**ØA1**	**ØA2**	**A1**	**A2**	**Ød**	**H1**	**H2**	**H4**	**L5**	**B**	**Sm**	**AxA**
	250VTM	/	/	28.74	26.38	1.18	10.43	22.05	1.18	98.43	15.75	17.72	17.72 X 17.72
	300VTM	/	/	32.68	30.31	1.18	12.60	25.20	1.38	98.43	17.72	19.69	19.69 X 19.69
	350VTM	/	/	36.61	34.25	1.18	14.57	28.35	1.38	98.43	19.69	23.62	21.65 X 21.65
	500VTM	/	/	48.43	45.67	1.30	20.47	37.80	1.57	98.43	25.59	35.43	33.46 X 33.46
	600VTM	/	/	54.33	51.57	1.30	24.41	44.09	1.77	98.43	39.37	39.37	33.46 X 33.46
	700VTM	59.06	55.12	/	/	1.42	27.56	49.21	1.97	98.43	31.50	47.24	43.31 X 43.31
	800VTM	64.96	61.02	/	/	1.42	31.50	55.12	1.97	98.43	35.43	55.12	47 X 47
	900VTM	70.87	66.93	/	/	1.42	35.43	61.02	2.36	98.43	39.37	62.99	53 X 53
	1000VTM	76.77	72.83	/	/	1.65	39.37	66.93	2.36	98.43	43.31	70.87	58 X 58
	1200VTM	88.58	84.65	/	/	1.65	47.24	78.74	2.36	98.43	47.24	86.61	63 X 63
	1400VTM	100.39	96.46	/	/	1.65	55.12	90.55	2.36	98.43	55.12	102.36	71 X 71

√	measures (mm)											
	Model	**ØA1**	**ØA2**	**A1**	**A2**	**Ød**	**H1**	**H2**	**H4**	**L5**	**B**	**Sm**	**AxA**
	250VTM	/	/	730	670	30	265	560	30	2500	400	450	450X450
	300VTM	/	/	830	770	30	320	640	35	2500	450	500	500X500
	350VTM	/	/	930	870	30	370	720	35	2500	500	600	550X550
	500VTM	/	/	1230	1160	33	520	960	40	2500	650	900	850X850
	600VTM	/	/	1380	1310	33	620	1120	45	2500	1000	1000	850X850
	700VTM	1500	1400	/	/	36	700	1250	50	2500	800	1200	1100X1100
	800VTM	1650	1550	/	/	36	800	1400	50	2500	900	1400	1200X1200
	900VTM	1800	1700	/	/	36	900	1550	60	2500	1000	1600	1350X1350
	1000VTM	1950	1850	/	/	42	1000	1700	60	2500	1100	1800	1480X1480
	1200VTM	2250	2150	/	/	42	1200	2000	60	2500	1200	2200	1600X1600
	1400VTM	2550	2450	/	/	42	1400	2300	60	2500	1400	2600	1800X1800

VTM, VTG Pump Dimensions

(Above Ground Discharge)



√	measures (in)											
	Model	**ØA1**	**ØA2**	**A1**	**A2**	**Ød**	**L5**	**L6**	**h**	**B**	**Sm**	**AXA**
	250VTM	/	/	28.74	26.38	1.18	98.43	19.69	7.87	11.02	17.72	21.65 X 21.65
	300VTM	/	/	32.68	30.31	1.18	98.43	21.65	9.06	12.99	19.69	25.59 X 25.59
	350VTM	/	/	36.61	34.25	1.18	98.43	24.80	10.24	14.96	23.62	26.77 X 26.77
	500VTM	/	/	48.43	45.67	1.30	98.43	34.65	13.78	21.26	35.43	39.37 x 39.37
	600VTM	/	/	54.33	51.57	1.30	98.43	41.34	16.54	25.20	39.37	39.37 x 39.37
	700VTM	59.06	55.12	/	/	1.42	98.43	78.74	27.56	31.50	47.24	70.87 X 70.87
	800VTM	64.96	61.02	/	/	1.42	98.43	78.74	31.50	35.43	55.12	78.74 X 78.74
	900VTM	70.87	66.93	/	/	1.42	98.43	78.74	35.43	39.37	62.99	86.61 X 86.1
	1000VTM	76.77	72.83	/	/	1.65	98.43	78.74	39.37	43.31	70.87	94.49 X 94.49
	1200VTM	88.58	84.65	/	/	1.65	98.43	78.74	47.24	47.24	86.61	102.36 X 102.36
	1400VTM	100.39	96.46	/	/	1.65	98.43	78.74	55.12	55.12	102.36	118.11 X 118.11

√	measures (mm)											
	Model	**ØA1**	**ØA2**	**A1**	**A2**	**Ød**	**L5**	**L6**	**h**	**B**	**Sm**	**AXA**
	250VTM	/	/	730	670	30	2500	500	200	280	450	550X550
	300VTM	/	/	830	770	30	2500	550	230	330	500	650X650
	350VTM	/	/	930	870	30	2500	630	260	380	600	680X680
	500VTM	/	/	1230	1160	33	2500	880	350	540	900	1ooox1000
	600VTM	/	/	1380	1310	33	2500	1050	420	640	1000	1000X1000
	700VTM	1500	1400	/	/	36	2500	2000	700	800	1200	1800X1800
	800VTM	1650	1550	/	/	36	2500	2000	800	900	1400	2000X2000
	900VTM	1800	1700	/	/	36	2500	2000	900	1000	1600	2200X2200
	1000VTM	1950	1850	/	/	42	2500	2000	1000	1100	1800	2400X2400
	1200VTM	2250	2150	/	/	42	2500	2000	1200	1200	2200	2600X2600
	1400VTM	2550	2450	/	/	42	2500	2000	1400	1400	2600	3000X3000

VTA, VTG Vertical Turbine Pumps

(Above Ground Discharge)

Specification range

- Capacities to 20, 000m³/h (90,000GPM)
- Heads to 12m (36ft)

Design Advantages

1. Fabricated discharge head for all sizes.

2. Seamless flanged ends column pipe and flanges bowl construction incorporating registered fits for ease of assembly during assembly.

3. Alloy construction with external tube flush of critical wear areas available for abrasive services.

4. High efficiency design. Broad hydraulic coverage provides best selection to meet specific operating conditions.

5. 416SS shafting. Keyed lineshaft coupling available in all size for ease of maintenance. The lineshaft can be protected by water flushing the enclosing tube bearing on corrosive/abrasive services.

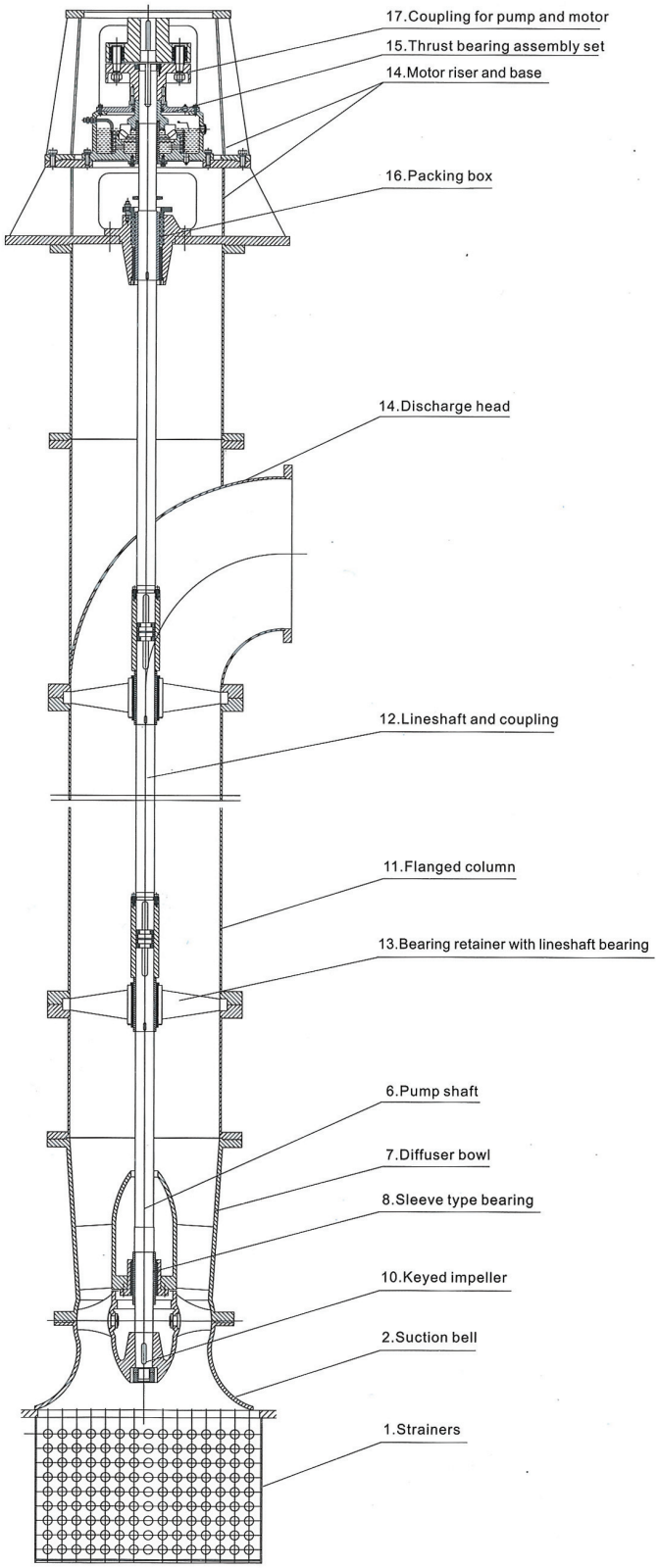
6. Various bearing material available.

7. Wide range of corrosion and erosion resistant materials.

8. Flexible design to accommodate fixed or existing dimensions.

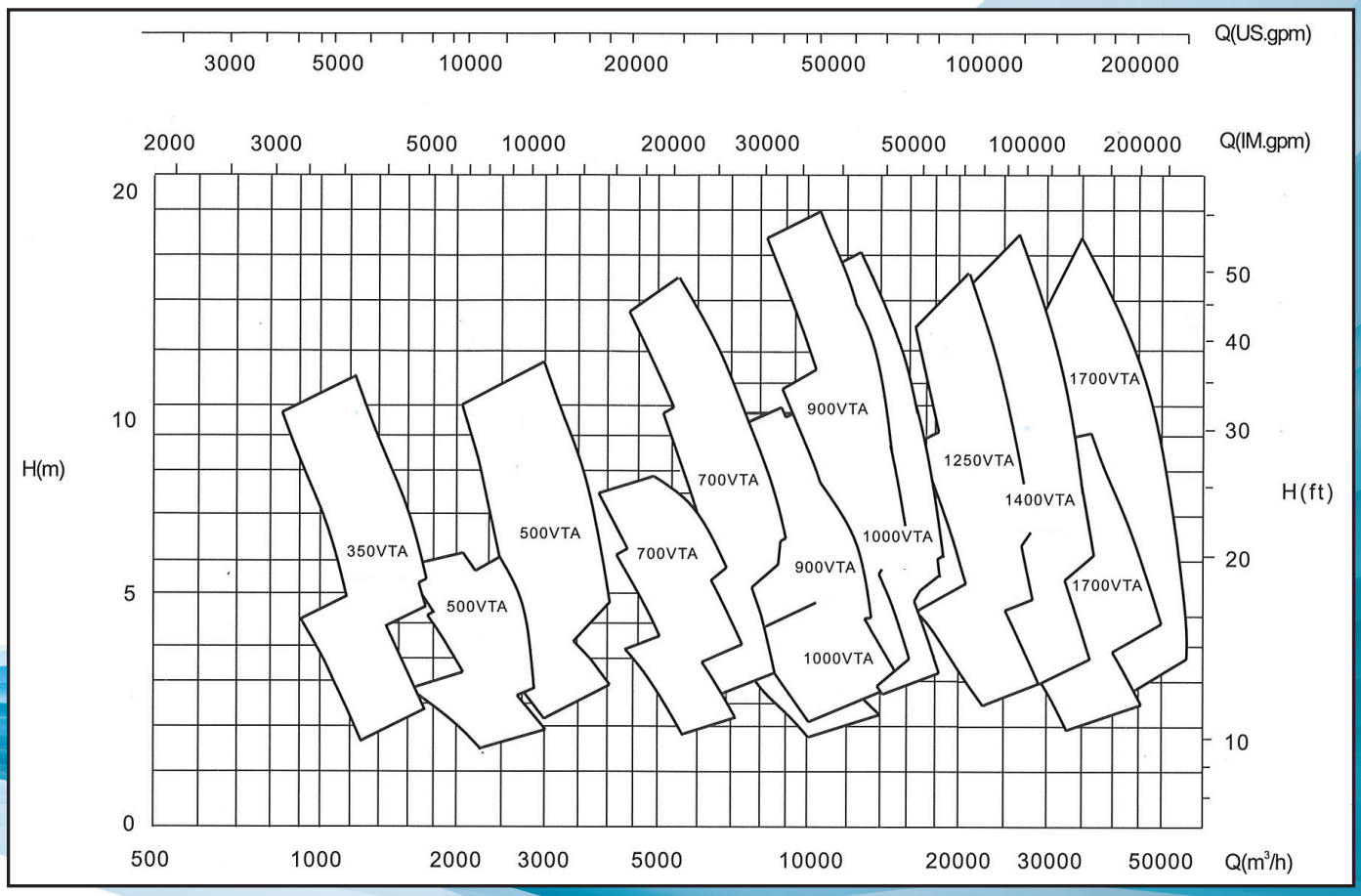
Services

Pollution Control
Medium and Low Head Circulation
Effluent Disposal
Flood Control
Dewatering
River Water Intake
Cooling Water
Irrigation and Drainage
Dry Docks

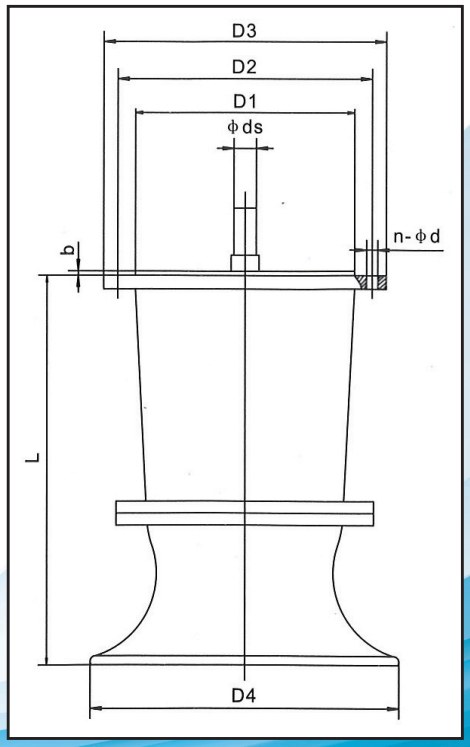


Technical Data

VTA Selection Charts



VTA Pump Bowl
Assembly Dimensions

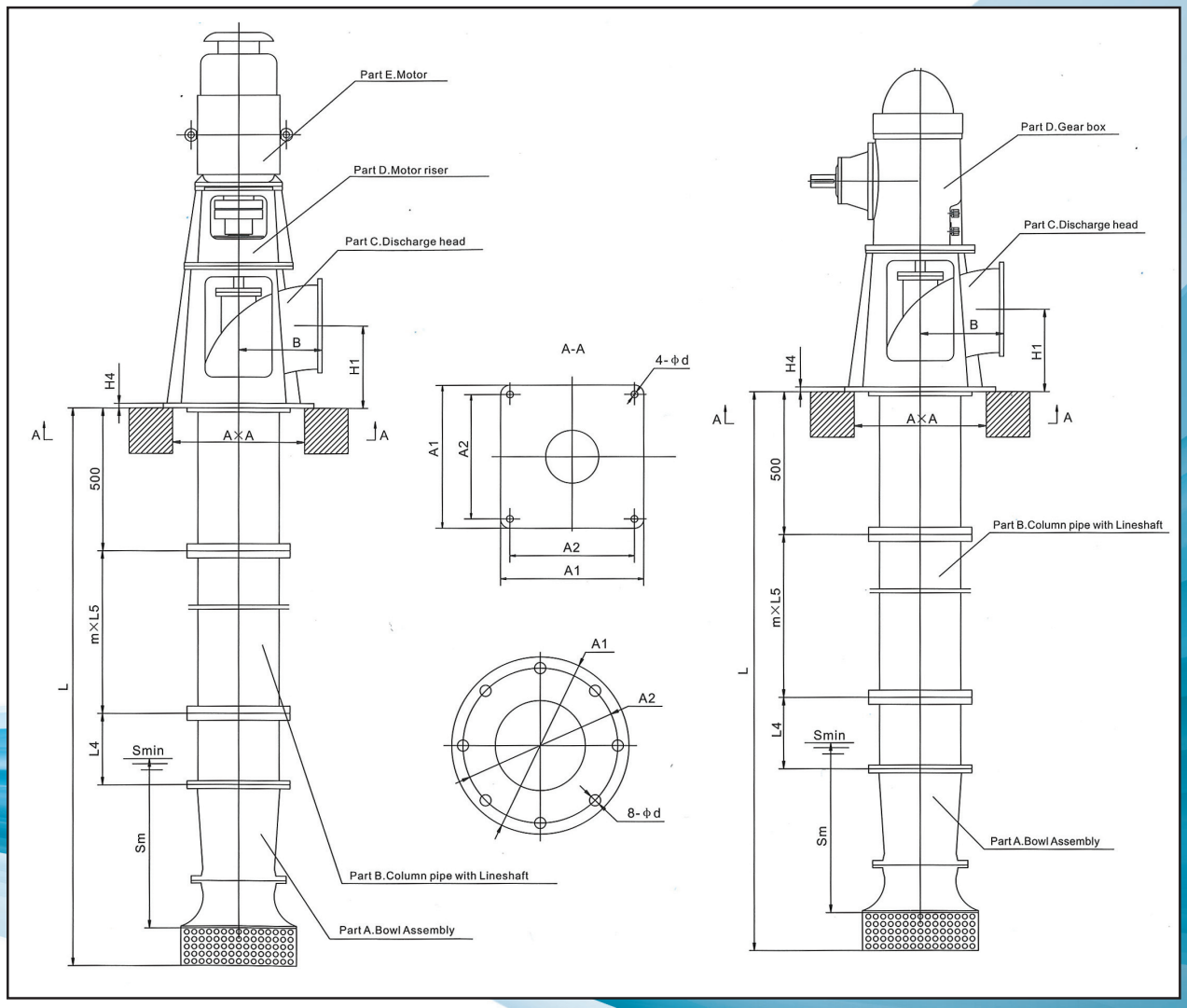


√	measures (in)									
	Model	**Impeller Dia**	**D1**	**D2**	**D3**	**D4**	**L**	**Ø ds**	**b**	**n-Ø d**
	350VTA	300	370f7	415	450	516	590	40	5	8-ø18
	500VTA	450	520f7	600	650	700	900	60	5	12-ø23
	700VTA	650	720f7	810	865	1000	1000	90	7	20-ø25
	900VTA	850	920f7	1020	1080	1280	1150	110	8	24-ø30
	1000VTA	950	1020f7	1120	1180	1400	1200	120	10	28-ø30
	1250VTA	1200	1270f7	1380	1450	1600	1300	140	10	32-ø 30
	1400VTA	1300	1420f7	1530	1600	1750	1400	160	10	36-ø 30
	1700VTA	1600	1720f7	1830	1900	2150	1600	190	10	40-ø 30

√	measures (mm)									
	Model	**Impeller Dia**	**D1**	**D2**	**D3**	**D4**	**L**	**Ø ds**	**b**	**n-Ø d**
	350VTA	11.81	14.57f7	16.34	17.72	20.31	23.23	1.57	0.20	8-ø18
	500VTA	17.72	20.47f7	23.62	25.59	27.56	35.43	2.36	0.20	12-ø23
	700VTA	25.59	28.35f7	31.89	34.06	39.37	39.37	3.54	0.28	20-ø25
	900VTA	33.46	36.22f7	40.16	42.52	50.39	45.28	4.33	0.31	24-ø30
	1000VTA	37.40	37.40f7	44.09	46.46	55.12	47.24	4.72	0.39	28-ø30
	1250VTA	47.24	40.16f7	54.33	57.09	62.99	51.18	5.51	0.39	32-ø 30
	1400VTA	51.18	50.00f7	60.24	62.99	68.90	55.12	6.30	0.39	36-ø 30
	1700VTA	62.99	55.91f7	72.05	74.80	84.65	62.99	7.48	0.39	40-ø 30

VTA, VTG Pump Dimensions

(Above Ground Discharge)

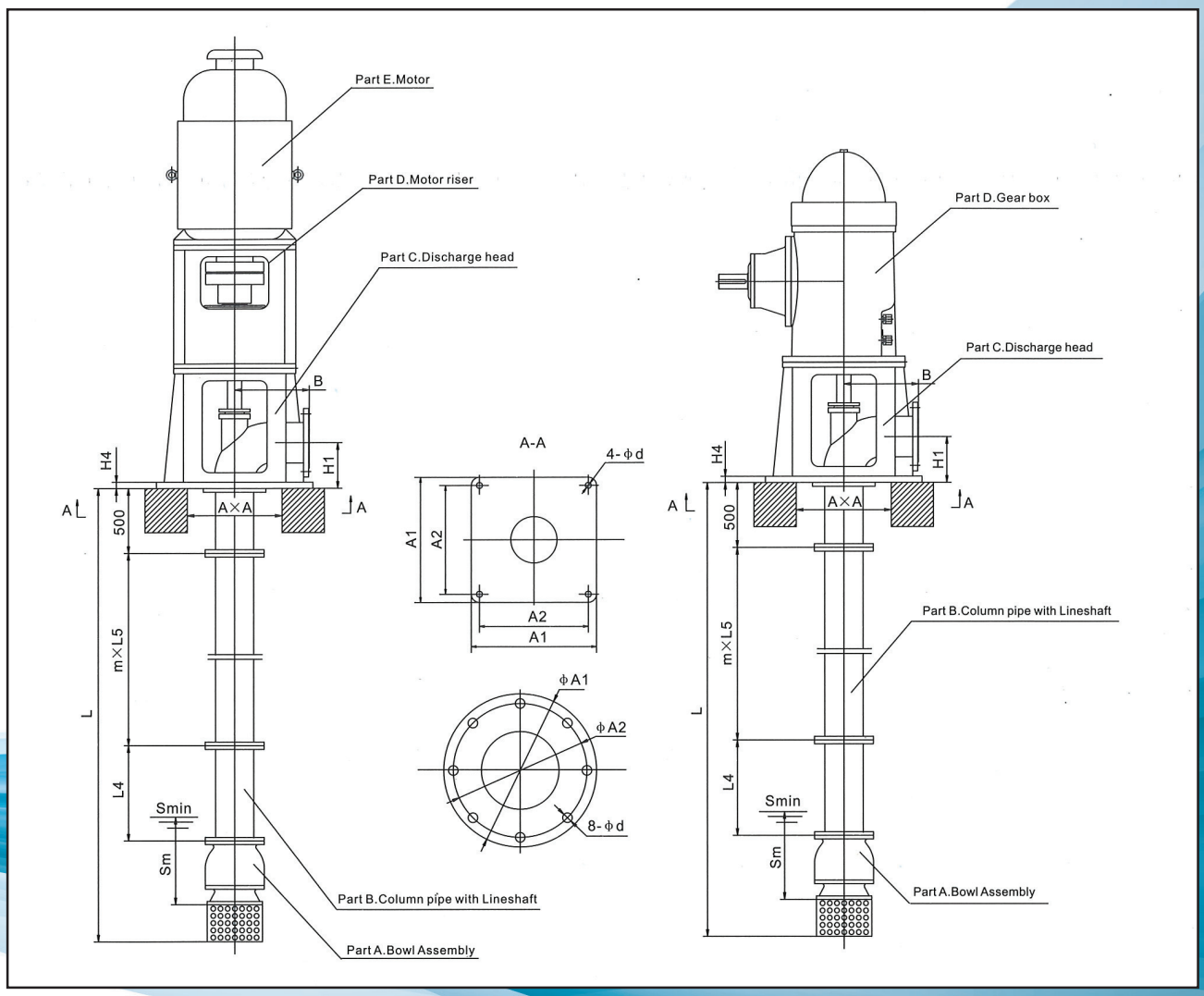


√	measures (in)											
	Model	**ØA1**	**ØA2**	**A1**	**A2**	**Ød**	**H1**	**H2**	**H4**	**L5**	**B**	**Sm**	**AxA**
	350VTA	/	/	36.61	34.25	1.18	14.57	28.35	1.38	62.99	19.69	23.62	21.65 X 21.65
	500VTA	/	/	48.43	45.67	1.30	20.47	37.80	1.57	62.99	25.59	35.43	33.46 X 33.46
	700VTA	59.06	55.12	/	/	1.42	27.56	49.21	1.97	62.99	31.50	47.24	45.28 X 45.28
	900VTA	70.87	66.93	/	/	1.42	35.43	61.02	2.36	62.99	39.37	62.99	57.09 X 57.09
	1000VTA	76.77	72.83	/	/	1.65	39.37	66.93	2.36	62.99	43.31	70.87	66.93 X 66.93
	1250VTA	88.58	84.65	/	/	1.65	49.21	78.74	2.36	62.99	53.15	86.61	74.80 X 74.80
	1400VTA	100.39	96.46	/	/	1.65	55.12	90.55	2.36	62.99	55.12	102.36	74.80 X 74.80
	1700VTA	126.77	122.05	/	/	1.81	66.93	102.36	2.36	62.99	66.93	118.11	98.43 X 98.43

√	measures (mm)											
	Model	**ØA1**	**ØA2**	**A1**	**A2**	**Ød**	**H1**	**H2**	**H4**	**L5**	**B**	**Sm**	**AxA**
	350VTA	/	/	930	870	30	370	720	35	1600	500	600	550 X 550
	500VTA	/	/	1230	1160	33	520	960	40	1600	650	900	850 X 850
	700VTA	1500	1400	/	/	36	700	1250	50	1600	800	1200	1150 X 1150
	900VTA	1800	1700	/	/	36	900	1550	60	1600	1000	1600	1450 X 1450
	1000VTA	1950	1850	/	/	42	1000	1700	60	1600	1100	1800	1700 X 1700
	1250VTA	2250	2150	/	/	42	1250	2000	60	1600	1350	2200	1900 X 1900
	1400VTA	2550	2450	/	/	42	1400	2300	60	1600	1400	2600	1900 X 1900
	1700VTA	3220	3100	/	/	46	1700	2600	60	1600	1700	3000	2500 X 2500

VTA, VTG Pump Dimensions

(Above Ground Discharge)



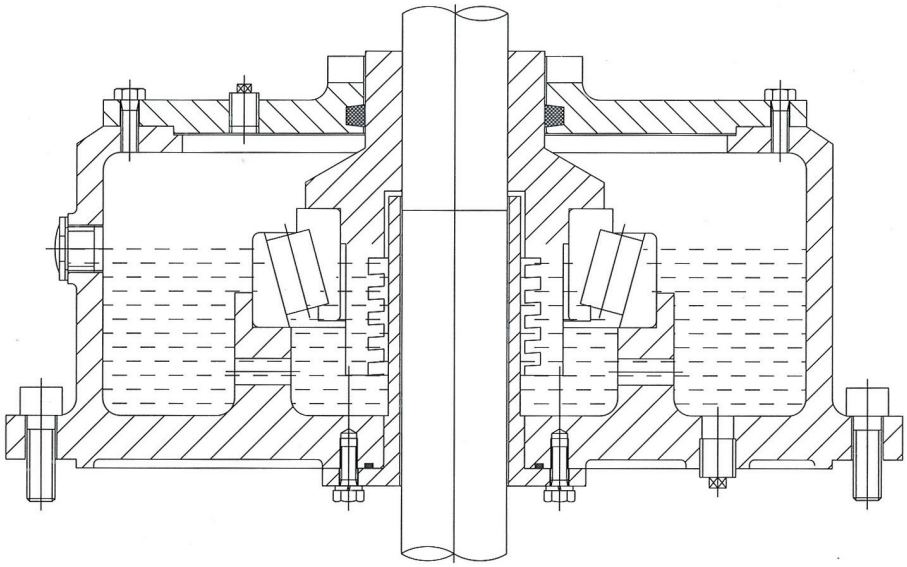
√	measures (in)										
	Model	**ØA1**	**ØA2**	**A1**	**A2**	**Ød**	**L5**	**L6**	**H**	**B**	**Sm**	**A x A**
	350VTA	/	/	36.61	870	1.18	62.99	24.80	10.24	14.96	23.62	26.77 X 26.77
	500VTA	/	/	48.43	1160	1.30	62.99	34.65	13.78	21.26	35.43	39.37 X 39.37
	700VTA	59.06	55.12	/	/	1.42	62.99	78.74	27.56	31.50	47.24	70.87 X 70.87
	900VTA	70.87	66.93	/	/	1.42	62.99	78.74	35.43	39.37	62.99	86.61 X 86.61
	1000VTA	76.77	72.83	/	/	1.65	62.99	78.74	39.37	43.31	70.87	94.49 X 94.49
	1250VTA	88.58	84.65	/	/	1.65	62.99	78.74	49.21	49.21	86.61	102.36 X 102.36
	1400VTA	100.39	96.46	/	/	1.65	62.99	78.74	55.12	55.12	102.36	118.11 X 118.11
	1700VTA	125.98	122.05	/	/	1.81	62.99	78.74	66.93	66.93	118.11	137.80 X 137.80

√	measures (mm)										
	Model	**ØA1**	**ØA2**	**A1**	**A2**	**Ød**	**L5**	**L6**	**H**	**B**	**Sm**	**A x A**
	350VTA	/	/	930	870	30	1600	630	260	380	600	680X680
	500VTA	/	/	1230	1160	33	1600	880	350	540	900	1000x1000
	700VTA	1500	1400	1	1	36	1600	2000	700	BOO	1200	1800X1800
	900VTA	1800	1700	1	1	36	1600	2000	900	1000	1600	2200X2200
	1000VTA	1950	1850	1	1	42	1600	2000	1000	1100	1800	2400X2400
	1250VTA	2250	2150	1	1	42	1600	2000	1250	1250	2200	2600X2600
	1400VTA	2550	2450	1	1	42	1600	2000	1400	1400	2600	3000X3000
	1700VTA	3200	3100	1	1	46	1600	2000	1700	1700	3000	3500X3500

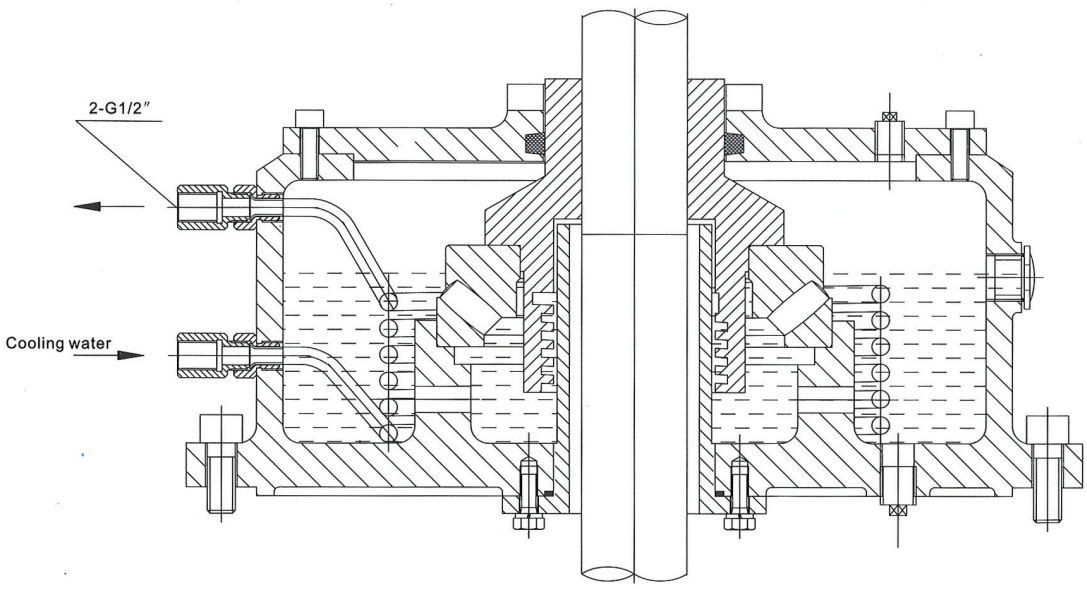
Oil Lubricated Trust Bearing Assembling Sets

When the VTP designed driven by VSS motor, the pump's thrust will be loaded by the thrust bearing on the top of the pump or loaded by the top thrust bearing of the VSS motor.

FloFab can supply two kinds of different thrust bearing assembly sets as following, design for the pumps with lower and higher thrust.



Standard thrust bearing assembly set



Water cooling heavy duty thrust bearing assembly set

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