



VERTICAL MIXED-FLOW VOLUTE PUMPS

Model VLY Bore 350~700mm (14~28in)

FEATURES

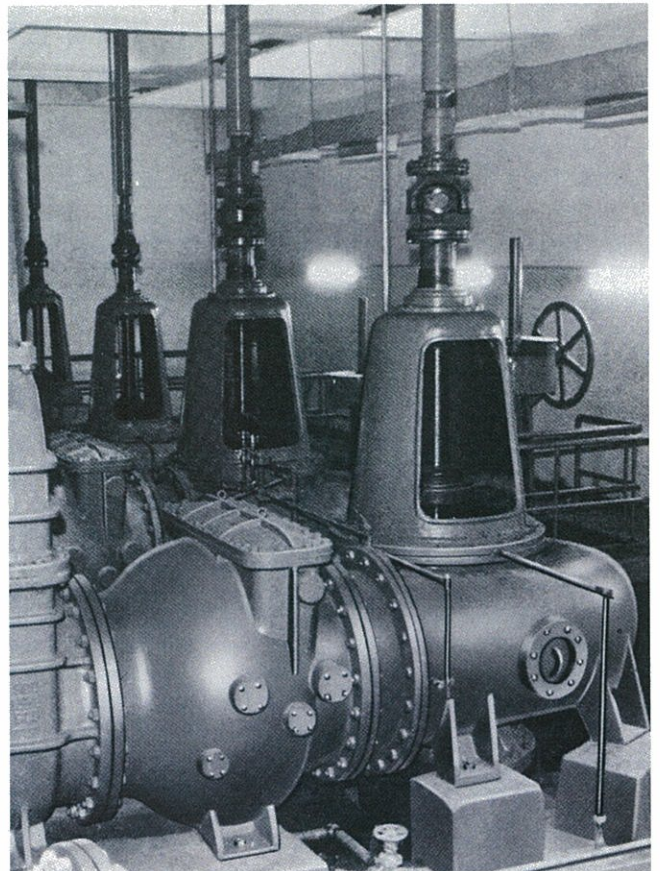
- **HIGH EFFICIENCY** — Specially designed closed-impeller and volute casing create greatest efficiency.
- **NON-CLOGGING** — Impeller has minimum number of vanes to eliminate clogging.
- **SHAFT PROTECTED** — Replaceable sleeve protects main shaft from corrosion by chemical reaction of sewage water.
- **EASY MAINTENANCE** — Rotating parts can be inspected easily without disturbing piping connections and large hand-hole facilitates regular inner inspection.
- **HIGH DURABILITY** — Simplified design and durable construction insure long-life operation and easy maintenance.
- **WIDE SELECTION** — Any model standardized up to the size of 28 inches will meet any of your requirements.
- **HIGH QUALITY AND SHORT DELIVERY** — The standard design allows for shortest delivery period while being manufactured under the highest of quality control programs with refined skill and the newest facilities having the capability to supply the largest pumps in the world.

SPECIFICATIONS

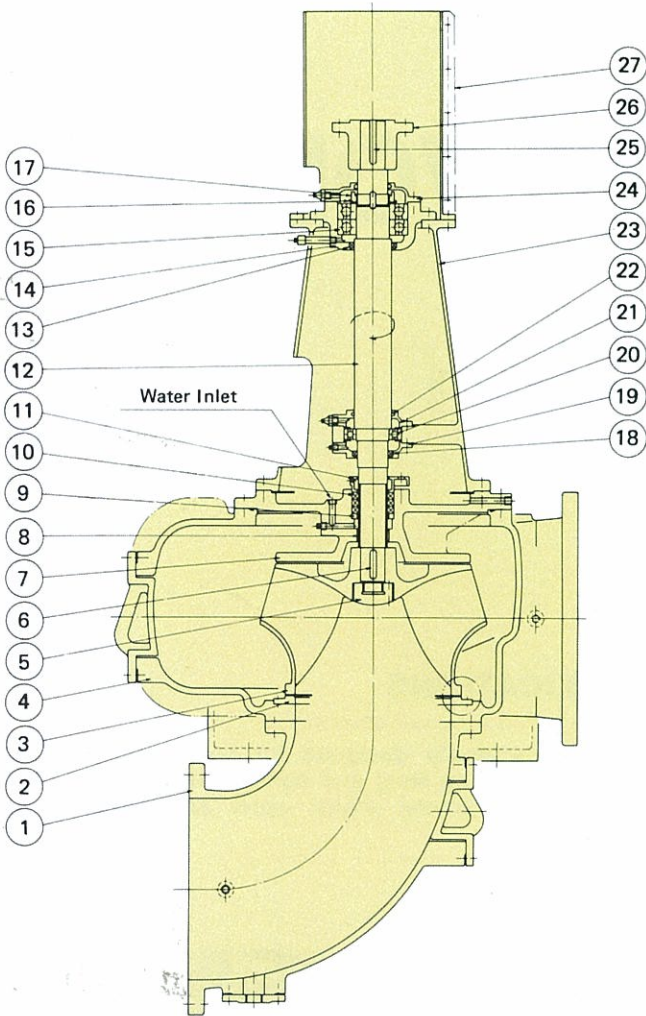
- Rotative direction: Clockwise as viewed from driver
- Impeller: Single suction close type
- Bearing: Ball & roller bearings
- Bearing lubrication: Grease lubrication
- Shaft seal: Gland packing (External water injection system)
- Flange: ANSI class 125
We can meet demands for other standard than the above.
- Suction elbow: 90° bend type is our standard, however, we can also manufacture special bend type.

APPLICATIONS

Pump is specially designed for handling combined sewage including sand and non-corrosive large solids of city and factory, storm water and drainage in general.



SECTIONAL VIEW



HOW TO DETERMINE THE PUMP POWER INPUT AT RATED DISCHARGE CAPACITY

The pump power input is to be determined by the following formula:

$$HP = K \times Q \times H \times 10^{-4}$$

$$1 \text{ HP} = 0.7457 \text{ kW}$$

Model	K value
350VLY ~ 450VLY	3.23
500VLY ~ 700VLY	3.15

where, Q: Rated discharge capacity (USGPM)
H: Rated total head (ft)

GLAND INJECTION WATER

Fresh water of normal temperature having following water capacity and pressure is required per unit of pump:

Model	Capacity ℓ/min	Pressure kgf/cm ²
350VLY 700VLY	20	normal press. +1.0kgf/cm ² or more

$$\{ 1 \text{ kgf/cm}^2 = 0.0981 \text{ MPa} \}$$

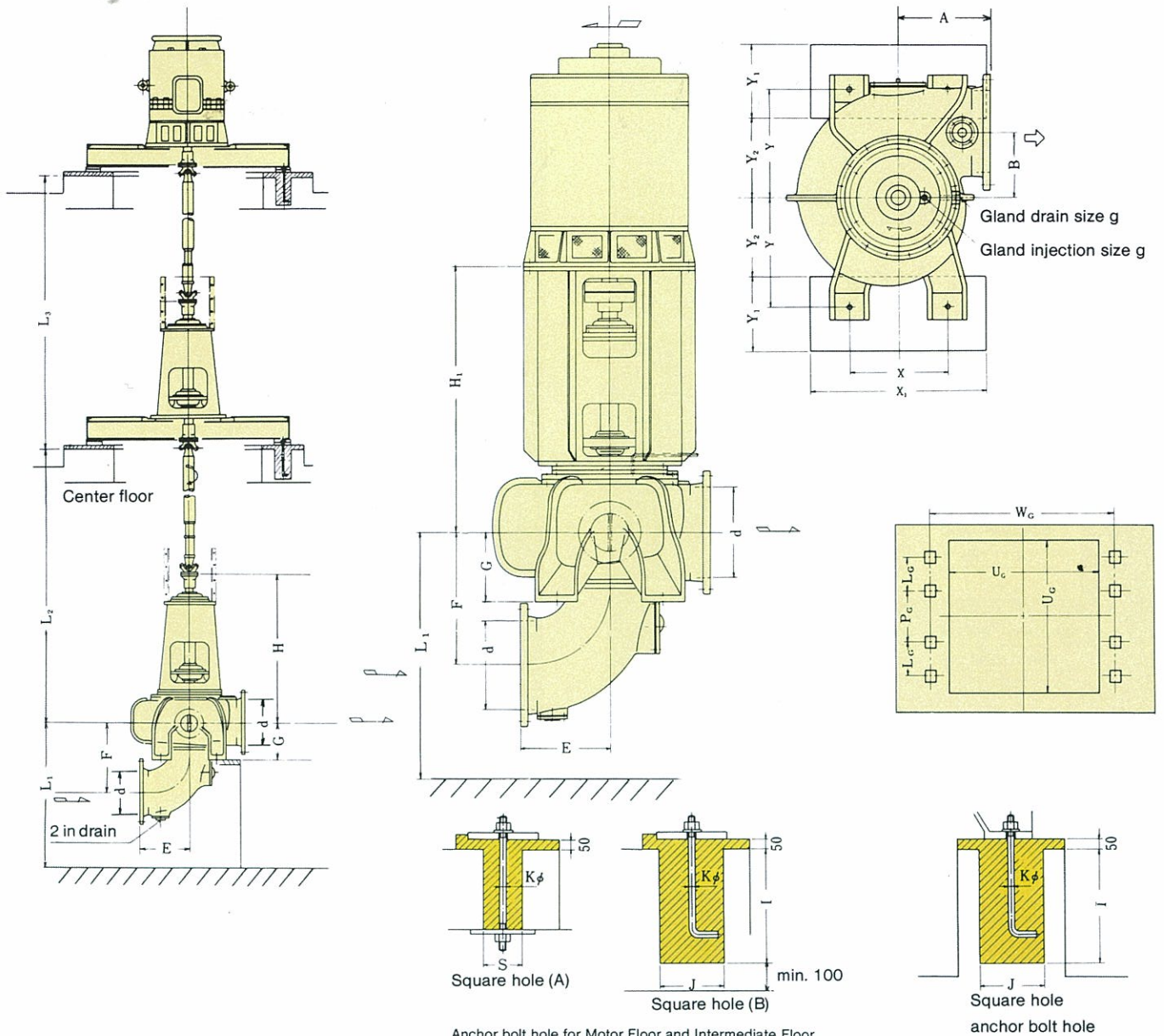
Part & Material

Part No.	Part Name	Q'ty for 1 unit	Material
27	Coupling guard	1	Rolled Steel
26	Shaft coupling	1 set	Cast Iron
25	Shaft coupling key	1	Cast Iron
24	Bearing cover	1	Cast Iron
23	Bearing frame	1	Rolled Steel
22	Felt ring	2	Felt
21	Bearing cover	1	Cast Iron
20	Roller bearing	1	—
19	Bearing cover	1	Cast Iron
18	Oil seal	1	—
17	Bearing nut	1	Rolled Steel
16	Bearing washer	1	Rolled Steel
15	Roller bearing	1 set	—
14	Bearing case	1	Cast Iron
13	Oil seal	1	—
12	Pump shaft	1	Stainless Steel
11	Packing gland	1 set	Bronze
10	Packing	1 set	Carbonized fiber
9	Packing plate	1	Stainless Steel
8	Shaft sleeve	1	Stainless Steel
7	Casing cover	1	Cast Iron
6	Impeller key	1	Stainless Steel
5	Impeller nut	1	Stainless Steel
4	Casing	1	Cast Iron
3	Impeller	1	Stainless Steel Casting
2	Liner ring	1	Stainless Steel
1	Suction elbow	1	Cast Iron

STANDARD ACCESSORIES

- In the case of 1 floor system
 - Shaft coupling 1 set
 - Motor pedestal 1 pc.
 - Anchor bolts 1 set
- In the case of 2 floor system
 - Universal coupling 1 set
 - Motor base frame (with sole plate) 1 set
 - Anchor bolts 1 set
 - Checkered plate 1 set
 - Coupling guard 1 set
- In the case of Intermediate Bearing is attached (for more than 3 floor system)
 - Motor base frame (with sole plate) 1 set
 - Intermediate Bearing (including Bearing Case, Ball Bearing, Intermediate Bearing Pedestal, Intermediate Shaft, etc.) 1 set
 - Intermediate Bearing base frame (with sole plate) 1 set
 - Universal coupling 1 set
 - Checkered plate 1 set
 - Anchor bolts 1 set
 - Coupling guard 1 set

OUTLINE DIMENSIONS



Anchor bolt hole for Motor Floor and Intermediate Floor
(A or B is adopted according to Floor Thickness)

UNIT : mm

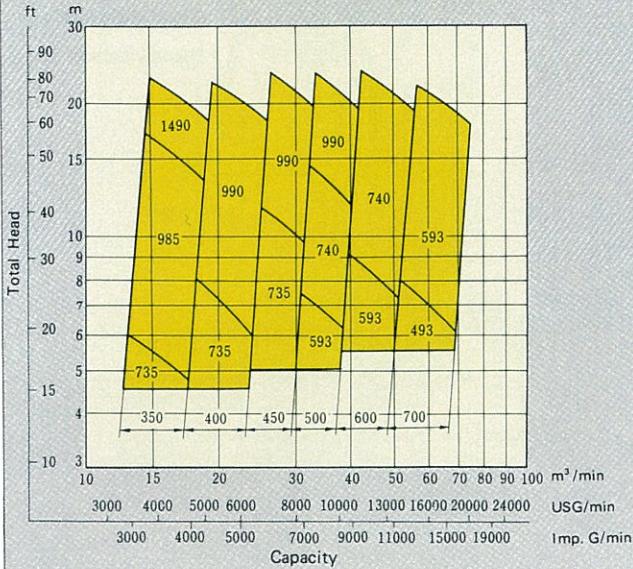
Model	Pump									Foundation				
	d	A	B	E	F	G	H	H ₁	g	X	Y	X ₁	Y ₁	Y ₂
350VLY	340	470	290	400	600	270	1215	1415	15	400	450	800	600	300
400VLY	400	470	330	420	640	300	1235	1435	15	450	500	850	600	350
450VLY	450	500	360	450	670	350	1255	1455	15	500	550	900	600	400
500VLY	500	620	480	550	750	380	1610	1810	20	580	590	1000	650	420
600VLY	600	650	510	650	900	420	1630	1830	20	680	660	1200	650	490
700VLY	700	700	600	750	1000	470	1670	1870	20	820	750	1400	650	550

UNIT : mm

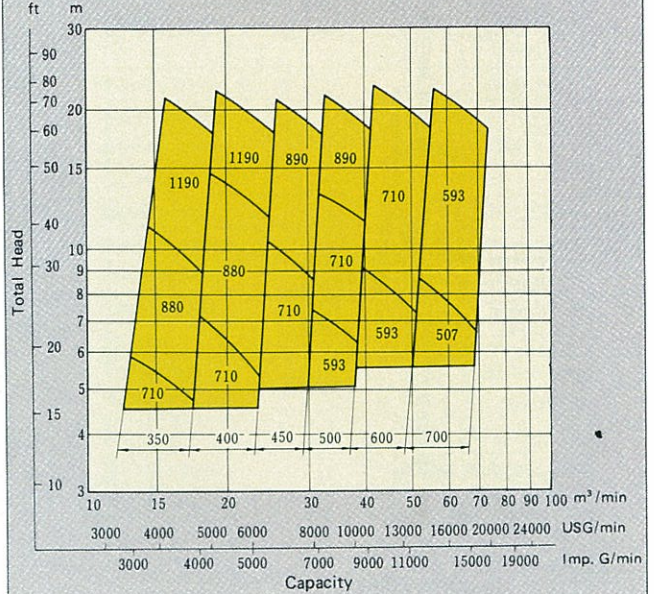
Model	Foundation											
	U _G	W _G	P _G	L _G	I	J	S	K	L ₁ min.	L ₂ max.	L ₃ max.	
350VLY	1200	1500	430	270	470	170	100	22	950	3000	3000	
400VLY	1300	1600	430	270	470	170	100	22	1000	3500	3500	
450VLY	1400	1700	480	270	470	170	100	22	1050	3500	3500	
500VLY	1700	2100	500	300	600	190	100	24	1150	4000	4000	
600VLY	1900	2300	600	300	600	190	100	24	1350	4500	4500	
700VLY	2200	2600	630	370	600	190	100	24	1500	5000	5000	

SELECTION CHART

50Hz



60Hz



All specifications are subject to change without notice.

In this catalog, the particulars in | | are in accordance with the International System of Units (SI) and given for reference only.



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