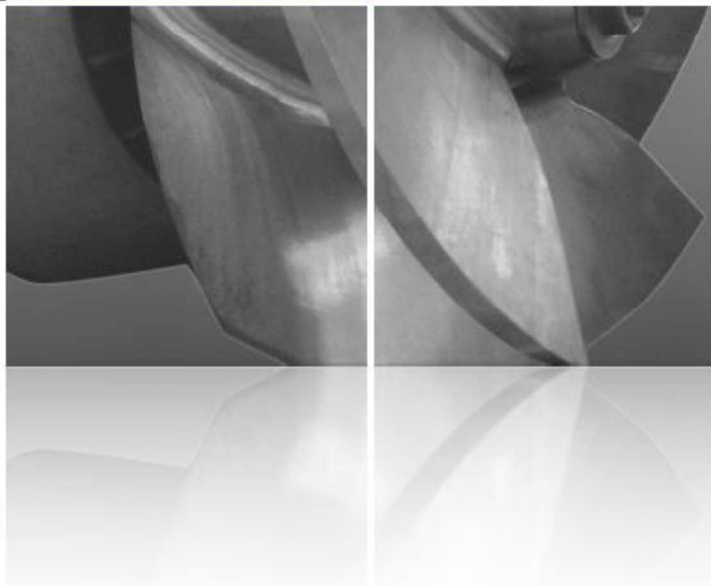




**EBARA**

# VERTICAL SHAFT LARGE SCALE PUMP

Model : VS, VZ, VY Series



## -Features-

- Many varieties of options to meet all customer requirements.
- Smaller installation space than that of horizontal pumps.
- Immersed impeller dispenses with the need for priming and achieves an easy operation.



## -General Specifications-

Service	Water intake/ transfer/circulation
Application	Sea water desalination, CWP for power plant, Irrigation ,Drainage etc.
Liquid	Clear water, River water, Sea water, etc.
	Temperature : 0~60°C(32~140° F)

## -Material-

	Clear Water	River Water	Sewage	Sea water
Casing	Cast Iron / Rolled Steel	Cast Iron / Rolled Steel	Cast Iron / Rolled Steel	Low Alloy C.I. 316L S.S. DSS/SDSS
Impeller	Stainless Steel	Stainless Steel	Stainless Steel	316L S.S. DSS/SDSS
Shaft	Carbon Steel/ Stainless Steel	Carbon Steel/ Stainless Steel	12%Cr S.S.	316L S.S. DSS/SDSS
Shaft sleeve	Stainless Steel	Stainless Steel	Stainless Steel	316L S.S. DSS/SDSS
Shaft-enclosing tube (If applied)	Carbon Steel/ Stainless Steel	Carbon Steel/ Stainless Steel	Stainless Steel	316L S.S. DSS/SDSS
Pump base	Rolled Steel			
Driver pedestal				

Selection of material requires careful study of the properties of the liquid handled and of the operating conditions, etc. For specific details, please consult our factory.

## -Construction-

	Standard	Other
Installation type	One-floor-discharge type	Two-floor type, underground-discharge type, pull-out type (model VYN/VZN/VSN)
Direction of rotation	CW(viewed from driver)	CCW(viewed from driver)
Discharge flange	JIS 10K F.F.	Any standard
Thrust bearing	Oil-bath anti-friction bearing	Tilting pad
	Located in pump (Thrust force supported by pump )	Located in motor( Thrust force supported by motor)
Submerged bearing	Rubber bearing, Thordon bearing	Rubber bearing with enclose tube, Ceramic bearing, etc.
Shaft seal	Gland packing	Mechanical seal
Accessories	Pump base, coupling, drain piping, anchor bolts	Rubber bearing lubrication system, suction strainer, , auto air vent valve, compound gauge, tools, etc.

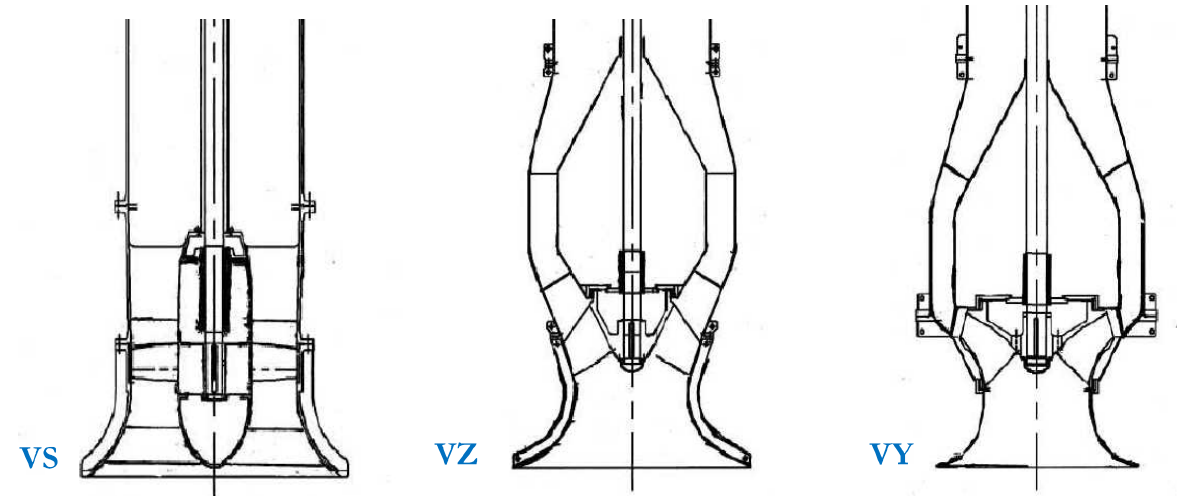


## Optimal Designs

Ebara offers various options, in order to exactly meet your requirement.

## -Typical Designs of Impeller-

There are three different design types of impellers. 100 years experiences and know-how of hydraulic technology enables us to offer suitable hydraulics for you .



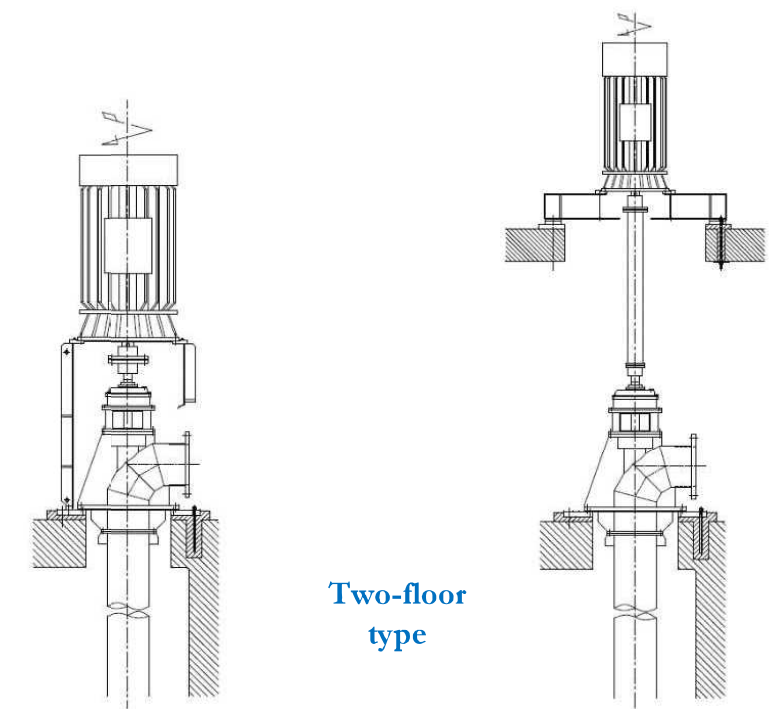
VS

VZ

VY

## -Installation Type-

Depends on your plan of pump operating conditions, Ebara can propose the best installation type e.g. one-floor type or multi-floor type .

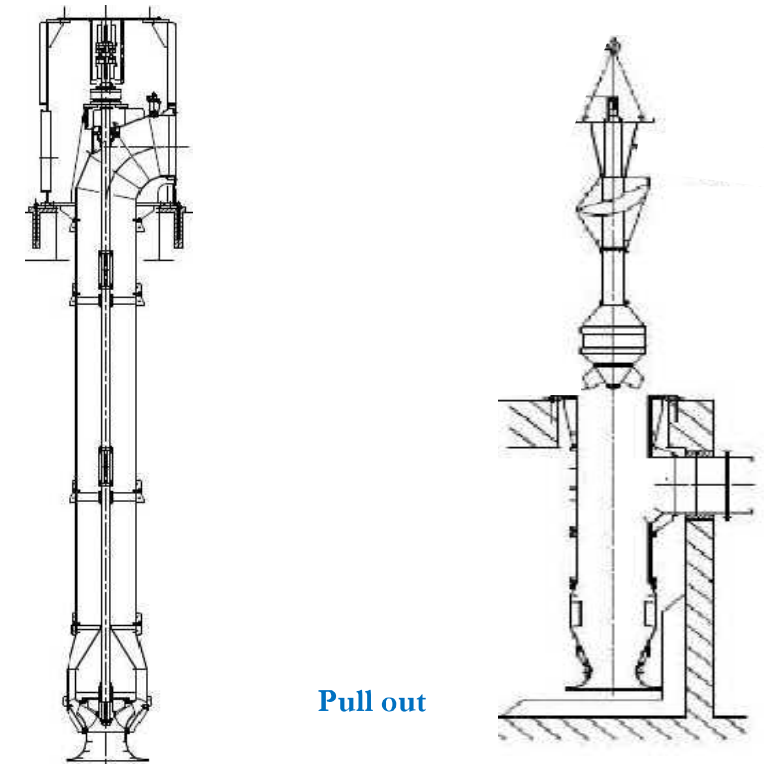


One-floor type

Two-floor type

## -Pump Structure-

While the non-pull out type is simple design and realizes lower initial cost, the pull-out design whose entire rotor can be withdrawn minimizes time and cost for inspection and maintenance.

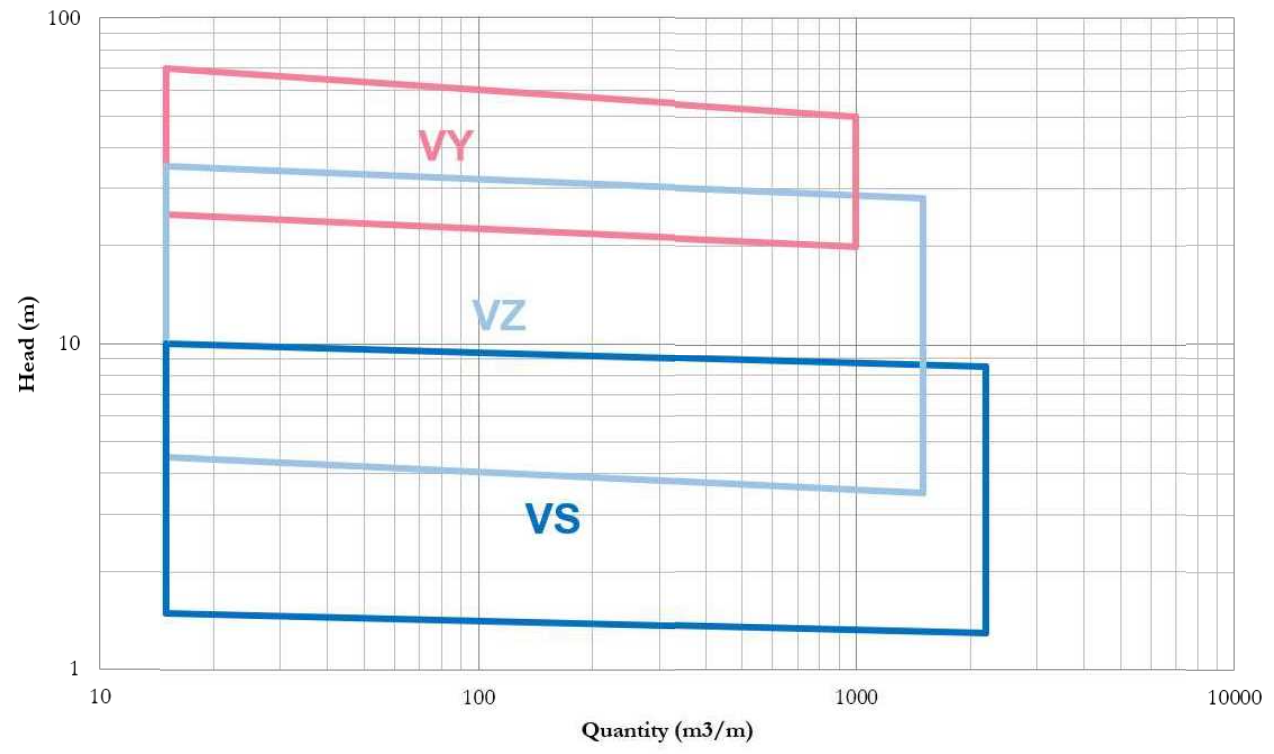


Non pull out

Pull out



# -Pump Selection Chart-



# -Pump Model Name-

**2200 VY 2 N M**

- M: Motor direct drive
- GM: Motor drive through gear
- GE: Engine drive through gear
- GT: Turbine or Gas turbine drive through gear
- N or P :Pull out type
- K: Adjustable vane type
- Number of stage (Not mention for 1 stage)
- Y: Closed impeller
- Z: Semi-open impeller
- S: Open impeller
- Pump bore size in millimeters

※Model VX is Ebara's model code.

# -Test Facility-

## How Ebara Guarantees Reliability

Ebara has one of the largest test facilities in the world. Actual pump test can be carried out with 5,000 m.<sup>3</sup> of water tank capacity and more than 18,000kW. of driver power.

Ebara also possesses a wide range of pump model test facilities for confirming pump performance and experimentally validating new products through performance/internal flow measurement and analysis. And Ebara can provide suction sump model test for proving a design or developing suction sump design.



Test Pit



Suction Sump Model Test



Model Pump with Transparent Casing



## **EBARA CORPORATION**

### **Head Office :**

11-1, Haneda Asahi-cho, Ota-ku,  
Tokyo, 144-8510 Japan  
Phone : 81-3-3743-6111  
Fax: 81-3-5736-3100  
[www.ebara.co.jp](http://www.ebara.co.jp)

### **Futtsu Plant :**

78-1 Shintomi, Futtsu-shi,  
Chiba, 293-0011, Japan  
TEL: 81-439-29-8000

### **Fujisawa Plant :**

4-2-1 Honfujisawa, Fujisawa-shi,  
Kanagawa, 251-8502, Japan  
TEL: 81-466-83-8111  
FAX: 81-466-81-2164

### **EBARA MACHINERY ZIBO CO.,LTD. :**

Head Office & Factory :  
No.517 Luxin Road, New and High Technology Zone,  
Zibo City, Shandong Province 255086, P.R.China  
TEL : 86-533-3919555  
FAX : 86-533-3919567

### **EBARA VIETNAM PUMP CO., LTD. :**

Head Office & Factory:  
Lai Cach Industrial Zone, Lai Cach Town,Cam Giang District,  
Hai Duong Province, Vietnam  
TEL : 84-2203-850182  
FAX : 84-3203-850180

Looking ahead, going beyond expectations

*Ahead* > *Beyond*