

Pioneering for You

wilo

High efficiency solutions for Vertical Turbine Pump

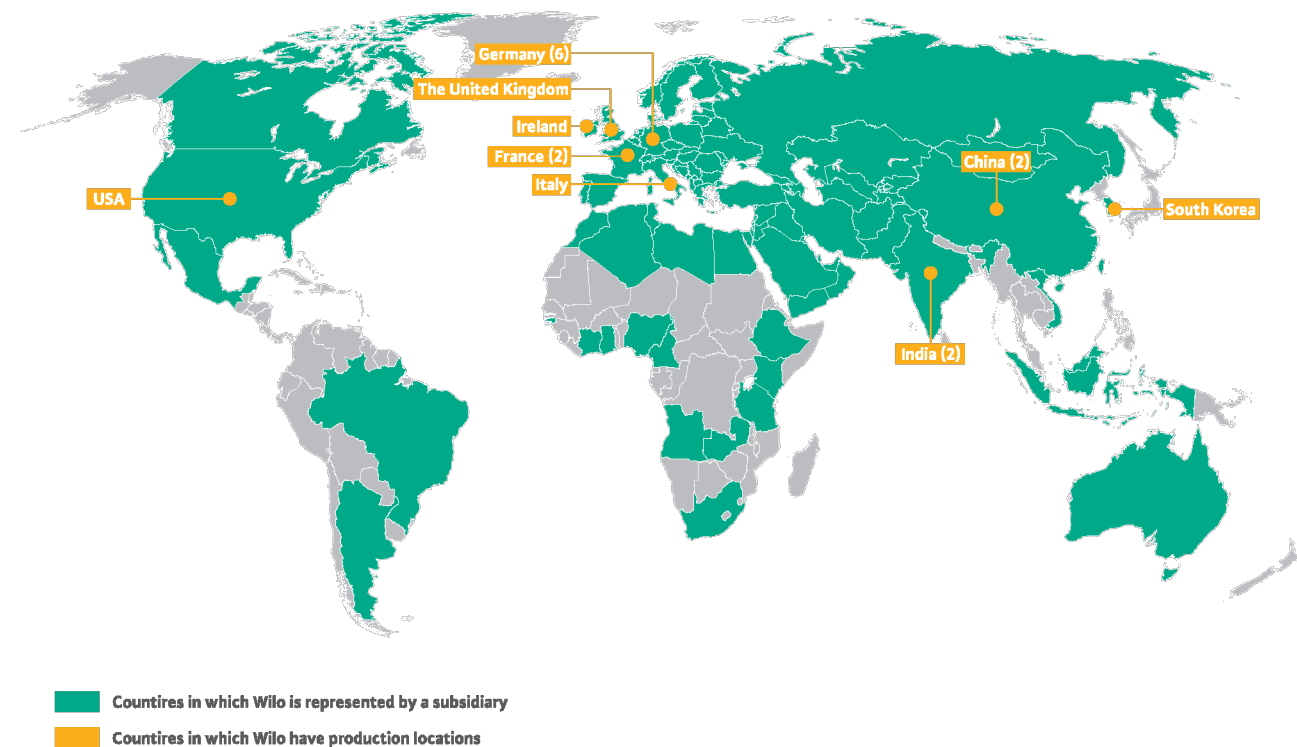


The company at a glance

WILO SE, based in Dortmund, Germany is one of the world's leading manufacturers of pumps and pumping systems for heating, cooling and air conditioning, water supply, sewage disposal and industrial applications. With more than 15 production sites over 60 subsidiaries, and more than 7,000 employees around the world, Wilo is a true global player. Founded in 1872 as the Louis Opländer Copper and Brass Goods Factory, the company has developed to become the leading innovator in the high-tech pump sector.



World map with local & global presence of WILO



Chinchwad, Pune Plant

WILO Mather and Platt Pumps Pvt. Ltd.

Mather and Platt started its Indian operations in 1913 from Kolkata, and has been fulfilling the need of water supply for more than 100 years in India for segments like building services, water management and industries.

We started our operation at Chinchwad works in Pune, Maharashtra in year 1959.

Mather and Platt Pump Ltd became part of WILO SE in the year 2005

And in year 2014, WILO Mather and Platt Pumps Ltd. Become WILO Mather and Platt Pumps Pvt. Ltd.

In the year 2009 a new state of art manufacturing facility covering over approx. 6000 sq. meters has been built at Kolhapur around 260 km from Pune to manufacture the latest high efficiency products of Wilo India.

The Pune & Kolhapur plants have acquired ISO 9001, ISO 14001 and OSHAS 18001 and all products are CE certified.



Kolhapur Plant

ISO Certifications



Awards

A Green feather in the cap.....

In April 2013, our Kolhapur plant received a Gold Certification from the Indian Green Building Council (IGBC).



Water is life.

Not much is required for highly efficient environmental protection. Just good ideas. Such as the idea for the high-efficiency pump which represented a milestone achievement in 2001 and the performance data which defined today's statutory limits. It requires up to 90 % less electricity than old, unregulated standard pumps.

The idea is only a good one however, if it pays off in the long term. Which is why Wilo high-efficiency pumps not only save energy, they save money too. Off every electricity bill. A small step for each one of us, but a big step for us all. Towards a better future for generations to come.

Sustainability.
Today's ideas, tomorrow's standard solutions.

Deviations of 70 micrometres – a hair's breadth – are just visible to the naked eye. This is still too much tolerance for real quality and this is why our quality assurance system combines the latest measuring methods with extensive testing procedures. These include, for example, an endurance test in which our pumps run non-stop under full load. This test and the most demanding eagle-eyed technicians mean that even the smallest of flaws do not go undetected. Only products that pass our tests with flying colours are put to use in your company. Quality means that we question every aspect of our products and actions, so that you are left in peace.

Quality.
This is what matters.

Flexibility is one of the most important qualities in the business world of today. Not only for the product range or service, but also spatially. Our specialists for development, quality assurance and production work in close cooperation with you when integrating our pumps in your production process. That begins with individual consulting during the planning stage, and goes far beyond installation and connection. A well-trained and worldwide active service department is another essential feature of our partnership philosophy. We're only happy when your business runs as well as our pumps.

Service.
Wherever you need us.



Engineering Capabilities

IDEC

Our Design & Engineering Centre [IDEC] facility in Pune, India focus on continuous research, development of products & services with state of art technologies.. Key activities carried out are as follows

- Geometric modelling
- In-house hydraulic design
- Computational fluid Dynamics [CFD]
- Finite Element Analysis [FEA]
- Sump model & Intake sump model analysis
- Stress, Torsional & Seismic analysis

Team of experts working towards development of world-class fluid pumping technology to cater growing demands from Indian & Overseas customers offering cutting edge solution with Best In Class solutions in terms of hydraulic efficiency, energy efficiency, weight to hydraulic mass ratio & structural durability



Test Bed

Latest facility for ensuring outgoing product quality of International standards in terms of hydraulics performance, vibrations as well as noise levels.

Facility & Capabilities

- Large pump Test bed for flows upto 60000 m³/hr, EOT crane capacity 60 Ton
- Standard pump test bed for end suction, Horizontal Split Case pump flow upto 30000 m³/hr
- NPSH req. testing capable for flows to 6000 m3/hr
- Full speed tests upto 4.5 Mega Watt
- All measuring equipment calibrated on a scheduled basis with traceability to International Standards
- Testing capability of a complete engine driven pump



Expertise comes in all sizes

Vertical Turbine Pumps



Applications

WILO Mather and Platt Vertical turbine pump is normally used in high-flow applications

- Water supply [drinking water, raw water intake & sea water]
- Irrigation
- Fire Fighting
- Cooling water of power plants
- Flood control

Vertical Turbine Pumps	: 74 models [60 Hz]
Series	: CNE, VMF, VMP*, VAF*, VMFO**
Flow Range++	: up to 60000 m3/hr
Head Range	: up to 450 m
Operating Temperature	: 0°C to 80°C, Higher on request
Mounting	: Vertical
Orientation	: Above Floor, Below Floor
Trust Bearing	: Grease , Oil
Lubrication	
Line Shaft Bearing	: Self, Forced [external]
Lubrication	
Direction of Rotation	: Clockwise, Counter Clockwise
Bowl Assembly	: Pull out or Non-pull out

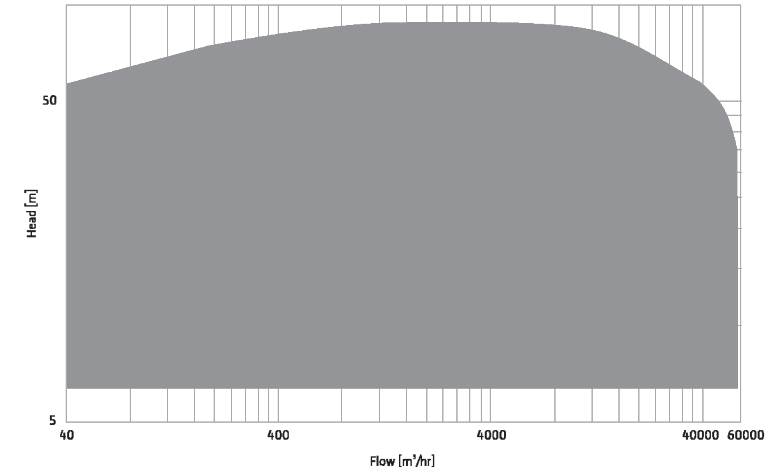
For 60 Hz application, contact WILO Mather and Platt Pumps
++Higher flow available on request
*VMP & VAF pumps are with propeller type impellers
** VMFO pumps are with semi open type impellers

Material of Construction*

Impeller	: Cast Iron, Bronze Stainless Steel, Ni-CI, Cast Steel, Duplex, Super Duplex
Diffuser	: Cast Iron, Stainless Steel, Ni-CI, Cast Steel, Duplex, Super Duplex
Shaft	: Stainless Steel [EN8, EN19, SS 304, SS 410, SS410H, SS 316L, UNS]
Shaft Sleeve	: Carbon Steel [EN8],Stainless Steel [SS 304,SS 410, SS410H, SS 316L, UNS]
Casing wear ring	: Cast Iron, Bronze Stainless Steel, Ni-CI
Intermediate bearing	: FINOCOT, THORDON, FEROFORM Cut-less Rubber
Bell mouth	: Cast Iron, Stainless Steel, Ni-CI, Cast Steel, Duplex, Super Duplex
¹ RM Pipes	: Mild Steel, Stainless Steel
² DBMS	: Mild Steel, Stainless Steel

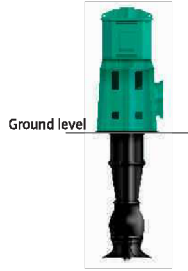
¹RM Pipes : Rising Main Pipe
²DBMS : Delivery Bend cum Motor Stool
* Pump with other material combinations available on request


Vertical Turbine Pumps [60 Hz]



Product Installations

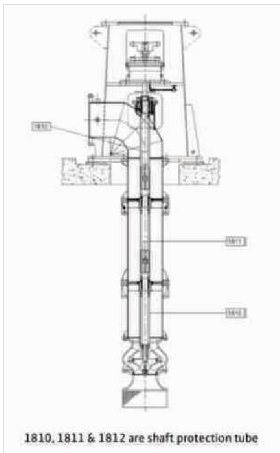
- Above Floor Installation:
Discharge bend is above ground level


- Below Floor Installation:
Discharge bend is below ground level
Thrust block arrangement is provided at the back of the discharge bend to absorb the trust generated due to change in direction of flow in discharge bend



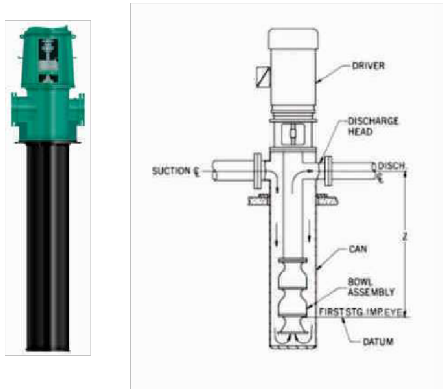
Product Variants
With Shaft tube

In case of contaminated liquid causing objectionable fast wear of intermediate bearings
Rotating assembly is protected by means of shaft tube
Fresh water/lubricating fluid is injected in the shaft tube



Constructional Variant

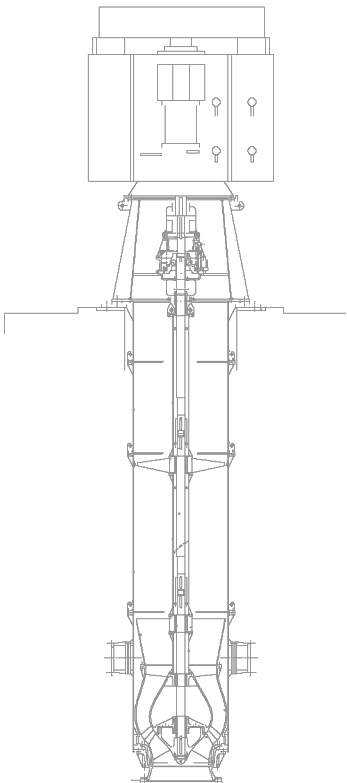
Vertical Turbine Pump with Cassian/Canister
This type of arrangement is typically used in condensate extraction
In this pump body [i.e. Bowl assembly, intermediate pipes] is placed in side a canister/barrel
NPSHa is very less in such applications



Design Features

Bowl Pull out

Maintenance friendly design where the pump hydraulics can be taken out for repairs without disturbing pipe arrangement.



Rigid Adjustable Coupling Assembly

Ensure efficient torque transmission with minimal losses & providing flexibility in alignment.

Discharge Bend

Houses Non reverser ratchet, Sealing and bearing arrangement coupling and fabricated delivery bend that ensures smooth flow, Flange rating as per customer request.
Below floor discharge also available

Electric Motor

Fitted with thrust bearing to take care of pump axial thrust. Optionally thrust bearing can be located in discharge bend assembly

Stuffing Box Assembly

Ensures sealing of water from discharge bend. Optionally mechanical seal can be used inside the stuffing box.

G. L. Floor Level

Flanged Column

Provided with strengthening ribs

Line Shaft

Suitable for transmission of torque & axial thrust

Wearing Ring

Replaceable wearing ring as standard

Solid Sleeve Coupling

Assembly for positive coupling of the shaft. The coupling is provided with split rings for transmitting the axial thrust and keys for torque.

Intermediate Bearing Assembly

Line shaft bearing with sleeve & bearing retainer

Impeller & Diffuser Bowl

Hydraulic profiles designed using in house design methods and flow analysis by CFD technology ensuring high efficiency & precision cast to ensure reliability with passages for smooth fluid flow. Design variants include semi-open impeller.

Suction Bell Mouth

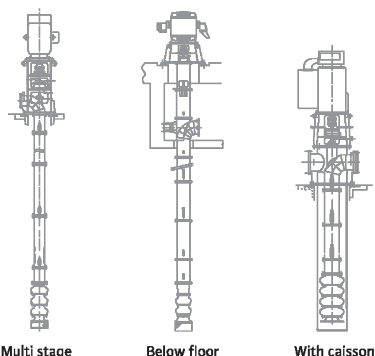
Provides efficient flow into the eye of the first stage impeller.

Note:
Pump shown is actual model of 2000 VMF
Non reverse switch is provided to prevent reverse rotation.
Optionally non reverse ratchet available

Expertise comes in all sizes

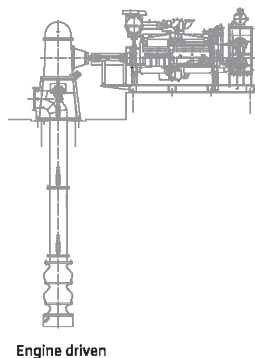
Prime Mover

- Vertical Turbine Pumps can be driven with ::
Electric motor:
Pump are supplied with Flange mounted solid or hollow shaft vertical motors confirming to IE1/IE2/IE3 standards/NEMA norms, IP 55 protection class, High Voltage motors in TEFC/CACA/CACW designs & other customised design on request



Diesel Engine:

Radiator cooled/Heat exchanger cooled options as per the requirement with right angled gear box



Product Certifications & Approvals

- All Vertical Turbine pumps are certified with CE
EAC [for Russian countries]

Customer Benefits

- Space saving
- Engineered product : Pumps are available in variety of materials & construction to meet exact customer requirement
- High pump efficiency delivered with high flow





Pioneering for You

WILO SE
Representative Office (Philippines)
Level 24, BGC Corporate Center
30th St. Cor. 11th Ave.,
Bonifacio Global City
Taguig 1634, Philippines
T+632 8790 0178
sales.ph@wilo.com
www.wilo.ph