



**WILO-EMU Bottom Intake
Submersible Pump
60 Hz**

Economical solution

For more than 5 decades EMU has developed and manufactured submersible motor pumps for water supply control of water level and booster plants.

The latest product of our program is the WILO-EMU Intake Submersible Pump which has the technical advantages of a submersible motor pump combined with the application possibilities of a shaft pump.

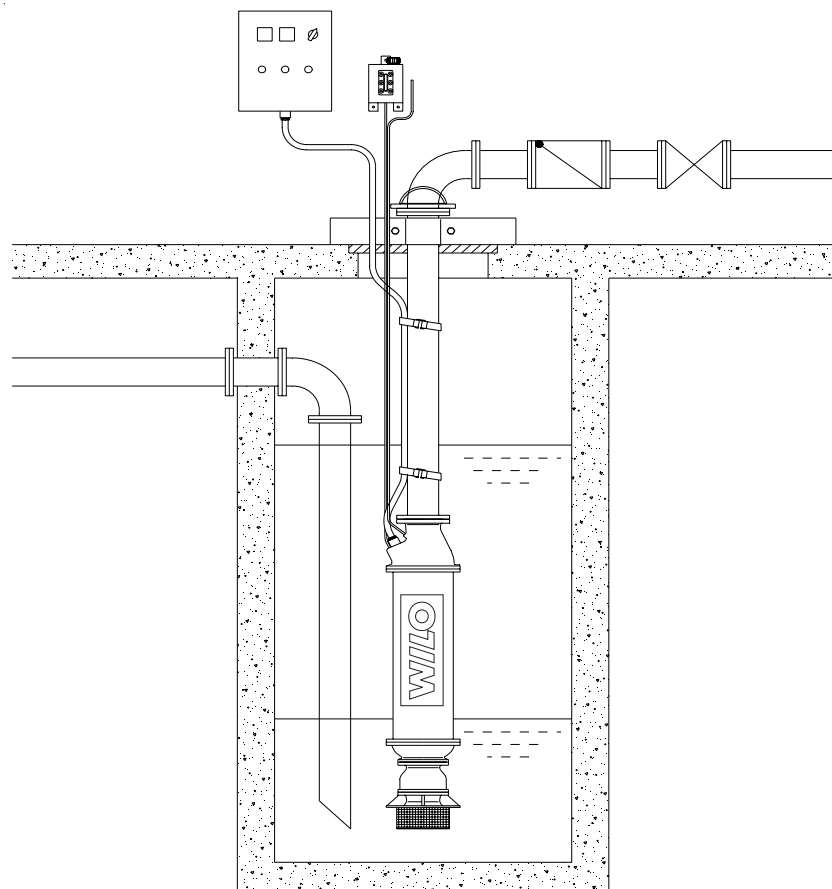
The pump is especially designed for the application in water treatment and irrigation plants, in mining and civil engineering, with Off-Shore plants, for pumping low water levels and as replacement for old, ineffective shaft pumping stations.

The special features of this pump are the high efficiency, reliability, long service life and no maintenance.

Simple and cost effective installation also with older stations because the pump is directly flanged to the existing pipeline. Because the motor is continuously submerged in the pumped liquid, a safe operation of the pump is guaranteed.

The WILO-EMU Intake Submersible Pump can be delivered with special material designs - in standard design as well as in corrosion-free design for polluted or contaminated water.

The duty range of our pumps lies between a capacity of 600 gpm to 4400 gpm and 66 feet to 325 feet.



Application and use

- Off-Shore for the application in secondary deballast systems
- Mining for seeping and process water for lowering of water level and contaminated water
- Dewatering of dams and polders
- Irrigation of lakes and rivers with low water levels
- Simple modernization and replacement of old shaft pumping stations

Function and working method

Function

The structure is equivalent to an inverted submersible motor pump with pump component and intake strainer in the lower section and submersible motor above the pump component.

The intake is effected over a suction strainer and an integrated intake funnel with antivortex plate.

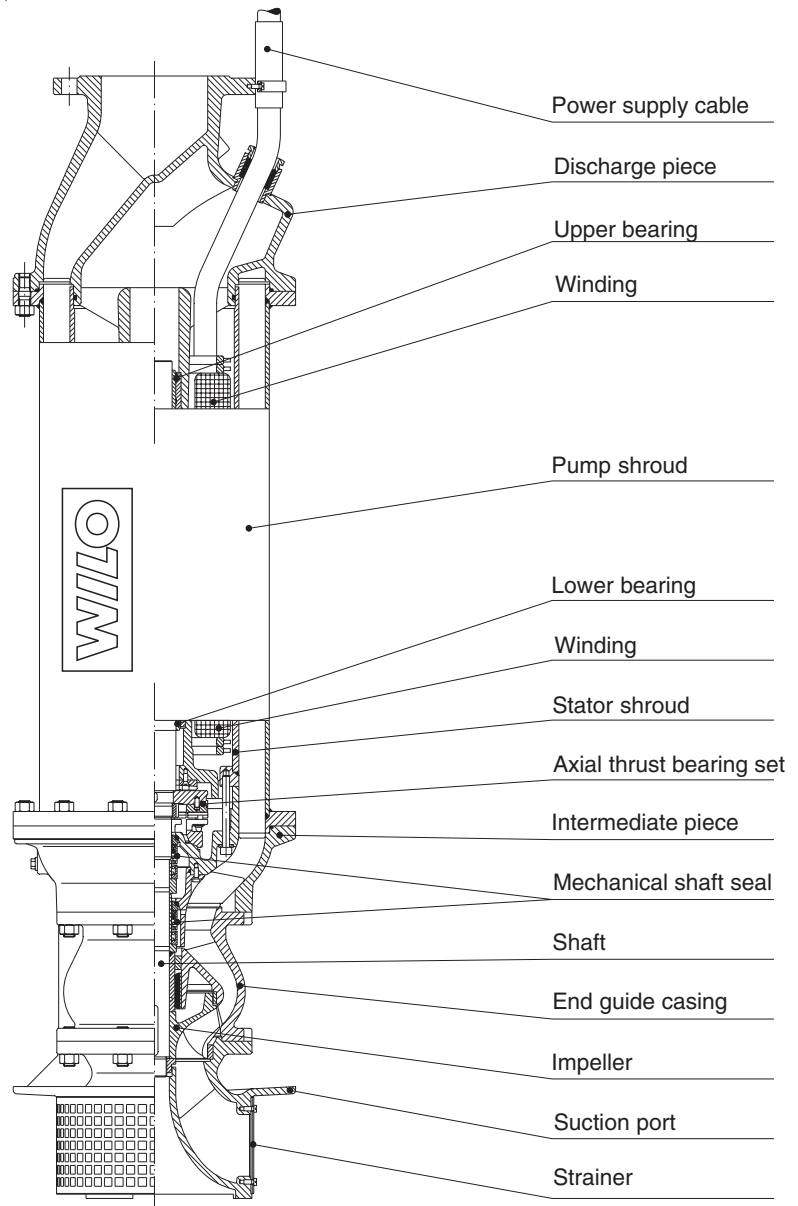
As a result, a very low water level can be achieved. The one-stage or multi-stage pump component is sealed by a double mechanical shaft seal from the submersible motor.

In the outer shroud the pumped liquid circulates around the complete motor.

The discharge piece is located at the upper end.

A differential tank for the motor filling can be provided.

The pump can be executed in our usual material designs A, C and in our special design D.



Advantages

- Low water level through bottom intake
- Very good motor cooling by submerged motor shroud
- High safety by double mechanical shaft seal
- Designs for water temperatures of 20 - 40 (PVC or PE 2-winding)

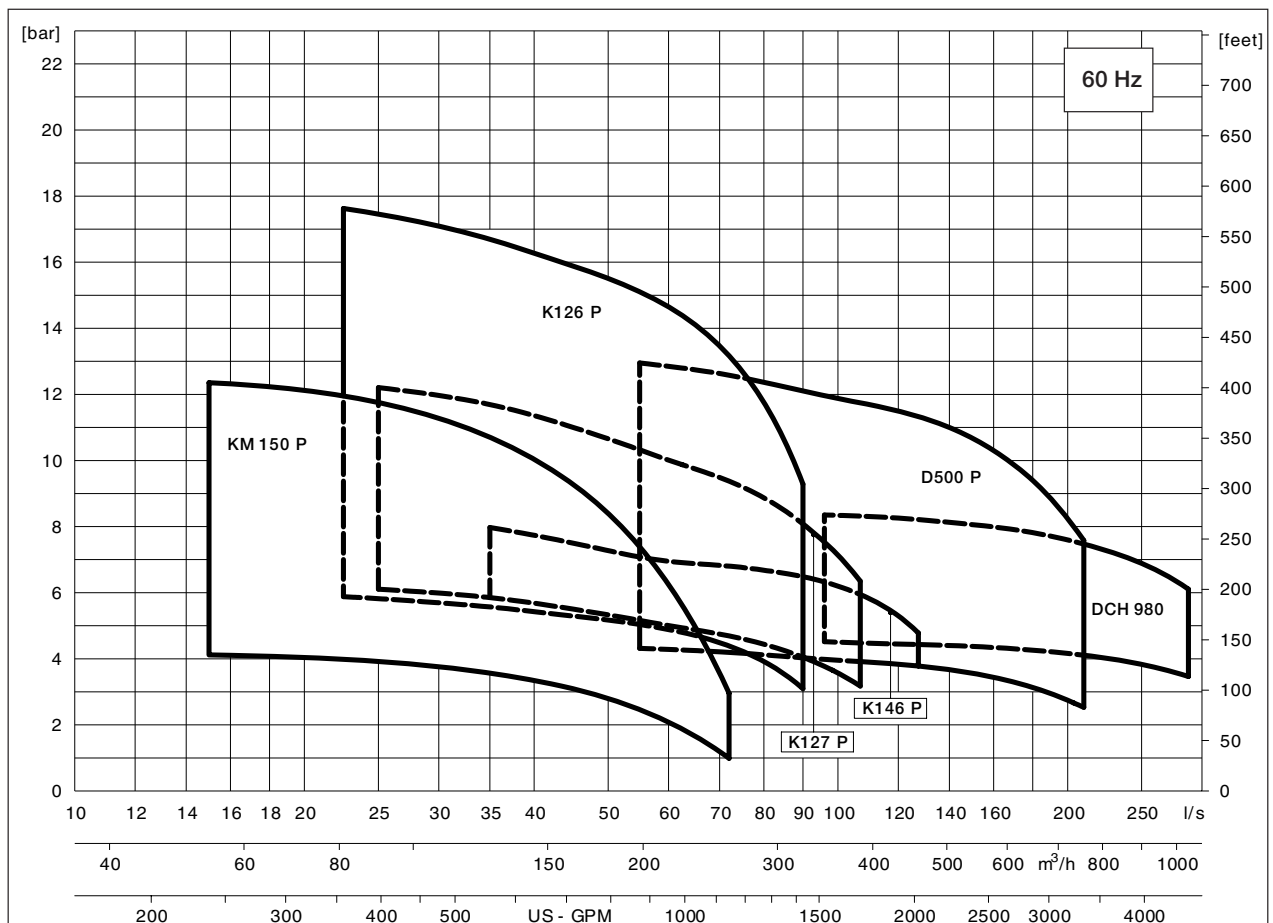
- Perfect lubrication of thrust bearings by high water cover in the motor
- Hydro firm and NSSHÖU-cable possible for high loads
- Motorfilling of clear drinking water or EMU-filling possible
- Motor filling can be checked via filling level vessel

Advantages over shaft pumps

- Insensitive to moisture and flood, no building construction
- No shafts, therefore low wear and no maintenance
- Robust and compact design
- Simple pipeline installation
- Good efficiencies, modern technique through reliable WILLO-EMU-quality

Material designs

Parts	Standard design A	Special design C
Suction port, pump casing, intermediate piece, discharge piece, seal housing	Cast iron GG	Bronze G-Cu Sn1
Lower motor housing	Cast iron GG	Cast iron GG
Impeller	Bronze G-Cu Sn5 Zn	Multiple bronze 2.0975
Stator shroud	Steel with protection paint + Cr-steel 1.4301	Bronze G-CuSn10
Pump shaft	Cr-steel 1.4057	Cr Ni Mo-steel 1.4462
Screwed connections	Cr Ni-steel A2	Cr Ni Mo-steel A4
Shroud	Steel with protection paint	Cr Ni Mo-steel 1.4571



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