

# EKS SERIES AXIAL and MIXED FLOW PUMPS

**TECHNICAL SPECIFICATIONS:**

EKS - E/K series pumps are axial and mixed flow pumps with high capacities and low discharge heads, they are vertical suspended and in column pipe construction

**APPLICATIONS:**

Potable water supply  
 Large scale irrigation systems with high flow rates and cooling water pumping in industrial plants.  
 De-watering

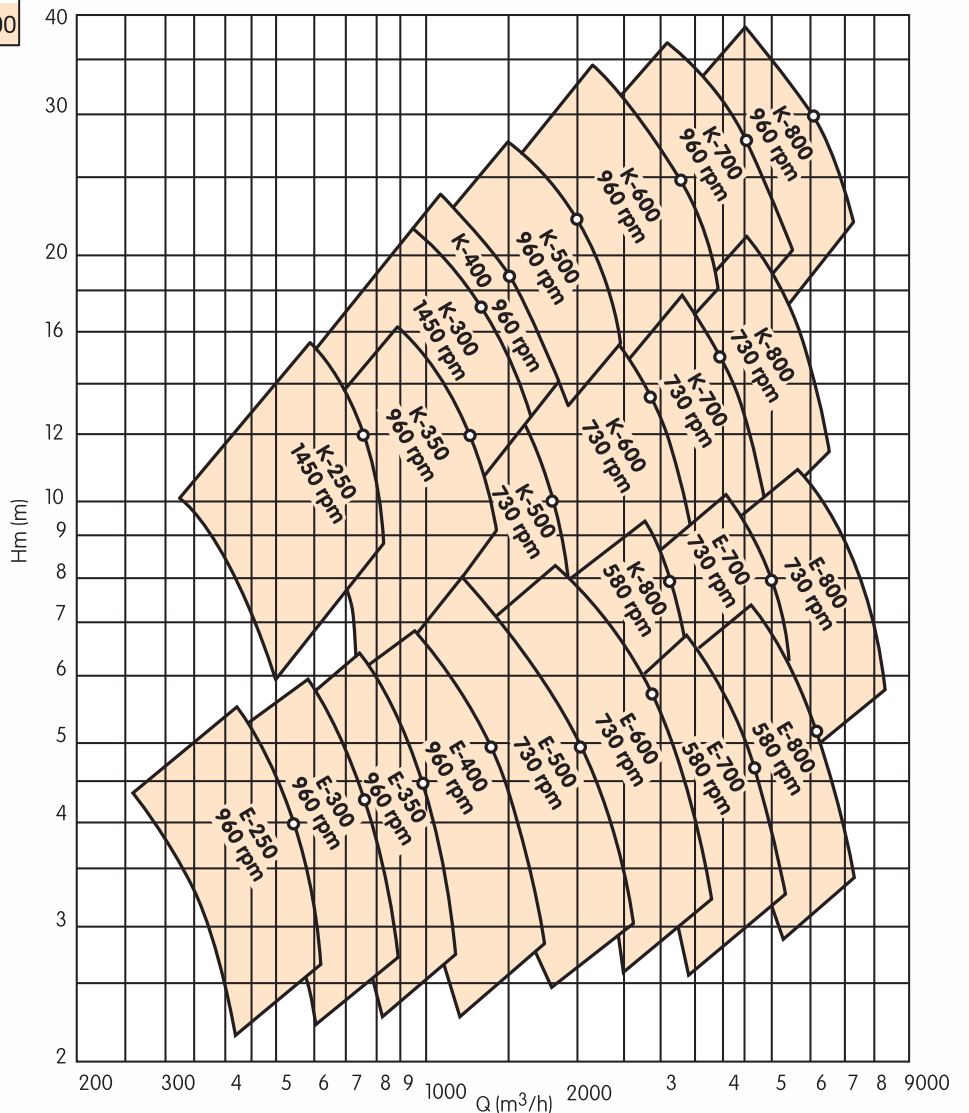
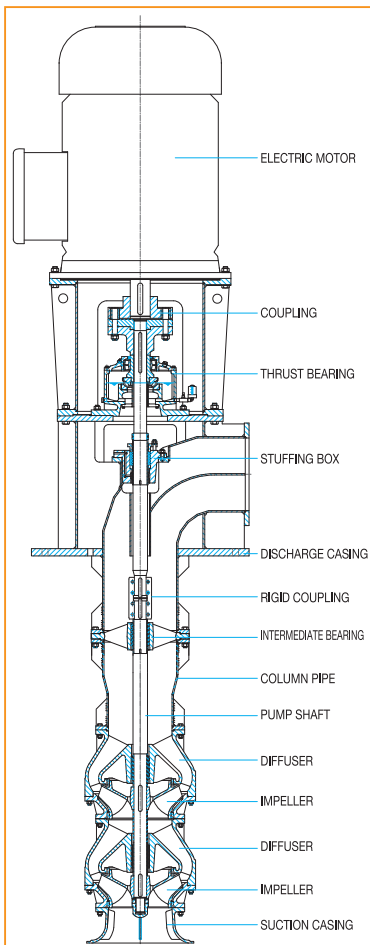
**MATERIALS:**

- Casing, Diffuser : Cast iron (EN-JL 1040)
- Impeller : Stainless steel
- Shaft : Carbon steel (1.0501)
- Column pipe : (1.0120) sheet metal construction
- Intermediate bearings : Grease lubricated bronze or clean water lubricated rubber sleeve bearing



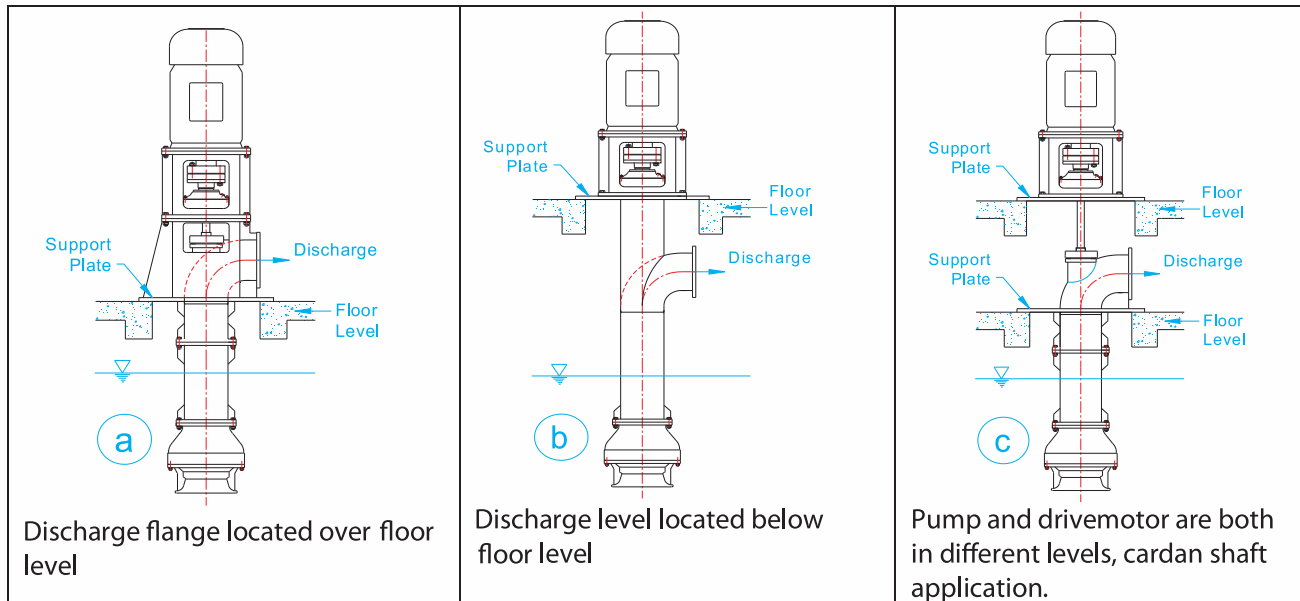
**PERFORMANCE DATA**

Capacity (L/s)	140 - 6000
Discharge Head (m)	1 - 100
Column Pipe Diameter (mm)	250 - 1500



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### MOUNTING FORMS OF EKS SERIES AXIAL AND MIXED FLOW PUMPS:



### CONSTRUCTION DETAILS:

- Most common installation form is vertical installation impeller and diffuser continuously operates under water. In order to obtain cavitation free operation pump should not be operated at minimum water level.
- EKS E/K type pumps consists of four component groups
  - 1- Hydraulic group : Impeller, Diffuser, Suction bell
  - 2- Column group : Shaft, Column pipes, intermediate bearings
  - 3- Discharge piece : Bend and stuffing box
  - 4- Thrust bearing group : Bearings and coupling
- Shaft group transmits motor power to shaft, column pipes carries water to discharge level
- Pumps with vertical shafts have ball bearing type upper thrust bearings with oil lubrication. Bearings are heavy duty type.
- Intermediate bearings of EKS pumps are rubber sleeve type if clean water is pumped. If pumped water contents considerable amount of sand grease lubricated bearings used. Grease pumped into the bearings by a grease pump. Grease will push sand away from bearings. In case grease lubrication is not desired, other lubrication methods available upon request.
- Column pipe length depends on application.
- Shaft sealing is done by means of soft packing.
- Pump shafts are in two parts, coupled together by means of rigid coupling. They operated in both rotation directions.
- Pump materials are selected according to pumped medium.
- EKS-K type pumps designed to provide high flow rate at high heads, to obtain high discharge heads multiple impellers are used.
- EKS – E type pumps are designed to provide higher flow rates at lower discharge heads.
- EKS series pumps are used instead of horizontal pumps in case of negative suction head exists.
- Installation is relatively easy.
- Convenient for use in lakes and rivers where water level is variable.
- Direction of rotation of the pumps is clockwise seen from drive end.