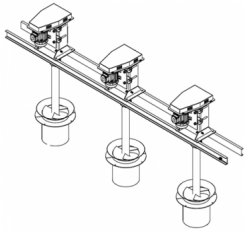
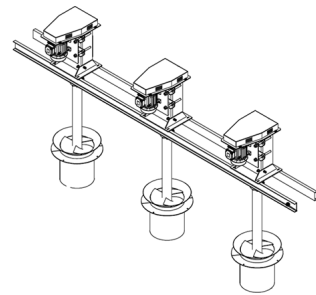


Axial Flow Pumps



The Wamechsi Group's Axial Flow Pumps are used for sludge-liquid pumping for a high recycle flow rate between aerobic and anoxic reactors.

Rating: Not Rated Yet

[Ask a question about this product](#)

Description

Trustworthy high capacity pumping for Axial Flow Systems

- Pumping capacity of up to 1000 [m³/h].
- Rag free during operation.
- V-Belt driven operation.

Principle and Function

The Wamechsi Group's Axial Flow Pumps are used for sludge-liquid pumping for a high recycle flow rate between aerobic and anoxic reactors. This pumps mainly consists of a motor and pulley system, support mountings, pumping channel and an Impeller that pumps the fluid directly in

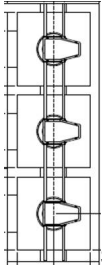
Secondary Treatment: Axial Flow Pumps

line of the piping works. Operating flow rates are governed by the impeller size, motor speed and static head.

The Axial Flow Pumps can be installed in a channel or piping works.

Technical Data:

Operation Capacity: 50 – 250 [??]



Static Head: 500 – 700 [??]

Impeller Diameter: 280 – 605 [??]

Impeller Operating Speed: 200 – 300 [??]

Material of Impeller: *Mild Steel Painted*

Volume Water: 12.8 – 127.4 [l/rev]

Efficiency: 60 [%]

Motor Data:

Rated Motor Power: 0.55 – 15 [kW]

920 – 970 [rpm]

No. of Poles: 6

Efficiency of Electrical Motor: 85 [%]

Electrical Supply: 380 [V], 6 pole, 50 [Hz]

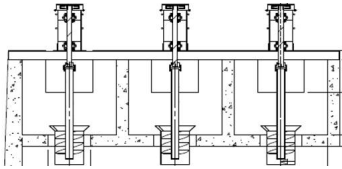
Pulleys:

Drive Pulley Diameter: 125 – 224 [mm]

Driven Pulley Diameter: 315 – 650 [mm]

The Wamechsi Group's Axial Flow Pumps consists of the following key parts:

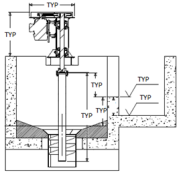
- Fully accessible without the need of draining the tanks
- Rag free during operation
- High pumping capacity suitable for low and high energy applications
- No bearing in contact with the waste water.



The Wamechsi Group's Axial Flow Pumps consists of the following key parts:

- **Motor**

The installation of the electrical motor and gearbox enables Wamechsi Group's Axial Flow Pumps to operate continuously for 365 days per year, 24 hours per day at ambient conditions, which is suitable for start and stop operations of 15 starts per hour and upward. The gearbox selected has helical gear configuration and has a service life larger than 1.5.



- **Impeller**

Wamechsi Group's Impellers are design and manufacture to specifications needed to overcome the required flow rate recycle rate for biological reactors and for specifically prebuilt plant setups. The Impeller is usually completely submerged will operating. The impellers pull the water out of the piping works continuously as the camber fills above the impeller. After the water reaches its desired height it flows with the channel along to the outlet.

The Wamechsi Group's Axial Flow Pumps operates as follow:

The axial flow pumps are used to recirculated nitrate formed in the aerated zone of the activated sludge reactor back into the un-aerated (anoxic), to reduce (de-nitrify) the nitrate concentration leaving the reactor. Normally two pumps each capable of pumping approximately 750 m³/h for each reactor to give a total recycle rate of 4 times ADWF against a head of 0.8 m will be provided. Control of the recycle rate will be done by selecting the number of duty pumps and manually turning the pumps on and off.