

Wilo RZP  
Recirculation Pumps

*Product Brochure*





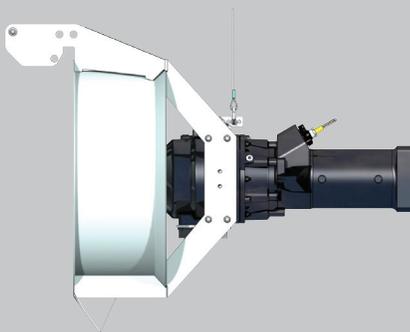
### *RZP60-3 standard installation*

- » Can be combined with a WILO lowering device for installation in a full tank or basin.



### *RZP50-3 vertical installation*

- » The recirculation pump is permanently flange-mounted to the discharge pipe. For maintenance and repair the tank or basin must be emptied.



### *RZP 80-2 wall installation*

- » Wedge and cantilever design keeps pump in proper operating position.

## Wilo RZP Installation

### Installation

One of the most important design criteria for any Wilo submersible product is the ease of installation and maintenance of the equipment. This is especially true for the Wilo RZP recirculation pump (mixer wall pump) family.

### Standard Installation

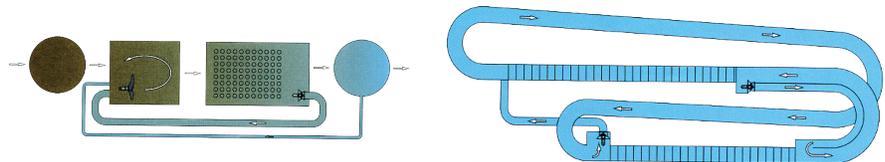
Wilo recirculation pumps are coupled into place without any permanent fixation to the discharge piping and are guided back into position through the use of a specially designed guide rail system. This allows the operator to provide maintenance and service without entering or dewatering the basin. Wilo provides auxiliary hoisting equipment specifically designed for each application.

### Inline and Vertical Installation

In addition to our traditional mounting systems, Wilo recirculation pumps can be fixed mounted in both vertical and inline positions.

### After-sales service: fast, reliable, all across North America

The installation and start-up of Wilo recirculation pumps is done by our after-sales service – qualified technicians with many years of experience. Our support service is also ready to assist you for any repair or maintenance work required.



### Sewage treatment plants

Modern biological nutrient removal (BNR) wastewater treatment plants are designed to remove total nitrogen and total phosphorus. Total nitrogen removal involves both aerated (nitrification) and anoxic (denitrification) processes. In this process, a high recycle volume of the treated wastewater is returned to an anoxic zone at the head of the plant so that the BOD of the raw sewage can provide a food source for the denitrifying micro-organisms. This recycle is at very high flows (up to 6 times the rated flow of the treatment plant) and very low heads. Higher recycle rates mean greater removal of nitrogen. Mixer wall pumps are usually most cost effective and efficient method to provide this recycle flow.

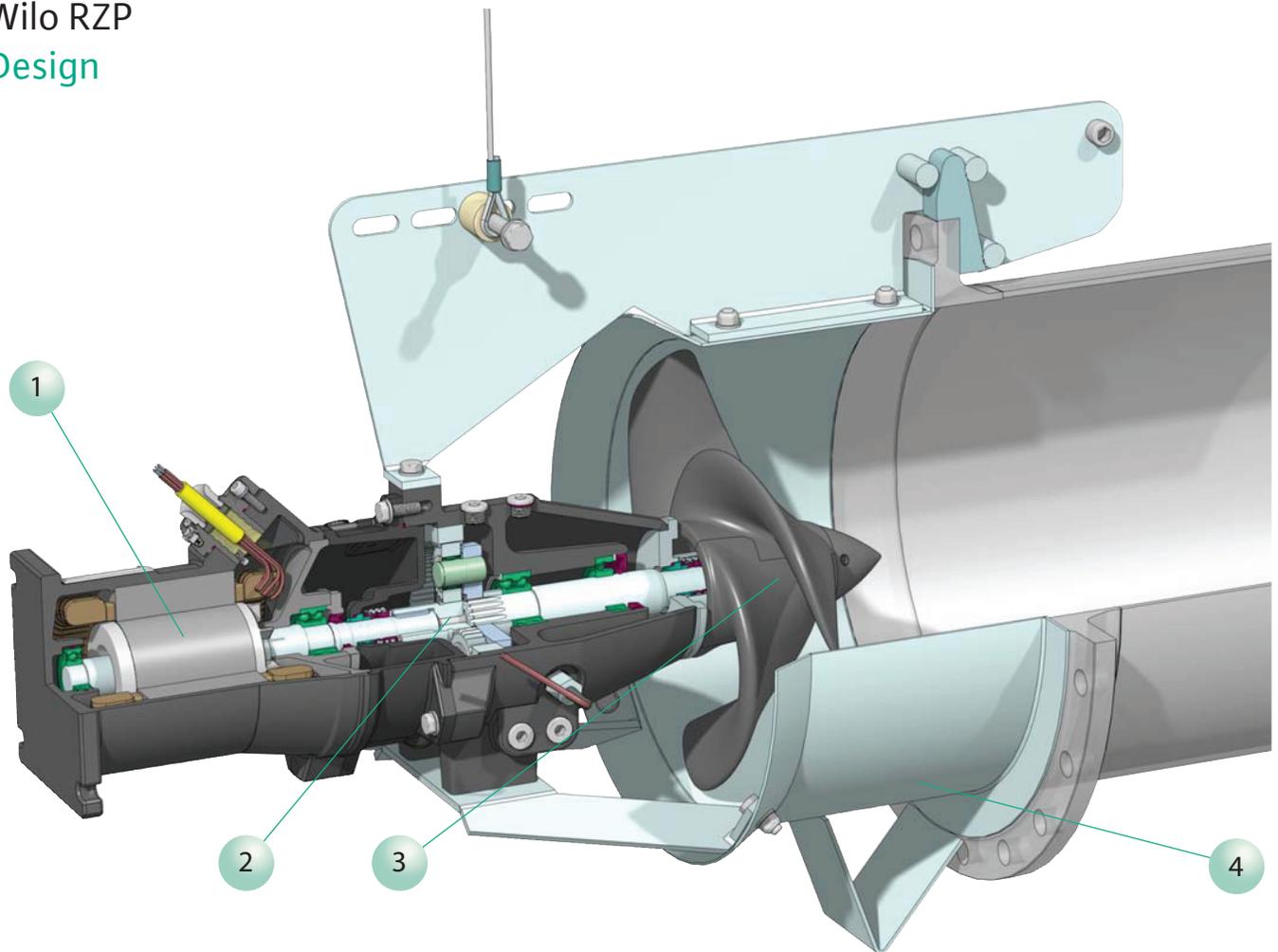
### Amusement parks

One of the most popular attractions in any amusement or adventure park are the flume rides with their slow rise and rapid descent.

In a flume ride, the car is drawn mechanically up the flume then descends under its own weight. Large quantities of moving water are required for these rides – water which is cycled from the top to the bottom and back to the top.

This continuous water cycle is created by recirculation pumps. These pumps are specially designed for pumping big quantities of water at low head.

# Wilo RZP Design



- 1 Motor**
  - Submersible air-filled motor per IP68
  - FM or CSA Ex protection available
  - ASTM A48 cast iron motor housing
  - Epoxy filled cable entry with strain relief
  - VFD compatible
  - Optional conductive seal sensor
  - Motor side SiC/SiC mechanical shaft seal with oil filled chamber
- 2 Gear Reducer**
  - Large units: Single planetary gear reducer (RZP50-3 through RZP80-2)
  - Small units: Directly driven by motor (RZP20 through RZP25)
  - ASTM A48 cast iron gear housing
  - Splined connection of propeller to shaft
  - Optional conductive seal sensor
  - Propeller side SiC/SiC mechanical shaft seal with oil filled pre-chamber
- 3 Propeller**
  - Available in polyurethane, steel or stainless steel
  - Backward curved self-cleaning design
- 4 Housing unit**
  - Hydraulically optimized flow shroud
  - Quick removal fitting that couples to discharge pipe
  - Guide rail system allows easy removal

# Wilo RZP

## Recirculation Pumps

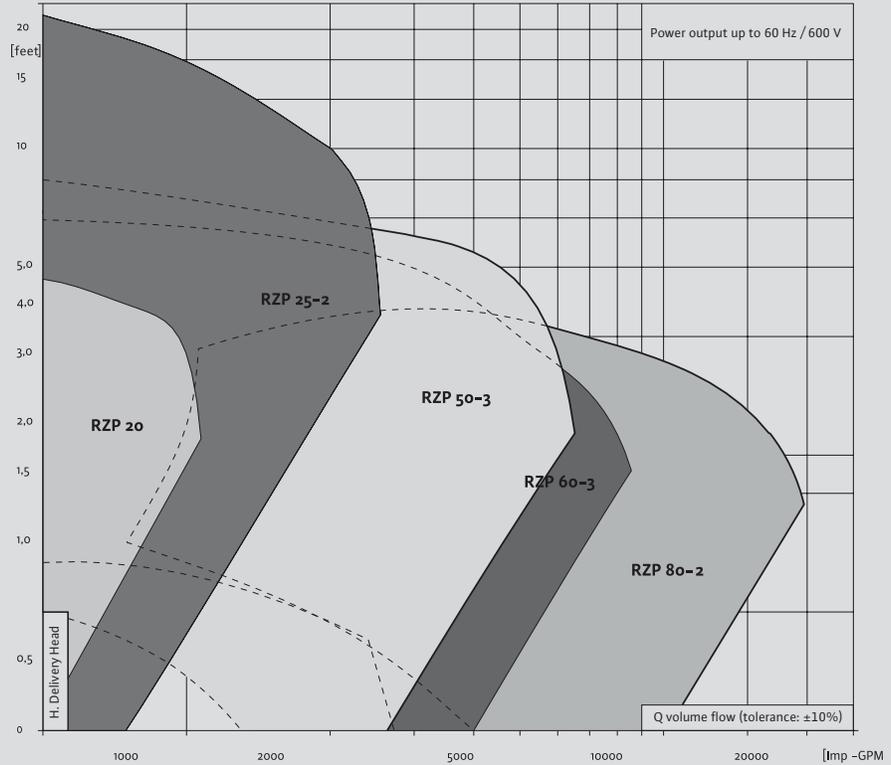
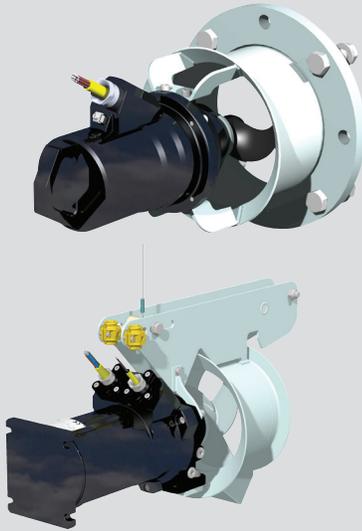
Applications Include:

- » Wastewater Treatment
- » Storm Water

- » Amusement Parks
- » Industry

- » Water Treatment

Wilo RZP



- » Pump station wet wells are no longer necessary.
- » Low cost in-basin piping.
- » The use of recirculation pumps lowers the volume of capital outlays.

- » Quick removal system allows equipment to be easily removed for service and maintenance.
- » Can be retrofitted at any time to existing plants.
- » Easy installation and removal.
- » Wide performance ranges.

- » Energy efficient, flow-optimised, self-cleaning propellers.
- » The special blade design provides gentle pumping of water, sewage and activated sludge.
- » Submersible, compact installation unit.

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