Pioneering for You

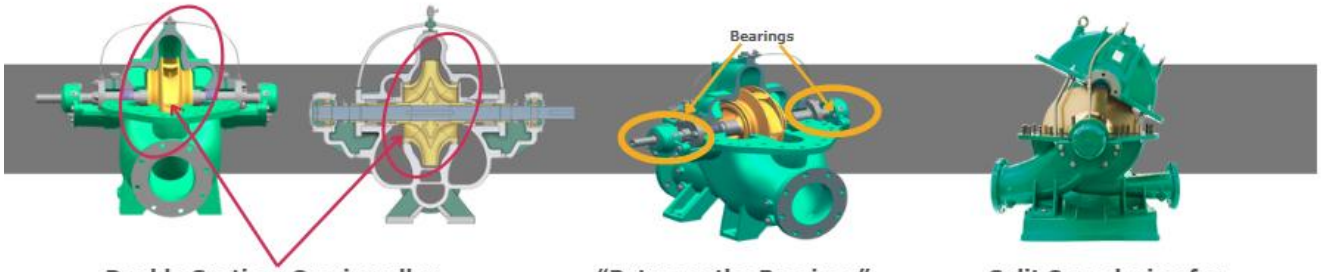
High-Performance Circulation:
Split Case Pumps in Large-Scale HVAC Applications

In large-scale HVAC (Heating, Ventilation, and Air Conditioning) systems, **split case pumps** are relied upon for moving high volume of water with consistent efficiency. Their double-suction impeller design delivers balanced performance at high flow rates, while the horizontally split case allows quick internal access without disturbing system piping. Engineered for durability, these pumps provide dependable service in demanding environments where uninterrupted operations are critical.

Why Split Case Pumps Are Chosen

Split case pumps are a preferred choice in large-scale HVAC and industrial applications because they combine efficiency, durability, and ease of service. Their design offers several performance and maintenance advantages that ensure long-term value.

- **High Flow Capacity:** Their double-suction impeller design balances axial thrust and allows for very high flow rates without excessive bearing wear.
- **Energy Efficiency**: Optimized **Net Positive Suction Head (NPSH)** performance and smoother internal flow paths increase efficiency and reduce power consumption for large systems. By maintaining proper NPSH, the risk of **cavitation** is minimized, ensuring smoother operation and greater energy savings.
- **Long Service Life:** Bearings and shafts are designed for heavy-duty, continuous operation.
- **Easy Maintenance:** The "split case" design lets you remove the top half of the casing for internal inspection/repair without disturbing the piping.



Double Suction: One impeller, with suction on each side of impeller

"Between the Bearings" for balance wear

Split Case design for easy access to maintenance and repair

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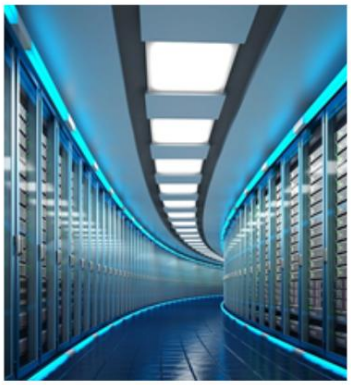
Typical HVAC Installations

HVAC systems play a critical role in maintaining comfort, safety, and operational efficiency across a wide range of facilities. From commercial office buildings to hospitals, universities, and data centers, each installation presents unique demands for reliable water flow and precise temperature control. The following examples highlight typical HVAC applications where robust, efficient pumping solutions are essential to meet the needs of diverse environments.

- **Commercial office buildings:** Move thousands of gallons per minute of chilled water for centralized climate control.
- **Hospitals:** Ensure continuous, reliable water flow for patient comfort and critical equipment cooling.
- **Universities / Campuses:** Provide district heating/cooling across multiple buildings efficiently.
- **Data centers**: Maintain stable circulation of chilled water for high-load IT equipment.





How They Fit into the System

Beyond specific facility types, split case pumps serve key roles within HVAC system layouts, ensuring efficient movement of water through core loops and components:

- **In Chilled Water Loops:** Typically installed in the primary loop near the chiller to circulate chilled water
- **In Condenser Water Loops:** Operate between the chiller condenser and cooling tower for heat dissipation.
- **Variable frequency drives (VFDs):** In modern systems, VFDs adjust pump speed to match load, optimizing energy use.

Split case pumps remain a cornerstone of large-scale HVAC solutions, delivering the high flow capacity, efficiency, and serviceability that modern facilities demand. Whether supporting chilled or condenser water loops, they provide the reliability needed for continuous operation in mission-critical environments. With their proven design and adaptability to advanced controls like VFDs, split case pumps offer facility managers a long-term, cost-effective solution for maintaining comfort, safety, and performance across a wide range of applications.

Wilo is Your Solutions Provider

Wilo USA headquartered in Cedarburg, WI, is a multi-national pump manufacturer and one of the world's leading premium suppliers of pumps and pumps systems for **building services**, **water management**,

and the **industrial sector**. With innovative solutions, smart products, and individual services, Wilo is your solution provider in making water move using intelligent, efficient, and eco-friendly techniques.

Wilo manufactures a wide range of centrifugal pumps, including "between the bearings" pumps like their single- and 2-stage axially split case models, **Wilo-SCP**, **Wilo-Atmos TERA-SCH-HE,** and **American Marsh Pumps 340 Series** HD split case pumps. For more information regarding Wilo's axially split case pumps and other sustainable solutions, visit the **Wilo USA website** or take a quick look through the **Wilo Product Guide** for more options.

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