# FROM WORTHINGTON SIMPSON TO TAPFLO: (SEAMLESS PUMP REPLACEMENTS)

In the dynamic landscape of electricity generation, reliability is critical. When a prominent player in the UK's Electricity Generation Sector faced the challenge of replacing aging Worthington Simpson pumps, they turned to Tapflo, the UK's leading Process Pump Manufacturer. With Worthington Simpson, once a hallmark of British engineering, becoming obsolete, the client required a seamless transition without altering their existing pipework configurations.

## **Application Details: Transporting Demineralised Water**

As the legacy Worthington Simpson pumps faced aging challenges, the client encountered operational issues that required a modern and efficient solution. The trust placed in Tapflo UK for this upgrade reflects not only the company's industry leadership but also underscores the confidence clients have in Tapflo's ability to deliver innovative and reliable solutions.

The project focused on the precision and efficiency required for transporting demineralised water, an important component in electricity generation. This water plays a vital role in maintaining the integrity of the power generation process, making the reliability of pumps business critical. Recognising the importance of dependable pumping solutions in this sector, Tapflo recommended the TECP Centrifugal Pump range, which are Heavy-Duty Centrifugal Pumps, known for their robustness and versatility, to meet the demands of such a crucial application.

#### **Components of the System**

Tapflo UK went beyond merely supplying the TECP Pumps; by modifying the baseplates, the client was assured of seamless integration with their existing pipework. The baseplates, crafted from steel, not only facilitated application and pump compatibility but also assured the client of quality and longevity in their systems.

Regarding the capabilities of these pumps, we specified them as follows:

#### **TECP Centrifugal Pump 1:**

✓ Flow rate: 107.2m³/hr

Head: 22.5m.W.C

√ Temperature: 25°C

#### TECP Centrifugal Pump 2 & 3:

Flow rate: 136m<sup>3</sup>/hr

Head: 56.33m.W.C

Temperature: 25°C

These will be used for demineralised water at a UK ambient temperature of ~20°C.





## **Key Features of the TECP Heavy-Duty Centrifugal Pump Range**

The TECP Centrifugal Pump range boasts advancements such as the 'back pull' design for easy maintenance, and so much more:

- ✓ 'Back pull' design for simplified maintenance
- ✓ Dynamically and statically balanced impellers (ISO 1940 Grade 6.3)
- ✓ Impellers with balancing holes to counter axial thrust
- ✓ Lifetime grease-lubricated ball bearing type
- ✓ Spacer coupling facilitating rotor disassembly without motor removal

These features further enhance the overall reliability and performance of the pump range.

### **Solutions and Benefits**

Tapflo's approach delivered tangible solutions and benefits to the client:

- ✓ The modified baseplates ensured a perfect fit with the existing pipework, resulting in a significant reduction in downtime and installation costs. The client experienced a 25% decrease in downtime when compared to conventional Centrifugal Pumps on the market today
- ✓ The 'back pull' design allows for hassle-free maintenance, enabling the removal of critical components, such as the impeller, complete bearing assembly and casing cover, without dismantling the casing from the pipework. This innovative feature translated to a more efficient and cost-effective maintenance process
- ✓ The dynamically and statically balanced impellers, coupled with advanced bearing technology, contributed to the pump range's overall reliability

At Tapflo UK, our dedication to innovation and reliability shines in this project. By seamlessly replacing Worthington Simpson pumps with the TECP Centrifugal Pump range, the client experienced a transformative solution that not only preserved their existing infrastructure but also delivered efficiency and reliability.

This project stands as a testament to our commitment to providing tailored solutions that meet the evolving needs of the industry, ensuring seamless operations in critical sectors like electricity generation. Client satisfaction is not just a goal but a measure of success for the Tapflo team, reflecting our continuous pursuit of excellence in pump manufacturing and solution supply.

