

## Shaft units

Flygt shaft units are designed and manufactured to ensure reliable operation, maintain balance during rotation, and ensure high and consistent motor efficiency. Xylem has developed highly accurate manufacturing processes to ensure that our shafts and shaft units are produced to the most exact tolerances. A low-quality shaft unit, or one that has been poorly repaired, may cause imbalance and increase the risk of vibration, noise, stator or bearing damage, or even seal failure.



### Precise tolerances and proper balancing

A correct, tight fitting of the shaft unit is crucial to ensure good operating conditions for the mechanical seals, especially the tolerance limits for the sealing positions, and to prevent malfunctions of the overall rotating system. Thanks to highly accurate manufacturing processes, Flygt shaft units meet very precise tolerances, which facilitates the correct fitting of the impeller, mechanical seals and bearings. In addition, accurate manufacturing processes also ensure proper balancing, which minimizes the risk of seal or bearing failures as well as excessive noise and vibration.



*All Flygt shaft units have precise tolerances and carefully machined radiuses.*

### Carefully machined radiuses

The rotating shaft in a Flygt pump is exposed to high static and dynamic loads. Avoiding material fatigue is naturally of utmost importance to ensure reliable operation. All Flygt shaft units are therefore designed and manufactured with radiuses carefully machined and with critical surfaces ground to the necessary smoothness to minimize the risk of stress concentrations, crack formations and fatigue failures.

### Durable and corrosion-resistant shaft

Flygt shaft units are made of martensitic stainless steel (EN 10088-3-1.4057 / AISI 431), which makes them highly resistant to permanent deformations and corrosion. This high quality material also prevents pitting and has properties which do not disturb the magnetic field through the rotor.

### Improved shaft and impeller assembly

Shaft units for Flygt 2600 series dewatering pumps and 3153 through 3301 wastewater pumps are designed and manufactured without keyways, thus minimizing fatigue crack formation that can cause shaft or impeller damage.