



NO COMPROMISE

HIGHEST HYDRAULIC EFFICIENCY AND
BEST NON-CLOGGING CAPABILITIES



S|tube

INTRODUCING THE S-TUBE IMPELLER

Designed for dependability, efficiency and cost-effectiveness

With the **S-tube** impeller, Grundfos sets new standards for wastewater hydraulic design. The **S-tube** impeller offers better hydraulic efficiency than any other type of wastewater impeller, without compromising free passage, thus ensuring trouble-free operation.

In the **S-tube** impeller, the efficiency is higher compared to other wastewater impellers, as there are no edges, dead zones, cutting functions or alternative constructions that will get worn time to remove clogging problems. Furthermore the **S-tube** impeller features an innovative and patented labyrinth and sealing system, for years of trouble-free operation.

The **S-tube** impeller offers the highest hydraulic efficiency and best-in-class non-clogging capabilities for optimum reliability and lowest life cycle costs.

- **Efficiency:** World class hydraulic efficiency without compromising free passage
- **Free passage:** Greater free passage means better solids handling and greater non-clogging capabilities
- **Simplicity:** A design as simple and robust as a tube results in longer lifetime and lower maintenance costs



SOLIDS CONCENTRATION UP, WATER USE DOWN

A wastewater pump has to fulfil two seemingly conflicting properties: In addition to being as efficient as possible, it must also pump media containing large solids, rags and fibres without clogging the pump.

The very nature of wastewater is challenging, with dry solids content varying over time. Similarly, water use has not remained static either. The **S-tube** takes on these challenges, making unnecessary the traditional trade-off

between hydraulic efficiency and free passage that varying wastewater composition typically requires.

The **S-tube** impeller is a tube-shaped channel impeller in a pump housing that matches the tube shape through the entire pump. The simplicity of the **S-tube** impeller eliminates the need for advanced and costly add-on assemblies that in a static or dynamic way are designed to cut, shred or treat the wastewater as it flows through the pump.

UNIQUELY BALANCED FOR QUIET, SMOOTH OPERATION

The difficulties in designing high-efficiency channel-impellers have traditionally been challenges with sealing, vibrations, abrasive wear and clogging. The Grundfos **S-tube** impeller meets and surpasses all these challenges.

A unique new method for balancing the impeller means less vibration and noise. Quiet and smooth operation is indicative of greater reliability, with longer lifetime for bearings, shaft seals and other components. The smooth design through the hydraulics ensures less abrasive wear and enhances the non-clogging capabilities, reducing costs over time.

- **Sealing issues resolved:** The unique and patented sealing system provides you with the highest possible reliability, as the hydraulic parts are kept clean during operation.

- **Lower vibration:** The unique static and dynamic balancing of **S-tube** impellers provides the lowest possible vibration level. This means less noise and longer lifetime for bearings and shaft seals, helping you reduce your maintenance costs.

- **Less abrasive wear:** The smooth design of the **S-tube** impeller with no sharp edges and bends gives you the most optimised flow and the lowest abrasive wear.

- **Non-clogging:** The large free passage combined with the smooth design of the channel in the **S-tube** impeller ensures clogging-free operation in the most demanding applications.

NO COMPROMISE WHEN PUMPING WASTEWATER

The **S-tube** impeller has been developed on the basis of extensive hydraulic experience and know-how. It has been tested thoroughly through simulations and tests in laboratories and not least in the field. The extensive field test program has been done in sewage collection and treatment systems in many countries around the world, without even a single blocking incident.

This ensures that you get a pump that meets your demands with the highest hydraulic efficiency available and trouble-free operation.



BE > THINK > INNOVATE >

Being responsible is our foundation
Thinking ahead makes it possible
Innovation is the essence



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