



## 5100/5150 Submersible slurry pumps

A force you can rely on



Flygt



**ITT Industries**  
*Engineered for life*

COST-EFFECTIVE DESIGN

# When the pumping gets tough, rely on Flygt submersibles



The removal of abrasive slurry, an essential operation in many industries, makes heavy demands on slurry pumps. Designed to solve the specific problems of pumping high-density slurry, 5100/5150 submersible slurry pumps from ITT Flygt are a cost-effective solution offering true reliability.

Removing abrasive slurry is a tough job, even for a dedicated slurry pump. Parts wear out, maintenance and repair costs are high. In many cases, frequent pump failures lead to costly production downtime. Also, excessive sediment build-up in a sump costs time and money to remove.



ITT Flygt, the world's leading supplier of submersible pumps and mixers, has focused on solving these problems for years, developing slurry pumps that can handle the toughest, high-wear applications.

## Why submersibles?

Flygt submersible slurry pumps offer many advantages over dry-mounted pumps. Operating directly in the slurry, a submersible pump requires no additional support superstructure. Therefore it occupies less space which reduces installation costs significantly.



Once installed, the pump requires almost no supervision. Since there is no long or exposed mechanical shaft between the motor and the volute, less maintenance is required, and operating costs are much lower. A submersible pump is, by definition, completely flood-proof. Also, once submerged, it is virtually silent.

Submersible slurry pumps are often chosen as replacements for dry-mounted pumps where pump failures are frequent and maintenance costs are high. In installations of this type, Flygt slurry pumps have proven to be a reliable alternative, offering continuous operation with low maintenance costs.

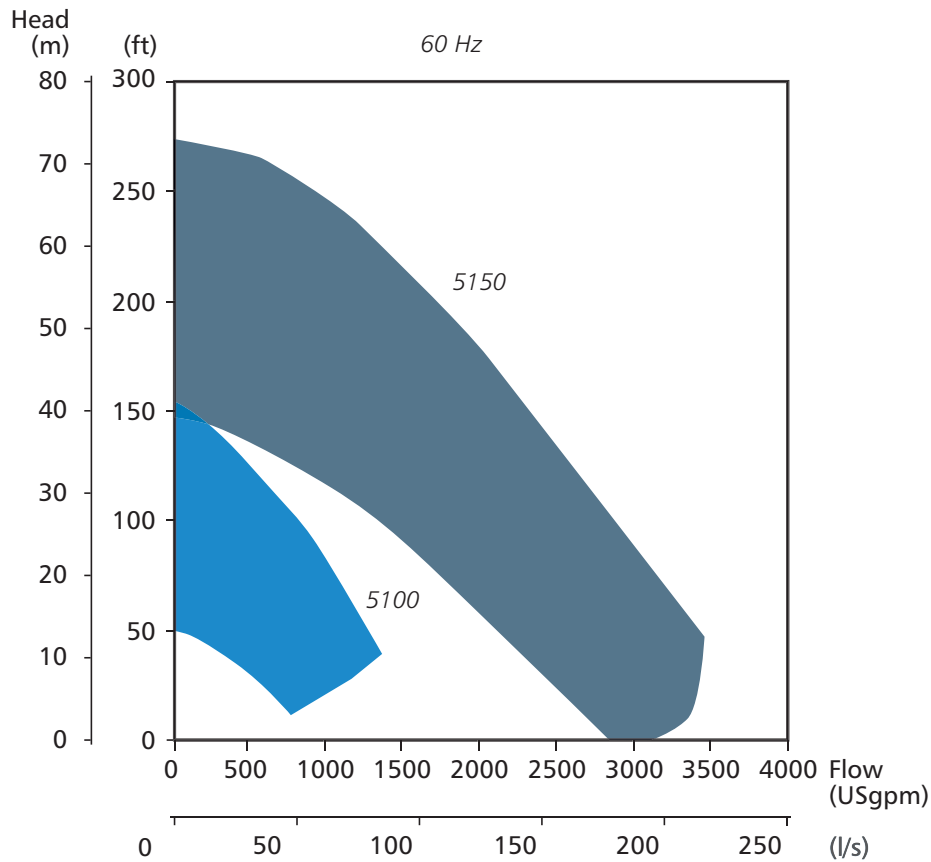


## Handling the toughest jobs

5100/5150 slurry pumps are a dependable, cost-effective solution for handling the most abrasive slurries in a broad spectrum of tough industrial environments, such as mining and mineral processing, power generation, steel manufacturing and many other sectors.

# Flygt slurry pumps cover a broad range of operation

**5100/5150 performance range**



5100/5150 pumps are available with a wide range of motor power ratings. Motors and wet ends are combined to give the optimum performance for your specific application.



5100

Model	Rating	Discharge ø	Throughlet ø
5100	60Hz, 12-70 Hp	4"/100 mm	1.6"/40 mm
5150	60Hz, 35-105 Hp	6"/150 mm	2.0"/50 mm



5150

GENUINE RELIABILITY

## Cost-effective by design

### **Designed for lowest life-cycle cost**

Slim, robust design makes 5100/5150 pumps easy to install and service, in turn reducing investment and maintenance costs.

### **Reliability and long life ensured by wear resistant materials**

Essential for a dedicated slurry pump, all wear parts in the 5100/5150 series are in high chrome. The impeller is hardened for maximum wear resistance and long life, ensuring reliable operation with the most abrasive slurries.

### **Wide range of motors optimizes operation in your application**

5100/5150 pumps are fitted with efficient, Class H motors as standard, with built-in sensors for high temperature and leakage protection. Since the submersible motor can handle 15 starts per hour, it can operate in a smaller sump, reducing the cost of new installations while making it an ideal choice for replacement applications where sump size is limited.

### **Motor cooling extends operation, reduces cost of sump cleanup.**

Motor stator in direct metal-to-metal contact with outer housing for maximum

heat transfer and cooling. An optional internal cooling system further promotes cooling under non-submerged conditions. This allows full pump-down to low slurry levels, help to prevent sediment build-up in a sump.

### **Early warning system protects your budget**

An inspection chamber between the seal unit and the bearings has a built-in sensor for early detection of any fluid build-up. This reduces the risk of internal damage and increases operational reliability.

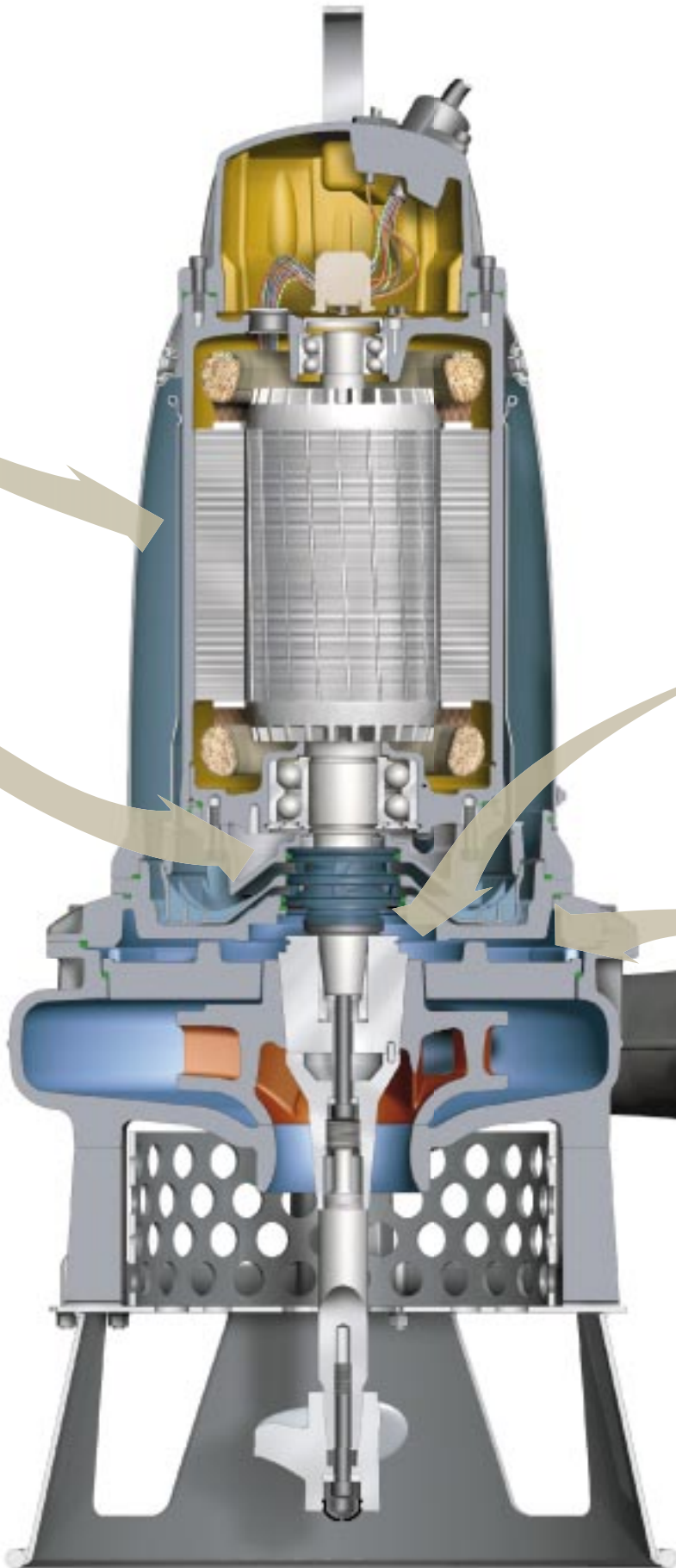


### **Large throughlets handle solids of varying sizes**

Large throughlets ensure efficient pumping, even when clumps of particles or large pieces of foreign matter pass through the pump.

### **Impeller maintains high hydraulic efficiency**

Impeller incorporates exclusive "swept-back" design for sustained high efficiency and clog-free performance even in the most severe applications.



**Plug-in™ seal makes replacement easy**

The Plug-in™ seal system provides a perfect fit and faster, simpler replacement. The design also protects the seal surfaces from contaminants during disassembly and mounting.



**Spin-Out™ seal protection for prolonged seal life and increased reliability**

Spin-out™ is a patented feature that protects the outer seal by flushing abrasive particles from the area above the impeller. This prolongs the life of the outer seal unit and increases reliability.

**Additional seal protection**

The impeller hub is equipped with effective pump-out backvanes that expel abrasive particles.

There is also a pressure isolation zone to further protect against wear. Together, these features provide additional seal protection by reducing pressure in the mechanical seal area.

**Agitator for coarser slurries**

When pumping coarser slurries, like sand, an agitator mounted on the pump shaft helps to prevent solids build-up below and around the pump.

THE SOLUTIONS PROVIDER

# The flexibility to match your pumping needs

## We call it Clean Sump Technology

### **Agitator for coarser slurries**

When pumping coarser slurries like sand, a powerful agitator mounted on the pump shaft induces maximum resuspension of settled particles. This makes them easier to transport and ensures a clean sump.

### **Side-mounted mixer for the really tough jobs**

For large sumps with very coarse and heavy particles and/or the need for homogenous slurry, a side-mounted submersible mixer is available. This works in combination with the agitator for the toughest jobs where the agitator alone cannot prevent sediment build-up.

### **Internal cooling allows full pump-down to prevent sediment build-up**

With the optional internal cooling system, the pump can continue pumping down to low slurry levels. This also helps to prevent sediment build-up in the sump.

### **Let ITT Flygt advise you on pump selection**

At ITT Flygt we have advanced selection tools, test facilities and materials laboratories to help you select the right slurry pump for your specific application.

Take advantage of our System engineering specialists who have years of experience solving some of the most difficult pumping problems in the world. They can provide advice and assistance not only in sump design but also in solving tough application problems using proven ITT Flygt submersible pump and mixer technology.

The bottom line is a cleaner sump and lower overall slurry handling costs.

## Portable and easy to install

### **The ideal solution for most applications**

Standardized for portable, wet installation, 5100/5150 slurry pumps are versatile and easy to install. Each pump is supplied with a built-in support stand and is free-standing, requiring no additional support structure. The Victaulic® flange and coupling allows fast, easy connection to a wide range of commonly available fittings.



*Agitator for coarser slurries.*



*Side-mounted mixer for the really tough jobs.*



*Internal cooling for pumping down to low levels.*

# Service and maintenance



## **Your local service network – worldwide**

The level of maintenance and support that you require from your local authorized Flygt service center will differ according to your

situation. With ITT Flygt you can choose the type of support package that precisely meets your needs.

From simply supplying slurry pumps to your specifications, to full service assistance on system planning, design, construction, implementation, operation or maintenance: ITT Flygt's total service offering means that you get the service you need, on your terms.

## **15-year spare parts availability**

We guarantee availability of spare parts for a minimum of 15 years after we stop production of a pump model. This is just one of the ways in which ITT Flygt meets its long-term commitment to customers.

