Flygt C-pumps 3068-3800

SUBMERSIBLE WASTE AND RAW WATER PUMPS

FLYGT

POMPDIRECT

Flygt submersible pumps for a variety of applications

Submersibles Flygt pumps operate directly in the liquid being pumped, which means they require neither special housing nor a superstructure to support them, considerably reducing construction costs. They are smaller than non-submersible counterparts as the motor and hydraulics are integrated into one compact unit, resulting in smaller pumping stations that are less complex to build. Operating submerged they take up less space, and noise and cooling problems are virtually eliminated.

This series of pumps has an extensive performance range and can be used in a variety of applications:

- **Pumping sewage in municipal applications**
- **Irrigation**
- **Industrial effluent**
- **Cooling water**
- **Storm water**
- **Process water**
- **Raw water**

An extensive range of hydraulic units, such as impeller and volute, are available to handle different types of media. The application ranges up to approx. 3000 l/s.
A variety of drive units, with motor ratings up to 680 kW 50 Hz, 1040 hp/775 kW 60 Hz are also available. The standard version of these pumps are made in cast iron and for more demanding applications the pumps can be supplied in industrial configurations. Explosion-proof versions are also available.

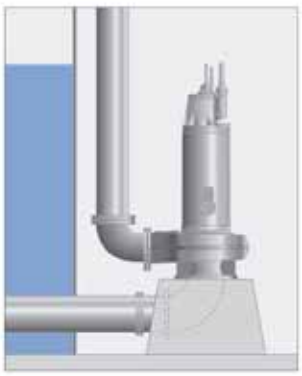
Methods of installation

To reduce the cost of installation Xylem has standardized many of the main elements of pumping stations so that they can be combined to match specific site conditions.

The examples illustrated here show the flexibility of the system, and provide some guidelines for optimizing the design of your own station.

CP – For semi-permanent wet well installations. The pump is installed with twin guide bars on a discharge connection.

CS – A semi-permanent, free-standing installation. Transportable version with pipe or hose connection.



CT – A vertically-mounted, permanent dry well or in-line installation with flange connections for suction and discharge pipe work.

CZ – A horizontally-mounted, permanent dry well or in-line installation with flange connections for suction and discharge pipe work.

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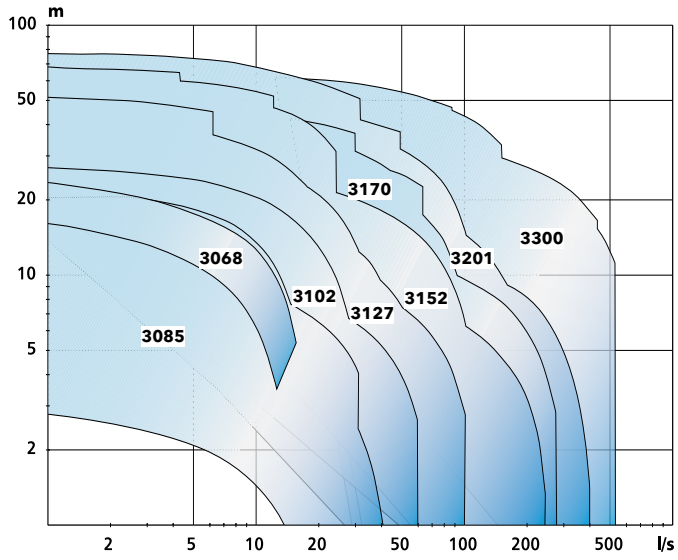
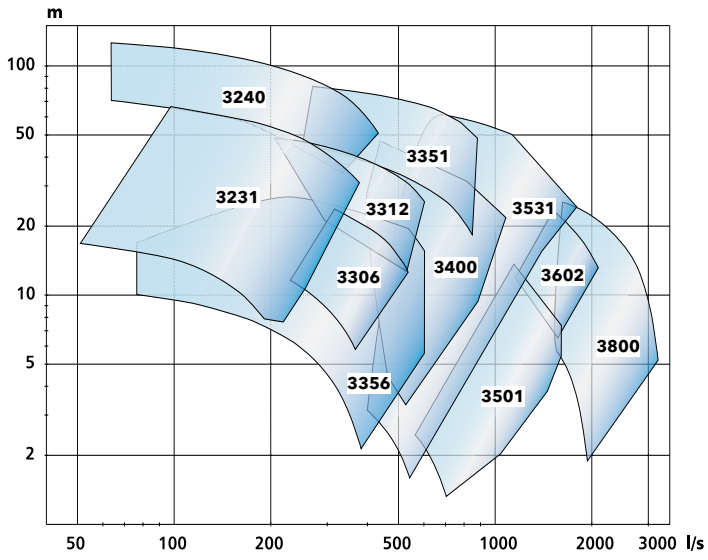
General performance range up to 3000 l/s

Flygt C-pumps

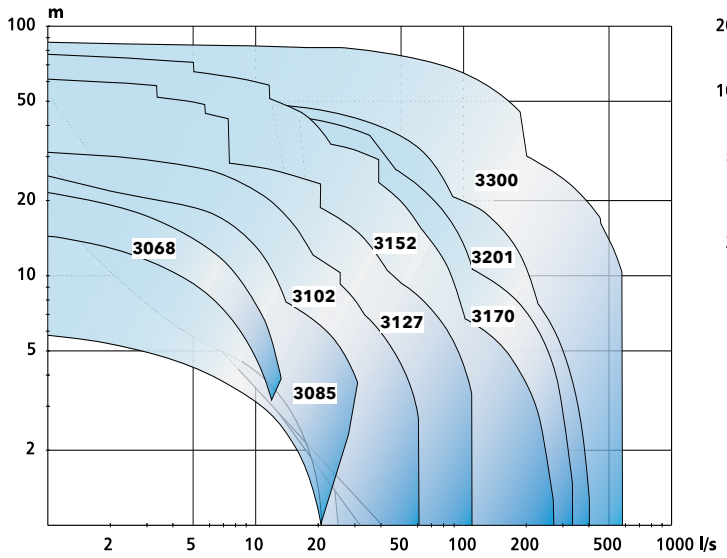
C3000 50Hz



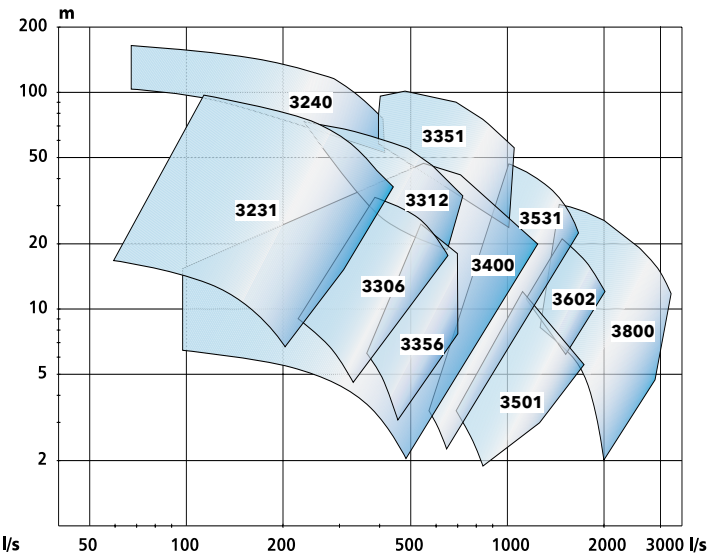
C3001 50Hz



C3000 60Hz



C3001 60Hz



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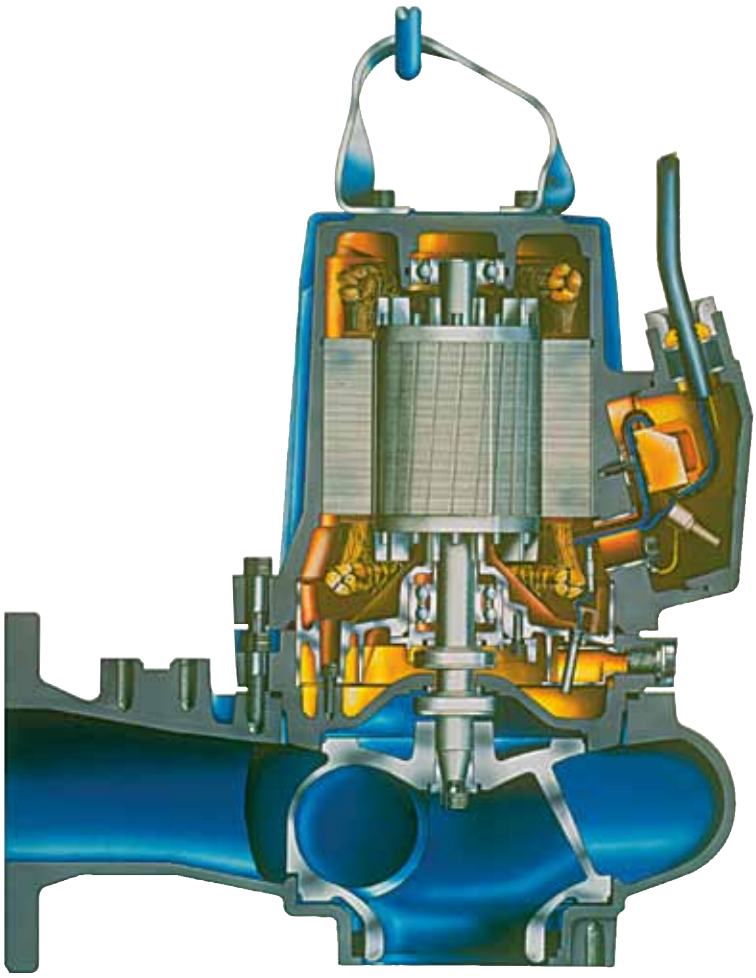
Product quality in every detail



Motor

Squirrel cage, high performance induction motor, specially designed and manufactured by Xylem for submersible use. Stator windings are trickle impregnated in resin to class H insulation and rated at 180° C (355° F). Many units provide up to 30 starts per hour.

Shaft

A short overhang of the shaft virtually eliminates shaft deflection. This results in significantly increased seal and bearing life, low vibration and quiet operation.

Seals

Two sets of mechanical shaft seals that work independently for double security. Designed, patented and manufactured by Xylem.

Oil housing

In addition to lubricating the seals, the food-grade oil filled compartment diffuses heat from the motor and the bearings. The housing also provides additional security against penetration by liquids.

Impeller

The Flygt Nevaclog® impeller is designed specially for smaller Flygt C-pumps. Our Flygt Nevaclog® has exellent flow passing properties, because parts that might cause clogging in the impeller channel have been eliminated. This, coupled with the volute's design is what enables wastewater to flow freely.

Seal wear protection

Spin-out™ is a patented design that protects the outer seal by expelling abrasive particles from the seal chamber. As an integral part of the cast-iron housing, Spin-out™ is as simple as it is effective.

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Monitoring

Thermal sensors embedded in the stator windings help prevent overheating. Leakage sensors in the stator and oil housings, together with external monitoring equipment, are available as options.

Cable entry

The cable entrance is designed to incorporate both a seal and a strain relief function.

International standards approvals

All pumps are tested and approved in accordance with national and international standards (IEC 34-1 CSA). They are also available in explosion-proof versions – Factory Mutual and European Norm (FM and EN) approvals.

Cooling System

In normal applications the surrounding liquid cools the pump motor. In more demanding applications, or when dry installed, the pumps can be fitted with an integrated cooling system.

Impeller

The multi-vane impellers for bigger pumps are designed for optimum hydraulic efficiency. The impellers are dynamically balanced and machined to match the requested duty point.
The area in the pump housing at the upper and lower shroud of the impeller has a labyrinth seal design to prevent leakage and clogging, thus improve the efficiency. Replaceable wear rings are standard.

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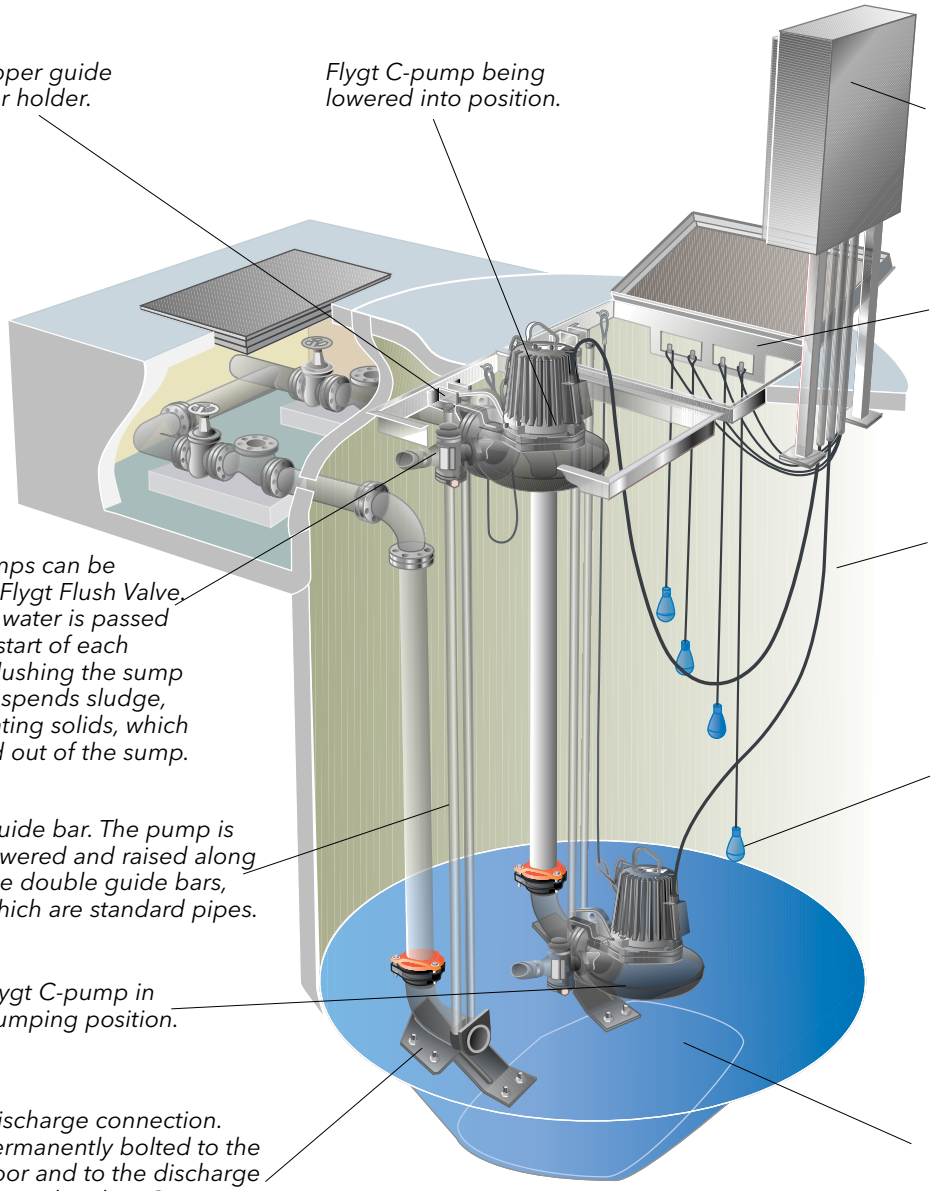
Accessories for trouble-free, efficient pumping

Supplying customers with problem-free solutions is our goal at Xylem – and that means more than simply supplying the correct pump for your particular application.

The following are examples of some of the ancillary equipment and systems which we can supply as aids to improving the all-round efficiency of your operation.



Upper guide bar holder.

Flygt C-pump being lowered into position.

Automatic control panel, including Flygt APF.

Cable holder.

Flygt SUBCAB®

Most Flygt C-pumps can be equipped with a Flygt Flush Valve. A powerful jet of water is passed through it at the start of each pumping cycle, flushing the sump bottom. This resuspends sludge, deposits and floating solids, which are then pumped out of the sump.

Flygt ENM-10 Level regulator

Guide bar. The pump is lowered and raised along the double guide bars, which are standard pipes.

Flygt C-pump in pumping position.

Discharge connection. Permanently bolted to the floor and to the discharge pipe. The Flygt C-pump hooks onto the discharge connection automatically and the pump is detached simply by hoisting it up.

The Flygt TOP sump's sloping floor increases turbulence, thus keeping solids in suspension and preventing the build up of sedimentation.

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