



ITT

Flygt centrifugal grinder pumps

For heavy-duty shredding applications



Engineered for life

Non-clogging grinder pump for tough challenges



Why choose a Flygt grinder pump?

- Provides high efficiency
- Adjusts to actual system conditions without producing a very high pressure
- Reduces maintenance
- Comes backed by our expertise and support

By pairing Flygt grinder pumps with our monitoring and control systems and a Flygt grinder pump station, you have a complete highly efficient affordable wastewater transport system. So your system consistently provides reliable operation over the long run – and never grinds to a halt.

Grind solids down to size

At the heart of every wastewater system is a grinder pump. Flygt grinder pumps reduce solids to fine slurry, which can then be pumped through small-diameter pipes.

One of the largest applications for Flygt grinders is pressure sewage systems that use generally used when flat land, uphill topography, surface rock and high water tables pose big problems for conventional gravity systems. To ensure trouble-free operation, pressure sewage systems have proven to be a reliable and cost-effective alternative for wastewater transportation across varied terrain.

With its narrow, flexible piping that follows the lay of the land, pressure sewage systems eliminate the need for gravitational slopes or costly excavation work. This cost-effective flexible solution can be combined with gravity networks, thus creating the ideal solution for most types of terrain.



Areas of application

- Pressure sewage system
- Wastewater transportation for a single home or small residential community
- Small lift stations
- Grinder pump installations
- Building wastewater sumps
- Manure pumping

Hard-working, heavy-duty grinders

The Flygt 3000 series of centrifugal grinder pumps are high-efficiency submersible centrifugal and suitable for handling solids-bearing liquids in residential, commercial and agricultural applications. Whether you need a single grinder pump, a complete pump stations or an entire wastewater system, you can count on ITT for smart and economical delivery of wastewater to the nearest pump station or sewer main.

Reliable operation

Engineered to meet the rigors of wastewater systems, Flygt grinder pumps feature a unique impeller for optimum hydraulic efficiency and a heavy-duty cutting device that grinds solids into 5×15 mm particles for easy transport through small-diameter pipes. This eliminates the risk of clogging.



Methods of installation

MP



Stationary wet installation with guide bars and automatic discharge connection bolted to the sump floor. When lowering a pump with guide bars, the pump automatically locks to, and is released from, the discharge connection.

MH



Stationary wet installation with the pump suspended from the discharge pipe. The quick connection joint has an integrated non-return valve.

MF



Stationary free-standing installation on legs without strainer. Pipe or hose connection.

Built for trouble-free pumping

BETTER HEAT TRANSFER

Our specially designed and manufactured motor provides enhanced cooling because heat losses are concentrated around the stator. Trickle impregnated in resin (Class F/H insulation) and enable up to 30 starts per hour.

COMPLIANCE

Each pump is tested and approved in accordance with national and international standards, including IEC 34-1 and CSA. Pumps are available in explosion-proof versions for use in hazardous environments, and are approved by the Factory Mutual, European Standard and IEC.

CABLE ENTRY

Water-resistant cable entry provides both sealing and strain relief functions to ensure a safe installation

SENSORS

Thermal sensors embedded in the stator windings prevent overheating. Optional leakage sensors in the stator and oil housings are

also available
LONG-LIFE BEARINGS
Durable bearings provide a minimum service life of

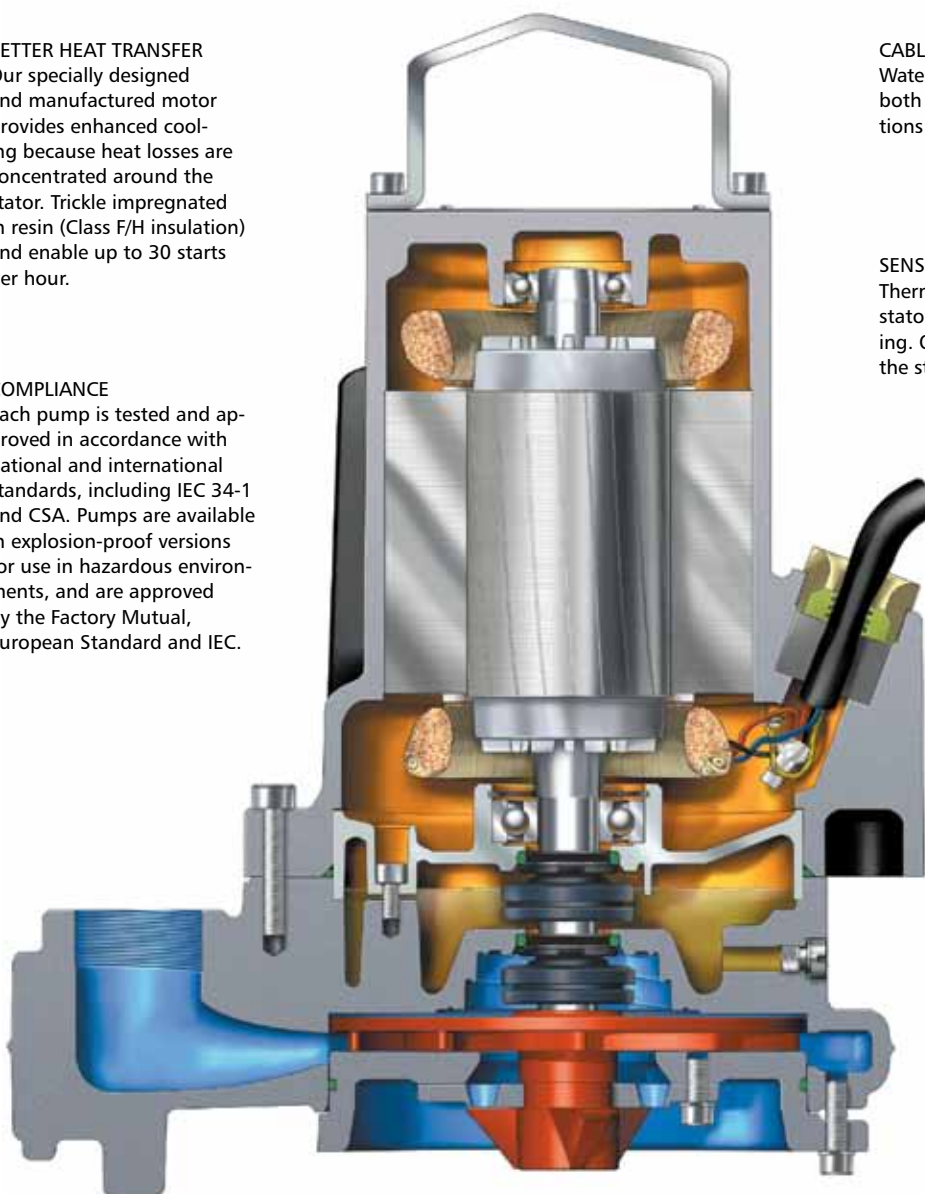
50,000 hours.
ENDURING SEALS
The Griploc™ system consists of two sets of mechanical shaft seals that operate independently to provide double security against leakage.

LOW-DEFLECTION SHAFT

Virtually eliminates vibration and noise levels due to minimal overhang. Extends service life of seal and bearing.

HEAVY-DUTY CUTTING DEVICE

Shreds pumped solids into fine slurry as they pass through the pump inlet to enable unobstructed passage through the narrow pipes of the system.

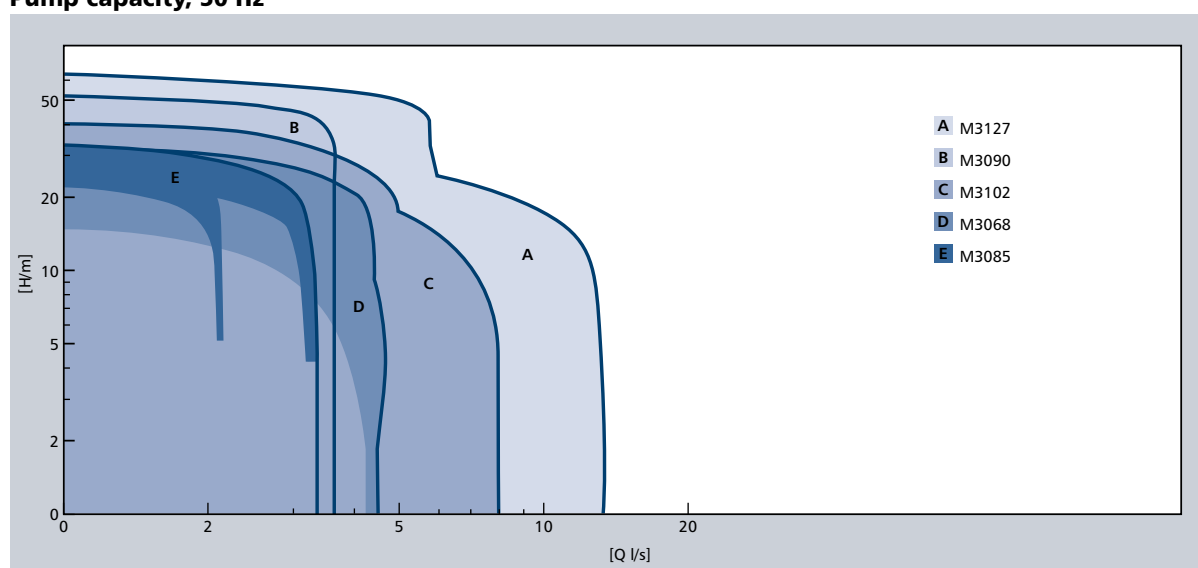


Powerful grinding performance

Based on a flexible, modular design, the Flygt grinder pump range cover an extensive performance range. These submersible single-stage centrifugal pumps share the same discharge diameter, which makes it easy to select one of the interchangeable impellers to precisely match your head and flow requirements now – and easily change it later. High efficiency minimizes electrical equipment installation costs and subsequent energy consumption.



Pump capacity, 50 Hz



Technical specification

Model	Rated power [kW]	Rated amperage [A]	Weight [kg]
3068 1 phase	1.5	8.9	32
3068 3 phase	1.7–2.4	3.8–5.3	32
3085 1 phase	1.9	12	44
3085 3 phase	1.8–2.4	3.6–4.8	44
3090	4.3	8.4	52
3102	4.4	8.6	75
3127	7.4–10.9	15–21	103

All in one and ready to go

For more than a quarter of a century we have installed and maintained wastewater systems around the world. Right from the start, we work with you to design, install and maintain the optimal system for your needs.

Although our wastewater systems are custom-built for years of care-free operation, these accessories help boost the performance of your Flygt centrifugal grinder pumps.

Controlling grinder operations

Add Flygt monitoring and control equipment to help reduce operating and maintenance costs by giving you a complete overview of your pump, pump station or system.



For complete control of your Flygt centrifugal grinder pumps, use the Flygt General Pump Controller. This compact, user-friendly control unit provides multiple control functions, critical operating data and effective alarm handling for a single pump or smaller pump stations.

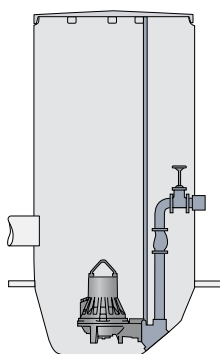
Reducing solids build-up

Attach a Flygt automatic flush valve to your centrifugal grinder pump to keep the wet well free of debris. Installation is easy and no electrical power is required.

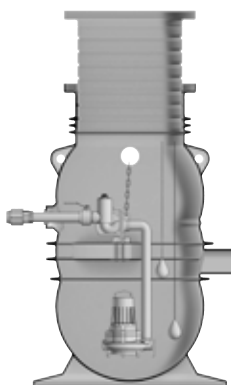


The flush valve provides a powerful cleansing jet stream to clean the wet well at the start of each pumping cycle. This reduces the risk of solids build-up and increases both pump efficiency and service life.

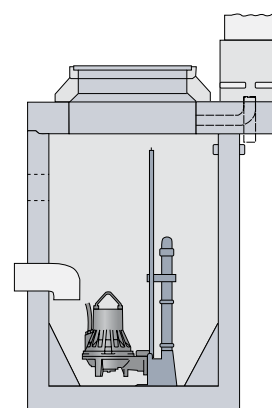
Ready-to-install grinder pump stations



TOP50 GRP pump station



Compit PE pump station



Concrete pump station

Prefabricated standard Flygt pump stations consist of Flygt grinder pumps in pump housing provide an all-in-one solution that makes it quick and easy to get your system up and running. Available in GRP, PE or concrete

finishes, these complete pump stations offer the most flexible and cost-effective way to deliver wastewater handling systems.

Supporting your business, every step of the way



Extensive monitoring and control

We supply hardware and software for complete process systems – from individual pump drives, starters, sensors and controllers to system software and scalable SCADA systems.



Genuine Flygt spare parts and warranty

When downtime isn't an option, rely on our global service network to deliver genuine Flygt spare parts to you – quickly and efficiently. All Flygt spare parts are backed by a solid 15-year availability guarantee. Large capacity pumps even 20 years.

Extensive engineering know-how

ITT has extensive knowledge of fluid dynamics and vast practical experience in designing, operating and maintaining efficient wastewater transport systems. We provide a broad range of engineering services, including:

- System analysis and calculations
- Sump design
- Water hammer calculations
- Pump start analysis
- Transient analysis
- Computational Fluid Dynamics (CFD)
- Scale model testing

In short, we can assist you with everything you need for optimal performance and economical, energy-efficient operation.

Empower your system

With Flygt monitoring and control products, you can control and optimize the

performance of every component of your system. This helps reduce stress on pumps, valves and mains, enable reliable, efficient operation and prolong service lifetime.

Support for your Flygt pumps

Our global network of local service centers and service partners, provide integrated services to support safe, efficient and reliable operation. To ensure trouble-free operation and minimal downtime, count on us for quick, professional response and quality maintenance services, using genuine Flygt spare parts.



What can ITT Water & Wastewater do for you?

ITT Water & Wastewater is a global provider of water handling and treatment solutions for municipal and industrial customers in more than 140 countries. ITT designs and delivers energy-efficient solutions and related services for water and wastewater transport, biological treatment, filtration and disinfection. The company employs nearly 5,000 people through its global sales network, manufacturing sites in Europe, Asia and the Americas, and global headquarters in Stockholm, Sweden. ITT Water & Wastewater is a business of ITT Corporation, a high-technology engineering and manufacturing company operating in three vital markets: water and fluids management, global defence and security, and motion and flow control.

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