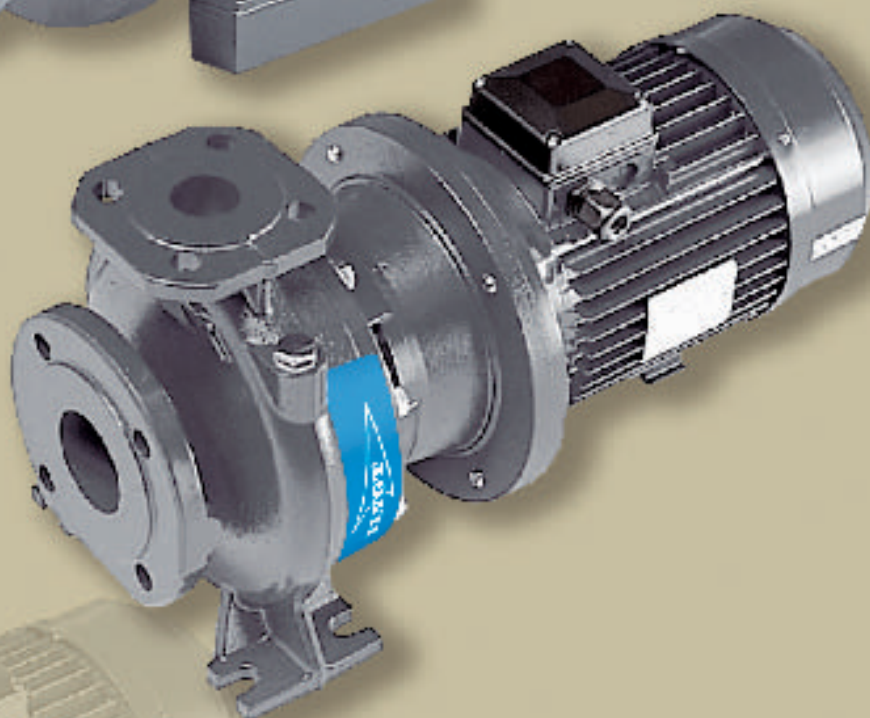
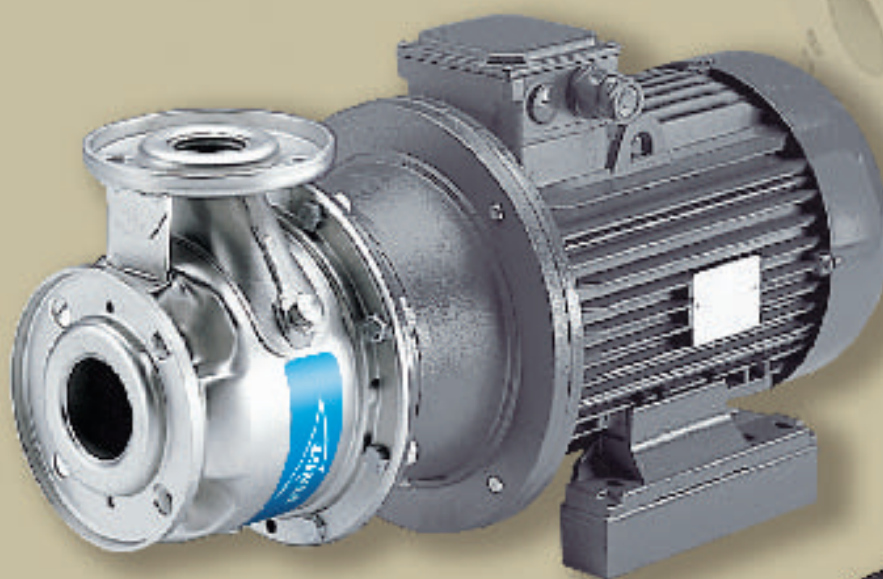


CH & EQ centrifugal pumps

High efficiency for cost-effective pumping



Flygt



ITT Industries
Engineered for life

What does it cost to run a pump?

On average, a centrifugal pump should last at least 15 years. During that time, energy consumption accounts for approximately 90 percent of the total life cycle cost.

Flygt's CH & EQ centrifugal pumps cut the cost of pumping in four ways:

- The motors used in Flygt pumps are highly efficient. We supply EFF2 motors as standard, and EFF1 motors as an option.
- Wear rings give lower service costs because they let you minimize the hydraulic losses without having to replace the entire pump housing.
- With a wide range of curves to choose from, you can dimension a Flygt pump to meet your exact needs.
- Technovar ensures that pumps only work as much as they need to, by continuously matching output to demand, in real-time.

What are the other long-term costs?

Running costs are not only a question of electricity bills. An unreliable pump can lead to high service and maintenance costs. And a low quality pump will have to be replaced within a few years.

Flygt pumps are made to last. The impellers, for example, are laser-welded for a long service life. The seals are continuously lubricated by the recirculation of the pumped medium around the seal housing. And the cast iron CH pumps are coated inside and out with an epoxy-based cationic enamel to reduce corrosion. To learn more about why Flygt pumps are a good long term investment, see next page.



CH & EQ pumps are often used in similar applications. The EQ range, with its stainless steel wet-end, is suitable for more aggressive liquids.

- Water circulation and transfer in civil, industrial and agricultural applications.
- Pressure boosting.
- Water supply.
- Hot and cold water circulation for heating and air conditioning systems.
- Industrial washing.



The right size and material for the job

For good long-term economy, you want a pump that's the right size for the job and of the right material. CH & EQ pumps come in 13 models and can deliver 2 to 240 m³/h at heads up to 110 m. With a range of models to choose from, you won't have to over-dimension your pumps, resulting in further power savings.

The CH pumps are made of cast iron and are suitable for most applications. For more aggressive environments, choose the EQ pumps in stainless steel.

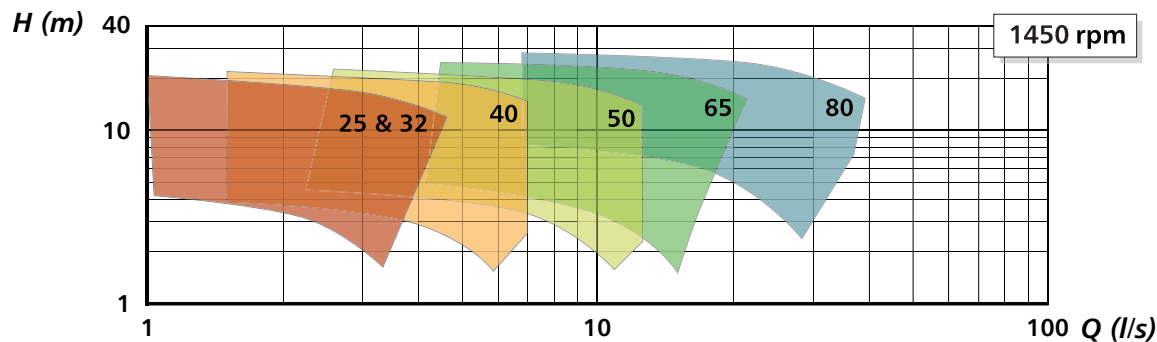
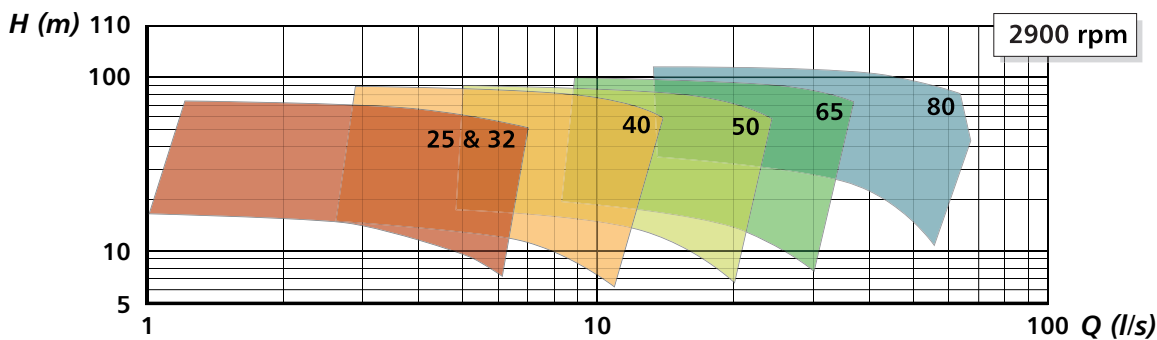
Installation flexibility

Flygt CH & EQ pumps can be installed in a variety of ways: with an extended shaft, stub shaft, or frame mounted.

X – close coupled version with extended motor shaft on which the impeller is mounted directly.

S – the stub shaft can be used with both standard and non-standard motors. With its intermediate coupling, you can pull the motor out without disconnecting the pump.

F – frame mounted on base stand with flexible coupling and standard IEC motor.



	EQ 25	EQ 32	EQ 40	EQ 50	EQ 65	EQ 80	CH 32	CH 40	CH 50	CH 65	CH 80
Motor power 2900 rpm (kW)	0.75–11	0.75–11	1.1–15	2.2–22	4–37	11–75	0.75–7.5	1.1–15	2.2–22	4–37	11–55
Motor power 1450 rpm (kW)	0.25–1.5	0.25–1.5	0.25–2.2	0.37–3	0.55–5	1.5–9.2	0.25–1.1	0.25–2.2	0.37–3	0.55–5.5	1.5–7.5
Connection (DN)	25	32	40	50	65	80	32	40	50	65	80

Details that make a difference

High efficiency, low noise motors

The EFF2 motors are designed to ensure high efficiency and low noise. EFF1 motors are also available.

Standard seals, easy to replace

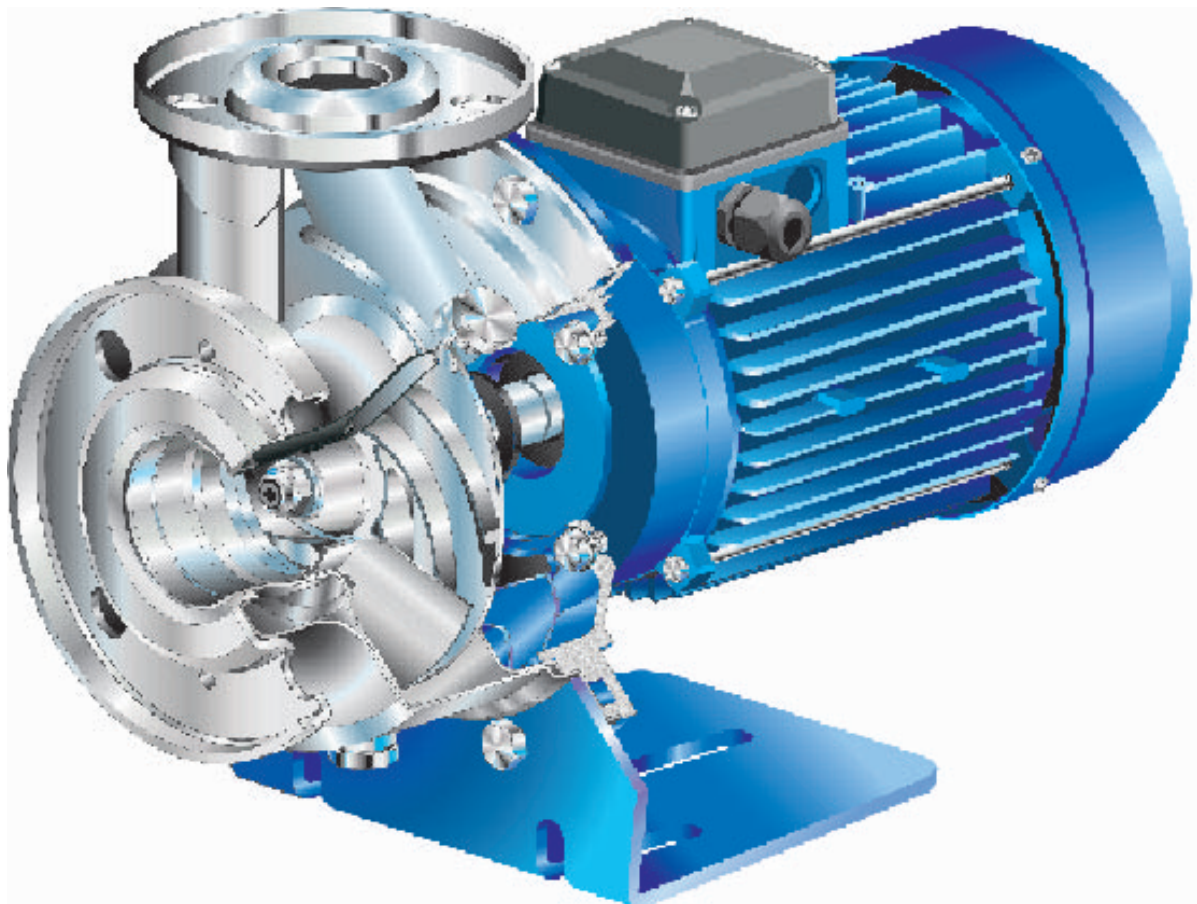
Standard EN seals are made of carbon/ceramic. Alternative materials are also available.

Permanently lubricated seals

Unique design of the seal housing ensures seals are always lubricated. No optional alarms are required.

100% stainless steel

The impellers in both CH & EQ pumps are made of stainless steel. In EQ pumps, the pump housing is also made in stainless steel.



Intelligent pump control

All CH & EQ pumps can be equipped with our top-mounted pump controller, Technovar.

Corrosion resistant coating

All surfaces on the CH pumps, inside and out, are coated with an epoxy-based cationic enamel.

Laser-welded impellers

Laser-welding provides high resistance to mechanical and chemical stresses. To find out how different impellers withstood the strains, we ran a parallel test at full cavitation*. TIG-welded impellers showed cracks after just 150 hours and broke after 500. With the laser-welded impellers, there was no crack formation, even after 500 hours.

*The test was carried out at full cavitation – under normal operating conditions, the life span of an impeller is significantly longer.

Save energy, save your pumps

Pumps know either “on” or “off”. When they are on, they run at full speed. But most of the time, pumps don't need to run at full capacity.

Technovar is an electronic pump controller that ensures pumps only work as much as they need to, by continuously matching output to demand, in real-time. By controlling the operating speed of your pumps, you can slash your energy bills while decreasing wear and tear on your pump and plumbing.

Simple and economical to install

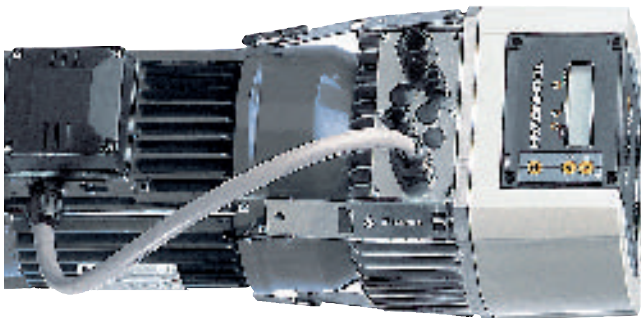
This versatile controller mounts directly on the motor. By eliminating the need for separate controls and drives, initial investment costs are kept low. And sitting on top of the motor, the controller is always cooled by the motor fan.

Technovar is simple to install on any standard motor. And it's easy to use, thanks to the user-friendly control panel.

Constant pressure, constant flow, constant speed

With Technovar you can meet a wide range of requirements such as multiple pump staging and sequencing of up to four pumps (via RS-485 communications). It also provides four basic system control methods: system curve, constant pressure, constant flow and constant speed.

In addition, Technovar offers numerous features for motor and pump protection. These include over/under voltage protection, overload/overhead protection, adjustable acceleration/deceleration, and high temperature alarms.



Technovar cuts energy bills and increases pump life span by ensuring that pumps only work as much as they need to.

How much energy can you save?

Pump: EQS 40 - 250/110 with 11 kW motor.

Head: 66 m.

Operating time: 12 hrs/day.

Application: maintaining constant pressure as flow changes.

Flow, m ³ /h	10	20	30
Absorbed power			
Constant speed pump, kW	6.4	8.2	9.6
Variable speed pump, kW	4.5	7.2	9.6
Power saving, kW	1.9	1.0	0
Operating time, hours	1460	2190	730
Total, kWh	2774	2212	0
Annual energy savings, kWh: 4986			