



NB/NK end-suction centrifugal pumps

Reliable performers for a variety of applications

Grundfos NB close-coupled and NK long-coupled end-suction pumps

The Grundfos NB/NK end-suction pumps are designed and built for industrial applications where large volumes of water and other liquids need to be pumped from one place to another –efficiently and reliably.

Grundfos pumps are renowned for their unmatched reliability, and the NB and NK pumps are no exception. These all-round workhorses have stood the test of numerous applications under highly variable and demanding conditions all over the world.

Standard end-suction pumps

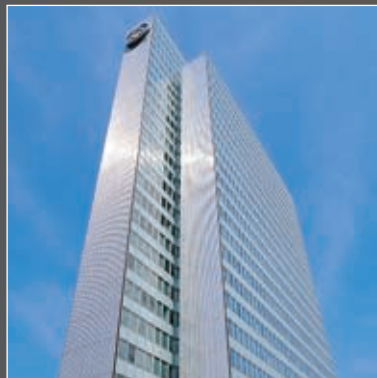
The Grundfos NB and NK pumps are close- or long coupled that meet the EN 733 and EN 22858 standards.

- **The Grundfos NB models** are close-coupled single-stage centrifugal pumps with the motor and the pump part built together to a compact unit.
- **The Grundfos NK models** are long-coupled single-stage centrifugal pumps of a modular design comprising a motor, a coupling, and a pump part, mounted on a base frame.

A variety of applications

The standard models of NB and NK pumps are suitable for a wide range of applications, however, for special requirements a variety of customised solutions is available.

For larger loads, or where extra pumps are required for back-up, several pumps can be installed in parallel.





Wide range of applications

- **Process** - Pumping of large volumes of water or other liquids for industrial processes
- **Cooling** - Cooling plants for industrial processing and air-conditioning units
- **Heating** - Heating systems for commercial buildings and district heating
- **Water supply** - Water supply and pressure boosting for all lines of industry
- **Cleaning** - Water supply and pressure boosting for all kinds of industrial cleaning processes
- **Fire systems** - Stand-by systems for in-house fire protection. The pumps can be equipped with combustion engines independent of electrical supply

Technical details that make a difference

Grundfos made inside out

The Grundfos NB and NK pumps are designed and built by Grundfos in order to ensure that every technical detail and every component fully lives up to the Grundfos standard.

Manufacture and quality control is carried out in accordance with our ISO 9001 quality manual – your guarantee for our attention to every detail throughout the process.

In any industrial application reliability is essential. Unscheduled breakdowns can be extremely costly if vital processes are disrupted. That is why we build the Grundfos NB and NK pumps to the highest standard.

Flexible motor programme

The Grundfos NB and NK pumps can be fitted with a Grundfos motor or a standard motor of any make.

High-efficiency EFF 1 and 2 motors or an explosion-proof variant are also available.

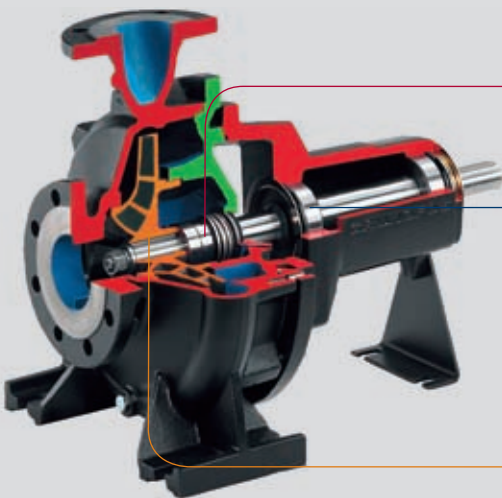
For applications where varying flows are the order of the day, electronically controlled variable-speed motors are an ideal solution. A variable-speed motor enables optimisation of the pump operation for maximum efficiency, long pump life, and substantially reduced operating costs.

Meeting your needs is our job

Providing the right pump for the application is only part of the job done. In order to optimise the pump operation to meet your needs, faultless installation with 100% correct alignment of the pump is essential.

Perfect alignment is ensured by means of a special laser alignment tool, which can be made available from your local Grundfos service partner.

And, if you want us to, we are with you all the way – from configuration of your pump solution to the final commissioning of the installation.



Shaft seal

A range of shaft seals, suitable for different liquids, liquid temperatures, or pressure areas is available. All shaft seals comply with the EN 12 756 standard.

The NK pumps are available for liquids up to 140°C without need for external cooling of the seal. When pumping liquids with a temperature from 140°C to 160°C external cooling is necessary. Cooling is done by a glycol fluid circulating through the shaft seal via a glycol reservoir.



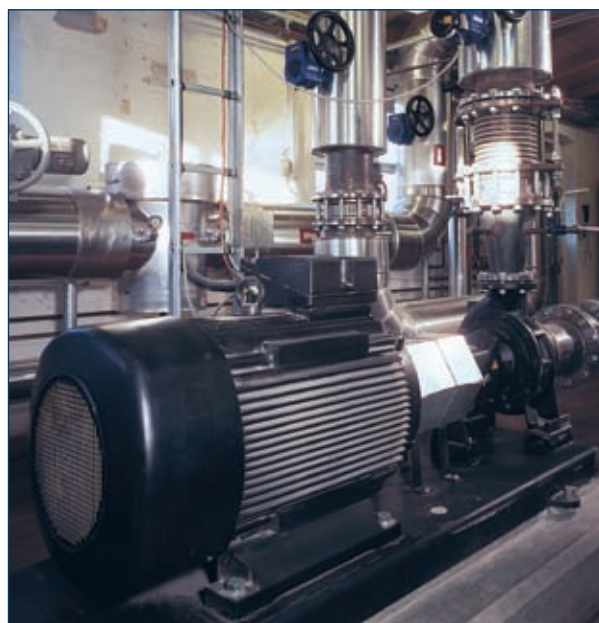
Maintenance made simple and cost effective

The Grundfos NB and NK pumps are designed with a 'back pull-out' system, which makes maintenance and servicing simple and cost-effective. Both models allow for removal of the impeller without dismantling the pump housing or pipework.

On the NB close-coupled models, the motor and the impeller can be removed as one unit without dismantling the pump.

On the long-coupled NK pump models, the use of a spacer coupling enables the motor to remain in place when the impeller and shaft section is removed for maintenance and service checks. This eliminates the need for realigning the installation afterwards.

NK pumps in district heating plant for pressure boosting.



Materials

As a standard, the NB and NK pumps are equipped with cast iron impellers. As an option, impellers made of bronze are available.

These improve corrosion resistance when pumping chlorinated water or other aggressive liquids. For high-salinity water, such as brackish or seawater, or other corrosive liquids, all-bronze versions of the pumps are available.

Bearings

The bearings of the NB and NK pumps are designed for a life span of minimum 20,000 hours of operation under normal load. The bearings are greased for life.

Grundfos the world wide supplier

Grundfos your full-line supplier

Grundfos is one of the world's leading manufacturers of pumps and pump systems with more than 50 years of experience, and even more important – a strong commitment to become the preferred supplier of pumps for your business.

Grundfos offers a range of extremely reliable and highly efficient pumps that meet nearly all user needs within water supply, pressure boosting, heating, steam, air conditioning, fire systems, and wastewater systems.

Global service network

The Grundfos name is synonymous with dependable, high quality pumps that are unlikely ever to cause any trouble. However, if you do need service, rest assured that the global Grundfos service network is geared to move fast and efficiently. There's a Grundfos approved service partner near you – and you can get in touch with one around the clock.



NK pump in district heating plant.

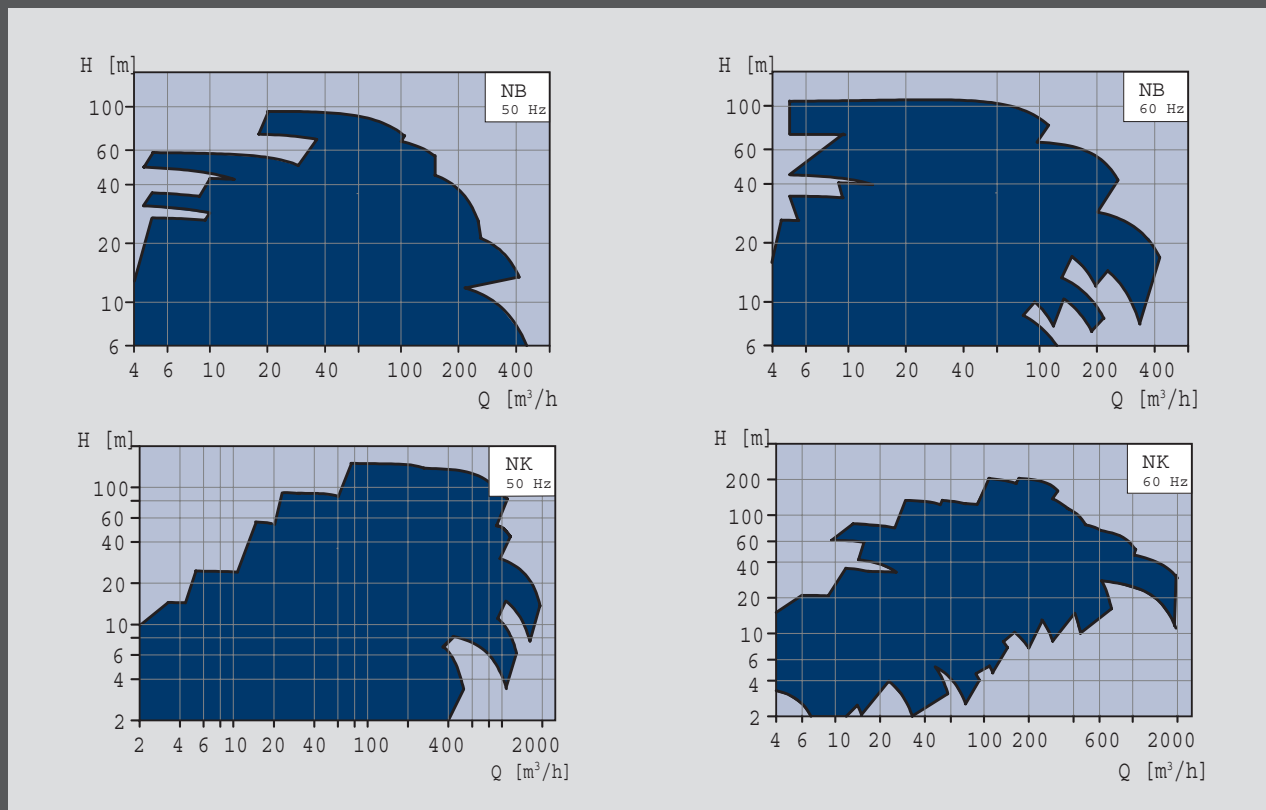
Grundfos NB



Grundfos NK



Performance curves



Technical data

	NB/NBG Close-coupled	NK/NKG Long-coupled	NBE/NKE with MGE/MMGE motor
Flow (max.)	460 m³/h	2000 m³/h	460 m³/h
Head (max.)	95 m	150 m	95 m
Liquid temperature	-25°C - +140°C	-25°C - +140°C	-25°C - +140°C
Max. pressure*	16 Bar (1600 kPa)	16 bar (1600 kPa)	16 bar (1600 kPa)

* The type of shaft seal and the flange dimension determines the pressure rating of the pump as a whole.

NB, NK: according to EN 733.

NBG, NKG: according to ISO 2858 and EN 22858.

NBE, NKE: Variable speed versions (with MGE/MMGE motor).

BE

Being responsible is our foundation. We know that we have a responsibility towards the people who are Grundfos, towards the innovative soul of Grundfos, as well as towards the surrounding world. Whatever we do, we make sure that we have a firm and sustainable basis for doing it.

THINK

Thinking ahead makes innovation possible. We encourage a certain Grundfos way of thinking that is founded on the belief that everyone must contribute by using his or her judgment and foresight. We are looking for commitment and ideas in everything we do in order to make the best solutions. We think – and then we act.

INNOVATE

Innovation is the essence. It is the innovations that make Grundfos unique. We stand out because of our ability to constantly create new solutions to the ever-changing demands of the pump business. We meet every challenge, and we are never afraid of taking the initiative – remaining true to our ideals is the basis for our ongoing renewal. Innovation is the soul of Grundfos.