

GRUNDFOS END SUCTION PUMPS



PROVEN PUMPS FROM A COMPANY YOU CAN DEPEND ON

A global leader in the pump industry, Grundfos has been supplying reliable, innovative end suction pumps for over 35 years, introducing many improvements in both product and application expertise.

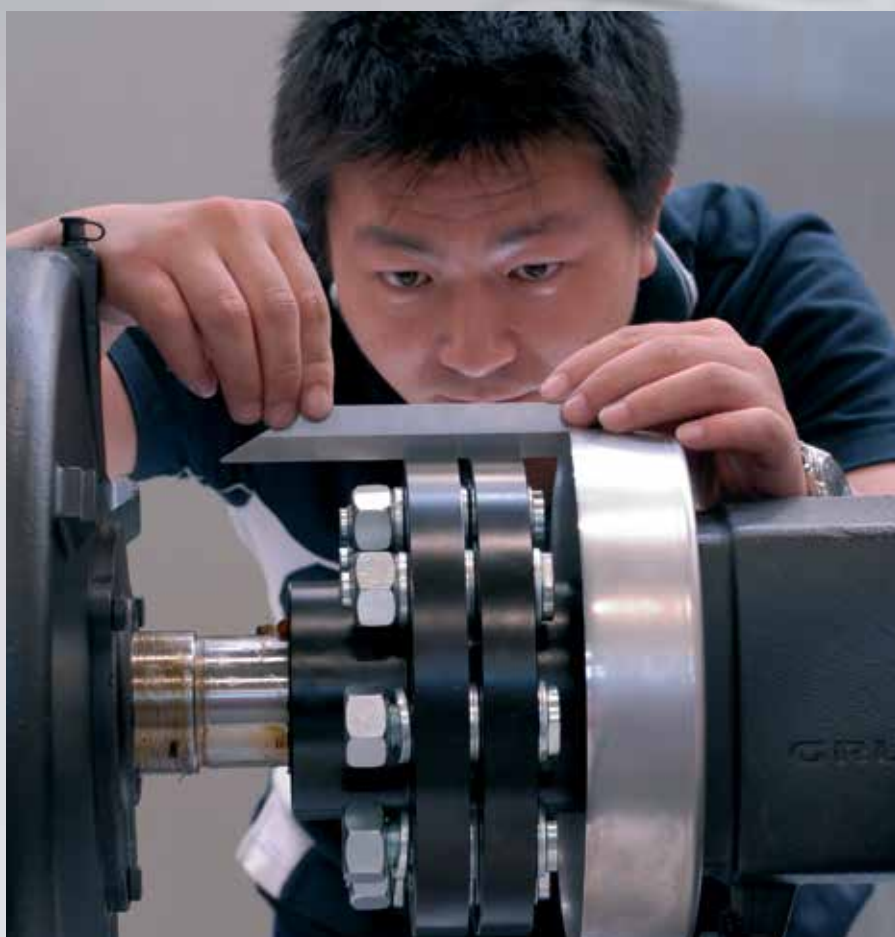
Designed to dependably and efficiently deliver high flow rates at low to medium pressures, Grundfos end-suction pumps are suitable for a variety of applications including:

- > water supply
- > industrial pressure boosting
- > industrial liquid transfer
- > heating / district heating
- > air-conditioning
- > irrigation

Manufactured in ISO 9001 certified facilities, today's range comprises a complete series of close-coupled (NB family) and long-coupled (NK family) pumps compliant with DIN EN733 or ISO2858.

All are non-self priming single stage, centrifugal pumps with axial suction port, radial discharge port and horizontal shaft.

Each has a back pull out design to facilitate removal of the motor, coupling, bearing bracket (NK / NKG) and impeller without disturbing the pump housing or pipework. This simplifies maintenance and enables servicing of even the largest pumps by a single person with a crane.



In most cases a standard Grundfos end suction pump will more than meet the requirements and many are now available on express delivery from stock.

However, for more challenging installations Grundfos has extensive experience in configuring innovative, bespoke solutions. Tailored configuration from the wide variety of proven Grundfos "modules", as opposed to blank page custom design, ensures that risk is reduced and even the toughest applications benefit from Grundfos' reliability and energy efficiency.

For more information on either express shipment of standard stocked models or assistance with specialised configurations please call 01525 850000 or e-mail grundfosuk@grundfos.com

BENEFITS IN BRIEF

ENERGY EFFICIENCY

All Grundfos end-suction pumps are equipped with motors that carry the Grundfos Blueflux® label, representing the very best from Grundfos within energy-efficient motor technology.

RELIABILITY

Backed by comprehensive pump know-how and carefully selected materials, the Grundfos end-suction range is renowned for its outstanding reliability.

COMPLETE RANGE

The range comprises a full series of close-coupled and long-coupled end-suction pumps in both cast iron and stainless steel.

FLEXIBILITY

Grundfos end-suction pumps can be configured and optimised for seamless operation in any application.

DEMANDING ENVIRONMENTS

Grundfos end-suction pumps can reliably and efficiently handle even the most demanding liquids and environments.

GLOBAL REACH

As a truly global supplier Grundfos can deliver local expertise in sales, service and commissioning - wherever you are.

UNSURPASSED PERFORMANCE IN ANY APPLICATION

Grundfos offers an almost limitless range of close-coupled (NB/NBG) and long-coupled (NK/NKG) end-suction pumps, whose robustness and reliability make them ideal for use in even the most demanding environments.

COMBINING TRADITION AND FORWARD THINKING

Externally solid and sturdy, internally Grundfos end-suction pumps feature many innovations and design features. These include field proven, high efficiency motors and options for advanced electronic control and communications.

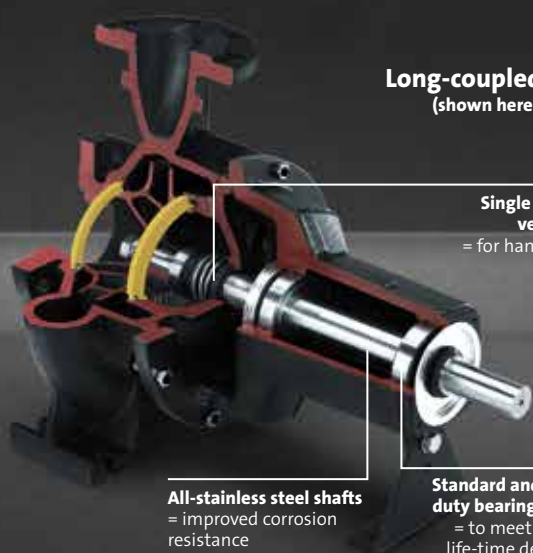
SURVIVAL OF THE FITTEST

Designed to deliver high integrity performance and exceptionally long service life, Grundfos cast iron end-suction pumps feature one piece volutes with an advanced cathophoretic coating. For high corrosion risk applications a range of stainless steel variants is also available.

FUNCTIONAL FEATURES

Close-coupled and long-coupled pump families both feature:

- > 10, 16, 25 and 40 bar flange availability, for EN733 and ISO2858 designated applications
- > O-ring seal between pump housing and cover, no risk of leakage
- > Optimised pump hydraulics, EuP Directive 2009/125/EC (MEI) ready
- > All stainless steel shaft design, improved corrosion resistance
- > Grundfos Blueflux® motor technology, high efficiency IE3/IE4 fixed speed or IE3/IE4 equivalent variable speed motors (IE3 equivalent over 3kW, IE4 equivalent up to 2.2kW)
- > ATEX certification (Zone 1, 2, 21, 22) available to enable use in areas at risk from explosive atmospheres (except "E" models)

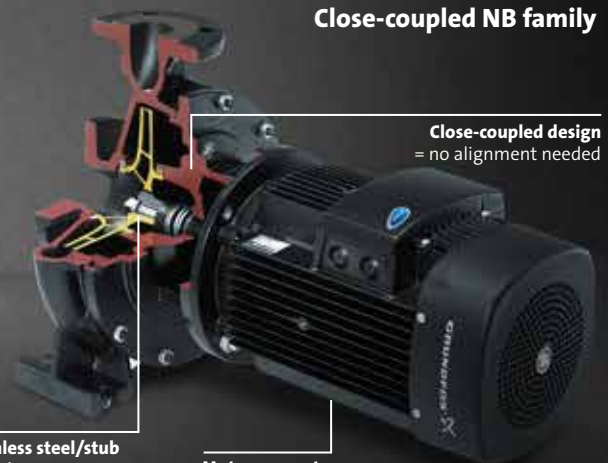


Long-coupled NK family
(shown here without motor)

Single and double seal versions available
= for handling numerous kinds of liquids

All-stainless steel shafts
= improved corrosion resistance

Standard and heavy duty bearing design
= to meet various life-time demands



Close-coupled NB family

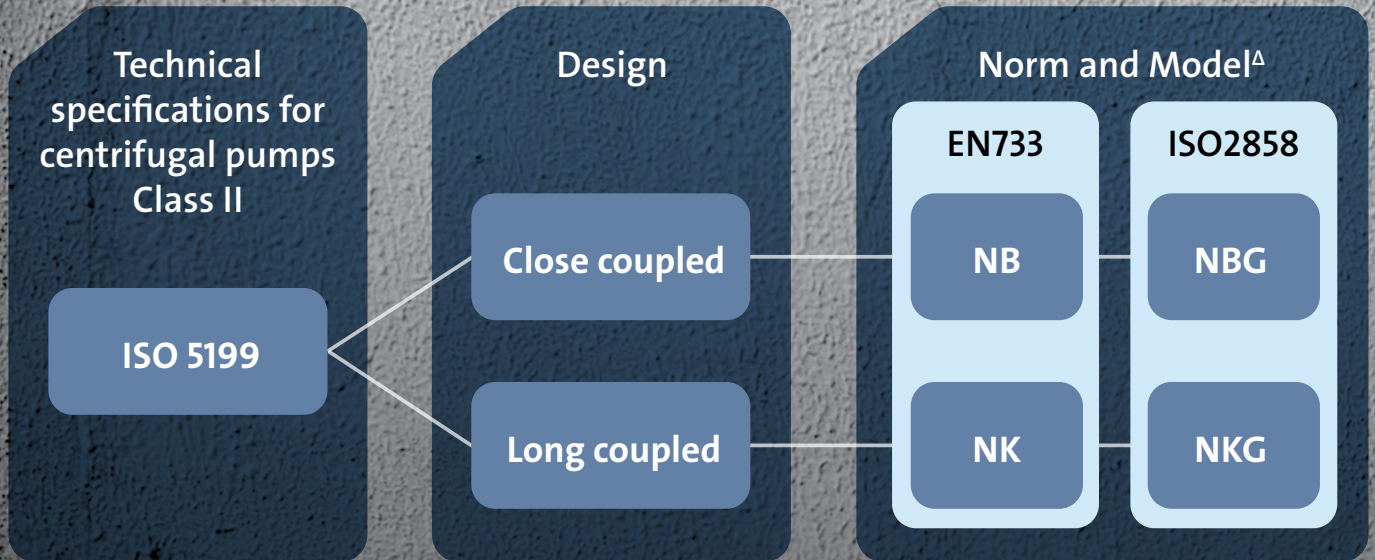
Close-coupled design
= no alignment needed

All-stainless steel/stub shaft design
= improved corrosion resistance

Motor supports - as a part of the delivery
= for easy installation (above 7.5kW)

PRODUCT OVERVIEW

MODEL GUIDE



⁴Models with integrated electronic variable speed control have suffix 'E' eg NBE or NBGE

ATEX certification - NB, NK, NBG and NKG models are available with ATEX Zone 1 or 2 (gas) or Zone 21 or 22 (dust) certification. (ATEX certification does not apply to "E" models.)

CLOSE COUPLED PUMP OPTIONS

PUMP

Impeller: Cast iron, bronze, stainless steel*

Pump housing: Cast iron, stainless steel*

Wear rings: Cast iron, low-lead bronze, stainless steel*, Graflon®

MOTOR

Fixed speed, variable speed (external frequency converter) or variable speed (integrated frequency converter)

High or premium efficiency

Anti-condensation heater
Multiplug

Thermal protection

Undersize and oversize

Special voltages

Enclosure class IP55, IP56 or IP65

SEAL

Types: Standard (rubber bellows), balanced O-ring, unbalanced O-ring

Elastomers: EPDM, Viton®, Fluoraz®, Kalrez®, HNBR

Faces: Silicon carbide, carbon (resin or metal impregnated)



*Choice of DIN 1.4408 (316) or DIN 1.4517 (DUPLUX)

LONG COUPLED PUMP OPTIONS

PUMP

Impeller: Cast iron, bronze, stainless steel*

Pump housing: Cast iron, stainless steel*

Wear rings: Cast iron, low-lead bronze, stainless steel*, Graflon®

Heavy duty greased or oil lubricated bearings (NKG only)

Vibration and temperature monitoring on bearing (NKG only)

MOTOR

Fixed speed, variable speed (external frequency converter) or variable speed (integrated frequency converter)

High or premium efficiency

Anti-condensation heater

Multiplug

Thermal protection

Undersize and oversize

Special voltages

Enclosure class IP55, IP56 or IP65

SEAL

As close-coupled options plus also:

Stuffing box

Double tandem shaft seal (NKG only)

Double back-to-back shaft seal (NKG only)

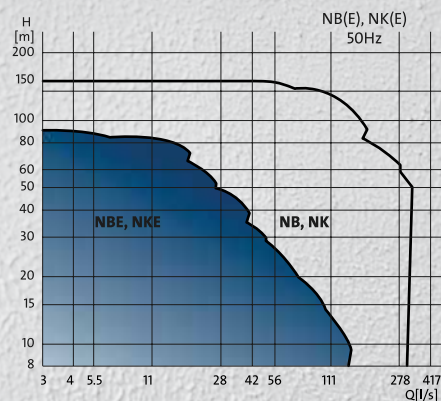
Cartridge seal (NKG only)

**TECHNICAL DATA**

Refer to data book for individual pumps

NB(G)/NK(G) pump families

| | |
|--------------------|--|
| Max. Flow, Q | 20-1200m ³ /hr 5.5-334 l/s |
| Max. Head, H | 2-160m |
| Liquid temperature | -40°C to +160°C |
| Operating pressure | 25 bar max. |

PERFORMANCE AREA FOR NB/NK

FASTER DELIVERY EVERY TIME



Particularly in replacement situations, Grundfos understands that sometimes fast delivery is essential. This is why it has launched a new End Suction Fast Track scheme to cover the most popular sizes and speeds.

For the cost of standard Boxspeed delivery, currently £47, all orders received by 11:00am will be despatched on next day delivery. As standard all models are fitted with cast iron impellers and GQQE seals (SiC / SiC faces with EPDM elastomer). The same models of pumps fitted with bronze or 316 Stainless Steel impellers and / or BAQE seals (SiC / Carbon faces, EPDM elastomer) may also be ordered within the End Suction Fast Track scheme. In these cases please allow an extra 24 hours for configuration before despatch. See the table below for more information.

END SUCTION FAST TRACK MODELS

| MODEL | MOTOR, KW | RPM | MODEL | MOTOR, KW | RPM |
|-----------------|-----------|------|-----------------|-----------|------|
| NB 32-200.1/207 | 0.75 | 1450 | NB 100-160/169 | 30 | 2900 |
| NB 32-200/216 | 1.1 | 1450 | NB 65-160/157 | 11 | 2900 |
| NB 40-160/177 | 1.1 | 1450 | NB 65-160/173 | 15 | 2900 |
| NB 40-200/217 | 1.5 | 1450 | NB 80-160/151 | 15 | 2900 |
| NB 50-200/210 | 2.2 | 1450 | NB 80-160/161 | 18.5 | 2900 |
| NB 100-160/176 | 7.5 | 1450 | NB 80-160/167 | 22 | 2900 |
| NB 100-200/211 | 7.5 | 1450 | NB 80-200/188 | 30 | 2900 |
| NB 100-200/219 | 11 | 1450 | NB 32-125.1/121 | 1.5 | 2900 |
| NB 100-250/245 | 11 | 1450 | NB 32-125/115 | 1.5 | 2900 |
| NB 65-125/144 | 1.1 | 1450 | NB 32-125/130 | 2.2 | 2900 |
| NB 65-160/177 | 2.2 | 1450 | NB 32-160.1/155 | 2.2 | 2900 |
| NB 65-200/219 | 4 | 1450 | NB 32-160.1/177 | 4 | 2900 |
| NB 65-250/254 | 5.5 | 1450 | NB 40-125/127 | 3 | 2900 |
| NB 80-160/177 | 4 | 1450 | NB 40-125/139 | 4 | 2900 |
| NB 80-250/247 | 7.5 | 1450 | NB 40-160/172 | 7.5 | 2900 |
| | | | NB 50-125/121 | 4 | 2900 |
| | | | NB 50-125/135 | 5.5 | 2900 |
| | | | NB 50-125/144 | 7.5 | 2900 |
| | | | NB 65-125/127 | 5.5 | 2900 |
| | | | NB 65-125/137 | 7.5 | 2900 |

NOMENCLATURE

| DISCHARGE PORT NOMINAL DIA (MM) | IMPELLER NOMINAL DIA (MM) | REDUCED PERFORMANCE* | IMPELLER ACTUAL DIA (MM) |
|---------------------------------|---------------------------|----------------------|--------------------------|
| eg. 32 | - 200 | 1 (ie. 90%) | / 207 |

* If applicable

GLOBAL INDUSTRY SPECIALIST PRACTICAL LOCAL SUPPORT

QUALITY AND COMPLIANCE

As should be expected from a market leader, each Grundfos pump is rigorously tested before leaving the factory to ensure easy installation and correct operation when commissioned, a service that can also be provided if required.

Specifically, all end-suction pumps comply with either DIN EN 733 or ISO 2858 standards. (ISO 2858 compliant versions are denoted with a “G” suffix).

ADVICE AND ASSISTANCE

Whether specifying a new project or investigating upgrades or replacement of existing pumps, Grundfos specialists are on hand to help. As specialists in pumps and pump systems we consider it our business to know all there is to know about pumping. We also consider it essential to be able to support our partners and customers wherever they are located and no matter how complex the chain of supply.

Grundfos operate directly in over 46 countries and work in close cooperation with more than 530 service partners, supported by regional and global product and application specialists.

ALL THE INFORMATION YOU NEED, 24/7



Recognising the demands of process and facility management, Grundfos has invested heavily in upgrading its well known “WEBCAPS” online resource to develop the new GRUNDFOS PRODUCT CENTER. Easier to navigate and now accessible from a wide variety of devices, it contains information and tools that range from pump curves and technical manuals to a sophisticated pump sizing tool and pump replacement guide, all available to you 24/7.



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