

Series BK and NK

Process Pumps with pressure rating PN25 Capacities 5-4500 m³/h/20-20000 gpm
Temperatures up to 300°C/572°F

- Reliability
- Low Energy Consumption
- Modular Construction
- Simplified Maintenance



Energy Saving Process Pumps

Typical applications for NK and BK pumps are chemical, petrochemical, pulp mills.

► **High temperature heating system.**

NK and BK pumps are specially designed to handle clean and polluted liquids of all kinds including hydrocarbons and aggressive chemicals.

Low Energy Consumption

These pumps exhibit high efficiencies - the largest size peaks at 91% - giving good operating economics.

Included in the Modular System

NK and BK pumps are part of the ABS Modular System™ and are in effect variants of the BA and NB pumps, which have PN16 rating. Only the pressurecontaining parts differ.

Spare-parts Stocks Reduced

Rotating parts in the NK, BK, NB and BA series are interchangeable for pumps of similar size, reducing spares stock-holding costs.

Reliable

Within the normal operating range the calculated bearing lifetime is at least 6 years of continuous operation.

Shaft deflections at the seal position are less than 0.05 mm, promoting long shaft seal life.

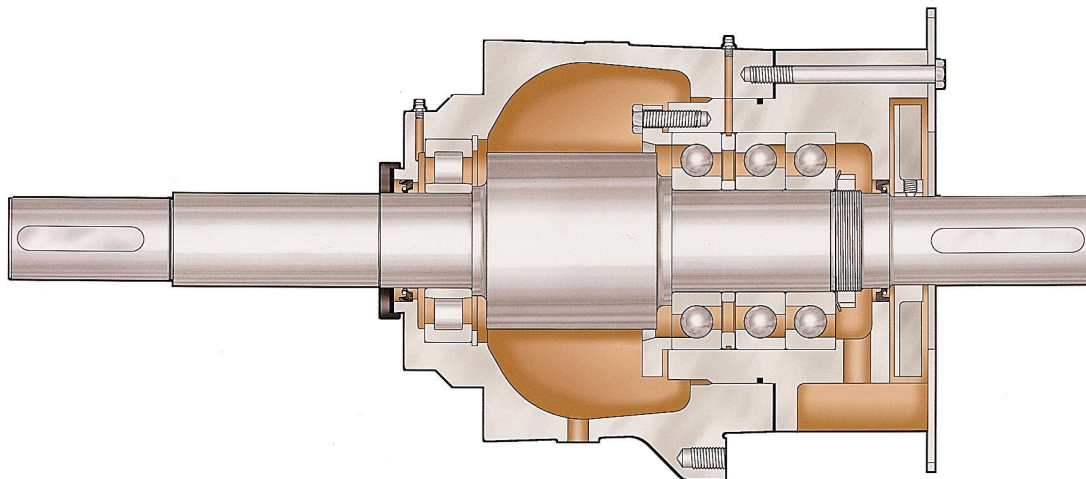
Simplified Maintenance

Designed for continuous service, routine bearing lubrication is the only significant maintenance activity.

Standards: ISO 5199 and API 610

Designed to fulfill the technical requirements of ISO 5199 and also API 610 with some minor deviations.

Bearing Assembly 4F



Design

Apart from the pressure containing parts, the NK and BK pumps have identical parts to the NB and BA-Series

Casing

The support feet are at shaft centreline height, preventing distortion and misalignment due to expansions when pumping hot liquids.

Casing Cover and Lantern

The cover is retained in the casing by the lantern, both of which are therefore pressure containing parts and designed according to the PN25 pressure rating of these pumps. The gasket is confined.

Impeller

NK pumps are normally fitted with closed (shrouded) impellers, whilst the BK pumps have semi-open impellers and casing wear discs.

The impellers are locked onto the shaft by a key and screw design, except for the smallest NK pumps (built on Bearing Assembly Size 1) which have the impeller screwed directly onto the shaft, giving improved flow conditions at the impeller eye.

Cooling

NK and BK pumps are fitted with ABS Seal Cartridge modules. Cooling of the gland by circulating liquid is therefore a standard option. In addition, the bearing units are air cooled as a standard arrangement on the larger pumps by an externally mounted fan and this same arrangement can be fitted optionally on the smaller pumps as well.

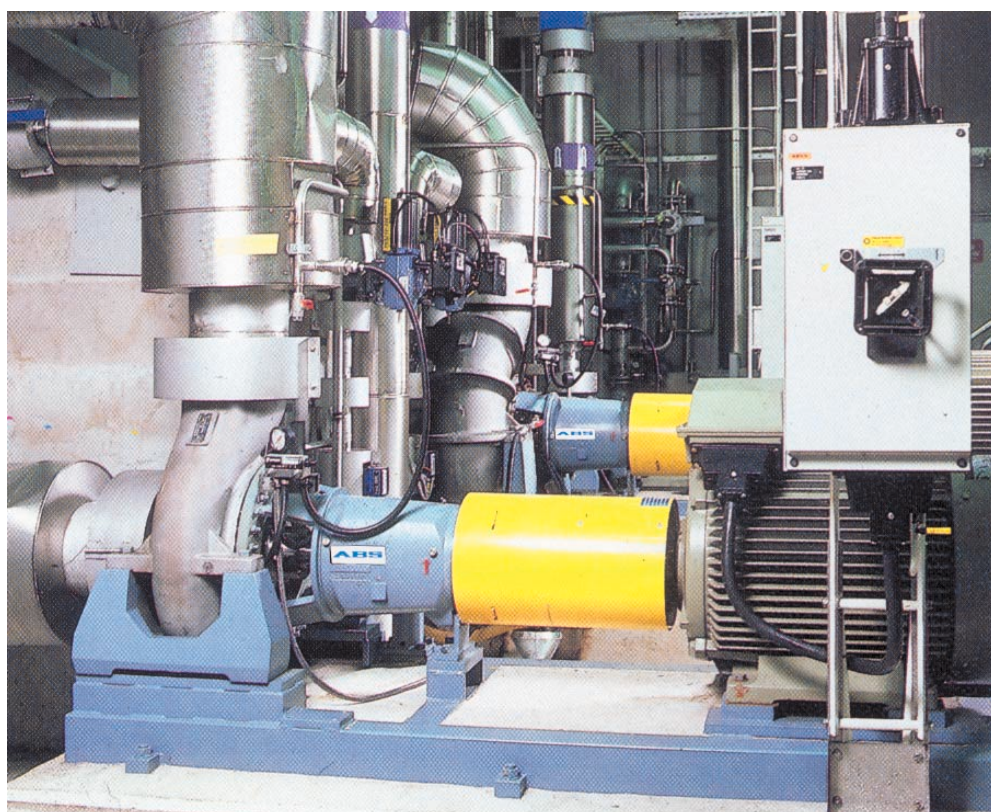
Technical Data

Capacity	5-4500 m ³ /h/20-20000gpm
Head	5-160 m/15-520 feet
Temperature	max. 300°C / 572°C
Pressure Rating	PN 25
Flanges	ISO 7005 PN 25 or ANSI B 16.5 300 lbs.
Lubrication	Grease; oil optionally.
Specifications	ISO 5199; API 610 with some deviations.

Materials

Code	08	26	27	29
Pump casing	Nodular iron 0717	Stainless steel 2343	Stainless steel 2564	Stainless steel 2590
Casing cover				
Impeller	Stainless steel 2343	Stainless steel 2343	Stainless steel 2564 ¹	Stainless steel 2590
Shaft ²	Stainless steel 2321	Stainless steel 2321	Stainless steel 2321	Stainless steel 2321
Shaft sleeve	Stainless steel 2324	Stainless steel 2324	Stainless steel 2562	Stainless steel 2590

1) For Bearing Assembly sizes 1 and 2: 2562
 2) For Bearing Assembly sizes 1-3: Shaft protected from liquid. For B.A sizes 4 and 5: Shaft of 2324, protected from liquid on codes 27 and 29.



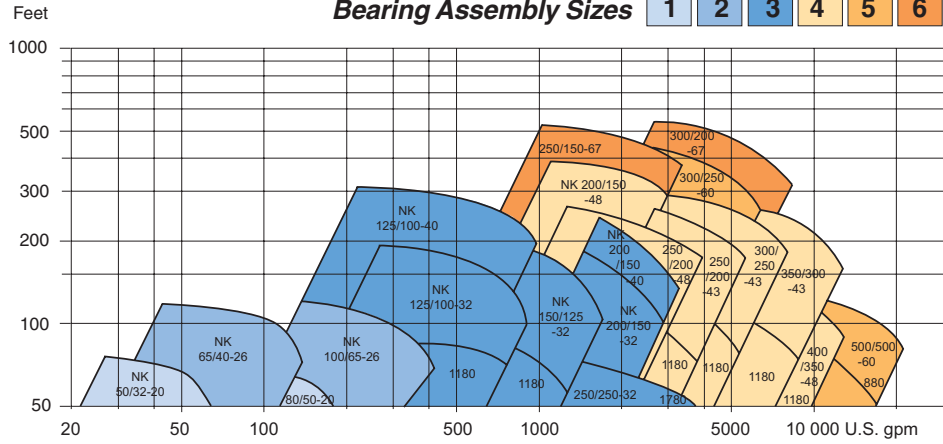
ABS PN 25 pumps are used for demanding applications in the process industry.

Series BK and NK

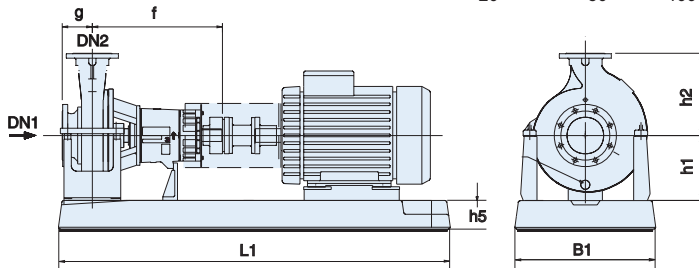
Selection Diagram



Bearing Assembly Sizes



Dimensions



*) Max. dimension. Varies with motor size.
**) Pump only.

Pump type	DN 1	DN2	h1	h2	g	f	Max.B1*	Max.L1*	Max.h5*	Weight**
BK 250/250-32	250	250	400	530	250	486	1150	2100	250	450
BK 250/200-43	250	200	355	500	205	712	1150	2630	250	440
BK 300/250-43	300	250	450	550	225	725	1150	2630	250	520
BK 250/200-48	250	200	450	530	205	749	1150	2630	250	690
BK 400/350-48	400	350	630	720	275	775	1400	3000	250	800
BK 250/150-67	250	150	500	630	190	1069	1400	3000	250	1500
BK 300/200-67	300	200	500	675	200	1080	1400	3000	250	1600
NK 50/32-20	50	32	160	180	80	385	710	1410	200	70
NK 80/50-20	80	50	160	200	100	385	710	1410	200	75
NK 65/40-26	65	40	200	225	100	500	830	1660	200	100
NK 100/65-26	100	65	200	250	125	500	830	1660	200	100
NK 125/100-32	125	100	280	315	140	530	940	2040	250	190
NK 150/125-32	150	125	280	355	140	530	940	2040	250	210
NK 200/150-32	200	150	280	400	160	530	940	2040	250	235
NK 125/100-40	125	100	280	355	140	530	940	2040	250	210
NK 200/150-40	200	150	315	450	160	530	940	2040	250	280
NK 200/150-48	200	150	355	450	165	712	1150	2630	250	480

ABS
COST-EFFECTIVE PUMPING

ABS reserves the right to alter specifications due to technical developments.

Austria
Tel. +43 2236 642 61
Fax +43 2236 642 66

Belgium
Tel. +32 2 725 79 00
Fax +32 2 725 71 19

Brazil
Tel. +55 41 348 1991
Fax +55 41 348 1879

Canada
Tel. +1 905 670 4677
Fax +1 905 670 3709

China
Tel. +86 21 5234 0472
Fax +86 21 5234 1179

Denmark
Tel. +45 48 17 11 10
Fax +45 48 17 19 11

Estonia
Tel. +372 656 3398
Fax +372 656 3385

Finland
Tel. +358 9 506 88 90
Fax +358 9 55 80 53

France
Tel. +33 1 49 35 24 50
Fax +33 1 48 54 42 82

Germany
Tel. +49 62 57 9317 0
Fax +49 62 57 9317 99
Tel. +49 2246 13 0
Fax +49 2246 13 200

Great Britain
Tel. +44 1293 82 19 75
Fax +44 1293 82 19 76

Greece
Tel. +30 1 95 325 01/02/03
Fax +30 1 95 325 04

Hungary
Tel. +36 1 372 78 50
Fax +36 1 372 78 60

Ireland
Tel. +353 53 63 200
Fax +353 53 42 335

Italy
Tel. +39 051 89 00 911
Fax +39 051 86 18 48

Netherlands
Tel. +31 43 352 50 50
Fax +31 43 363 33 95

Norway
Tel. +47 67 554 700
Fax +47 67 554 750

Poland
Tel. +48 22 633 82 87
Fax +48 22 633 86 44

Singapore
Tel. +65 4633 933
Fax +65 4622 122

South Africa
Tel. +27 11 397 1612
Fax +27 11 397 1795

Spain
Tel. +34 91 670 28 51
Fax +34 91 666 58 68

Sweden
Tel. +46 31 706 16 00
Fax +46 31 27 29 20

Switzerland
Tel. +41 71 694 6555
Fax +41 71 694 6556

Turkey
Tel. +90 216 455 2256
Fax +90 216 455 2265

USA
Tel. +1 203 238 2700
Fax +1 203 238 0738

All other countries
ABS Pumps International
Head Office, Sweden
Tel. +46 31 83 63 00
Fax +46 31 18 49 06

Agents and distributors
ABS has sales and service representation in more than 100 countries the world over.

www.abspumps.com

ABS is a company in the Cardo Group