

NIKKISO NON-SEAL[®] PUMP

MULTI-STAGE TYPE



NIKKISO

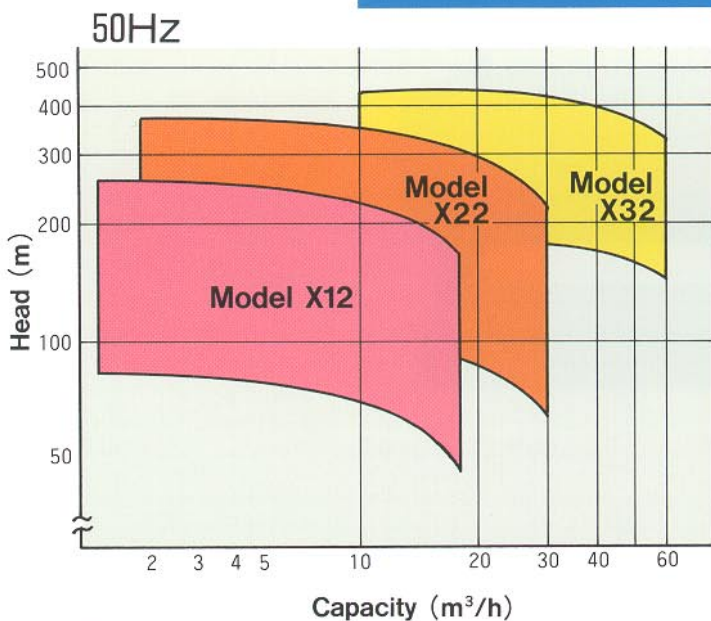
NON-SEAL[®] PUMP MULTI-STAGE TYPE

We "NIKKISO" have thoroughly redesigned the Nikkiso Non-Seal[®] pump multi-stage type, greatly improving their performance by dramatically increasing pump efficiency, and accurately balancing the axial thrust over the entire range of flow by using a balancing disk seat. Furthermore, up to 132kW slim motors have been added to the Series to meet a broad range of applications. The pumps are compact, easy to disassemble and re-assemble, and all maintenance can be done in the field. We are sure that the Nikkiso Non-Seal[®] pump multi-stage type restyled satisfy by the pioneer (NIKKISO) of canned motor pumps, will fully satisfy the expectations of our customers.

Enhanced efficiency

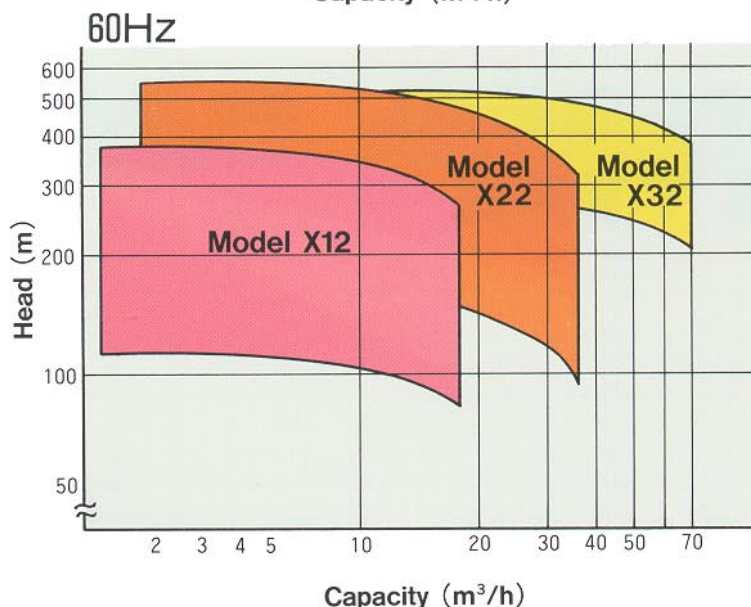
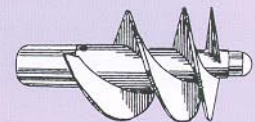
The efficiency of the newly-designed pumps and slim-motor pumps has been enhanced by more than 10%, offering greatly energy-saving. (comparing with our previous type)

Performance



Inducer (optional)

The inducer enables a low NPSHR of 1.0m or less.



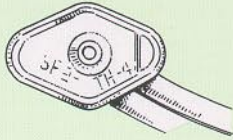
Specifications

- Pumping temperature: -30°C~
- Viscosity: Max. 140mPa·s
- Design pressure: 2~8MPa
- Liquid-contacting material: Cast
- Motor output: 5.5~132kW
- Explosion-proof: Flame-proof (or
Increased safety)

Structure and Features

Thermostat

Embedded in the hot spot of the windings for protection against overheating.



Bearing monitor

(many patents)

All type of Non-Seal® pumps are equipped with bearing monitor (mechanical type). The purpose of the bearing monitor is to check abnormal wear of bearing and can corrosion from the outside while the pump is operating and to give warning of measures required.

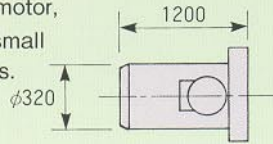
Compact design

Fewer pump stages.

We have succeeded in reducing the number of stages by using a high-efficiency, low Ns impeller and by developing a new radial diffuser.

Slimmer, even more compact motors! (patent pending)

A 132kW motor, yet such small dimensions.

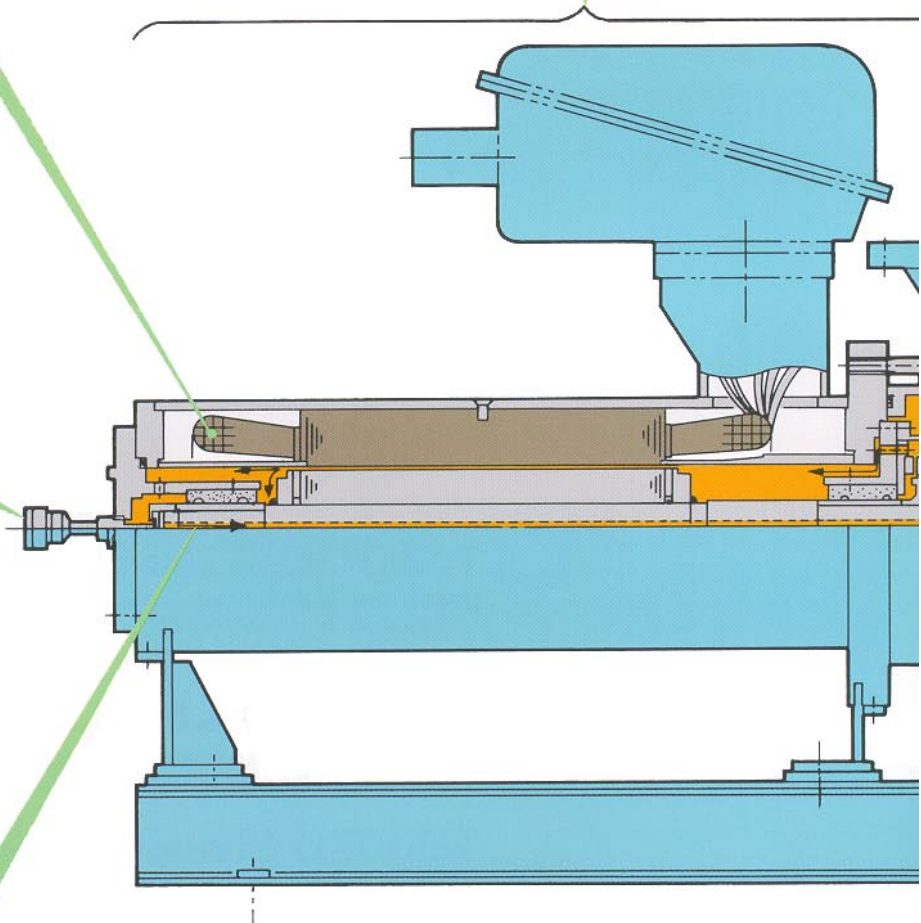


Short shaft

Small vibrations and low noise

Reduced load on bearings

Long-life bearing

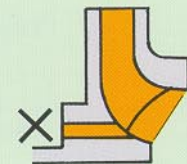
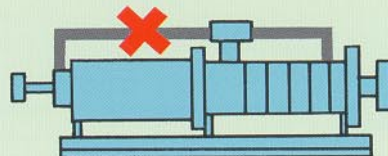


Internal circulation system

(patent pending)

Completely sealless!

The circulation tube has been removed to ensure greater safety and minimize the risk of leaks.



Balancing disk balances the flow over the entire

- No impeller balancing hole provided.
- No internal liquid leak.

• Increased efficiency (step 1)

• Improved NPSHR

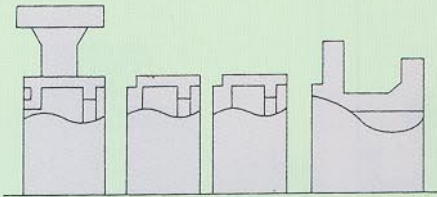
+150°C

steel, stainless steel.

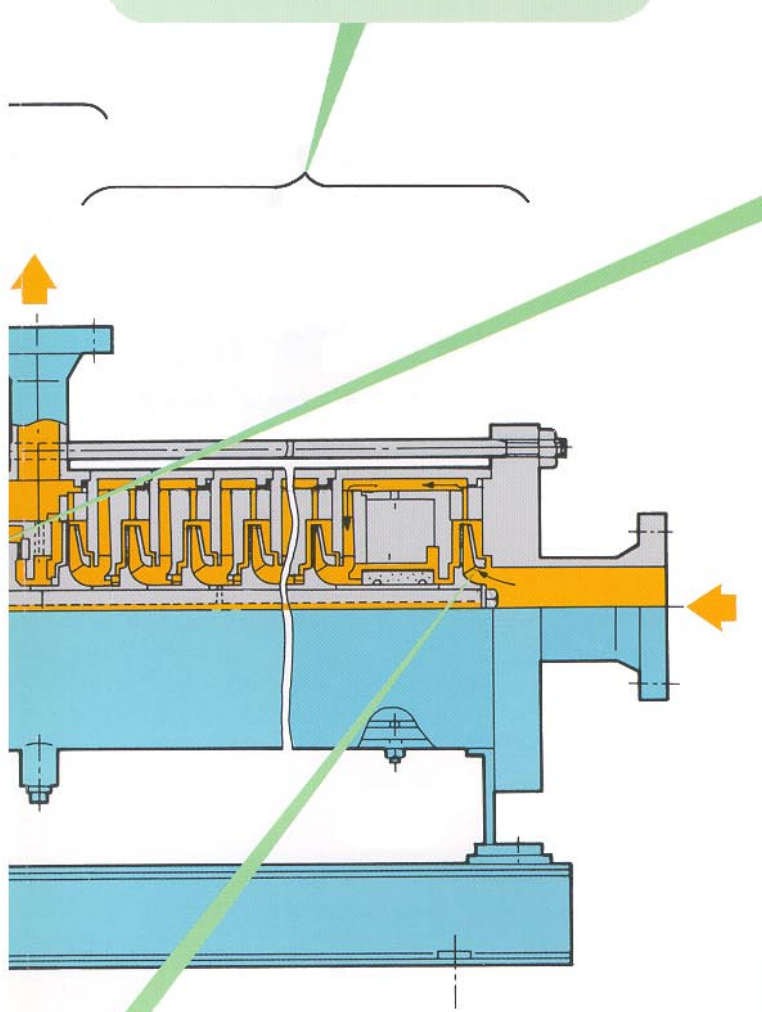
(outdoor type) d2G3
y eG3

Easy to disassemble and re-assemble

All the work can be done in the field "Full building block system," requiring no skills such as alignment.



The pilot fitting.

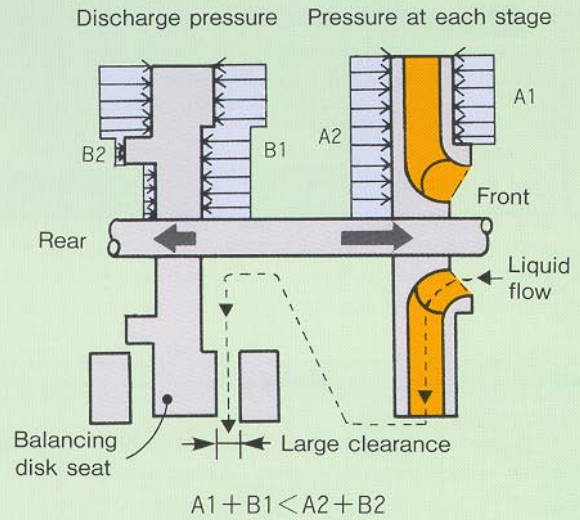


Balancing disk seat

(patent pending)

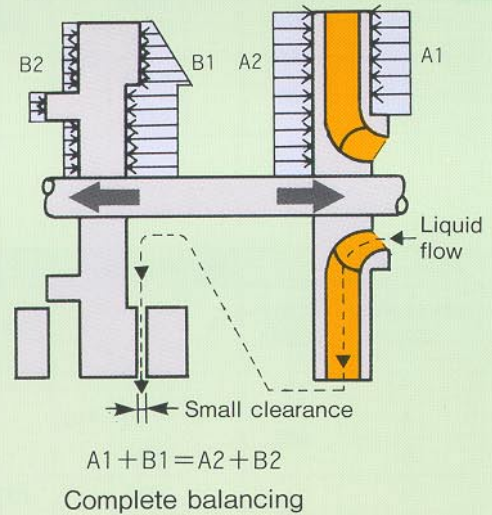
Over the entire range of shaft thrust full balancing structure

During start up



<During operation>

Moves toward the front and operates at the optimum position automatically.

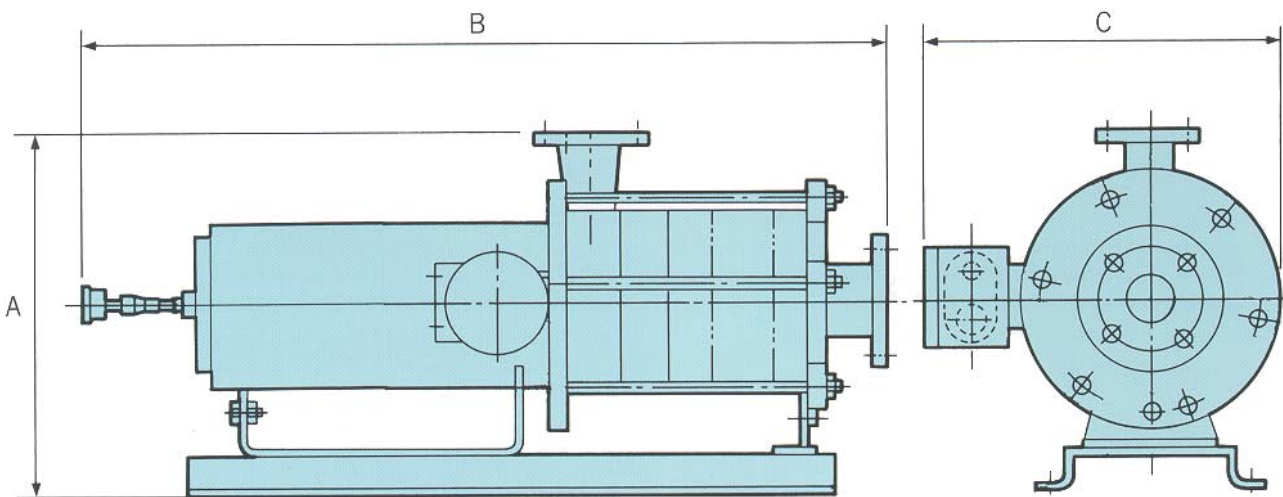


seat completely
fluid thrust force
range.

- Rear fixed orifice eliminated
- Disk friction loss reduced
- **Increased efficiency** (step 2)

Standard dimensions

unit: mm



Model X12						
No. of pump stages	Motor output	A	B	C	Suction	Discharge
3	5.5 kW	570	930	440	65A	40A
4			1090			
5			1145			
6			1200			
3	7.5 kW	515	1000	515	2½B	1½B
4			1160			
5			1215			
6			1270			

Model X22						
No. of pump stages	Motor output	A	B	C	Suction	Discharge
3	15	590	1115	540	80A	50A
4	18.5		1305			
5	kW		1375			
3	22		1190			
4	30	1380	565	3B	2B	
5	kW	1450				
4	37	1395				
5	kW	1465				

Model X32						
No. of pump stages	Motor output	A	B	C	Suction	Discharge
3	75 kW	820	1695	710	100A	65A
4			1775			
5			1855			
4	90 kW	840	1685	840	4B	2½B
5			1765			
6			1845			
5	110	1915	2075			
6	132	1995				
7	kW	2075				

Note: These are typical examples; dimensions are subject to change

Standard materials

For non-standard materials, please contact us.

Component	Material
Liquid-contacting part	CARBON STEEL, 304SS, 316SS
Bearing	Carbon graphite
Shaft	304SS, 316SS, 329J1SS
Shaft sleeve	316SS (hard chromium plated or surface-hardened by METECO thermal spraying).
Gasket	PTFE, FRI, NBR



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Representative

● Subject to change without prior notice.