

AHLSTAR NK Non-clogging and WK Wear-resistant Vertical Sump Pumps



Main Applications

AHLSTAR NK non-clogging and WK wear-resistant vertical cantilever sump pumps are used for demanding industrial applications to pump:

- abrasive liquids and/or liquids containing large solids
- abrasive fibrous slurries and/or fibrous slurries containing large solids
- abrasive non-fibrous slurries and/or non-fibrous slurries containing large solids



Features and Benefits

1 NPP/T and WPP/T pump casing, impeller and side plate

- Casing, impeller and side plate are interchangeable with the Sulzer AHLSTAR NPP/T non-clogging and WPP/T wear-resistant process pumps.
- Minimized spare parts inventory

2 Impeller

- Non-clogging design NK (closed or vortex impeller) with wide open channels and self-cleaning vane profile for liquids containing large solids, long fibers, clips or plastics
- Non-plugging impeller back vane design prevents plugging caused by longer fibers or plastics
- Pressure-reducing impeller front vanes and self-cleaning cutter grooves prevent fibers from entering the gap between the impeller and side plate and reduce internal flow losses
- Wear-resistant design WK (closed, open or vortex impeller) for abrasive and corrosive liquids and slurries containing solid particles

3 Suction bell

- Stainless steel suction bell with guiding and straining vanes to help prevent clogging

4 Line shaft and bearing design

- One-piece shaft guarantees straightness and easy assembly. Critical speed always above the max. operating speed
- No support bearing inside the liquid needed resulting in more reliable operation

5 Thrust bearing

- Heavy-duty roller bearing unit with angular contact ball bearings for axial load guarantees long bearing lifetime. Grease lubrication

6 Mounting plate and driver support

- Sturdy one-piece epoxy-coated carbon steel base frame and motor support/bearing housing assures accurate alignment

7 Discharge pipe

- Length adjustment in discharge piping and flexible sealing water hoses for proper mounting

8 Drivers and coupling

- IEC 34-7 with IM code V1 or corresponding Nema vertical motors as standard
- Flexible Rex-Viva coupling is standard. Other coupling types also available

9 Shaft seal

- No shaft seal needed resulting in more reliable operation

NK Non-clogging and WK Wear-resistant Vertical Cantilever Sump Pumps



Oil & gas



Hydrocarbon processing industry



Power generation



Pulp and paper



General industry



Chemical processing industry



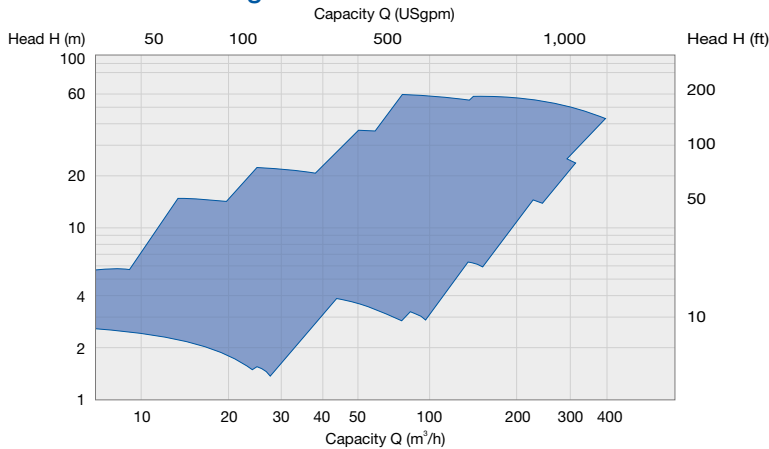
Water

Operating data

50 Hz		60 Hz
from 50 mm to 100 mm / NK from 50 mm to 125 mm / WK	Discharge sizes	from 2 in to 4 in / NK from 2 to 5 in / WK
430 m ³ /h	Capacities	1,900 USgpm
up to 60 m	Heads	up to 200 ft
up to 10 bar*	Pressures	up to 150 psi*
up to 95°C	Temperatures	up to 205°F

* Depending on material and size

Performance ranges



Materials

Main parts	Duplex stainless steel design NK/WK	Cast iron design NK	Chromium Iron design WK
Casing	Duplex SS ASTM A890 Grade 3A	Cast Iron ASTM A48 CL 35B	Chromium Iron A532 IIIA
Impeller	Duplex SS ASTM A890 Grade 3A	Duplex SS ASTM A890 Grade 3A	Chromium Iron A532 IIIA
Shaft	Duplex SS 2324	Duplex SS 2324	Duplex SS 2324
Side plate	Duplex SS ASTM A890 Grade 3A	Duplex SS ASTM A890 Grade 3A	Chromium Iron A532 III
Casing cover	Duplex SS ASTM A890 Grade 3A	Cast Iron ASTM A48 CL 35B	Chromium Iron A532 IIIA

Other materials can be delivered on request.

We Do What We Say

Customer partnership

- We are **reliable partners**
- We provide a **high level of service**
- We **make our customers more competitive**



Committed people

- We drive **accountability**
- We are **open and transparent**
- We are **team players**



Operational excellence

- We **focus on results**
- We take **initiative** and work within **established processes**
- We **act safely**



A Global Specialist at Your Doorstep

Sulzer serves clients worldwide through a network of over 150 production and service sites and has a strong footprint in emerging markets.



● Sulzer headquarters,
Winterthur, Switzerland



www.sulzer.com

E10319 en 1.2015 (1,000), Copyright © Sulzer

This brochure is a general presentation. It does not provide any warranty or guarantee of any kind. Please, contact us for a description of the warranties and guarantees offered with our products. Directions for use and safety will be given separately. All information herein is subject to change without notice.