

FAIRBANKS NIJHUIS[®]
VERTICAL TURBINE
SOLIDS-HANDLING
(VTSH[®]-SCR) PUMPS



FAIRBANKS NIJHUIS®

Introduction

Unattended pump stations require pumps that you know are reliable and will keep working, no matter what. Downtime is not an option: you demand sustained high performance, the best possible design to resist clogging, and minimum-size driving motors and controls to reduce construction and operating costs.

By utilizing the uniquely proven induced flow impeller design, the Fairbanks Nijhuis VTSH-SCR provides a wider variable speed operating range than conventional solids handling pumps. This provides flexibility to the operator to adjust for unanticipated flow demand or suspension velocities that could clog traditional pumps.

Fairbanks Nijhuis Vertical Turbine Solids-Handling pumps (VTSH-SCR) meet such municipal demands, and then some.

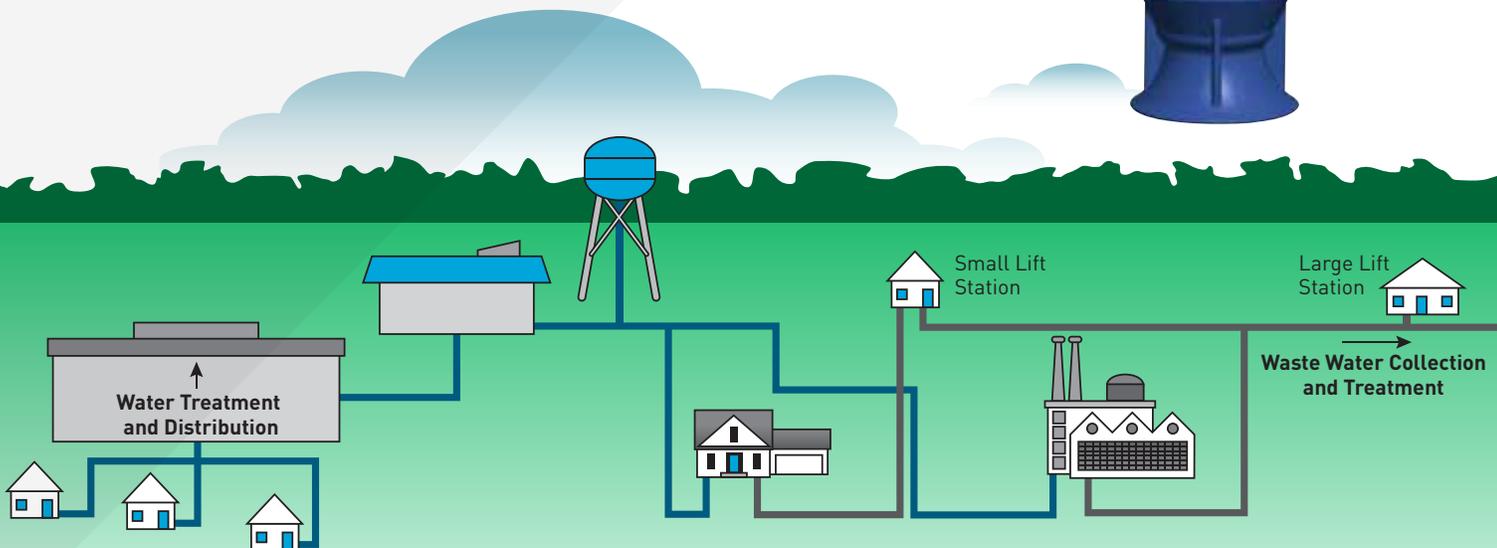
Reduced Construction Costs

The VTSH-SCR pump design puts the entire drive system and controls above the flood plane and is compatible with virtually any drive system. This design means your personnel don't have to enter wet wells for routine maintenance, because drive motors are above grade as well.

This single-sump design also eliminates the need for an additional or dry sump, suction piping, dehumidification or sump pumps which can save up to 70% on total construction costs compared to conventional wet-pit/dry-pit designs.

In addition, their superior design makes VTSH-SCR pumps substantially more efficient over a broad capacity range than conventional solids-handling pumps.

Versatile, compact and streamlined, the VTSH-SCR is a natural fit for space saving pump applications such as conventional wet wells, self-cleaning and confined wet wells.



Applications

- Sewage Lift Stations
- Water Treatment Plants
- Fibrous Sludge and Slurry Handling
- Pulp Handling
- General Industrial Solids Handling
- Flood and Storm Water Control
- Waste Water Collection and Treatment

VTSH-SCR Pumps	
Discharge Sizes – inches	8" – 12"
Discharge Sizes – mm	203 – 305 mm
Capacity Ranges – GPM	250 – 2950 GPM
Capacity Ranges – m ³ /h	57 – 670 m ³ /h
Head Ranges – feet	6' to 50'
Head Ranges – meters	1.8 to 15.24 m
Nominal Bowl Diameters – inches	8", 10", 12"
Nominal Bowl Diameters – mm	203mm, 254mm, 305mm
Solids Passing Capability- inches	3" to 4.5"
Solids Passing Capability- mm	76 to 114mm

Standard Features

1. Suction Bell

Straightening vanes to improve intake flow.
Sized to limit intake velocity at the bell lip.
No tail bearing to prevent media from collecting on support vanes.

2. Impeller

Helical screw design for better handling of solids at slow speeds.
Standard SS material to handle unscreened sewage.

3. Diffuser Bowl

3 vane design that gradually transfers from a radial flow to axial flow.
Bronze-backed rubber bowl bearings
Impeller throttle ring to reduce lower shaft deflection.
Large passageways allowing or larger diameter solids.

4. Bowl Liner

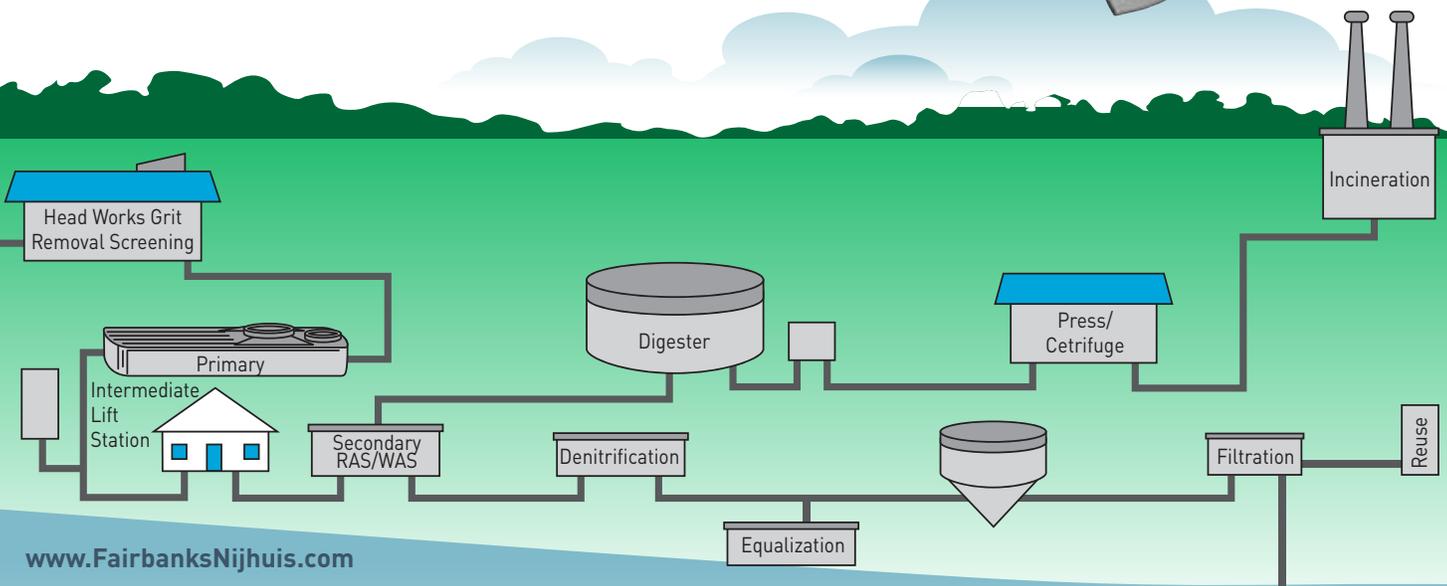
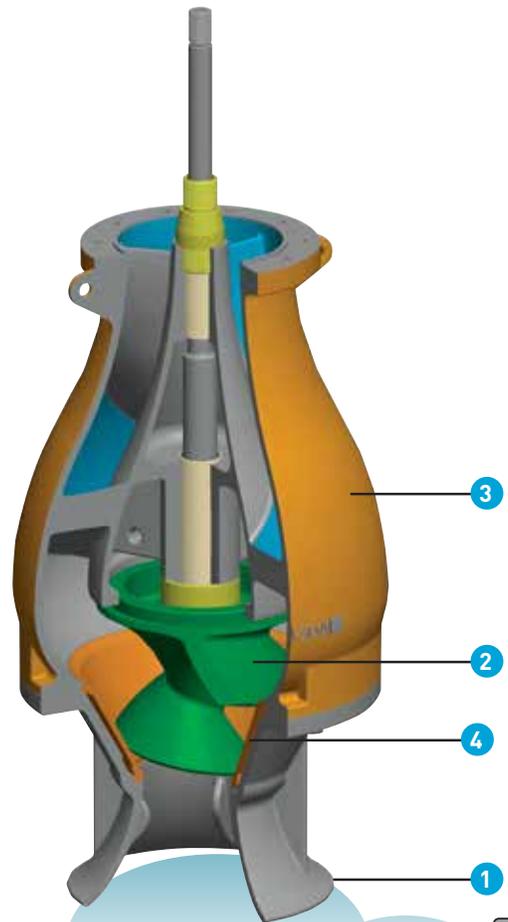
25% chrome iron (550-600Bhn) for increased wear on abrasive/corrosive material.

5. Column and Shaft Connection (Not Shown)

Enclosed lineshaft with intermittent to continuous water flushing required.
Column fitted with splitter vane to minimize debris from wrapping around enclosed shaft.

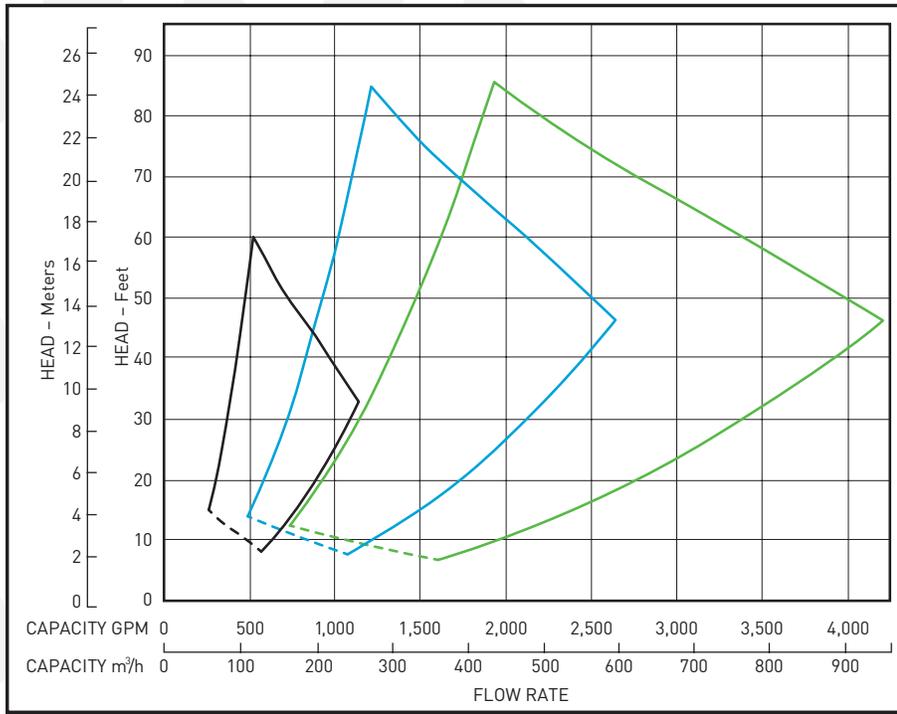
6. Discharge Head (Not Shown)

Custom-Engineered fabricated steel design.
Head fitted with splitter vane to minimize debris from wrapping around enclosed shaft.
Quad-designed supports added if variable speed application.



Efficient Performance Sets Us Apart

VTSH-SCR Pumps



VTSH-SCR Screw Pumps – 8 to 12 in, 20 to 30 cm			
Number	Inches	Meters	Speed
1.	12"	300 mm	1180 – 450 RPM
2.	10"	250 mm	1480 – 600 RPM
3.	8"	200 mm	1780 – 900 RPM

THE COMMITMENT OF FAIRBANKS NIJHUIS®

Our distinctive products, market leadership, excellent customer service, and longevity in the industry are all a result of the quality and dedication of our personnel. Our pumps are machined, built, and tested by highly skilled shop personnel. Working as a team, our people continually explore new ways to better serve our customers. Product quality, dependability, and innovation are all part of the Fairbanks Nijhuis commitment to excellence.



PENTAIR'S

Global Market Segments

TECHNICAL SOLUTIONS

Designs, manufactures, and markets products that guard and protect some of the world's most sensitive electronics and electronic equipment, as well as heat management solutions designed to provide thermal protection to temperature sensitive fluid applications.

WATER & FLUID SOLUTIONS

Designs, manufactures, markets, and services innovative water management and fluid processing products and solutions. In select geographies, Water & Fluid Solutions offers a wide variety of pumps, valves, and pipes for water transmission applications.

VALVES & CONTROLS

Designs, manufactures, markets, and services valves, fittings, automation and controls, and actuators for the industrial, food & beverage, infrastructure, and energy verticals.