



FAIRBANKS NIJHUIS™
MUNICIPAL PUMP
PRODUCTS

www.FairbanksNijhuis.com



FAIRBANKS NIJHUIS™

Trust

Make some fresh coffee. You can pretty much take for granted that water will come from your tap.

Give Fairbanks Nijhuis credit – in all likelihood, the water passed through a Fairbanks Nijhuis pump during its journey to your coffee maker.

The chances are also very good your wastewater and sewage will go through a Fairbanks Nijhuis pump after it leaves your house or the streets of your city.

More municipalities throughout the world use Fairbanks Nijhuis pump products because they trust we'll keep it flowing 24/7 – no matter what "it" is.

A Proud Legacy

The first approved centrifugal fire pump.

The first bladeless impeller solids-handling design.

The first commercially successful 4" (100 mm) submersible water systems pump.

A new concept in solids and slurry handling, the VTSH® pump.

From the industrial revolution forward, Fairbanks Nijhuis innovations have given us the assurance that when we make that cup of coffee, water will be there.



Customized Standard Pumps

We have successfully customized our standard 2400, 5400 and 5700 solids-handling pumps, and our split case, vertical turbine, propeller and VTSH® pumps to accommodate very specialized needs, including storm water and flood control, low head situations, reverse osmosis technologies and immersible equipment.



Components For Greater Efficiency

Engineering strengths have led to the development of components which can offer higher efficiencies and superior wear to standard equipment, such as our TurboFree® Elbow and Grit Shield.

TurboFree Elbow

- Features a dramatic, low profile (shorter than a short radius elbow), yet delivers flow performance equal to a long radius reducing elbow

Grit Shield

- Helps prevent firsthand erosion occurring adjacent to the case wear ring
- Features "speed bumps" to break up rotational patterns of the slurry



Pump Services Group

The Pump Services Group (PSG) repairs, rebuilds or completely re-engineers almost all types of centrifugal, split case, vertical turbine and propeller pumps, regardless of manufacturer. With the flexibility and customer-oriented focus of a small pump shop, the PSG can offer the resources and capabilities of one of America's primary pump manufacturers, including OEM engineering services, large machining capacity and professional manufacturing control.

With years of experience in rebuilding pumps in all sizes from 2" to 144" (50 mm to 3660 mm) discharge, the PSG can handle virtually any municipal application. We can perform Certified Pump Performance Tests on repaired units, and OEM quality is standard. All PSG rebuilds are shipped with the same twelve-month warranty as newly manufactured pumps.

You can have that cup of coffee now, thanks to **FAIRBANKS NIJHUIS.**



Municipal Applications

Thaddeus would be proud. Fairbanks Nijhuis™ is now the global leader in municipal pumping solutions to meet the needs of the world today.

From municipal sewage treatment to ground water, water supply and municipal lift stations, a Fairbanks Nijhuis pump is why you can take for granted you'll continue having that coffee in the morning.

Municipal Sewage Treatment

Solids-handling pumps can be found in a multitude of municipal sewage treatment plant applications, ranging from raw sewage influent and return activated sludge, to filter backwash and effluent. Available in capacities to 150,000 GPM (34,000 m³/h), Fairbanks Nijhuis pumps for municipal sewage treatment include:

- Centrifugal solids-handling pumps
- Angleflow solids-handling pumps
- VTSH® (Vertical Turbine Solids-Handling pumps)
- Vortex and chopper pumps
- HydroScrew™

A Proud Legacy

Supplying water to treatment systems from wells, lakes, ponds, rivers and basins (including pumps for flood control) require pumps of various configurations. Fairbanks Nijhuis pumps designed for municipal ground water applications include:

- Vertical turbine
- Vertical mixed-flow
- Vertical axial flow pumps



Vertical Turbine Solids-Handling Pumps VTSH Series

Capacities: 5,000 to 70,000 GPM
(1,135 to 15,900 m³/h)
Heads: 10 to 110 feet
(3 to 33.5 m)

Solids-Handling Pumps

5400 Series Dry-Pit, Bittogether and Close-Coupled
2400 Series Dry-Pit, Close-Coupled
5700 Series Dry-Pit and Close-Coupled Angleflow
Capacities: 15 to 75,000 GPM
(3.5 to 17,000 m³/h)
Heads: 5 to 300 feet
(1.5 to 91.5 m)

Submersible Solids-Handling Pumps 5430M&W, 5730K&W & 2430M&W Series

Capacities: 15 to 8,000 GPM
(3.5 to 1,820 m³/h)
Heads: 5 To 290 feet
(1.5 to 88.5 m)

Immersible Solids-Handling Pumps M5430WD Series

Capacities: 15 to 75,000 GPM
(3.5 to 1,700 m³/h)
Heads: 5 To 300 feet
(1.5 to 91.5 m)

5300 Chopper Pump

Capacities: 250 to 7,000 GPM
(56 to 1,590 m³/h)
Heads: 20 To 90 feet
(6 to 27.5 m)

Municipal Applications



Municipal Water Supply

Supplying water within a municipality demands a multitude of options and capacities, booster systems, and more. Fairbanks Nijhuis™ pumps for these purposes deliver with capacities from 75,000 GPM to 1,000,000 GPM (17,000 m³/h to 227,000 m³/h) and include:

- Vertical turbine
- Vertical mixed-flow
- Vertical axial flow
- Horizontal split case centrifugal pumps

Municipal Lift Stations

For submersible applications for raw sewage and wastewater, Fairbanks Nijhuis offers centrifugal solids-handling pumps, Angleflow Solids-Handling Pumps, VTSH® Vertical Turbine Solids-Handling Pumps, Vortex, HydroScrew and Chopper Solids-Handling Pumps.

For potable water booster lift stations throughout municipal systems, split case and vertical turbine pumps are generally the answer.



5600 Series HydroScrew™ Solids-Handling Pumps
 Capacities: 100 to 8,000 GPM
 (22.7 to 1,820 m³/h)
 Heads: To 70 feet
 (21.5 m)

4500C, 4600CE & 4700E Series Vortex Pumps
 Capacities: 50 to 3,000 GPM
 (11 to 680 m³/h)
 Heads: To 200 feet
 (61 m)

Single-Stage Horizontal Split Case Pumps 2800 & 5800 Series
 Capacities: 100 to 75,000 GPM
 (22.7 to 17,000 m³/h)
 Heads: 10 To 2,000 feet
 (3 to 610 m)

HRO 7000 Turbine Pump
 Capacities: 700 to 3,700 GPM
 (159 to 840 m³/h)
 Heads: To 300 feet
 (91.5 m)

Vertical Turbine Pumps 7000 Series
 Capacities: 40 to 50,000 GPM
 (9 to 11,350 m³/h)
 Heads: 10 To 1,000 feet
 (3 to 305 m)

Axial Flow Propeller Pumps 8000/6300 Series
 Capacities: 500 to 1,000,000 GPM
 (112 to 227,000 m³/h)
 Heads: 2 To 80 feet
 (0.6 to 24.5 m)

Live Order Development

We never lose sight of our central goal: Reliable, safe and healthy water when and where you need it... or don't need it.

Fairbanks Nijhuis™ can design, manufacture and test new pumping equipment to meet the specific requirements of your layout. Added value is that we'll do so with an eye toward cost effective installation, efficient energy use, and maintenance ease.

Some significant live order development projects have included new designs for such municipalities as those shown here.

A. Monroe County

Situation: Sewage and raw water lift stations required the utmost reliability and freedom from clogging or other downtime maintenance.

Showcased Product: 24" (610 mm) 5713L – Vertical Angleflow Solids-Handling Pump

- Sustained high performance
- Best possible design to resist clogging
- Minimum size driving motors and controls to reduce construction and operation costs.

B. Tarrant County

Situation: General liquid pumping and booster stations needed, requiring long reliable service with literally zero maintenance costs.

Showcased Product: 36" (910 mm) 5826, 5000 HP Single-Stage Horizontal Split Case Pumps

- Rugged, heavy-duty construction
- Capacities: 100 to 75,000 GPM (22.7 to 17,000 m³/h)
- Heads: 20 to 700 feet (6 to 213 m)

C. Sacramento, CA

Situation: Flow Equalization Basin Pump Back Facility.

Showcased Product: 30" (760 mm) 2446 Vertical Solids-Handling Pump

- Capacities: 40 to 50,000 GPM (9 to 11,350 m³/h)
- Heads: 10 to 2,000 feet (3 to 610 m)

D. Lake Charles

Situation: Sewage system imposing extremely high solids, sludge, and trash.

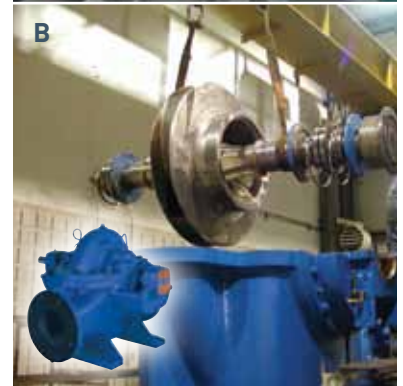
Showcased Product: 14" (360 mm) VTSH® – Vertical Turbine Solids-Handling Pump

- Self-cleaning wet well design eliminates manual sump cleaning and provides labor savings
- Eliminates the need for additional dry-sump, suction piping, dehumidification and sump pumps
- Dramatically reduced initial construction costs (40 to 70% compared to conventional wet-pit/dry-pit designs)

E. New Orleans 17th Street Canal

Situation: Emergency flood control needed to protect City of New Orleans after Hurricane Katrina disaster.

Showcased Product: Eleven 6310 propeller pumps with 72" (1830 mm) discharge and 172,350 GPM (39,144 m³/h) capacity were contracted by the U.S. Army Corps of Engineers, built, delivered and tested by Fairbanks Nijhuis in record time.



Next Generation Solutions

F. Too Much Water

Flood protection for the City of New Orleans following Hurricane Katrina. Fairbanks Nijhuis answered the call with eleven 72"(1830 mm) propeller pumps having a capacity of 172,350 GPM (39,144 m³/h) each.

G. Too Little Water

Reverse Osmosis (RO) turbine pumps are helping to turn brackish and undrinkable salt water into potable water for tea in Amman, Jordan at exceptionally high efficiencies.

H. Population Growth

Our revolutionary VTSH[®] vertical turbine solids-handling pump can move raw sewage, sludge, and even long stringy materials at up to 70,000 GPM (15,900 m³/h).

Today's challenges are somewhat different from those faced by Thaddeus Fairbanks. Cities are growing. Municipalities have to augment their systems, obtain new water sources, maintain the ones they have ... and do all of the above cost-effectively, with (frequently) fewer labor resources.

There's too much water in some places, too little water in others, and population growth is taxing even the most well-designed sewerage systems.



Rest easy. Advanced engineering and technology, a major testing facility for product performance evaluation, and computer-controlled machining centers will be there to answer the unique challenges of your municipal water application. From our 400,000 square foot manufacturing facility located in America's heartland, what you see are but a few of the world-class, industry-leading municipally based innovations that uniquely distinguish Fairbanks Nijhuis.

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.



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Because we are continuously improving our products and services, Pentair reserves the right to change specifications without prior notice.
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