## PENTAIR

## PENTAIR WUXI

www.pentair.com



Pentair makes the most of life's essential resources. From our residential and business solutions that help people move, improve and enjoy their water, to our sustainable innovations and applications, we deliver smart, sustainable solutions for life. Our Flow Solutions provide water and fluid handling pump products and solutions for our customers in commercial, residential, agricultural, infrastructure and industrial sectors. We are known through our brands including Aurora, Fairbanks Nijhuis, Myers, Hydromatics, Flotec, Sta-Rite, Berkely, Nocchi, Jung and Southern Cross.



Pentair invested in Wuxi in 2011, since then Wuxi factory became a Pentair fully owned facility. 130 km

North West of Shanghai, Wuxi factory is strategically located in the heart of China manufacturing hub, Yangzi River Triangle Industrial Zone. The factory is ISO 9001, 14001, and 45001 certified and serves customers mainly in the field of commercial and industrial water supply and treatment. The product portfolio we offer includes End Suction pumps, Horizontal Split Case pumps, Horizontal Multi-Stage pumps, Vertical Multi-Stage pumps, Vertical Inline pumps, and Vertical Turbine pumps.

As a global leader in the fire pump package system, Pentair is committed to provide our customers around the globe with high quality products and world class local support. Thus in 2015 Pentair further invested in Wuxi with UL/FM manufacturing capability to serve our customers better in Asia and Pacific.

The Wuxi facility is certified by UL and FM to manufacture, impeller trimming, pump package assembly, distribution, and product testing of fire pump package. Wuxi can package Aurora and Fairbanks Nijhuis axial split case, horizontal end suction, and vertical turbine fire pumps rating up to 4500 gpm.

## **OUR COMMITMENT**

At Pentair we adhere to high standards of performance and we value customer first. We actively pursue continuous improvement and adapt towards customer needs. We are here to support you with our premium quality products and local presence. Let's work together towards the path of success.

## FACILITIES

## **TESTING CAPABILITY**

- Flow up to 7,400 gpm (with positive suction)
- Pressure up to 500 psi
- 600 hp in 50/60 hz

## **TYPE OF TEST**

- Hydrostatic Test
- Performance Test per H.I. and ISO 9906 Grade 1
- NPSH Test
- Sound Test
- Vibration Test



## **OUR TEST BED INCLUDES:**

- Two Cummins KTA19G4 Diesel Engines with Stamford HCI544C generators with combined output of 800 kw in both 400 V/50 hz and 460 V/60 hz.
- ABB ACS800 500 kw and ACS 510 110 kw VFDs and Siemens Micromaster 430 160 kw VFD.
- Test Loops: 3 independent test loops: 12", 8", 4" for split case and end suction pumps. Additional test stand is set up to test vertical turbine from 6" to 19".
- Instrumentation: Instrumentation accuracy meets and/or exceeds the requirement by Underwriters Laboratories and Factory Mutual. Instruments include Krohne Magnetic-inductive flowmeters, Rosemount pressure transmitters, dial pressure gauges, torque meters, dynamic balancer, scale, stop watch, digital calipers etc. All calibrated by laboratories that are accredited to the requirements of ISO/IEC 17025, meets the standard set by Underwriters Laboratories and Factory Mutual.
- Control station: State of the Art PLC with LabVIEW and Data Acquisition System from National Instruments, custom designed/programmed to meet our testing requirement, optimizing tests for time, throughput, and reliability. Test data is captured electronically during the test and pump curve is generated as soon as testing is finished, eliminate human error from data inpu/transfer.
- Lab Computer: Robust industrial grade computer to ensure reliability and accuracy of data capturing, processing, and storage.
- Thirteen dedicated electric motors from 7.5 kw to 450 kw are calibrated for testing both horizontal and vertical pumps.
- Underground concrete water tank with capacity of 110,000 gallon. Fairbanks Nijhuis 19" VTP is installed as booster pump to ensure positive suction during testing.





## FIRE PROTECTION

## **KEY CONTROL POINTS**

Wuxi is certified by UL and FM as an alternate manufacturing site under North Aurora and Kansas citv

- Aurora/Fairbanks Nijhuis pump has design control . for the actual pump units
- Strictly following the same stringent process in Aurora/Fairbanks Nijhuis pump
- Pump to have performance test and hydrostatic test as per UL/FM requirement
- Subject to quarterly audit by UL and FM

## CUSTOMER BENEFITS

Customers can benefit from our localization efforts for:

- North American premium brand to manufacture UL/FM fire pumps in the region
- Lead times as low as 6 weeks
- UL/FM certified Live Test Bed for FAT's
- Dedicated regional team for after sales, technical . support, and customer service
- Spare Parts local availability
- Freight advantage
- Local built to standard Vietnam fire protection OCVN02:2020/BCA

## **END SUCTION FIRE PUMP**



Rated Capacity: 50 - 1,500 GPM Rated Pressure: 40 - 225 PSI

- Stainless steel impeller
- Renewable shaft sleeve
- Ductile iron casing
- Carbon steel shaft
- Packed stuffing box
- Grease lubricated long life bearings
- NEMA T-Frame motor
- Diesel engine drive option
- Casing feet for easy back pullout

## HORIZONTAL SPLIT CASE





#### **VERTICAL TURBINE FIRE** PUMP



Rated Capacity: 250 - 4,500 GPM Rated Pressure: 50 - 370 PSI

- Designed and built per NFPA20 for maximum reliability
- Designed and built per OCVN 02:2020/BCA
- 60 Hz and 50 Hz electric and diesel speeds
- Designed for easy maintenance without interfering with piping
- Open or enclosed lineshaft construction
- Packaged systems available

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- Electrical & Diesel Rated Capacity: 250 - 4,500 GPM
- Bronze impeller (stainless steel is

Rated Pressure: 40 - 506 PSI

- available on selected models)
- Cast iron or ductile iron casing
- Clockwise or counterclockwise rotation (electric only)
- Casing wear rings
- Renewable shaft sleeves
- Grease lubricated long life bearings
- Packed stuffing box

## **COMMERCIAL AND INDUSTRIAL**

## AURORA 3600/FAIRBANKS NIJHUIS 1300

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Capacity: ~900 m<sup>3</sup>/hr Head : ~160m

- Superior hydraulic design for higher efficiencies and reduced operating cost
- High efficiency double curvature impeller vanes
- Packed ball bearings
- Back-pullout design allows easy removal of rotating element
- Heavy duty sealed for life grease
- Closed couple models are also available

**AURORA 411/FAIRBANKS NIJHUIS 1820** 

#### AURORA 3804/FAIRBANKS NIJHUIS 1620



Capacity: ~954 m³/hr Head : ~158m

- Standard back-pullout design reduces downtime
- Ductile Iron ASTM A536 Casings provide higher strength and durability
- 316 Stainless Steel impellers and shaft sleeves provide less corrosion, additional chemical resistance and durability
- Heavy duty power frames with bearing life of 100,000 hours (flexible coupled)
- Internal self-flushing mechanical seal for continuous lubrication and extended durability, eliminates exterior lubricating and tubing
- Regreaseable bearings

#### AURORA 382B-SC/FAIRBANKS NIJHUIS 1590



Capacity: ~3,4070 m<sup>3</sup>/hr Head : ~202m

- Dynamically balanced impellers reduced vibration and noise
- Bronze fitted pump construction and bronze shaft sleeves (stainless steel impeller is available on selected models)
- Twin volute on 10″ and larger pumps
- Regreaseable ball bearings
- Double row ball bearing (outboard)



Capacity: ~2,725 m³/hr Head :~112m

- Ductile Iron ASTM A536 Casings provide higher strength and durability
- 316 Stainless Steel impellers provide less corrosion, additional chemical resistance and durability
- Mounting directly in a pipeline, no pipe support and flexible connectors needed
- Brackets & Couplings are designed to fit IEC motor

## **COMMERCIAL AND INDUSTRIAL**

#### **PENTAIR PWT**



Capacity: ~1,800 m³/hr Head :~250m

- Precise casting for volute and impeller
- Closed and full balanced impeller to assure stable operation
- Back-pullout design simplifies disassembly
- Available in various corrosion resistant material SS304,316, Duplex Stainless Steel

#### **PENTAIR PWTEF/PWTEC**



Capacity: ~1,500 m³/hr Head :~158m

- EN 733 / DIN24255 standard
- 10 bar design working pressure
- Closed couple model PWTEC
- Flexible coupled frame mounted PWTEF
- Heavy duty power frames with minimum 8,000 hours L10 bearing life

### AURORA/FAIRBANKS NIJHUIS VERTICAL TURBINE



Capacity: ~1,000 m<sup>3</sup>/hr Head : ~270m

- Standard construction with cast iron bowl and stainless steel impeller
- Open Lineshaft with threaded column flanged column available upon request
- Cast iron discharge head with gland packing and cast iron soleplate
- Couple with Vertical Hollow Shaft Motor
- Available from 6" to 15" bowl

### PVM(I,X)



Capacity: ~180 m<sup>3</sup>/hr Head : ~330m

- Stage construction with stainless steel impellers, chambers and pressure casing
- Cartridge mechanical seal for easy maintenance
- In-line design, with flange connections
- Equally sized suction and discharge port
- Standard with IEC Motor

## NOTES










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