

# DEPENDABLE PUMP SOLUTIONS FOR FIRE PROTECTION IN VIETNAM





#### **PENTAIR AND WUXI**

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, Berkeley, Nocchi, Jung Pumpen 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 certified and serves customers mainly in the field of commercial and industrial water supply and treatment. The product portfolio we offer range from End Suction pumps, Horizontal Split Case pumps, Horizontal Multi-stage pumps, Vertical Multi-stage pumps, Vertical Inline pumps and Vertical Turrbine pumps.

As a global leader in 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 production testing of fire pump package.

Since 2020, the Pentair Wuxi has cooperated with KTN to design and manufacture fire pump products that comply with QCVN 02:2020/BCA regulation for Vietnam market.

#### **OUR COMMITMENT**

At Pentair we adhere to high stand 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 of 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
600hp in 50/60 hz

#### TYPE OF TEST

Hydrostatic Test
Performance Test per H.I and ISO 9906 Grade 2B
NPSH Test, Sound Test, Vibration Test



#### **OUR TESTBED INCLUDES:**

- Two Cummins KTA1964 Diesel Engines with Stamford HCI544C generators with combined output of 800kw in both 400V/50hz and 460V/60hz
- ABB ACS800 500kw and ACS 510 110kw VFDs and Siemens Micromaster 430 160kw VFD
- Test Loops: 3 independent test loops: 12", 8", 4". Both 4" and 12" loops are rated for 25bar, 8" loop is rated for 40 bar
- 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 input/transfer.
- Lab Computer: Robust industrial grade computer to ensure reliability and accuracy of data capturing, processing, and storage.
- Six dedicated electric motor from WEG for pump testing from 55kw to 450kw (2p and 4p).
- 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.





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# Fire pump solutions for local codes - Vietnam market

#### **OUR STATEGIC PARTNER**

KTN company began operations on March 29, 2001 as a distributor of pumps and associated equipments of Pentair Pump Group, as well as a fully outfitted pump service company for Vietnam, Laos, Cambodia and Myanmar market. With over 20 years exxperience about fire pumps, KTN is a trust partner and long time relationship of Pentair Wuxi in Vietnam.

OCVN 02:2020/BCA National Technical Regulation On Stationary Pumps For Fire Protection was issued on May 26,2020 and was applied since Octorber 4, 2020 in Vietnam. With consultant from KTN and support from driven and controller original manufacturer, the Pentair Wuxi decided to design and manufacture the special fire pump code for Vietnam market. The Pentair Wuxi is committed to provide our Vietnam customers with premium quality products, cost efficiency and compliance with Vietnam Nation codes.





#### **OUR SUCCESS PROJECTS**













In May 2021, the Pentair Wuxi and KTN succeeded 3 projects whose all fire pumps was designed and built per QCVN 02:2020/BCA. The driven and controller also was designed and manufactured to comply with Vietnam Nation codes.

The first is Virbac project. The Virbac has used 2 Vertical Turbine fire pumps include one electric driven and one diesel engine driven (head 140 PSI at capacity 2500 GPM). All fire pump was passed acceptance test on field by authorities and got the Vietnam fire fighting equipment certificate. That is affairmation of the valuations that the Pentair Wuxi and KTN provide to our customers.

We also successfully supplied fire pumps for 2 Mapletree warehouses projects in Hung Yen (head 102 m at capacity 551 m3/h) and Binh Duong (head 76 m at capacity 461 m3/h). Each project includes one Electric & one Diesel Horizontal Split Case fire pump.





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## Product portfolio

#### **VERTICAL TURBINE**



Flow: 250 to 7,000 GPM (56.8 to 1,590  $\mathrm{m}^3/\mathrm{hr}$ ) Pressure: 50 to 370 PSI (3.4 to 25.5 bar)

- UL listed, FM approved, NFPA-20 design
- QCVN 02:2020/BCA design
- · Use in commercial, industrial and marine applications
- · Select from electric and diessel driven model pumps
- Take advantage of the special materials offered for seawater applications

#### HORIZONTAL SPLIT CASE



Flow: 250 to 7,000 GPM (56.8 to 1,590 m<sup>3</sup>/hr) Pressure: 40 to 435 PSI (2.7 to 30 bar)

- UL listed, FM approved, NFPA-20 design
- QCVN 02:2020/BCA design
- · Use in commercial, industrial and marine applications
- Select from electric and diessel driven model pumps
- · Enjoy ease of maintenance

#### **DIESEL - DRIVEN SPLIT CASE**



Flow: 250 to 7,000 GPM (56.8 to 1,590 m³/hr) Pressure: 40 to 435 PSI (2.8 to 30 bar)

- UL listed, FM approved, NFPA-20 design
- QCVN 02:2020/BCA design
- Use in commercial, industrial and marine applications
- Select from electric and diessel driven model pumps
- Enjoy ease of maintenance

#### **END SUCTION FIRE PUMP**



Flow: 50 to 1,500 GPM (11.3 to 340 m<sup>3</sup>/hr) Pressure: 40 to 225 PSI (2.7 to 15.5 bar)

- UL listed, FM approved, NFPA-20 design
- QCVN 02:2020/BCA design
- · Select from electric and diesel speeds
- Maintain your pump with ease with back pullout design and without disconnecting the pipe
- · Take advantage of frame mounted design
- Retrofit this pump with its small foorprint
- Leverage this pump for installations such as scholls, offfice building and hospital

#### **VERTICAL SPLIT CASE**



Flow: 250 to 2,500 GPM (56.8 to 568 m<sup>3</sup>/hr) Pressure: 40 to 200 PSI (2.7 to 13.8 bar)

- UL listed, FM approved, NFPA-20 design
- QCVN 02:2020/BCA design
- Use in commercial, industrial and marine applications
- Take advantage of our electric driven model pump
- Enjoy ease of maintenance
- Save on space with our vertical design

#### SINGLE STAGE VERTICAL IN-LINE



Flow: 50 to 1,500 GPM (11.3 to 340 m<sup>3</sup>/hr) Pressure: 40 to 159 PSI (2.7 to 11 bar)

- UL listed, FM approved, NFPA-20 design
- QCVN 02:2020/BCA design
- · Service the pump without disturbing surrounding piping
- · Save on space with our vertical design
- Enjoy years of service with a bronze-fitted pump construction

#### **JOCKEY PUMP**



Type: Vertical multistage Application: Aboveground water tank

Horsepower: 1/2 to 40 Flow series: 1, 3, 5, 10, 15, 20, 33 Capacity: up to 210 GPM (47.6 m3/hr) Head: 800 feet (244 m)

Temperature: 250°F(121°C)

- Replace cartridge mechanical seal easily without dismantling the pump
- Enjoy many years of service with our cast iron or 316 stainless materials
- Retrofit easily in existing and new installations
- Take advantage of durable TEFC motors

#### **JOCKEY PUMP**



Type: Submersible motor pump Application: Underground water tank

Horsepower: 1/2 to 40

Capacity: up to 65 GPM (14.7 m3/hr)

Head: 1950 feet (845 m)

- Precision engineered, high quality
- Built to deliver long-term, trouble free service
- Floating impeller design resists sand and reduces sand locking

#### **ACCESORIES**



- · Casing relief valve/air release valve
- Eccentric suction reducers and concentric discharge increasers
- Test manifold, hose valves and ball drip valve
- Main relief valve and waste cone
- Flow metering systems
- · Diesel batteries, racks and cables
- Single/Double wall fuel tanks and fittings
- · Diessel engine mufflers
- · Exhaust flex connector

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