



WHEN QUALITY AND DELIVERY MATTER



INTRODUCTION

Headquartered in Houston, Texas USA, **PumpWorks 610** exclusively manufactures current edition API 610 / ISO 13709 centrifugal pumps.

PumpWorks 610 offers Current Edition:

- API 610 single stage end suction overhung type OH2 pumps
- API 610 retrofit upgrade kits for all brands of horizontal single stage type OH2 pumps
- API 610 vertical turbine type VS6 (can/barrel) and type VS1 (open sump) pumps
- API 610 multistage split case side suction, side discharge between bearing type BB3 pumps

We manufacture and test all pumps in the USA with a considerably shorter delivery time than our competitors. We also offer open access for end users and specifiers to select, configure and obtain budget pricing for their pump application through our online pump selection software **ePOD** (Electronic Pump On Demand) at our website

www.pumpworks610.com.

This brochure is designed to give you a concise overview of **PumpWorks 610's** products and services.



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PWH API 610 SINGLE STAGE OH2

TYPICAL APPLICATIONS

The PWH pump is designed to cover a wide range of petroleum refinery services. Additionally it is applied to high pressure / high temp applications found in petrochemical plants, gas processing, oil processing, offshore installations (platforms), hydrocarbon and crude oil pipeline, and aviation (jet) fueling facilities.



TYPICAL SERVICES

Services covered but not limited to the PWH pump include:

- Column reflux
- Column bottoms
- Reboiler
- Injection fuel blending
- Heat transfer
- Gas oil
- Heavy gas oil
- Hot oil
- Column charge
- Reactor feed
- Coker unit
- Stabilizer overhead
- Scrubber circulation
- Tower bottoms
- Off-site hydrocarbon
- Stripper overhead
- Gasoline
- Water
- Propane
- Crude oil
- Vis-breaker
- Naphtha
- Kerosene

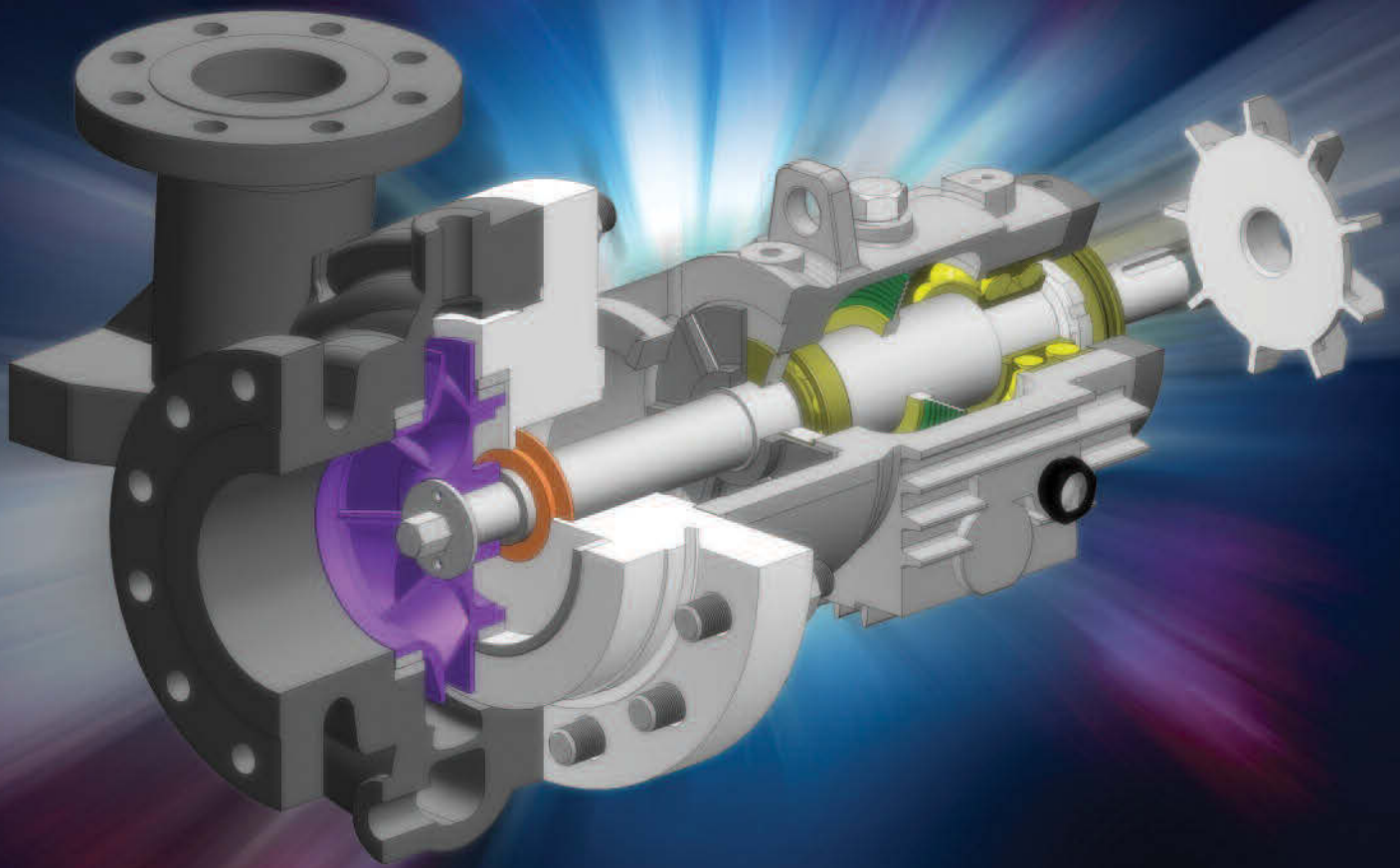


STANDARD LEAD TIME FOR DELIVERY: 16-18 WEEKS.

FULLY COMPLIANT WITH API 610 SPECIFICATIONS.

SEE PRODUCT BROCHURE FOR SPECIFIC PRODUCT INFORMATION.

Member of
Hydraulic
PUMPS



PW-11 API 610 SINGLE STAGE OH2 UPGRADE PROGRAM

ABOUT THE UPGRADE

PW-11 is PumpWorks 610 power end and seal chamber retrofit upgrade kit that meets API 610 current edition for horizontal single stage OH2 process pumps. The kit ensures petroleum refineries have a fast and cost-effective way to upgrade any brand of existing OH2 pump and achieve API 610 current edition requirements without expensive changes to the wet end (casing and impeller) and piping. Hydraulic review performed during upgrade process ensures pump will perform reliably and efficiently.

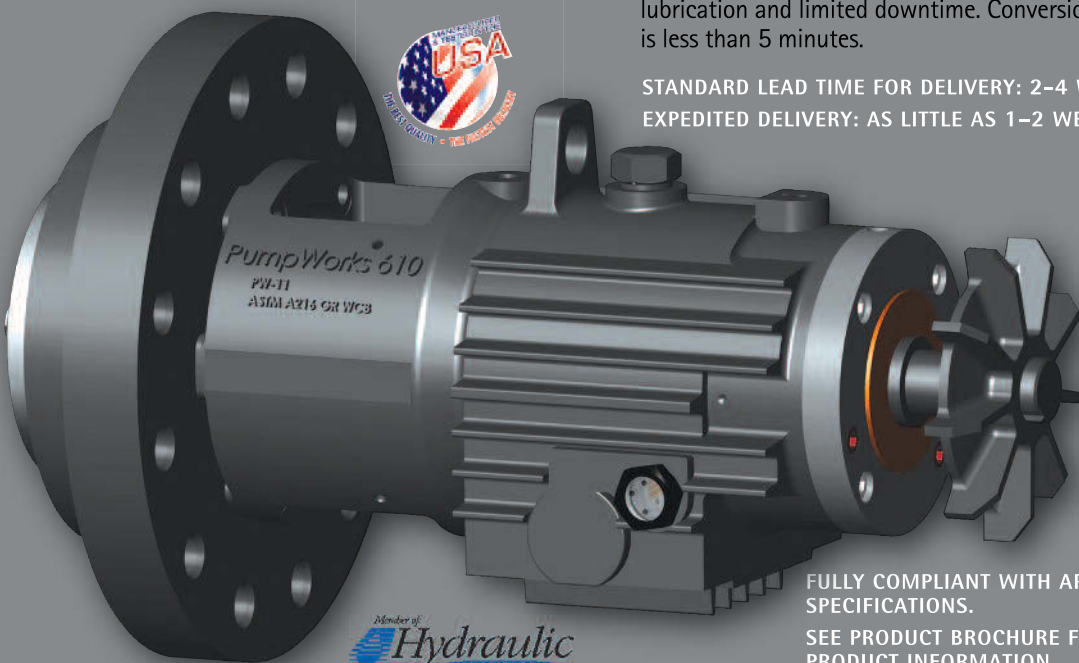


UPGRADE AND RELIABILITY IMPROVEMENTS

Some of the important improvements include:

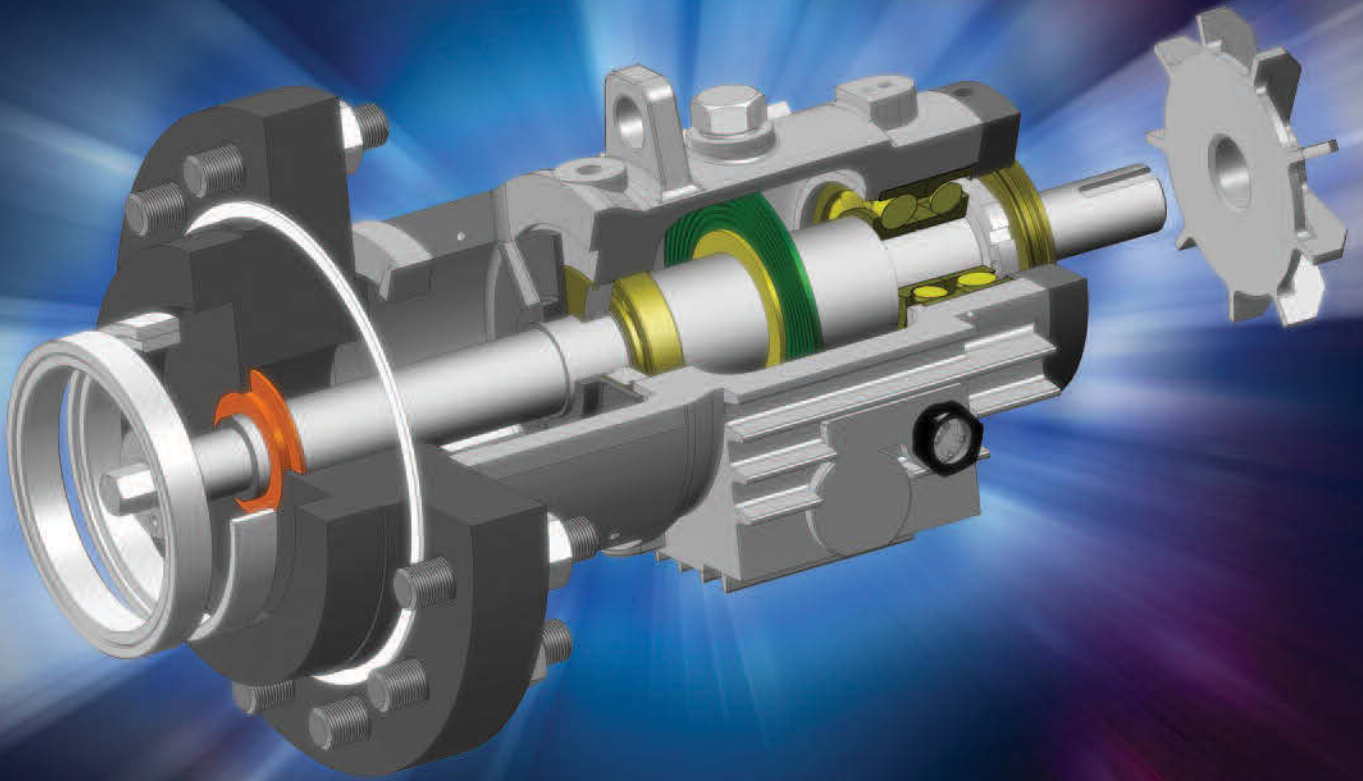
- API 682 compliant seal chamber allows for installation of current sealing technology to meet local fugitive emissions requirements
- Oversized oil fill and vent cap for ease of maintenance
- Lifting lug integrally cast into the steel bearing housing for safe removal of back pullout assembly
- 1" sight glass located on both sides of bearing housing allows viewing of oil level from either side of the pump
- Non-metallic Viton oil flinger disk to assure effective lubrication, and eliminates issues associated with bronze slinger rings
- PW-11 Exclusive "SMART LUBE SYSTEM": The innovative oil mist conversion kit allows user to convert to PURE OIL MIST without removing pump from service! Other designs require you to pull the unit and plug thrust bearing "drain back" ports when converting from Oil Sump to Oil Mist. The PW-11 "SMART LUBE SYSTEM" utilizes a precision tolerance, elongated port plug to eliminate oil mist "leakage" around bearings. This ensures proper lubrication and limited downtime. Conversion time is less than 5 minutes.

STANDARD LEAD TIME FOR DELIVERY: 2-4 WEEKS.
EXPEDITED DELIVERY: AS LITTLE AS 1-2 WEEKS.

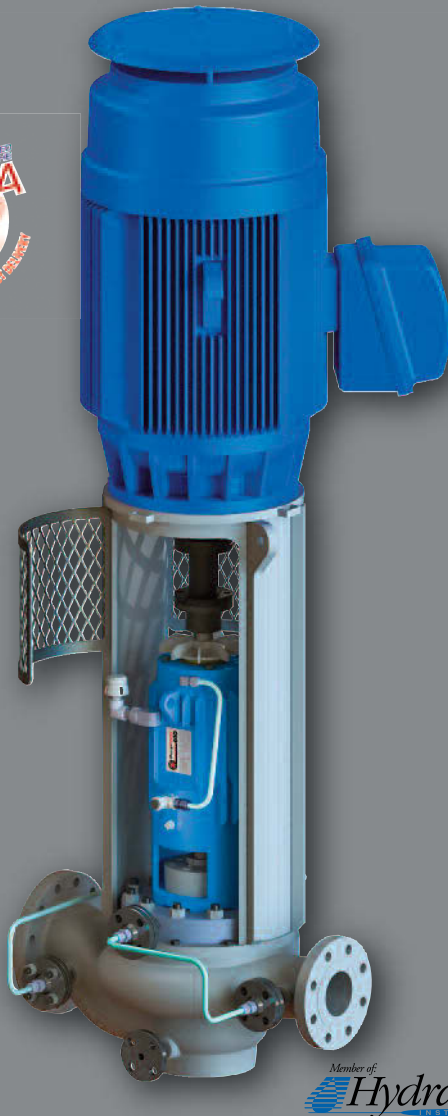


FULLY COMPLIANT WITH API 610 SPECIFICATIONS.

SEE PRODUCT BROCHURE FOR SPECIFIC PRODUCT INFORMATION.



PWI-BB API 610 VERTICAL IN-LINE SINGLE STAGE OH3



TYPICAL APPLICATIONS

The PWI-BB is an API 610, OH3 heavy duty bearing bracketed vertical in-line pump designed to cover a wide range of applications found in petroleum processing facilities, gas processing, petrochemical, offshore installations (platforms), hydrocarbon and crude oil terminal and aviation (jet) fueling applications. All pump thrust is absorbed by the pump bearings in lieu of depending on the motor bearings. The rugged, economical and compact PWI-BB in-line design eliminates the need for an expensive baseplate and saves valuable floor space.

TYPICAL SERVICES

Services covered but not limited by the PWI-BB pump include:

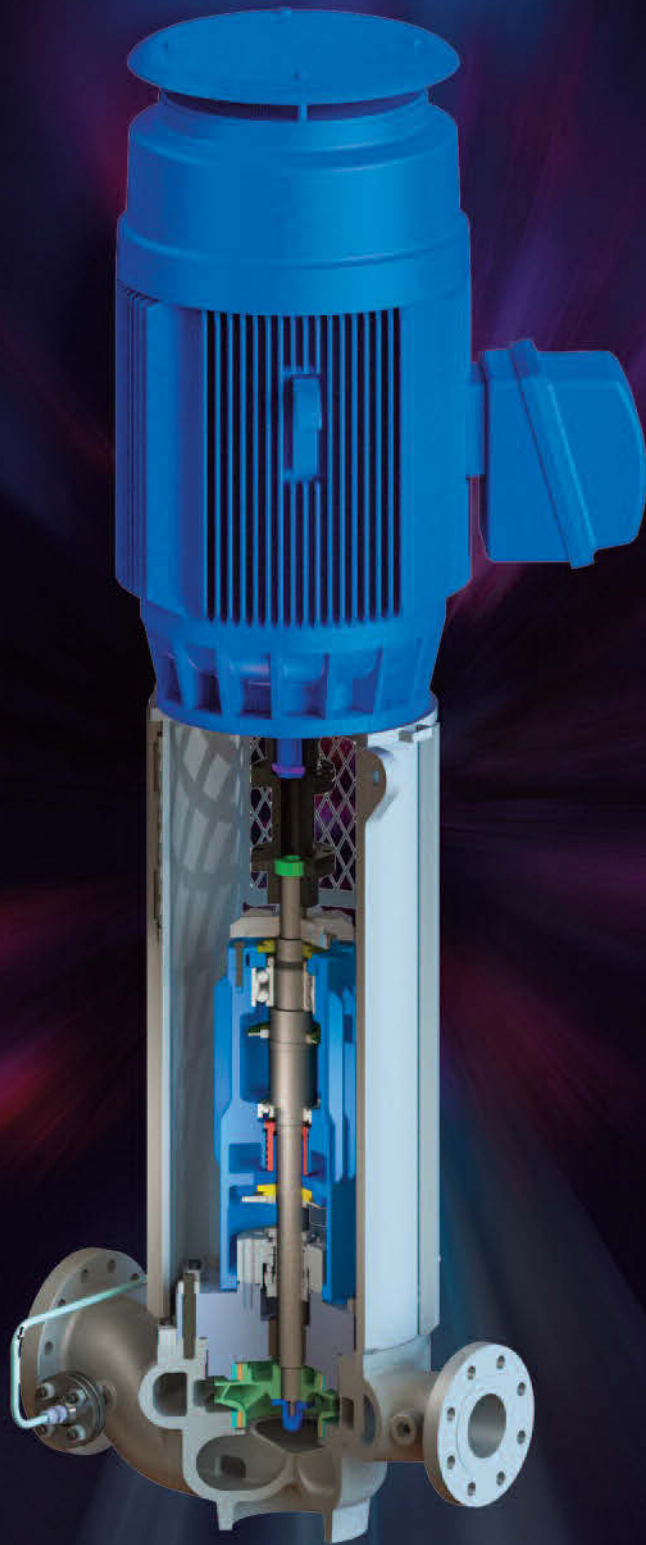
- Refinery Process Services
- Off-site Hydrocarbon
- Tank Transfer
- Tank Farm Booster
- Fuel Oil
- Gasoline
- Crude Oil
- LPG
- Water
- Naptha
- Kerosene
- Rail Car Loading

STANDARD LEAD-TIME IS 16 TO 18 WEEKS

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Hydraulic
INSTITUTE

MEETS API STANDARDS FOR API PUMP TYPE OH3
TYPICAL APPLICATIONS SECTION - PIPELINE AND AVIATION (JET)
FUELING APPLICATIONS.

SEE PRODUCT BROCHURE FOR SPECIFIC PRODUCT INFORMATION.



PWI API 610 VERTICAL IN-LINE SINGLE STAGE OH4



TYPICAL APPLICATIONS

The PWI is an API rigid coupled vertical in-line pump designed to cover a wide range of applications found in petroleum processing facilities, gas processing, petrochemical, offshore installations (platforms), hydrocarbon and crude oil pipeline and aviation (jet) fueling applications. The rugged, economical and compact PWI in-line design eliminates the need for an expensive baseplate and saves valuable floor space.

TYPICAL SERVICES

Services covered but not limited by the PWI pump include:

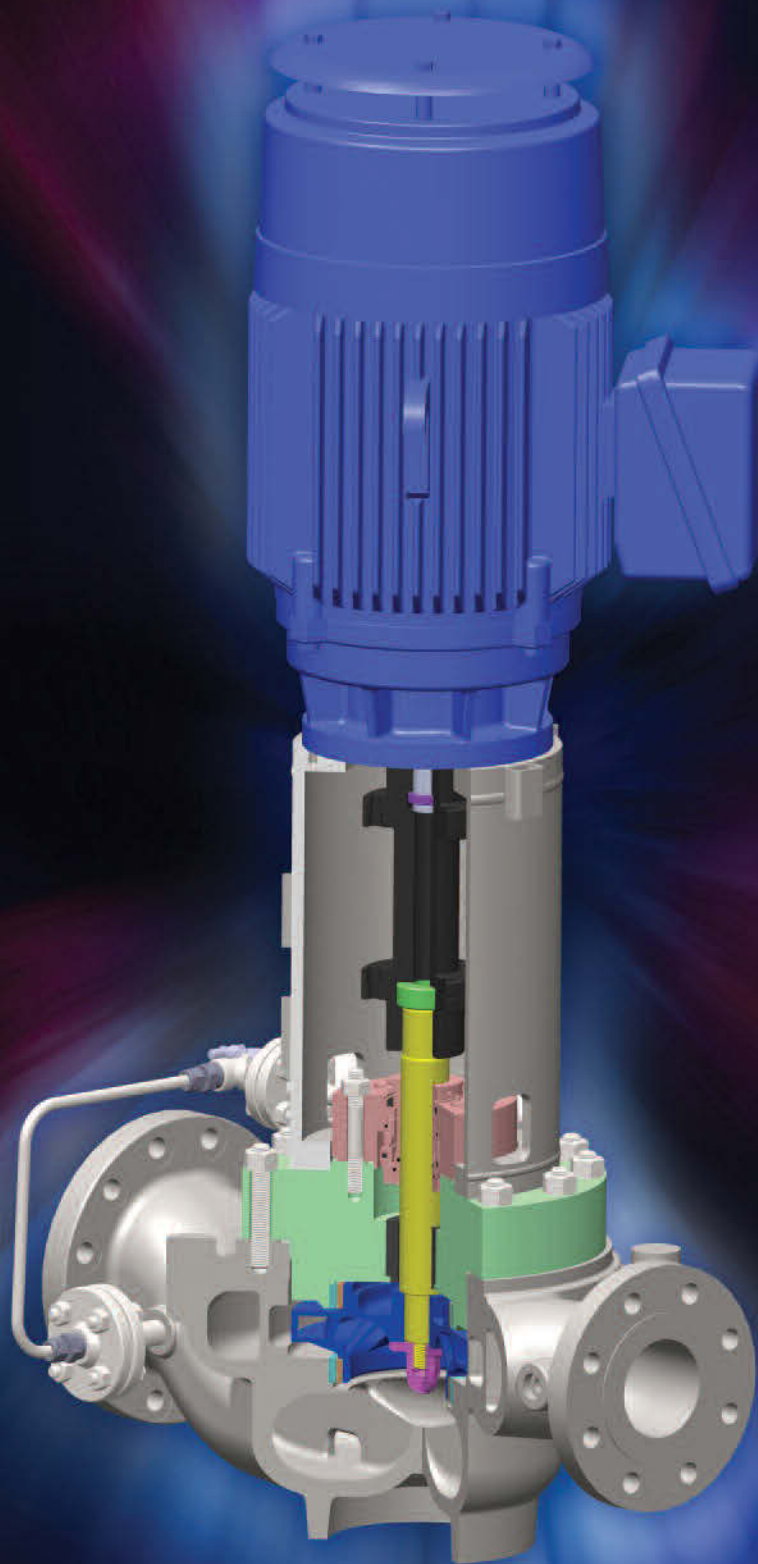
- Refinery Process Services
- Off-site hydrocarbon
- Tank Transfer
- Tank Farm Booster
- Fuel Oil
- Gasoline
- Crude Oil
- LPG
- Water
- Naptha
- Kerosene

STANDARD LEAD-TIME IS 16 TO 18 WEEKS

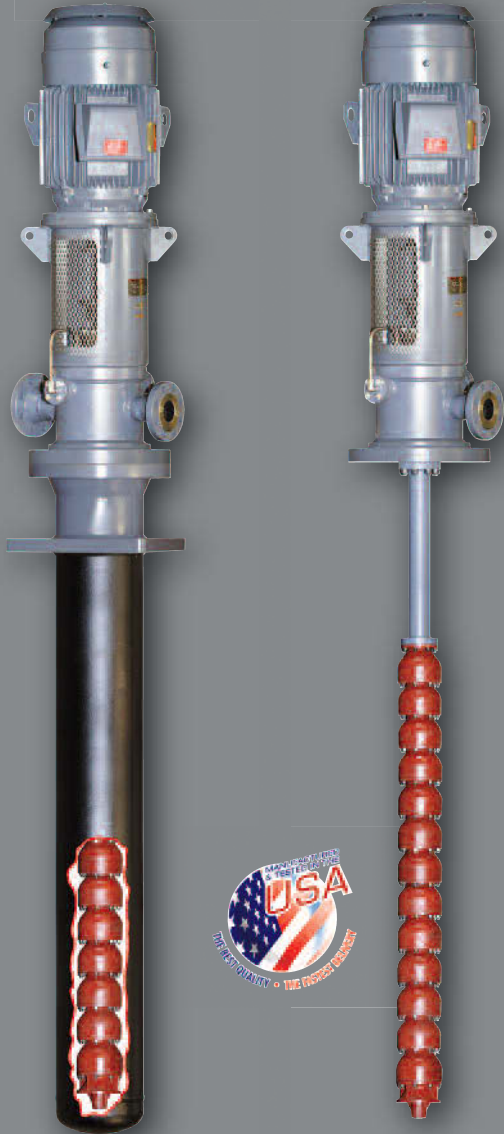


MEETS API STANDARDS FOR API PUMP TYPE OH4
TYPICAL APPLICATIONS SECTION - PIPELINE AND AVIATION (JET)
FUELING APPLICATIONS.

SEE PRODUCT BROCHURE FOR SPECIFIC PRODUCT INFORMATION.



PWV API 610 VERTICAL TURBINE PUMP VS6 & VS1



VS6
DOUBLE
CASING

VS1
SINGLE
CASING

TYPICAL APPLICATIONS

The PWV is designed for the oil and gas market where full API 610 compliance is required. The pumps are available in Vertical Suspended Single Casing (Sump Type/Wet Pit) VS1 and in Vertical Suspended Double Casing (Can Type) VS6.

TYPICAL SERVICES

Services covered but not limited to the PWV pump include:

- Vertical Process
- Light Hydrocarbon, High-Vapor Pressure (Low NPSHA)
- Pipeline Booster
- Offshore Platform/ Sea Water Lift (Crude Oil Transfer)
- LPG Transfer
- Refinery Service
- Waste Water
- Secondary Recovery
- Cooling Water
- Aircraft Fueling

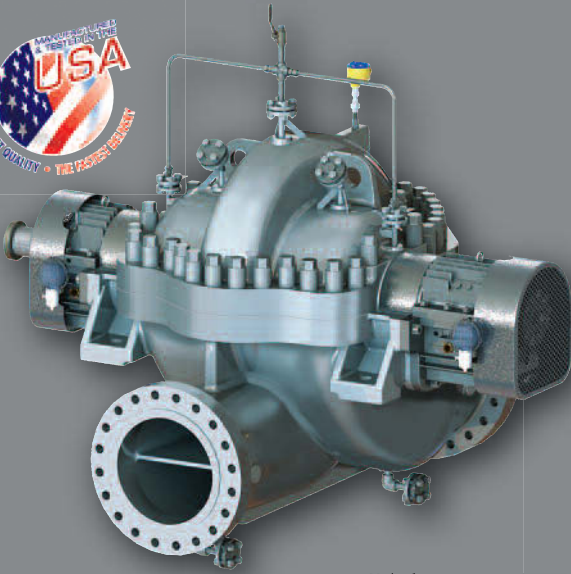
STANDARD LEAD TIME FOR DELIVERY: 16-18 WEEKS.

FULLY COMPLIANT WITH API 610 SPECIFICATIONS.

SEE PRODUCT BROCHURE FOR SPECIFIC PRODUCT INFORMATION.



PWD API 610 BB1 HORIZONTAL SPLIT SINGLE STAGE PUMP



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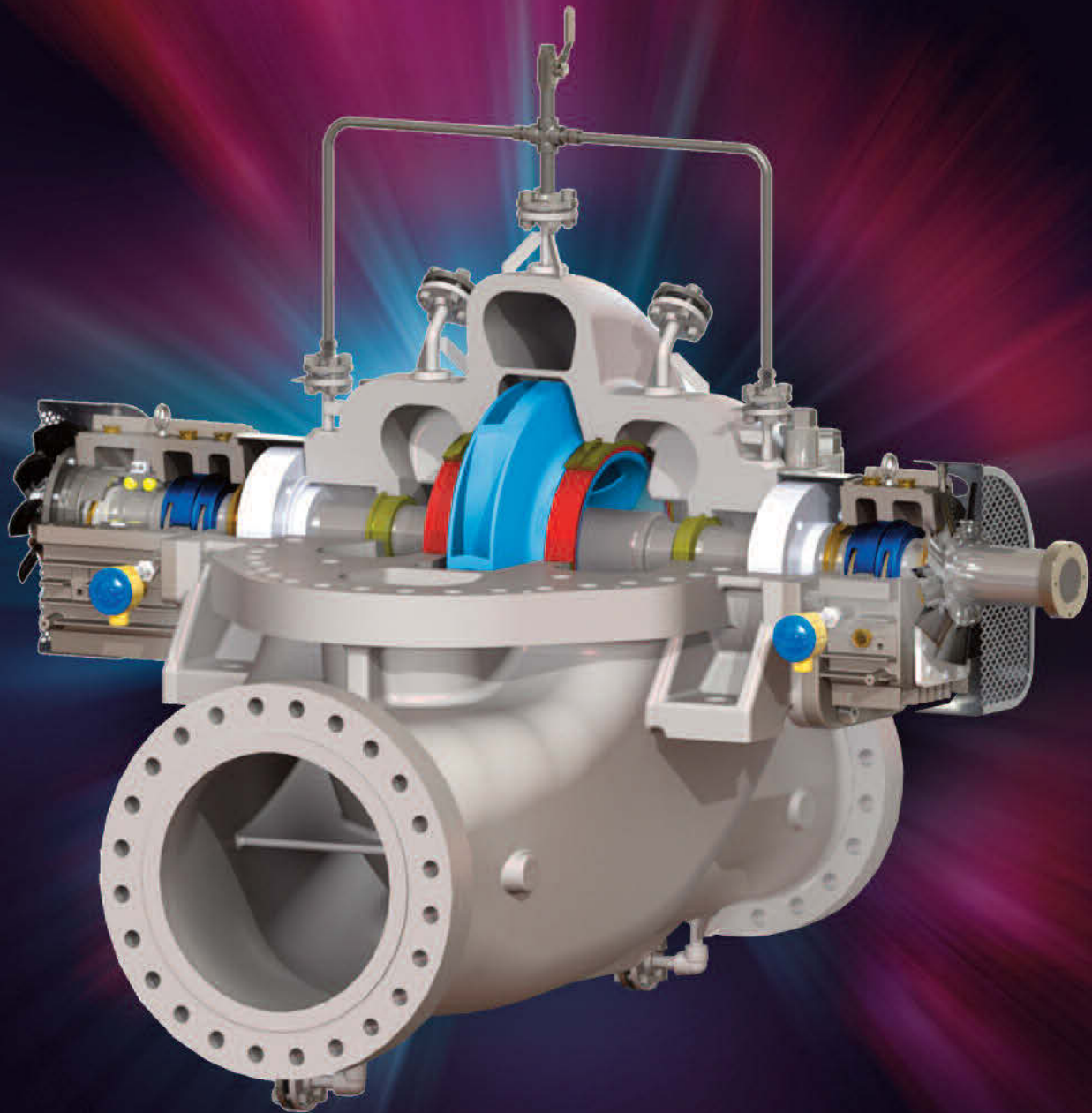
FULLY COMPLIANT WITH API 610 SPECIFICATIONS.
SEE PRODUCT BROCHURE FOR SPECIFIC PRODUCT INFORMATION.

TYPICAL APPLICATIONS

The PWD is an ISO 13709 / API 610 compliant Type BB1 axially split, single stage, double suction, horizontal, between bearing pump. The application for the pump focuses on medium to high flow crude oil and petroleum products pipelines and ship loading / unloading applications. Also used in a variety of other oil and gas upstream, refinery and power generation applications. The PWD robust casing and custom hydraulics are specifically designed to meet projects with aggressive parameters.



STANDARD LEAD TIME FOR DELIVERY: 24-26 WEEKS.



PWM API 610 MULTISTAGE PUMP BB3

TYPICAL APPLICATIONS

The PWM pump is designed to cover a wide range of High Pressure pumping applications found in petroleum refineries, petrochemical plants, gas processing, oil processing, offshore installations (platforms), hydrocarbon and crude oil pipeline and finished product pipeline services.

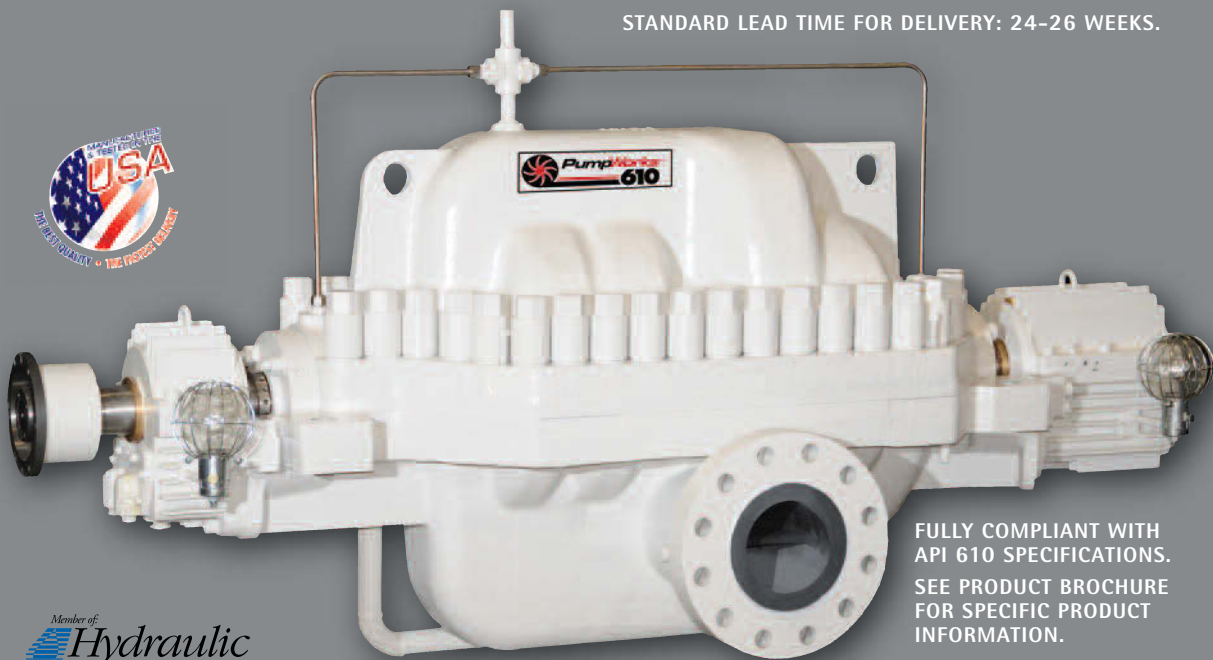


TYPICAL SERVICES

Services covered but not limited to the PWM pump include:

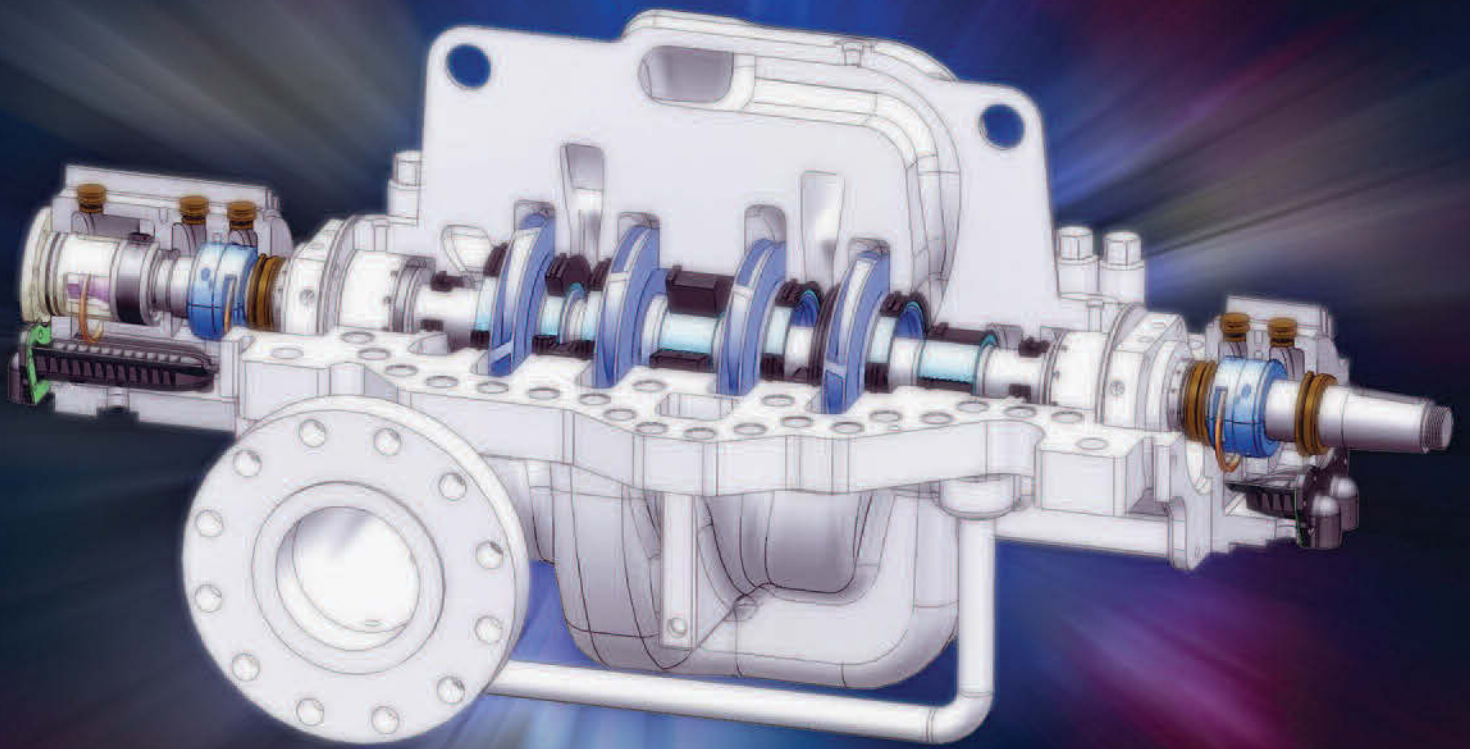
- Boiler Feed Water
- High Pressure Water Services
- Crude Oil Pipeline
- Crude Products Pipeline
- Water Injection
- High Pressure Condensate
- Propane Transfer
- Gasoline Pipeline Service
- NGL Pipeline
- Mine Dewatering
- Water Flood
- HP Amine Circulation
- High Pressure Refinery Services

STANDARD LEAD TIME FOR DELIVERY: 24-26 WEEKS.



Member of
Hydraulic
CORPORATION

FULLY COMPLIANT WITH
API 610 SPECIFICATIONS.
SEE PRODUCT BROCHURE
FOR SPECIFIC PRODUCT
INFORMATION.



PUMPWORKS 610 TEST FACILITIES

COMPREHENSIVE PERFORMANCE TESTING

A critical function of any pump manufacturer is the performance testing of their product to ensure that it meets design specifications. Located in Tyler, Texas and in Shreveport, Louisiana, the PumpWorks 610 Pump Test Facilities are designed to provide performance and NPSHR tests in accordance with the latest edition of API 610.

The heart of the PumpWorks 610 Test Facility is its custom designed Automated Pump Test Software (APTS) that allows all system parameters to be monitored and controlled from a central control station. APTS provides precise system control to achieve and maintain specific operating conditions so that data from precision electronic sensors can be collected and recorded for use in verifying pump performance.

Variable Frequency Drive technology is utilized to maintain precise speed control on units through 600 HP @ 460 volt, and a 4160 volt solid state "soft start" to achieve a controlled acceleration up to synchronous operating speed on units through 4000 HP.

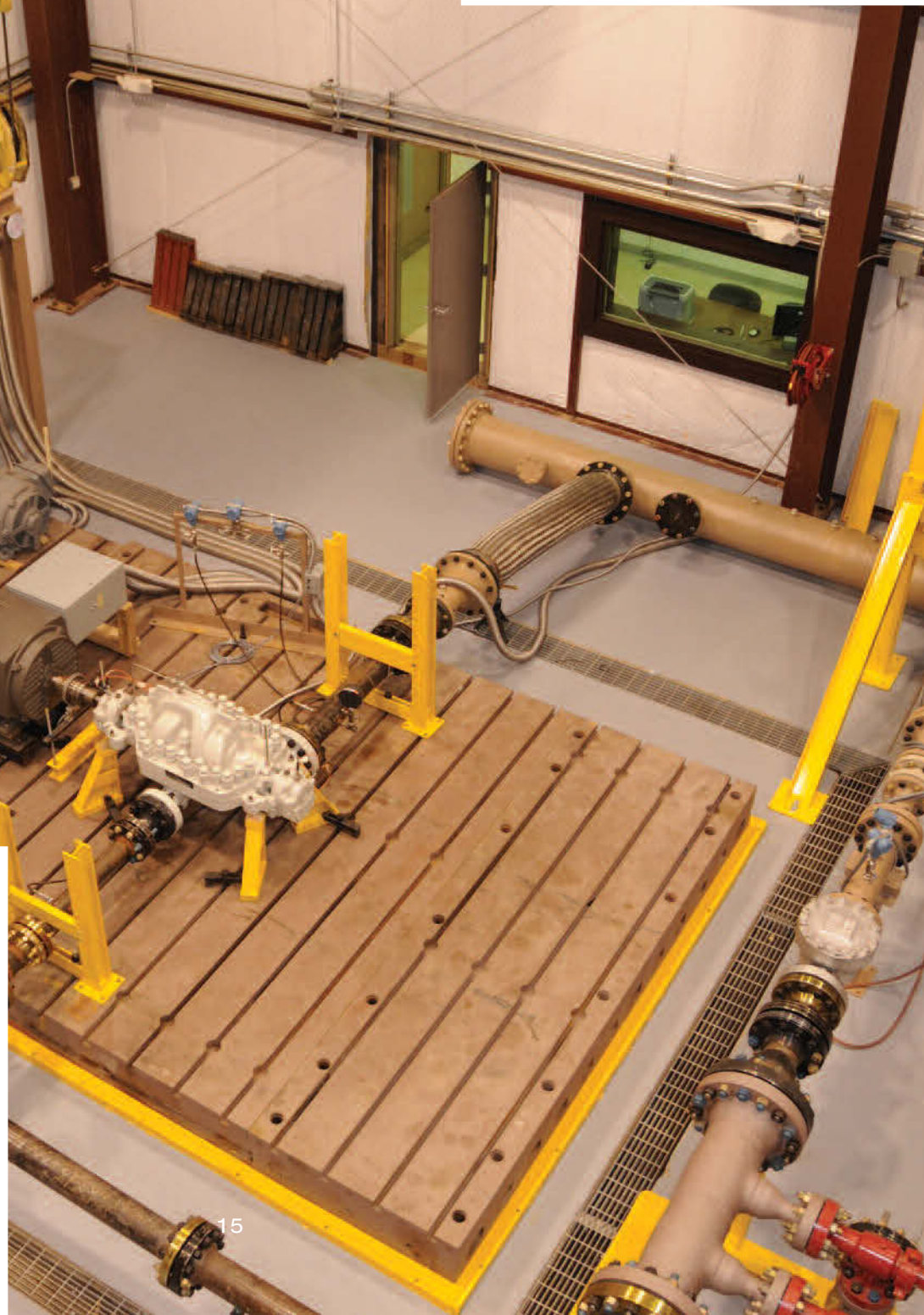
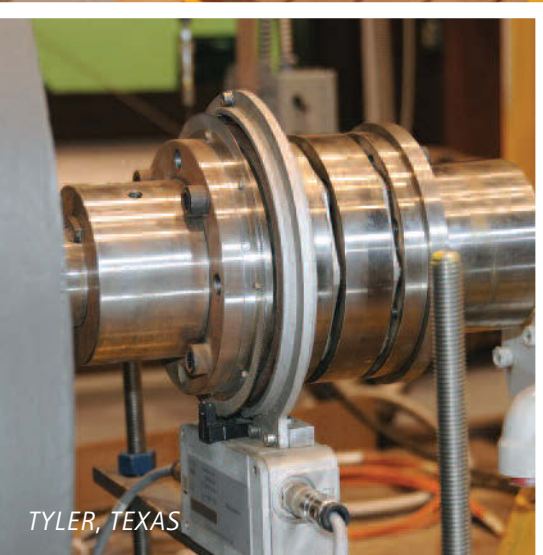
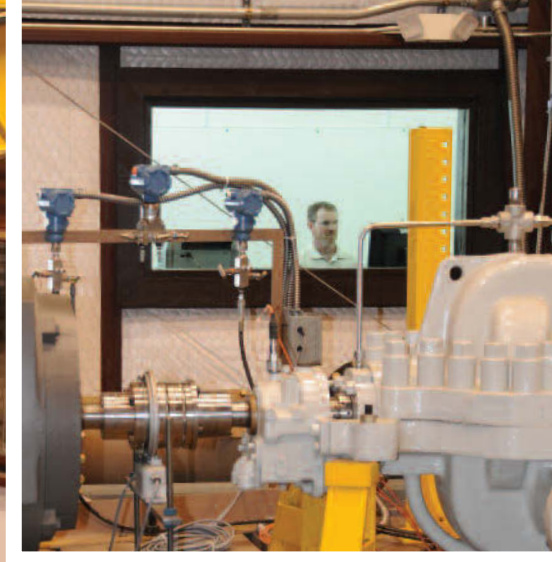


While many pump test facilities use calibrated motors and kilowatt meters to calculate power, the torque coupling used by PumpWorks 610 measures torque and speed at the input shaft of the pump. This data is then used to determine horsepower and efficiency.

Flow is measured by one of three calibrated magnetic flow meters installed in dedicated metering runs, while calibrated electronic sensors measure pressure at API compliant metering spools connected to the suction and discharge nozzles of the pump.

NPSH testing is performed using the vacuum suppression method.

CONTINUED ON PAGE 14



PUMPWORKS 610 TEST FACILITIES *CONTINUED FROM PAGE 12*

TEST FACILITIES CAPABILITIES

- Test flows up to 21,500 gpm
- Discharge test pressures up to 6,000 psi
- Supply tank rated from full vacuum to 100 psi
- 460 volt through 600 HP
- 4160 volt over 600 HP through 4000 HP
- Calibrated flow, pressure, vibration, torque, temperature and speed measuring equipment
- Variable Frequency Drive for precise speed control through 600 HP @ 460 volt
- Solid State soft start for low impact motor starting over 600 HP through 4000 HP @ 4160 volt
- Test motors through 4000 HP
- Calibrated magnetic flow meters 2", 6", and 10"
- 3 ranges of calibrated torque couplings provide data to calculate brake horsepower and efficiency. Precision speed measurement (RPM) collected with an advanced laser speed ring assembly



- NPSHR test accomplished through the use of a vacuum pump
- On-site electronic meteorological grade barometer provides data to accurately calculate NPSHR
- Baseplate mounted units can be tested using job motor if horsepower rating is sufficient for testing with water
- PumpWorks 610 test procedure based on API 610 criteria. Standards can be modified to meet specific customer requirements.

These features combined produce the most accurate test possible, the results of which are then compiled into a certified comprehensive report.



TYLER, TEXAS

PUMPWORKS 610 COMPANY PROFILE

OUR HISTORY

PumpWorks 610 is the pump manufacturing division of thirty-plus year industry veteran **Best PumpWorks**.

Best PumpWorks has a proven track record in the pump distribution business, pump service and repair, modular skid mounted pumping systems, including piping, valves and electrical controls, the surplus remanufactured pump market, and the development of API 610 pumps.

The original **Best Equipment** company began in 1978 as an authorized distributor for Ingersoll-Rand pumps in Texas and Oklahoma servicing the oil and gas market.

As the need for re-manufactured and surplus pumps grew, the opportunity to service that need grew too great to ignore. In 1987, **PumpWorks** was created as a subsidiary of Best Equipment specifically to provide re-manufactured and surplus pumps that were rebuilt to like-new condition with a one year warranty.

In 2000, **Best Equipment** and **PumpWorks** merged to create **Best PumpWorks**, with a single sales force dedicated to distributed products, pump repair, field service and the remanufacturing of used and surplus pumps.

In 2007, **Best PumpWorks** created a new subsidiary, **PumpWorks 610** that is dedicated to designing and providing products and services specifically focused on the centrifugal API 610 / ISO 13709 pump market.

In 2010, we acquired Centrifugal Technology, the designer of the **PumpWorks 610** API Multistage Pump BB3, model PWM and its manufacturing plant in Shreveport, LA USA. **PumpWorks 610** furthers its commitment to be a leading new pump original equipment manufacturer (OEM) focused on building high quality API 610 process pumps with short lead-times for the oil and gas market.

We offer a portfolio of API products that covers all applications in the petroleum refinery, petrochemical, gas processing, oil processing, offshore (platform) installation, hydrocarbon and crude oil pipeline and jet aviation fueling.

OUR MANUFACTURING CAPABILITIES

PumpWorks 610 pumps are built, assembled and performance tested in Houston/Tyler, Texas USA and Shreveport, LA USA. Stringent quality assurance and quality control processes are employed to ensure each pump meets our rigorous standards.

OUR SALES AND SERVICE

PumpWorks 610 sales and service is headquartered in Houston, Texas USA. Our manufacturing facilities in Shreveport, LA USA, in Tyler, Texas USA and in Houston, Texas USA are capable of servicing and repairing all varieties and manufacturers of vertical and horizontal single and multistage pumps for delivery anywhere in the world. We have an extensive global network of sales and service representatives ready to meet our customer's needs for local support.

ePOD ONLINE PUMP SELECTION

BROWSER BASED PUMP SELECTION

ePOD (Electronic Pump On

Demand) is a browser-based front end software application allowing the end user and market influencers to intelligently select, configure, and obtain a budget price for their own pump application on the web.



ePOD software quickly delivers:

- Budget estimates for your pump application
- Performance curves
- Comprehensive data sheets

Test drive **ePOD** at our website www.pumpworks610.com today.



HOUSTON, TEXAS

55,000 square feet manufacturing plant with full repair and pump packaging capabilities.



TYLER, TEXAS

110,000 square feet manufacturing plant and 5,000 square feet pump performance test facility.



SHREVEPORT, LOUISIANA

30,000 square feet manufacturing plant with full pump repair and pump packaging capabilities, and pump performance test facility.

PUMPWORKS 610 CLIENTS

Our pumps and upgrade packages are in use in oil and gas refineries, facilities and pipeline stations around the world, from the USA and Canada to Russia, Africa, Middle East, Far East and South America. Our clients include:

- Afren Plc
- Alon USA
- BP
- Buckeye Borco Terminals
- Cameron
- CB&I
- Coffeerville Resources
- ConocoPhillips
- DCP Midstream
- Dynamic Fuels
- Ecopetrol
- ENGlobal
- Enterprise Products
- ExxonMobil
- Exxon Neftgas Limited
- Fluor Transworld Services
- Gulf Strategic Partners
- Harvest Pipeline
- Holly Refining
- Jacobs Engineering
- L-Con Constructors
- LDH Energy
- Mark West LLC
- Maverick Engineering
- Mercator
- Motiva
- Mustang Engineering
- NuStar Energy LP
- Occidental Petroleum
- Oneok
- Pembina Pipeline
- Petroamazonas
- PMI Services
- Project Services
- S&B Engineers and Constructors
- Shell Offshore Production
- Siwa Petroleum/Weatherford
- Sunoco Logistics
- Thomas Russell Co.
- Tridyne
- Transmontaigne
- Upstream Engineering
- Valero Energy
- Venoco



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