

# **AKAY INDUSTRIES**

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# PRODUCT CATALOGUE









# PROFLO PF/LF/SP

- ANSI B73.1 standard
- Maximum interchangeability, minimum spare parts inventory
- Back pull out design allows rotating elements inspection without disturbing electrical and piping connections
- Standard foundations save installation time, effort and money
- Wide variety of metallurgy available
- LF: Specially designed end suction pump designed for low flows
- SP: Self-priming chemical process pump

### Performance:

Q (m³/h) : ~ 1500
 H (m) : ~ 250
 P (MPa) : 2 / 2.5
 T (°C) : -40 to 180

# **Applications:**

Chemical, petrochemical, refinery, coal chemical, power station, etc. for pumping clean, containing particles, neutral, corrosive with normal or medium temperature medium.

# **WATERFLO WF**

- DIN 24255 standard
- Horizontal, single-stage volute casing pumps with dimensions and nominal ratings standard to DIN 24255
- Back pull-out design enables quick and simple maintenance
- Steel metal base joined by profiled steel bar for strength

#### Performance:

Q (m³/h) : 2 ~ 1100
 H (m) : 2 ~ 150
 P (MPa) : 1 ~ 1.6
 T (°C) : -10 to 105

#### Applications:

For pumping clean water or medium with characteristics similar to water. Suitable for industrial plants, mines, city water supply, air conditioning coolers, firefighting system and irrigation.

# WATERFLO WFM

- DIN 24255 standard
- Close coupled pump
- Back pull-out design enables quick and simple maintenance
- Extra bearing set out onto the connecting rack making pump's performance stable
- Interchangeable components lead to reduced spare parts requirement

# Performance:

Q (m³/h) : 2 ~ 290
 H (m) : 5 ~ 130
 P (MPa) : 1
 T (°C) : -10 to 105

## **Applications:**

For pumping clean water or medium with characteristics similar to water. Suitable for industrial plants, mines, city water supply, air conditioning coolers, firefighting system and irrigation.







# **WATERFLO IL**

- BS EN733/DIN 24255 standard
- Vertical, single-stage, single-suction, volute casing, in-line centrifugal pump
- Pump performance adjustment through impeller trimming
- Designed with deflation device, advanced structure, compact size, less room required for installation
- No need of complex maintenance

#### Performance:

Q (m³/h) : 2 ~ 450
 H (m) : 2 ~ 150
 P (MPa) : 1.6
 T (°C) : -10 to 105

# **Applications:**

For pumping clean water or medium with characteristics similar to water. Suitable for industrial plants, mines, city water supply, air conditioning coolers, firefighting, cooling, environmental machinery, irrigation, etc.

# ISOFLO (OH1)

- ISO2858/5199 standard
- Standard chemical pump
- End-suction centrifugal pump
- Foot mounting support
- Convenient for installation and maintenance

#### Performance:

Q (m³/h) : 2 ~ 2000
 H (m) : ~ 160
 P (MPa) : 2.5
 T (°C) : -40 to 150

# **Applications:**

Chemical, petrochemical, refinery, coal chemical industry, power station, paper industry, steelmaking, waste acid treatment, water supply and drainage, etc. for pumping clean or containing trace particles, neutral or corrosive, flammable, explosive, toxic, etc. medium.

# SPLITFO-RE / FP

- Axially split casing permits removal of complete rotor without disturbing either piping or motor
- Flanges drilled to ISO, DIN, BS or ANSI
- Closed impellers have double curved vanes statically and dynamically balanced according to ISO 1940
- High performance impeller with minimal axial thrust due to double-entry impeller
- Completely sealed and dry for zero corrosion

# Performance:

Q (m³/h) : ~18000
 H (m) : ~ 200
 P (MPa) : ~ 3
 T (°C) : ~ 105

#### Applications:

Irrigation, water ways, drainage pumping stations, power stations, industrial water supply systems and firefighting applications.







# **VERTICAL TURBINE PUMPS**

- 4 different models with a common hydraulic design of the pump bowl assembly.
- Covers a wide range of hydraulic conditions to meet every pumping service with optimum efficiency.
- VTG is right angle box driven vertical turbine pump. It is designed for engine driven through a right angle gear box for the place where electric power service is not available.

# VTC / VTG

- Vertical industrial turbine pump
- Single or multistage pump with centrifugal or mixed-flow enclosed type impeller designed for high pressure services
- Fabricated discharge head for 10 or larger sizes
- Built-in alignment and simple piping for less costly installation and ease of maintenance reducing downtime

# Performance:

Q (m³/h) : 4000
 H (m) : 380
 T (°C) : 200

# **Applications:**

Cooling water, Seawater and Raw Water Intake, Industrial Process Pumps, Utility Circulating Water, Condenser Circulating Water Pumps, Ash Sluice, Firefighting

## VTM / VTG

- High capacity vertical turbine pump
- Single stage pump with mixed-flow semiopen or enclosed type impeller designed for high capacity, medium to high head services
- Fabricated discharge head for all sizes
- Alloy construction with external tube flush of critical wear areas available for abrasive services

#### Performance:

Q (m3/h) : 25,000 H (m) : 70

# **Applications:**

Cooling water, seawater and raw water intake, industrial process pumps, utility circulating water, condenser circulating water pumps, irrigation and

# VTA / VTG

- Low head vertical turbine pump
- Single stage pump with axial-flow impeller designed for high capacity, low head services
- High efficiency design
- Broad hydraulic coverage provides best selection to meet specific operating conditions
- Wide range of corrosion and abrasion resistant material

# Performance:

• Q (m3/h) : 20,000 • H (m) : 12

## **Applications:**

Pollution control, medium and low head circulation, effluent disposal, flood control, dewatering, river water intake, cooling water, irrigation and drainage, dry docks







# HTFLO (OH1)

- API 610 standard
- Petrochemical process pump
- Rigid design for casing cover with strong pressure-loading capacity and reliability
- Hydraulic model provides higher efficiency and anti-cavitation
- Seal chamber suitable to API 682 standard and other kinds of seal

## Performance:

Q (m³/h) : 2 ~ 2600
 H (m) : ~ 250
 P (MPa) : ~ 2.5
 T (°C) : -80 to 450

# **Applications:**

Petrochemical, coal mining, power station, heating and air conditioning plant, desalination plant, etc. for pumping clean, containing particles, neutral, corrosive with low or high temperature medium.

# APIFLO-OH2

- API 610 standard
- Wide application in petrochemical industry
- Independent, safe and reliable pressure chamber composed of casing and casing cover
- Hydraulic model provides higher efficiency and anti-cavitation

#### Performance:

Q (m³/h) : 2 ~ 2600
 H (m) : ~ 300
 P (MPa) : 5 / 10
 T (°C) : -80 to 450

# **Applications:**

Petrochemical, refinery, low temperature device, chemical fiber, marine industry, desalination plant for pumping clean or liquid with particles, slurry, fiber, high viscosity, low and high temperature, neutral or corrosive medium and high suction pressure condition.

# APIFLO-OH2 (LF)

- API 610 standard
- Low flow chemical process pump
- Low flow and high head hydraulic model provides excellent performance and efficiency
- Easy maintenance structure

## Performance:

Q (m³/h) : 0.8 ~ 12.5
 H (m) : 12 to 125
 P (MPa) : ~ 2.5
 T (°C) : -80 to 450

# **Applications:**

Petrochemical, refinery, low temperature device, chemical fiber, marine industry, desalination plant for pumping clean or liquid with particles, slurry, fiber, high viscosity, low and high temperature, neutral or corrosive medium and high suction pressure condition.







# **APIFLO-OH3**

- API 610
- Vertical in line pump
- Centerline mounted with wide working temperature range
- Hydraulic model provides higher efficiency and anti-cavitation
- Seal chamber suitable to API 682 standard and other kinds of seal

## Performance:

Q (m³/h) : 2 ~ 2600
 H (m) : ~ 300
 P (MPa) : ~ 5
 T (°C) : -80 to 450

# Applications:

Petrochemical, refinery, low temperature device, chemical fiber, marine industry, desalination plant for pumping clean, low and high temperature, neutral or corrosive medium.

# **APIFLO-OH6**

- API 610 standard
- High speed integral gear driven pump
- Available in vertical and horizontal installations
- Fully interchangeable with current existing highspeed pumps in the market

#### Performance:

Q (m³/h) : 2 ~ 250
 H (m) : 100 to 2500
 P (MPa) : ~ 15 / 22.5
 T (°C) : -50 to 300

#### **Applications:**

Petrochemical, chemical, energy, metallurgy, paper, pharmaceutical, food, etc. for pumping clean or corrosive medium with less than 500 cP viscosity, and less than 0.1mm solid particle size.









# APIFLO-BB1

- API 610 standard
- Axially split, single or double stages, volute, horizontal between bearing centrifugal pump
- Rigid design of shaft ensures stable and reliable operation
- Transition flow passage employs volute space warps design to minimize fluid energy lost

# Performance:

Q (m³/h) : 10 to 18000
 H (m) : ~ 440
 P (MPa) : ~ 2.5 / 5
 T (°C) : -40 to 200

# **Applications:**

Petrochemical, power station, thermal power plant, pipe network pressurization, etc. for pumping clean or containing trace particles, neutral or corrosive medium.

## **APIFLO-BB2**

- API 610 standard
- Horizontal, between bearing support, radially split, double volute, single stage, 2 or 3 stages
- Single stage, single suction or double suction centrifugal pump
- Reliable inter-stage bushings reduce leakage between stages

# Performance:

Q (m³/h) : 5 to 5000
 H (m) : ~ 700
 P (MPa) : ~ 5 / 15
 T (°C) : -80 to 450

## **Applications:**

Oil refinery, petrochemical, coal chemical, natural gas industries, offshore oil plants, desalination plant, etc. for pumping clean or containing particles, low or high temperature, high pressure, neutral or corrosive medium.

# **APIFLO-BB3**

- API 610 standard
- Volute structure casing, centerline support, impeller symmetrical arrangements
- Suction and discharge arranged under the casing, dismounting and installation without dismantling inlet or outlet pipelines
- Suitable for high temperature and high pressure conditions

#### Performance:

Q (m³/h) : 10 to 1500
 H (m) : ~ 3000
 P (MPa) : ~ 25
 T (°C) : -20 to 400

# **Applications:**

Oil exploitation, petrochemical, coal chemical, pipeline transportation, seawater desalination, boiler feed water, hydraulic turbine, phosphorous and decoking pump for steel mill, water injection, etc.







# **APIFLO-BB4**

- API 610 standard
- Horizontal, single-casing, ring section multistage pump
- Back to back and the same direction impeller arrangement types
- Various suction and discharge direction options
- Self-lubrication or forced lubrication system option

## Performance:

Q (m³/h) : 5 to 730
 H (m) : ~ 2800
 P (MPa) : ~ 27
 T (°C) : -80 to 210

# **Applications:**

Crude oil transport, boiler feed water, hydrotreating feed pump for heavy oil hydrogenation refinery plant, high pressure decoking pump for steel plant.

# APIFLO-BB5

- API 610 standard
- Horizontal, double-casing, centerline mounted, ring-section multistage pump
- Horizontal, double-casing, axially split multistage pump
- Ring-section inner core can be entirely pulled out without removing the dismantling inlet/outlet pipelines
- Suitable for high temperature and pressure conditions

# Performance:

Q (m³/h) : 5 ~ 730
 H (m) : ~ 3400
 P (MPa) : ~ 35
 T (°C) : -80 to 450

# Applications:

High pressure ash water transport, rich/lean amine solution pump for fertilizer and ammonia plant, seawater desalination, high pressure recovery turbine in chemical industry.



# APIFLO-VS1 / VS2 / VS3

- API 610 / ISO 5199 standard
- Integral or connecting shafts available for installation depth
- Interface for temperature and vibration detectors for bearing service conditions monitoring
- API 610 standard seal chamber suitable for various plans as per the requirement
- Radial diffuser, compact structure and higher head for single stage impeller suitable for high head conditions

#### Performance:

Q (m³/h) : ~ 60000
 H (m) : ~ 500
 P (MPa) : ~ 10
 T (°C) : -80 to 250

# Applications:

High pressure ash water transport, rich/lean amine solution pump for fertilizer and ammonia plant, seawater desalination, high pressure recovery turbine in chemical industry.

# APIFLO-VS4 / VS5

- API 610 / ISO 2858 standard
- Long shaft sump pumps
- High reliability, stable operation, long service life with easy maintenance
- Flexible shaft is multi-points supported
- Side discharge pipe, no medium pressure at supporting pipe and seal providing higher efficiency with less hydraulic loss
- Various structural options available based on required working conditions

# Performance:

Q (m³/h) : 2 ~ 900
 H (m) : ~ 135
 P (MPa) : ~ 1.6
 T (°C) : -20 to 125

#### **Applications:**

Refinery, petrochemical, coal chemical, power station, environment protection engineering, wastewater treatment, cement plant, etc.

# **APIFLO-VS6**

- API 610 standard
- Double casing multi-stage vertically suspended pump
- Various structural options available based on required working conditions
- Excellent hydraulic impeller model provides higher stability and efficiency

#### Performance:

Q (m³/h) : ~700
 H (m) : ~1500
 P (MPa) : ~15
 T (°C) : -80 to 250

# **Applications:**

Environment protection engineering, pipeline pressure regulation, condensation, seawater lifting, offshore plate, water supply and drainage system.







## **MDP**

- API 685 standard
- Magnetic Drive Pump
- Horizontal, single-stage, single suction radially split, volute magnetic type
- Shield seal chamber consists of isolation sleeve and other static parts without dynamic seal

# Performance:

Q (m³/h) : ~700
 H (m) : ~300
 P (MPa) : ~5
 T (°C) : -20 to 220

# **Applications:**

Chemical, petroleum, coal chemical, printing and dyeing industry, biotechnology engineering, etc. Suitable for handling flammable, explosive, toxic and costly medium.

# **HYDRAULIC POWER TURBINE**

- API 610 standard
- Various structure types (OH, BB, VS) can be applied based on requirement and specification

#### Performance:

Q (m³/h) : 5 ~ 12000
 H (m) : ~ 3000
 P (MPa) : ~ 35
 T (°C) : -80 to 450

# **Applications:**

Commonly used in pressure energy recovery units for hydrocracking, ammonia plant, urea plant and poly and desalination plants.

# SPLIT-CASE FIRE PUMP

- NFPA20 Standard
- UL listed, FM approved
- Single stage double suction
- Electric motor or diesel engine driven with air or water cooling
- Special material for seawater pumping is available

#### Performance:

Q (m3/h) : 68 ~ 1817H (m) : 40 ~ 204

## Applications:

Commercial and residential buildings, railway stations, oil depots, petrochemical plants, thermal power plants







# **END-SUCTION FIRE PUMP**

NFPA20 Standard

• UL listed, FM approved

 Electric motor or diesel engine driven with air or water cooling

Performance:

Q (m3/h) : 22 ~ 511
H (m) : 42 ~ 162

Applications:

Commercial and residential buildings, railway stations, oil depots, petrochemical plants, thermal power plants

# **VERTICAL TURBINE FIRE PUMP**

NFPA20 Standard

• UL listed, FM approved

• Electric motor or diesel engine driven with air or water cooling

Performance:

Q (m3/h) : 56 ~ 1136
H (m) : 56 ~ 211

**Applications:** 

Commercial and residential buildings, railway stations, oil depots, petrochemical plants, thermal power plants, military and naval institutes, offshore platforms, etc.

# **IN-LINE FIRE PUMP**

NFPA20 Standard

• Electric motor or diesel engine driven with air or water cooling

Performance:

Q (m3/h) : 22 ~ 227
H (m) : 70 ~ 155

**Applications:** 

Commercial and residential buildings, railway stations, oil depots, petrochemical plants, thermal power plants, steel plants











