

## **Performance** in Fluid Dynamics

## **Centrifugal Pumps**

Abrasive and acid liquids | Turbid Waters

FROM INDUSTRIAL PROCESSES

# ALFA **PUMPS**

Since 1971 Alfa Pumps has been designing, engineering and producing centrifugal pumps for waste waters and slurries from industrial processes, suitable for abrasive and acid liquids. Alfa Pumps has incorporated the brand EIR, an italian historical company manufacturing centrifugal pumps since the 50s in various industrial and manufatcuring sectors.

Today Alfa Pumps is present in various countries of the world through its commercial and technical assistance network. Alfa continuously develops new solutions also for the most demanding industrial sectors, such as mining, aggregates quarries, concrete batching plants, ceramics, marble and granite processing and many others.

# ALFA **PRODUCTS**

Alfa pumps are specifically designed and manufactured for the different industries and applications. Performances are developed to meet any pumping need of abrasive and acid liquids.

The materials used for the production of Alfa pumps range from spheroidal cast iron to superalloys, according to the industrial applications. The pump bodies can be internally coated with anti-abrasive rubber (both with interchangeable shells adjustable from outside, as well as through vulcanization).

All pumps can be, or are already operated under inverter for adjusting pressure and delivery rate. This allows great ability to be adapted to the plant served.

The design, materials and construction of Alfa pumps make them particularly wear-resistant, and easy to maintain.

# ALFA INDUSTRIES

- Aggregate quarries
- Mining
- Concrete
- Tunneling
- Granite, marble and stones processing
- Glass and Ceramics
- Recycling and Soil Washing
- Steel and Chemical-Pharmaceutical
- Paper mills and tanners
- Bio-waste treatment
- Distilleries and Agri-Food







## VERTICAL PUMPS PSV / PGM SERIES

Vertical pumps, produced with both direct joint coupling and trapezoidal belts and pulleys, are mainly used for loading settling tanks/clarifiers (both static and dynamic) or for transferring waste waters and slurries.

The delivery rates range from 100 lt/min up to over 8.000 lt/min and the heads up to about 30mca.

> PUMP WITH **DIRECT COUPLING**

PUMP WITH TRANSMISSION **BELTS AND PULLEYS** 

#### PUMP FOR **THICK SLUDGES** PRD SERIES

It is a type of pump traditionally and historically manufactured by Alfa. It has been designed to empty the settling pits and therefore to transfer even particularly thick sludge (up to 2kg/dmc).

The pump is immersed in the thick sludge which falls into the body of the pumping unit, which is completely metallic with spheroidal cast iron impeller.

**PUMPS** SOM SFRIFS This pump can be completely immersed into the liquid to be transferred; It can therefore be used in situations with limited spaces, very deep pits and wells, etc.

SUBMERSIBLE

Alfa submersible pumps are also made of materials such as spheroidal cast iron or super alloys highly resistant to abrasion, according to the different industrial applications.

The pumps bodies can be internally coated with anti-abrasive rubber. Delivery rates range from 100lt/min to about 4,000 lt/min, with heads reaching over 30 mca.

#### **PUMPS WITH FRONT SUCTION** HYDROCYCLONES - PSOM SERIES

By ensuring high flows and high heads, these pumps are ideal to be used in the industrial and service sectors.

They are used for hydrocyclones feeding in the industry of aggregate treatment and washing, as well as in all areas where there is a need of transferring abrasive and/or acid fluids.

The bodies and impellers can be casted with mechanical abrasion high-resistance super alloys (with hardness of about 800 HB), or be coated with special anti-abrasive rubber compounds.



## HORIZONTAL PUMPS PSH SFRIFS

Specifically designed to feed filter presses; these pumps can be supplied with single or double-speed motors, with pump-motor coupling through belts and pulleys, or with direct coupling though coaxial joint.

Delivery rates range from 100lt/min to 10,000 lt/min with indoor pressures up to 21 bars, according to the different versions.



## PUMPING UNIT FOR **CLEAR WATERS**

Alfa Pumps designs and manufactures pumping groups for clear waters that seamlessly integrates into the waste water purification and recycling plant.

Single-stage horizontal pumps are used, with cast-iron or bronze body and impellers, mechanical widia seals, stainless steel shaft.

SINGLE-STAGE HORIZONTAL PUMP

DOUBLE-STAGE HORIZONTAL PUMP

TRIPLE-STAGE 3 HORIZONTAL PUMP

Bodies and impellers of Alfa Pumps can be made of super alloys or spheroidal cast iron coated with special anti-abrasive rubber moulding.

The suction mouth is positioned in such a way that the mud does not come directly in contact with the mechanical seals, the latter made of tungsten carbide, drained with water and protected by pressurized barrage (stop) chamber.

The functionality of the bearings is guaranteed by an oil bath lubrication.



#### ACCESSORIES FOR WASTE WATER TREATMENT **PLANTS**





#### MANUAL VALVES

Completely manufatcured by Alfa, these valves have great reliability even in the most extreme working conditions and even after long periods of inactivity.

Natural anti-acid and anti-abrasive rubber sleeve. Internal diameter from 25 to 250 mm.



#### **PNEUMATIC VALVES**

Pneumatic control, normally closed (opening happens with the input of compressed air). With single or double cylinder.

Sleeve made in natural anti-acid and anti-abrasive rubber, and aluminum body. Internal diameter from 25 to 200 mm.



With metal spiral core and related flanges.



#### WWW.ALFAPOMPE.IT

Via Trento 132/A 37020 Dolcè Verona (VR) - Italy Tel: +39 045 7290055 info@alfapumps.it P.IVA / VAT: IT00235680238



