

# Santerno Reference List

## Water & Waste-Water Applications

October 2015

STRICTLY CONFIDENTIAL



## Water Treatment: Products



# Reference List

## INDEX

- **SOLARDRIVE**
- IRIS BLUE
- SINUS PENTA and SINUS M
- ASAMV



## Solar Irrigation | EGYPT, 2015



### Video

- N.1 SolarDrive Plus 100kW
- Remote monitoring with Hydrofast.it



## Solar Irrigation | Turkey - 2014

1/2



Inverter: SOLARDRIVE PLUS 0032

Motor power: 9.2kW

Pump:  $Q=32\text{m}^3/\text{h}$   $h=60\text{m}$



# Solar Irrigation | Turkey - 2014

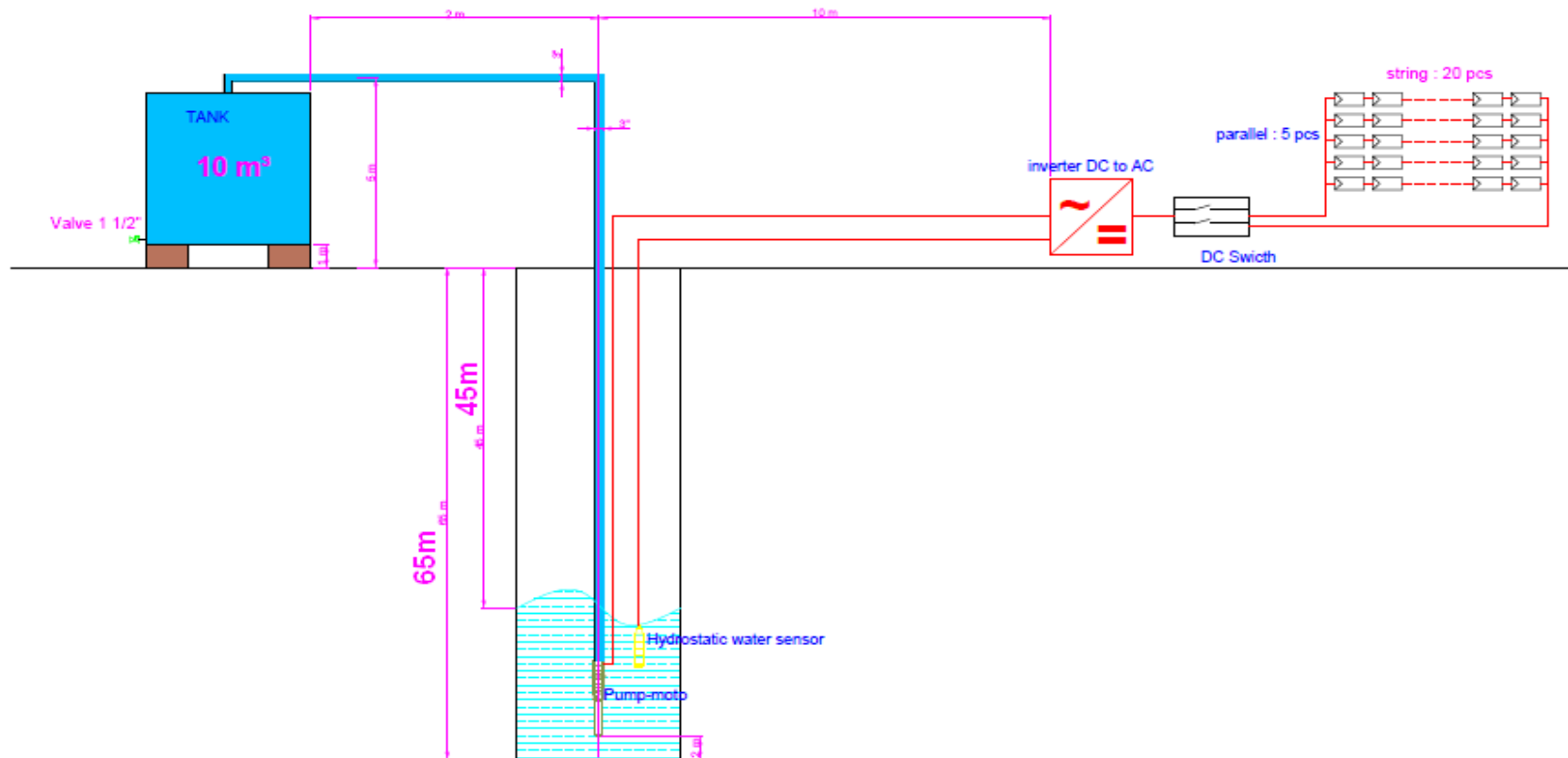
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Inverter: SOLARDRIVE PLUS 0032

Motor power: 9.2kW

Pump:  $Q=32\text{m}^3/\text{h}$   $h=60\text{m}$





## SOLAR Irrigation: CASE HISTORY – PERU

1/5



**Location:** PERU  
**Application:** 3 MW IRRIGATION SYSTEM  
**Mission:** To pump water from a river into a lake for 5 month each year in order to provide irrigation for 12 months.





## SOLAR Irrigation: CASE HISTORY – PERU

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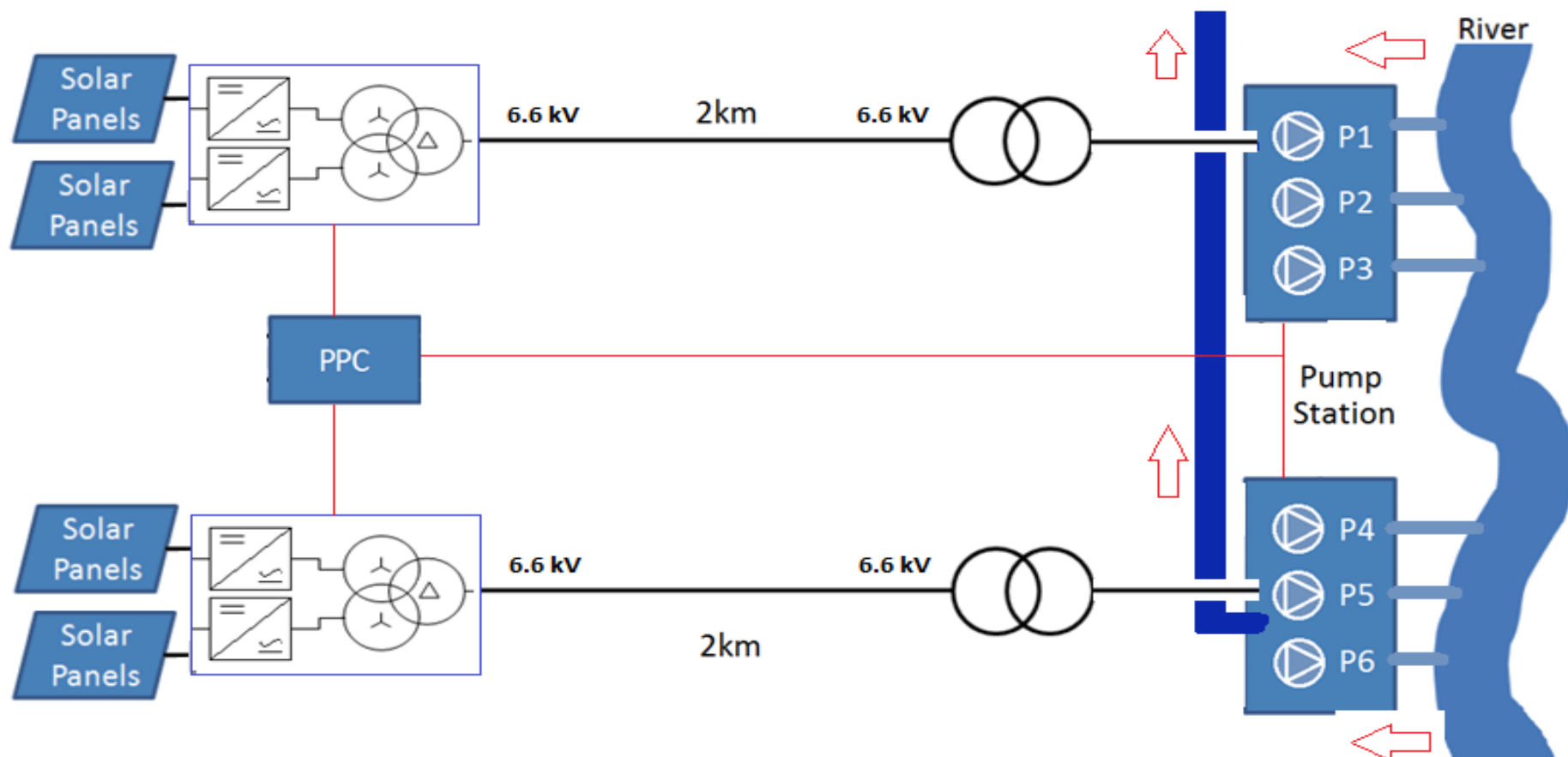
## SOLAR Irrigation: CASE HISTORY – PERU

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# SOLAR Irrigation: CASE HISTORY – PERU

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**Location:** PERU**Connection date:** 2014**Solar Inverters:** 8 x SUNWAY TG 750**Motor power:** 6 x 900HP**Pumps Inverter:** 6 x SINUS PENTA 0831 4T



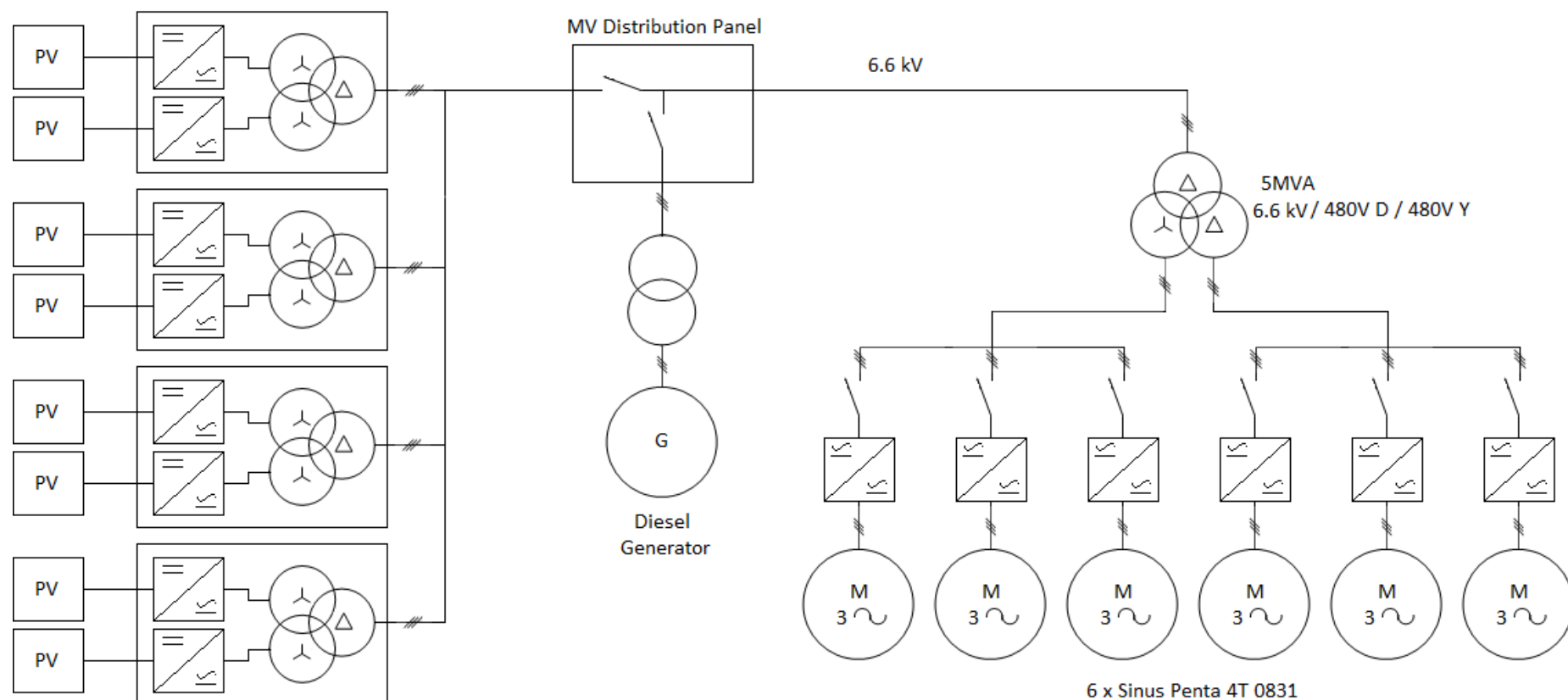
# SOLAR Irrigation: CASE HISTORY – PERU

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**Location:** PERU  
**Connection date:** 2014  
**Solar Inverters:** 8 x SUNWAY TG 750

**Motor power:** 6 x 900HP  
**Pumps Inverter:** 6 x SINUS PENTA 0831



8 Subfields  
 825 x 8 = 6600kWp

6 x Sinus Penta 4T 0831

## INDEX

- SOLARDRIVE
- **IRIS BLUE**
- SINUS PENTA
- ASAMV

## Irrigation | Acquaviva delle Fonti (BA) – ITALY



**Application:** Pumps for Irrigation  
**Connection date:** 2015  
**Products:** n.9 IRIS BLUE 0025  
n.9 ASAB





## Irrigation | Ponte di Piave (TV) – Italy



**Application:** Mobile Irrigation Pumps

**Customer:** Euromacchine (OEM)

**Products:** IRIS BLUE

### Key Notes:

- Euromacchine produce high performance, reliable and efficient machines for all applications in the fields of energy and irrigation
- Multifunctional LAMPO - generator that powers the Sinus Penta on the Caprari pump

[Video](#)



## Hospital water mngt. | ALBENGA – ITALY



**Application:** Multipump, clear water mngt.

**Connection date:** 2015

**Products:** n.3 IRIS BLUE 0016 4T



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- SOLARDRIVE
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- **SINUS PENTA and SINUS M**
- ASAMV



## Fishery Project | Khozestan - IRAN - 2015

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**Application:** Pumps for fishery plant.

**Connection date:** 2015

**Products:** n.16 SINUS PENTA 0180 4T  
n. 6 ASAB 255



## Fishery Project | Khozestan - IRAN - 2015

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# Fishery Project | Khozestan - IRAN - 2015

3/3





# Water Pipe | Bendigo-Ballarat – AUSTRALIA - 2008

1/4

**Application:** Pump Station

## Goldfields Superpipe to Bendigo and Ballarat Yandoit Pump Station

The project involved construction of a **45 kilometre pipeline** that links the Bendigo water supply system to the Goulburn River System and construction of an **87 kilometre pipeline** from Bendigo to Ballarat.

The project also provided for the supply of up to 38 gigalitres of water per year purchased from willing sellers in the Goulburn system to augment drinking water supplies.

The project responded to a significant urban water challenge in the Bendigo and Ballarat regions due to continuing low flow conditions in the local catchments.



# Water Pipe | Bendigo-Ballarat – AUSTRALIA - 2008

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# Water Pipe | Bendigo-Ballarat – AUSTRALIA - 2008

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# Water Pipe | Bendigo-Ballarat – AUSTRALIA - 2008

4/4



# Dolphin Park | Daryoush Hotel Kish Island, IRAN

1/3

**Application:** n.6 75kW Pumps  
**Connection date:** 2012  
**Products:** n.6 SINUS PENTA 0067 4T

<http://dariushgrandhotel.com/en/>





# Dolphin Park| Daryoush Hotel Kish Island, IRAN

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**Application:** n.6 75kW Pumps  
**Connection date:** 2012  
**Products:** n.6 SINUS PENTA 0067 4T





# Dolphin Park| Daryoush Hotel Kish Island, IRAN

2/3



**Application:** n.6 75kW Pumps  
**Connection date:** 2012  
**Products:** n.6 SINUS PENTA 0067 4T



## Water mngt. | Ahvaz - IRAN



**Application:** Pump Station

**Connection date:** 2015

**Products:** n.6 SINUS PENTA 0218 6T





## Water mngt. | Shiraz -IRAN



**Application:** Pump Station

**Connection date:** 2015

**Products:** n. 4 SINUS PENTA 0086 4T  
n.2 ASAB 0105

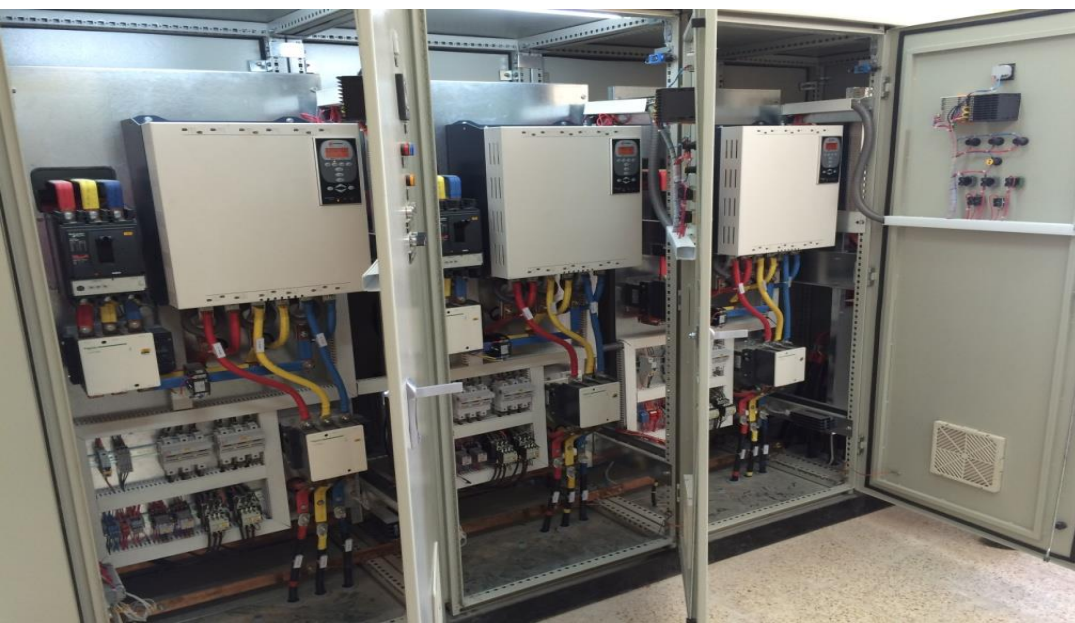




## Water mngt. | Shahre Kord -IRAN



**Application:** Pump Station  
**Connection date:** 2015  
**Products:** n.8 ASAB 0380



## Water mngt. | Abfa Mazandaran -IRAN



**Application:** Pumps: 22kW, 45kW, 110kW, 132 kW

**Connection date:** 2011

**Products:** SINUS PENTA CABINETS





## Water /Waste Water mngt. | Fars Province- IRAN



**Application:** Pumps and Submersible pumps

**Connection date:** 2011

**Products:** SINUS PENTA  
ASAB SoftStarters





## Water mngt. | Khozestan Shilat- IRAN



**Application:** Pumps

**Connection date:** 2011

**Products:** SINUS PENTA 315 kW 690Vac



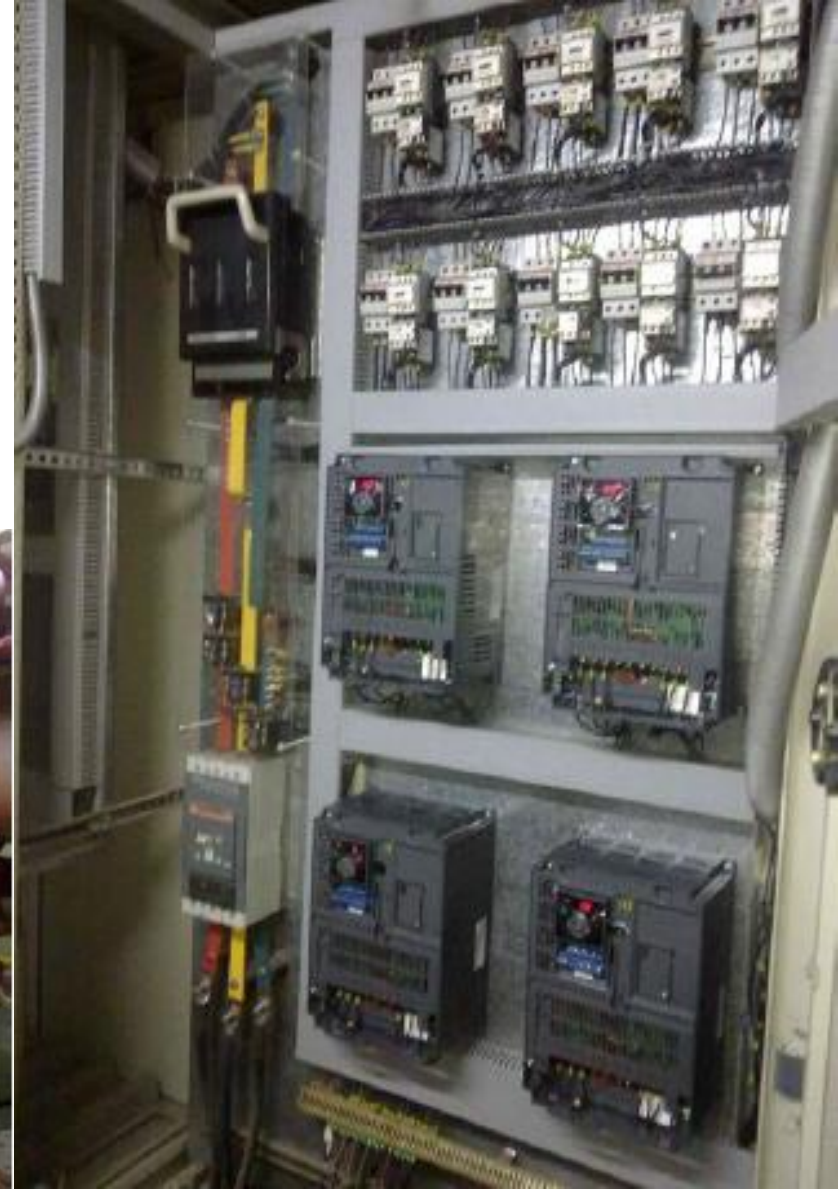
## Building water mngt. | IRAN



**Application:** Pumps

**Connection date:** 2011

**Products:** SINUS M 11 kW





## Marine OIL Industry | Persian Gulf – IRAN



**Application:** Submersible Pumps

**Connection date:** 2012

**Products:** SINUS PENTA 132Kw





## Marine OIL Industry | Dongying - CHINA



**Application:** Submersible Pump

**Connection date:** 2012

**Products:** Sinus Penta 0062 6T



## Mining | China



**Application:** Pumps

**Connection date:** 2009

**Products:** SINUS PENTA

**Key Notes:**

Flow control and transport on demand





## Mining | “Pucamarca Project” - PERU



**4,300m  
a.s.l.**

**Application:**

Water pumping from the mine

**Products:**

NEMA 3R SINUS PENTA for 250HP, 480VAC motor.

Power supplied by a Caterpillar Diesel Genset

Installed at 4300 meters above sea level





## Mining | Cerro Lindo - PERU



**Application:** n.2 600 HP Recovery Pumps thickener overflow water

**Products:** n.2 SINUS PENTA 00524 4T S60

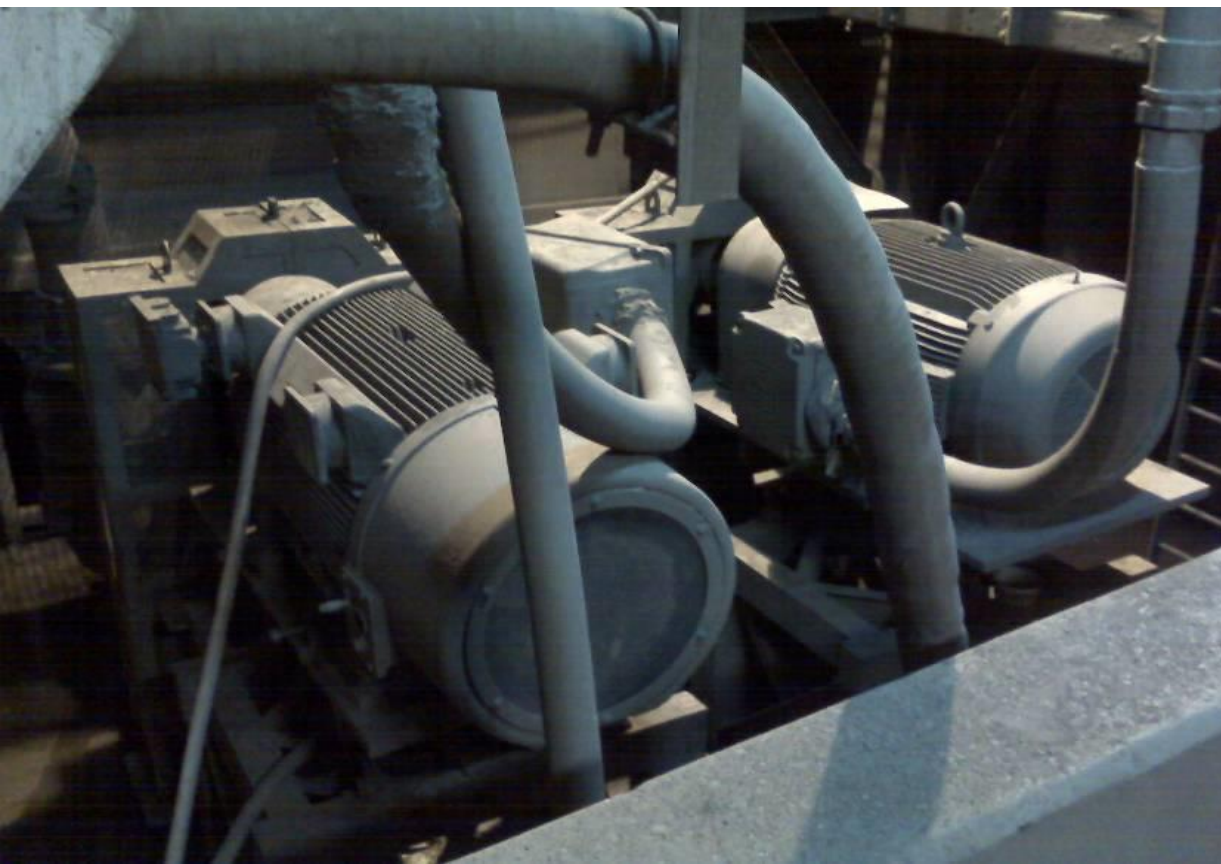


## Mining | Cerro Lindo - PERU



**Application:** n.2 300 HP Pumps

**Products:** n.2 SINUS PENTA 0217 4T





## Mining | Ares - PERU



**Application:** n.2 150 HP Pumps

**Products:** n.2 SINUS PENTA 00129 4T

**5,000m  
a.s.l.**





## Mining | Cerro Corona - PERU



**Application:** n.4 20 HP Pumps  
**Products:** n.4 SINUS PENTA 0017 4T

**4,000m  
a.s.l.**



## Mining | Pampa de Cobre, PERU



**Application:** n.4 30 HP Pumps

**Products:** n.4 SINUS PENTA 0025 4T

4,200m  
a.s.l.





## Mining | Irl Mine, PERU



**Application:** n.2 50 HP Pumps

**Products:** n.2 SINUS PENTA 0034 4T

**4,800m  
a.s.l.**



## Mining | Colquisiri Mine, PERU



**Application:** n.2 75 HP Pumps

**Products:** n.2 SINUS PENTA 0049 4T





## Mining | Gold Mine Retamas, PERU



**Application:** n.8 10 HP Pumps

**Products:** n.4 SINUS PENTA 0086 4T (100 HP)  
n.4 ASAB-0145B/5/12/0 (100 HP)

**3,900m  
a.s.l.**



## Mining | Chungar, PERU

1/2



**Application:** n. 2 250 HP Horizontal Pumps

**Products:** n.2 SINUS PENTA 0180 4T (440 Vac)

4,300m  
a.s.l.





## Mining | Chungar, PERU



2/2

4,300m  
a.s.l.



## Textile Industry | PERU



**Application:** n. 22 40 HP Water system for Textile Industry

**Products:** n. 22 SINUS PENTA 0034 4T (440 Vac)



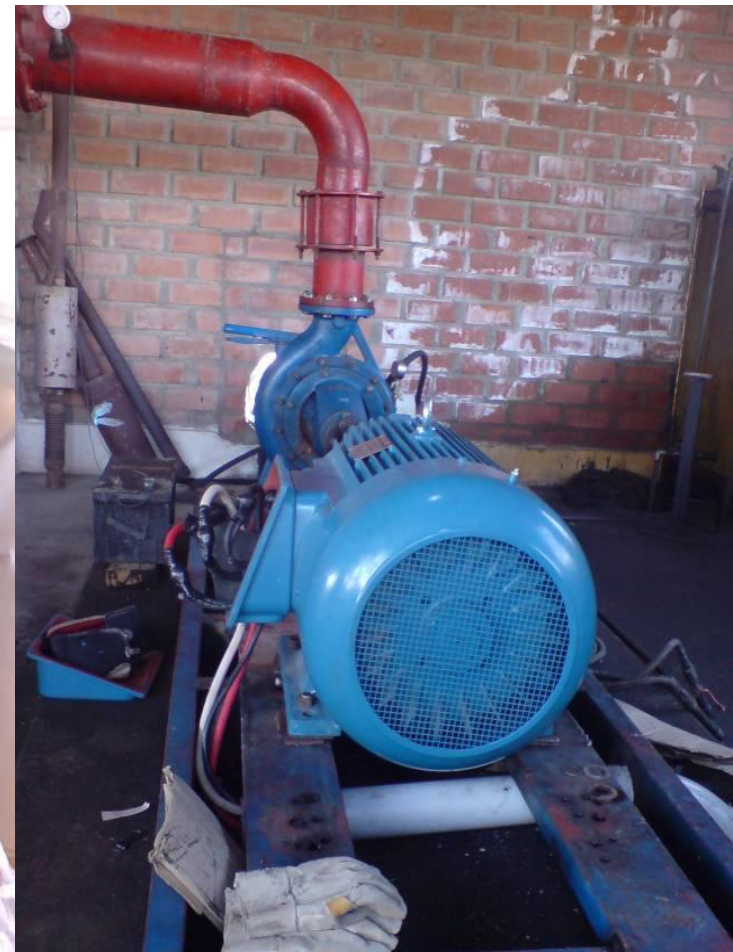


## Irrigation | Andahuasi, PERU



**Application:** n. 1 150 HP Irrigation Pump

**Products:** n. 1 SINUS PENTA 0129 4T (440 Vac)



## Irrigation | Andahuasi – PERU



**Application:** Irrigation Pumps

**Connection date:** 2009

**Products :** SINUS PENTA





## Irrigation | Andahuasi – PERU



**Application:** Irrigation Pumps

**Products :** SINUS PENTA



## Water Utilities | BRAZIL



SABESP Sao Paulo and SANEPAR Curitiba are the first 2 companies for water and waste-water management in Brazil

Santerno inverter was approved by:

- **SABESP in 2009**
- **SANEPAR in 2013**



RELAÇÃO DE EQUIPAMENTOS E MARCAS HOMOLOGADAS

USMA / CQ 22 JAN 2013 1 / 10

"Além da marca homologada o equipamento deve atender a especificação técnica e ser inspecionado antes do fornecimento para a obra"





## Water Utilities, SABESP, San Paolo, BRAZIL



**Application:** n. 1 300 HP Pumping Station

**Products:** n.1 SINUS PENTA 0367 4T



## Water Treatment | San Paolo – BRAZIL



**Application:** Submerged pump

**Connection date:** 2011

**Products:** n.1 Sinus Penta 0216 4T





## Pump Station | San Paolo – BRAZIL



**Application:** Pumps

**Connection date:** 2011

**Products:** n. 5 Sinus Penta 0150 4T





## HVAC | San Paolo – BRAZIL



**Application:** HVAC Cold water pump, fans

**Connection date:** 2012

**Products :** n.3 Sinus Penta 0067 4T, N.7 Sinus M 0030 4T





## Water Filtering | Montegrotto Terme - ITALY



**Application:** Pumps layered filtering

**Connection date:** 2014

**Products:** n.1 SINUS M 0017 4T

- ✓ **The deepest swimming pool in the world**
- ✓ **Inverters are serving the swimming pool system . Control the pumps layered filtering, recirculation and cooling water (thermal water of Abano is so hot that must be cooled)**



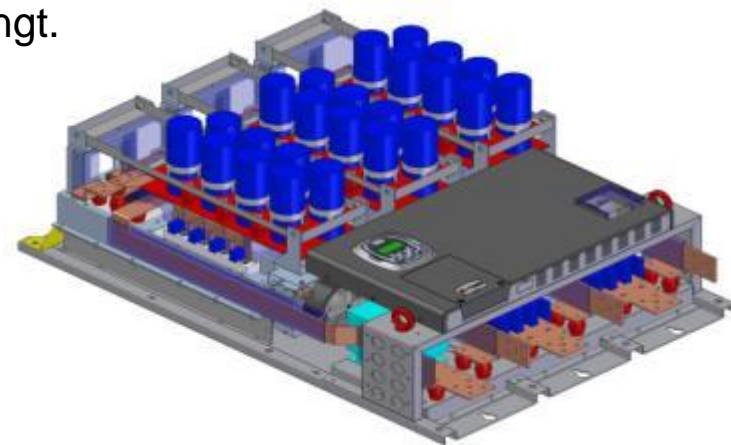
## Water Treatment Plant | Rimini - ITALY



**Application:** n.2 500kW Pumps for waste water mngt.

**Connection date:** 2014

**Products:** n.2 SINUS PENTA 00598P 4T S60P





## Repumping Station | Torino – ITALY



**Application:** Pumps for tele-heating system

**Connection date:** 2011

**Products :**

- **N. 8 - 800 kW Sinus Penta**

The Pumping Station includes two series-connected units, one for delivery network and one for return network of district heating

- **N. 3 - 90 kW + N. 1 - 35 kW Sinus Penta**

Used for the district heating pressurization station

- **N. 8 - 800 kW Sinus Penta**

For district heating in the Repumping station



## BAGGIOVARA Hospital | Modena – Italy



**Application:** Pumps

**Connection date:** 2011

**Products :** Sinus Penta IP54





## Water Utility | LITHUANIA



**Application:** Pumps  
**Connection date:** 2011  
**Products :** Sinus Penta  
ASAB

JSC Siauliu vandenys is one of the largest water supply companies in Lithuania and operates water supply and waste water networks in the Siauliai region.



## Waste-water Pump Station | Lubertsy – RUSSIA



**Application:** Water

**Connection date:** 2009

**Products :** Sinus Penta

### Key Notes:

The controlled pump keeps the constant water level in the tank using the pressure sensor mounted in the tank bottom.

As a result often starts/stops were eliminated, and the constant water volume in the tank improved the waste water treatment biotechnology.





## Public Utility for Water Supply | Moscow – Russia



**Application:** Manual/Automatic control of the water flow in different pipe sites

**Connection date:** 2011

**Products :**

- 1 Sinus Penta 0366 4T
- 4 Sinus Penta 0312 4T
- 3 Sinus Penta 0150 4T
- 1 Sinus Penta 0017 4T
- 8 Sinus M 0014 4T
- 10 Sinus M 0002 2S/T
- 6 ASA0238-5-24-4
- 3 ASAC-1-022-4-1



## Water Treatment | Ferrara – Italy



**Application:** Pumps  
**Connection date:** 2009  
**Products :** Sinus Penta Box  
and Cabinet



### Key Notes:

The purpose of C.A.D.F. consist of the associated management of the entire cycle of collection, treatment, purification and distribution of water for multiple uses, especially for human uses.

C.A.D.F. operates on an area of 1312.70 km<sup>2</sup>, with a resident population of 104,699 units', which in summer becomes 200,000, for a number of 68,229 users, providing drinking water for every year 10,560,000 m<sup>3</sup>.

Drinking water treatment plant - 2





## Water Treatment | Bari – Italy



**Application:** Pumps  
**Connection date:** 2009  
**Products :** Sinus Penta Cabinet



### Key Notes:

In size and capacity, the Aqueduct Pugliese is one of the most impressive and exemplary works of hydraulic engineering systems in the world.

A widespread system of systems for the isolation of the water, pipelines and interconnections located in an area wide and high population density.



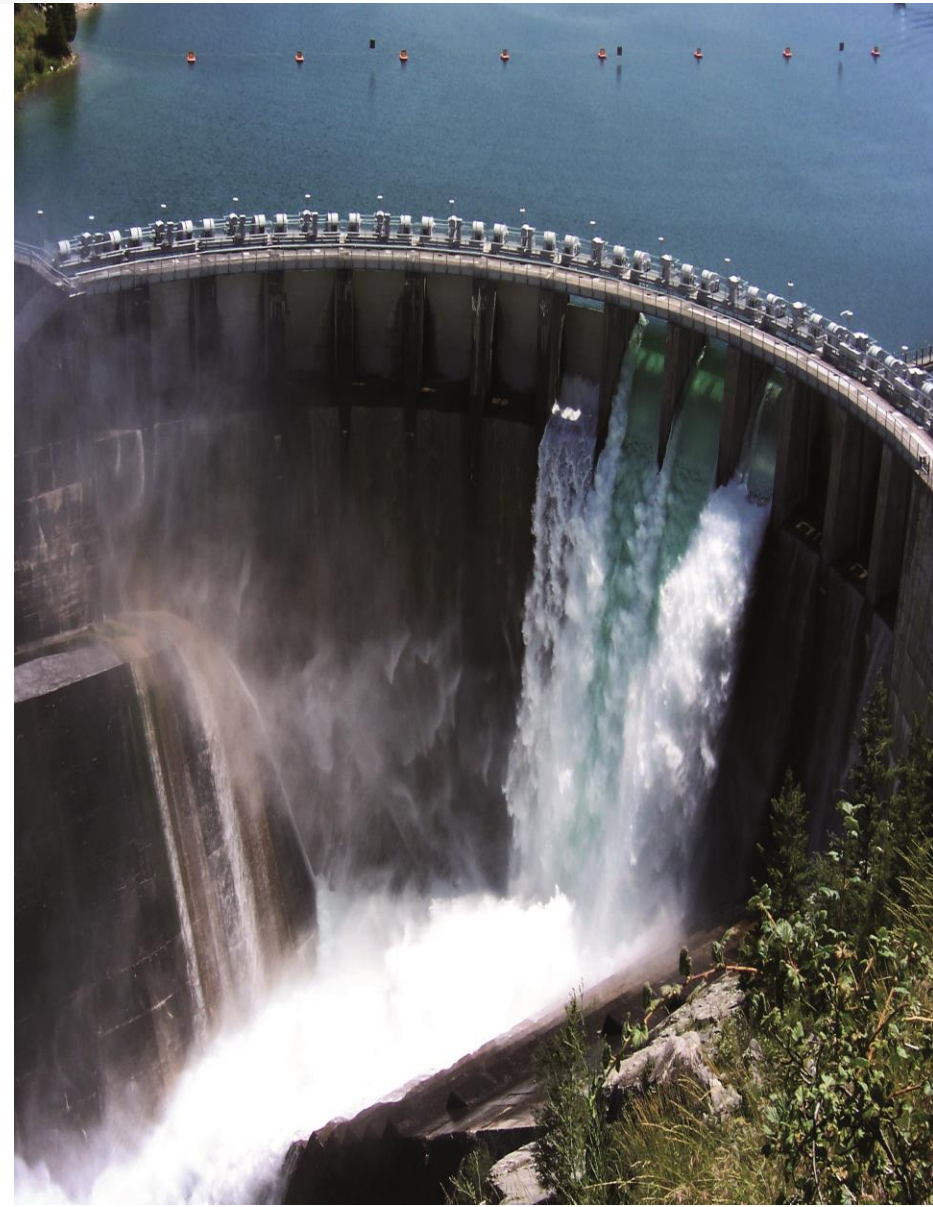
## Water Treatment | Bari – ITALY



**Application:** Water pumps 500 kW

**Connection date:** 2009

**Products:** n. 4 SINUS PENTA 690V  
n. 2 Soft Starters ASAB 690 V





## Water Treatment | Granarolo Faentino (BO) - ITALY



**Application:** Pumps  
**Connection date:** 2009  
**Products:** Sinus Penta IP54



### Key Notes:

Hera provides energy services (gas, electricity), water (water supply, sewerage and treatment plants) and environmental (waste collection and disposal) for a basin of over 2.9 million people.



## Energy Services | Imola (BO) – Italy



**Application:** Hot water Pumps

**Connection date:** 2009

**Products:** Sinus Penta IP54



### Key Notes:

Hera provides energy services (gas, electricity), water (water supply, sewerage and treatment plants) and environmental (waste collection and disposal) for a basin of over 2.9 million people.





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- SOLARDRIVE
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- SINUS PENTA and SINUS M
- **ASAMV**

## Water Utility | San Paolo – BRAZIL



**Application:** n.12 Water Pumps , 1500 HP, 2400Vac, 400°

**Connection date:** 2011

**Products:** n.12 ASAMV Cabinet 400 02





## Water Utility | San Paolo – BRAZIL

**Application:** Captation Pumps 800HP MV

**Products :** ASAMV 800 HP



## Water Treatment | Mexico City –MEXICO



**Application:** Pumps, 2000kW, 6000Vac,200A

**Connection date:** 2010

**Products:** Soft Starter ASAMV 200-07-E2





# Water Utility | Consorzio bonifica Ferrara - ITALY

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# Water Utility | Consorzio bonifica Ferrara - ITALY



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**Application:** Pumps, 6600V, 400 A

**Connection date:** 2015

**Products:** Soft Starter ASAMV 400-06-E2





# Water Utility | Consorzio bonifica Ferrara - ITALY



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# **SANTERNO: 45 YEARS EXCELLENCE on WATER PUMPS INVERTERS!**

October 2015

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