

### CASE STUDY

# Sulzer Underflow Pumps Save Money in Zinc Refinery

In a thickener solids, being heavier than liquid, will be taken out from the bottom of the unit. These solids, together with the carrier liquid, cause both abrasion and corrosion to the underflow pump. In this kind of demanding application, it is very important that the pump is constructed of materials that protect it from such corrosion and abrasion.



#### AHLSTAR W range type WPP/T centrifugal pump

#### The challenge

- The customer had constant problems due to pump wear and corrosion
- Leaking gland packings were also causing difficulties

#### The solution

- The AHLSTAR W range type WPP/T wear-resistant end suction single-stage centrifugal pump for industrial abrasive slurry application
- W hydraulics made of precipitation hardened stainless steel
- Double mechanical seals to replace gland packing

### **Customer benefit**

- Cost savings to the customer through reduced maintenance operations and longer pump life
- Pumps face less wear and corrosion when constructed from the right materials
- Double mechanical seals are more reliable than gland packings

#### The Sulzer difference

Sulzer has a proven record for design innovations creating reliable, safe and energy-efficient products. The Sulzer WPP pump is operating extremely well in underflow applications. Precipitation hardened martensitic stainless steel is sufficiently hard and protects the pump from corrosion.



## Product data

AHLSTAR wear-resistant WPP pump	
Material	Precipitation hardened stainless steel
Seal	Double mechanical seal with thermosyphone

## **Process data**

Capacity	33 l/s
Head	20 m
Liquid	Thickener underflow slurry, 100 g/l solids
рН	4
Temperature	2°06
Chemical	Spent electrolyte,
content	zinc sulphate
Density	1440 kg/m <sup>3</sup>

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Applicable markets Metal industry

Applicable products AHLSTAR

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