

# Balasore Alloys Ltd.

*Dewatering of Captive Mines  
(Slurry having upto 25% solids by Volume)  
at Sukhinda, Odhisha*



## Balasore Alloys Limited

Balasore Alloy's Ltd. (BAL) is part of the renowned Ispat group of Companies, a major business house in the country.

The company has Chromite mines in different locations in Sukinda Valley at Jajpur Road (Odisha) making it one of the **very few** Ferro Alloys manufacturing companies in the country having **captive chromite mines**.





## Situation & Problem :



Earlier BAL was using Conventional Horizontal Centrifugal Pumpsets (*non submersible type*) by putting suction pipe (*by negative suction method*) for it's pumping needs.

BAL was facing major problems of limitations of Priming (suction lift), Motor Burning due to Overnight rains & the huge maintenance of couplings, greasing, alignment meant that they had to depute huge maintenance staff.

Centrifugal pump motor's misalignment caused heavy vibrations & required frequent Bearings & Rotor replacement.

BAL were also facing suction chocking due to high Iron Ore Slurry.



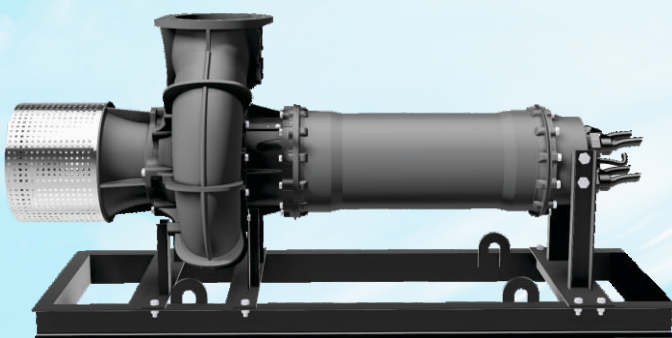
## Solution :

In 2014, for the second stage of pumping (*in first stage, the submersible slurry pumps pumping slurry to the nearby sump*) BAL had purchased 2 Nos. of Aqua's Mine Dewatering Pumpsets for their Thick Slurry (25% by Volume) Water pumping.





**Solution :**



Aqua's pumps were specially designed with variable head.

In this second stage Aqua's pumps are pumping thick slurry water to 100 m head.





**Low Life Cycle Costs (LCC)**

Highly Efficient, Minimal Maintenance, extremely Low Consumables and spare part requirements; Low down time



**Plug & Pump**

No base Plate or Coupling to align;  
No priming to startup

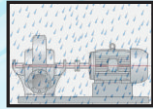


Being safely tucked away **under water**, Submerged pumpsets are exposed to **Lower Risks of damage by Flying Debris loosened during blasting & excavation.**



**Maintenance Free**

- No Oiling, • No Greasing,
- No Gland Tightening



**Weather Proof**

No Damage due to rain

**BALASORE ALLOYS LIMITED**



Date :21-10-2017

TO WHOM IT MAY CONCERN

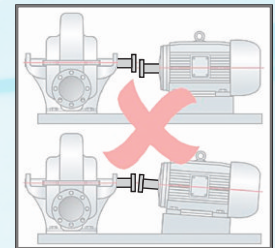
THIS IS TO CERTIFY THAT WE HAVE PROCURED TWO NOS 250 HP MONOBLOCK SUBMERSIBLE SLURRY PUMPS FROM M/S TECHNO SERVICES ENGINEERING SYSTEMS PVT LTD, KOLKATA. IN OUR OPEN CAST MINE AT SUKHINDA

**DETAILS OF PUMPS ARE AS UNDER**

MANUFACTURER: AQUA MACHINERIES PVT LTD, AHMEDABAD  
PUMPING MEDIA: HEAVILY CONCENTRATED SLUDGE MIXED WITH FINE SOLIDS  
SLURRY CONCENTRATION: 25% BY VOLUME MAX  
RATED CAPACITY: 250 M3/HR  
RATED HEAD: 100M  
MOTOR RATING: 250 HP

PUMPS WERE COMMISSIONED IN 2015 AND GIVING SATISFACTORY PERFORMAMNCE SINCE THEN

ABHAYA KUMAR BISWAL  
SR. MANAGER  
FOR BALASORE ALLOYS LTD  
**Kaliapani Chromite Mines**  
**M/s. Balasore Allovs Limited**



- No Shaft Alignment
- No Coupling or Base Plate Maintenance

# Aqua Machineries Private Limited

[www.aquapumps.com](http://www.aquapumps.com)

**Registered Office & Manufacturing Plant**

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