MOWE
Chemical Injection
Wash Water Water Skid

An ISO 9000, 18000, 14000, BIZ SAFE & SME 1000 company.
CI KINABALU WASH WATER SKID – AQ6800A

The AQ 6800A named the wash water skid is the largest of the 3 skids.

- Main purpose to inject water into the wells.
- Max operation capability is 3m³/hr @ 750 BAR designed pressure from each pump.
- Pumps are designed for 2x100% redundancy. Discharge tubes are designed at 15000 PSI / 1000 bar with necessary safety relief valves.
- Key components as in Pressure transmitter for discharge, Level differential pressure transmitters and pressure gauges are all present to ease operations.
- HAZOP reviewed.
CI KINABALU WASH WATER SKID - AQ6800A

MAJOR COMPONENTS

- WASH WATER MIXING TANK
  - VOL. 27 m³
- OXYGEN SCAVENGER STORAGE TANK
  - VOL. 2 m³
- OXYGEN SCAVENGER GAUGUNG TANK
  - VOL. 35L
- INJECTION PUMP – 2 x 100% REDUNDANCY
- VALVES RATED AT ANSI 150 LBS AND INSTRUMENTATION
- WASH WATER MIXING AGITATOR
- SKID STRUCTURE GA OVERVIEW
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Wash Water Mixing Tank
Wash Water mixing tank like the name implies, purpose to inject produce / sea water into the wells. This tank’s water is to be premixed with Oxygen Scavenger Chemicals to inhibit corrosion during injection.

Equipment that is equipped with this tank
- Level Gauge
- Level transmitter
- Motor with Agitator
- Overfill / overflow discharge pipe
- Manhole

Tank is designed as Open Tank and not designed as pressure vessel.

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Oxygen Scavenger Storage Tank
This 2m3 oxygen scavenger storage tank stores this chemical with estimate for 30 days usage.

- Level Gauge
- Filling nozzle and cap
- Overfill open drain
- Manhole
- Gravity discharge to Oxygen Gauge tank volume 35L

Tank is non pressure vessel.
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OXYGEN SCAVENGER GAUGE TANK

- Estimated at 35L tank, therefore dosage to the wash water main tank will be 35L per dose.
- Tank is manually operated and located at tank top of the wash water tank. As it is fulfilled via gravitation filling, manual operator / operation is required during each filling.
- Only instrument outside tank is a level gauge.
- Tank is not pressure vessel.

Please refer to the GA of the Wash Water skid in the next skid for a better understanding of the tanks and location.
WATER INJECTION PUMPS – 15000 PSI

- 2 x 100% Wash Water Plunger injection pumps have been installed on skid
- Max pressure tested in FAT is 900 BAR (Without pressure relief valves)
- Pressure relief valve starts to ‘POP” @ 750 bar and therefore no more pressure can be increased.
- Each pump delivers 2m3/hr flowrate
- There is no local control / start stop at local panel and therefore all start / stop controls will have to come from PCS (Process Control System)
- There are 2 dampeners at each suction and discharge of pump.
- Dampeners have to be pre-charged with the correct pressure before pump operation.
- As this design do not come with Back Pressure regulator, therefore pressure regulation is manual.
• Valves are from USA and all discharge valves, fittings, etc are rated at 15000 PSI.
• Valve and fittings at discharge are of Cone and Thread design.
• Valves and fittings at suction are rated at ANSI 150 lbs.
• There is no filter at suction and only strainer. Water to be injected to be kept clean to avoid damaging the pumps.
• Level transmitter at wash water tank added due HAZOP analysis to provide feedback to PCS.
• Pressure transmitter at discharge nozzle of skid to provide discharge pressure reading to PCS.
• Discharge fitting is custom made to fit Gilperti Pipe connection.
  It is therefore a tube to pipe fitting.
GA OVERVIEW – AQ6800A WASH WATER SKID
CI KINABALU PLATFORM NAG – COMMISSIONING TO BE ADVISED BY CLIENT
ACCOLADES – TRUST IN REFERENCES
OUR LOCATIONS

MOWE Marine & Offshore Pte Ltd
Singapore HQ Office
Add: Blk 164 Bukit Merah Central #03-3655. Singapore 150164
Tel: +65 6652 6070
Fax: +65 6652 6071

MOWE Systems Pte Ltd
Branch Company
Address: 120 Lower Delta Road, #09-04, Cendex Center. Singapore 169208
Tel: +65 66526070
Email: info@mowemo.com

MOWE Marine & Offshore Sdn Bhd
Branch Factory
Add: No. 15, Jalan Mutiara Emas 5/2, Taman Mount Austin, 81100 Johor Malaysia
Tel: +607. 3507711
Fax: +607. 350 7117
Email for enquiry: info@mowemo.com, enquiry@mowemo.com

Website: www.mowemo.com