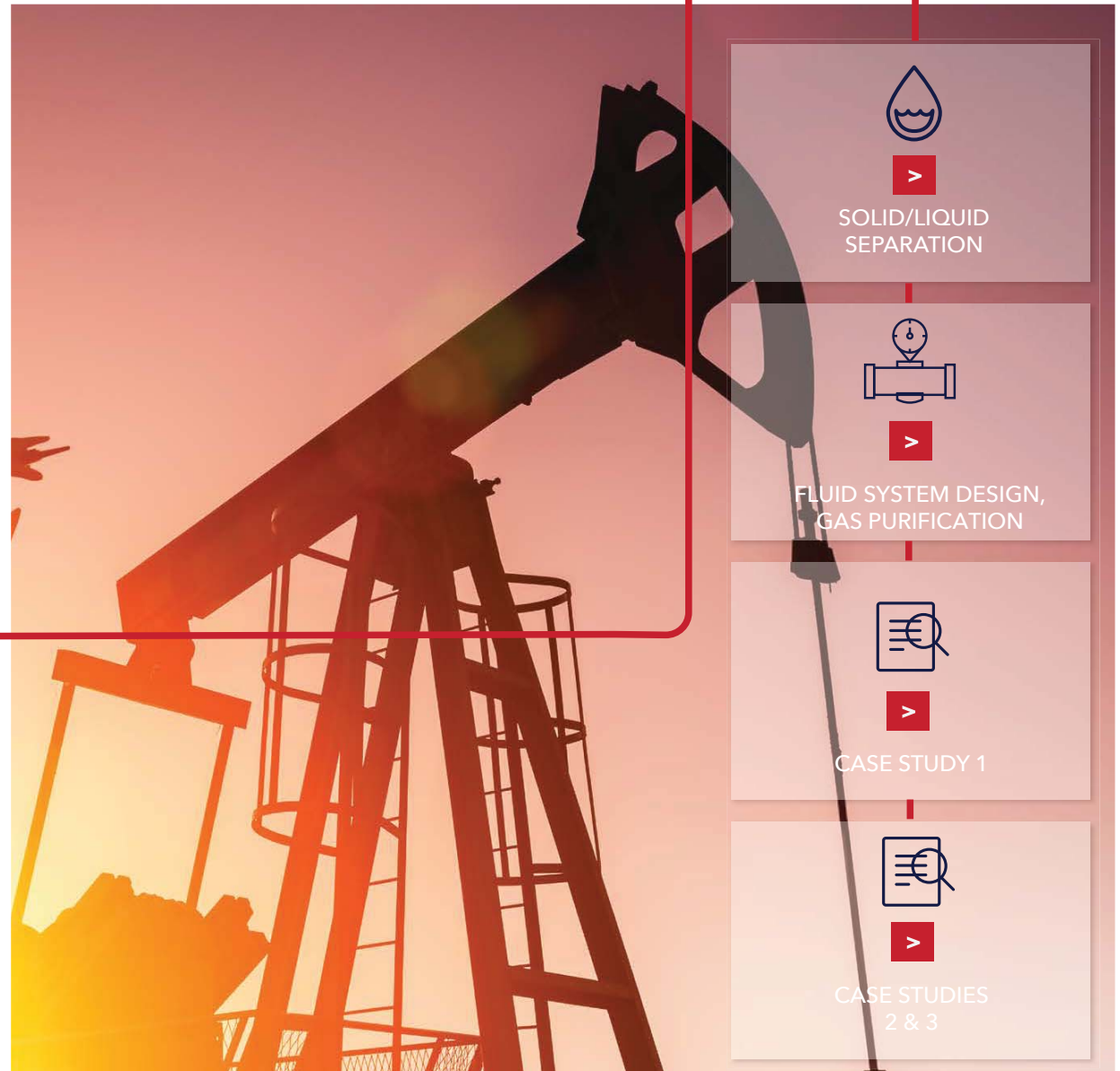




MINING

Lesedi's mining capabilities encompass a number of activities within the minerals processing and mining sectors. We service various ancillary plants that ensure mines operate functionally and efficiently.

Through our network of world-class technology partners, Lesedi offers gas cleaning and emissions control plants for most energy technologies, as well as material handling, water systems, and CNI. Our capabilities in mining include compressed air, fire detection, suppression, HVAC, solid/liquid separation, fluid systems design, and gas purification.





MINING

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In October 2016, Lesedi acquired a specialist resource pool that has over 15 years' experience in the minerals processing and emissions control sectors to gain access to new markets in the mining sector. Our Centurion office is dedicated to serving these markets.

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EXAMPLES OF OUR CAPABILITIES SOLID/LIQUID SEPARATION

Lesedi and its technology partners offer a range of solid/liquid separation equipment which includes high-rate thickeners, clarifiers, vacuum belt filters, pressure filters (filter press/tower press), and centrifuges.



- 1 High-rate thickener
- 2 Vacuum belt filter
- 3 Vertical basket centrifuge
- 4 Filter press
- 5 Tower press





MINING

FLUID SYSTEM DESIGN

Lesedi engineers are experienced in the areas of pipe flow analysis for both compressible and incompressible fluid systems. Our design experience includes pumping and piping systems for liquids and slurries as well as low and high pressure gas and vapour transport systems including fans, blowers, compressors and associated ducting and piping. Our engineers use AFT software to assist with systems design.

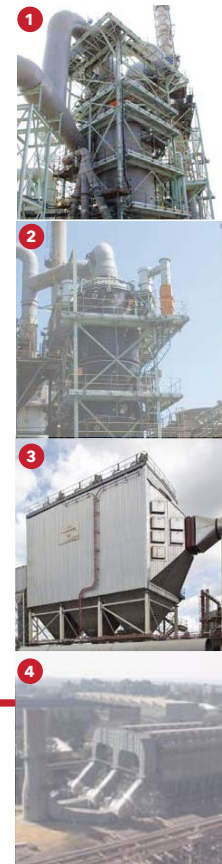
- 1 Gas distribution ducting
- 2 Fans and gas ducting
- 3 Mineral slurry ring-mains



GAS PURIFICATION

Gas purification involves the removal of gas-phase or solid-phase impurities from a gas stream. Lesedi and its partners offer a number of gas purification processes for the removal of SO₂ and other acidic gases.

- 1 Wet SO₂ scrubber
- 2 Wet electrostatic precipitator
- 3 Dry electrostatic precipitator
- 4 Fabric filter baghouse





MINING

Through our network of world-class technology partners, Lesedi offers gas cleaning and emissions control plants for most energy technologies.

Lesedi provides systems for the capture of dust, tars, acid mists, SO₂ and various other acidic gases and contaminants in the mining sector.

"We provide the best available technology to meet our clients' needs".

BEST AVAILABLE TECHNOLOGY

Lesedi's principles ensure the best available technology is provided and configured to meet the client's needs, ensuring compliance with the quality requirements of a feed stream or local atmospheric emissions regulations. Systems can capture dust, tars, acid mists, SO₂ and various other acidic gases and contaminants.



CASE STUDY 1: DYNAWAVE SCRUBBER PROJECTS

In the field of SO₂ and sulphuric acid, Lesedi has a long working relationship with MECS, going back over 15 years, and has partnered with them in the execution of several DynaWave scrubber projects, acid plant upgrades and feasibility studies. References include wet electrostatic precipitators and wet SO₂ scrubbers.

(Image: DynaWave scrubbers at Impala Minpro in Rustenburg, South Africa)





MINING

CASE STUDY 2: HOW THE DYNAWAVE WET GAS SCRUBBER WORKS

The key is the intimate mixing of the gas and scrubbing liquid in the inlet barrel:

1. Gas enters at the top of the vessel and travels down the inlet barrel.
2. Liquid is sprayed upward into the barrel, counter to the gas flow.
3. The gas collides with the liquid to create a turbulent zone – the froth zone – where the gas/liquid interface is continuous and rapidly renewed.
4. When the momentum of the gas and liquid balances, the liquid reverses direction, and then falls to the base of the vessel.
5. The gas, on exiting the inlet barrel, turns and moves vertically upward through the tower. The gas encounters a set of chevrons that removes remaining liquid droplets.
6. After the chevrons, the gas exits the tower.

See how DynaWave works: [click here](http://www.mecsglobal.com/howthe-dynawave-wet-gas-scrubber-works.aspx) to view a Quicktime video.
(Source: <http://www.mecsglobal.com/howthe-dynawave-wet-gas-scrubber-works.aspx>)



CASE STUDY 3: LESEDI EXPANDS FOOTPRINT TO SERVICE MINING INDUSTRY

Our references in the mining and minerals industry include top local and international blue-chip companies, successfully completing projects for Northam Platinum, Lonmin, Babcock & Wilcox, South32, and Syama Gold in the last 18 months.

