

**Customer:** Iluka Resources Ltd.  
**Location:** Capel, Western Australia  
**Product:** Mineral sands, coal  
**Date of installation:** March 1998

**Requirements:**

The customer (formerly Westralian Sands) has built a new processing plant incorporating in the design 20 Aerobelt conveyors to carry wet mineral sands concentrate to driers, and then take the dry separated components, including ilmenite to storage silos.

The conveyors had to:

- carry wet materials and
- be as compact as possible.

**Solution:**

The ability of Aerobelt conveyors to carry the fluidised materials at angles up to 24 degrees permitted a more compact plant to be designed. The steep angle is possible because there is no vibration of the material on the Aerobelt conveyor. One 200 metre long conveyor at 400 tph is used to carry ilmenite concentrate to the synthetic rutile plant. Another 123 metre long conveyor carries coal between two sections of the synthetic rutile plant.



**Technical information:**

No. of conveyors: 20  
 Product: Ilmenite  
 Belt width: 400/650 mm  
 Length: 10 to 200 m  
 Inclination: 0 to 24°  
 Capacity: 70 to 410 TPH  
 Belt speed: 1.0/1.46 m/s  
 Drive power: 2.2 to 22 KW  
 Fan power: 2.2 to 15KW  
 Product density: 2.5 t/m<sup>3</sup>



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