



**Product**

## VCSD-VR Brakes

**Application**

## 5.6 km Overland Coal Conveyor

**Highlights**

- Spring-applied, hydraulically-released stopping and parking brake
- VR models feature large pads (28,990 mm<sup>2</sup> each pad) for higher rubbing speeds and greater thermal capacity
- Unique “parked-off” feature
- Special paint and stainless steel parts to meet C5 spec

Twiflex Ltd. has supplied VCSD-VR caliper brakes for a 5.6 km (3.4 mile) long belt conveyor system at the Wiggins Island Coal Export Terminal (WICET) in Queensland, Australia. Various grades of coal are delivered via rail and conveyor, piled in a 1.9 million ton capacity stockyard area, and mixed to meet specific customer specifications prior to export. When the first-phase expansion of the massive project is fully operational, existing long-term coal export capacity will increase to 80 mt/y.

To meet the challenging application requirements, Twiflex provided the large pad version (28,990 mm<sup>2</sup> each pad) of its popular VCSD brake designated the “VR”. The larger pads provide an increased braking path for higher rubbing speeds and greater thermal capacity.

VCSD-VR15 Model brakes, with a 15.7 kN braking force, were installed to act on a 700 mm diameter disc on the conveyor’s high-speed drives. VCSD-VR06 model brakes, with a 6 kN braking force, were specially designed to act on 1300 mm diameter flywheels of six other drives on the conveyor. All VCSD-VR brakes supplied feature special paint and stainless steel parts to meet the C5 specification for very high corrosion environments.

The Twiflex VCSD is a spring-applied, hydraulically-released disc brake which has been designed for use in harsh conditions such as mining, while providing superior heavy-duty dynamic and emergency stopping performance.

The VCSD modular brake design incorporates Twiflex’s unique “parked-off” feature. This allows the brake to be adjusted under hydraulic pressure so when it is removed, there is no stored energy, making it safe for maintenance work.