

The Vesuvius Australia team were contacted in September 2022 by Cement Australia, Gladstone operations regarding a redesign of the preheater tower.

SURSHOT 50NAK: Preheater Tower Cyclone

Customer Requirements

Customer was looking to change the roof lining from bricks to monolithics to avoid frequent repairs. However, with a limited time to install and concern on the refractory weight & shell temperature.



The Vesuvius team were given the following parameters:

- Reduce installation time
- Maintain outer shell temperature below 100°C
- Alkali Resistant lining
- Maintain the existing campaign life

Vesuvius Recommendations



Comprehensive solution for the design of the lining including:

- Special anchor design
- Fast installation with alkali resistant shotcrete: **SURSHOT 50NAK**
- Thinner overall lining design with combination lining reducing thermal & physical load on the roof of the cyclone
- Detailed engineering and 3D modelling of proposed solution
- Onsite supervision & support during installation.

Customer Impact

Over a 4 day period the lining was installed at a reduced installed cost enabling the ontime completion of the project and return to service.

Since this time, material has had it's 12 month inspection and customer has met all the parameters set as per the original targets.

- Reduced thermal & structural loads on steel shell and structures.
- Maintained overall campaign life
- Returned to service on time & on budget.

