



Structural Strengthening of Shatin Water Treatment Tanks

The Shatin Treatment Works is the largest water treatment works in Hong Kong in terms of daily output capacity. First commissioned in May 1964, the concrete tank structures show various degrees of dilapidations with concrete spalling and corrosion of the reinforcement.

The clients, Water Services Department of Hong Kong and Kong Yue Eng. Ltd., adopted the Tyfo® Systems for effective corrosion protection and structural strengthening due to its ease of application, minimum shutdown time and cost effectiveness.

The scope of works by Fyfe (Hong Kong) Ltd included the following:

- Complete survey for identification and mapping of defects.
- Removal of defective concrete and cleaning of the steel reinforcement.
- Application of the proprietary Tyfo® CIS Corrosion Inhibitor System to the slab soffit to inhibit steel corrosion and increase integrity of the structural concrete.
- Concrete patch repair.
- Structural design and application of the Tyfo® Fibrwrap® Composite System for structural strengthening to the concrete slabs.
- Design and installation of corrosion monitoring devices for long-term performance monitoring of the concrete structures.