



## Steel Factory Building in Singapore

Located at Gul Circle road of Singapore, Asian Steel is a steel production factory that comprised of one office block and two production blocks. Equipped with a huge number of machinery, the production block is subjected to constant vibration caused by the production operations. Together with the periodical full load acting on the slab, several severe cracks were found propagated. Thorough structural investigation was carried out to confirm the depth of the cracks. The structure was propped before the strengthening work being carried out.

Epoxy grouting and Tyfo® Fibrwrap® Systems were proposed to repair the cracks and strengthen the structure. Wrapping the slab along the main spanning direction has significantly enhanced its existing capacity. The major challenge to this project was that all the existing services were not allowed to be dismantled or even diverted. As such, the wrapping design was re-proposed to suit the site conditions. Another challenge to this project was that the building remained operational during the repair and strengthening works.