



CASE STUDY

SGS PROVIDES BYGGING INDIA LTD WITH **QUALITY ASSURANCE AND QUALITY CONTROL** FOR THE CONSTRUCTION OF CHIMNEYS

SGS was awarded a contract in September 2010 to provide complex consultancy services for the construction of chimneys to Bygging India Ltd, the leading construction company in the chimney, silo and storage tanks field in India. Throughout the entire contract, scheduled for one year, SGS performs Quality Assurance (QA) and Quality Control (QC) at fifteen chimney construction sites in India.

QUALITY ASSURANCE AND QUALITY CONTROL DURING CONSTRUCTION ARE OF UTMOST IMPORTANCE

Consultancy services during the construction of chimneys, including Quality Assurance and Quality Control, are of the utmost importance, because even minor construction failures may destabilise a whole chimney and lead to serious material damages and personal injuries.

Due to the fact that chimney construction is performed at lofty heights and very often in remote areas that lack the basic infrastructure, the biggest challenge in such projects is to find experts with the necessary extensive technical expertise and experience in the construction sector.

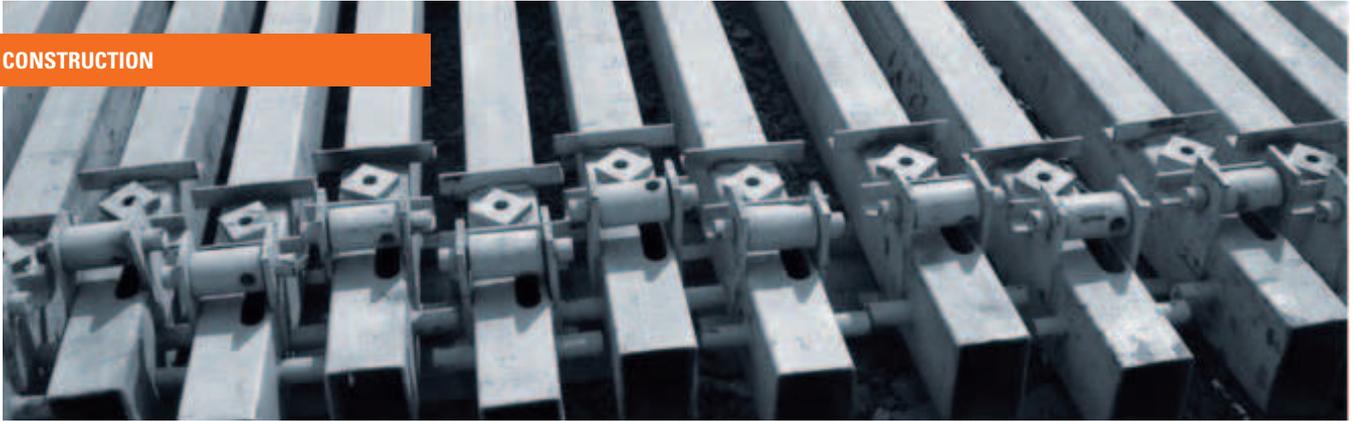
In order to ensure the best quality throughout the whole construction process and to minimise the risk of failures, Bygging India Ltd., the leading construction company in the chimney, silo and storage tanks field in India, sought a reliable third-party inspection and testing company.

In September 2010, the SGS in India was awarded a contract to conduct specialist third-party services during the construction of chimneys at 15 construction sites in India, thanks to its first-rate competence and know-how in projects of this kind.

SGS QUALITY ASSURANCE AND QUALITY CONTROL FOR THE CONSTRUCTION OF CHIMNEYS IN INDIA

From September 2010 to September 2011, SGS performed comprehensive Quality Assurance and Quality Control services for Bygging India Ltd, to ensure top quality in a wide range of their chimney construction projects.

Throughout the entire contract, SGS has verified materials, parts and final products through checks, audits, inspections and witnessing. With Quality Assurance SGS ensures that the chimneys meet predefined quality standards and will perform satisfactorily during service, and with Quality Control SGS focuses on the actual measurement, testing and supervision of the final product, by conducting inspection of each unit and sample testing.



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Drawing on its extensive experience and expertise in the construction sector, SGS guarantees the quality of chimneys with respect to defined Indian standards and regulations, such as IS codes and MORTH specifications. An inspection of the construction process was performed in accordance with a checklist that SGS developed for this project, in line with approved specifications and standard operating procedures.

A team of at least two SGS experts at each construction site has conducted Quality Assurance and Quality Control checks at each 200 mm layer during the chimney's construction stage and checked it for any discontinuities or gaps and their sizes, as well as the overall construction quality in terms of work, form and the material used in the structure.

In addition, SGS has ensured top quality during the construction process with the slip form technique, a construction method used for tall structures such as chimneys, water tanks and storage bins that is becoming increasingly popular among leading construction companies, due to the considerable reduction in time and cost it offers.

SGS has checked the twisting of the slip form with respect to tolerance limits, controlled the Reinforced Concrete shell thickness and slump as per design requirements, and has ensured that the proper inner and outer diameters, clean cover and steel lap joints are maintained.

With SGS's help, the chimney construction projects have been performed in compliance with all international and local regulations and quality standards. SGS is one of very few companies with the requisite technical expertise and manpower to supervise chimney construction. As a result of SGS's competence and experience, the contract with Bygging India Ltd is being renewed annually, in accordance with the client's requirements. Moreover, SGS operations may be extended to other countries in which Bygging India Ltd carries out its work.

ABOUT SGS

SGS is a global service provider for technical verification, inspection, testing and conformity assessment. SGS ensures that the customer's installations, material, equipment, facilities and projects meet all quality and performance requirements, whether they are regulatory, voluntary or customer based. SGS has decades' worth of experience and some remarkable references in serving key industries, such as Construction, Industrial Manufacturing and Trade, the Oil, Gas and Petrochemical Industry, Power Generation and Transmission, Banks and Financial Institutions, as well as Renewable Energy.

SGS IS THE GLOBAL LEADER AND INNOVATOR IN INSPECTION, VERIFICATION, TESTING AND CERTIFICATION SERVICES. FOUNDED IN 1878, SGS IS RECOGNISED AS THE GLOBAL BENCHMARK IN QUALITY AND INTEGRITY. WITH MORE THAN 67,000 EMPLOYEES, SGS OPERATES A NETWORK OF OVER 1,250 OFFICES AND LABORATORIES AROUND THE WORLD.