

# Young Jong Bridge, Korea Western Approach section

Main Contractor: Hyundai Heavy Industries Co. Ltd.



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Fagioli PSC were awarded three separate contracts on this double-deck bridge, being constructed as part of the infrastructure for the new Incheon Airport in Korea.

The 1,375 metre long bridge consists of eastern and western approach sections linked by a 550 metre span suspension bridge. Fagioli PSC were awarded contracts for span lifting on the western approach section by Hyundai Heavy Industries Co. Ltd., and on both approach sections by Hanjin Engineering & Construction Co.Ltd. The Hanjin contract also included 15 Loadouts to take place from the fabrication yard onto barges for transport to the jobsite.

On the suspension bridge section the contract for cable tensioning was also awarded to Fagioli PSC by Samsung Heavy Industries Co. Ltd.

On this Western Approach Section Fagioli PSC carried out a complex construction method, devised to minimise the use of craneage and complete the contract to lift four span sections, ranging in weight from 2,600 to 5,500 tonnes, with lift distances between 24 and 32 metres.

All four lifts were based over land and utilised four temporary lifting towers placed between each set of piers, two on each side of the span. At the top of each tower, three Fagioli PSC L600 Strand Jacks were connected to the span at ground level using 37 part cables.

Each lift was performed in two stages to allow the installation of the pier top transition pieces which were initially mounted on skid tracks on top of the span. Stage 1 involved lifting the span and skidding the transition pieces onto the pier tops. Stage 2 involved the continued lift of the span to final elevation for connection to the pier top pieces.



Above: Jack cluster at the top of a lifting tower.