



Peddavagu Aqueduct is a project situated at KM 16.90 of Godavari South Canal which conveys water discharge of Sri Ram Sagar Dam to irrigate over 16,00,000 acres of irrigation area. Now for stability and thermal expansion of structure, Expansion joints are provided at every 13mt to 15mt. But due to this gaps of expansion joints (30 to 40mm) loss of water at aqueduct is constant resulting in huge monetary loss too, so to prevent this loss we have covered these expansion joints with CONCRETE CANVAS HYDRO 5mm thick (CCH-5) as this material will prevent leakages but still allow normal functioning of expansion joints. The working conditions were challenging as the canal was on continuous water run. We need to dewater it every day before starting the work. Also we use scaffolding to work on the height of 4m.

First of all we clean the site and the joints out of shrubs, algae and moisture and fill it with silicon sealant. We mark 0.5m on both sides of gaps from its centreline so that CCH5 1.0m wide will be equally placed on the joints. The site preparation includes groove formation of 4 inches at the ends. Apply PROPER SEALANT 150mm from tapered portion & inside tapered portion also to fix CCH-5 width wise. Ensure no gaps, so that CCH-5 will stretch over total 1meter perfectly without any sags. Fix one corner of CCH-5 with Nails Hilti GX3 gun. Slowly unroll CCH-5 as per requirement 2-3m recommended, apply sealant and fix with Hilti nails as above. Make sure that CCH-5 is laying without any sags and maintaining proper centre line only. Drill holes at every 0.5meter vertically on horizontal end edges both sides 100mm cch area meant for fitment, with drilling machine for anchor fasteners and fix anchor fasteners on CCH-5. Also use Aluminium strips of small size as a washer in both Hilti nails & anchor fasteners to avoid tearing of CCH5 due to pressure of gun. Continue this same process upto end of CCH-5 laying of one complete joint. Mortar the groove after ensuring the fixing and hydrate the CCH5.



*Measurements & Marking*



*Concrete Cutting & Groove Formation*



*Cleaning & Dust removing*



*Filling Joints with Silicon Sealant*



*Sealant Work*



*Fixing on top with Hilti Nails*



*Fixing on middle with Hilti Nails*



*Fixing with Anchor Fasteners*

