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AN AUSTRALIAN FIRST FOR GRP JACKING PIPE



GRP Jacking Pipe is traditionally used for gravity sewer applications, however the Nightcap Water Treatment Plant project near Lismore NSW allowed an Australian first with pressure (PN16) FLOWTITE® GRP Jacking pipe selected and installed at the forefront of pipeline technology.

Project Overview

To support the growing population in the region of Lismore NSW, the Nightcap Water Treatment Plant required new outlet works to increase the capacity of the treatment plant.

There were a number of design options considered for the project. DN1400 PN16 FLOWTITE® GRP Jacking Pipe was chosen for its axial strength and high quality pressure joint. This was an Australian first as traditionally GRP Jacking Pipe is generally used for gravity applications only.

RPC Pipe Systems manufactured the FLOWTITE® pressure class jacking pipe in their world class state of the art FLOWTITE® plant in Lonsdale Adelaide. RPC worked in collaboration with the client and Iplex Sales Engineers todevelop and design the jacking pipe to the projects requirements.

In order to withstand the design pressure, key aspects of the FLOWTITE® GRP jacking pipe were designed and developed. For example, specially designed grout ports were designed and pressure tested up to 32 bar (32000kPa) and procedures for sealing up the inter-jacking stations were also implemented in order to achieve the design rating.

FLOWTITE® GRP pressure jacking pipes are recognised for their high axial compressive strength and ring stiffness. Their light weight to strength ratio enables a pipe which can be easily maneuvered down the shaft, making it a perfect fit for this project.

Local support was provided throughout the process and installation, including the provision of GRP expertise for the on-site laminating of IJS joints.

The project was delivered seamlessly with pipe deliveries staged to align with installation scheduling and workings around the sites remoteness and restrictions. Technical support from Iplex and RPC Pipe Systems was also provided throughout the installation.

The benefits of local manufacture and technical support from Iplex and RPC, combined with the ability to manufacture customised jacking pipes to meet projects requirements, makes FLOWTITE® GRP jacking pipe system the ideal solution for complex and demanding trenchless projects.

PROJECT

Nightcap Water Treatment Plant

LOCATION

Lismore NSW

PRODUCT

DN1400 PN16 SN128,000 FLOWTITE® GRP Jacking Pipe

LENGTH:

360m

METHOD

Pipe Jacking

GROUND CONDITION

Hard Rock

