PROYEK PENGADAAN DAN PEMASANGAN JARINGAN PIPA HDPE DN 300 MM, JALAN BY PASS KM 7,1– JALAN BY PASS DEPAN KANTOR BANK NAGARI

LAPORAN TEKNIK

VINDY BRIYUANDA, S.P.

2441612152

PEMBIMBING :

Dr. Ir. Oknovia Susanti, M.Eng, IPM

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Vindy Briyuamda[1*], Oknovia Susanti[2],
[1]Program Studi Pendidikan Profesi Insinyur, Sekolah PascaSarjana Universitas Andalas
*briyuandav@gmail.com

ABSTRAK

Latar Belakang: Air bersih menjadi kebutuhan mendasar pada kehidupan manusia. Kelancaran distribusi air bersih menjadi langkah awal pemenuhan kebutuhan masyarakat oleh Perumda dengan melakukan pemasangan pipa jalur distribusi air bersih. Tantangan utama dalam distribusi air bersih adalah ketersediaan sistem perpipaan yang efisien, tahan lama, dan mampu mengalirkan air dengan tekanan yang memadai tanpa kebocoran.
Metode: Pekerjaan meliputi tahap pengadaan material, persiapan lokasi, pemasangan pipa dengan metode butt fusion, hingga pengujian sistem. Pipa HDPE dipilih karena keunggulannya, seperti ketahanan terhadap korosi, fleksibilitas tinggi, dan daya tahan yang sesuai dengan kondisi lapangan. Hasil pengujian menunjukkan bahwa sistem telah memenuhi spesifikasi teknis, dengan hasil uji tekanan hidrostatik mencapai standar yang ditetapkan tanpa indikasi kebocoran.
Hasil: Total panjang pipa HDPE DN 300 mm yang terpasang adalah 1.244 meter. Uji tekanan hidrostatik dimana semua sambungan pipa berhasil lolos uji dengan tekanan uji sebesar 7.5 BAR selama 24 jam. Gambar as-built telah disusun sesuai kondisi aktual di lapangan. Proyek selesai dalam waktu 180 hari kalender, sesuai jadwal yang direncanakan.
Simpulan: Pengadaan dan pemasangan pipa HDPE DN 300 mm telah selesai dengan hasil yang sesuai standar teknis, termasuk SNI 4829 dan ISO 4427. Proses pelaksanaan berjalan lancar, mulai dari perencanaan hingga pengujian akhir.

Kata kunci: Pipa HDPE, instalasi pipa, butt fusion, uji tekanan hidrostatik

HDPE PIPE NETWORK PROCUREMENT AND INSTALLATION PROJECT, 300 MM DN, BY-PASS ROAD KM 7.1–BY-PASS ROAD IN FRONT OF BANK NAGARI OFFICE

Vindy Briyuamda[1*], Oknovia Susanti[2],
[1]Engineering Professional Education Study Program, Graduate School, Andalas University
*briyuandav@gmail.com

ABSTRACT

Background: Clean water is a fundamental human need. The smooth distribution of clean water is the first step in meeting the community's needs by installing clean water distribution pipes. The primary challenge in clean water distribution is the availability of an efficient, durable piping system capable of delivering water at adequate pressure without leaks.
Methods: The work included material procurement, site preparation, butt-fusion pipe installation, and system testing. HDPE pipe was selected for its advantages, such as corrosion resistance, high flexibility, and durability suitable for field conditions. Test results showed that the system met technical specifications, with hydrostatic pressure tests reaching the established standards with no indication of leaks.
Results: The total length of 300 mm DN HDPE pipe installed was 1,244 meters. All pipe connections successfully passed the hydrostatic pressure test, which was subjected to a pressure of 7.5 BAR for 24 hours. As-built drawings were prepared based on actual field conditions. The project was completed within 180 calendar days, according to the planned schedule.
Conclusion: The procurement and installation of DN 300 mm HDPE pipe has been completed in accordance with technical standards, including SNI 4829 and ISO 4427. The implementation process ran smoothly, from planning to final testing.

Keywords: HDPE pipe, pipe installation, butt fusion, hydrostatic pressure test