

Improvement of Production Process of HDPE Pipes.

BOUBYAN PETROCHEMICAL COMPANY (K.S.C)¹ AND KUWAIT FOUNDATION FOR ADVANCEMENT OF SCIENCES²

¹Boubyan Petrochemical Co.

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ABOUT THE PROJECT:

Muna Noor faced a challenge/problem when it attempted to produce a large diameter HDPE pipe thick walled. The problem was the pipes would sag when attempting to increase the diameter to the required large measurement. Several attempts were made to overcome the problem (trial & error) but ended up in increased costs, wasted time and raw material.

1. A BRIEF DESCRIPTION ABOUT THE COMPANY

Boubyan Petrochemical Company (BPC) is a publicly held company, listed on the Kuwaiti Stock Market. BPC invests in industrial/petrochemical and other sectors. The company holds several investments in downstream petrochemicals such as polymers, packaging and pipes. One of these investments is a wholly owned company for pipe manufacturing in Oman.

The Muna Noor Group, whose facilities are located all over Oman, specialize in the production and sales of HDPE pipes of various sizes (up to 1.2 meters in diameter) along with PVC pipes and some fittings.

2. THE SCIENCE, TECHNOLOGY AND INNOVATION IMPACT ON THE PROJECT

The process parameters that were incorporated have resulted in enabling the facility to tap into a new market that was hard to reach due to the stringent requirements. It also led to a more efficient production of thick-walled, large-size pipes without the unnecessary direct loss of raw materials.

3. IMPACT ON THE COMPANY

As Muna Noor is a wholly owned subsidiary of BPC, any effective solution would have a direct impact of the results to the parent company. As such, the solution have resulted in the following:

- More efficient production process (better utilization of labor and raw materials).
- Enhanced motivation in the work force, both labor and management alike.

4. KFAS FUNDING & SUPPORT

KFAS was helpful by initially co-funding the first and second phases of the project as well as providing support throughout

both phases. KFAS facilitated the introduction to the German institute "SET Technology GmbH" who in turn conducted a search and located the right institute. The knowledge provider which was selected has helped in reconfirming the use of a suitable raw material and then incorporating specific process parameters to result in a uniform thick-walled HDPE pipe that does not suffer from sagging.

5. WOULD YOU RECOMMEND KFAS PROGRAMS TO OTHER COMPANIES?

We would certainly recommend any entity that faces any challenge whatsoever and has access to KFAS funding, to immediately apply to the suitable KFAS program. What we found impressive in KFAS is their follow up on the progress of the project through having periodical joint meetings with the institute in charge. I wish those in charge of the program every success.

FUNDING INFORMATION

This project was co-funded by the Innovation & Enterprise Directorate, Kuwait Foundation for Advancement of Sciences to support in-house R&D for the development of Science, Technology and Innovation in Boubyan Petrochemical Company.

CONTACT INFORMATION

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