

Application market of anticorrosive robot in pipeline

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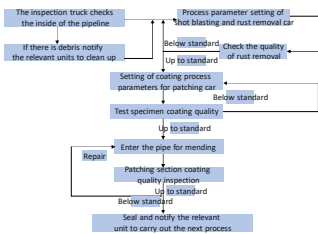
Objectives

The application of plastic coated pipeline in rural water supply projects is more and more extensive, but the small diameter pipeline is easy to destroy the internal anti-corrosion layer after welding, in order to solve the above problems, the goal of this topic is to form a set of economic and reasonable and can ensure the quality of pipeline anti-corrosion solution - anti-corrosion robot application technology



Methods

1. Study the quality problems caused by the welding of plastic-coated pipes: the internal anti-corrosion layer is burned and destroyed
2. In order to solve the above quality problems, the process can be taken: removal of anti-corrosion materials after burning, polishing of the anti-corrosion surface of the pipe, internal spraying of anti-corrosion materials, quality acceptance
3. Pipeline anti-corrosion robot design: mainly includes power system, communication system, grinding system, spraying system and monitoring system design
4. Process test: The research group carried out spraying experiments on DN150 and DN200 pipes respectively to form construction methods and quality control points



Results

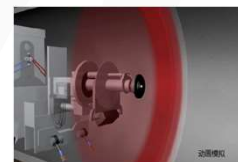
1. Through the research of the research group, the design results of anti-corrosion robot in the plastic-coated pipeline within the range of DN150 ~ DN600 were formed
2. Through the field experiment, the water passing capacity and anti-corrosion effect of the pipeline after treatment by the internal anti-corrosion robot have reached the expected goal
3. According to the on-site calculation, the construction speed of the internal anti-corrosion robot is close to the welding speed
4. Form a set of anticorrosion construction technology method in the pipeline



Shot blast truck



Wire brush sanding rust removal car



Two-component liquid spraying car



Inspection car

Conclusions

- 1 The connection methods of plastic coated pipes are mainly wire connection, flange connection, bimetal welding, etc., of which wire connection is only suitable for small-caliber low-pressure pipes, because flange connection and bimetal welding need to match flanges and embedded metals, so each interface, the construction cost of the internal anti-corrosion robot is about 100 yuan lower than the above process, with good economic advantages
- 2 The internal anti-corrosion robot is used for welding machine, and the pipeline can make turns with the change of terrain, and can realize welding and internal anti-corrosion construction at the same time, and the construction is convenient
- Therefore, the anticorrosive technology of internal anticorrosive robot pipeline has a broad application prospect in rural water supply projects

