Activa Netcom & Energy Systems

High-Pressure Pipeline Welding Medium-Frequency Heat Treatment Complete Set of Equipment

Overview

This specification outlines the requirements for welding, backcladding, overlay, tube to tubesheet welding, preheat and post-weld heat treatment of vessels, heat exchangers, piping and piping components, heater tubing and other equipment, including tanks. High-pressure pipelines refer to specialized equipment and pipelines used in production and daily life, which may pose risks such as explosion or poisoning. The welding of high-pressure pipelines is a critical process that directly affects the safety performance and service life of the pipelines. After welding, certain metals (especially alloy steels, carbon steels, or metals prone to cracking) benefit from controlled. Medium frequency heater is a special equipment for pipe end preheating and anti-corrosive treatment,which could improve work quality and efficiency, it adopt electromagnetic sensor technology, features uick heating speed, high heating efficiency, good control capacity, etc. The challenges in these environments require advanced welding procedures that can handle.

Article Content

Industrial Pipeline Welding | Springer Nature Link

Pipes are typically welded using high frequency induction welding (HFIW) and submerged arc welding (SAW), both high productivity techniques. This chapter overviews

A critical review on high-frequency electric-resistance welding of ...

1. Introduction High frequency electric resistance welding (HF-ERW) is a part of the group of resistance welding process variations that involves passing an electric current through the

Post Weld Heat Treatment

Our team of engineers and highly experienced specialists is able to perform a wide array of PWHT services for industries like construction, pressure piping, bridges, offshore platforms, storage tanks,

LOCAL POST WELD HEAT TREATMENT OF WELDED STEEL PIPES

Local post weld heat treatment (LPWHT) is recommended after high frequency electric resistance welding (HFERW) to refine and unify grain size structure and improve mechanical properties of the

PID control method of oil pipeline welding heat treatment with constant ...

The quality of the temperature control algorithm of the medium frequency induction heating power supply will directly affect the quality and efficiency of welding, and too low temperature may lead to

Three-dimensional analysis of medium-frequency induction heating of ...

As shown in Fig. 1, high-frequency welding and medium-frequency heat treatment of the steel pipe are a continuous process. After high-frequency welding, the HFIW pipe has to undergo

Study on the effects and mechanisms of induction heat treatment

Abstract The low toughness of the high frequency welded pipe welds seriously affects the performance of the welded pipe. Two induction heat treatment cycles of quenching + tempering

Welding of P355NH steel for the construction of a medium-pressure

Introduction S355PNH steel is currently the most recognized structural steel applied in manufacturing of medium-power gas pipelines. The steel is used for production of a pressure equipment, including

WELDING FOR EQUIPMENT AND PIPING

This specification outlines the requirements for welding, backcladding, overlay, tube to tubesheet welding, preheat and post-weld heat treatment of vessels, heat exchangers, piping and piping components,

In-service and repair welding of pressurized hydrogen pipelines–a ...

In some cases, it is necessary to carry out welding work on pipelines while they are under pressure, e.g., the well-known tapping of NG grids. This in-service welding brings additional

Why high frequency induction pipe welding matters

You rely on high frequency induction pipe welding to meet the rigorous demands of oil and gas pipeline projects. This method offers high welding speeds and energy efficiency, which are critical for large

The effects of post weld heat treatment for welded high-Mn austenitic ...

The present work aims to investigate the microstructure and mechanical properties of SAW welded high-Mn steel with 24 wt% Mn content. In addition, various heat treatment temperature

A critical review on high-frequency electric-resistance welding of ...

This review covers the process fundamentals, physical metallurgy, weld performance, and recent research for improving HF-ERW weld quality. The evolution of microstructure and

Tackling the Toughness of Steel Pipes Produced by High Frequency ...

Abstract Steel linepipes produced by high frequency induction welding can result in a low–toughness zone at the weld junction, even after a heat treatment which reaustenitises the affected region. The

Improvement of the joint quality in the high-frequency induction ...

High-frequency induction welding (HFIW) is among the most commonly used methods for producing roll formed pipes. In this paper, weld quality is evaluated through examining the weld

Induction Post Weld Heat Treatment Machines for

Consistent heat treatment of these welds using induction reduces residual stress and helps ensure long-term integrity, especially in pipelines intended for high

Influence of High-Frequency Welding Production Parameters on

The influence of high-frequency current welding by a pressure method on cold resistance of a low-carbon steel welded pipe joint with edge convergence angles of 4° and 7° in regimes without

Post Weld Heat Treatment: Complete ASME Guide

Post Weld Heat Treatment (PWHT) is a critical thermal process applied to welded materials to reduce residual stresses and restore the mechanical properties of the

Contact Us

For more information, pricing, or custom solutions, please contact us:

Website: https://www.activa.net.pl
Email: sales@activa.net.pl
Phone: +48 662 748 193
Address: ul. Cybernetyki 7B, 02-677 Warsaw, Poland

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