

Anode Pads

In realizing the importance of applying efficient anti-corrosive measures that can lengthen the life of the pipe, Tenaris offers a tailor-made anode pad installation service. This service involves installing anode pads prior to applying protective coating systems to line pipes which produces a better quality final product and reduces installation time of the anode itself.

Installing Anodes without Anode Pads

Corrosion, abrasion, and other forms of wear reduce the thickness of pipeline walls, which leads to pipeline failure.

To assist in the protection against corrosion, protective coatings are applied to the pipes, along with anodes, which are cathodic protective accessories fitted at specific intervals on the pipeline.

Anodes are usually installed after the pipe has been coated, however attaching the anodes at this stage increases the risk of damaging the pipe because the coating has to be removed in order to install the anode, which ultimately increases time at the installation phase.

The Tenaris Solution

In response to our customers' request to decrease time at the installation phase, Tenaris developed the anode pads solution. Overall, this process improvement ultimately reduces cost,

increases production efficiency, and effectiveness of the cathodic protection and protective coating systems.

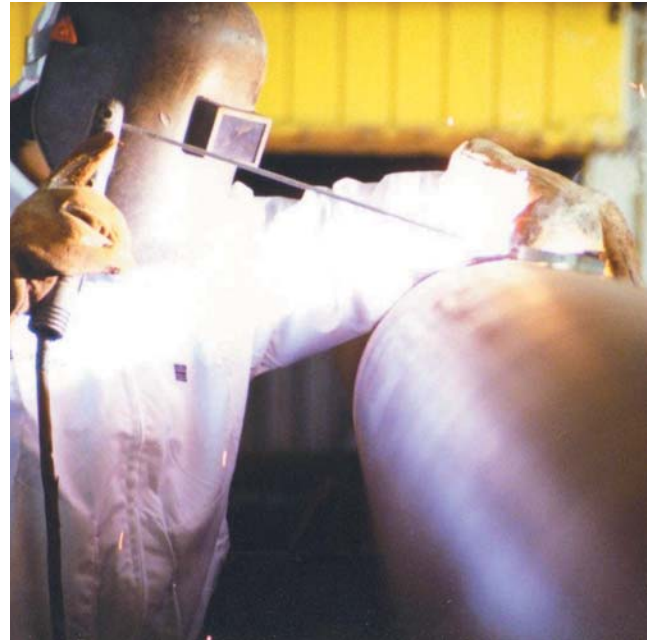
With this solution, the anode pads are created from a mother pipe that is certified with the same mechanical properties and steel grades (i.e. X52, X65) as used in the line pipe. The mother pipe can also be manufactured to have a specific anode pad steel grade, such as SA275JO.

It is important to note that Tenaris installs the anode pads on uncoated pipe. After the anode pads have been attached to the pipe using the Shield Metal Arc Welding Process, the protective coating is applied.

At this stage, the Tenaris Project Manager works with the client to guarantee on-time delivery of the coated line pipe with anode pads



▲ Coated line pipe with installed anode using anode pads



already attached, according to the client's specification.

Advantages of the Tenaris Solution

This method ensures continual coating of the pipe because only the coating on the surface of the anode pad has to be removed in order to install the anode. This virtually eliminates the need to remove the coating, weld the anode pad, and repair the coating.

For your benefit, the Shield Metal Arc Welding Process provides better mechanical resistance due to the circumferential welding method that evenly distributes the stress to prevent stress

concentration. This welding method also produces a low hardness value on the Heat Affected Zone of the pipe and avoids any contamination on the surface of the pipe, as opposed to the diffusion of alloy elements that occurs with other anode installation processes.

For your benefit, Tenaris can manufacture the anode pads with a ventilation hole that reduces the entrapment of gases during the installation process. Overall, the Tenaris solution produces a better quality final product and saves time at the installation phase of the pipe line production process.

Technical Specifications

Anode pads are metal circumferences that are welded on the exterior of the line pipe and are designed to expose the metal portion to make contact with the terminal anode.



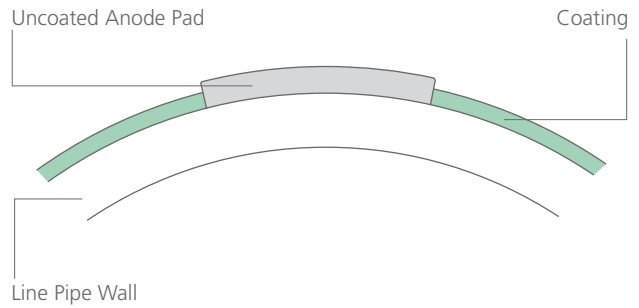
Full Product Range of Tubular Accessories

At Tenaris, ensuring that we develop the right product solutions to meet the needs of our valued clients is a permanent objective. We offer a full suite of innovative tubular accessories which include J-Lay Collars, Bends, Buckle Arrestors and services like Internal and External Coating and Double Jointing. To support our product offering, we provide customers with their own Tenaris Project Manager. This individual serves as the

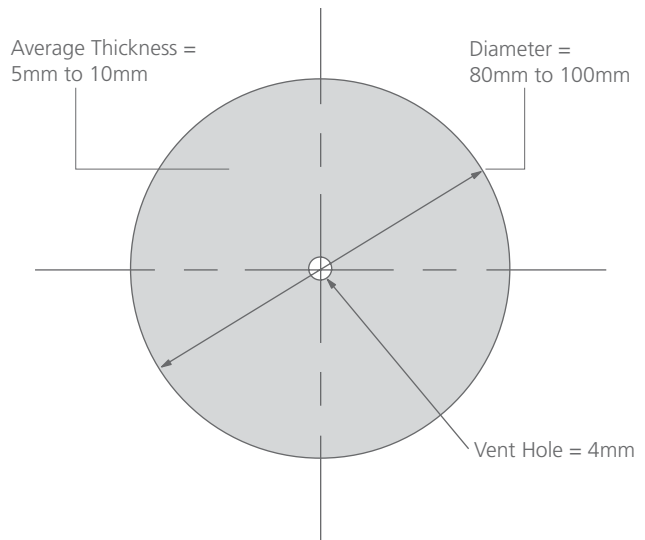
single, proactive communications channel throughout the duration of the project and ensures on-time delivery of the full order.



ANODE PAD CROSS SECTION



ANODE PAD COMMON DIMENSIONAL RANGE



◀ This is a leftover piece of a mother pipe after the anode pads have been cut out. The mother pipe is certified with the same mechanical properties and steel grades (i.e. X52, X65) as used in the line pipe.

Contact Us

For further information, please contact your local Sales Representative or

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