

# **Jetting / Spray Scrapers**



Injection or batching of corrosion inhibitor fluid can help reduce pipeline deterioration, but gravity naturally forces the inhibitor to settle along the bottom of a pipe, leaving the top of the pipe unsaturated and most vulnerable to corrosion. IKS Corrosion Inhibitor Spray Scraper is designed to defy gravity by spraying corrosion inhibitors onto the inside top portion of multi-phase gas gathering or gas transmission pipelines.

The Spray Scraper works based on the dynamics of bypass flow and differential pressure, with no moving parts or pressure vessels to fill and charge. Instead, the Spray Scraper allows the higher pressure to flow through its body and spray head. Bypass flow acts as the accelerant to transfer and vaporize fluid while creating a low-pressure area in the spray nozzle as it passes through. This pressure drop creates a vacuum at the Spray Scraper front inlet ports, and this vacuum draws up residual corrosion inhibitor that has settled on the bottom of the pipe.

Contact: IKS For Industries T: +966 13 809 5245 E: <u>sa-post@iksaudi.com</u> www.iksaudi.com

#### Address:

2<sup>nd</sup> Industrial City, Road 122 by 23, Building No. 3744, Zip Code 34325, Dammam, Saudi Arabia. Google map location: <u>**Click here**</u>



The reclaimed corrosion inhibitor is then redeployed by the nozzles as an atomized spray at about a 45-degree angle onto the top half of the pipe's inner wall. The atomized spray also creates an increasingly dense vapor cloud that is pushed ahead of the scraper during the entire run, helping to coat all areas of the pipe wall with inhibitor.

## **Design Features**

A removable pendulum jetting head assembly is fitted onto the scraper to help it maintain proper nozzle orientation (12 O'clock position) during each run.

For liquids with physical properties similar to water, each nozzle typically delivers approximately three quarts per minute at 15 psi. Inhibitor delivery rates will vary depending on differential pressure, fluid viscosity, and specific gravity.

Featuring sealing conical cups molded of specially formulated urethane, the Corrosion Inhibitor Spray Scraper is designed to be sturdy and reliable during long runs.

The Corrosion Inhibitor Spray Scraper works well for the final stages of a cleaning program as a means of removing scale from the pipe's top inner wall.

## **Options**

- The Corrosion Inhibitor Spray Scraper is available in multiple sizes and nozzle configurations.
- The Corrosion Inhibitor Spray Scraper can be used as a stand-alone dewatering pig by simply dismantling its jetting head and plugging its by-pass opening. It can also be used in batching mode with a slug of inhibitor separating a batching scraper up front and the Corrosion Inhibitor Spray behind. This inhibitor slug serves as a reservoir to supply the Corrosion Inhibitor Spray Scraper nozzles and facilitates the creation of a dense inhibitor fog between the pigs as they move through the pipe.
- The Corrosion Inhibitor Spray Pig has also been successful in chemical cleaning applications.

All IK Saudi's scrapers are designed to pass minimum 1.5D radius bends and negotiate full bore branches.

All multi-bolt scraper body assemblies are welded to code standard BS EN ISO 15614-1:2004+A1:2008.

Contact: IKS For Industries T: +966 13 809 5245 E: <u>sa-post@iksaudi.com</u> www.iksaudi.com

#### Address:

2<sup>nd</sup> Industrial City, Road 122 by 23, Building No. 3744, Zip Code 34325, Dammam, Saudi Arabia. Google map location: <u>Click here</u>