AX-BIO BIO PROBE SYSTEMS

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For use with AXHP Access Systems

1-1/2” – 2” Access Ports and Devices available

Bio Probes

Axess-Corrosion offers a range of bio probes for monitoring of Microbiologically Influenced Corrosion (MIC) in high and low pressure systems. MIC often goes undetected in many industrial systems, but its importance should not be underestimated or ignored as microorganisms, including bacteria, algae, and fungi can accelerate corrosion by up to 1000 times. Not monitoring for Microbiologically induced corrosion can result in the improper use of corrosion inhibitors and coatings, resulting in significant waste and increased operating costs whilst not addressing the root problem. Bio probes offer plant operators a simple and effective tool for collecting samples for subsequent microbiological analysis in systems susceptible to MIC.

The most common forms of corrosion associated with MIC include pitting, uniform, crevice, galvanic, and stress corrosion cracking. Microbiological induced corrosion occurs in virtually every aqueous environment such as water treatment and sewage handling and treatment plants. MIC can also occur in oil & gas systems, chemical processing plants, and underground pipelines. Plant operators use chemical treatment, mainly biocides to kill the corrosion causing bacteria and other microorganisms to prevent or reduce corrosion. Physical cleaning or mechanical cleaning can control the effects of microbiological induced corrosion however the use of bio-probes can increase treatment effectiveness through verification and adjustment.

Axess bio probes provide an economical and safe means of collecting sessile bacteria samples deposited onto the metal surface of bio studs installed into the process. The Axess bio probe houses five bio studs which are exposed simultaneously to the process being monitored. When a sample is required for analysis the holder is retrieved from the line and one of the bio studs removed. A replacement stud is installed in the vacant space and the probe is reinstalled into the line. The next time a sample is required a different stud is retrieved and replaced. Following this pattern of replacement allows frequent sampling intervals whilst increasing exposure time for each stud.

Early detection and treatment is key to controlling microbiologically influenced corrosion once it has infected the system. Once the microorganisms have formed a biofilm, they become more resistant to biocides and can rapidly grow if not detected and controlled.

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Key Features

- Meets NACE MR1075 & MR0103
- 1 ½" Full Port Valve Minimum
- Low cost monitoring option
- Easy installation and maintenance
- Simple and Economical means of collecting bacteria samples for corrosion monitoring
- Indicator of level of microbiologically induced corrosion for the correct level and effective use of biocide treatments. This significantly reduces costs and minimizes dangerous effects to the environment
- Flush Probe with retrievable and retractable design ideal for frequently pigged pipelines
- Use in high or low-pressure systems, without the need for system shutdown

Sample Part Number:

HPBIO-5.25-A1

Model	Length	Stud Material
HP Bio Probe	5.25"	Carbon Steel