

GENERAL

Caproco offers a range of probes designed to sample the biofilm activity present in a process system. The biofilm probe incorporates a sampling stud design, which facilitates the accumulation of bacteria.

Microbiological activity is recognized as a significant contributor to corrosion problems encountered in many industries, but until recently it has been difficult to identify its occurrence and quantify the resulting damage. A testing system was needed that would allow easy sampling and identification of all types of bacteria present, along with an indication of the severity of attack. Caproco's biofilm probes are an important component to the MIC (microbially influenced corrosion) detection system.

APPLICATION

The biofilm probe is designed to be mounted flush in the pipe wall, with the probe face of five studs exposed for accumulating bacteria. The flush design gathers samples of the microbial activity present in residues along the pipe wall, and is useful in locations which are regularly pigged.

The exposed stud samples are analyzed through the use of the Caproco Hydrogenase Test Kit, and the results can be quantified by the Caproco MIC Analyzer Instrument.

Caproco biofilm probes are used in testing for:

- Anaerobe and sulphate reducing bacteria (SRB)
- Aerobes

The biofilm probe samples can also be used in common testing techniques such as epifluorescence.

The Caproco MIC system allows operators to evaluate the effectiveness of implemented biocide treatments in controlling bacterial-induced corrosion.

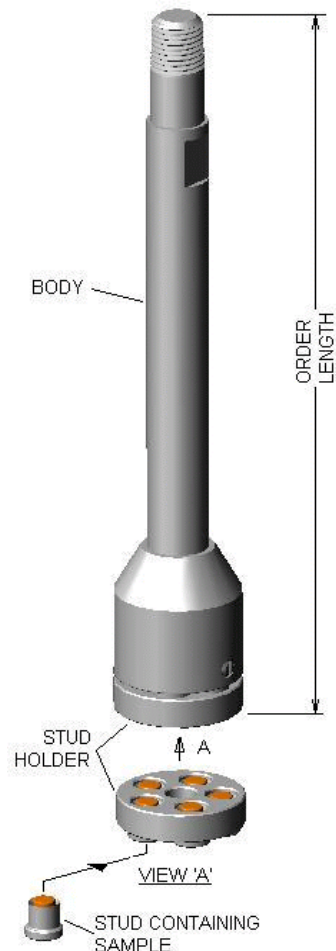
The sampling system is designed to avoid erroneous readings taken due to accumulation of dead bacteria on the stud. This is a common problem that can be found with other biofilm probes on the market.

SPECIFICATIONS

Maximum Operating Pressure	1,500 psi (10.3 MPa)
Maximum Operating Temperature	500°F (260°C)

Caproco biofilm studs are encapsulated and sealed in a plastic insulating body, while the exposed steel surface is sterilized prior to packaging.

Caproco biofilm probes are manufactured from 316 stainless steel with mild steel sampling studs. Probe bodies and studs are available in alternative materials upon request. Retractable probes are designed for mounting through a Caproco low pressure stuffing box / access fitting assembly, and are available in either 5 stud or 2 stud configurations.



PROBE LENGTH IS MEASURED FROM START OF NPT THREAD TO STUD HOLDER FACE

5 STUD PROBE WITH 1" Stuffing Box Assembly

(Note: Must Be Used With 1½" Thread-o-let)

LENGTH		PART NUMBER
(Inches)	(mm)	
22	558	66142
24	609	66143
26	660	66144
28	711	66145
30	762	66146
32	812	66147
34	863	66148
36	914	66149
38	965	66150
40	1,016	66151
42	1,066	66152

2 STUD PROBE WITH 1" Stuffing Box Assembly

(Note: Can Be Used With 1" or 1½" Thread-o-let)

LENGTH		PART NUMBER
(Inches)	(mm)	
22	558	66157
24	609	66158
26	660	66159

BIOFILM PROBE ACCESSORIES

DESCRIPTION	PART NUMBER
Stud Extraction Tool Kit	13356
Replacement Biofilm Stud Set (Set of 5)	12903
Replacement Biofilm Stud Set (Set of 2)	66042