

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.

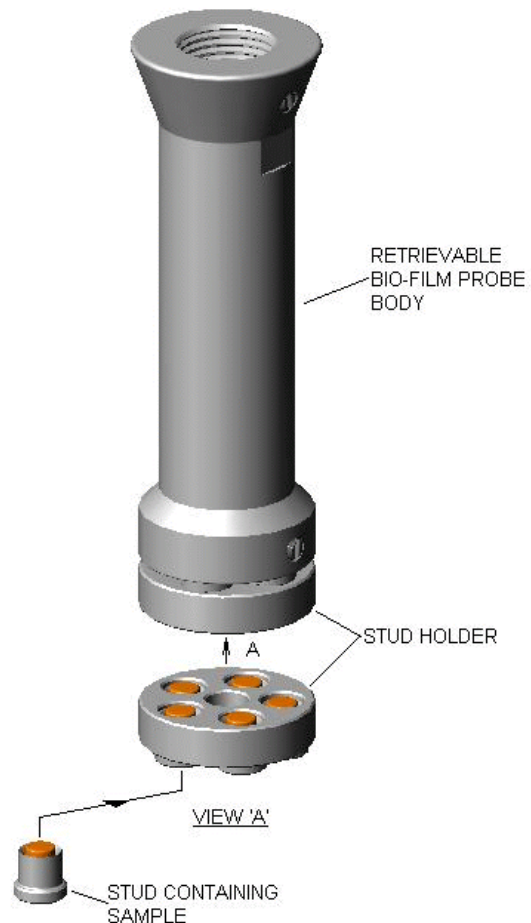
The sampling system is designed to avoid erroneous readings taken due to accumulation of dead bacteria on the stud. This is a common problem that can be found with other biofilm probes on the market.

SPECIFICATIONS

Maximum Operating Pressure	3,600 / 6,000 psi (24.8 / 41.4 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. Retrievable probes are designed for mounting with a Caproco solid plug through a standard 2" access fitting.



PROBE LENGTH IS MEASURED FROM SEALING FACE OF PROBE BODY TO STUD HOLDER FACE

LENGTH		PART NUMBER
(Inches)	(mm)	
3	76	13332
3 1/8	79	13333
3 1/4	83	13334
3 3/8	86	13335
3 1/2	89	13336
3 5/8	92	13337
3 3/4	95	13338
3 7/8	98	13339
4	102	13340
4 1/8	105	13341
4 1/4	108	13342
4 3/8	111	13343
4 1/2	114	13344
4 5/8	117	13345
4 3/4	121	13346
4 7/8	124	13347
5	127	13348
5 1/8	130	13349
5 1/4	133	13350
5 3/8	137	13351
5 1/2	140	13352
5 5/8	143	13353
5 3/4	146	13354
5 7/8	149	13355

BIOFILM PROBE ACCESSORIES

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