

Caproco offers a range of sensitive sand probes specifically designed to monitor erosion found in process systems.

The probe design utilizes a sacrificial hollow sensing element connected to pressure-sensitive equipment to alert users of potential pipe wall perforation.

Process piping engineering in recent years has achieved good progress in terms of designing systems that reduce the areas at risk from flow erosion. Flows are streamlined to avoid impingement and areas that are recognized as receiving heavy or turbulent flow are constructed using face-hardened materials. However, in some types of processes, especially those that carry sand in suspension in the product flow, erosion is an unavoidable concern. Caproco sand probes installed in these critical areas can reduce the risk of erosion-caused failures.

APPLICATION

The Caproco sand probe is exposed to the process flow through a high pressure assembly which includes the sensing element, sand probe nut, solid plug and access fitting assembly. This mounting assembly ensures line integrity is maintained even after the element is penetrated.

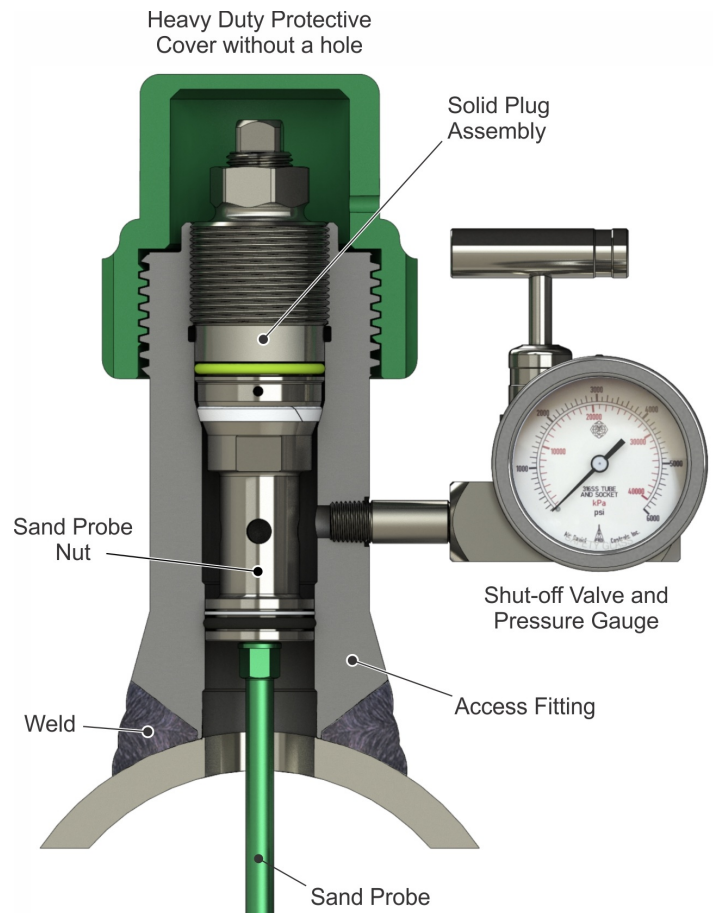
In use, the effect of sand or abrasives eventually erodes through the sacrificial sensing element, exposing the sealed assembly to the working pressure of the line. System pressure is then directed through ports in the sand probe nut to the tee portion of the access fitting body. Once there it passes through a nipple/valve assembly and registers upon either a pressure gauge or a remote alarm / shut-in pressure assembly.

Caproco sand probes elements are available in two designs. Projecting elements expose a larger surface area to the system while flush design is convenient for locations that undergo pigging. Caproco sand probes are available in retrievable, retractable and fixed configurations for both high and low pressure systems.

SPECIFICATIONS

Caproco sand probes are manufactured in 316 stainless steel or AISI 1018 mild steel elements. Probe elements are available in alternative materials upon request. Standard probes are designed for mounting through a Caproco 2" access fitting assembly.

Maximum Operating Pressure	3,600 / 6,000 psi (24.8 / 41.4 MPa)
Maximum Operating Temperature	500°F (260°C)



CONTACT CAPROCO FOR SIZING AND PART NUMBER INFORMATION