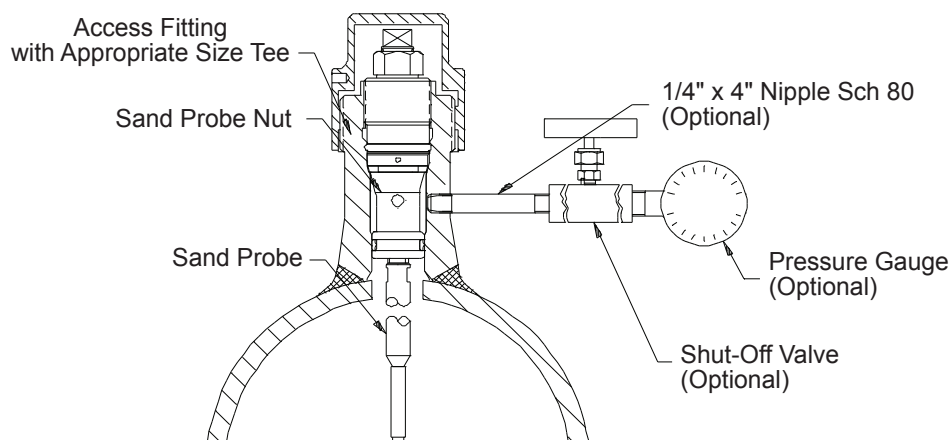


Model SP7000

Sand Probe for High Pressure (HP™ and MH™) Access Systems



(HP model shown here)

Model SP7000 sand probes are used to detect erosion in flow lines caused by abrasive particles such as sand. One end of the probe is attached to a tee-type, high pressure access fitting with a solid plug by means of a sand probe nut. The other end is a sealed, thin-walled tube placed within the process stream to be exposed to particulate flowing through the system. (To minimize the effects of corrosion and thus more accurately detect erosion within the stream, the exposed element is made of stainless steel.) As particulate impinges on the surface of the sensing element, a hole is eventually eroded through the element. Once penetration has occurred, the system pressure then travels up the tube, into the access fitting body, and through a nipple and valve to a pressure gauge assembly. The pressure gauge detects that the element has been breached. If required, electronic pressure sensors can be connected to alarm systems to signal the exact moment when failure occurs. The insertion length (I.L.) can range from 3.75" up to any length specified by the customer in 1/4" increments.

Specifications:

Probe Body - Stainless Steel

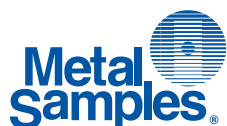
Temperature Rating - 500°F / 260°C

Pressure Rating - 3600 PSI / 245 Bar

Mounting - High Pressure (HP™ or MH™)
Access System with Solid Plug

Sand Probe Parts

MH Part No.	HP Part No.	Description
See chart on back	See chart on back	Nipple & Valve
See chart on back	See chart on back	Sand Probe Nut
HA700603	HA700603	Pressure Gauge
HA700645	HA700644	Solid Plug



Metal Samples Company

A Division of Alabama Specialty Products, Inc.

152 Metal Samples Rd., Munford, AL 36268 Phone: (256) 358-4202 Fax: (256) 358-4515

E-mail: msc@alspi.com Internet: www.metalsamples.com

Houston Office: 6327 Teal Mist Lane, Fulshear, TX 77441 Phone: (832) 451-6825

SP7000 Ordering Information

Model					
SP	Sand Probe for High Pressure (HP™ and MH™) Access Systems				
	Mounting Material				
	2	316			
	4	C276			
	U	Duplex 2205			
	Tube Material				
	2	316			
	4	C276			
	U	Duplex 2205			
	Tube Wall Thickness				
1	.016"				
2	.028"				
3	.035"				
Length (Round calculated length down to the nearest 1/4")					
XXXX	Length in inches, stated in 2 decimal place format (Ex: 6 1/4" = 0625)				
SP	2	2	3	0625	Example of Probe Ordering #

For alloys, sizes, or other special requirements not listed, contact our sales department.

Sizing Formulas: Shortest length available is 3.75".

Non-Flanged Access Fitting

$$(FH + PD/2) - (2.04 + N) = L$$

Flanged Access Fitting

$$(FH + PD/2 + MF) - (2.04 + N) = L$$

FH = Access Fitting Height N = Injection Nut Length L = Injection Tube Length MF = Mating Flange Height PD = Pipe Outer Diameter

Nipple & Valve Chart:

Access Fitting Tee Size	Valve 316 SS	Nipple, 4 in (100 mm) 316 SS Sch. 80
	Part No.	Part No.
1/4"	HA700022158	HA700018158
1/2"	HA700023158	HA700019158
3/4"	HA700027158	HA700020158
1"	HA700029158	HA700021158

Sand Probe Nut Chart:

Model	Length	Probe End Thread	Seal Material	Alloy Code
IQN ---	--- X ---	--- X ---	--- X ---	--- XXX
	1 - 1.75" 2 - 2.75" 3 - 3.75" 4 - 4.75" 5 - 5.50" 6 - MH (3.50")	2 - 1/4" - 18 NPT	0 - N/A 1 - Viton® o-ring / Teflon® backing ring 2 - Ethylene propylene / Teflon® backing ring 3 - Kalrez o-ring / Teflon® backing ring 4 - Hydrin o-ring / Teflon® backing ring 5 - Nitrile o-ring / Teflon® backing ring 6 - Teflon® o-ring / Teflon® backing ring	158 - 316 SS A12 - C276