

Model **6203**

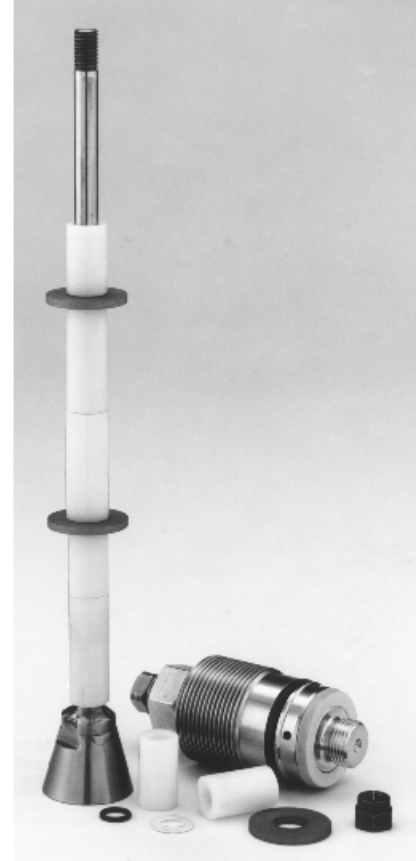
# COSASCO<sup>®</sup> Two-Inch System Multiple Disc Coupon Holder

## Specifications:

- **Meets NACE MR0175 and MR0103**
- **Simultaneously Monitors  
Top, Middle, and Bottom of a Pipeline**
- **Material — 316 S.S.**

Multiple Disc Coupon Monitoring is available for pipes with internal diameters of 6" or more and is one of several methods of coupon monitoring offered by Rohrback Cosasco. This configuration has the following particular advantages:

- 1) Inherent orientation parallel to flow
- 2) Greater surface area at a specific level
- 3) Greater quantity and variety of coupon materials  
Permissible per fitting
- 4) Easier monitoring in stratified or multi phase flow
- 5) Coupon location in recess area of access fitting for  
Monitoring in gas pockets or stagnant areas.



For pipe sizes less than 6" inside diameter, the disc monitoring system which is limited to a single coupon is recommended. A typical multiple disc coupon holder is shown to the right. The coupon holder attaches to the bottom of the solid plug body in the access fitting assembly, replacing the nut of the solid plug assembly and also serving as the primary packing retainer. Attachment of the rod is by means of a left-hand threaded nut which is locked securely into place on the solid plug body by an Allen head set screw. These materials satisfy the recommended requirements of NACE standard MR0175 for resistance to sulfide stress cracking (SSC) induced environments.

The disc coupons are insulated from the holder rod by Nitrile O-rings, and from each other by Delrin spacers. The spacers also provide spacing of the coupons on the holder rod. The complete spacer and coupon arrangement is retained on the holder by a single lock nut and insulating washer.



The coupons are each 0.125" thick and insulating spacers are available in 0.0625" steps from 1" (minimum). The coupon holders are available in 1/8" increments from 8" to 12", 1/4" increments from 12" to 18", 1/2" increments from 18" to 24", and 1" increments from 24" to 48". Only the actual rod length will accommodate coupons and spacers. There is a minimum 1" coupon-to-coupon spacing. The nearest coupon position to bottom of the pipe is 3/4", unless a trap is available adjacent to this position.

## GENERAL SIZING

The length of the coupon holder should first be calculated for a particular application. The formula allows for full pipe width coverage although it may be shorter if required. On full width pipe coverage, a 1/4" clearance margin is allowed to the bottom inside surface of the pipe to prevent the holder from striking the pipe before the plug assembly seals.

Once the holder length has been chosen, this fixes the actual rod length (X) available for coupons and spacers. Any combination may be used, provided the total length of spacers and coupon thicknesses add up to this (X) dimension.

### 1. Holder Sizing:

First calculate the following constant (C):

$$C = A + Wg \text{ (Non Flange Fitting, See Figure 1)}$$

Full coverage Holder length:

$$L = C + PD - PW - 2.75$$

NOTE:

A = A/F Body Height

Wg = Weld Gap

PD = Outer Pipe Diameter

MF = Mating Flange Height

Fg = Flange Face to Face Gap

PW = Pipe Wall thickness

Take the calculated length of the next shortest standard holder length (L) to obtain part number. This is then the length used for the following sizing formula. If the coupon holder extends into a trap or fits into any other vessel, replace (PD - PW) in formula above by the equivalent internal space available.

## Ordering Information:

Model		
6203	Multiple Disc Coupon Holder	
	<b>Code</b>	<b>Coupon Holder Length - 8.00 Inch to 48.00 Inch</b>
	XX.XX	Indicate Length In Inches to Nearest 1/8 Inch
<b>6203</b>	<b>10.50</b>	<b>← Example</b>

<b>Unit Weight:</b>	Up to 3 inches:	1 lb./ .45 kg.
	3-10 inches:	2 lbs./ .90 kg.
	10.25-20 inches:	3 lbs./ 1.36 kg.
	20.25-36 inches:	5 lbs./ 2.27 kg.

### Accessories

**COUPON-TO-COUPON INSULATION SPACERS**  
625033-LL.LL (Available in 1/16" increments to 1")

**COUPON-TO-ROD O-RING BUSHING**  
Part number 103709 (One(1) required for each coupon used)

### 2. Spacer Sizing:

$$\text{Rod Length (X)} = L - 1.9375$$

a. For coupon 1 top-of-line monitoring:

$$l_1 = C + PW - 3.8125$$

NOTE: All coupons and spacer combinations used must add up to this dimension.

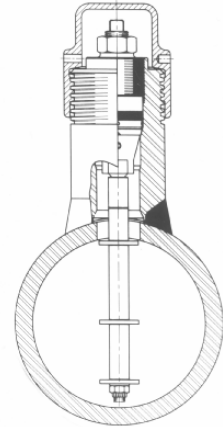
NOTE: All spacers should be rounded down to the nearest 1/16.

b. For coupon 2 center-of-line monitoring:  
 $l_2 = C + PD/2 - l_1 - 4.125$

c. For coupon 3 bottom-of-line monitoring:  
 $l_3 = X - l_1 - l_2 - 0.375$

d. Final check for 3 coupon holders:  
 $X = l_1 + l_2 + l_3 + 0.375$  (3 coupons)

Fig. 1 — Top of line monitoring



### HOW TO ORDER:

Determine the length of coupon-to-coupon insulation spacers, using the sizing formula. Also, determine the number of coupon-to-rod o-ring bushings and order accordingly using the part numbers listed above.



Rohrbach Cosasco Systems, Inc.  
11841 East Smith Avenue  
Santa Fe Springs, CA 90670, USA  
Tel: (1) 562-949-0123 Fax: (1) 562-949-3065  
US Toll Free: 800-635-6898  
E-Mail: [sales@cosasco.com](mailto:sales@cosasco.com)  
Web Site: [www.cosasco.com](http://www.cosasco.com)

