

### GENERAL

Corrosion coupons are a simple yet effective tool for providing a quantitative estimation of corrosion rates occurring in an operating system. They also provide a visual indication of the type of corrosion which may be occurring in the monitored system.

### THE CORROSION COUPON

- Is a piece of metal of predetermined shape, size and surface area
- Is a metal of similar chemical composition to the process equipment
- Has a uniform reproducible surface finish
- Has a distinguishing serial number
- Is exposed to the same corrosive medium as the process facilities
- Is exposed for a fixed period of time
- Gives visual indication of the type of corrosion
- Indicates the rate of corrosion

Every Caproco coupon is stamped with a unique serial number, and every coupon order is supplied with written certification, including: serial number, material, weight and dimensions. All Caproco coupons are weighed to four (4) decimal places, packaged individually in vapour phase inhibited envelopes and hermetically sealed for a one (1) year shelf life.

Caproco standard coupons are grit-blasted and furnished with insulation for mounting. Mounting hardware is supplied with the coupon holder. Polished, ground or weld bead coupons are also available.

Coupons manufactured from any material and dimension are available on request. Material may be customer-supplied to match an existing system.

### STANDARD COUPON SPECIFICATIONS

#### Strip Coupon - 3/4" Width (Fig.1)

Commonly-used coupon supplied for most evaluations. The size is 3" x 3/4" x 1/8" (76.2mm x 19.0mm x 3.2mm) with two (2) mounting holes. The exposed surface area is 4.65 in<sup>2</sup> (3,000mm<sup>2</sup>).

#### Strip Coupon - 1/2" Width (Fig.2)

Used with low pressure access equipment or through narrow ports that a standard 3/4" wide coupon

cannot pass. The size is 3" x 1/2" x 1/16" (76.2mm x 12.7mm x 1.6mm) with two (2) mounting holes. The exposed surface area is 2.65 in<sup>2</sup> (1,709mm<sup>2</sup>).

#### Rod Coupon (Fig.3)

This pencil-like coupon is screwed into an insulator which is then screwed into an NPT Bullplug Coupon Holder. The rod coupon standard size is  $\varnothing$  1/4" x 4" ( $\varnothing$  6.3mm x 101.6mm), with a milled flat area for the serial number. One end is threaded for screwing the coupon into the insulator, the other is notched to accept a flathead screwdriver. The exposed surface area is 3.27 in<sup>2</sup> (2,109mm<sup>2</sup>).

#### Flush Disc Coupon (Fig.4)

These circular coupons are used where coupons cannot protrude into the line and interfere with flow or pig passage. Standard size is  $\varnothing$  1.25" x 1/8" ( $\varnothing$  31.8mm x 3.2mm). A chamfered hole allows for mounting with nylon flathead screw and back-up disc insulation. The exposed surface area is 2.40 in<sup>2</sup> (1,548mm<sup>2</sup>).

Fig.1 Strip Coupon 3/4" x 1/8" x 3"lg



Fig.2 Strip Coupon 1/2" x 1/16" x 3"lg



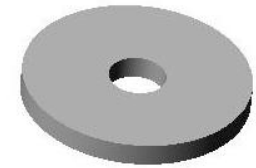
Fig.3 Rod Coupon



Fig.4 Flush Disc Coupon



Fig.5 Disc Coupon

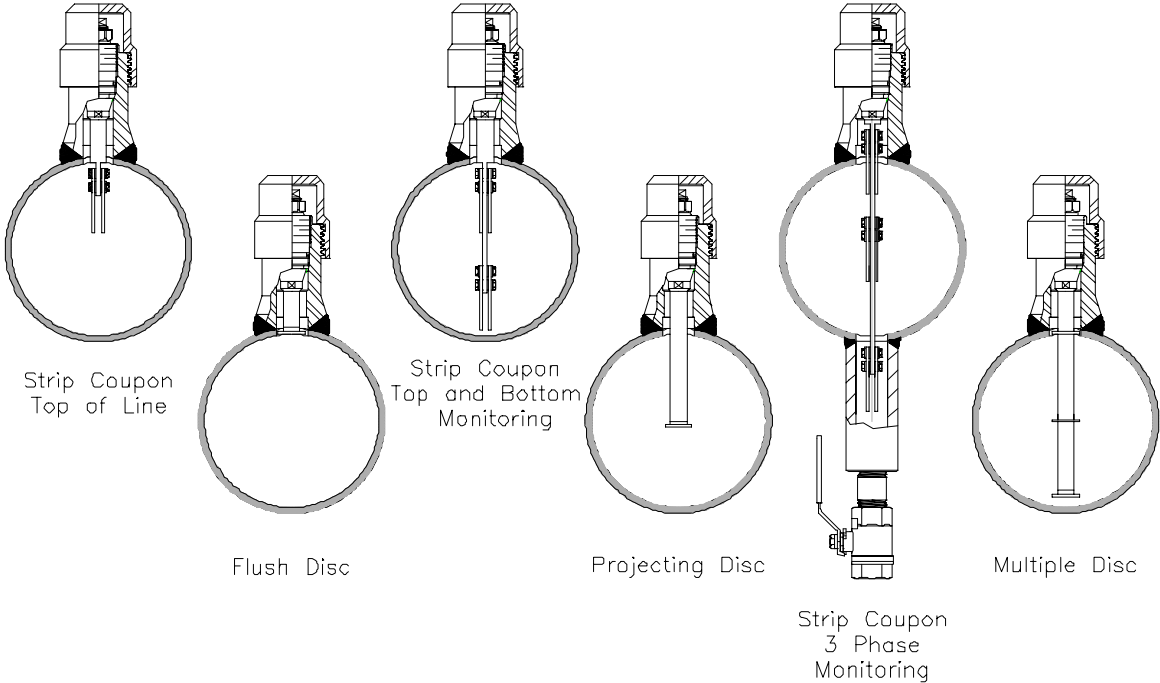




**CORROSION COUPONS**

Fig.6 Typical Coupon Monitoring

–With Access Fittings



–With Bullplugs Holders

