

COUPONS

EuropCorr® weight loss corrosion coupons are made to study corrosion and erosion behaviour in pipelines and vessels. It is the simplest, least expensive and longest-established method of estimating corrosion losses in operating system.

The weight and surface preparation of coupon is recorded before insertion into the process stream and later removed after a reasonable exposure period, the coupon is then cleaned of all corrosion product and then re-weighed and visually analyzed. The weight loss is converted to a total thickness loss, or average corrosion rate using proper conversion equations. Lab analysis provides the corrosion rate (mpy), observations (before and after cleaning) and measurements regarding visual damage (such as pitting and scaling).

Coupon is a piece of metal of predetermined shape, size and surface area, usually manufactured from alloys having similar or the same chemical composition as the pipeline or vessel being monitored, has a uniform reproducible surface finish exposed to the same corrosive medium as the process facilities. The weight loss or other change of the coupons can be representative of the weight loss of the pipelines or vessels. Coupons can be manufactured in any configuration and material, the material may be customer-supplied to match an existing system.

EuropCorr® coupons are manufactured according to NACE specifications and each coupon is marked unique serial number for proper identification, all coupons are provided with written certification showing serial number, weight in grams up to four decimal points, dimension and material. Each coupon is individually packaged in moisture resistance inhibited envelope and with a corrosion free shelf life of one year.

Coupons are usually grit-blasted and furnished with insulation for mounting. The mounting hardware are supplied with the coupon holders.

EuropCorr® special coupons are made for special purposes:

Scale coupons: has the same shape of 3" strip coupon and is mounted on a strip coupon holder in the same way that strip coupons are. The coupon has a series of holes in a range of sizes machined in it. Scale is most likely to form in cavities, and therefore forms most readily in the smallest size hole. If a pipeline medium has a tendency to form scale, the strength of this tendency can be determined by the largest hole that has accumulated scale. The greater the concentration of scaling compounds, the larger the hole size that is likely to accumulate scale.

Bio coupons: are used to analyse the biological activity formed on the surface of the coupon. The bio coupon assembly comprises a housing with 5 small coupons directly exposed to the internal environment of the pipe or vessel. Exposed surface area 0.4sq.cm(0.06sq.in.)/coupon. After retrieval, the coupons are placed in a specially designed air tight container, and sent to a laboratory for immediate analysis. Correct handling of the coupons after retrieval from the pipe is required in order to achieve reliable results.

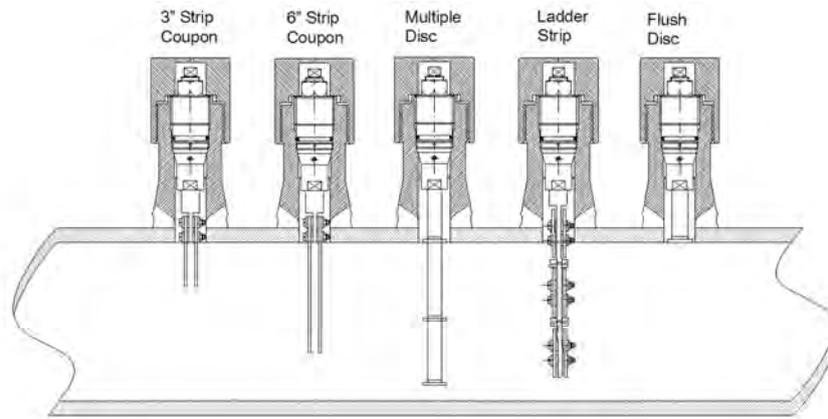
Prestressed coupons: for environments where stress corrosion cracking is suspected. It has the similar shape to a 3" strip coupon, with a mounting hole drilled at each end, the purpose of using prestressed coupon is to simulate the effects of the stress due to line pressure combined with the possibly corrosive medium in the line on the pipe or vessel wall. In this way the coupon can offer a means of monitoring stress corrosion cracking.



e-mail: info@europcorr.com - www.europcorr.com

EuropCorr® Low Pressure

and Two Inch High Pressure Coupons



EuropCorr standard coupons:

Type of Coupon	Dimension	Mounting Hole	Exposed Surface Area	Application
3" Strip Coupon	73 x 22 x 3.2 mm (2-7/8" x 7/8" x 1/8")	two	33sq.cm (5.2sq.in.)	commonly-used for varied evaluations and studies
3" Strip Coupon	76 x 16 x 13 mm (3" x 1/16" x 1/2")	two	21.9sq.cm (3.4sq.in.)	low pressure retractable coupon holder
6" Strip Coupon	152 x 22 x 3.2 mm (6" x 7/8" x 1/8")	two	73.5sq.cm (11.4sq.in.)	larger exposed area required
Ladder Strip Coupon	50 x 22 x 3.2 mm (2" x 7/8" x 1/8")	two	21sq.cm (3.4sq.in.)	simultaneous corrosion monitoring at top, middle and bottom positions in pipeline
Flush Disc Coupon	Ø31.8 x 3.2 x 7.9mm (Ø1.25" x 0.125" x 0.312")	one	16sq.cm (2.5sq.in.)	used where the coupon cannot extend into the pipe to interfere with the media flow or pig passage
Multiple Disc Coupon	Ø31.8 x 3.2 x 12mm (Ø1.25" x 0.125" x 0.50")	one	14sq.cm (2.3sq.in.)	for stacked multiple phase monitoring
3" Strip Scale Coupon	73 x 22 x 3.2 mm (2-7/8" x 7/8" x 1/8")	two	n/a	collect the scale deposits form on the inner surface wall of monitored pipeline

ORDERING INFORMATION:

Description	Part No.	Material	Description	Part no.	Material
3" Strip Coupon	340020	AISI 1018	Flush Disc Coupon	340024	AISI 1018
3" Strip Coupon (for low pressure)	540003	AISI 1018	Multiple Disc Coupon	340025	AISI 1018
6" Strip Coupon	340022	AISI 1018	3" Strip Scale Coupon	340026	AISI 1018
Ladder Strip coupon	340023	AISI 1018	Bio coupon (5pcs/set)	340027	AISI 1018

Various coupon material available to meet client's design requirements and specifications.

