Coupon Holders

Fixed (Pipe Plug) Coupon Holders

Metal Samples carries a variety of standard pipe plug coupon holders for flat and cylindrical specimens. We can design and make these assemblies to meet your specifications for size and material requirements.

Pipe Plug Assemblies for Flat Coupons

P/N	Carbon Steel or PVC Plug	3" (Std.) Stem	Used with Coupon P/N
RC12E3100036	3/4" NPT	Nylon	CO102, CO117
RC13E3100036	1" NPT	Nylon	CO102, CO117
RC13Q3100036	3/4" NPT	Teflon®	CO102, CO117
RC13Q3100066	1" NPT	Teflon®	CO102, CO117
RC12E3010036	3/4" NPT	Nylon	CO100, CO103, CO115
RC13E3010036	1" NPT	Nylon	CO100, CO103, CO115
RC12Q3010030	3/4" NPT	Teflon®	CO100, CO103, CO115
RC13Q3010026	1" NPT	Teflon®	CO100, CO103, CO115
RC12E3030036	3/4" NPT	Nylon	CO118, CO120
RC13E3030036	1" NPT	Nylon	CO118, CO120
RC12Q3030036	3/4" NPT	Teflon®	CO118, CO120
RC13Q3030035	1" NPT	Teflon®	CO118, CO120
RC12EC090036	3/4" NPT	Nylon	CO105, CO106
RC13E3090036	1" NPT	Nylon	CO105, CO106
RC12Q3090036	3/4" NPT	Teflon®	CO105, CO106
RC13Q3090036	1" NPT	Teflon®	CO105, CO106
RC11E3010036	1/2" NPT	Nylon	CO100, CO103, CO115

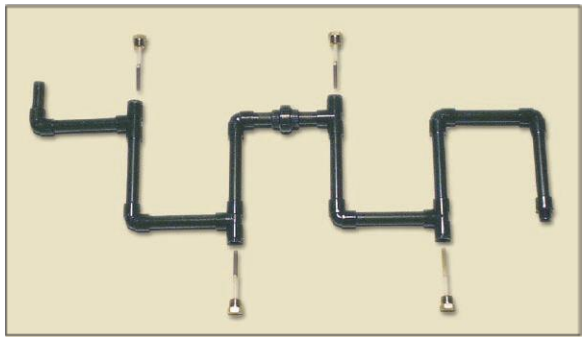
Pipe Plug Assemblies for Cylindrical Coupons

P/N	Carbon Steel Plug	Insert	# of Stems
PA2080413709	2" NPT	Nylon	8
PA2080413783	2" NPT	Teflon®	8
RC11Q3040000	1/2" NPT	Teflon®	1
RC12Q3040000	3/4" NPT	Teflon®	1
RC13Q3040000	1" NPT	Teflon®	1

All of these holders are used with ES2 series coupons.

Bypass Piping Systems

We provide conventional or custom-designed bypass systems for on-line corrosion monitoring. Commonly used in the industrial water treatment industry to determine the corrosive properties of potable or cooling water, these systems are available in PVC, carbon and stainless steels, and other materials.



Bypass systems are easily installed to your existing piping. Normally, all you need is a 1" NPT male fitting on which to attach the bypass. Standard bypass systems come equipped with 4 pipe plug assemblies, 4 pre-weighed mild steel coupons, and a 5-gpm flow control valve.

Adjustable Coupon Holders

Low Pressure or **Hand Insertable** systems can be used for pressures up to 125 psi. This assembly is commonly used in the water treating industry for coupon insertion through a full port valve. An example of this is in a municipal water pumping station, where leakage during withdrawal of the test coupon would not be critical. See the SR3000 for more detials.

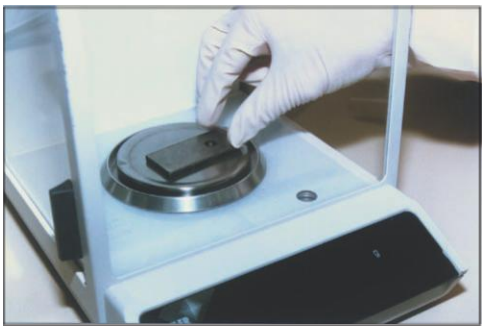
Retractable Coupon Holders

Packing Gland systems are used in more demanding environments, where ratings up to 1,500 psi are required and leakage is prohibited. These systems do not require line (process) shutdown to insert or withdraw coupons. The assembly is used for coupon insertion through at least a 1" full port valve. A safety chain is provided to prevent accidental ejection. See the RT4000 for more details. Also see Length Calculation and Accessories.

Retrievable Coupon Holders

These coupon holders are used with High Pressure Access Systems where pressure ratings up to 3,600 psi are required. See HC Series Coupon Holders for more information.

Post Exposure Coupon Analysis



Metal Samples offers post exposure coupon analysis. Our trained technicians will perform weight loss analysis and determine mils per year (MPY) corrosion rates of your exposed test samples. We are in adherence to ASTM-G1 specifications for cleaning and analyzing coupons.

When using this service, ensure that initial coupon weights, exposure dates, and locations are recorded for each sample. This information can be recorded on the front of a VCI coupon storage bag.

Optional services include pit depth measurement and photos of the coupons before and after analysis. For additional information on post exposure coupon analysis see "Coupon Evaluation after Exposure".

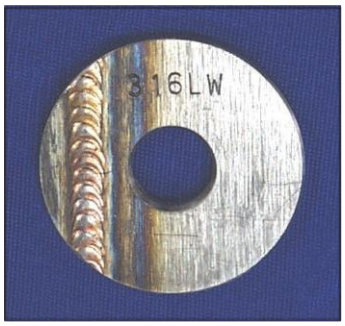
Coupon Storage Bags

Vapor corrosion inhibitor (VCI) bags are excellent for storage of ferrous and non-ferrous coupons. With VCI bags, coupons can be protected from corrosion for up to one year when stored under the proper environmental conditions. Pertinent data regarding coupon exposure can be recorded in the appropriate spaces on the front of the bag. Ask for P/N BG5001 when ordering these bags.

Welded Coupons

Corrosion rates can vary between welded and non-welded metals, therefore it is advisable to study the behavior of both conditions. Studies involve examination of the parent material, the heat-affected zone, the weld metal, and the interfaces between all metals involved. The surface effects produced by welding, heat-tint formation or oxidation, fluxing action of slag, and the deliquescence of slag can be important factors in the corrosion behavior of metals.

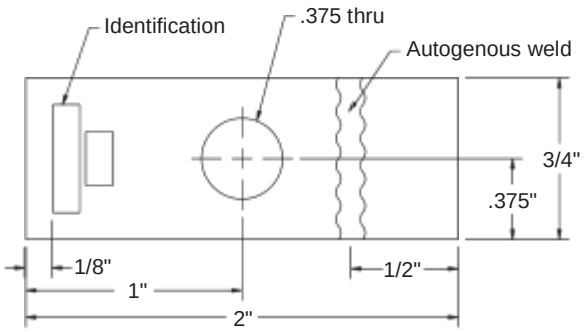
Ideally, the coupon used should be the same thickness and welded with the same welding process as the material used in the production equipment. Usually this is not practical so a representative sample must be studied.



Typical welding techniques used are Shielded Metal Arc (SMAW), Gas Tungsten Arc (GTAW), and Gas Metal Arc (GMAW). Specimens are ground smooth after welding, unless otherwise specified, so as to provide a uniform surface for microscopic investigation.

Welded coupons can be prepared with or without the use of filler metal. The autogenous weld is prepared without the use of filler metal. This type of weld is the most economical method. Autogenous welds are commonly used to evaluate corrosion rates of welded materials and the usage of these materials in corrosive environments. An autogenous weld is produced by GTAW and can be used to test material weldability and gas shield usage, and to set welding parameters.

Autogenous Weld Coupon



Notes:

1. 120 grit standard finish unless otherwise specified.
2. 1/8" nominal thickness.
3. Standard weld is autogenous weld across end (A.W.A.E.). Sanded after weld.