

PRODUCT DATA



JAMESTOWN TECHNOLOGIES

CORROSION COUPON TEST ASSEMBLY

DESIGN

The Jamestown Technologies Corrosion Coupon Test Assembly is used to simulate plant conditions so that the effects of a treated and/or non-treated system can be evaluated. The evaluation consists of inspection of test coupons, which have been pre-weighed to determine the amount of pitting, corrosion, fouling and/or scaling. The correlation of corrosion and deposit information with simultaneous water chemistry data will aid in understanding system conditions and treatment performance.

ASSEMBLY

The test apparatus is disassembled into the various pipe fittings (i.e., tees and elbows) for shipment. Carefully unpack the items and check the packing list to ensure that no parts are discarded. If any of the parts are missing or damaged upon examination, please contact your Jamestown sales representative.

Assemble the various piping components by following *drawing 283108* and use *Teflon™* tape for ease of installation and sealing. The test assembly should be installed in a vertical, level position. The last section of piping (18" length) is designed to keep the entire piping assembly flooded by maintaining the discharge above the rest of the assembly.

TEST PROCEDURES

- Test specimen installation should be handled with care. Avoid coating the coupon with natural oil from the skin, pipe dope or any similar substance.
- Install the coupon and plug assembly so that the coupon is parallel to the plane of the test assembly as shown on *drawing 283108*.
- Install all coupons at the same time. Removal will be at different intervals so that the effect of exposure time can be determined. The exposure interval will be specified by our Sales Representative.
- Upon removal, the test coupon should be disconnected from the holder and dried (without cleaning) as quickly as possible with paper towels, tissues, or preferably, with a blast of hot air.

CORROSION RATE PROBE (ELECTRODE) INSTALLATION

Position E (*see drawing 283108*) of the test assembly is reserved for the probe installation. Install the probe as indicated on the attached.

LOCATION

The proper selection of the coupon test assembly will ensure satisfactory operation. Select a convenient site, which will permit the entire assembly to be mounted as indicated on *drawing 283108*. The location should also be near sample and drain connections.

FLOWS

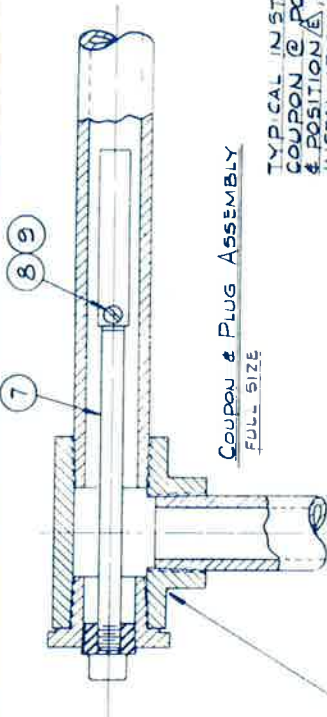
The coupon test assembly is followed by a Dole flow control valve. This valve may be sized to provide proper water flow to the test unit. Table A indicates velocity (fps) through the assembly using the eight available Dole flow control valves. The valves effectively control sample flow from 15 – 155 psi through the assembly.

Note: A minimum of 15 psi differential pressure through the system is required; this is an especially important consideration when the sample is returned to process.

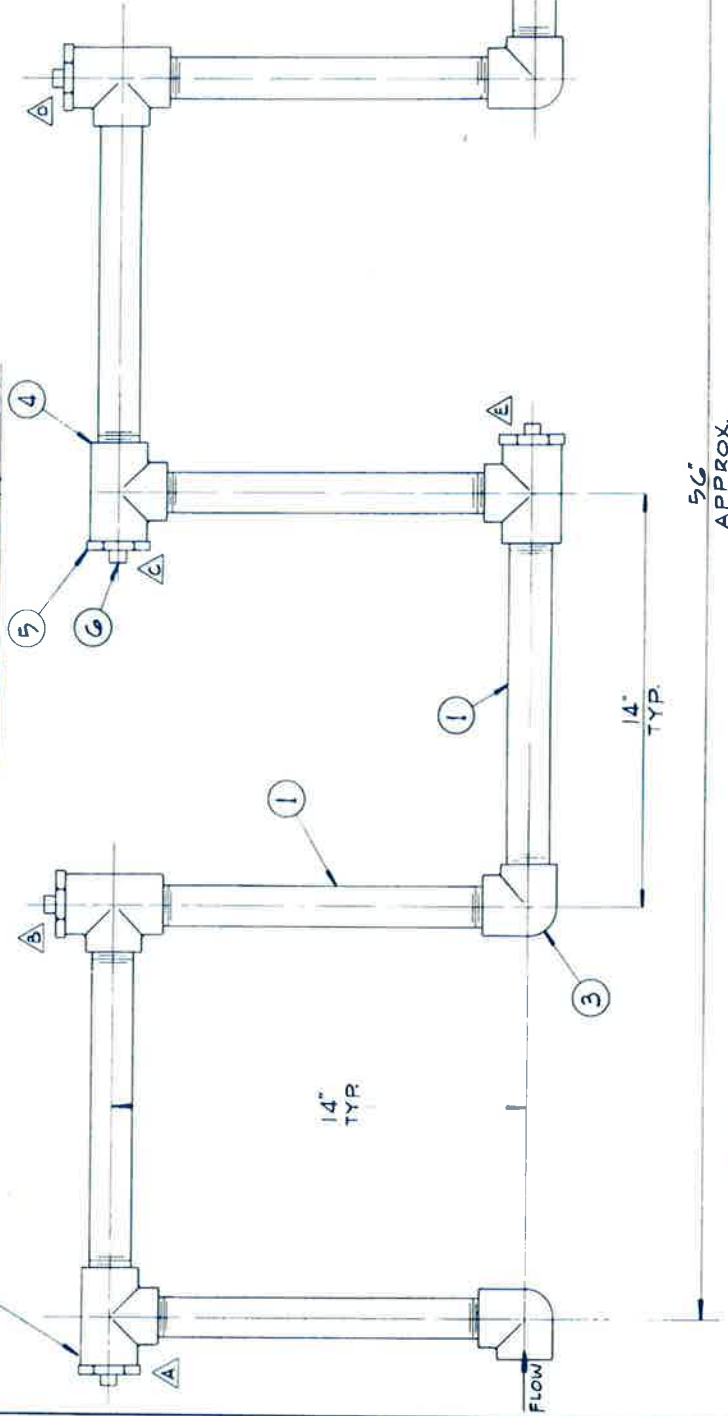
Valve Size (gpm)	1" NPT Velocity (fps)	NPT Velocity (fps)
1	0.5	0.6
2	0.9	1.2
3	1.9	2.3
4	1.9	2.3
7	3.1	4.0
9	4.0	5.1
10	4.5	5.7
12	5.3	6.9
15	6.7	8.6

For further information regarding the corrosion coupon test assembly or any of your chemical feed system concerns, please contact Jamestown at the number below.

* MODIFY WITH #8-32 TAPPED HOLE & 3/16" DP. x 3/16" LG. FLAT ONE END AND 3/8" LG. x 1/2" LG. THDS. OTHER END.



TYPICAL INSTALLATION OF TEST COUPON @ POSITIONS A, B, & C & POSITION 1 FOR ELECTRODE INSTALLATION WHEN APPLICABLE.



NOTES:
1/ FLOW SHOULD BE ADJUSTED TO SIMULATE PLANT VELOCITY CONDITIONS UNDER EVALUATION (APPROXIMATELY 2-6 FPS)

2/ POSITION A IS RESERVED FOR ELECTRODE INSTALLATION ONLY.

NOTE:
ASSEMBLY SHIPPED WITH INSTRUCTION MANUAL, PIPE SEALANT & SCREW DRIVER.

56" APPROX.



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CORROSION COUPON TEST ASSEMBLY

(Drawing 283108)

BILL OF MATERIAL

ITEM QTY	DESCRIPTION	MAT'L
1	1" DIA. x 12' LG. SCH. 80 PIPE	PVC
2	1" DIA. x 15' - 6" SCH. 80 PIPE	PVC
3	1" DIA. 90° ELBOW	SCH. 80 PVC
4	1" DIA. TEE	SCH. 80 PVC
5	1" x 1/2" REDUCER BUSHING	SCH. 80 PVC
6	3/4" PLUG w/ 3/8" LG. x 1/2" DP. TAP C.I.	PVC
7	3/8" DIA. x 6" LG. ROD	NYLON
8	#8 STD. FLAT WASHER	NYLON
9	#8-32 x 3/8" LG. QD. HD. SCREW	NYLON