

**ABB Inc.**

DATE: 05 MAY-2004  
Calibration By: Ron Teal

SERIAL NUMBER: Balancing Valve: 1/2"-High REF.: FLO-PAC  
**SIZE: 1/2 in. - NPT (Brass)**  
 Test Valve Connection: Flanged 150# (Adapters)  
 CAL FACTOR: 2.42 US GAL PER MINUTE & 30 FT/SEC.  
 MASTER METER: ABB-MAG  
 METER SIZE: 1/2 in. Serial# **1/2"-HIGH** Pipe Size: 1/2" Sch.40 ID: 0.622 in.

TEST FREQUENCY: 1000 Hz **TEST VELOCITY: 80% @Max.= 8 FT/SEC.**  
 TEST FLOW RATE: 0 TO 4 US GAL PER MINUTE  
 CONVERTER: ABB DP Cell: Series 600T-C **REFERENCE METER: MAG-7.246 USGPM**  
 Range: 160"H2O (4-20 mA)

**BETA RATIO: 0.43**  
**THROAT SIZE: 0.270 in.**

**TEST RESULTS**

RUN #	MASTER METER				TEST VALVE						
	Vel. (Ft/Sec)	P(PSIG)	TEMP-F	USGPM	DP-"H2O	K-METER	TRANS OUT.	Cd (COEF)	RE #	% ACC.	
1	4.11	20	74	3.9	88.00	0.1860	12.80 mA	0.9888	19814	-0.92	
2	3.16	20	74	3.00	51.52	0.1870	9.14 mA	0.9941	15241	-0.39	
3	2.09	20	74	1.98	22	0.1889	6.20 mA	1.0041	10059	0.61	
4	1.10	20	74	1.04	6.2	0.1869	4.64 mA	0.9934	5284	-0.46	
5	2.11	20	74	2	1/2 open 22.2	0.1900	6.24 mA	1.0096	10161	1.16	

**AVERAGE COEFFICIENTS:**

Cd: 0.9980	K-METER: 0.1878
------------	-----------------

Cv of combined valve (Venturi+Valve)  
Valve Coefficient at 1 PSI (27.73"H2O)

Cv=2.25

Pressure Loss: 12% Of DP  
(Permanent)

