UTAH STATE UNIVERSITY
UTAH WATER RESEARCH LABORATORY
LOGAN, UTAH 84322-8200

Tests by W. Rahmeyer
Febr. 7, 1991

36"
Job No: V-3107

Meter Size : 36-inch
Tested For : TRI FLO
Test Fluid : Water 45 deg F
Flow range 8314 gpm to 19635 gpm

Pipe I.D. (in) : 36.0000
Throat I.D. (in) : 15.8880
Beta : 0.4413

beta = throat I.D. / pipe I.D.
Qcfs = Ao C SQRT(2g dH ft.) / SQRT(1-beta^4)
Qgpm = Cd SQRT(dH in./ S.G of fluid)
Cd = 1039.765 Ao C / SQRT(1-beta^4)

Qgpm = Qcfs x 448.831

CALIBRATION DATA

Run	Sonic Hz	FLOW gpm	Re pipe	R1+R2	dH in. H2O	Cd	C
1	833.33	8,314	5.2E+05	7.45 M	36.92	1368.27	0.9375
2	1043.55	10,422	6.6E+05	11.95 M	59.22	1354.24	0.9279
3	1167.13	11,661	7.4E+05	14.80 M	73.35	1361.55	0.9329
4	1385.11	13,846	8.7E+05	21.10 M	104.57	1354.04	0.9278
5	1529.50	15,294	9.6E+05	25.40 M	125.88	1363.15	0.9340
6	1643.55	16,438	1.0E+06	29.70 M	147.19	1354.87	0.9283
7	1962.44	19,635	1.2E+06	42.30 M	209.64	1356.11	0.9292

MEAN Cd = 1358.89
MEAN C = 0.9311

Minus Scatter = -0.36 %
% STND DEV = 0.38 %

Meter calibrated against a secondary flowmeter
Flow Coefficient C is from ASME "Fluid Meters" 6th Ed, sect. 1-5-12