

67Hz Uniformity

Wind Tunnel Verification Test Data

Organization: 30cm Flow Visualization Water Tunnel
Project: Oklahoma State University

Serial #: 81114
PO #: E089406

Pump Type: (2) Gusher Series 7600SH
HP: 7.5 ea.

Probe: Measurement Science Enterprise miniLDV-G5-240

Engineering Laboratory Design

Date: 1/16/2015
Engineer: MKT

Starting Water Temp (F): 69
Ending Water Temp (F): 79
Motor Freq. (Hz): 67.0
Motor RPM: 1985
Pump RPM: 1082.000

Start: 10:40 AM
Finish: 4:30 PM

Velocity Field

Probe Located Approximately 20cm from Test Section Entrance

Velocity in m/s

Position (cm)	-10.00	-7.50	-5.00	-2.50	0.00	2.50	5.00	7.50	10.00	Position (cm)
10.00	1.015	1.013	1.012	1.011	1.011	1.012	1.013	1.014	1.015	10.00
7.50	1.014	1.011	1.008	1.011	1.010	1.009	1.010	1.012	1.015	7.50
5.00	1.012	1.011	1.007	1.009	1.009	1.007	1.010	1.013	1.014	5.00
2.50	1.012	1.011	1.008	1.010	1.006	1.008	1.009	1.011	1.014	2.50
0.00	1.011	1.006	1.004	1.002	1.007	1.008	1.009	1.009	1.010	0.00
-2.50	1.009	1.008	1.006	1.001	1.002	1.006	1.010	1.007	1.012	-2.50
-5.00	1.015	1.008	1.007	1.002	1.001	1.005	1.010	1.011	1.013	-5.00
-7.50	1.013	1.012	1.009	1.005	1.003	1.003	1.010	1.011	1.012	-7.50
-10.00	1.010	1.010	1.007	1.007	1.004	1.003	1.005	1.007	1.007	-10.00
	-10.00	-7.50	-5.00	-2.50	0.00	2.50	5.00	7.50	10.00	Position (cm)

average (m/s): 1.009
 high (m/s): 1.015 %high: 0.59
 low (m/s): 1.001 %low: 0.80

OKLAHOMA STATE UNIVERSITY: 30cm FLOW VISUALIZATION WATER TUNNEL
67 Hz Uniformity Survey with Probe Located
20cm Downstream of Test Section Entrance

