



Hocker Incorporated
 13402 Weiman Road Houston, TX 77041
 713-464-5829 Fax 713-464-3192

Customer PO #:	86404
Certification #:	23-1090

**ASTM E317-16 Performance Evaluation
 Ultrasonic Flaw Detector**

Calibration Date:	9/5/2023
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F-UTFL Rev-0

Meets ASTM E317-16 Minimum Requirements?	YES
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Due Date:	9/5/2024
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Company:	P&B Testing		Equipment Model & Serial #	Sonatest 250S SN I008750	Equipment Condition As Found:
Address:	6645 W. Tidwell				
City:	Houston				New
State:	Texas	Contact:	Buck Snyder		X
Zip:	77092	Phone:			Good
Country:	USA	Email:			Poor
			Temp:	70°F	Failed
			Hum. %:	50%	

Performance Evaluation Equipment:		Serial:	NIST:	Cert. Blocks C to G:	Serial:	NIST:
Calib. Block A	ASTM-E317 Block	SN 03-8399	03-19698-A	ASTM E127 1-0300	SN 15-8035	14-20265-A 14-21740-A
Calib. Block B	ASTM Type RA	SN 04-5671	04-25714-A	ASTM E127 2-0300	SN 15-8036	
Transducer "A"	FCHR-5050 Hi Res	SN 931/37	n/a	ASTM E127 3-0300	SN 15-8037	
Transducer "B"	PSLM-5050 5mhz 1/2"	SN 504/03	n/a	ASTM E127 4-0300	SN 15-8038	
Transducer "C"	PSLM-5050 5mhz 1/2"	SN 424/20	n/a	ASTM E127 5-0300	SN 15-8039	

Calibrated Attenuator	S/N: SO383925	NIST #:	1821-1022/1104681/9000-1439,1230,1336
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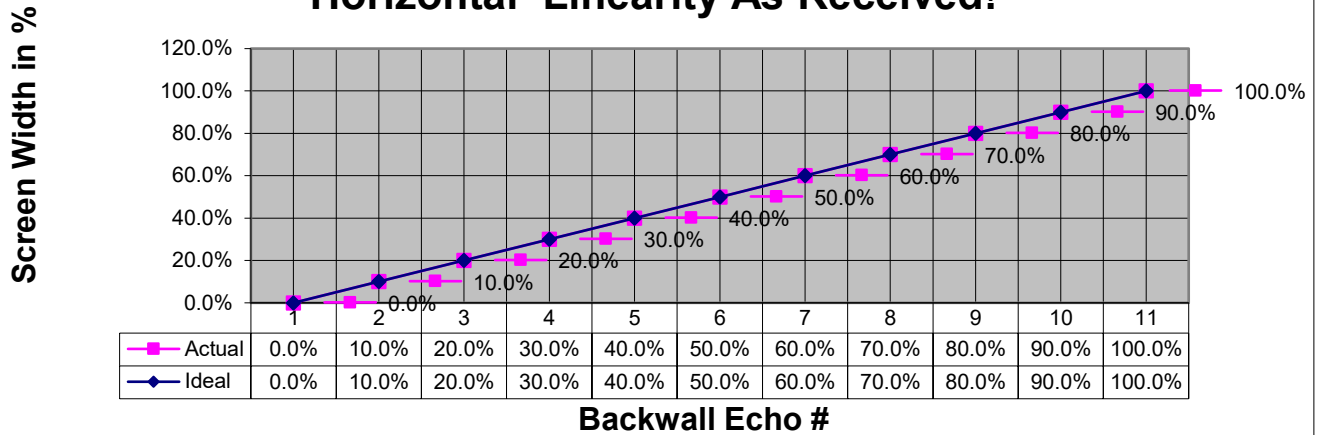
Horizontal Limit Linearity			Vertical Limit Linearity		
Horiz. Accuracy Limit + or -	2.0%		Verticle Accuracy Limit + or -	2.0%	
Meets Accuracy Required?	Yes		Meets Accuracy Required?	Yes	
Horiz. Accuracy Deviation	0.0%		Vert. Accuracy Deviation	-1.0%	
Horiz. Screen Width used?	10"		Equipment Overall Pass/ Fail Result:	Pass	

% Horiz. Screen Width				% Vertical Screen Height					
Echo #	Actual %	Ideal	Deviation	Ideal %	Actual %	Ideal%	Actual%	Ideal%	Actual%
1	0.0%	0.0%	0.0%	+1db steps		-2db steps		-4db Steps	
2	10.0%	10.0%	0.0%	50.0%	50.0%	50.0%	50.0%	16.0%	16.0%
3	20.0%	20.0%	0.0%	56.0%	55.0%	40.0%	39.0%	10.0%	10.0%
4	30.0%	30.0%	0.0%	63.0%	62.0%	31.0%	30.0%	6.0%	6.0%
5	40.0%	40.0%	0.0%	71.0%	70.0%	25.0%	25.0%	5.0%	4.0%
6	50.0%	50.0%	0.0%	79.0%	79.0%	20.0%	19.0%	3.0%	3.0%
7	60.0%	60.0%	0.0%	89.0%	90.0%	16.0%	15.0%	2.0%	1.0%
8	70.0%	70.0%	0.0%	100.0%	100.0%				
9	80.0%	80.0%	0.0%	Maximum Vertical Deviation				-1.0%	
10	90.0%	90.0%	0.0%						
11	100.0%	100.0%	0.0%	Sensitivity & Noise					

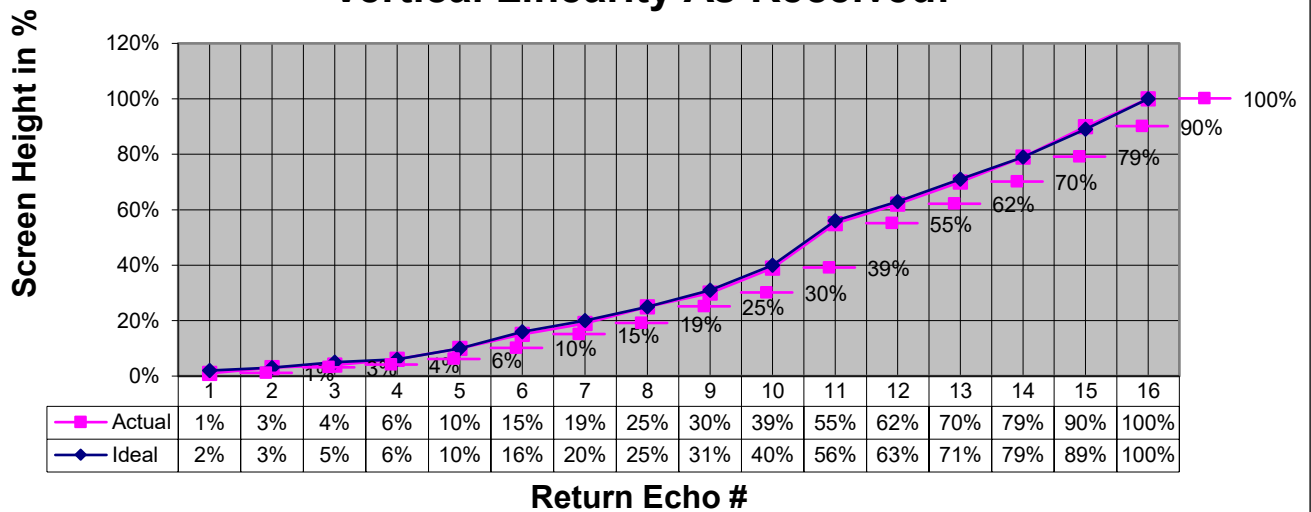
Maximum Horizontal Deviation				0.0%	Test Block Number	Sig. Ampl.	Break Pt.	Noise Lvl.	Hole Size
Accuracy Of Calibrated Gain Controls					ASTM E127 1-0300	60.0%	12.0%	1.0%	1/64
Ideal	Actual	Ideal	Actual		ASTM E127 2-0300	60.0%	11.0%	1.0%	1/32
1	1	10	10		ASTM E127 3-0300	60.0%	11.0%	1.0%	3/64
2	2	12	12		ASTM E127 4-0300	60.0%	10.0%	1.0%	1/16
4	4	14	14		ASTM E127 5-0300	60.0%	10.0%	1.0%	5/64
6	6	20	20						
					Gain Control Deviation DB			0	

Near Surface Resolution at 80%			Far Surface Resolution at 80%			Max Noise Level (Sensitivity & Noise Test)	1.0%
Depth	Break Pt.	Noise %	Depth	Break Pt.	Noise %		
0.7"	11.0%	1.0%	.01"	18.0%	1.0%		
0.5"	9.0%	1.0%	.02"	17.0%	1.0%		
0.3"	8.0%	1.0%	.03"	16.0%	1.0%	Max Noise Level (Resolution Test)	1.0%

Horizontal Linearity As Received!



Vertical Linearity As Received!



Notes.

This performance evaluation was done in accordance with ASTM-E317-16 and Hocker Incorporated procedure CP-UTFL Rev 0. Test equipment and calibration blocks used to perform this evaluation are traceable to the National Institute of Standards and Technology. NIST numbers listed in this document and supporting documentation is on file. This performance evaluation is made in conformance with ANSI/NCSL 2540.3-2006 and/or ISO 10012, and with 10CFR21.

Technician Signature: *Roger Kimmons*

F-UTFL Rev-0 05/01/2018

Technician Performing Evaluation: Roger Kimmons

Date: **9/5/2023**

Approval Signature: *Derrick Schumann*

Approved By: Derrick Schumann

An ISO 9001:2015 Registered Company