



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

<b>Customer PO #:</b>	<b>85392</b>
<b>Certification #:</b>	<b>20-1300</b>

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

<b>Calibration Date:</b>
<b>9/21/2020</b>

**F-UTFL Rev-0**

**Meets ASTM E317-16 Minimum Requirements?**

**YES**

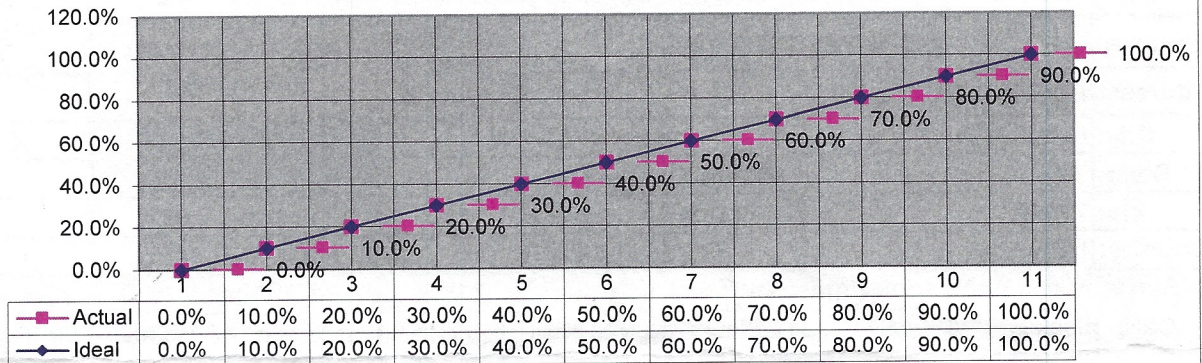
**Due Date:**

<b>Company:</b>		<b>P &amp; B TESTING INC.</b>		<b>Equipment Model &amp; Serial #</b>		<b>SONATEST 350M S/N:I008767</b>		<b>9/21/2021</b>	
<b>Address:</b>		6645 W.TIDWELL						<b>New</b>	
<b>City:</b>	HOUSTON	<b>Inspections/Quality</b>				<b>Lab Conditions:</b>		<b>X</b>	<b>Good</b>
<b>State:</b>	TX	<b>Contact:</b>	Buck Snider						<b>Fair</b>
<b>Zip:</b>	77092	<b>Phone:</b>	(713)290-8490		<b>Temp:</b>	69°F			<b>Poor</b>
<b>Country:</b>	USA	<b>Fax:</b>	(713)290-8627		<b>Hum. %:</b>	41%			<b>Failed</b>
<b>Performance Evaluation Equipment:</b>		<b>Serial:</b>	<b>NIST:</b>	<b>Cert. Blocks C to G:</b>		<b>Serial:</b>	<b>NIST:</b>		
Calib. Block A	ASTM-E317 Block	SN 03-8399	03-19698-A	ASTM E127 1-0300		SN 15-8035			
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			
<b>Calibrated Attenuator</b>		SN SO 383925		<b>NIST #:</b>	9000-1324, 9000-1230, 9000-1239				
<b>Horizontal Limit Linearity</b>				<b>Vertical Limit Linearity</b>					
<b>Horiz. Accuracy Limit + or -</b>		<b>2.0%</b>		<b>Verticle Accuracy Limit + or -</b>				<b>2.0%</b>	
<b>Meets Accuracy Required?</b>		<b>Yes</b>		<b>Meets Accuracy Required?</b>				<b>Yes</b>	
<b>Horiz. Accuracy Deviation</b>		<b>0.0%</b>		<b>Vert. Accuracy Deviation</b>				<b>-1.0%</b>	
<b>Horiz. Screen Width used?</b>		<b>10"</b>							
<b>% Horiz. Screen Width</b>				<b>%Vertical Screen Height</b>					
<b>Echo #</b>	<b>Actual %</b>	<b>Ideal</b>	<b>Deviation</b>	<b>Ideal %</b>	<b>Actual %</b>	<b>Ideal%</b>	<b>Actual%</b>	<b>Ideal%</b>	<b>Actual%</b>
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%	56.0%	40.0%	40.0%	10.0%	10.0%
4	30.0%	30.0%	0.0%	63.0%	64.0%	31.0%	31.0%	6.0%	6.0%
5	40.0%	40.0%	0.0%	71.0%	71.0%	25.0%	25.0%	5.0%	4.0%
6	50.0%	50.0%	0.0%	79.0%	80.0%	20.0%	20.0%	3.0%	2.0%
7	60.0%	60.0%	0.0%	89.0%	89.0%	16.0%	16.0%	2.0%	2.0%
8	70.0%	70.0%	0.0%	100.0%	100.0%				
9	80.0%	80.0%	0.0%	<b>Maximum Vertical Deviation</b>					<b>-1.0%</b>
10	90.0%	90.0%	0.0%						
11	100.0%	100.0%	0.0%	<b>Sensitivity &amp; Noise</b>					
<b>Maximum Horizontal Deviation</b>			<b>0.0%</b>	<b>Test Block Number</b>	<b>Sig. Ampl.</b>	<b>Break Pt.</b>	<b>Noise Lvl.</b>	<b>Hole Size</b>	
<b>Accuracy Of Calibrated Gain Controls</b>				ASTM E127 1-0300	60.0%	15.0%	1.0%	1/64	
<b>Ideal</b>	<b>Actual</b>	<b>Ideal</b>	<b>Actual</b>	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%	8.0%	1.0%	1/16	
4	4	14	14	ASTM E127 5-0300	60.0%	8.0%	1.0%	5/64	
6	6	20	20					<b>Gain Control Deviation DB</b>	<b>0</b>
<b>Near Surface Resolution at 80%</b>			<b>Far Surface Resolution at 80%</b>						
<b>Depth</b>	<b>Break Pt.</b>	<b>Noise %</b>	<b>Depth</b>	<b>Break Pt.</b>	<b>Noise %</b>	<b>Max Noise Level (Sensitivity &amp; Noise Test)</b>		<b>1.0%</b>	
0.7"	12.0%	1.0%	.01"	15.0%	1.0%				
0.5"	12.0%	1.0%	.02"	11.0%	1.0%	<b>Max Noise Level (Resolution Test)</b>		<b>1.0%</b>	
0.3"	11.0%	1.0%	.03"	11.0%	1.0%				



## Horizontal Linearity As Received!

Screen Width in %



**Backwall Echo #**

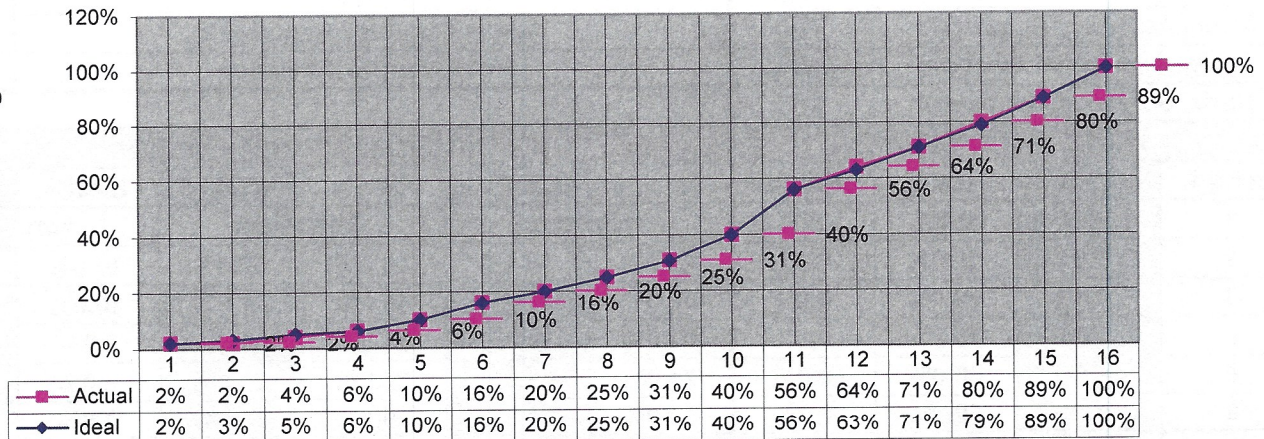
**APPROVED**

**SEP 23 2020**

**BUCK SNIDER**

## Vertical Linearity As Received!

Screen Height in %



**Return Echo #**

**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:**

**F-UTFL Rev-0 05/01/2018**

**Technician Performing Evaluation:** Jacob Hocker

**Date:** 9/21/2020

**Approval Signature:**

**Approved By:** Derrick Schumann

**An ISO 9001:2015 Registered Company**