Test Report

Direct instruction testing

Client:	Fall Safety Tech
Product:	LSE-8
Date(s) of testing:	05/08/2025 to 05/08/2025
Scope of testing:	PAS 59:2014 (incorporating corrigendum 1) Clause 4.2 Dynamic performance for all system types (incorporating Annex A).
Test result:	Sample assessed met requirements.

Authorised by:

John Darby
General Manager

T&R reference: S1174 Test report No: T1356-01

Test Report - Section 1

Test Report ID:	T1356-01	Service Order:	S1174

Client Details

Client:	Fall Safety Tech
Client Reference:	C1053

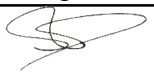
Test specification

Test specification:	PAS 59:2014 (incorporating corrigendum 1) Clause 4.2 Dynamic performance for all system types (incorporating Annex A).
Test method:	TRC-W28
Test location:	Test & Research Centre, 34 Regal Drive, Soham, Cambridgeshire, CB7 5BE
Comments:	Testing undertaken indoors

Product Details

Product Name:	LSE-8		
Product Description:	Inflatable safety cushion		
Product condition:	New		
Component code(s):			
Date of receipt:	05/08/2025	Sample no:	1

Test Details

Start:	05/08/2025	Finish:	05/08/2025
	Evaluation by		**Authorised by**
Date:	05/08/2025		05/08/2025
Name:	J. Darby		J. Darby
Position:	Test Engineer		General Manager
Signature:			
Report revision:	1	Date of issue:	05/08/2025

Comments

Sample assessed met requirements.

Legend

P(ass) = passed test specification	N/A = not applicable	# = Opinion or interpretation made based on competence of T&R staff
F(ail) = failed test specification	N/T = not tested	
All dimensions in mm unless stated otherwise		* = Information provided by the client

Decision Rule

Decision rule (based on ILAC G8-09/2019) - Binary statement for simple acceptance:
Pass – the measured value is below the acceptance limit, AL = TL
Fail – the measured value is above the acceptance limit, AL=TL

DISCLAIMER

Test Report - Section 1

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List of equipment used

Equipment Name	Equipment Number	Used (Y/N)
150mm steel rule	TE180067	
300mm steel rule	TE180068	
3m steel tape	TE180046	
8m steel tape	TE180047	
150mm digital vernier calliper	TE180071	
1000mm digital vernier calliper	TE180072	
Digital Protractor	TE180066	
Digital Laser Measure	TE190015	Y
Stopwatch	TE180070	
25mm Digital plunger indicator	TE200009	
1000mm steel rule	TE200015	
50mm Digital plunger indicator	TE200016	
100mm Digital plunger indicator	TE200017	
600mm digital vernier calliper	TE220001	
Triaxial Accelerometer	TE250003	Y

Information supplied by the client

Item	Description	Document ID	Date/Rev
1			
2			
3			
4			
5			

Components evaluated

Item	Code	Description
1	LSE-8	Inflatable safety cushion
2		
3		
4		
5		

Product & testing description

Fall Safety Tech is a manufacturer of inflatable safety cushions. They have a new design, LSE-8, which is approximately 3m x 4m x 1.75m high.

The Test & Research Centre has been contracted to perform the "Dynamic performance for all system types" within PAS 59, to assess the cushions performance against these drop testing requirements.

Testing was conducted at the test laboratory in Soham, using the tall tower space to elevate the drop test weight to the required 2m above the cushion.

Deceleration (g) was measured using a calibrated triaxial accelerometer and data logging equipment.

Testing showed that the cushion met the requirements of PAS 59 clause 4.2.

Test Report - Section 2

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Clause	Requirement	Remark	Result
4.2	**Dynamic performance for all system types**		
4.2.1	When tested in accordance with Annex A, the measured deceleration shall not exceed 14g.	Drop 1 Height (m): 2.02 Air temperature (°C): 20.1 Location: Centre Air exit hole: 50% open Max Deceleration (g): X: 3.51 Y: 3.19 Z: 0.65 **PASS** Drop 2 Height (m): 2.03 Air temperature (°C): 20.1 Location: Off-Centre Air exit hole: 50% open Max Deceleration (g): X: 6.57 Y: 2.74 Z: 3.34 **PASS** Drop 3 Height (m): 2.03 Air temperature (°C): 20.2 Location: Corner Air exit hole: 50% open Max Deceleration (g): X: 3.14 Y: 1.26 Z: 2.62 **PASS**	**P**
4.2.2	Should the recorded results from a series of three drops identify deceleration in excess of that specified in 4.2.1 on two or more of the required drops, the sample shall be judged to have failed.	N/A	
4.2.3	Should the recorded results from a series of three drops identify deceleration in excess of that specified at 4.2.1 on any one of the required drops, the sample may be subjected to another series of three drops. Should deceleration in excess of that specified in 4.2.1 occur during any of this second series of drops, the sample shall be judged to have failed.	N/A	

Test Report - Section 3		
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Photographs

Test weight and accelerometer arrangement

Test Report - Section 3		
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Photographs

Prior to release

At impact

Drop test 1

Test Report - Section 3		
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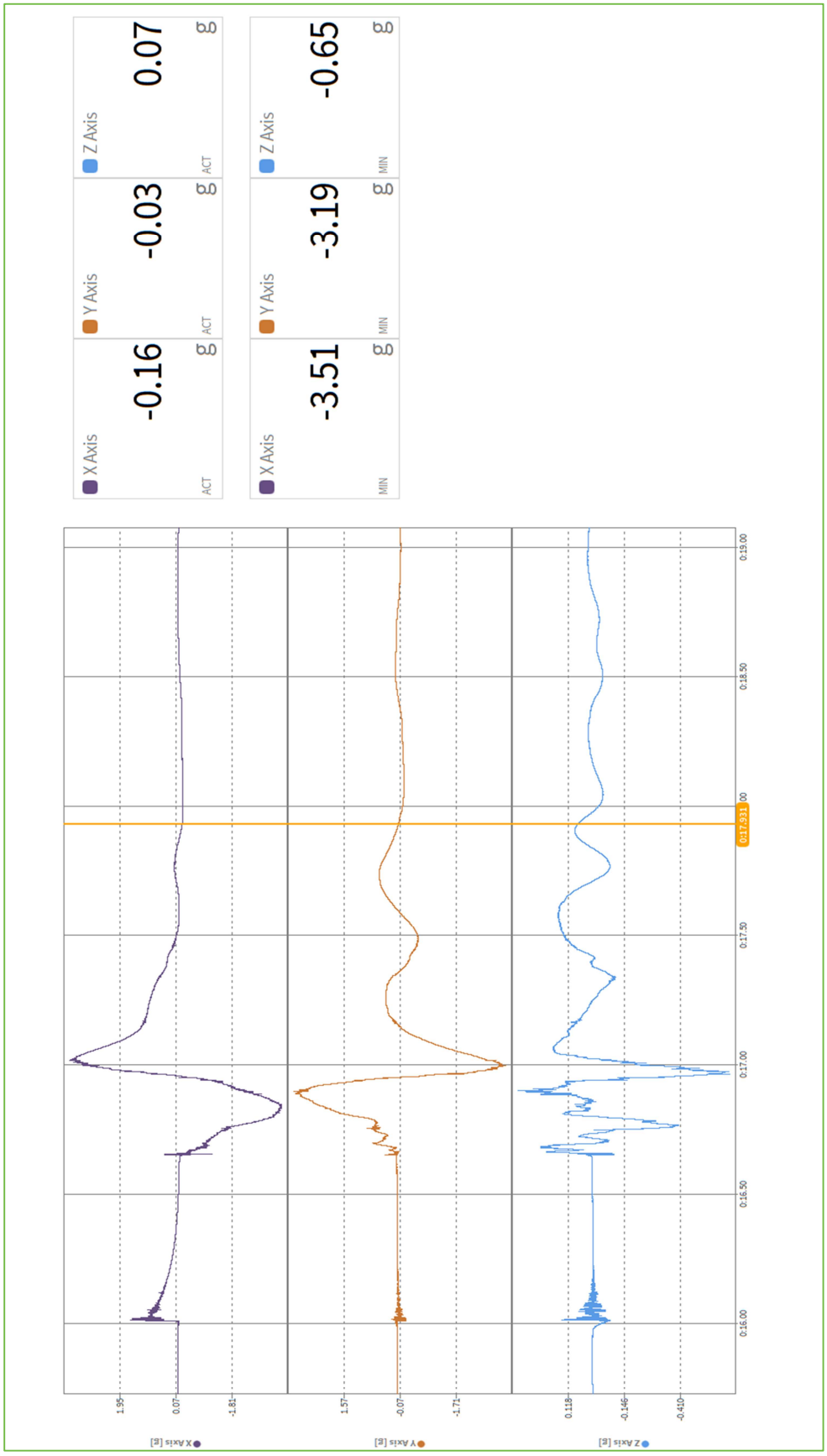
Photographs



Drop test 1

Test Report - Section 3		
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Photographs

At release

At impact

Drop test 2

Test Report - Section 3		
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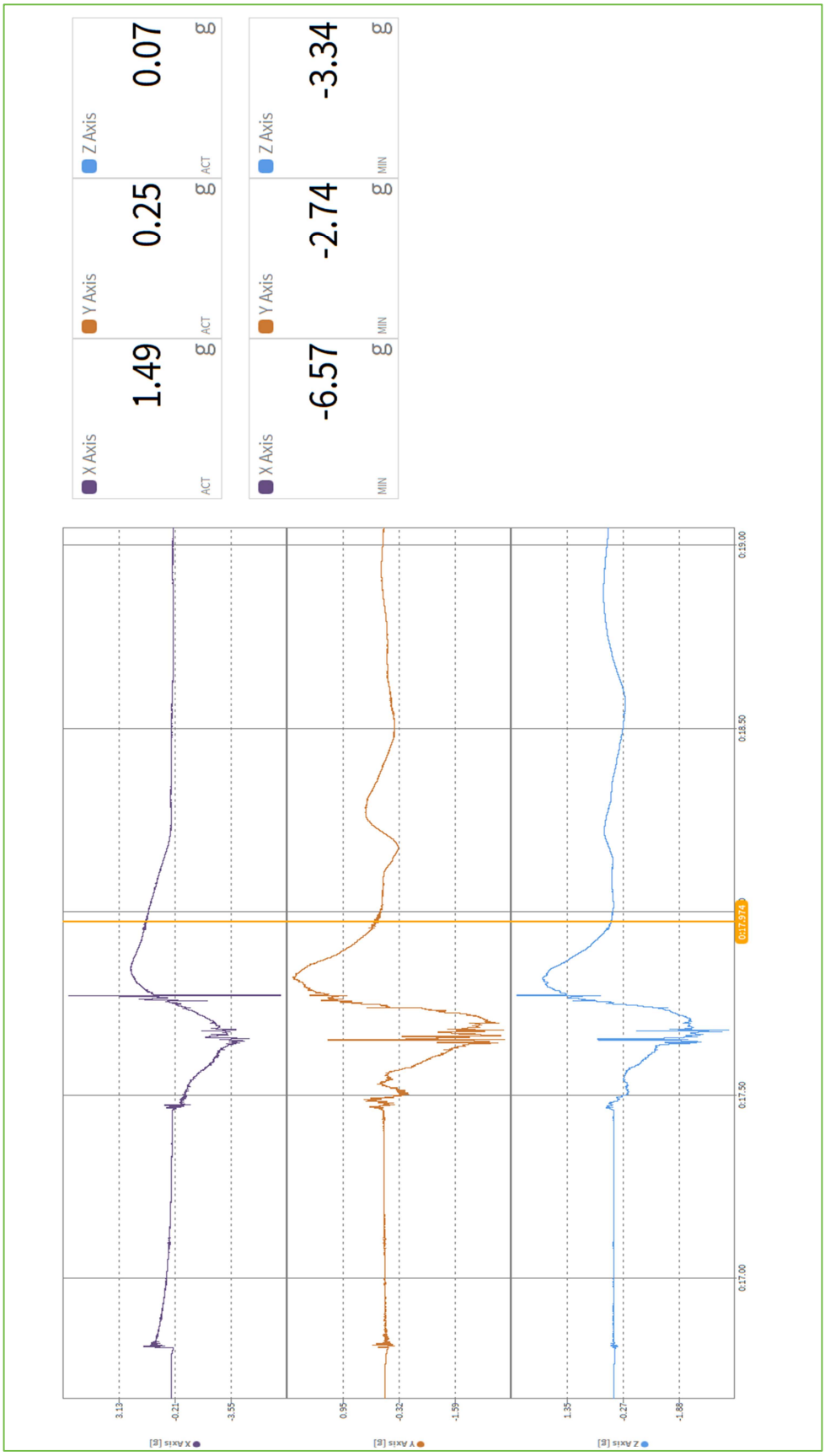
Photographs



Drop test 2

Test Report - Section 3		
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Photographs

Prior to release

At impact

Drop test 2

Test Report - Section 3		
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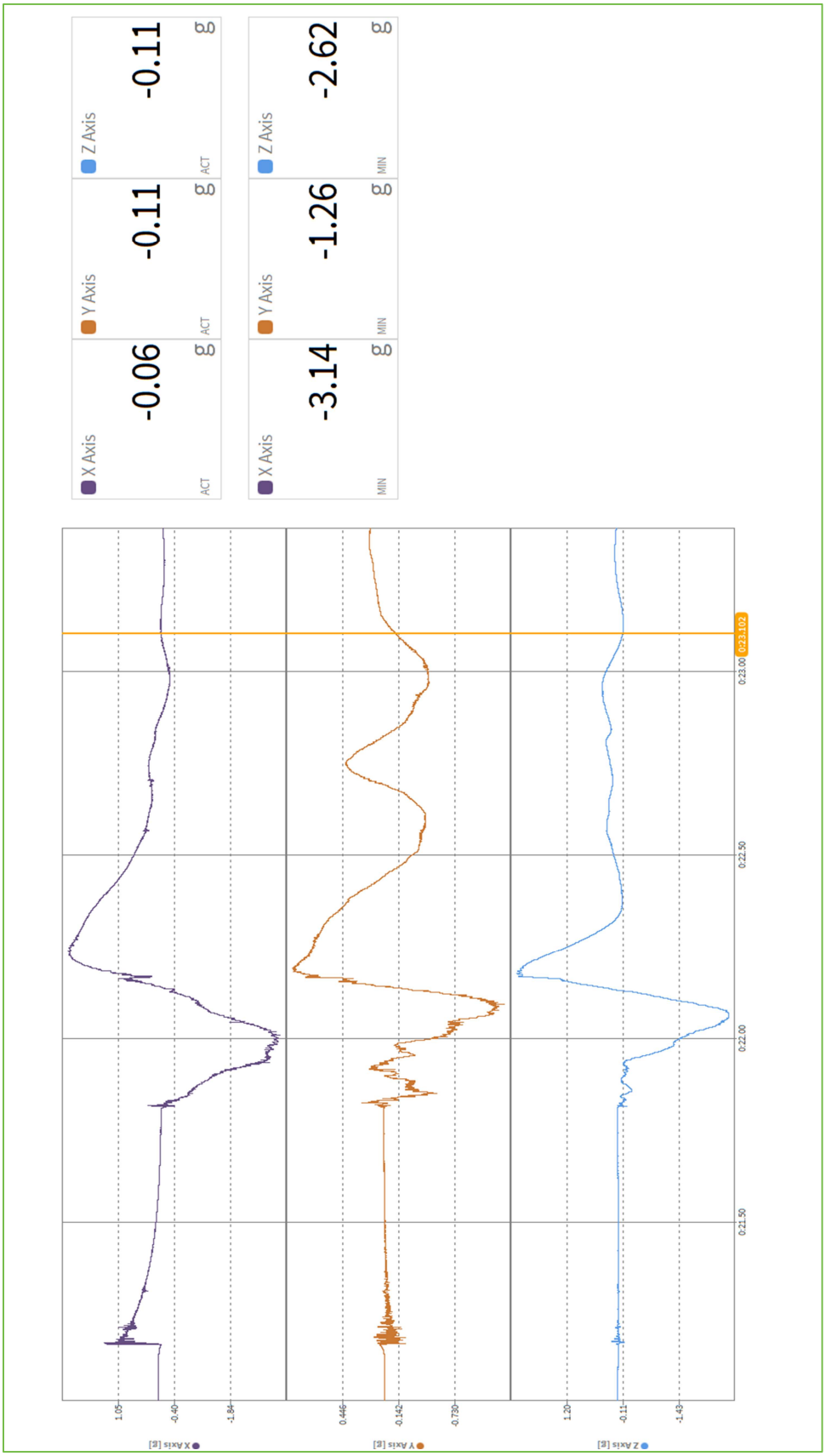
Photographs



Drop test 2

END OF TEST REPORT