



CERTIFICATE OF CALIBRATION

TSI Instruments Ltd., Stirling Road, Cressex Business Park,
High Wycombe, Bucks HP12 3RT England
Tel: (Int +44)(UK 0) 1494 459200 Fax: (Int +44)(UK 0) 1494 459700
www.tsiinc.co.uk

ENVIRONMENT CONDITION		
TEMPERATURE	68.3	° F
RELATIVE HUMIDITY	49.9	% RH
BAROMETRIC PRESSURE	29.4	inHg

MODEL	AccuBalance® 8380
SERIAL NO.	T83801750005

CALIBRATION STANDARDS USED
Capture Hood Calibration System UK1

<input checked="" type="checkbox"/> AS LEFT	<input checked="" type="checkbox"/> IN TOLERANCE
<input type="checkbox"/> AS FOUND	<input type="checkbox"/> OUT OF TOLERANCE

CALIBRATION DATA						
Tolerance: \pm (3% of reading + 7.0 cfm)						
TESTING POINTS	SUPPLY DATA MEASURED IN ft ³ /min			RETURN DATA MEASURED IN ft ³ /min		
	CALIBRATION STANDARD	INSTRUMENT OUTPUT	ALLOWABLE RANGE	CALIBRATION STANDARD	INSTRUMENT OUTPUT	ALLOWABLE RANGE
1	1903	1935	1839 - 1967	1903	1879	1839 - 1967
2	1498	1513	1447 - 1549	1499	1481	1448 - 1550
3	1197	1206	1155 - 1239	1198	1185	1156 - 1240
4	899	906	866 - 932	901	901	867 - 935
5	608	610	583 - 633	602	601	577 - 627
6	299	295	284 - 314	298	297	283 - 313
7	99	100	90 - 108	98	98	89 - 107

* Indicates out of tolerance condition

TSI does hereby certify that the above described instrument conforms to the original manufacturer's specification (not applicable to As Found data) and has been calibrated using standards whose accuracies are traceable to members of the European co-operation for Accreditation (EA) for example: UKAS, SWEDAC, DAkkS) or has been verified with respect to instrumentation whose accuracy is traceable to some member of EA, or is derived from accepted values of physical constants. TSI's calibration system meets ISO-9001:2015 and meets the requirements of ISO 10012:2003.

Measurement Variable	System ID Number	Date Last Calibrated	Calibration Due Date
DC Voltage	E006072	06-16-21	06-16-22
Thermometer	E006103	02-25-21	02-25-22
Pressure	E006155	06-16-21	06-16-22
Pressure	E006095	06-16-21	06-16-22
Flow	E005455	05-22-19	05-22-23
Flow	E005466	05-21-19	05-21-23
Barometric Pressure	E006061	06-16-21	06-16-22

Calibration procedure used: 9011159


Calibrated By

Dec. 31, 2021

Calibration Date



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ENVIRONMENT CONDITION		
TEMPERATURE	20.2	° C
RELATIVE HUMIDITY	49.9	% RH
BAROMETRIC PRESSURE	995	hPa

MODEL	AccuBalance® 8380
SERIAL NO.	T83801750005

CALIBRATION STANDARDS USED
Capture Hood Calibration System UK1

<input checked="" type="checkbox"/> AS LEFT	<input checked="" type="checkbox"/> IN TOLERANCE
<input type="checkbox"/> AS FOUND	<input type="checkbox"/> OUT OF TOLERANCE

CALIBRATION DATA						
<i>Tolerance: ± (3% of reading + 11.9 m³/h)</i>						
TESTING POINTS	SUPPLY DATA MEASURED IN m ³ /h			RETURN DATA MEASURED IN m ³ /h		
	CALIBRATION STANDARD	INSTRUMENT OUTPUT	ALLOWABLE RANGE	CALIBRATION STANDARD	INSTRUMENT OUTPUT	ALLOWABLE RANGE
1	3233	3288	3125 ~ 3341	3233	3192	3125 ~ 3341
2	2545	2571	2457 ~ 2633	2547	2516	2459 ~ 2635
3	2034	2049	1962 ~ 2106	2035	2013	1963 ~ 2107
4	1527	1539	1470 ~ 1584	1531	1531	1474 ~ 1588
5	1033	1036	991 ~ 1075	1023	1021	981 ~ 1065
6	508	501	481 ~ 535	506	505	479 ~ 533
7	168	170	152 ~ 184	167	167	151 ~ 183

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Thermometer	E006103	02-25-21	02-25-22
Pressure	E006155	06-16-21	06-16-22
Pressure	E006095	06-16-21	06-16-22
Flow	E005455	05-22-19	05-22-23
Flow	E005456	05-21-19	05-21-23
Flow	E006061	06-16-21	06-16-22

Calibration procedure used: 9011156

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ENVIRONMENT CONDITION		
TEMPERATURE	20.2	° C
RELATIVE HUMIDITY	49.9	% RH
BAROMETRIC PRESSURE	995	hPa

MODEL	AccuBalance® 8380
SERIAL NO.	T83801750005

CALIBRATION STANDARDS USED
Capture Hood Calibration System UK1

<input checked="" type="checkbox"/> AS LEFT	<input checked="" type="checkbox"/> IN TOLERANCE
<input type="checkbox"/> AS FOUND	<input type="checkbox"/> OUT OF TOLERANCE

CALIBRATION DATA						
Tolerance: \pm (3% of reading + 3.3 l/s)						
TESTING POINTS	SUPPLY DATA MEASURED IN l/s			RETURN DATA MEASURED IN l/s		
	CALIBRATION STANDARD	INSTRUMENT OUTPUT	ALLOWABLE RANGE	CALIBRATION STANDARD	INSTRUMENT OUTPUT	ALLOWABLE RANGE
1	898	913	868 - 928	898	887	868 - 928
2	707	714	683 - 731	707	699	683 - 731
3	565	569	545 - 585	565	559	545 - 585
4	424	428	408 - 440	425	425	409 - 441
5	287	288	276 - 298	284	284	273 - 295
6	141	139	134 - 148	141	140	134 - 148
7	47	47	43 - 51	46	46	42 - 50

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Pressure	E006095	06-16-21	06-16-22
Flow	E005455	05-22-19	05-22-23
Flow	E005456	05-21-19	05-21-23
Barometric Pressure	E006061	06-16-21	06-16-22

Calibration procedure used: 9011156



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ENVIRONMENT CONDITION		
TEMPERATURE	68.0	° F
RELATIVE HUMIDITY	51.3	% RH
BAROMETRIC PRESSURE	29.36	inHg

MODEL	AccuBalance® 8380
SERIAL NO.	T83801750005

CALIBRATION STANDARDS USED
Manometer Calibration Bench PRESSURE02-02

<input checked="" type="checkbox"/> AS LEFT	<input checked="" type="checkbox"/> IN TOLERANCE
<input type="checkbox"/> AS FOUND	<input type="checkbox"/> OUT OF TOLERANCE

CALIBRATION DATA						
TESTING POINTS	BAROMETRIC PRESSURE MEASURED IN in.Hg			DIFFERENTIAL PRESSURE MEASURED IN in.H ₂ O		
	CALIBRATION STANDARD	INSTRUMENT OUTPUT	ALLOWABLE RANGE	CALIBRATION STANDARD	INSTRUMENT OUTPUT	ALLOWABLE RANGE
1	20.19	20.19	19.79 - 20.59	0.0988	0.0992	0.0967 - 0.1009
2	29.38	29.38	28.80 - 29.96	0.475	0.477	0.465 - 0.485
3	34.40	34.39	33.72 - 35.08	2.91	2.91	2.85 - 2.97
4	-	-	-	11.8	11.8	11.6 - 12.0
5	-	-	-	14.6	14.6	14.3 - 14.9

TESTING POINTS	TEMPERATURE MEASURED IN °F		
	CALIBRATION STANDARD	INSTRUMENT OUTPUT	ALLOWABLE RANGE
1	5.0	5.0	4.5 - 5.5
2	77.0	76.9	76.5 - 77.5
3	158.0	157.9	157.5 - 158.5

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Measurement Variable	System ID Number	Date Last Calibrated	Calibration Due Date
DC Voltage	E006185	16-06-21	16-06-22
DC Voltage	E006185	16-06-21	16-06-22
Pressure	E006193	16-06-21	16-06-22
Pressure	E006030	17-06-21	17-06-22

Calibration procedure used: 9011158A



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ENVIRONMENT CONDITION		
TEMPERATURE	20.0	° C
RELATIVE HUMIDITY	51.3	% RH
BAROMETRIC PRESSURE	994	hPa

MODEL	AccuBalance® 8380
SERIAL NO.	T83801750005

CALIBRATION STANDARDS USED
Manometer Calibration Bench PRESSURE02-02

<input checked="" type="checkbox"/> AS LEFT	<input checked="" type="checkbox"/> IN TOLERANCE
<input type="checkbox"/> AS FOUND	<input type="checkbox"/> OUT OF TOLERANCE

CALIBRATION DATA						
TESTING POINTS	BAROMETRIC PRESSURE MEASURED IN hPa			DIFFERENTIAL PRESSURE MEASURED IN Pa		
	CALIBRATION STANDARD	INSTRUMENT OUTPUT	ALLOWABLE RANGE	CALIBRATION STANDARD	INSTRUMENT OUTPUT	ALLOWABLE RANGE
1	684	684	670 - 698	24.61	24.71	24.09 - 25.13
2	995	995	975 - 1015	118	119	116 - 120
3	1165	1165	1142 - 1188	725	725	710 - 740
4	-	-	-	2939	2939	2880 - 2998
5	-	-	-	3637	3637	3564 - 3710

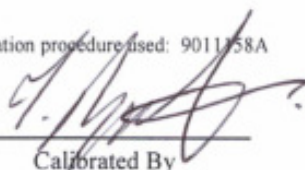
TESTING POINTS	TEMPERATURE MEASURED IN °C		
	CALIBRATION STANDARD	INSTRUMENT OUTPUT	ALLOWABLE RANGE
1	-15.0	-15.0	-14.7 - -15.3
2	25.0	24.9	24.7 - 25.3
3	70.0	69.9	69.7 - 70.3

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DC Voltage	E006185	16-06-21	16-06-22
DC Voltage	E006185	16-06-21	16-06-22
Pressure	E006193	16-06-21	16-06-22
Pressure	E006030	17-06-21	17-06-22

Calibration procedure used: 9011/58A


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