

The Air-Side TAB Workbook + Field Handbook

Enter design and measured airflows, get deviations and pass/fail on the spot, keep instruments and deficiencies under control, and issue the same clean report on every project.

Excel workbook

A6 pocket handbook

Configurable tolerances

A4 print-ready reports



TAB Workbook (.xlsx)

- Project, settings and instrument register
- AHU/fan, branch and terminal results
- Deficiency log with close-out
- Self-building summary report

Field Handbook (A6, 20 pages)

- Readiness checks and instrument care
- Traverse, hood and Ak-factor methods
- Proportional balancing, step by step
- Fault finder and quick reference

THE WORKBOOK

Enter readings once. Everything else is calculated.

Yellow cells are yours; grey cells do the maths. Drop-downs keep systems, categories, methods and instruments consistent.

Branch and Terminal Airflows

Final readings after balancing. Pick a Category so the matching tolerance band applies.
Yellow cells with blue text = enter data. Grey cells = calculated, do not overwrite.

Ref	System	Floor / zone	Room / location	Terminal type	Size	Category	Design flow (l/s)	Raw reading (l/s)	Correction factor	Measured flow (l/s)	% of design	Deviation	Lower limit	Upper limit	Result	Method	Instrument ID	Instrument check	Test date	Tested by	Remarks
SA-01-B1	SA-01	L1	Riser branch 1	Branch duct	600x400	Branch	1,200	1,242.0		1,242.0	103.5%	+3.5%	-5%	+10%	PASS	Pilot traverse	MM-01	CAL EXPIRED	23/09/2026	J. Smith	EXAMPLE
SA-01-01	SA-01	L1	Office 1.01	4-way ceiling diffuser	600x600	Terminal	150	152.0	1.00	152.0	101.3%	+1.3%	-10%	+10%	PASS	Flow hood	PH-01	OK	23/09/2026	J. Smith	EXAMPLE
SA-01-02	SA-01	L1	Office 1.01	4-way ceiling diffuser	600x600	Terminal	150	146.0	1.00	146.0	97.3%	-2.7%	-10%	+10%	PASS	Flow hood	PH-01	OK	23/09/2026	J. Smith	EXAMPLE
SA-01-03	SA-01	L1	Meeting 1.02	Linear slot, 2-slot	1500 long	Terminal	120	98.0	1.05	102.9	85.8%	-14.3%	-10%	+10%	FAIL	Flow hood	PH-01	OK	23/09/2026	J. Smith	EXAMPLE - Manufacturer factor 1.05 applied. VCD jammed, see D-001.
SA-01-04	SA-01	L1	Store 1.03	Supply grille	200x100	Terminal (low flow)	30	33.0	1.00	33.0	110.0%	+10.0%	-15%	+15%	PASS	Flow hood	PH-01	OK	23/09/2026	J. Smith	EXAMPLE
EA-01-01	EA-01	L1	WC 1.04	Extract valve	125 dia	Terminal	40	41.0	1.00	41.0	102.5%	+2.5%	-10%	+10%	PASS	Flow hood	PH-01	OK	23/09/2026	J. Smith	EXAMPLE
EA-01-02	EA-01	L1	WC 1.05	Extract valve	125 dia	Terminal	40	47.0	1.00	47.0	117.5%	+17.5%	-10%	+10%	FAIL	Flow hood	PH-01	OK	23/09/2026	J. Smith	EXAMPLE

AIRFLOW

Correction factors applied, % of design and deviation calculated, PASS/FAIL against the band for each category, and every row checked against the instrument register.

AHU and Fan Results

Plant totals by main duct traverse, assessed against the Plant tolerance band on the Settings sheet.
Yellow cells with blue text = enter data. Grey cells = calculated, do not overwrite.

Plant ref	System	Duty	Location	Design flow (l/s)	Measured flow (l/s)	% of design	Deviation	Lower limit	Upper limit	Result	Design ESP (Pa)	Measured ESP (Pa)	Filter dP clean (Pa)	Design speed (rpm)	Measured speed (rpm)	Motor FLC (A)	Measured current, max phase (A)	% of FLC	VSD (Hz)	Method	Instrument ID	Instrument check	Test date	Tested by	Remarks
AHU-01	SA-01	Supply	Roof plant	2,400	2,496	104.0%	+4.0%	0%	+10%	PASS	350	365	95	1,450	1,465	11.2	9.8	88%	46.5	Pilot traverse	MM-01	CAL EXPIRED	22/09/2026	J. Smith	EXAMPLE row. Traverse in 1000x600 main duct, 25 points.

AHU-FANS

Main traverse against the plant band, plus ESP, filter dP, fan speed and motor current as % of full-load current.

Instrument Register

Every reading must cite an instrument ID from this register. Calibration state is checked against the report date.
Yellow cells with blue text = enter data. Grey cells = calculated, do not overwrite.

Instrument ID	Type	Make	Model	Serial no.	Range	Accuracy	Calibration date	Interval (months)	Calibration due	Certificate no.	Status	Cal. state at report date	Days to due
PH-01	Flow hood	Make A	Model 1	SN1001	25-1000 l/s	+/-3% rdg	10/03/2026	12	10/03/2027	C-5521	Active	OK	163
MM-01	Micromanometer + pilot	Make B	Model 2	SN2002	0-3500 Pa	+/-1% rdg	01/09/2025	12	01/09/2026	C-4410	Active	CAL EXPIRED	-27
TC-01	Tachometer	Make C	Model 3	SN3003	10-99,999 rpm	+/-0.05%	15/01/2026	12	15/01/2027	C-6012	Active	OK	109

INSTRUMENTS

Calibration due dates worked out from the interval, expired kit flagged red, and anything due within 30 days shown in amber.

Deficiency Log

One fault per row. Close only after re-test, with the re-test figure in the close-out note.
Yellow cells with blue text = enter data. Grey cells = calculated, do not overwrite.

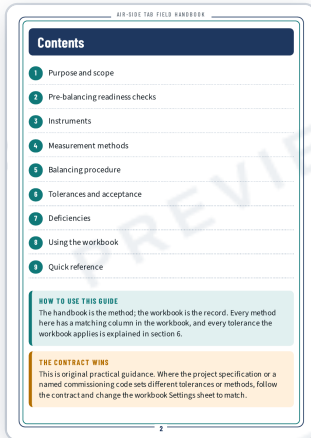
Ref	Date found	System	Location / item ref	Description	Category	Severity	Responsible party	Target date	Status	Date closed	Days open	Close-out note
D-001	23/09/2026	SA-01	SA-01-03	Branch VCD to linear slot jammed part-closed; terminal at 86% of design after correction.	Installation	Medium	M&E contractor	02/10/2026	Open		5	EXAMPLE
D-002	22/09/2026	SA-01	AHU-01	Filter access door seal damaged; air bypass at door.	Plant	Low	M&E contractor	25/09/2026	Closed	24/09/2026	2	EXAMPLE: Seal replaced; main traverse re-read 2,2496 l/s.

DEFICIENCIES

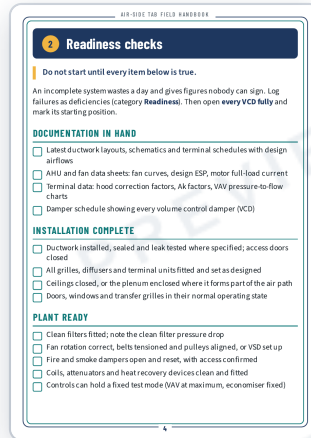
Category, severity, owner, target date and close-out note, with days open counted automatically.

The method, in your pocket

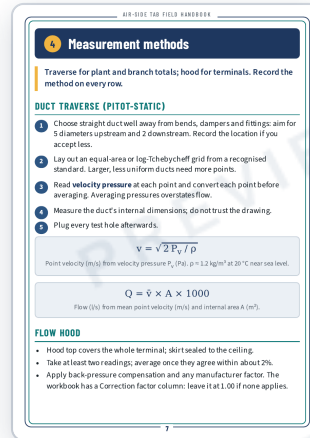
A 20-page A6 guide that goes where the hood and manometer go. Every method in it matches a column in the workbook.



Contents



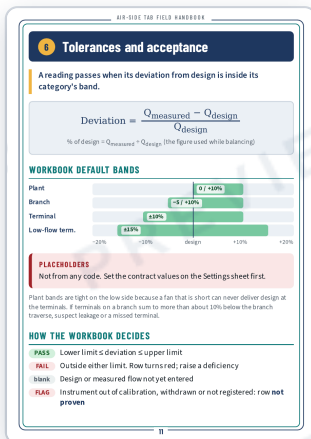
Readiness checks



Measurement methods



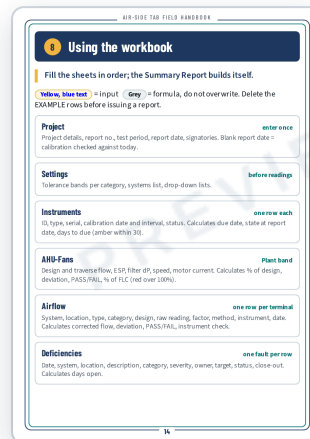
Balancing procedure



Tolerances



Fault finder



Using the workbook



Quick reference

Tick-box checklists

Readiness, start-of-day and end-of-system checks you can work straight down.

Worked formulas

Velocity from pitot pressure, duct and grille flows, density and fan laws.

Fault finder

Seven common symptoms, their likely causes and the first thing to check.

HOW IT WORKS

From empty site to signed report

The same four steps on every job, so every engineer and every subcontractor reports the same way.

01

Set up

Enter project details, set the tolerance bands from your specification, list systems and register instruments.

PROJECT · SETTINGS

02

Measure

Check readiness, traverse the mains, hood the terminals. Record the method and instrument for every reading.

HANDBOOK §2-4

03

Balance

Balance proportionally, set the fan last, then enter the final readings.

HANDBOOK §5 · AIRFLOW

04

Report

Log every fail as a deficiency, re-test, close out and print the Summary Report.

DEFICIENCIES · SUMMARY

WHAT THE WORKBOOK DOES WITH ONE READING

Meeting room linear slot, SA-01-03

Design flow	120 l/s
Hood reading × manufacturer factor	98 × 1.05
Measured flow	102.9 l/s
% of design	85.8%
Deviation	-14.3%
Terminal band	-10% to +10%
Result	FAIL

The fail is caught straight away. The row turns red, it appears on the report's exceptions page, and the matching deficiency (a jammed damper) is tracked until it's re-tested and closed.

Your spec, your limits. Tolerance bands are set per category on the Settings sheet (plant, branch, terminal, low-flow terminal) to match whatever your contract specifies.

Readings you can trust. If the hood's calibration had expired on the test date, the same row would be flagged as not proven, whatever its result.

WHAT YOU GET

Everything in the toolkit

Item	Details
TAB Workbook	Excel .xlsx with 8 sheets: Read Me, Summary Report, Project, Settings, Instruments, AHU-Fans, Airflow, Deficiencies. No macros.
Capacity	300 branch/terminal rows, 30 AHUs and fans, 30 instruments, 150 deficiencies and 20 systems per workbook, all extendable.
Tolerances	Four configurable categories with lower and upper limits, plus two spare categories for your own.
Printing	A4 throughout: a 3-page portrait summary, landscape data sheets with repeated headings, page numbers and headers.
Field Handbook	20-page A6 pocket PDF in colour, with nine sections, checklists, formulas, a fault finder and notes pages. Page count suits booklet printing.
Example data	Worked example rows on every sheet show the expected format. Delete them in a minute.

Site and commissioning engineers

A consistent way to witness, check and accept balancing results.

Balancing contractors

Faster reporting, fewer return visits, and a professional report on every job.

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Your name / company
Website or store link
Email

The handbook is original guidance and is not affiliated with or endorsed by CIBSE, BSRIA or ASHRAE. Default tolerance bands are placeholders; set them to your project specification. Where a contract names a commissioning code, the contract takes precedence.