IgnisTrack

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Fire Door Gap Measurement Guide

BS 8214:2016 Tolerances

Visual reference guide for measuring fire door gaps correctly

Measurement Points Diagram

Pass/Fail Criteria & Common Issues

Why Gap Measurements Matter

Fire doors are tested as complete assemblies with specific gap tolerances. Gaps that are too large allow fire and smoke to bypass the door. Gaps that are too small cause the door to bind or fail to latch properly.

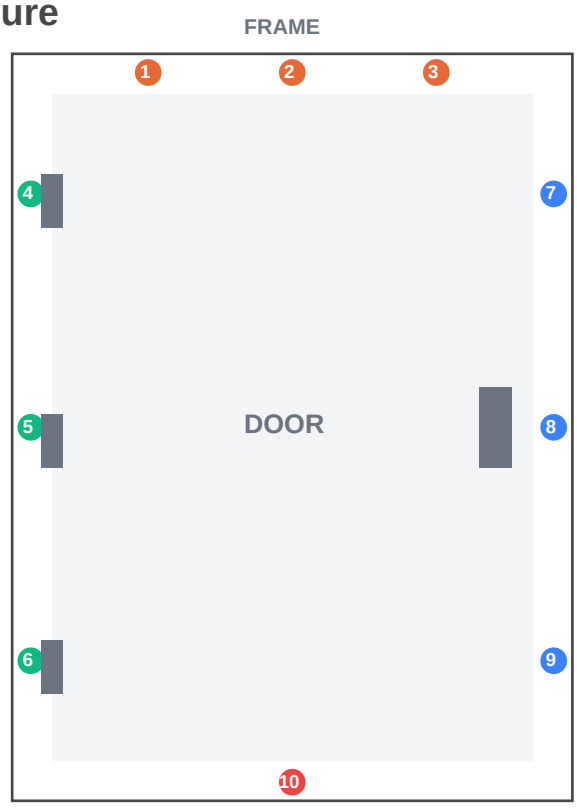
BS 8214:2016 specifies the acceptable gap tolerances for fire door assemblies. These tolerances ensure the door will perform as tested in a fire scenario.

BS 8214:2016 Gap Tolerances

Location	Standard Fire Door	Smoke Door (S-rated)
Head (top)	2-4mm	2-4mm
Hinge jamb (side)	2-4mm	2-4mm
Lock jamb (side)	2-4mm	2-4mm
Meeting stiles (double)	2-4mm	2-4mm
Threshold (bottom)	8-10mm*	8-10mm with seal / 3mm without

* Threshold tolerance depends on fire test evidence. Always check manufacturer documentation.

Where to Measure



- Points 1-3: Head gap (2-4mm)
- Points 4-6: Hinge jamb (2-4mm)
- Points 7-9: Lock jamb (2-4mm)
- Point 10: Threshold (8-10mm)

Pass/Fail Criteria

PASS

Head/jamb gaps: 2-4mm at all measurement points

Threshold gap: Within door's test evidence (typically 8-10mm)

MARGINAL - Investigate Further

Head/jamb gaps: 1-2mm (too tight) or 4-5mm (borderline large)

Threshold gap: Approaching limits - verify against test evidence

FAIL - Action Required

Head/jamb gaps: Less than 1mm or greater than 5mm

Threshold gap: Exceeds door's tested limits

Any gap where light is visible through intumescent seal

Common Gap Issues

Gaps Too Large

Door trimmed excessively, frame undersized. May require door replacement.

Gaps Too Small / Door Binding

Humidity causing swelling, dropped hinges. Hinge adjustment or trimming needed.

Uneven Gaps

Frame not plumb/level, worn hinges. Investigate root cause.

Recommended Tools

Gap Gauge Set - Dedicated fire door gap gauges with 2mm, 3mm, and 4mm blades.

Feeler Gauges - Automotive feeler gauges provide precise measurements.

References

- BS 8214:2016 - Code of practice for fire door assemblies
- Approved Document B - Fire Safety (Volume 2)

Disclaimer

IgnisTrack is a tool to assist with fire safety record-keeping.
The Responsible Person remains legally responsible for fire safety compliance.