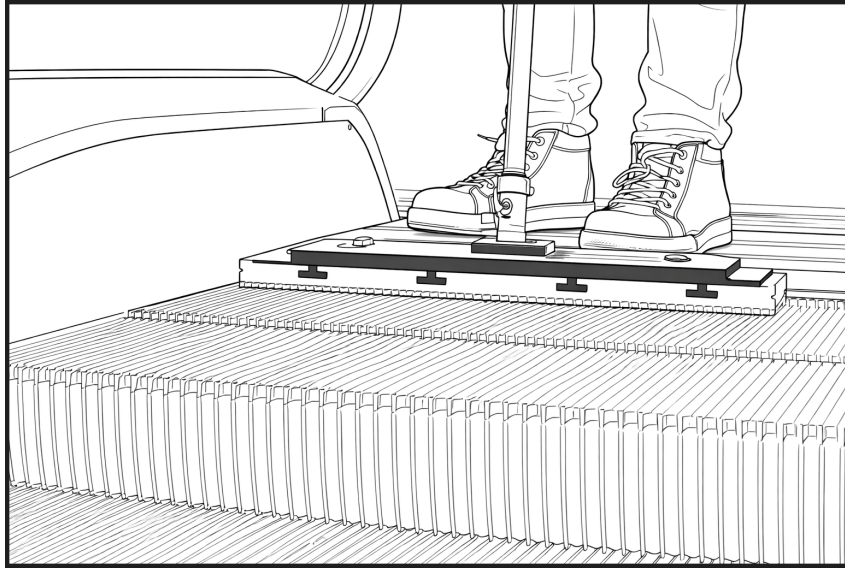




EScaTEQ METHOD™

Voluntary Framework for Escalator Step Tread Surface Cleaning

Version 2.8

1. Purpose and Scope

Escalators are safety-critical transportation systems operating continuously in public environments. While mechanical maintenance procedures are defined within OEM documentation, cleaning approaches vary widely across markets and service providers.

The EscaTEQ Method™ defines a structured low-moisture escalator cleaning framework intended to maintain exposed escalator surfaces while minimizing operational disruption and limiting liquid introduction into escalator mechanical systems.

The method utilizes handheld, operator-controlled tools applied only to exposed step surfaces under site-approved operating conditions and in accordance with applicable OEM guidance, site safety procedures, and local requirements.

This method is designed for application with the escalator in service. The escalator's controlled step motion is a component of the cleaning mechanism: absorbent media contacts tread surfaces as steps pass, enabling effective surface cleaning without the introduction of free liquids or external mechanical force.

This document establishes a structured and repeatable operational system for surface-level escalator cleaning intended for facility operators, cleaning professionals, vertical transportation specialists, maintenance providers, and facility engineering personnel seeking a consistent escalator cleaning methodology.

2. Method Positioning

The EscaTEQ Method™ represents a field-derived operational framework developed through documented deployments and observation of common escalator cleaning issues.

Contrast with Conventional Methods: Conventional escalator cleaning methods may involve high liquid volumes, spray application, or heavy mechanical equipment, which can introduce risks including moisture ingress, uncontrolled liquid distribution, and component interaction.

The EscaTEQ Method™ is structured specifically to reduce these variables through controlled, low-moisture, surface-only cleaning.

The EscaTEQ Method™ emphasizes frequent, low-moisture preventive surface cleaning intended to maintain more consistent surface condition over time.

This method is intended to address surface-level cleaning activities and does not replace OEM-defined maintenance, repair, inspection requirements, statutory obligations, site safety procedures, or consultant-directed escalation where defects or abnormal conditions are present.

3. Method Boundaries

The EscaTEQ Method™ addresses exposed escalator step tread surfaces only.

The method does not:

- Replace mechanical repairs or component replacement
- Address internal truss, gearbox, or electrical components
- Substitute for OEM-required maintenance procedures
- Require escalator disassembly or step removal
- Introduce standing water or uncontrolled liquid application

The method should be considered a step tread surface-cleaning framework supporting broader escalator asset management practices.

The method is intended to avoid interference with normal escalator operation and mechanical function.

4. Core Principles

The EscaTEQ Method™ is based on operational principles intended to reduce risk while supporting preventive maintenance.

Low-Moisture: Cleaning solution remains retained within absorbent media to limit liquid migration beneath the escalator truss.

Controlled Surface Contact: Cleaning action is restricted to exposed surfaces using compliant absorbent media designed to minimize abrasive wear.

Operator-Controlled Tools: Handheld tools enable rapid one-person deployment without external power equipment. This method is designed for application with the escalator in service; controlled escalator step motion forms part of the cleaning action. Deployment requires site risk assessment, maintenance-provider authorization, and compliance with applicable OEM guidance.

Preventive Surface-Cleaning Approach: Frequent low-impact cleaning reduces contaminant accumulation on escalator step tread surfaces and is thereby intended to support more consistent and predictable surface condition over time.

Operational Limitations / Escalation Conditions: The EscaTEQ Method™ is intended for surface-level cleaning within defined operating conditions. Escalation to alternative or additional methods may be required in the following cases:

- Heavily embedded grease or contamination beyond surface-level removal
- Mechanical defects or abnormal escalator operation

In such cases, evaluation by the appropriate maintenance provider or engineering authority is recommended.

5. Standard Operating Sequence

The EscaTEQ Method™ follows a consistent operational sequence:

(1)	(2)	(3)	(4)	(5)
Area preparation including signage and barricading where required	Visual inspection and dry debris removal at landings and comb plates	Low-moisture cleaning passes using designated handheld tools	Post-clean visual inspection verifying surface condition	Documentation of service and scheduling of the next cleaning cycle

6. Escalator Condition Classification

Escalators should be visually evaluated and assigned a condition class based on observable surface conditions.

Class	Category	Indicators
A	Heavily Neglected / Restorative	Indicators may include heavy grease accumulation, embedded debris, extended periods without cleaning, or visibly degraded step surfaces.
B	Average / Maintained	Indicators may include moderate soil accumulation, visible staining, and evidence of prior cleaning.
C	Well Maintained / Preventive	Indicators may include minimal visible soil and consistent preventive cleaning history.

7. Condition Classification – Application Guidance

Consultants, maintenance providers, or engineering personnel may use the following indicators when assigning escalator condition classification: visible grease accumulation on steps; step tread staining or discoloration; debris accumulation at comb plates; passenger slip complaints or safety concerns; time since

last documented cleaning.

Where multiple Class A indicators are observed, the escalator may be reasonably classified A based on engineering or maintenance-provider review.

Where Class A indicators are not predominant and observable contamination is moderate, the escalator may be reasonably classified B based on engineering or maintenance-provider review.

Where visible contamination is minimal and preventive cleaning history appears consistent, the escalator may be reasonably classified C based on engineering or maintenance-provider review.

Final classification should remain based on overall observed condition and engineering or maintenance-provider review.

8. Cleaning Frequency Framework

Cleaning frequency determines how often cleaning occurs and is independent from condition classification. Frequency should be determined based on three primary factors:

- passenger traffic volume
- environmental dirt load
- observed soil accumulation rate

Class	Frequency	Typical Environment	Traffic Indicator
5	Daily (Off-Peak)	Major metro systems, major rail terminals, busiest international airports	~20,000–100,000 riders/escalator/day
4	Weekly	Busy airports, high-traffic shopping centers, major transit hubs	~5,000–20,000 riders/escalator/day
3	Every Two Weeks	Regional shopping centers, large hotels, casinos	~1,500–5,000 riders/escalator/day
2	Monthly	Office towers, hospitals, department stores	~500–1,500 riders/escalator/day
1	Quarterly	Class-A office buildings, corporate HQ, government facilities	Fewer than 500 riders/escalator/day

Where contamination accumulation exceeds the assigned frequency band, reclassification or adjustment of cleaning frequency should be considered. These frequency bands are field-derived starting points and may be adjusted based on site conditions and engineering or maintenance-provider review.

Condition classification (A/B/C) determines the initial preparation required before steady-state maintenance begins. Frequency classification (1–5) determines how often ongoing maintenance occurs.

9. Safety and Risk Considerations

The EscaTEQ Method™ is intended to limit risk factors commonly associated with escalator cleaning.

Moisture Control: Cleaning liquid remains contained within absorbent media. The method avoids spray application, standing water, or uncontrolled liquid introduction.

Tool Interaction: Cleaning tools utilize compliant absorbent media and avoid rigid mechanical engagement with escalator components in order to reduce entrapment risk.

Absorbent Media: Absorbent media utilized within the EscaTEQ Method™ should support controlled liquid-management behavior, compliant surface interaction, and stable performance under normal operational loading conditions in order to support low-moisture deployment objectives and reduce uncontrolled free-liquid release during operation. Media should demonstrate uniform compressibility throughout its structure and should not incorporate rigid backing layers, adhesive-bonded substrates, or hook-and-loop attachment systems that may restrict compliant deformation or create elevated entrapment risk under abnormal operating

conditions.

Operating Mode: This method is designed for application with the escalator in service. Deployment requires prior site risk assessment, maintenance-provider authorization, and compliance with applicable OEM guidance regarding cleaning activities performed during escalator operation.

Operational Safety: All work should follow site safety procedures including signage, barricading, and PPE. This method is designed for application with the escalator in service; lockout or tagout procedures are not standard to this method. Where site protocol, OEM guidance, or engineering authority requires lockout or tagout prior to any cleaning activity, those requirements take precedence and deployment of this method is subject to engineering-authority review.

Operators should be trained in accordance with site-specific safety and operational procedures.

Slip testing protocol should be defined by site policy or site engineering or maintenance-provider requirements.

10. Effectiveness Definition

Effectiveness refers to maintaining consistent escalator surface condition through frequent preventive cleaning, reduced contaminant accumulation, and minimized operational disruption.

The method does not imply removal of deeply embedded historical contamination within a single cleaning cycle.

11. Supporting Documentation

Supporting field validation is documented in the EscaTEQ Field Evidence Packet.

Official Documentation Hub

<https://escateq.com/method/>

12. Disclaimer

This document is provided for informational purposes and defines a surface-level cleaning methodology designed to operate within non-invasive boundaries. It does not replace OEM-recommended maintenance procedures and is not intended to modify, replace, or interfere with escalator systems or components.

Whether any activity constitutes an alteration must be determined by the applicable Authority Having Jurisdiction (AHJ), OEM, or designated engineering authority. References to ASME A17.1, EN 115, EN 13015, and ISO 14798 are provided for contextual awareness only. This method has not been formally evaluated or certified against specific clauses within these standards.

The EscaTEQ Method™ does not seek or imply OEM approval.

This method does not replace OEM procedures.

This method is limited to exposed, surface-level cleaning activities only.

No implied approval by any OEM, consultant, or Authority Having Jurisdiction is stated or should be inferred.

Implementation remains the responsibility of the facility owner, service contractor, or maintenance provider. All work must comply with manufacturer guidance, site safety procedures, and applicable regulations.

Stop and refer for OEM or engineering-authority review if damage, noise, irregular operation, or traction concerns exist.

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