

THE OUTDOOR LOOK

Swageless Wire Balustrade System Trouble Shooting Guide

Introduction

This guide is designed to help installers and end users identify and resolve common issues related to the Swageless Wire Balustrade System. Constructed with marine-grade 316 stainless steel components, it provides strong, reliable tensioned-wire support when installed and maintained correctly.

This document covers installation problems, tensioning concerns, wire alignment issues, and ongoing maintenance troubleshooting.

Common Installation Issues

Wire Tension Uneven or Inconsistent

Cause:

- Unequal turnbuckle adjustments
- Incorrect wire insertion into swageless connector
- Substrate movement at post bases

Solution:

1. Adjust tension from the end posts inward using the turnbuckles.
2. Ensure wire is fully seated in the gripping cone of each swageless connector.
3. Re-check post alignment and base fixings.

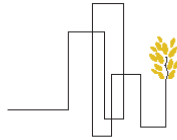
Wire Slipping from Connectors

Cause:

- Wire not inserted to full depth
- Internal cone worn or contaminated
- Incorrect wire diameter used

Solution:

1. Remove connector, clean internal gripping jaws, reinsert wire fully and retighten.
2. Replace any worn locking cones.
3. Only use 3.0 mm 316 stainless wire rope.



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Posts Leaning or Out of Plumb

Cause:

- Inadequate substrate or incorrect fixings
- Posts tensioned before anchors fully set

Solution:

1. Re-secure or replace the mechanical anchors.
2. Ensure posts are plumb before tensioning wires.
3. Use chemical anchors where required.

Wire Alignment Not Level Across Posts

Cause:

- Posts misaligned during installation
- Incorrect hole sequencing (7 or 14 hole posts)

Solution:

1. Verify correct post types:
 - 14-hole posts for mid/corner runs with 7 wires both sides
 - 7-hole posts for end or transitional locations
2. Adjust eyebolts if required to fine-tune alignment.

Common Maintenance Issues

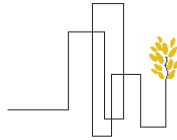
Tea Staining or Brown Surface Marks

Cause:

- Contaminants, salt, or airborne particulates bonding to stainless steel

Solution:

- Clean with a non-abrasive stainless-steel restorer.
- Increase cleaning frequency in coastal areas.



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Wire Vibrating in Wind

Cause:

- Under-tensioned wires
- Long uninterrupted wire runs

Solution:

1. Re-tighten turnbuckles.
2. Install anti-vibration dampers if required on long spans.
3. Noisy Turnbuckles (Creaking or Clicking)

Cause:

- Thread binding
- Uneven loading

Solution:

1. Apply a small amount of marine-grade lubricant to turnbuckle threads only (never inside connectors).
2. Ensure equal thread exposure on both sides.
3. Loosening of Eyebolts

Cause:

- Vibration
- Over-tensioning wires

Solution:

1. Re-tighten eyebolts to correct torque.
2. Do not exceed recommended wire tension.

Preventive Maintenance Tips

Clean stainless steel every 2–3 months.

- Rinse weekly in coastal/pool locations.
- Inspect tension annually.
- Replace damaged connectors immediately.
- Keep wire runs free from plant growth or foreign materials.
- Avoid direct contact with carbon steel or corrosive chemicals.