

Wire Balustrade System

Troubleshooting Guide — swageless 316 stainless steel wire system

Common problems on wire balustrade installations, what causes them and how to put them right. If you are stuck, call 01282 526428 — we would rather talk it through than have you guess.

01 INSTALLATION — TENSION AND CONNECTORS

Wire tension uneven or inconsistent

Cause: turnbuckles adjusted unequally · wire not fully seated in the connector · movement at a post base.

1. Work from the end posts inward and from the bottom wire upward. Tensioning one wire slackens those already done, so expect to go round twice.
2. Check the wire is fully home in the gripping cone of each connector.
3. Check post alignment and base fixings before adjusting any further.

Wire slipping out of a connector

Cause: wire not inserted to full depth · gripping cone worn or contaminated · wrong wire diameter.

1. Remove the connector, clean the internal jaws, reinsert the wire fully and retighten.
2. Replace any worn locking cone.
3. Use 3.0 mm 316 stainless wire only — a thinner wire will not grip.

If a connector has been lubricated internally, replace it. The gripping cones are designed to hold dry and will not grip reliably once oiled.

02 INSTALLATION — POSTS AND ALIGNMENT

Posts leaning or out of plumb

Cause: substrate not strong enough or the wrong fixing for it · wire tensioned before anchors had set.

1. Re-secure or replace the anchors, using resin anchors where the substrate requires them.
2. Get every post plumb before any wire is tensioned.
3. Confirm the fixing suits the surface. Ground fixings are not supplied for this reason.

Wires not level across the posts

Cause: posts set at different heights or out of line · wrong post type in a position.

POST TYPE	WIRE HARDWARE	POSITION
Start / End	7 eyebolts, one face	Each end of a run
Mid	14 eyebolts, two opposite faces	Wire stops and restarts
Corner	14 eyebolts, two faces at 90°	Change of direction

POST TYPE	WIRE HARDWARE	POSITION
Through	7 plain holes	Wire passes through
Plain	Undrilled	Stair runs

Check the post types are right for their positions, then adjust the eyebolts to fine-tune alignment.

Wires not lining through on a stair run

Cause: holes drilled on site at inconsistent heights or angles.

There is no adjustment that corrects badly drilled posts. Holes must be at 132 mm centres, the lowest 128 mm above the base, angled to match the pitch of the stairs so every wire runs parallel. A drill wanders on a round tube — use a jig or have the posts drilled in a workshop. If the holes are already out, the post needs replacing.

03 IN USE

Wire vibrating or humming in wind

Cause: wires under-tensioned · a long uninterrupted span.

1. Re-tension the turnbuckles until the wire is taut with no visible sag.
2. If it persists on a long run, the span may need breaking with an additional termination post. Call us before adding one — it changes the fittings count.

Turnbuckles creaking or clicking

Cause: threads binding · uneven loading.

1. Apply a small amount of marine-grade lubricant to the **turnbuckle threads only** — never inside the connector body.
2. Check both sides show equal thread.

Eyebolts working loose

Cause: vibration · wire over-tensioned.

1. Re-tighten the eyebolts.
2. Reduce the tension. Taut with no visible sag is enough — more than that loads the eyebolts and post bases without improving the balustrade.

Brown marks on the stainless steel

Cause: tea staining — airborne contaminants and salt bonding to the surface.

Clean with a non-abrasive stainless steel restorer and clean more often in coastal and poolside locations. This is cosmetic and does not affect the strength of the system. See document TOL-WIRE-BAL Warranty & Maintenance.

04 PREVENTIVE MAINTENANCE

- Clean the stainless steel every 2 to 3 months
- Rinse weekly in coastal and poolside locations
- Check tension annually, and once a few weeks after installation

- Replace damaged connectors immediately
- Keep wire runs clear of plant growth
- Keep carbon steel and corrosive chemicals away from the system, including steel wool

If a problem is not listed here, or a repair would involve modifying a post or connector, contact us before proceeding. Modifications are not covered by warranty.