

SmartFence is a cabling management system that can be installed directly onto new or existing perimeter fencing. Channels allow space for electrical power, surveillance, detection, access control, and/or fiber and Ethernet cabling.

SmartFence is a simple, fence mounted solution requiring no installation disruption like site excavation and pulling cables through buried conduit.

Parts:

1. Master profile to carry electrical safety cables (Fig. 1)
2. Cover click profile mounts to master profile (Fig. 1)
3. Spider clamps with fasteners (Fig. 1)
4. Profiles for moving around posts (Fig. 2)

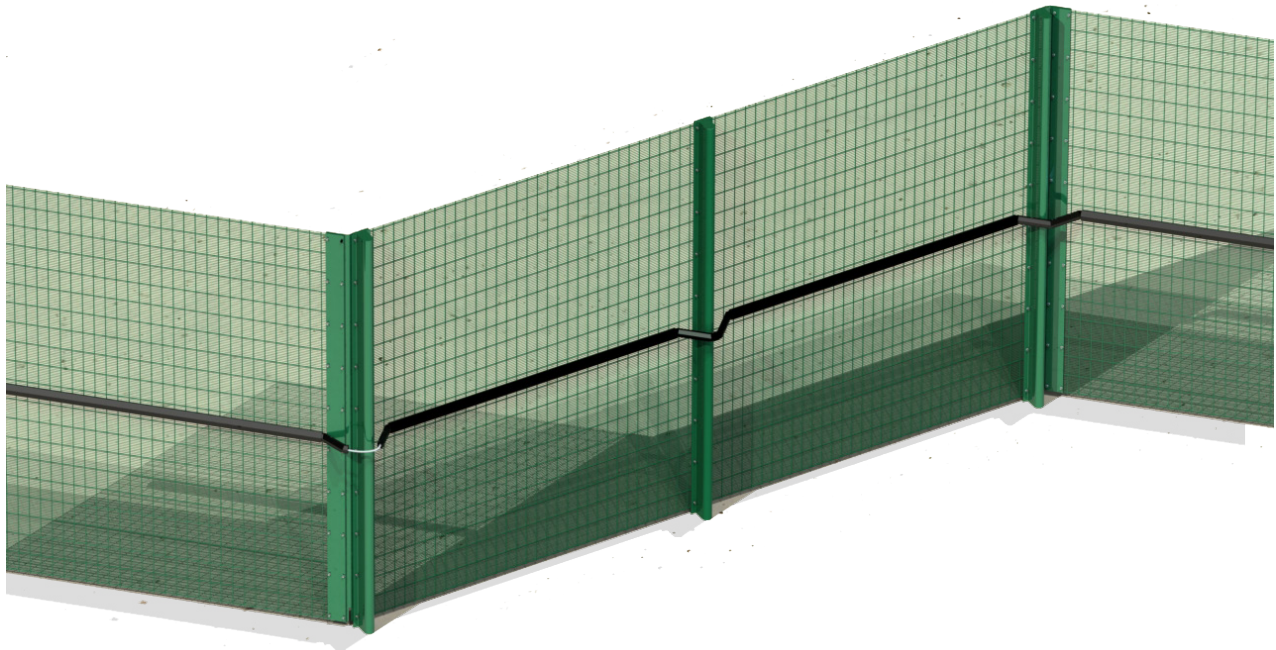


Figure 2: PROFILES FOR MOVING AROUND POSTS

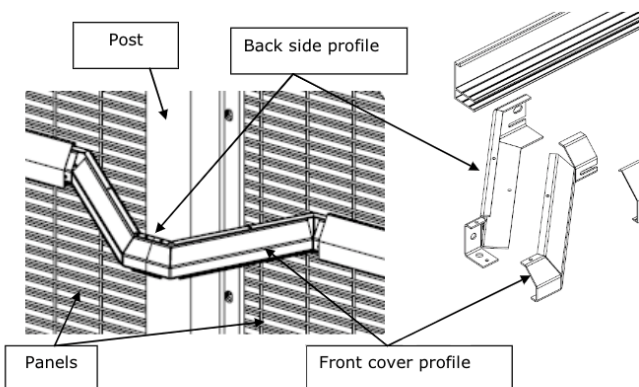
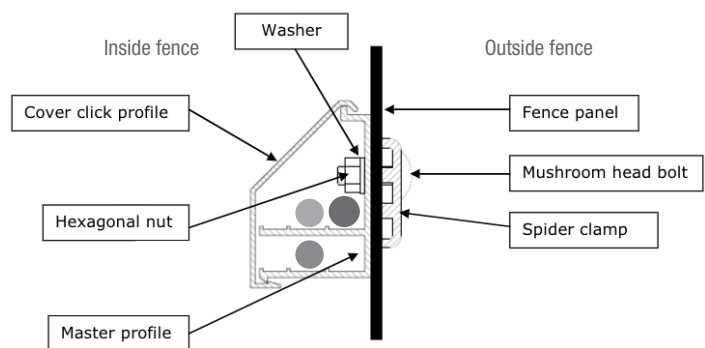


Figure 1: FENCE PROFILES



SMARTFENCE

RAW MATERIALS

Aluminum (straight profiles)	Made from aluminum EN AW-6060 T66 in accordance with EN 12020-2												
Sendzimir steel (around posts)	Chemical composition: <table border="1"> <thead> <tr> <th>Element</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>C</td> <td>≤ 0.20</td> </tr> <tr> <td>Si</td> <td>Max. 0.60</td> </tr> <tr> <td>Mn</td> <td>Max. 1.70</td> </tr> <tr> <td>P</td> <td>Max. 0.12</td> </tr> <tr> <td>S</td> <td>Max. 0.045</td> </tr> </tbody> </table> <p>Steel in accordance with EN 10346; steel designation is S250; steel strip continuously galvanized in accordance with European Standard EN 10346 Z275.</p> <p>If DX51D or S220 quality is used in accordance with EN 10346, yield strength will be minimum 235 N/mm²</p>	Element	%	C	≤ 0.20	Si	Max. 0.60	Mn	Max. 1.70	P	Max. 0.12	S	Max. 0.045
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C	≤ 0.20												
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Bright steel (spider clamp & connection plate)	Steel in accordance with European Standard EN 10025-2. Steel designation is S235. Yield strength of steel is minimum 235 N/mm ² .												
Zinc	Used for hot dip galvanization in accordance with ISO 1461.												
Stainless steel fasteners	Made from Grade A2 stainless steel in accordance with ISO 3506.												
Polyester	Lead and cadmium free.												

PROPERTIES

Dimensions and tolerances	Profile dimensions and technical project drawings available on request.
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ACCESSORIES

Fasteners (bolts, washers, nuts, rivets)	Standard fasteners: <table border="1"> <tbody> <tr> <td>Bolt</td> <td>M6 x 25 (3x)</td> <td>Made from inox, quality A2⁽¹⁾</td> </tr> <tr> <td>Nut</td> <td>M6 (3x)</td> <td>Made from inox, quality A2⁽²⁾</td> </tr> <tr> <td>Washer</td> <td>M6 (3x)</td> <td>Made from inox, quality A2⁽¹⁾</td> </tr> <tr> <td>Rivet</td> <td>Ø 4, 8 x 20 (6x)</td> <td>Made from aluminum</td> </tr> </tbody> </table> <p>(1) Bolts and nuts made from stainless steel, quality A2 in accordance with ISO 3506-1.</p> <p>(2) Nuts made from stainless steel, quality A2 in accordance with ISO 3506-2.</p> <p>Note: fastener dimensions in accordance with the type of panel and posts used.</p>	Bolt	M6 x 25 (3x)	Made from inox, quality A2 ⁽¹⁾	Nut	M6 (3x)	Made from inox, quality A2 ⁽²⁾	Washer	M6 (3x)	Made from inox, quality A2 ⁽¹⁾	Rivet	Ø 4, 8 x 20 (6x)	Made from aluminum
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COATING

Metallic coating	<p>Spider clamps and connection plates made from bright steel then hot dip galvanized in accordance with ISO 1461.</p> <p>Spider clamp (3 mm): Local zinc coating thickness: 45µm (325 g/m²) Mean zinc coating thickness: 55µm (395 g/m²)</p> <p>Connection plate (2 mm): Local zinc coating thickness: 35µm (250 g/m²) Mean zinc coating thickness: 45µm (325 g/m²)</p> <p>Excellent corrosion protection achieved with thick zinc layer covering all exposed surfaces. Some appearance of visual surface roughness is possible.</p> <p>Bended profiles around posts: Minimum 275 g/m² average of three measurements and double-side determined in accordance with EN 10346 Z275.</p>
Polyester coating	<p>Thickness: Minimum 60µm (average of 10 measurements on one master profile, cover click profile, spider clamp or connection plate)</p> <p>Standard colors: Green RAL 6005, Black RAL 9005 and Anthracite Gray. Other standard colors available, see technical data sheet TDS-99-03: Polyester coating. Non-standard colors on request.</p> <p>Adhesion: Two scratches are made through coating with a pointed tool, intersecting at an angle of 30° ± 5° and penetrating to the metal. Lifting a peak with a knife point, coating shall not lift from metal by more than 5mm.</p> <p>Polyester resistance to salt spray: With metal tool, make diagonal cross scratch penetrating coating to the metal. Test in accordance with ISO 9227. After 1000h there shall be no corrosion below the polyester or loss of adhesion in excess of 10mm from the diagonals.</p> <p>UV resistance: In accordance with ISO 16474-3. After 1000h and after washing with pure water, color difference (expressed as ΔE*) is maximum 3. Loss of gloss after 1000h maximum is 50% of original measured after washing with pure water.</p>

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