

Birds of Eden, Plettenberg Bay, South Africa



Introduction:

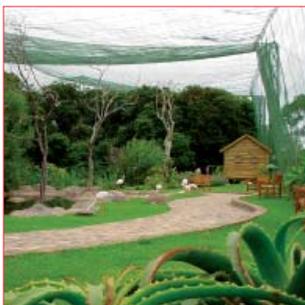
When the Birds of Eden sanctuary at Plettenberg Bay in South Africa needed to cover their 23,000m² aviary, **KnitMesh Technologies®** provided them with a knitted wire mesh solution to help safely keep their birds in, and unwanted pests out.

The Challenge

The Birds of Eden free-flight bird sanctuary required a permeable cover for their 23,000m² dome, which spanned over a gorge of indigenous forest. The cover material needed to allow sunshine, wind and rain through in order to maintain the local climactic conditions within the sanctuary; whilst preventing the escape of birds and miniature monkeys, and the entrance of unwanted pests or visitors (such as reptiles, small mammals, and other larger primates). The sanctuary had previously been covered with 25mm weld-mesh which had rusted, hence the need for a corrosion-resistant replacement.



The Solution



The sheer scale of the project required KnitMesh to develop new processes in order to be able to knit the area of mesh required to cover the Birds of Eden dome. New knitting machines were designed and commissioned that could knit heavy duty steel wire in socks up to 2m in circumference. These socks were then slit to form rolls of 2m wide mesh which could be welded together on-site to form the canopy of the sanctuary. The wire diameter and stainless steel material was selected to optimise the strength to weight ratio and ensure maximum corrosion resistance. By replacing the original weld-mesh with knitted mesh the weight of the covering was reduced from 88 tons to just 8 tons, thereby taking a huge strain off the supporting structure.

Birds of Eden Project, Plettenberg Bay, South Africa

Birds of Eden is the Garden Route's very own world class free flight bird sanctuary. The unique 23,000m² dome (the World's largest) spans over a gorge of indigenous forest and has its own ruin, which incorporates a walk-behind waterfall. The sanctuary was developed from the need to create a safe environment in which to release a large collection of free-flight African birds, miniature monkeys and the sanctuary also enables bird owners to apply to release their pet birds into the sanctuary, after undergoing rehabilitation. Currently over 3500 birds live at the sanctuary. For further information please visit the Birds of Eden website at www.birdsofeden.co.za



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