

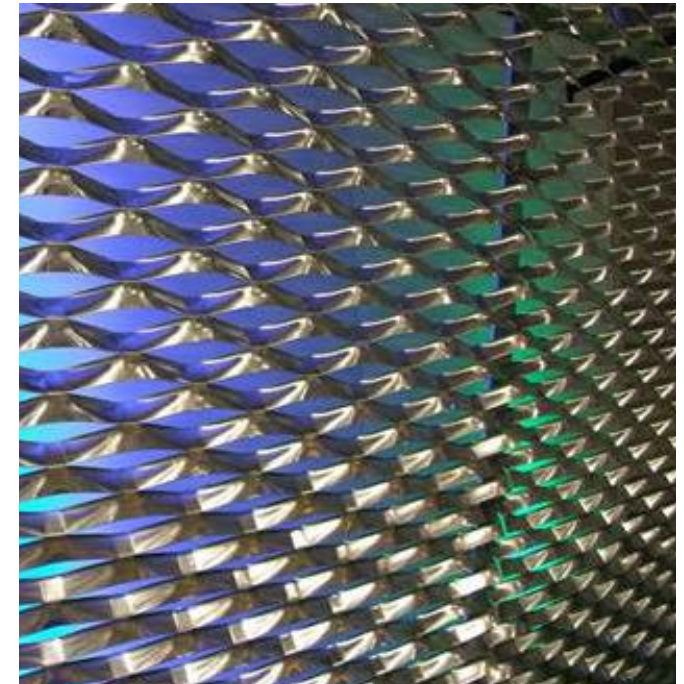
Governador Plácido Castelo Stadium - Castelão Arena, Fortaleza, Ceará, Brazil

Architects: Vigliecca & Associados, São Paulo (refurbishment)

The stadium in Fortaleza city in the North East of the country, called Castelão, hosted six World Cup matches. Designed for 64,000 persons and initially opened in 1973, it recently went through two years of refurbishments. The façade was entirely rebuilt using stainless steel stretch metal. The principle: by slitting sheet metal and expanding it, the material naturally shapes into a structurally optimal geometry. The stretching process is carefully controlled to produce the desired ratio of open and closed surfaces. Although the original 2B surface used is quite bright, the reflection of the stretch metal is diffuse. It reflects heat away from the building without causing glare. The molybdenum-bearing ferritic grade 444 was found to be technically and economically an optimal solution for the environment. In addition to the external frame, stainless steel was used on railings, handrails at VIP areas, lavatories and locks of the stadium.



Photos courtesy of Aperam South America



Details

Environment:	Urban outdoor
Fabrication process:	Stretch forming
Grade and finish:	444, 2B
Total weight of the stainless steel used in the project:	80 tons
Date of completion:	2012
Manufacturing company:	Martifer, Fortaleza, and Permetal, Ribeirânia, Ribeirão Preto
Material supplier:	Aperam South America