



Stainless Steel *Driving the Urban Transport*

Delhi has led the way in development of the urban transport system of the nation, especially the Metro Rail Network. The roaring success of the Delhi Metro is now waiting to be replicated in Mumbai, Bangalore, Hyderabad, Ahmadabad, and Chennai. Many African and Asian countries have also approached DMRC to replicate it in their cities.

Stainless Steel- Metal par excellence

Stainless Steel has been preferred by the Metro Rail System on account of its qualities like weight to strength ratio, extended shelf life, corrosion resistance and maintenance free properties. Strength to weight ratio has allowed Metro to build lighter coaches while this has had a direct impact on energy consumption. Moreover, in case of an eventuality passengers would be safer due to the high impact resistance properties of stainless steel grades used in metro coach body.

Since meta-stable austenitic stainless steels exhibit excellent combination of

high strength and high toughness in cold rolled tempers, body structures of rail coaches have been made from austenitic stainless steel such as 304 & 301L in different cold rolled tempers such as High tensile (HT), Medium tensile (MT) and Special Tensile (ST).

Talking about his decision to use stainless steel extensively in the Delhi Metro Dr. E. Sreedharan, Ex-MD of Delhi Metro Rail Corporation, said, "The idea was to build something lightweight yet durable and safe in the face of any eventuality. We therefore chose stainless steel for the body. Using stainless steel has also ensured less maintenance and repair for the exterior and interior. Inside the coaches also we have used stainless steel extensively for seats and poles. With ever increasing flow of passengers we have been proven right in our choice of stainless steel over other materials for the Delhi Metro".

Stainless steel has not only been used in Metro Rail coaches, but, can be seen all across the metro stations in

various innovative forms; railings, poles, elevators, dustbins, planters etc. While stainless steel is today being extensively used in the ABC & ART sectors, but, one has to admit that the Metro rail system has given stainless steel high visibility and continues to inspire architects and designers to innovatively use this magical metal.

Applications in Metro Rail Project

Metro Rail Coaches

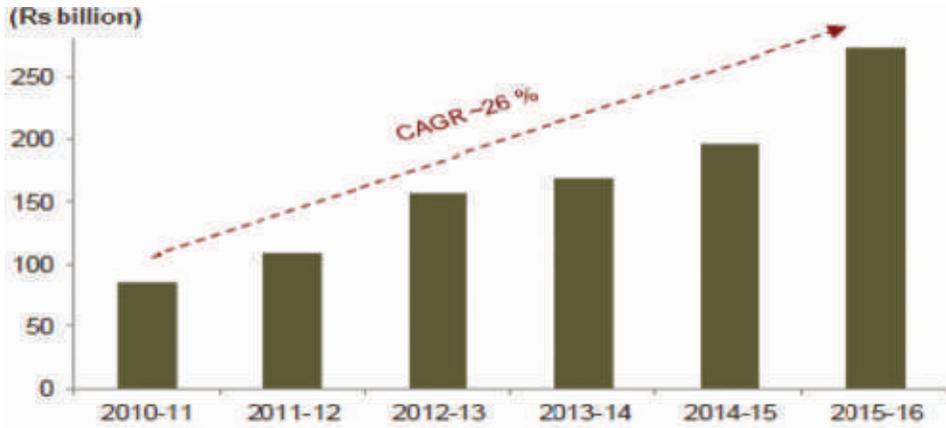
Complete Shell, Structure members, Head stock, Flooring and ceiling, Seats, Seat Supports, Grab Poles, Hand Holds, Doors.

Metro Rail Infrastructure

Turnstiles, Barricades, Handrail – stairs, Advertising panels, Benches, Waste bins, Kick rail, Guard rail, Ticketing counters, Skirting, dado, Spider glazing, Pillar cladding

Jindal Stainless Limited is proud to be associated with giants of the industry i.e. BEML, Bombardier, Rotem etc and to supply its 300 series of high quality





Source: CRISIL Research

stainless steel and play its part in the development of new age mass transit system for the country.

Investments in metro rail projects are expected to increase significantly at a CAGR of around 26 per cent over the next five years. Investments in Phase

III of the Delhi metro, Jaipur metro, Hyderabad metro and Chennai metro are expected to drive the rise in overall investments on metro rail projects.

The above investment opportunity in Metro Rail Projects is estimated to

translate into substantial consumption of stainless steel over the next five years.

With increasing population, passenger traffic is expected to grow at a steady pace. To decongest tier-I cities, Planning Commission has established threshold population level required for MRTS at 4 million, therefore, there is tremendous scope for metro rail project to expand at a rapid pace and this gives us confidence that the Metro Rail System is going to be one of the major catalysts in driving the demand for stainless steel in the country.

(Article courtesy: Jindal Stainless Limited.)

STRONGER FOR LONGER



When it came to building a robust and efficient urban transport system for Delhi Metro, DMRC chose to rely on Stainless Steel. As Dr. Sreedharan, Ex. DMRC chief put it, "The idea was to build something lightweight yet durable and safe in the face of any eventuality. We therefore chose stainless steel for the body. Using stainless steel has also ensured less maintenance and repair for the exterior and interior. Inside the coaches also we have used stainless steel extensively for seats and poles. With ever increasing flow of passengers we have been proven right in our choice of stainless steel over other materials for the Delhi Metro."

At JSL we are proud to have supplied our high quality stainless steel for making India's urban transport infrastructure stronger for longer.

To know more about stainless steel and its applications log on to www.jindalstainless.com

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Shaping a Stainless World