

VROOM AT THE TOP



Against formidable odds, EM&R races to a world-class finish on the Buddh International F1 Circuit in Greater Noida

The international Formula One Grand Prix is a celebration of speed. Millions watch with bated breath while superstar racing drivers hurtle around the track at velocities approaching 320 km/hr, twisting through its hair-raising bends and corners with barely a slowdown.

So it was entirely appropriate for Voltas EM&R to also take on a speed challenge at the Buddh International F1 Circuit in Greater Noida: namely the design and project execution of complete HVAC, electrical works and plumbing in barely 8 months, for 25 buildings scattered over 874 acres – just about all enclosures from the main grandstand to the restrooms.

The qualifying rounds

Voltas entered the running in early 2010, fresh from its resounding triumph on the F1 Circuit in Abu Dhabi.

What's more, the EM&R team had also won the lion's share of bids for stadiums featuring another sporting spectacle, the Commonwealth Games of 2010. So when the Jaypee Group announced that they were committed to building India's first F1 race track, Voltas was naturally on the short list (along with formidable competitors ETA and BlueStar).

After a series of dialogues with key members of the client team, and a first-hand inspection of the Abu Dhabi track – as well as a glowing testimonial from Hermann Tilke, the architect on both F1 projects – Voltas clinched the order.

The starting gun

Recalls Ashwani Kumar Sharma, the team leader on the project, "With the order booked, a truly awesome challenge lay ahead. The track had to be delivered, complete in every detail, by early October 2011, so that



Structures and track spread over 874 acres.

the inaugural Grand Prix race could be held on October 30."

First came the herculean design task of preparing almost 900 shop drawings for MEP works, and 200 integrated drawings, and getting them approved, in not more than 60-70 days. The team's mentors and advisors from IOBG, veterans of the Abu Dhabi track, had warned the Delhi team that the design phase alone would call for a massive feat of endurance.

To ease and expedite the task, a design centre complete with hostel facilities was set up in greater NOIDA, just 12 kms from the project site, under the leadership of Pankaj Goel and Satheesh Shanmugam. 12 design engineers and 18 AUTOCAD draughtsmen took up residence there, and worked around the clock.

“Our team demonstrated the mettle of their personal and technical skills, and their true professionalism and commitment, in executing the F1 Circuit project. It took a huge amount of relentless toil to overcome all kinds of challenges and complexities, and complete the job in just 8 months. Our project management capabilities have been further strengthened by executing such a world-class project notable for its engineering design, scope, scale and timeframe.”



M Gopi Krishna, EVP & COO, EM&RBG

“F1 Circuit, India project is a reflection of synergy between EMD and EM&RBG, in allocating the right resources at the right time. Voltas' delivery of a project of such stature well on time is a display of its engineering project capabilities, which will further boost confidence in the market. Our strength is our team; each of them has contributed to the fullest, and has left no stone unturned in executing the project.”



A K Joshi, President - EMP&S

The Global Design Centre in Mumbai also pitched in, to help prepare coordinated drawings to the demanding standards of the German architect.

Speeding up the supplies

Once the drawing phase was done, the team barely had time to catch its breath before plunging into procurement. Almost 70% of the components for HVAC, and 30% of those for electricals and plumbing, were being shipped or flown in from far-flung global sources. Orders were placed in March 2011, and all deliveries absolutely had to come in by end-May, or else the deadline would be in jeopardy.

On this lap, IOBG's central procurement team was of great help in getting the best international prices, as well as the most reliable modes of delivery. The import/export cell at Mumbai smoothly coordinated clearing and forwarding of material as it arrived at Mumbai and Delhi.

Feeling the heat

In April 2011 began the truly scorching phase: the actual work of putting the project together under a blazing summer sun, with temperatures as high as 45°C. Literally hundreds of workers had to be marshalled in orderly fashion, on tasks



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Buildings where the various participating teams are based.

and Gujarat. Six independent houses were rented in Greater NOIDA to serve as worker dormitories, with buses and speciality vehicles conveying their residents to and from the site. Extraordinary care was taken even with the food supply and other requirements; after all, the level of motivation alone could make or break the project.

The home stretch

Finally, in a whirl of controlled yet complex activity at breakneck speeds, reeling from nervous tension and exhaustion, the Voltas team put the last touches on all installations, with full commissioning

that often demanded the utmost in care and precision – all amidst utter chaos and confusion, with civil work also going on in parallel, and heavy construction machinery kicking up its dust and clamour.

Then there was the challenge of deploying and housing the requisite numbers of workers. In the peak months of April, May and June, as many as 900 workers were needed, along with 60 supervisors, drawn from contractors in Andhra Pradesh, Tamilnadu, Orissa, W Bengal

“The success of such a fast-moving project lies in conceptualizing well in advance. The task was conceived in our minds three months before the project actually materialised. Every stakeholder on the job was completely ready to accept the challenge; no one had any doubts about its success. One valuable take-away: the project has honed our skills in the use of pan-India resources.”



Rajiv Saxena, GM – Projects, EM&RBG

completed by the first week of October. The Buddh International F1 Circuit was formally inaugurated on 18th October, and hosted its first international Grand Prix on 30th October, 2011.

The glamorous and heroic F1 drivers were obviously the stars of the show, especially winner Sebastian Vettel; but it was also a moment of quiet glory and self-congratulation for the Voltas team behind the scenes.

HEATING, VENTILATION & AIR CONDITIONING

For race control building; main grand stand (including 55 corporate suites); 18 team buildings; media centre; medical centre; entrance gate; plant/maintenance building; restrooms.

4000 TR of air-conditioning plant with chilled water system | 400 HP VRF system | and multiple DX type split units for total built-up area of 2 million sq ft.



Excitement on view from an air conditioned enclosure.

“Our successful completion of the F1 project showcases our scaled-up capability to complete the most challenging MEP projects in demanding time frames meeting international standards. Various functional teams at scattered locations have worked together with seamless synergy which has proved its power to deliver even in the most adverse conditions.”

**Ashwani Kumar Sharma, Zonal Head
Business Development (North & East)
EM&RBG**

