

Racetrack competition on two parallel roller coaster tracks

Spectacular racing roller coaster for Aldar / Yas Island



Abu Dhabi, UAE. The entire amusement park is a sequence of superlatives – featuring the first roller coaster to simulate a race on two parallel courses in the Middle East. Four launch tracks and four magnetic brakes on each track offer excitement and a real-life racing sensation.

The Fiorano GT Challenge will open on October 27, shortly after this XPress goes to print. By the time you read these lines, the roadster-themed coaster cars will already be running at full force; providing extreme lateral accelerations and race feeling galore.

Yas Island, a 25-square kilometer island located off the coast of Abu Dhabi, is the place where the Emirate is building its future. The whole project is created by Aldar, Abu Dhabi's premier real estate development, management and investment company. The included 5.5-km Formula 1 race course, built next door to the yacht harbor, celebrated its Grand Prix premiere in November 2009 – and is now being followed by a 25-hectare amusement park: Ferrari World Abu Dhabi. It's a place where everything revolves around the red sportster from Maranello, all of it covered by a massive red roof. It is the world's largest indoor amusement park and is – as is par for the Arabian desert – fully air conditioned.

Italian race feeling – now available as a roller coaster

Aldar chose Maurer Rides to build a brand new coaster especially designed for Ferrari World Abu Dhabi. It comes as no surprise that a high performance sports car served as theming blueprint for the Fiorano GT Challenge coaster – “It was particularly challenging to adapt the original look and feel of a roadster to the technical constraints of a roller coaster car,” explains one of the MAURER engineers. Among the many challenges, the extreme lateral accelerations of the track might have been the most demanding ones – but in the end, passengers can enjoy a perfectly safe and smooth ride.

LSM stands for excitement

The course design is yet another one-of-a-kind attribute. In terms of technical features, the ride consists of two parallel courses, creating the first roller coaster race simulation in the Middle East. The ride lasts around 90 seconds with an outcome that is impossible to predict: different ride programs with varying launch speeds ensure that sometimes the one car is faster, sometimes the other.

It goes without saying that the cars don't cover the 1,050 meter course at a leisurely pace. True-to-original acceleration, brak-



Ferrari World Abu Dhabi

ing maneuvers, and a sprint to the finish line give passengers a race-like sensation with maximum speeds of up to 95 km/h. Each of the two roller coasters features four LSM launch tracks for substantial propulsion. Four magnetic brakes on each track decrease the speed before the hairpin turns – which then returns with full impact into the home stretch.

While extremes are certainly nothing new to MAURER engineers, they might have wished for more Bavarian Gemütlichkeit – a sense of comfort – in one respect: unpredictable sandstorms and extreme temperatures demanded all-out dedication while constructing the dual roller coaster on site.

Technical Specifications

- Capacity: 2 x 600 pph
- Length: 2 x 1,050 m (3440 ft)
- Height: 13 m (43 ft)
- Drives: 2 x 4 LSM launch tracks
- Magnetic brakes: 2 x 4
- Safety brakes: 2 x 1
- Max. speed: 95 km/h (60 mph)
- G-forces (launch, brakes): +0.5 g, -1.5 g
- G-forces (lateral): ±1.5 g
- max. a brakes: -1.5 g
- Ride time: 90 sec
- Number of trains: 2 trains
- Number of cars per train: 3