

# NOVA COASTER

The logo for Sartori Amusement Rides features a stylized, multi-colored swoosh in shades of blue, purple, and red above the company name. The name 'SARTORI' is in a large, bold, black sans-serif font, with 'AMUSEMENT RIDES' in a smaller, black sans-serif font below it.

**SARTORI**  
AMUSEMENT RIDES

*Rides manufacturers since 1957*

# NOVA COASTER



Park  
Model



Portable

## TECHNICAL SPECIFICATIONS

**Base Size:** ~ 51x35 m - 167x115 ft

**Height:** ~ 24 m - 78.7 ft

**Track Length:** ~ 422 m - 1384.5 ft

**Type:** Inverted Coaster

**Vehicles:** 5

**N. of Trains:** 2/3 (customizable)

**Seats/Vehicle:** 2 seats/each

**Seats/Train:** 10 seats/each

**Ride Time:** ~ 93 sec

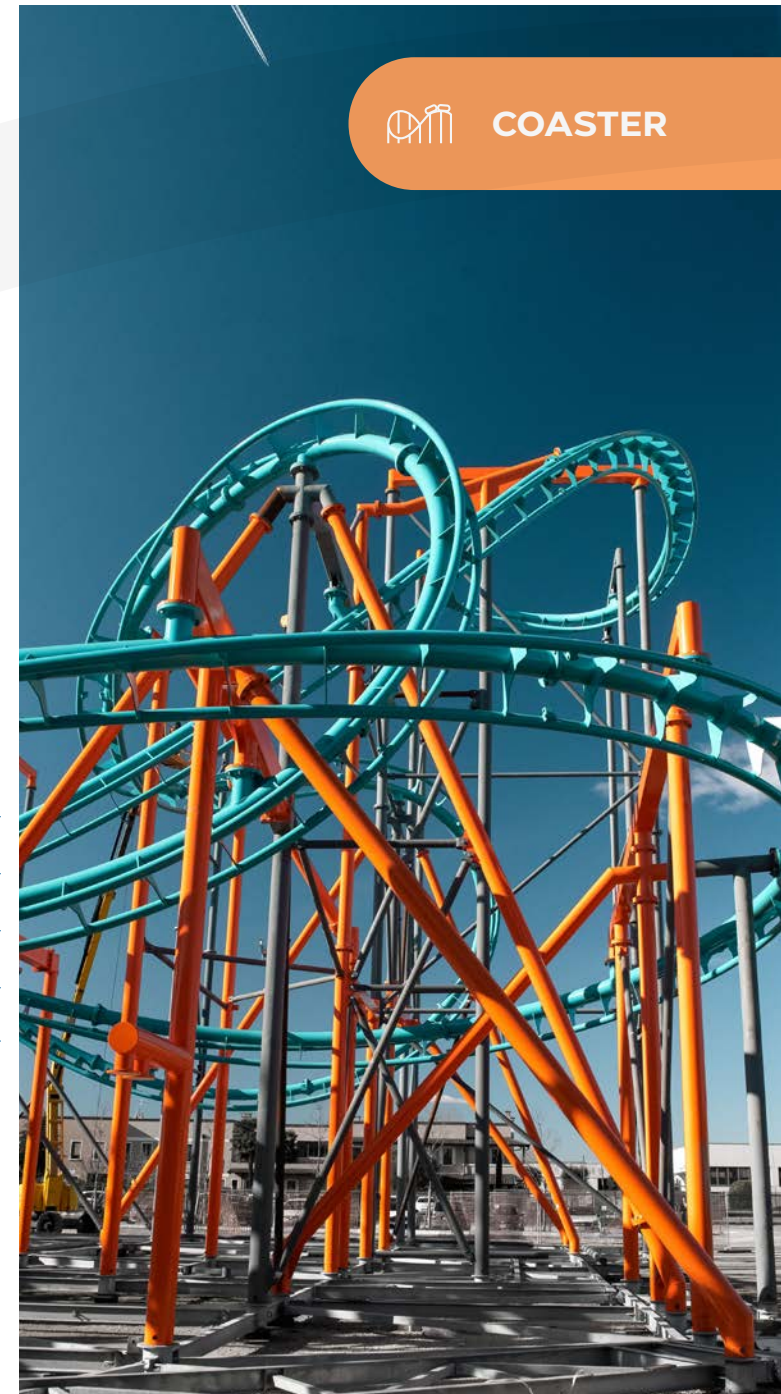
**Th. Capacity:** ~ 1100/1500 passengers/h

**Speed:** ~ 17.7 m/sec max. (40 mph)

**Acceleration:** 5g max

**Lighting:** ~ 15 kW

**Moving Power:** ~ 96 kW



COASTER



# TECHNICAL SPECIFICATIONS

## Structure



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### TRACK

All the running track (~ 422 m, except the stations and lift hill) is a 3 pipes rail with most of the thrill/exciting roller coaster elements available (dive-drop , cobra roll, Immelmann loop, in-line twist dive ... ) on a compact roller coaster design. All track parts are sandblasted

### BREAKING

Brake runs are fixed magnetic brakes in the station the movements are made using VFD motorized drive tire.

### STATION

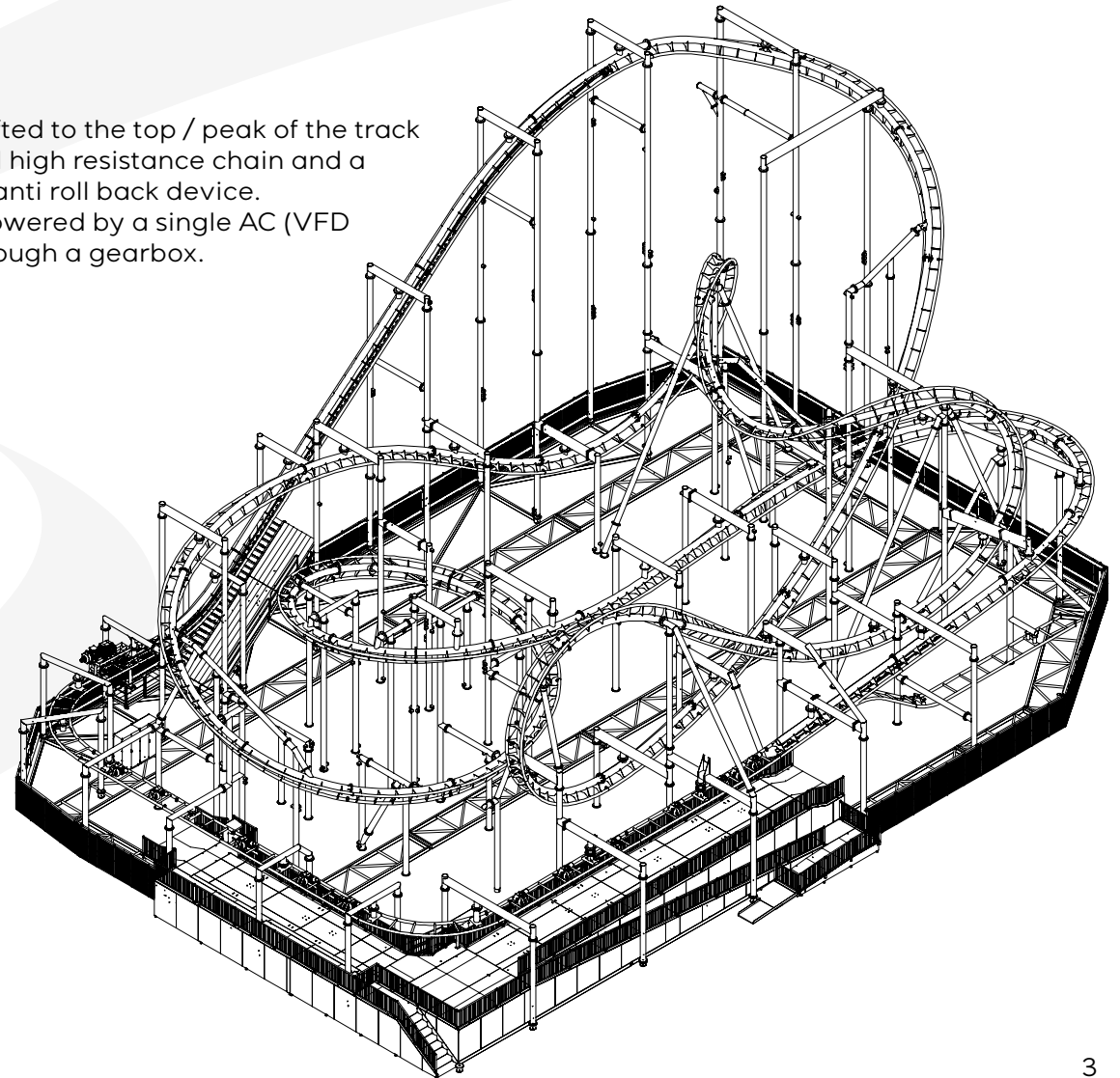
Two station design designed for maximize the trains passengers load / unload operations. Stations trains movements are performed using kicker wheel. and painted in one color.

### MAINTENANCE TRACK

1 Maintenance Track to be used both for train maintenance or operate in 2 or 3 trains configuration.

### LIFT HILL

Each Train is lifted to the top / peak of the track using a special high resistance chain and a double safety anti roll back device. The chain is powered by a single AC (VFD controlled) through a gearbox.

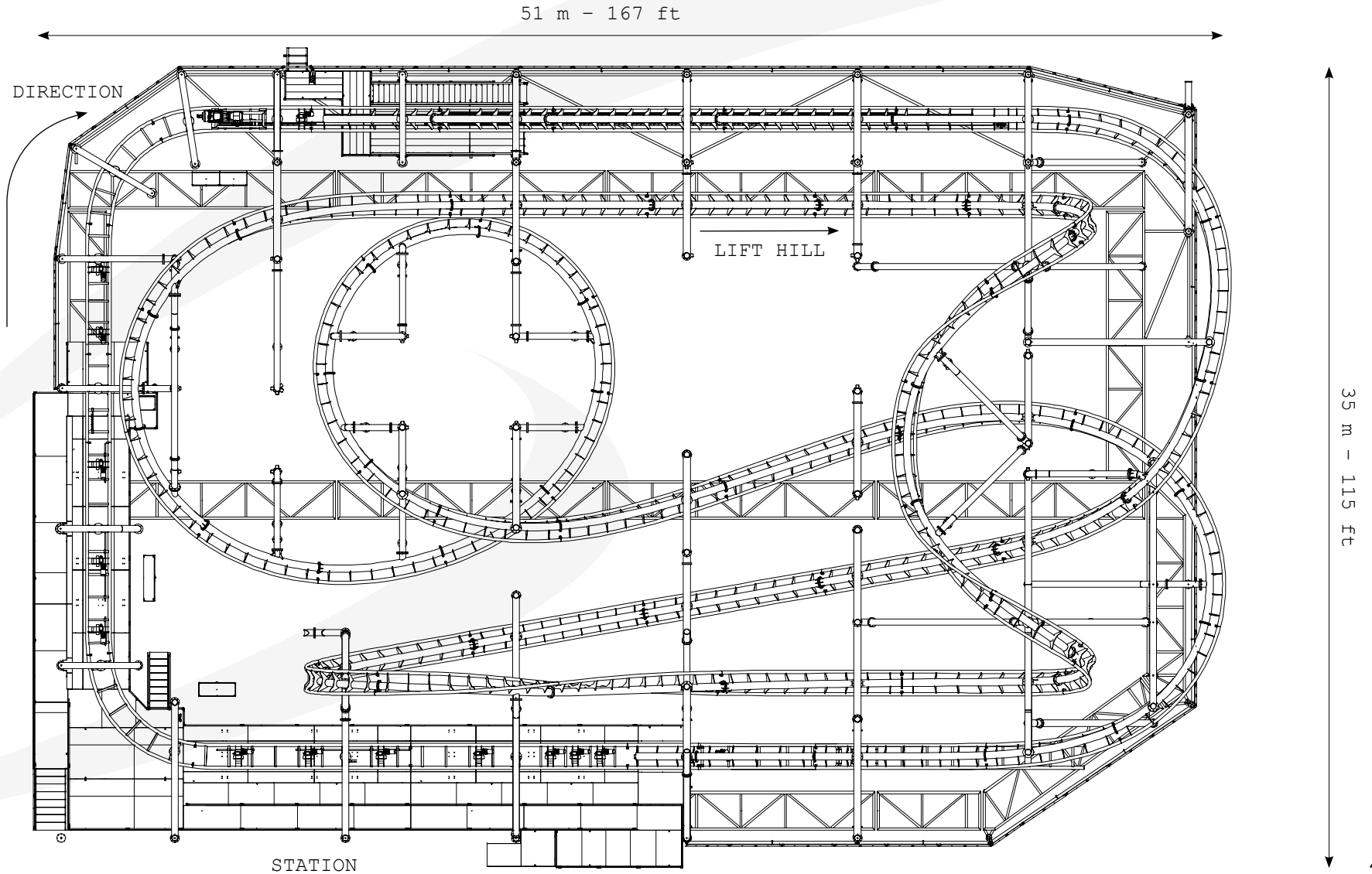


# TECHNICAL SPECIFICATIONS

## Structure



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## Structure



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### STEEL BASEMENT

The basement of the whole ride is designed to self-standing made using steel pipes connected each other in order to allow the installation on a flat ground space. All parts are hot deep galvanized.

### WEIGHTS

Overall weight of the Attraction is approx. 500 metric Tons.

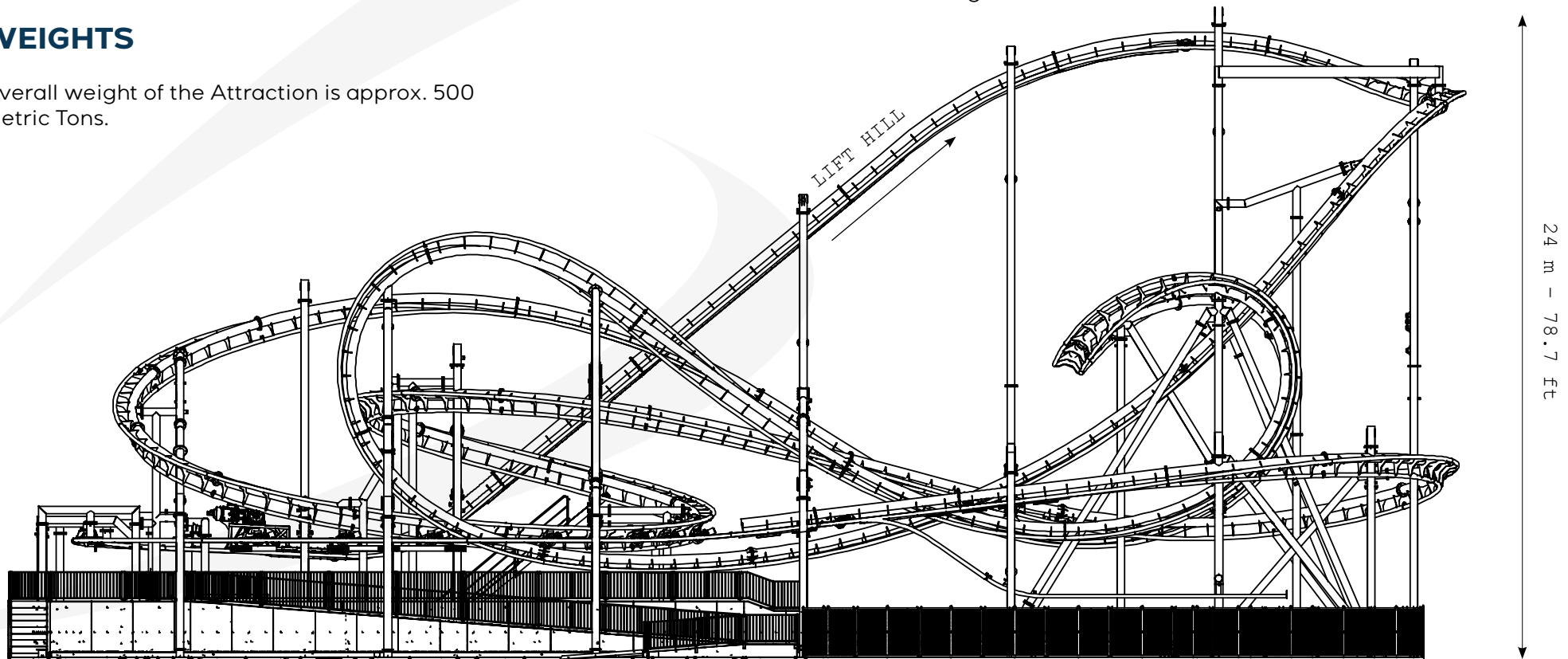
### TRANSPORT

All parts of the Attraction are sized to be loaded in containers or semitrailers. Loading of standard version of the ride can be arranged as follows:

- ~ 32 OT Containers + 3 Flat Rack or
- ~ 30 Standard Semitrailers 14.5 m long

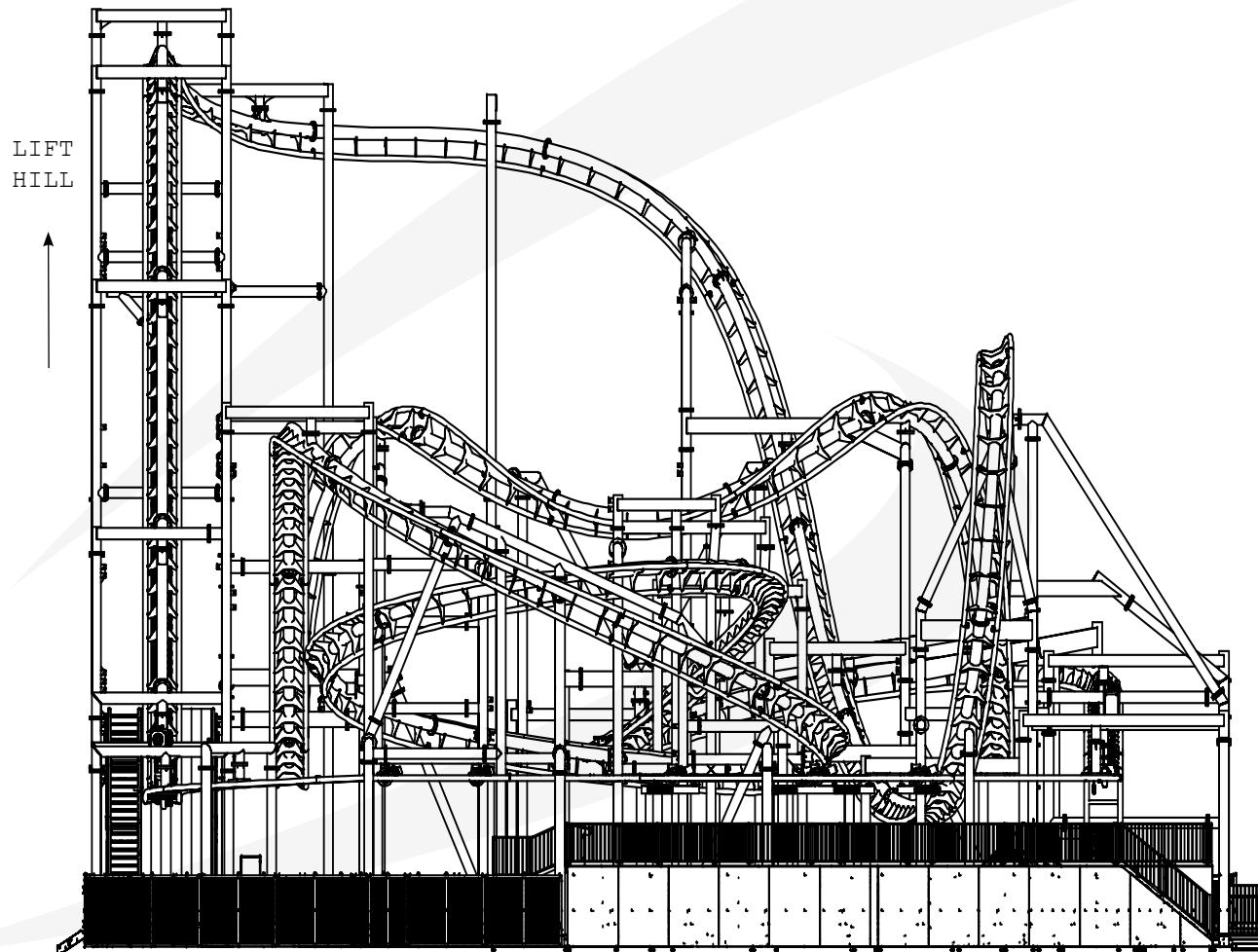
### SUPPORTS / COLUMNS

Round pipes steel fixed on the steel basement, tie roads and diagonals to connect all the columns to each other, all main parts are sandblasted and painted in one colour.



# TECHNICAL SPECIFICATIONS

## Structure



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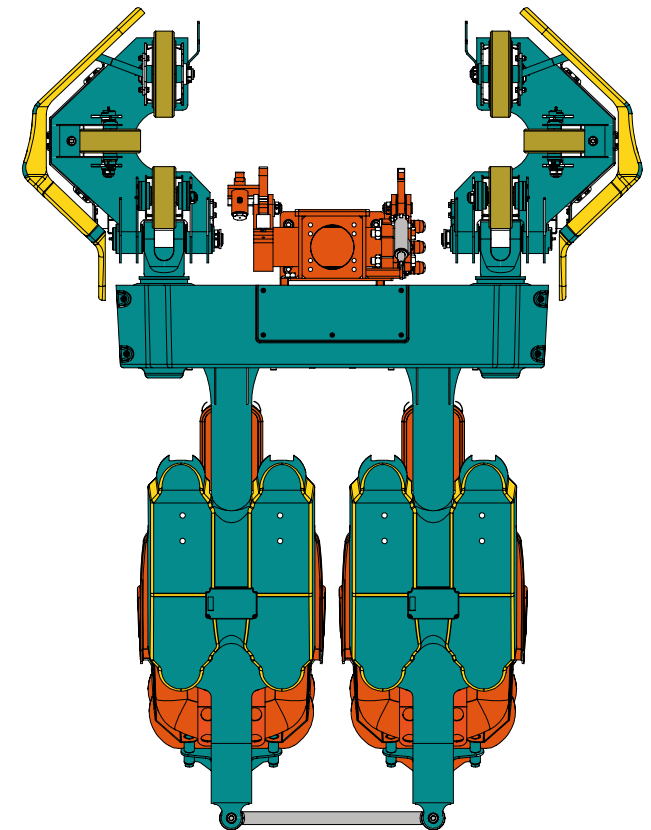
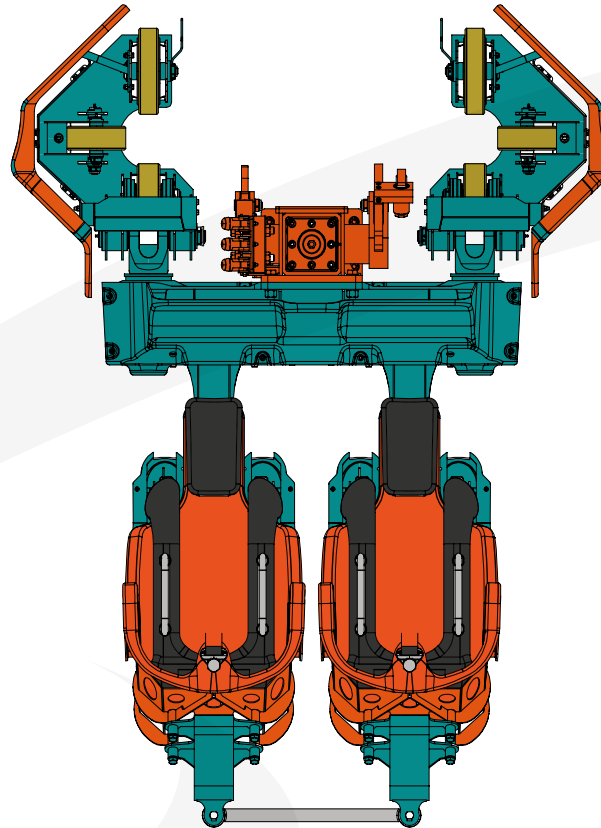
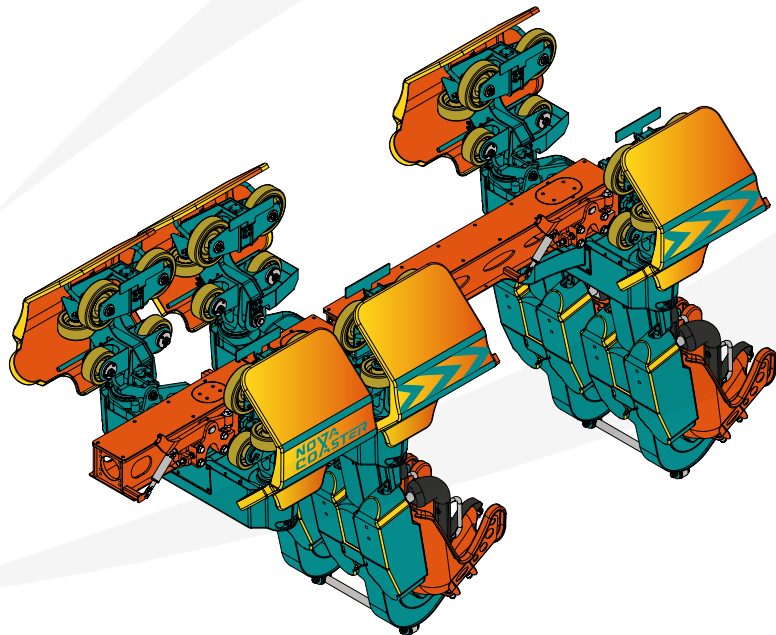


# TECHNICAL SPECIFICATIONS

## Trains

Steel frame structure, decorated/customizable fiberglass. Each seats has an independent semi-automatic restraint system made with 2 independent hydraulic cylinders (TUV approved).

<b>Train length:</b>	~ 9,7 m
<b>Total train mass:</b>	~ 4200 kg
<b>Minimum passenger height:</b>	130 cm
<b>Total seats:</b>	10 seats



PORTABLE

# TECHNICAL SPECIFICATIONS

## Manufacturing



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### STRUCTURE MANUFACTURING

The manufacturing of the steel structures will be made according to the EN 1090 standard and executed by primary European manufacturers/supplier.

### PAINTING

- Sandblasting SA 2/2,5
- Primer, Bi-comp. Epoxy ~ 130 µm
- Finish Coat, Acrylic ~ 70 µm
- According to ISO 12944-6 as C3

### CONTROL SYSTEM

Designed according to EN13814: 2019 and The ride operation is controlled by a Safety PLC (TUV Certified)

### STRESS ANALYSIS

Stress analysis of all steel structures and safety related components according to EN-13814/2019 and with finite element method results.

### MAIN COMPONENTS

During the manufacturing, the following suppliers, or equivalent, will be used for main components:

- Bearing: SKF or equivalent quality brand
- Motors: Felm or equivalent quality brand
- Gearboxes: Bonfiglioli
- AC Drivers: ABB
- SAFETY PLC: Allen Bradley

### TECHNICAL DOSSIER

Technical Dossier containing all the following information and documents:

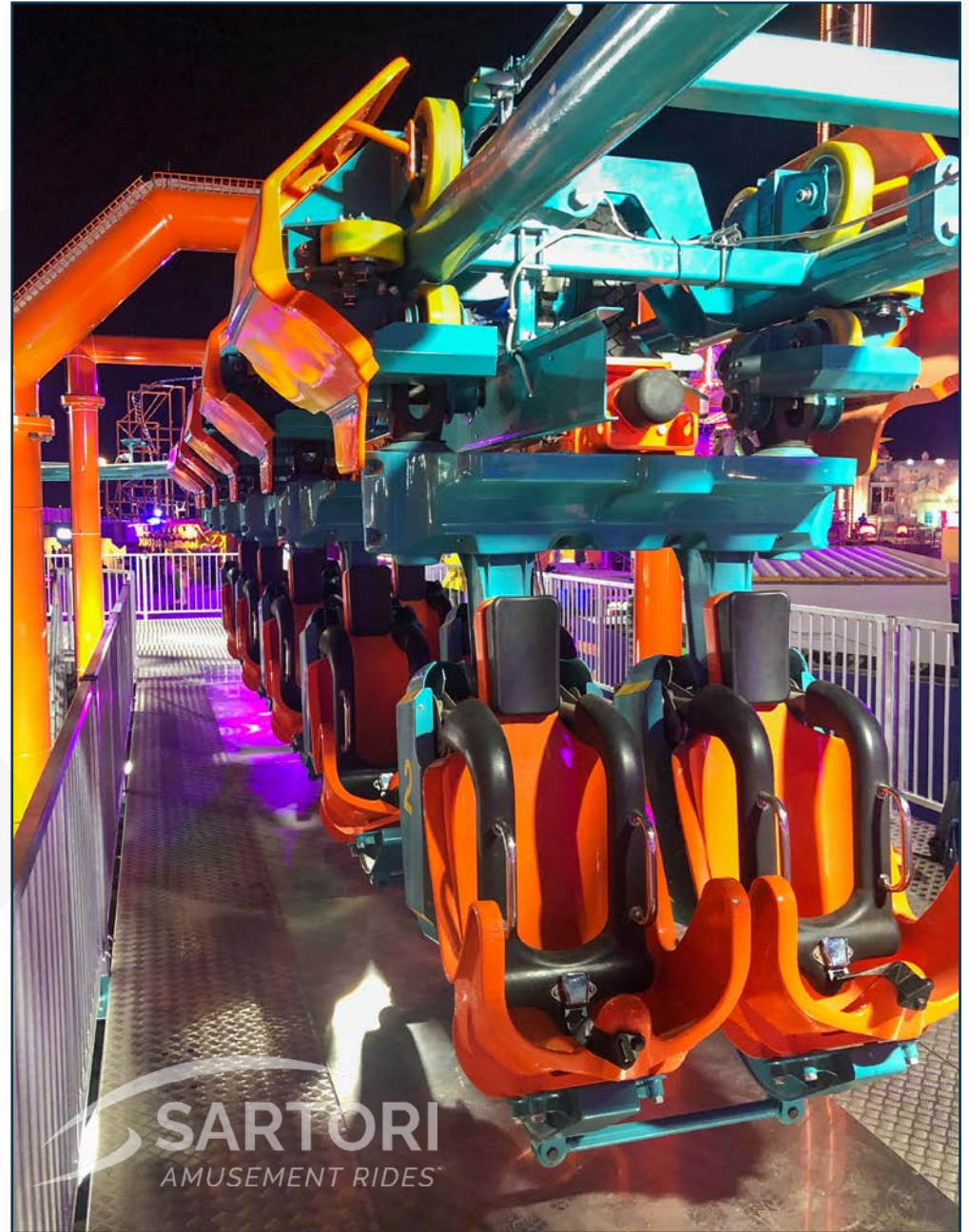
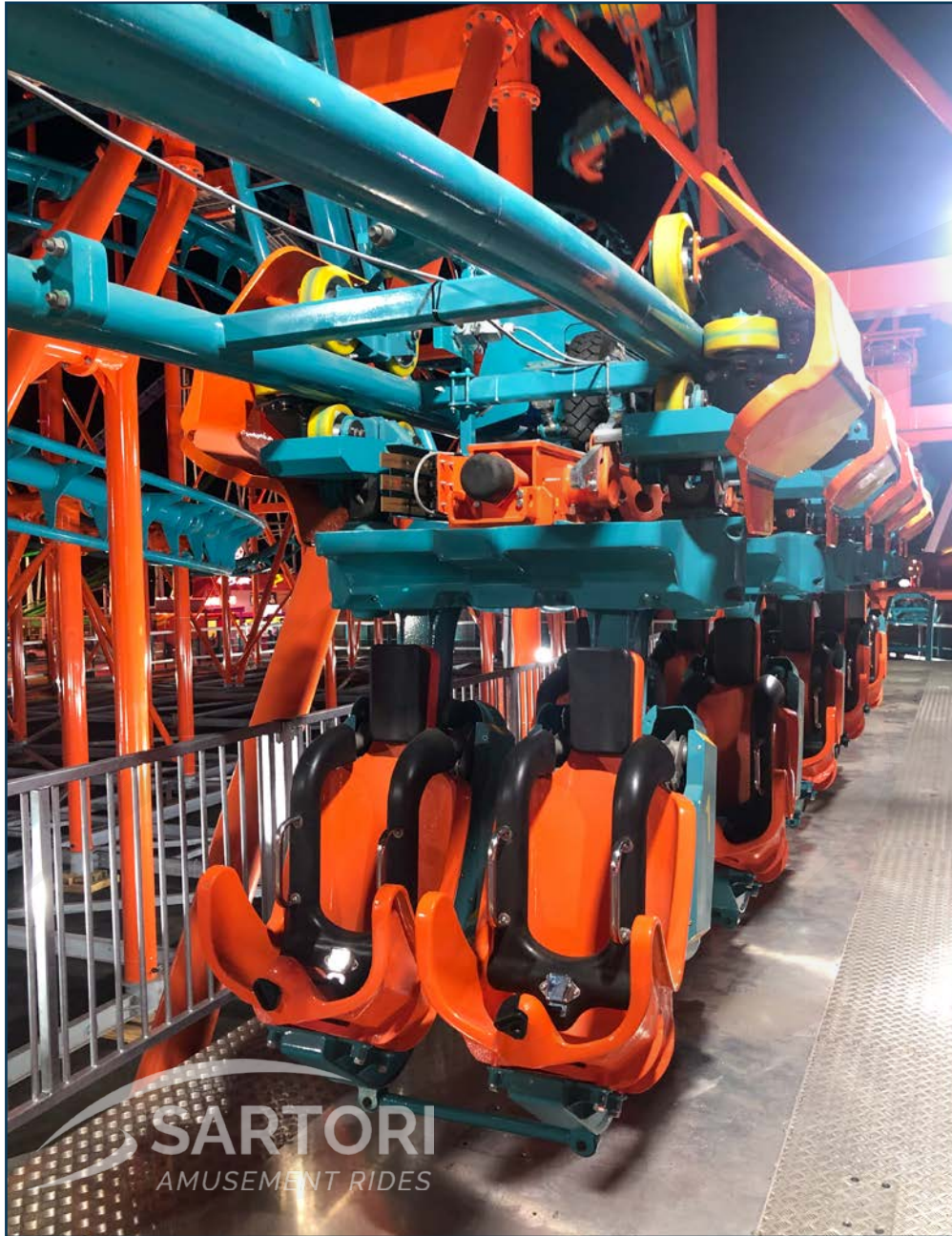
- General Assembly Drawings
- Operational, use, maintenance and installation manual instructions (English language)
- Instruction for emergency evacuation of passengers
- PLC Error List
- Electric, Pneumatic & Hydraulic schemes



STATION

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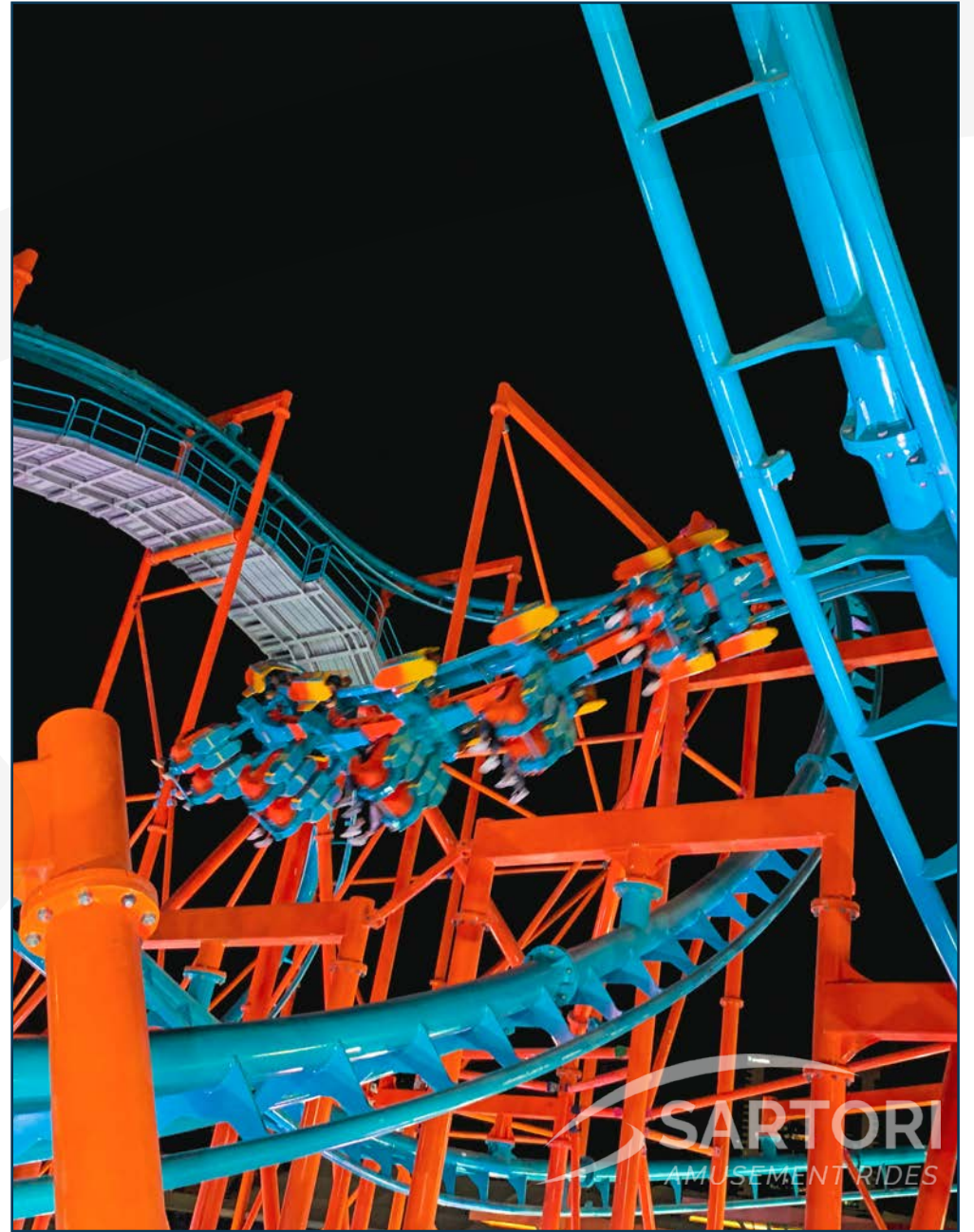






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