

NOVA COASTER

The logo for Sartori Amusement Rides features a stylized, multi-colored swoosh above the company name. The swoosh transitions from purple on the left to yellow on the right. The text 'SARTORI' is in a large, bold, black sans-serif font, and 'AMUSEMENT RIDES' is in a smaller, black sans-serif font below it.

SARTORI
AMUSEMENT RIDES

Rides manufacturer since 1957

TECHNICAL SPECIFICATIONS

Park Model / Portable Version

3D VIEW

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

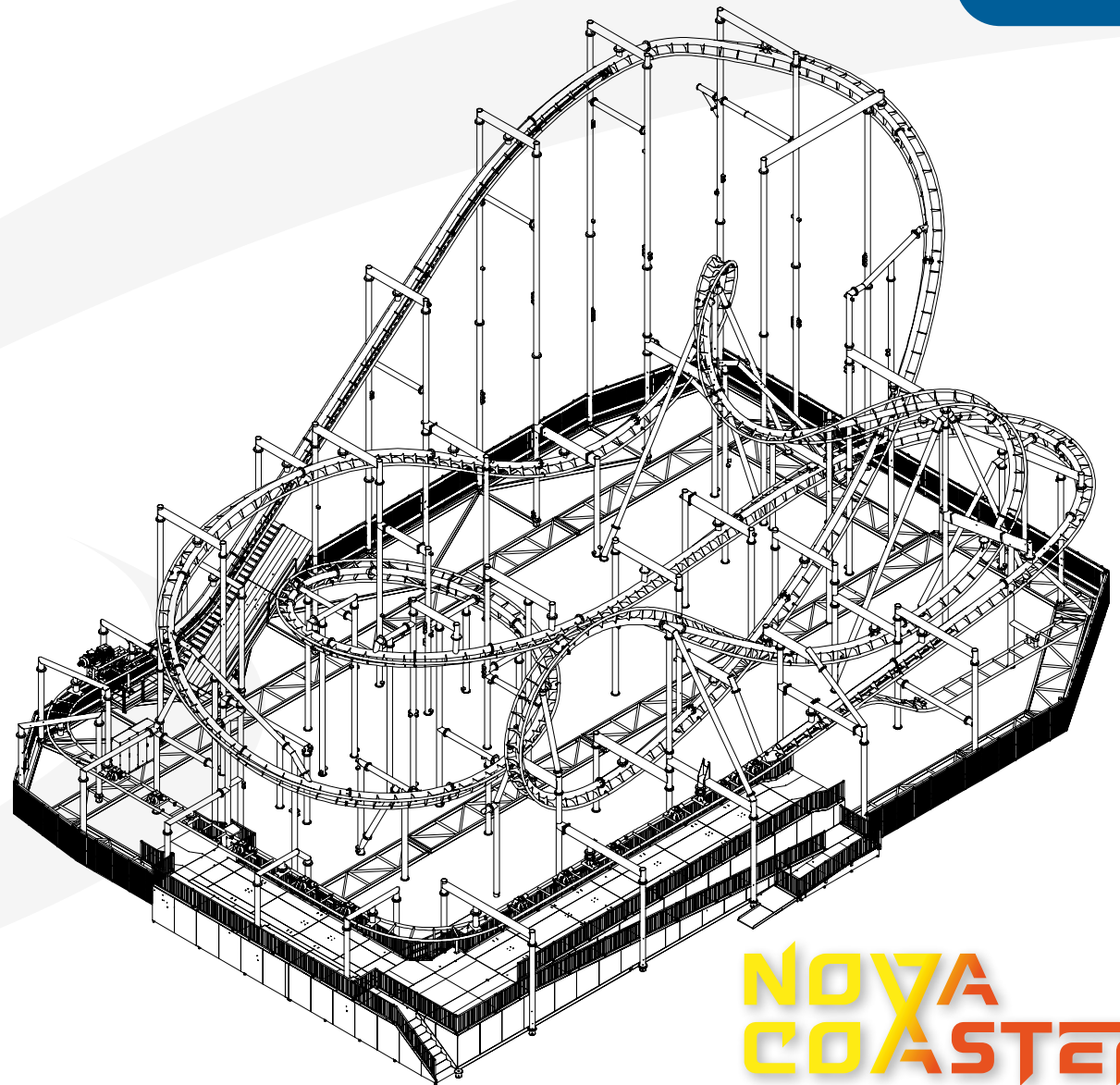
Th. Capacity: ~ 1100/1500 passengers/h

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

Acceleration: 5g max

Lighting: ~ 15 kW

Moving Power: ~ 96 kW

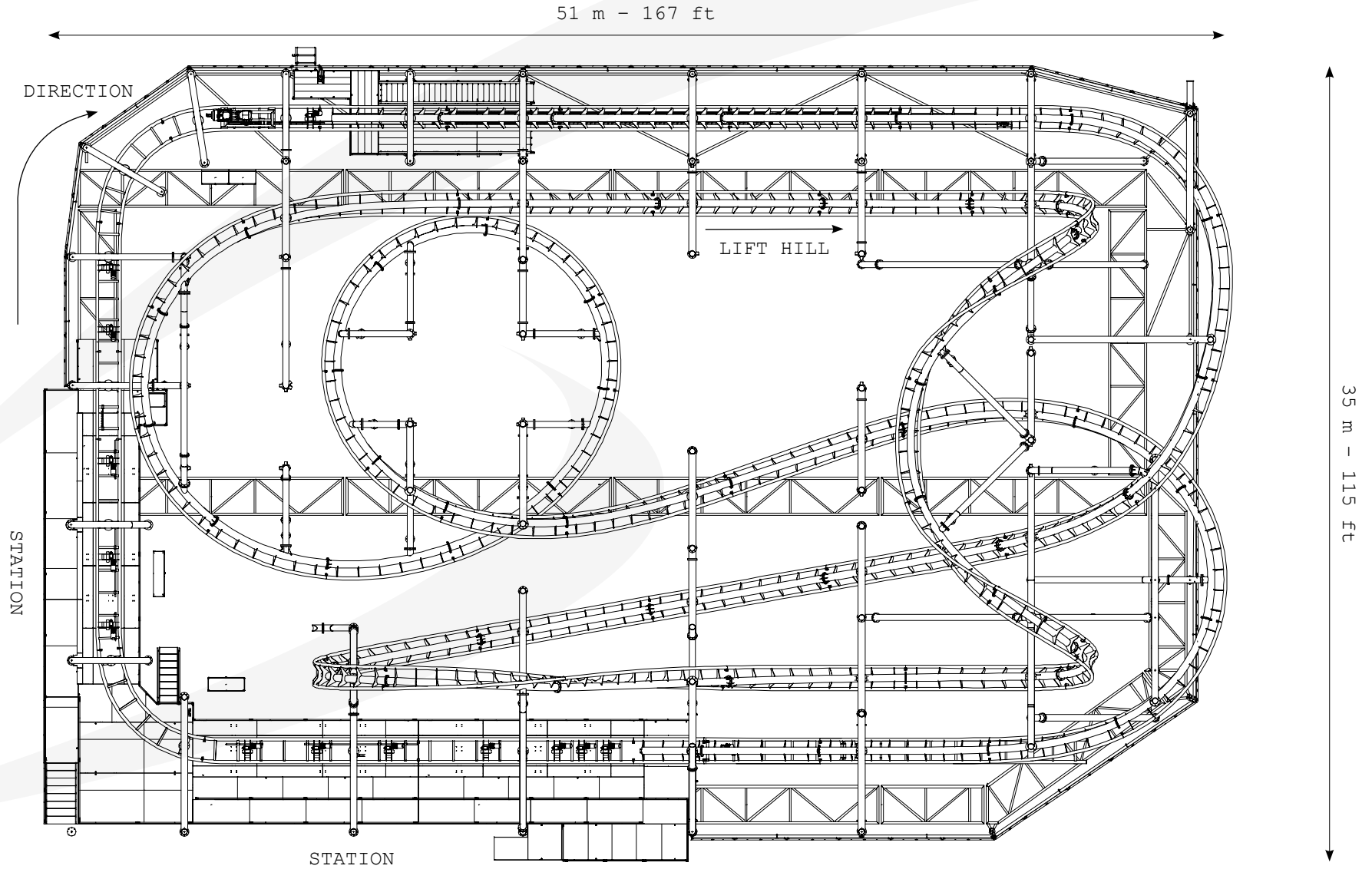


**NOVA
COASTER**

TECHNICAL SPECIFICATIONS

Layout

TOP VIEW



TECHNICAL SPECIFICATIONS

Layout

FRONT VIEW

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.

TRANSPORTATION

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

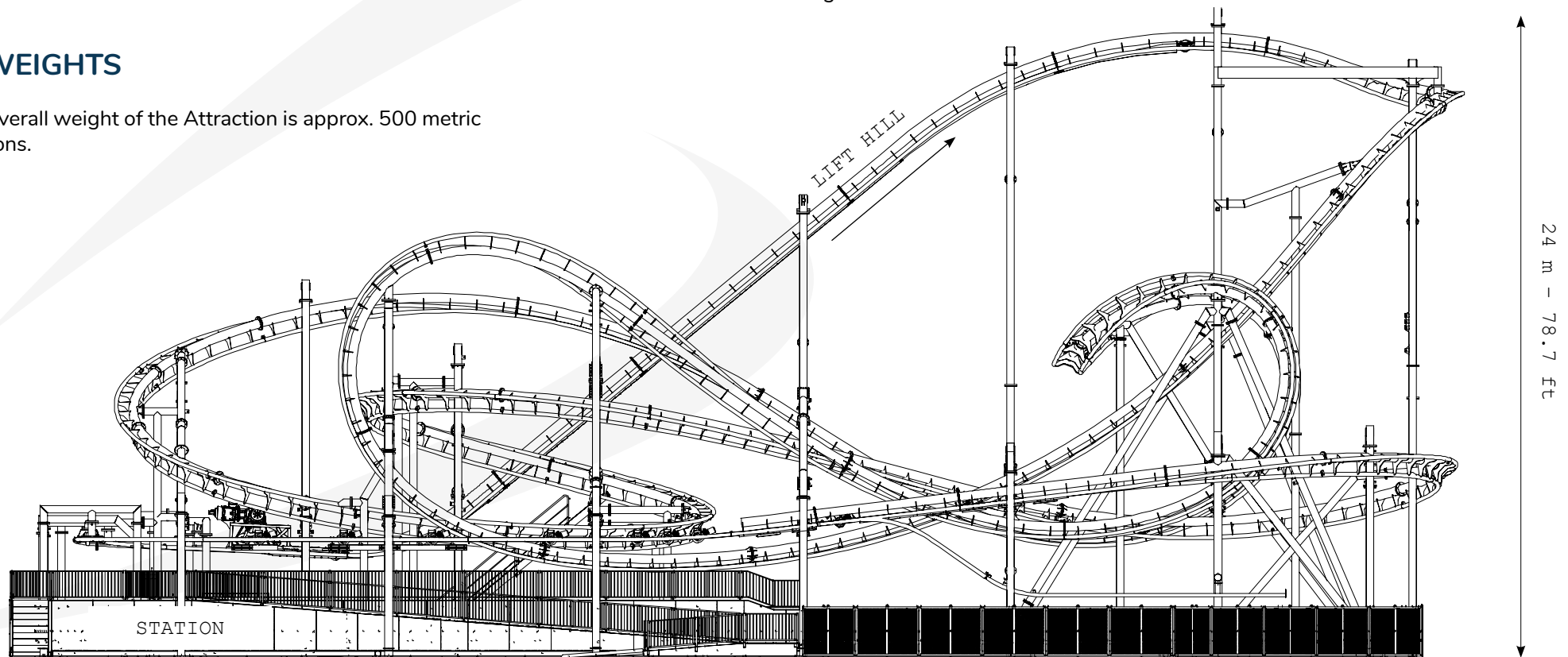
- ~ 32 Containers + 3 Flat Rack or
- 30 Semitrailers 14.5 m long

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.

WEIGHTS

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



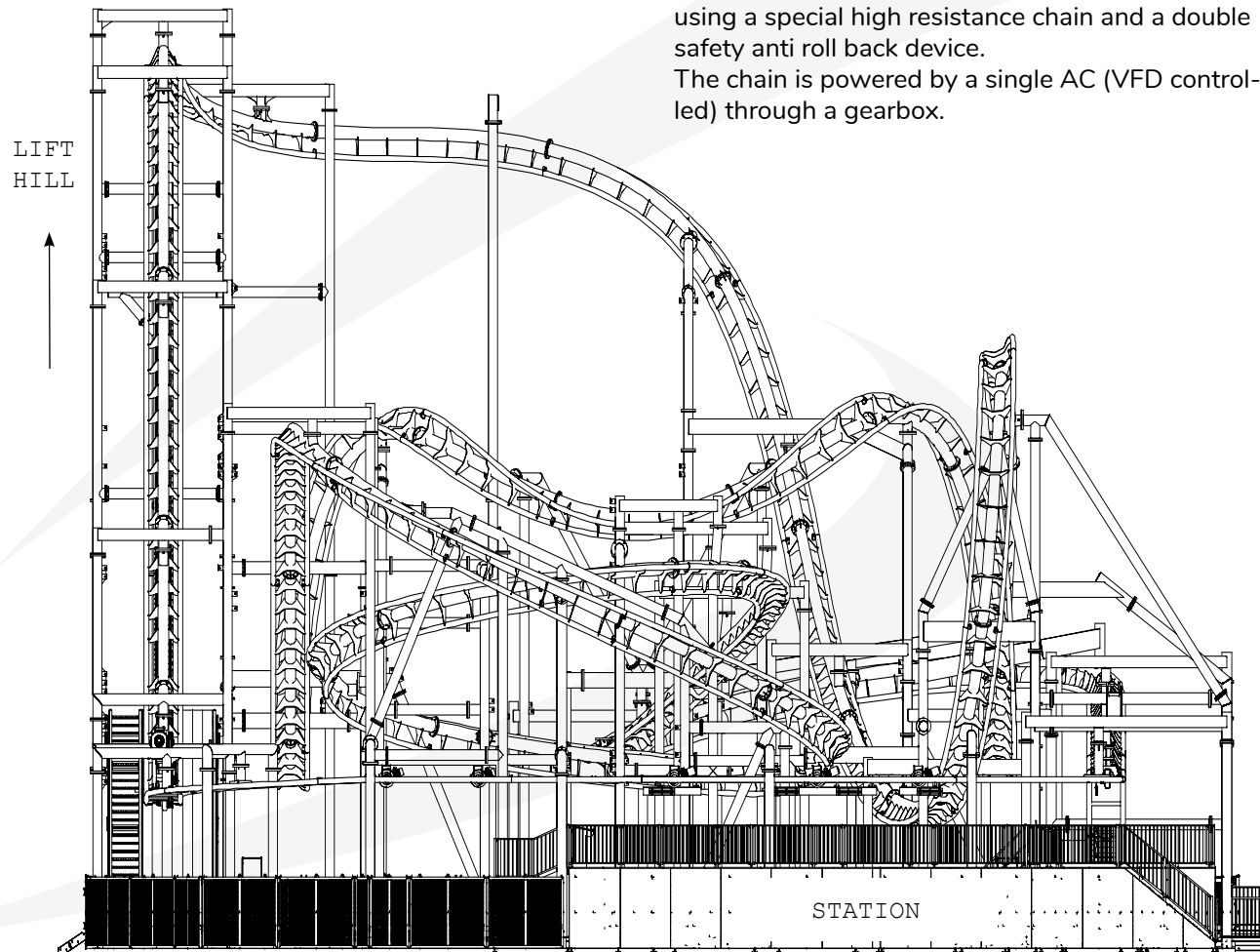
TECHNICAL SPECIFICATIONS

Layout

SIDE VIEW

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.



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 and painted in one color.

BREAKING

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

MAINTENANCE TRACK

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

STATION

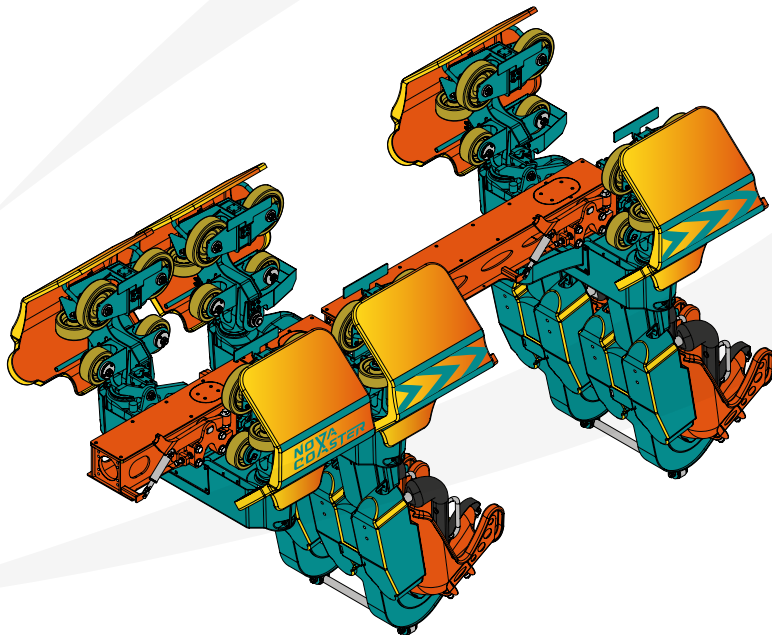
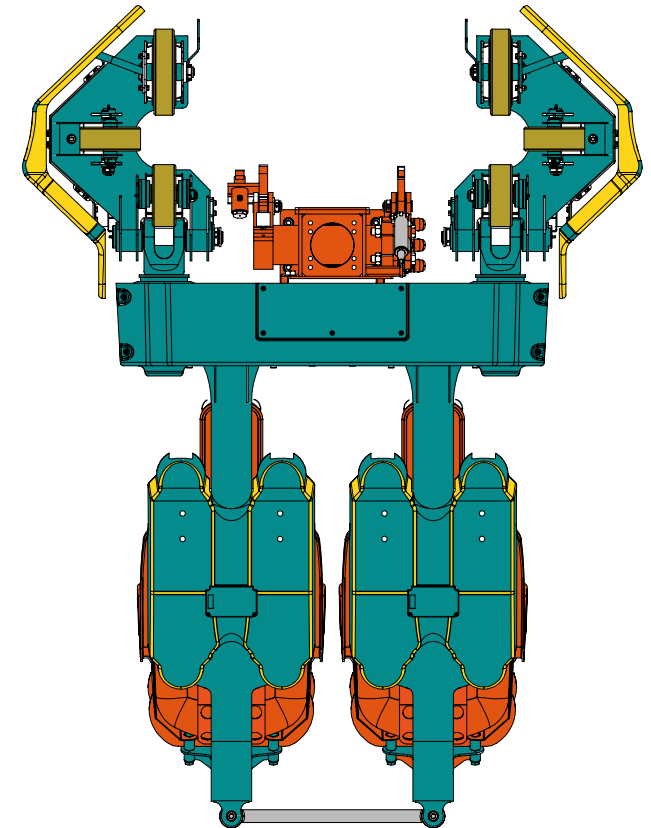
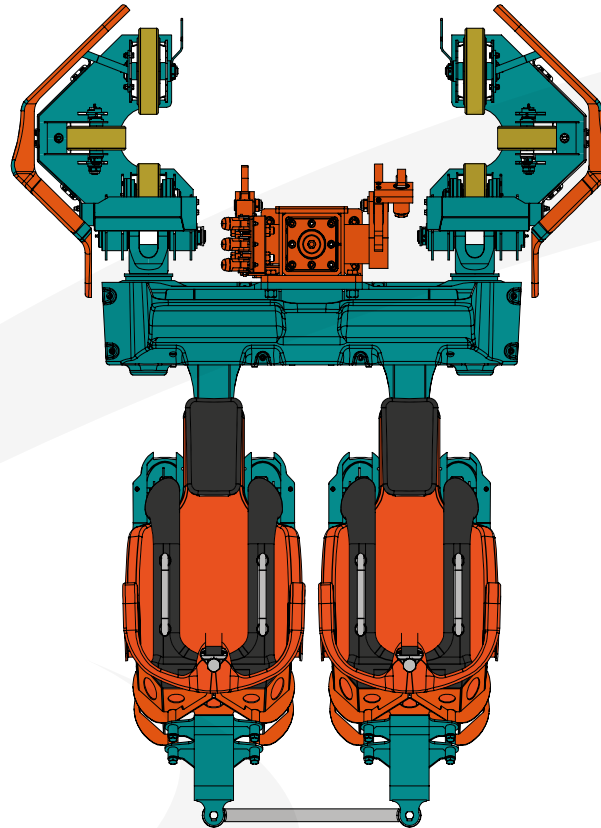
Two station design designed for maximize the trains passengers load / unload operations. Stations trains movements are performed using kicker wheel.

TECHNICAL SPECIFICATIONS

Trains

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

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



TECHNICAL SPECIFICATIONS

Manufacturing

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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