

Technical specification of:

Flume ride



this image is an example

I.E. PARK S.r.l.

Via Don P. Borghi 3

42043 Praticello di Gattatico REGGIO EMILIA - ITALY

phone +39-0522-678526 - fax +39-0522-678750

e-mail: sales@iepark.com - website: www.iepark.com

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Ride Description

WATER CHANNEL

Each section is made by hot dip galvanized steel flanged and bolted together with rubber pad to protect from water dripping. Connections both with other channel's sections, supports and vertical

Columns (depending on the track design) made a solid structure where water and cars flows inside depending from water speed; Channel painting/decoration is option. Standard section turning radius 3m. Each standard section is 2.24 m long.

SUPPORTS

Vertical frames support each water channel sections. They are hot dip galvanized and have a screw-register for levelling.

LOG

Single cars made thick reinforced fiberglass of special design, specifically designed to float and flow inside the water channel and be supported during ascent and descent of the lift and during embarkation and disembarkation in the station on the conveyor belts to maximise stability and safe operation. Each car has 4 seats in row (two children and two adults) with stainless steel handles, front and back pad and special designed teether fiberglass mat for maximise legs positions. Under the car there is a rubber mat of special quality and texture to make friction with the conveyor belts. On the sides car's have wheels for slinging on the slope and anti-roll back system for the slide. Special filter allows water to exit from car when in the lift but not to enter. Rounding edges of the fiberglass specially designed for passenger's safety.

LIFTS – CONVEYOR BELTS

Lifts/Drops available in selection of heights up to Structure is hot dip galvanized. Cars are lifted to the top with a rubber conveyor belt which is programmable via plc and has ac motors. Sensors detect and control the car's access to the.

ELECTRICAL SYSTEM

Electrical panel complete of operational push button panel and power unit, will be complete of each safety component and its control will be determined by a PLC ; All electrical cables except the main supply cable will be object of the supply.

The ride has a Block Zone anti-collision system in accordance with EN13814: Sensors around the water channel in well determined position detect and control the automatic run of the cars. The water level is constantly monitored by the control system which stop the ride in case of low level.

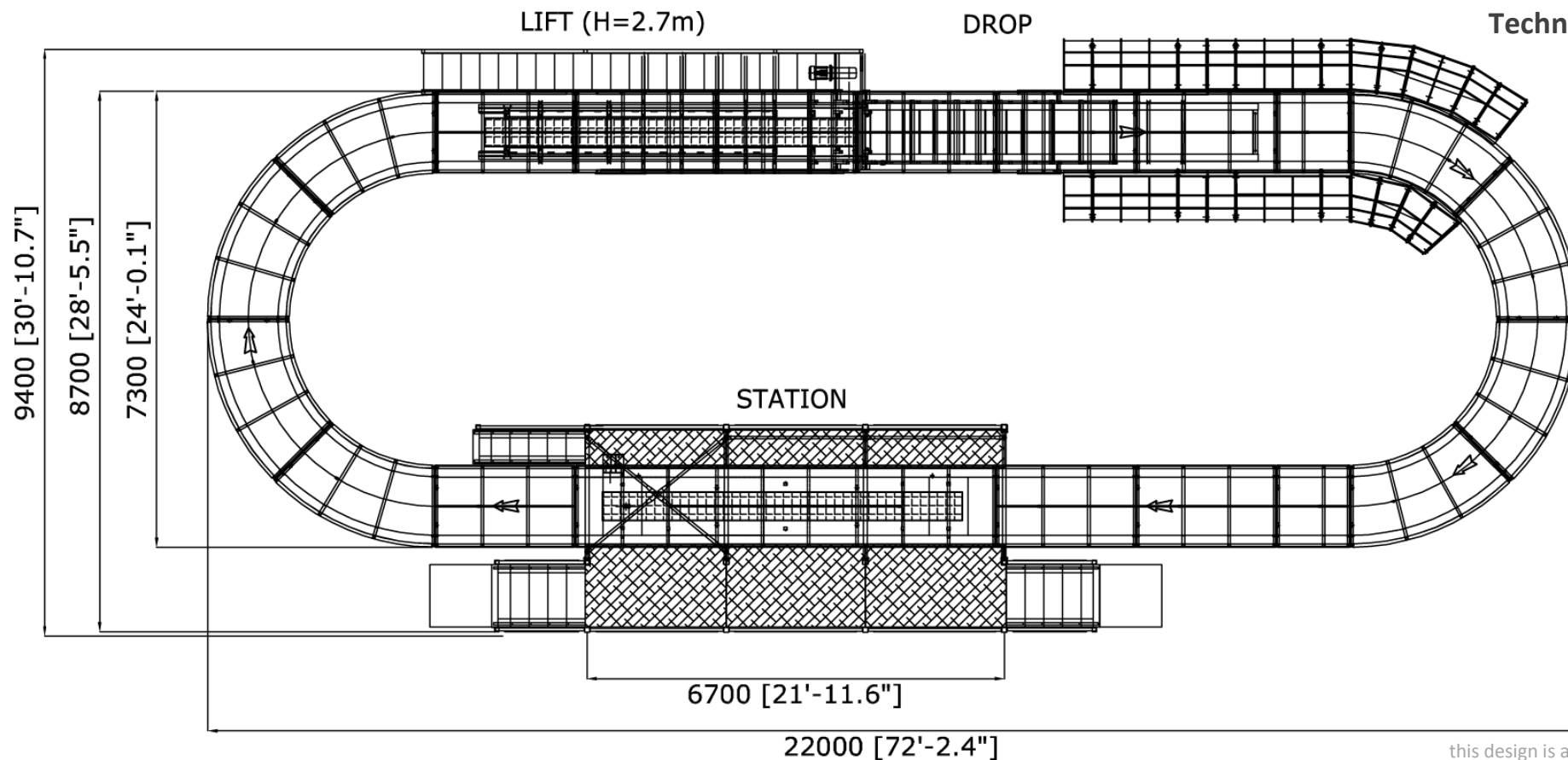
STATION AND SCAFFALDINGS

the station, loading and unloading point will be equipped with:

- Hot dip galvanized frames for support of the footboard;
- Footboard and entry steps made with chequered aluminium fixed on galvanized frames;
- Decorative front panels;
- Fences and decorative structure in steel and painted or hot dip galvanized;
- Upon request the station can be custom design and provide with roof.

Flume Ride Oval 22x9 (1.1/A)

Technical Data



this design is an example

TECHNICAL DATA

Total Weight with Water	41'500 Kg - 406,97 kN
Total Length	48,5 m
Nr of car	4
Log capacity	2 adults+2 children
Total capacity	320 passenger per hour
Max log speed	1 m/s
Nr of basin	18
Boarding	Simultaneous
Shipping volume	1x40' ot + 1x20' ot

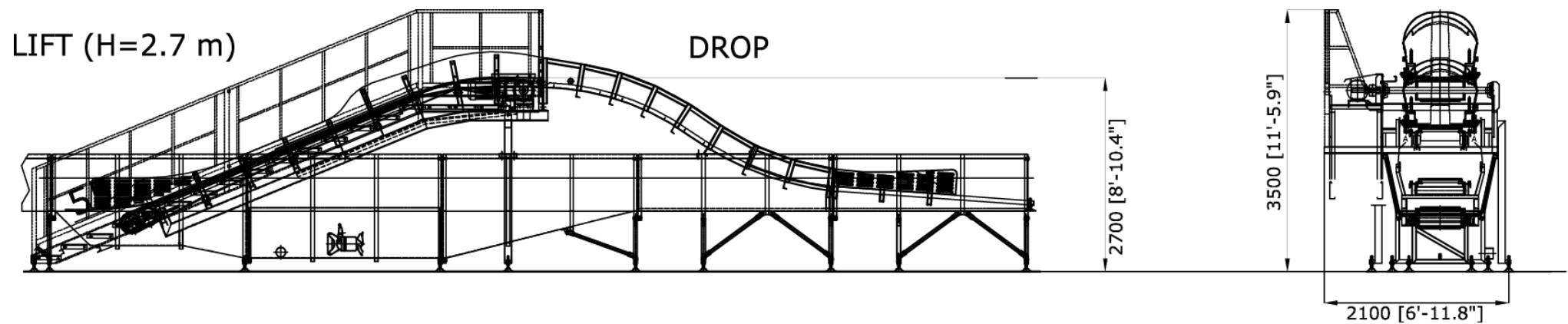
ELECTRICAL DATA

Voltage	3phase + neutral + earth (230/400/415 V)
Frequency	50/60 Hz
Motive power	12 kW
Lighting	Upon Request
Control	Automatic/manual

Passengers age/height restrictions: Minimum admissible age 4 years old, height 105 cm - Accompanied

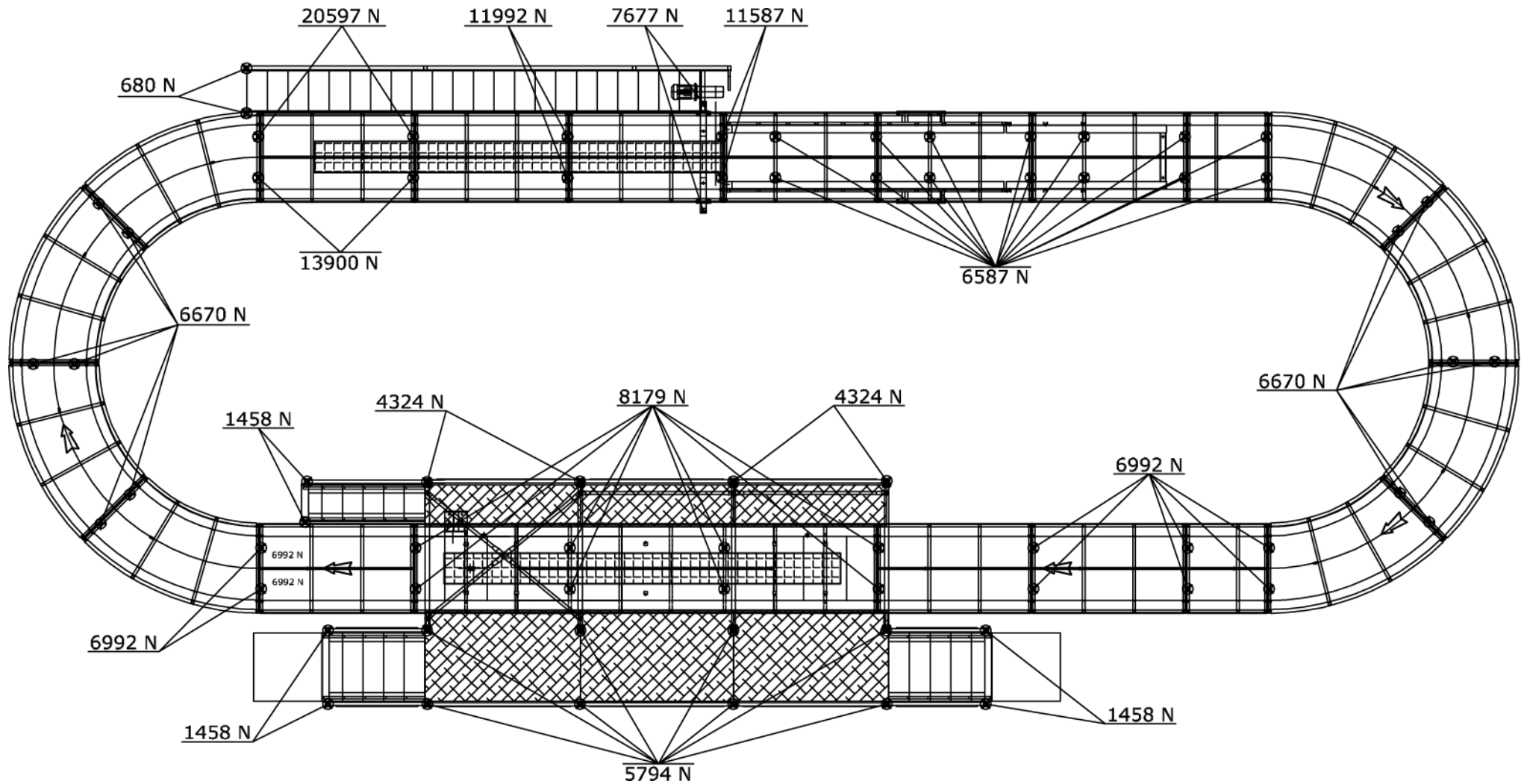
Flume Ride Oval 22x9 (1.1/A)

Technical Data



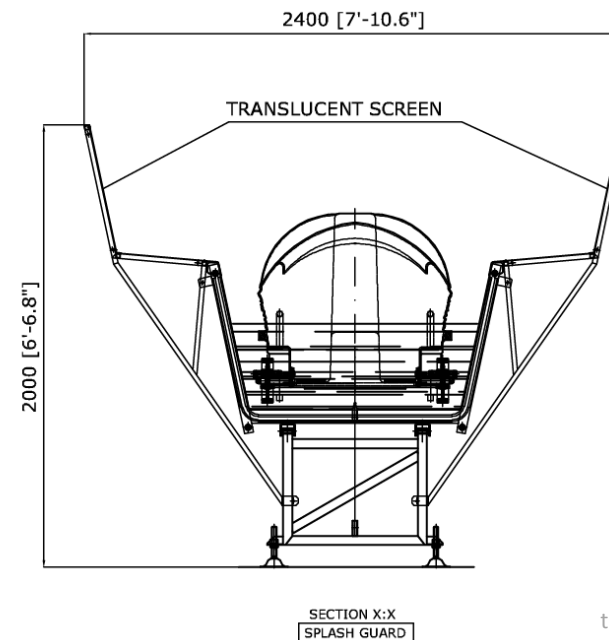
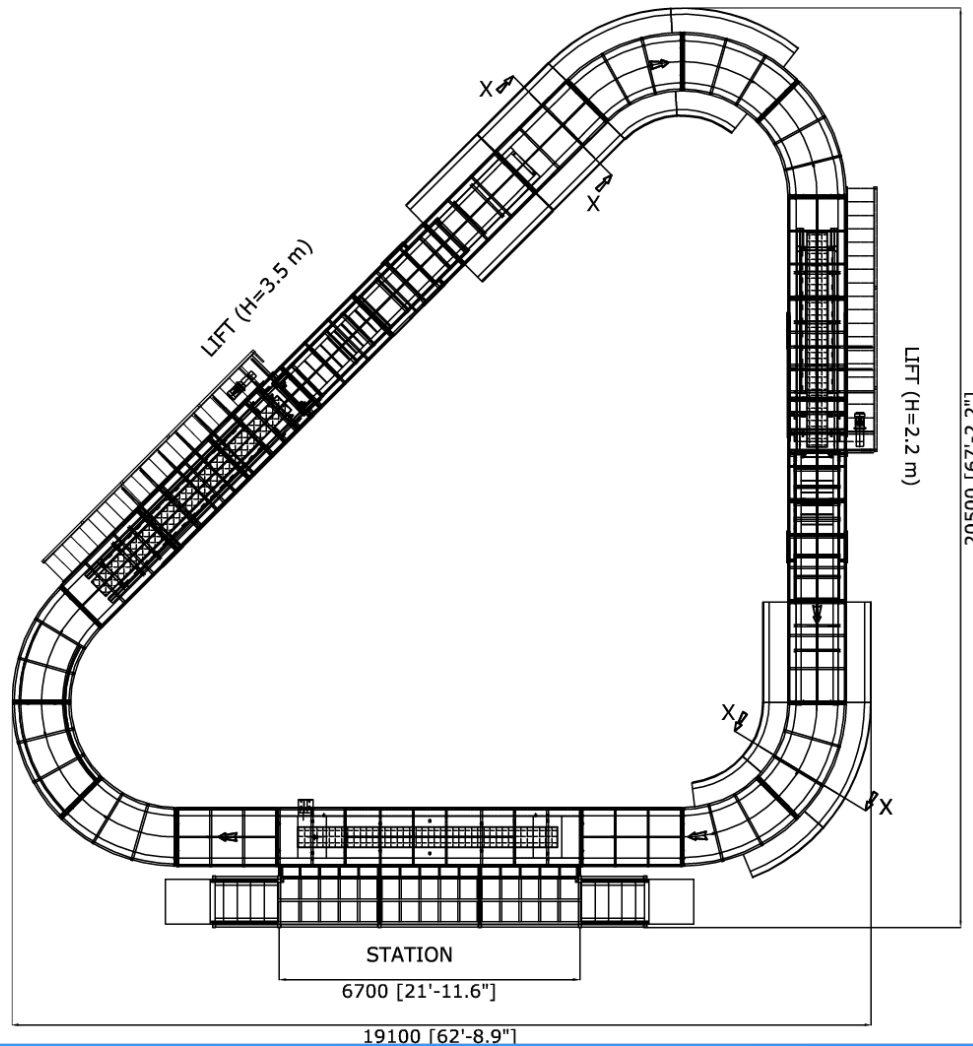
Flume Ride Oval 22x9 (1.1/A)

Loads



Flume Ride 22x21 (1.2/A)

Technical Data



this design is an example

TECHNICAL DATA

Total Weight with Water	41'500 Kg - 406,97 kN
Total Length	65 m
Nr of car	4
Log capacity	1 adults+2 children
Total capacity	450 passenger per hour
Max log speed	1 m/s
Nr of basin	23
Boarding	Simultaneous
Shipping volume	2x40' ot

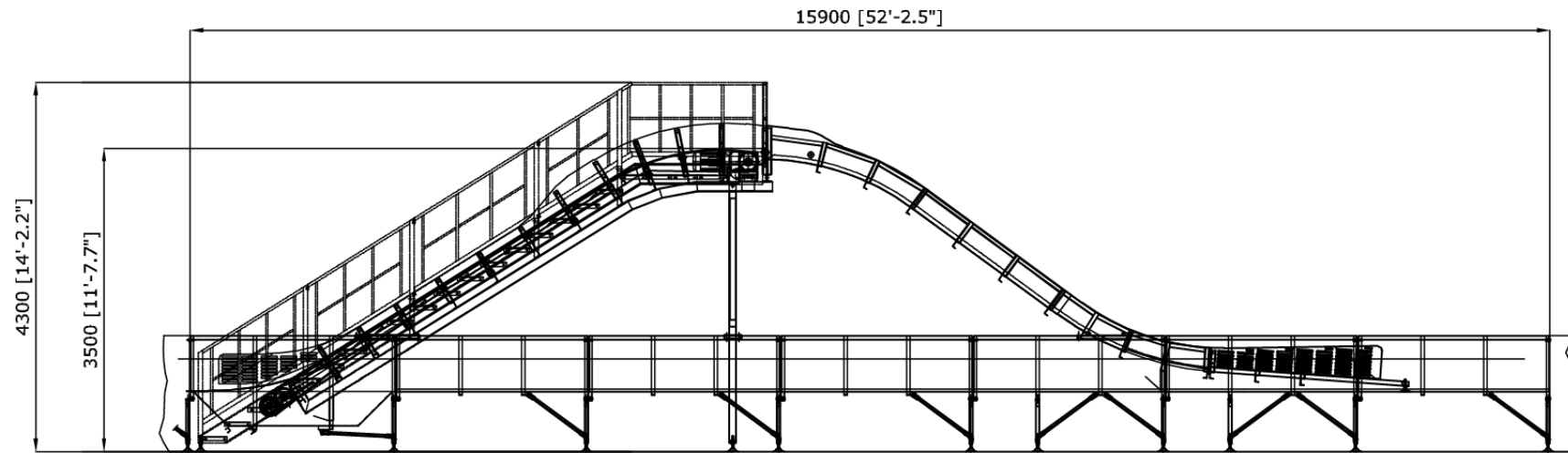
ELECTRICAL DATA

Voltage	3phase + neutral + earth (230/400/415 V)
Frequency	50/60 Hz
Motive power	20 kW
Lighting	Upon Request
Control	Automatic/manual

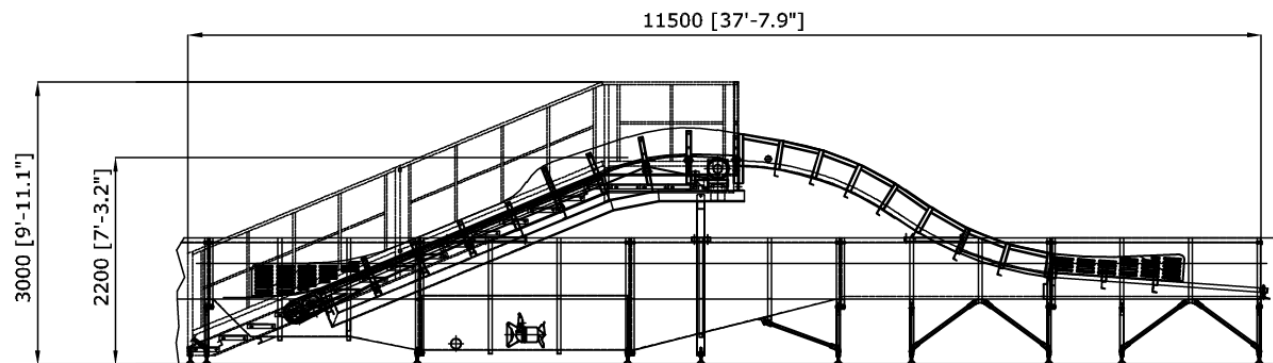
Passengers age/height restrictions: Minimum admissible age 4 years old, height 105 cm - Accompanied

Flume Ride 22x21 (1.2/A)

Technical Data



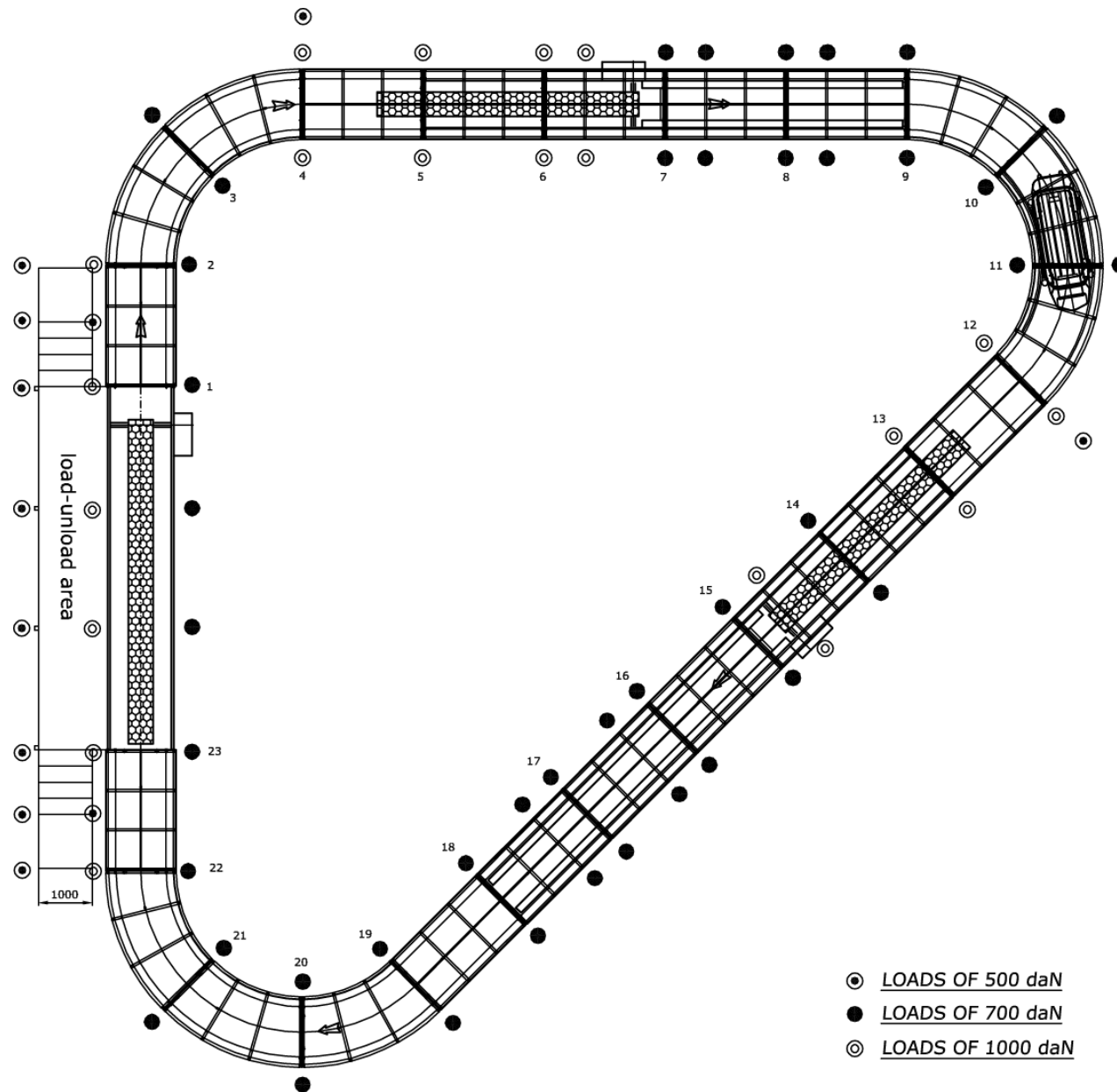
LIFT (H=3.5 m)



LIFT (H=2.2 m)

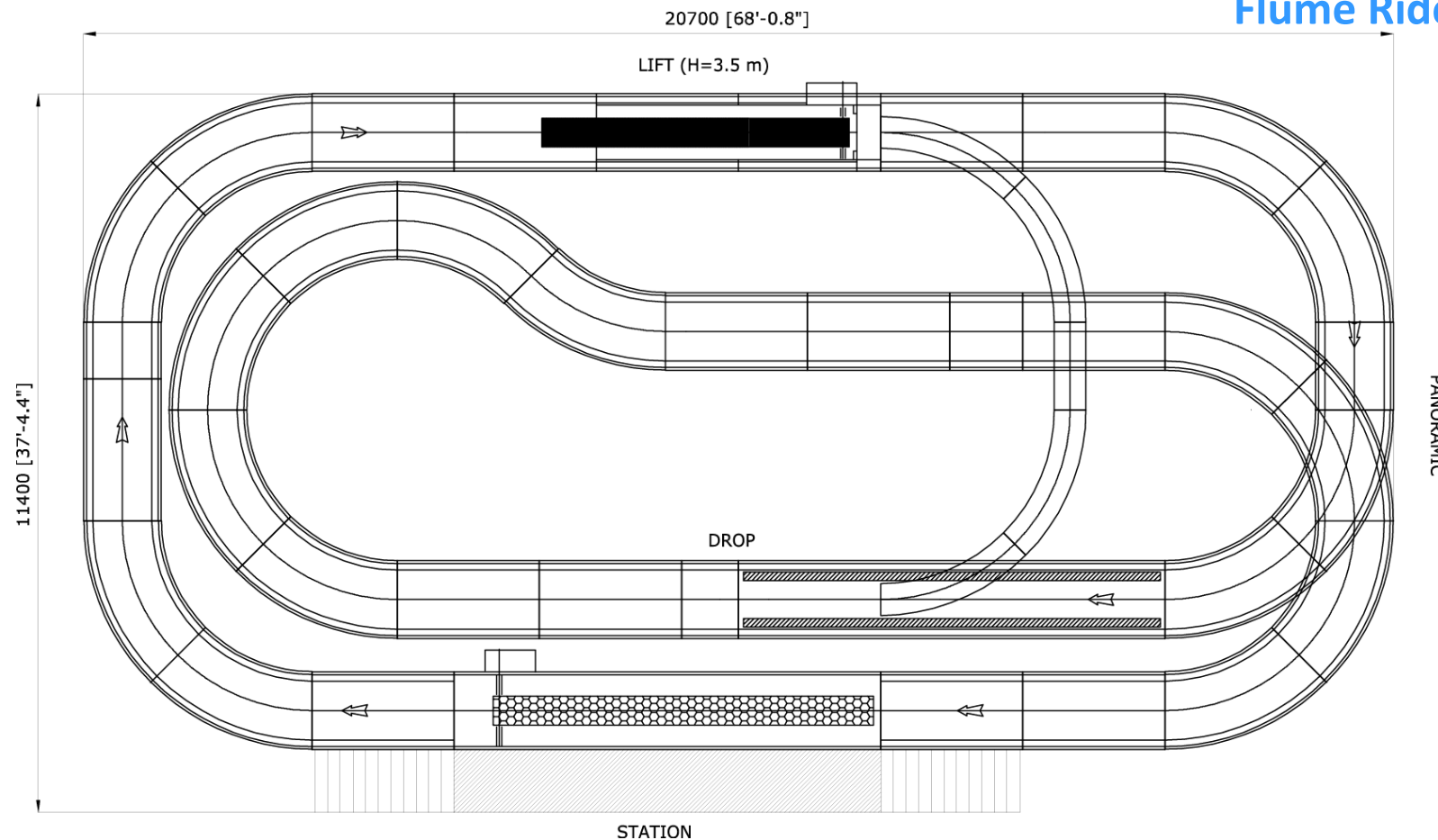
Flume Ride 22x21 (1.2/A)

Loads



Flume Ride 21x11,5 (1.4/A)

Technical Data



this design is an example

TECHNICAL DATA

Total Weight with Water	68'000 Kg - 666,85 kN
Total Length	89 m
Nr of car	4
Log capacity	2 adults+2 children
Total capacity	450 passenger per hour
Max log speed	1 m/s
Nr of basin	34
Boarding	Simultaneous
Shipping Volume	4x40' ot

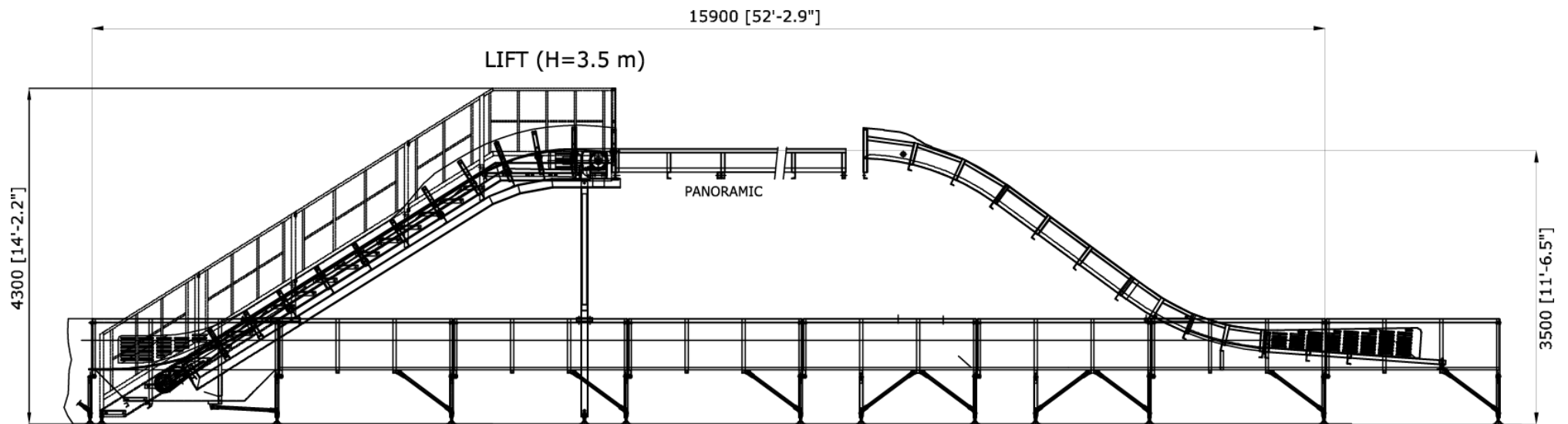
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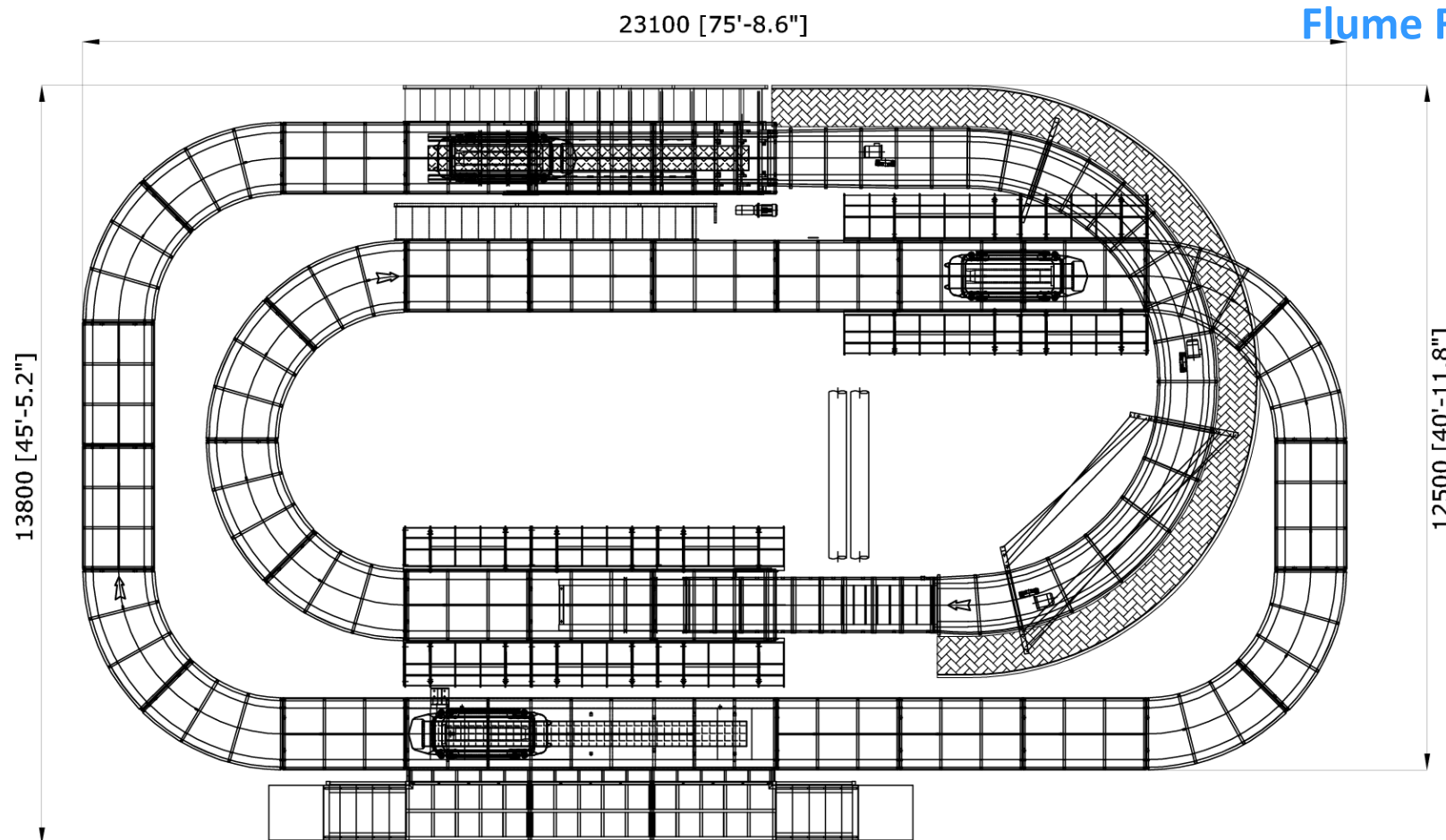
Voltage	3phase + neutral + earth (230/400/415 V)
Frequency	50/60 Hz
Motive power	30 kW
Lighting	Upon Request
Control	Automatic/manual

Passengers age/height restrictions: Minimum admissible age 4 years old, height 105 cm - Accompanied

Flume Ride 21x11,5 (1.4/A)

Technical Data





Flume Ride 23x13 (1.5/A)

Technical Data

this design is an example

TECHNICAL DATA

Total Weight with Water	67'400 Kg - 661 kN
Total Length	101 m
Nr of car	4
Log capacity	2 adults+2 children
Total capacity	500 passenger per hour
Max log speed	1 m/s
Nr of basin	42
Boarding	Simultaneous
Shipping Volume	4x40' ot

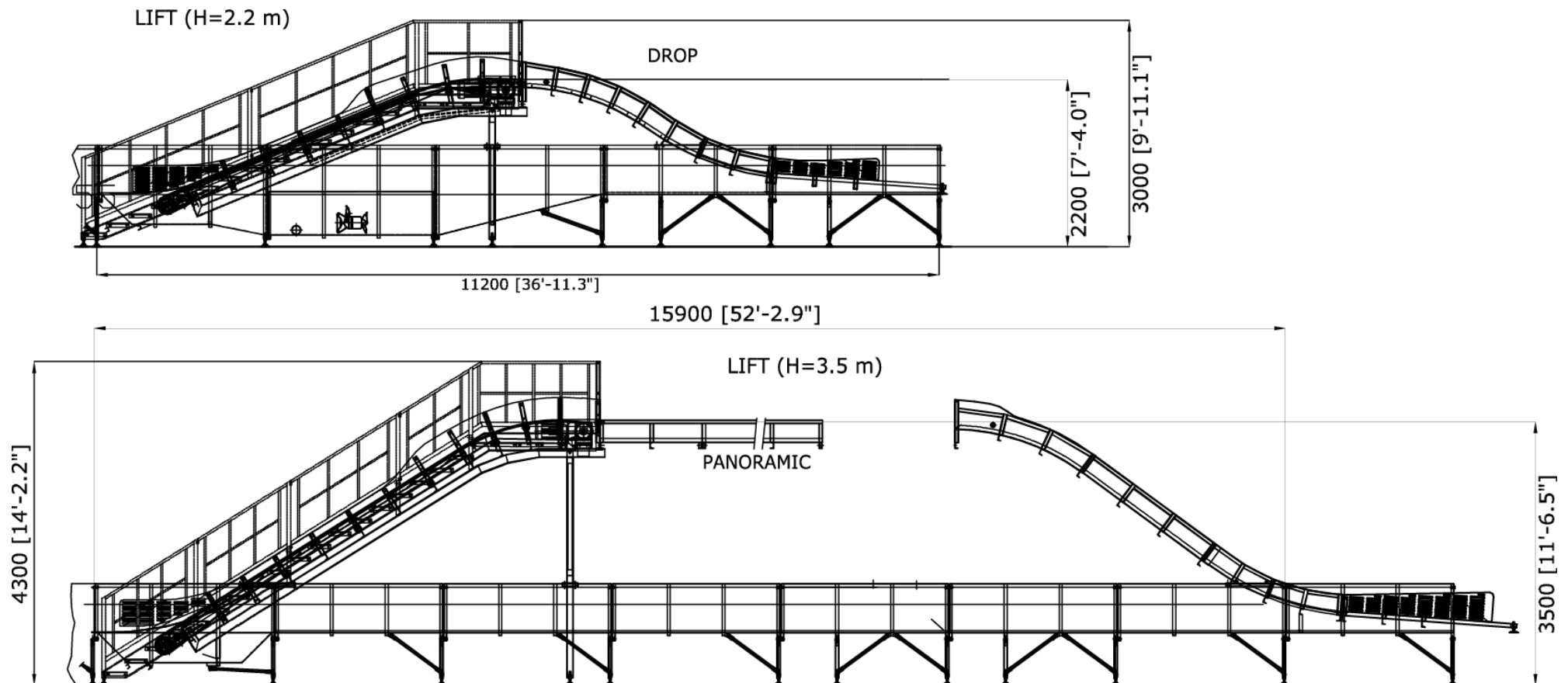
ELECTRICAL DATA

Voltage	3phase + neutral + earth (230/400/415 V)
Frequency	50/60 Hz
Motive power	40 kW
Lighting	Upon Request
Control	Automatic/manual

Passengers age/height restrictions: Minimum admissible age 4 years old, h 105 cm - Accompanied

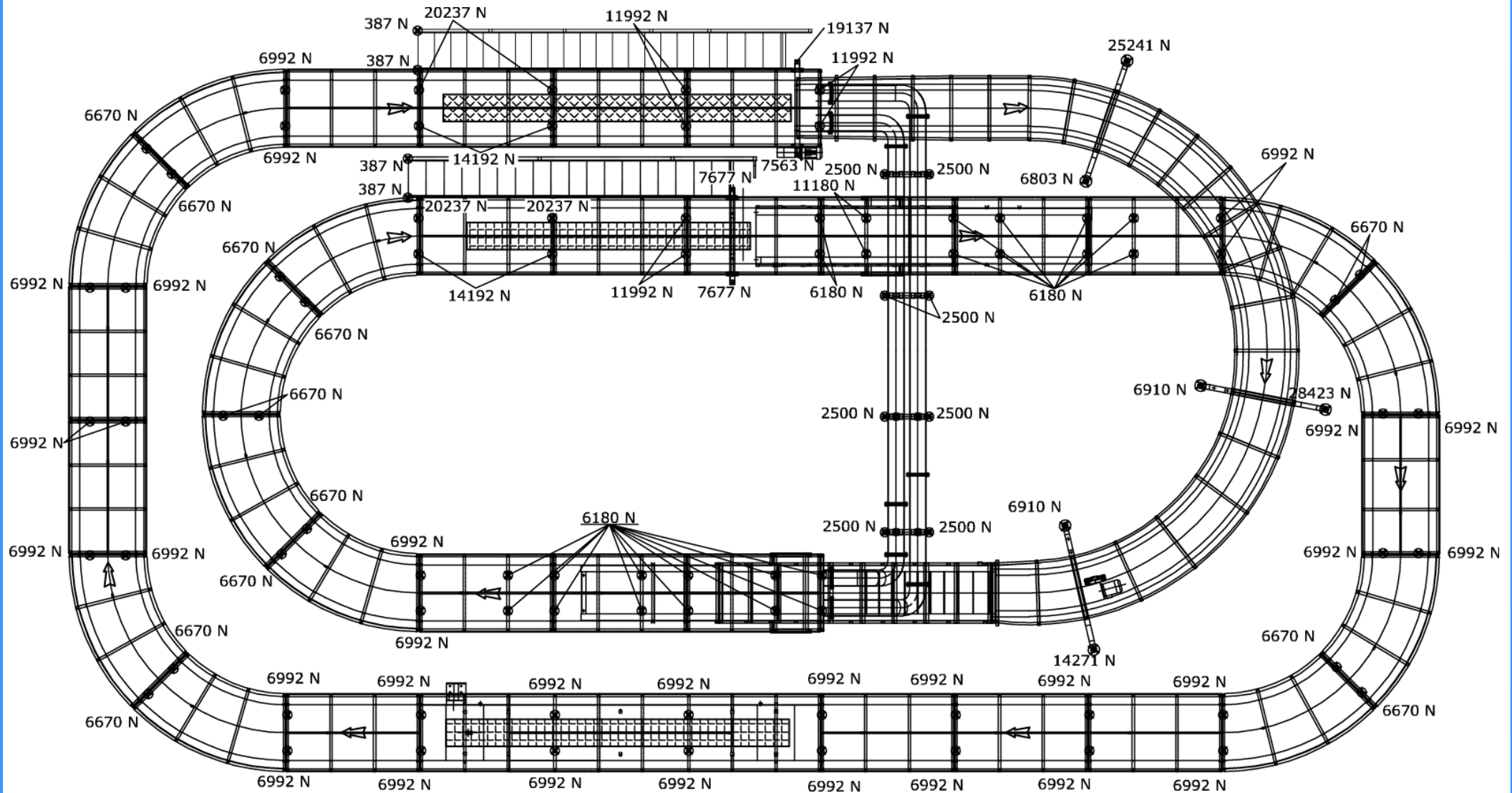
Flume Ride 23x13 (1.5/A)

Technical Data



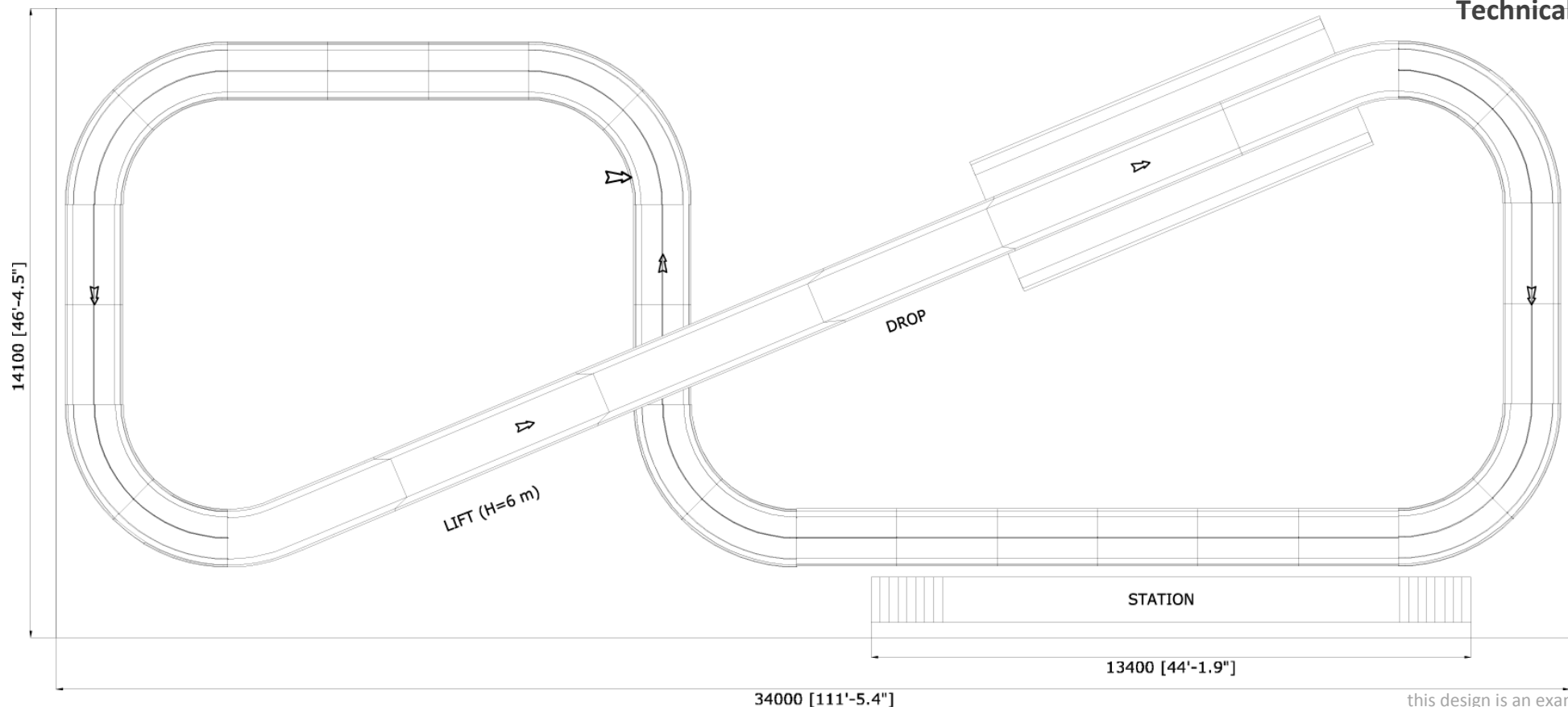
Flume Ride 23x13 (1.5/A)

Loads



Flume Ride 34x14 (1.6/A)

Technical Data



TECHNICAL DATA

Total Weight with Water	64'000 Kg - 627.62 kN
Total Length	94 m
Nr of car	4
Log capacity	2 adults+2 children
Total capacity	500 passenger per hour
Max log speed	1 m/s
Nr of basin	27
Boarding	Simultaneous
Shipping Volume	5x40'ot

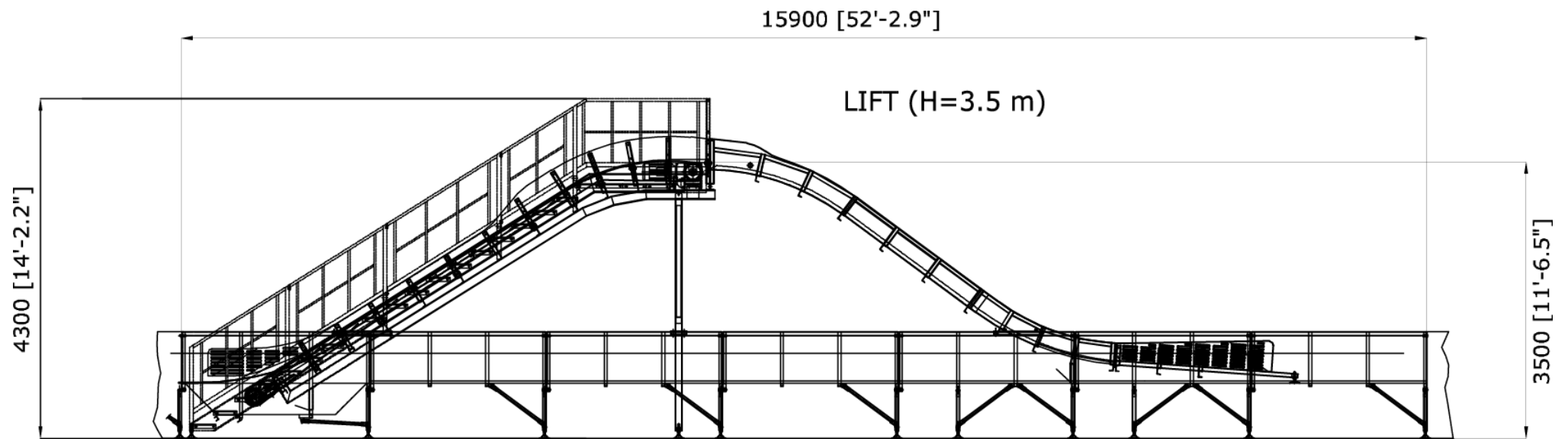
ELECTRICAL DATA

Voltage	3phase + neutral + earth (230/400/415 V)
Frequency	50/60 Hz
Motive power	40 kW
Lighting	Upon Request
Control	Automatic/manual

Passengers age/height restrictions: Minimum admissible age 4 years old, h 105 cm - Accompanied

Flume Ride 34x14 (1.6/A)

Technical Data



Flume Ride 33x27 (1.7/A)

Technical Data

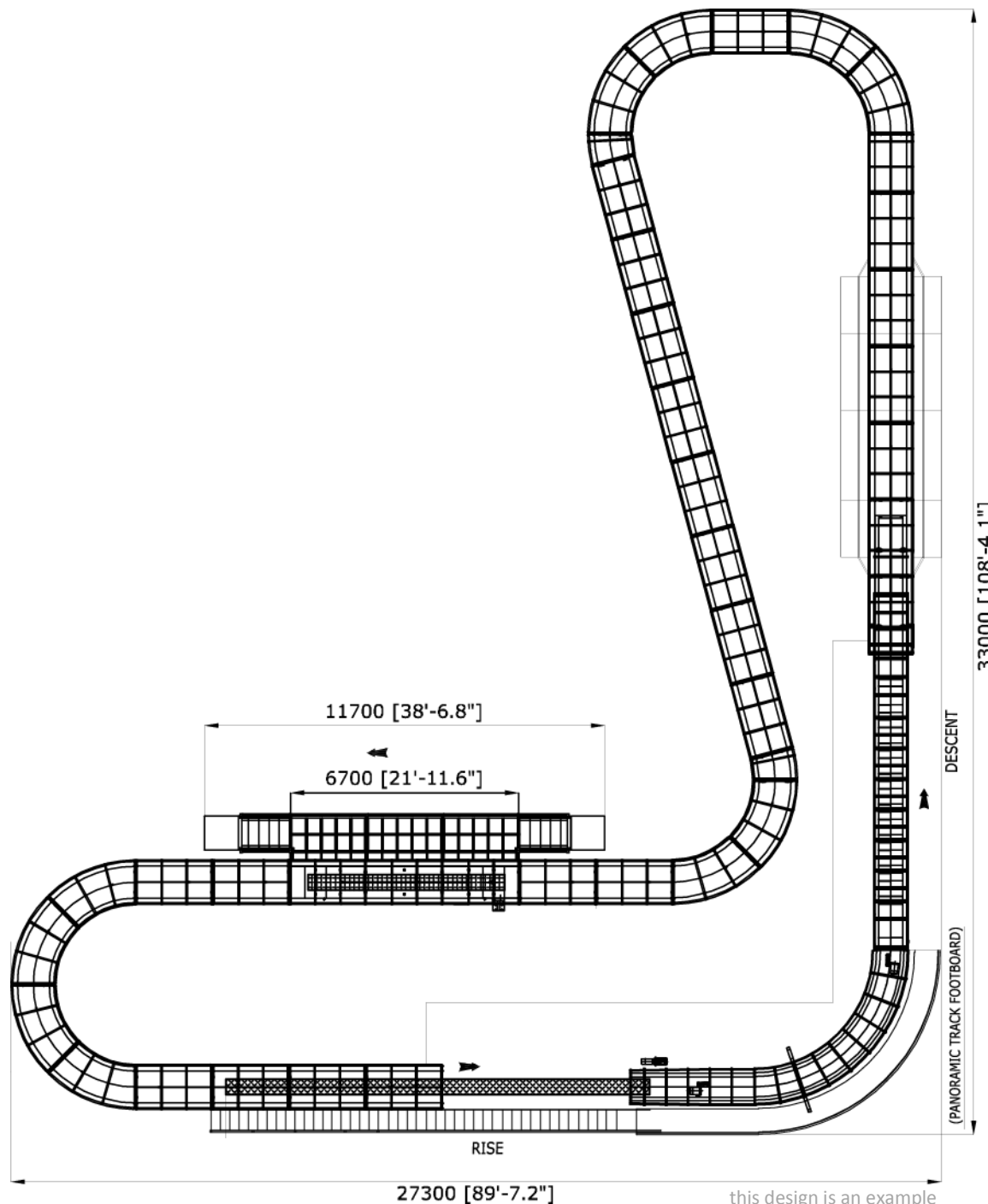
TECHNICAL DATA

Total Weight with Water	70'000 Kg - 686.46 kN
Total Length	114 m
Nr of car	4
Log capacity	1 adults+2 children
Total capacity	600 passenger per hour
Max log speed	1 m/s
Nr of basin	41
Boarding	Simultaneous
Shipping Volume	5x40'ot

ELECTRICAL DATA

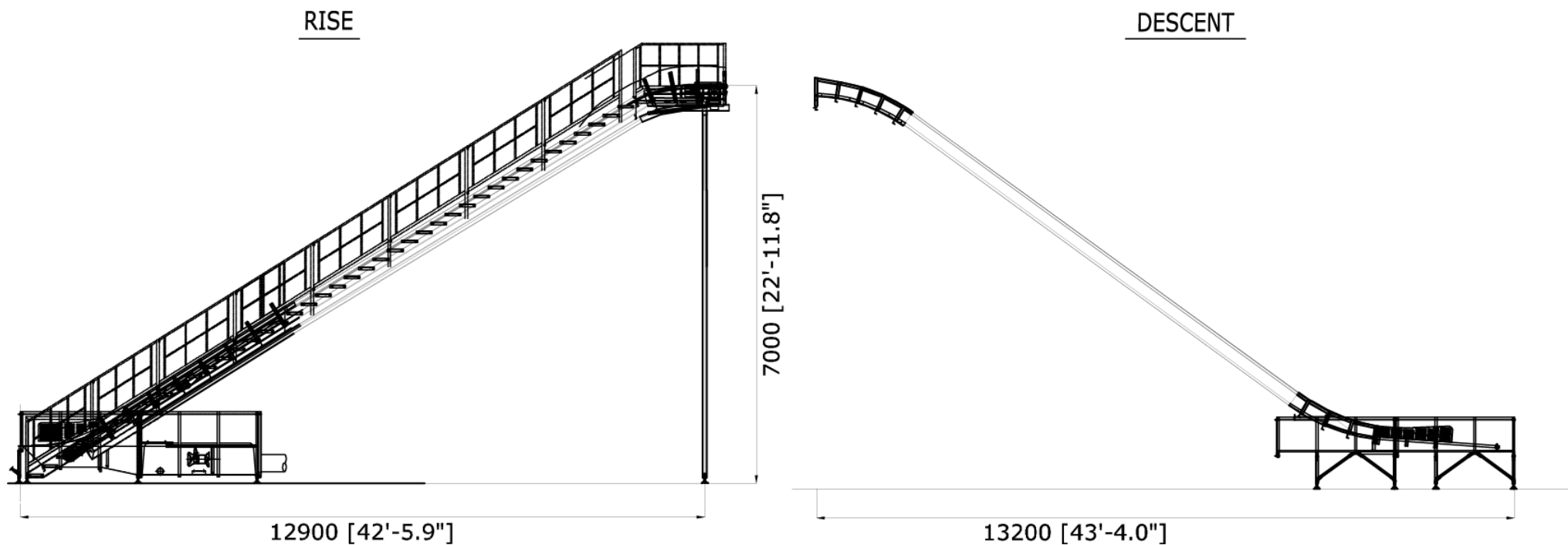
Voltage	3phase + neutral + earth (230/400/415 V)
Frequency	50/60 Hz
Motive power	40 kW
Lighting	Upon Request
Control	Automatic/manual

Passengers age/height restrictions: Minimum admissible age 4 years old, height 105 cm - Accompanied



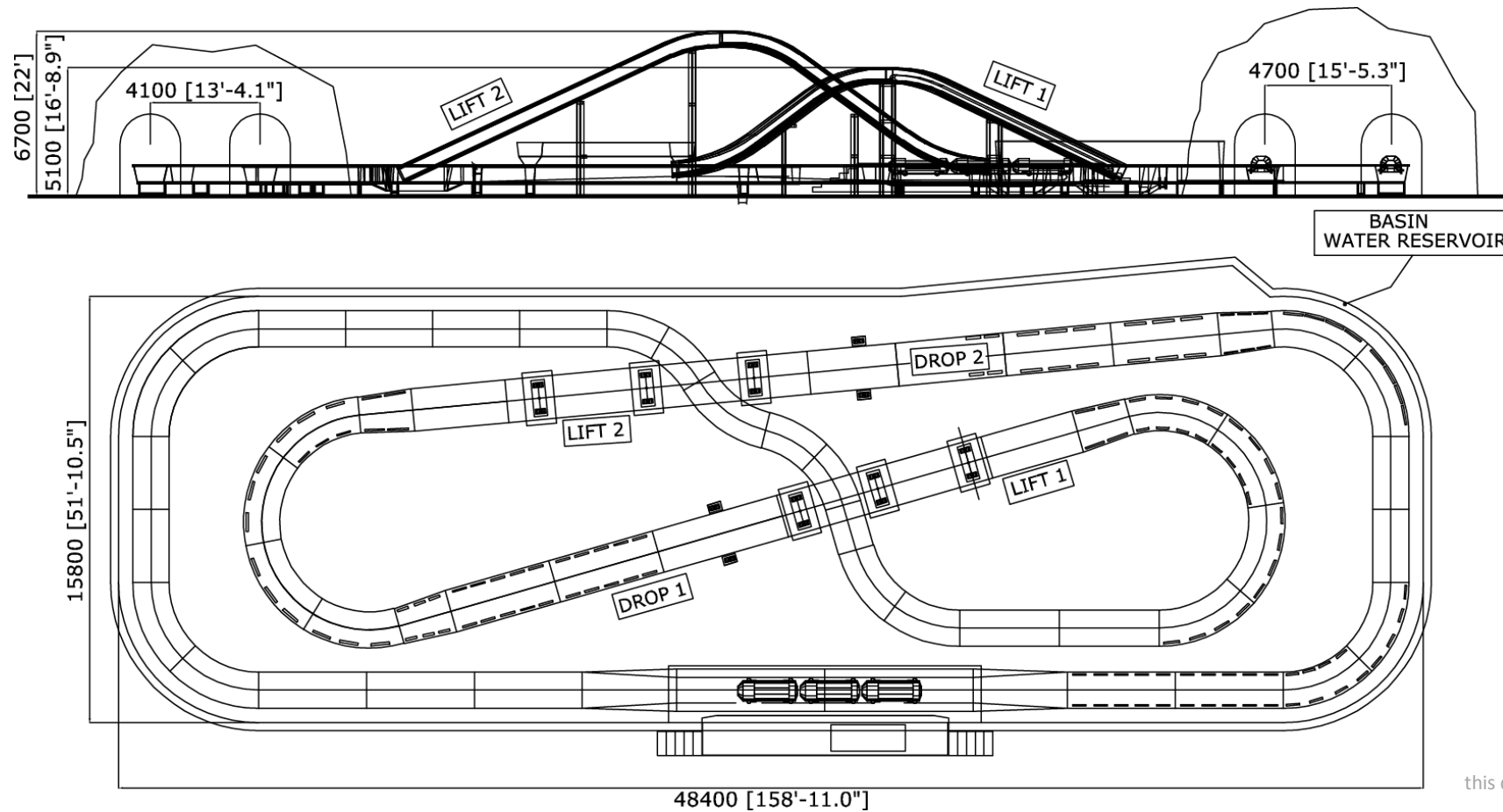
Flume Ride 33x27 (1.7/A)

Technical Data



Flume Ride 47x15

Technical Data



TECHNICAL DATA

Total Weight with Water	64'000 Kg - 627.62 kN
Total Length	210 m
Nr of car	6
Log capacity	2 adults+2 children
Total capacity	500 passenger per hour
Max log speed	1,4 m/s
Nr of basin	55
Boarding	Simultaneous
Shipping Volume	5x40'ot

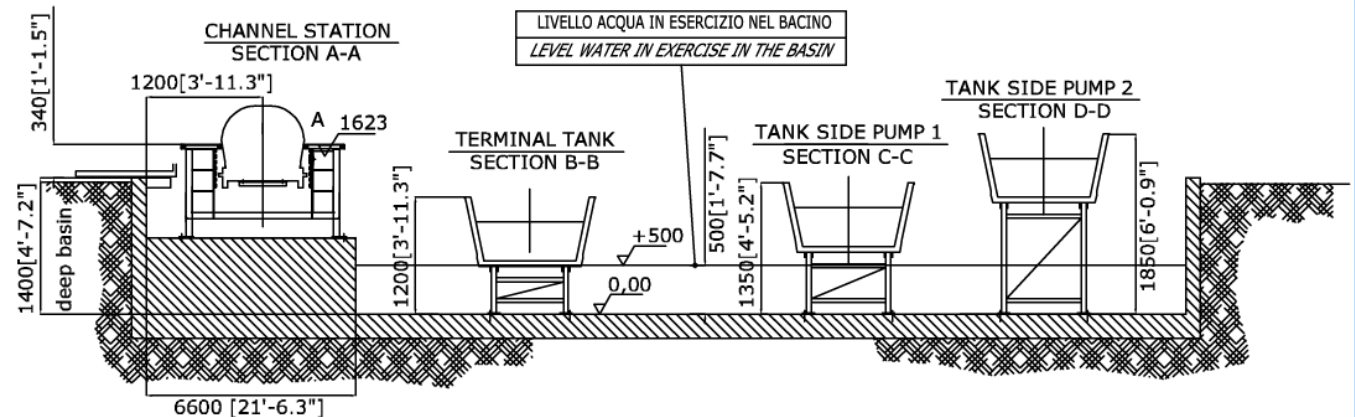
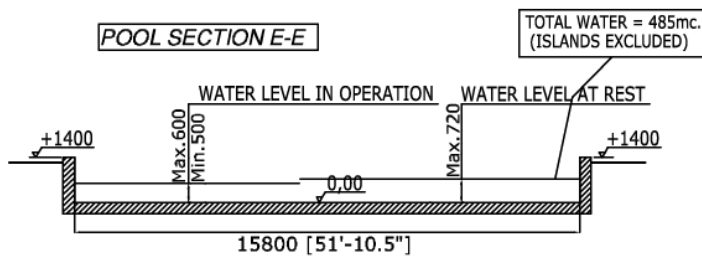
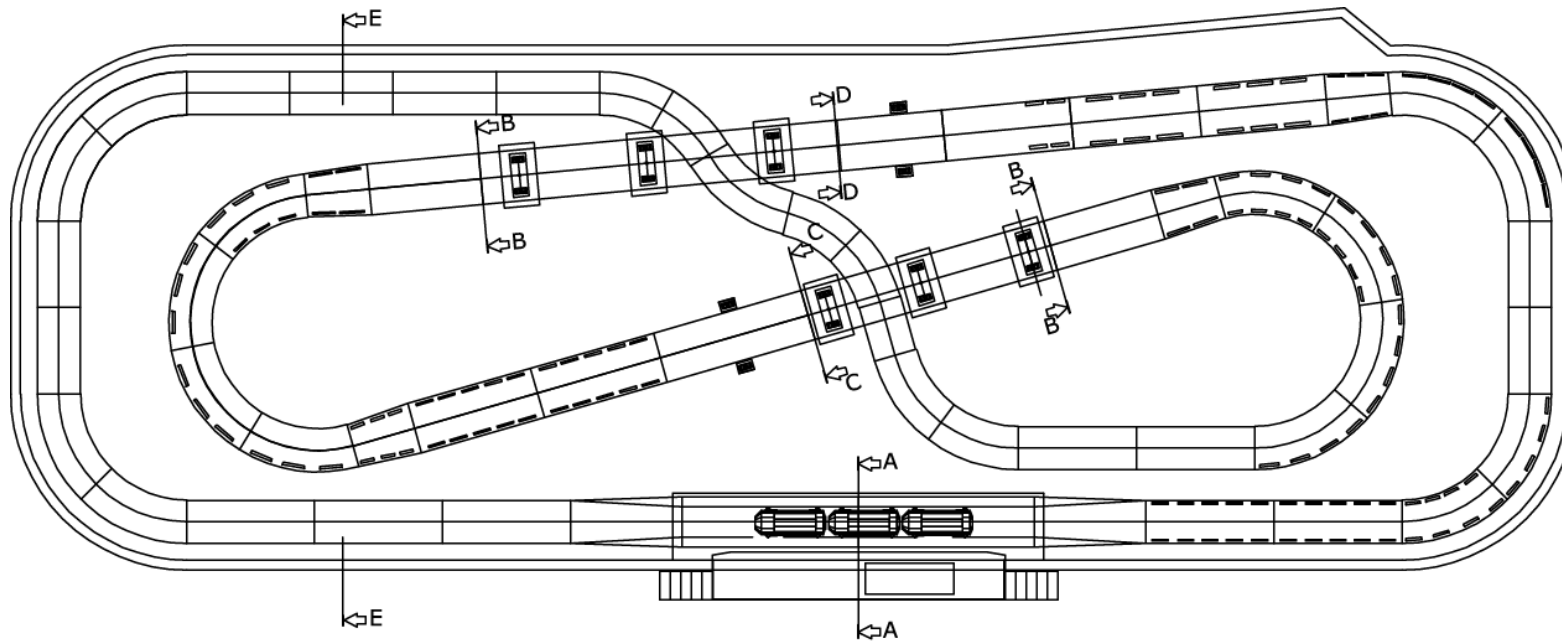
ELECTRICAL DATA

Voltage	3phase + neutral + earth (230/400/415 V)
Frequency	50/60 Hz
Motive power	45 kW
Lighting	Upon Request
Control	Automatic/manual

Passengers age/height restrictions: Minimum admissible age 4 years old, height 105 cm - Accompanied

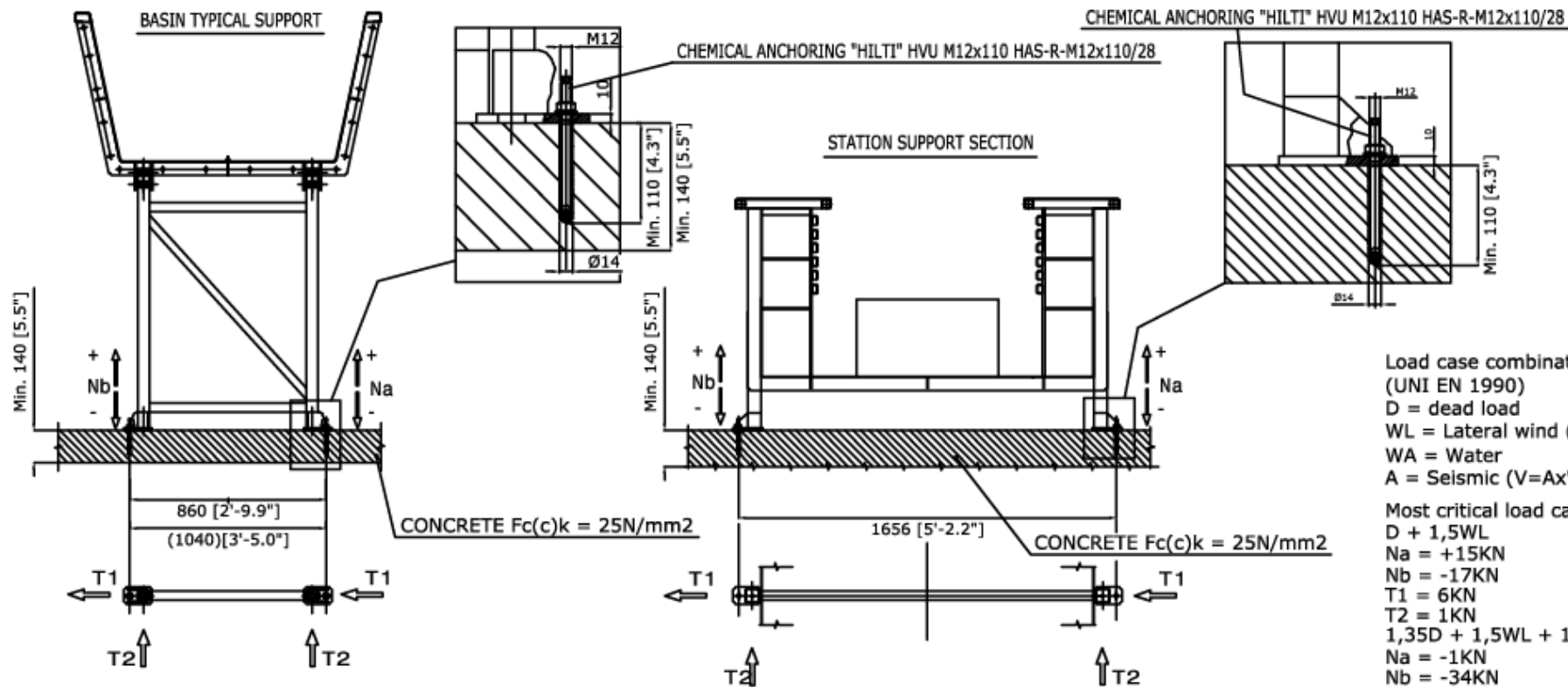
Flume Ride 47x15

Sections



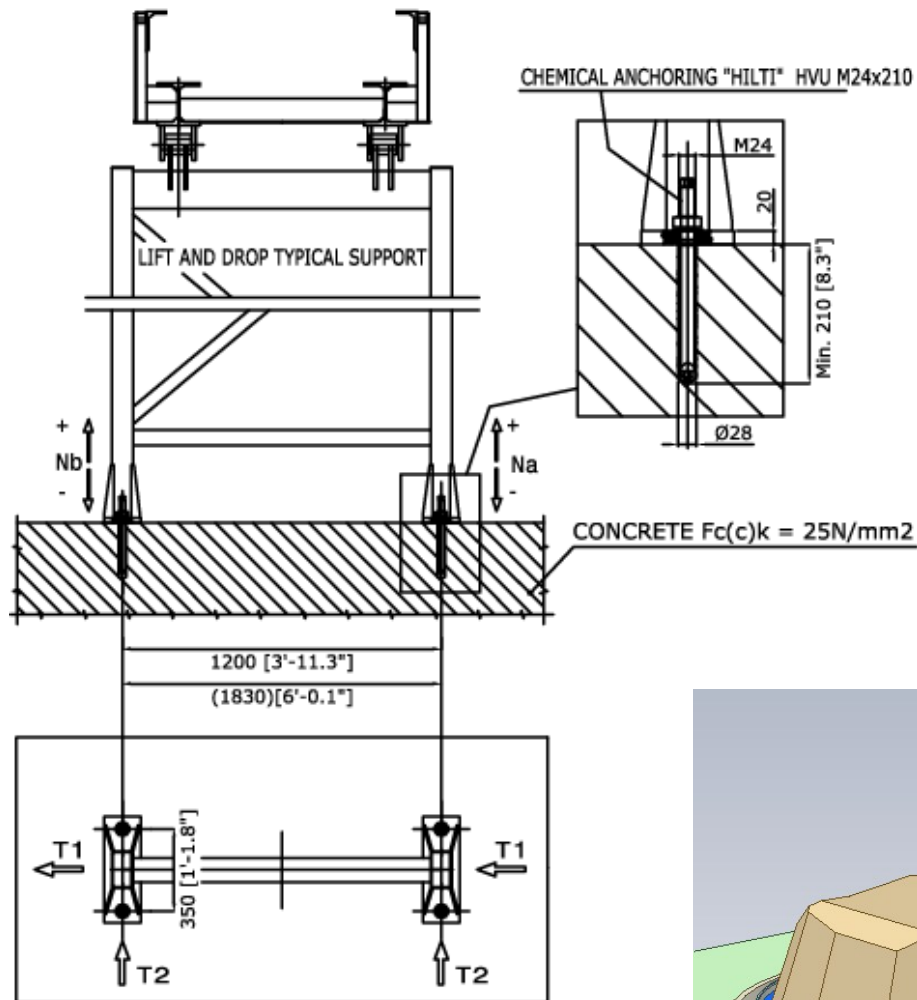
Flume Ride 47x15

Loads



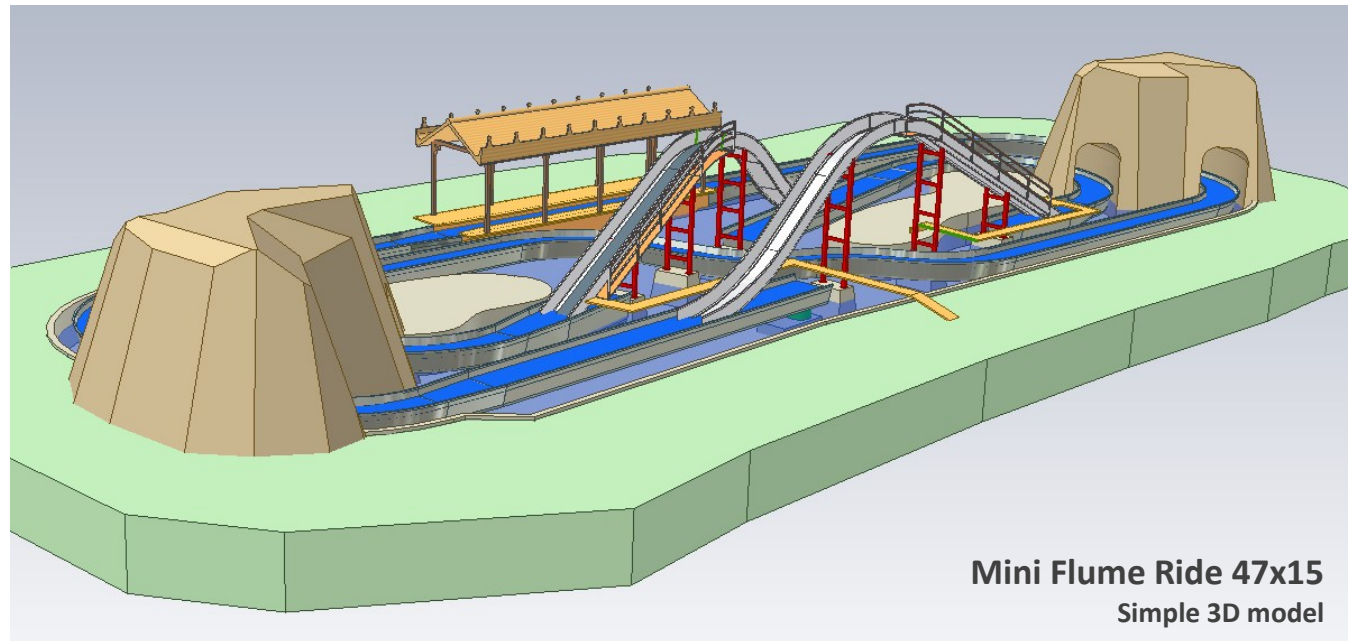
Flume Ride 47x15

Loads



Load case combination
(UNI EN 1990)
D = dead load
WL = Lateral wind ($q_{ref}=1100N/m^2$)
S = Snow
A = Seismic ($V=A \times W$ with $A=0,5g$)

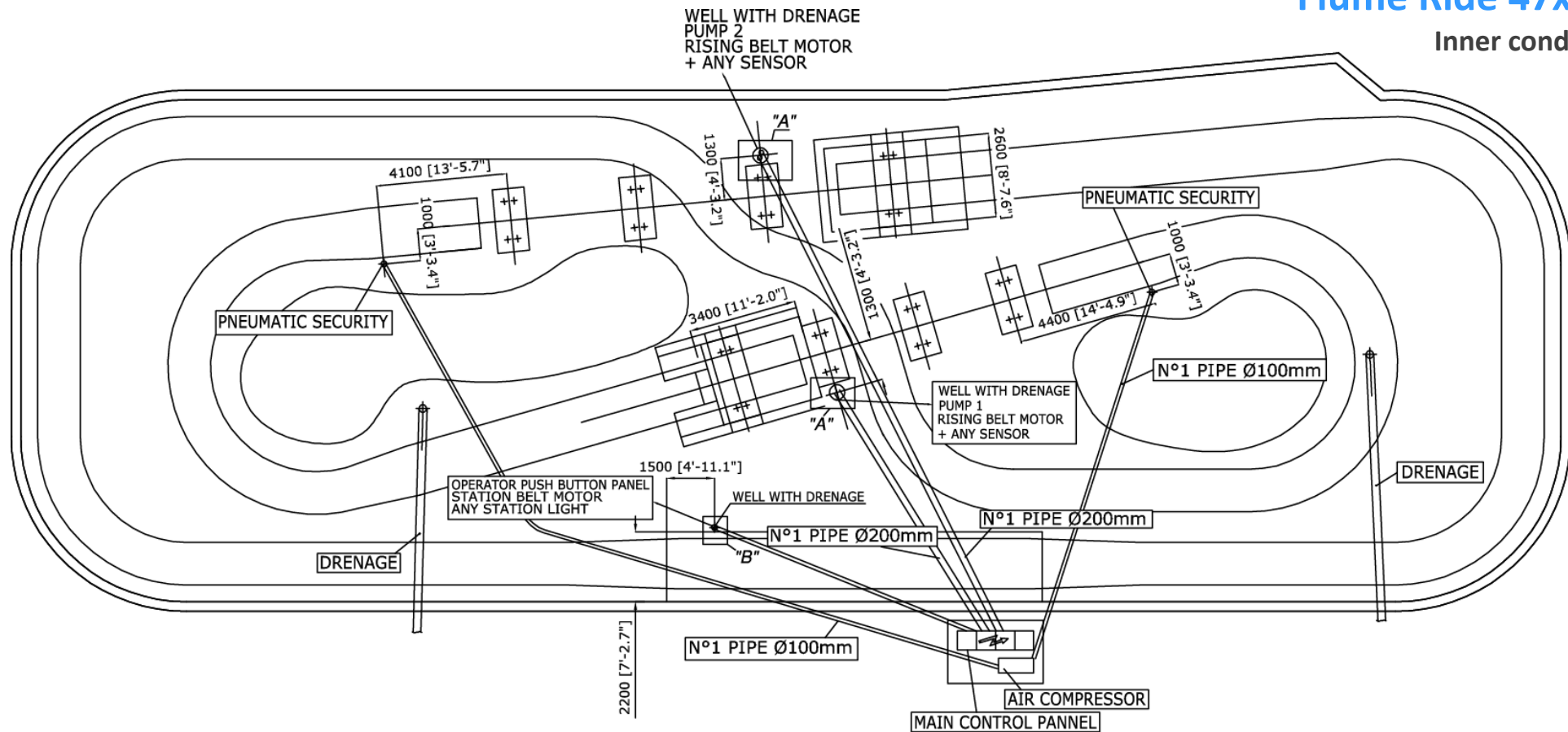
Most critical load case
 $1,35D + 1,5WL + 1,5S$
 $N_a = +115KN$
 $N_b = -145KN$
 $T_1 = 22KN$
 $T_2 = 17KN$



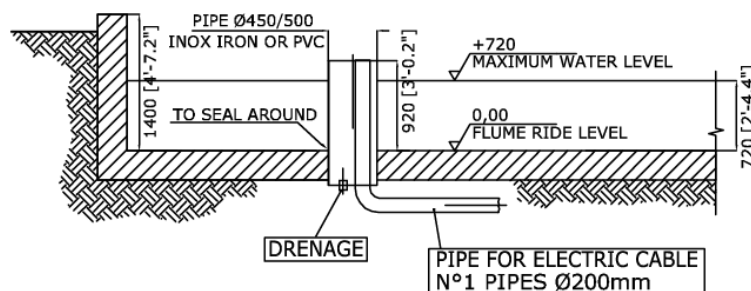
Mini Flume Ride 47x15
Simple 3D model

Flume Ride 47x15

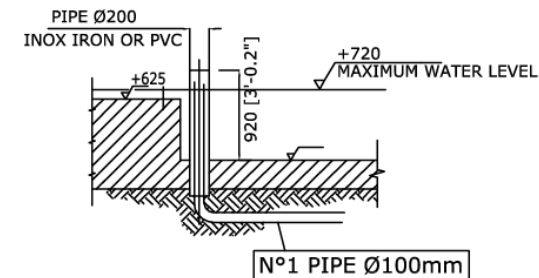
Inner conduits



DETAIL "A" WELL DIMENSIONS



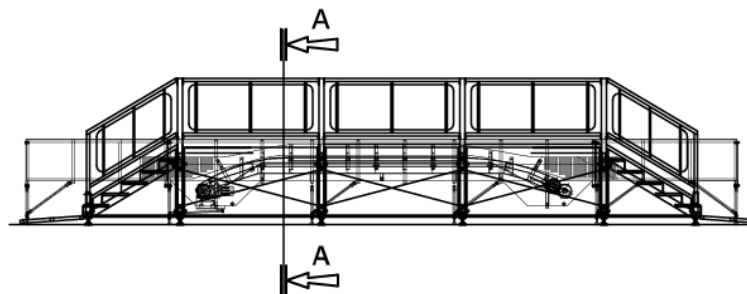
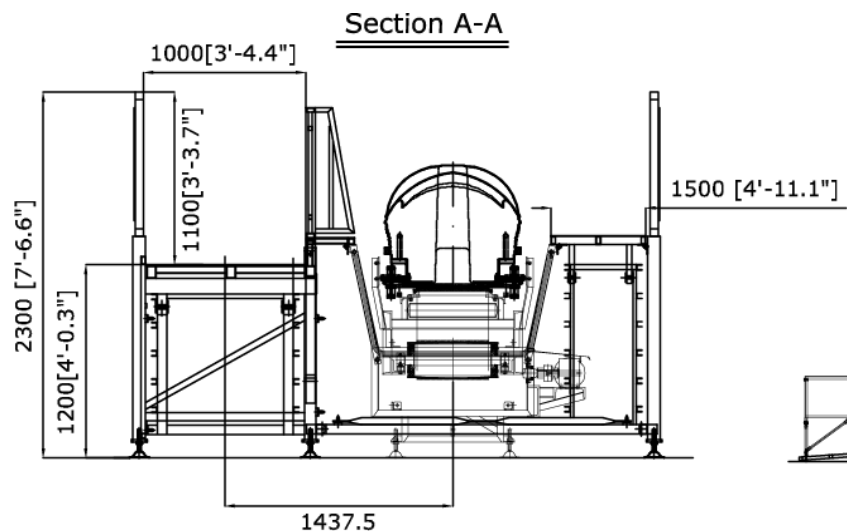
DETAIL "B" WELL DIMENSIONS



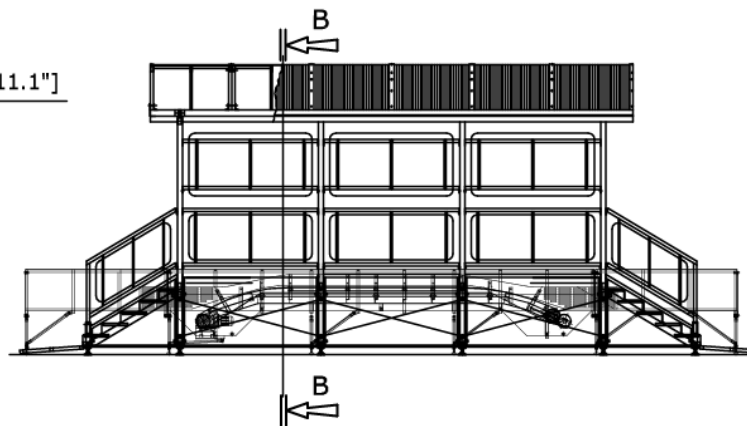
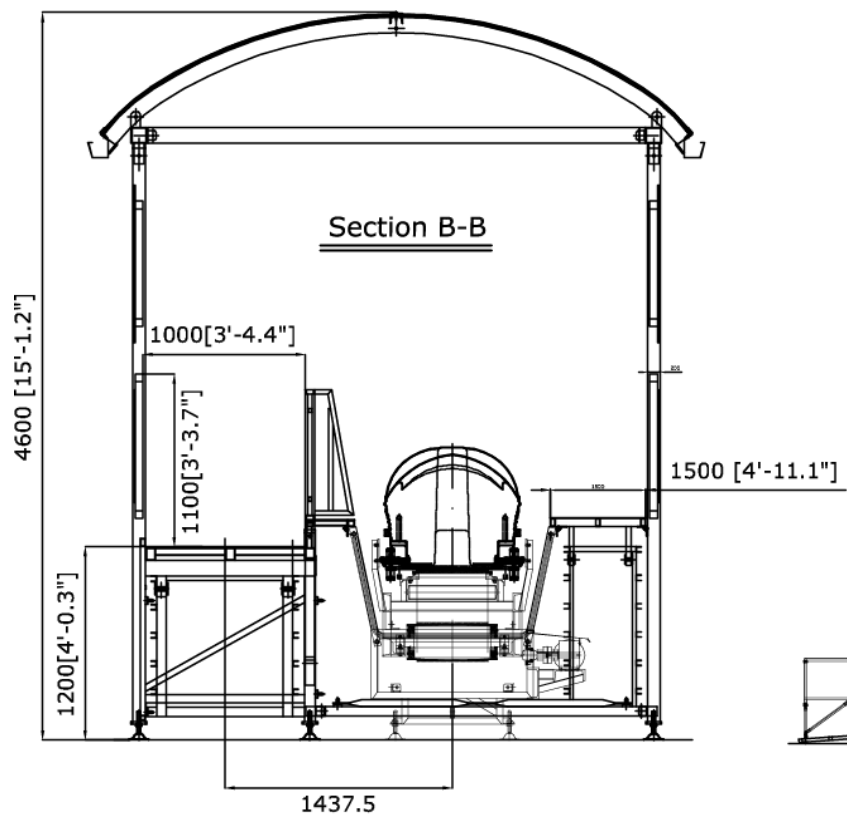
Flume Ride 47x15

Photos



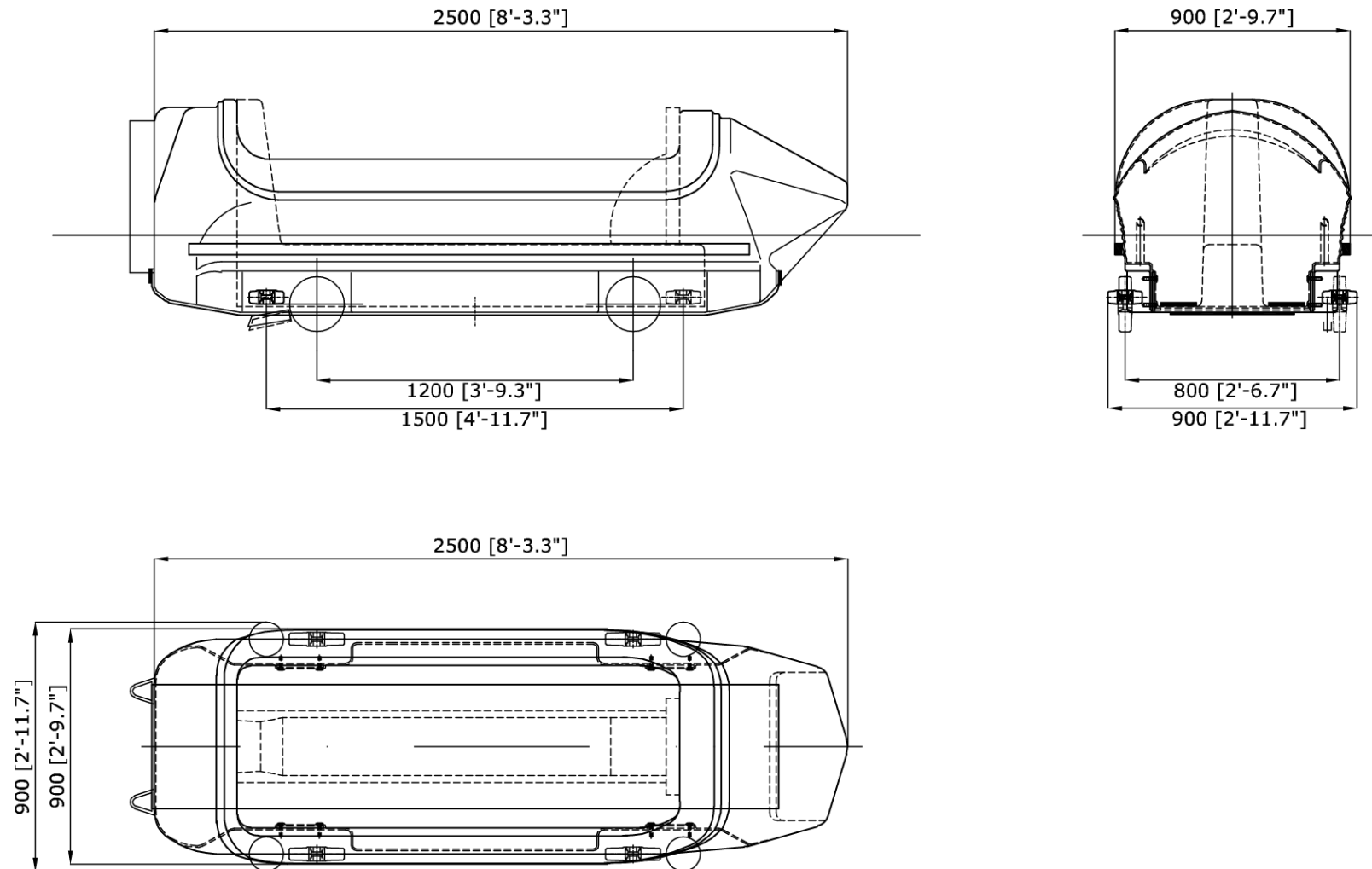


Standard Station



Covered Station

Boat



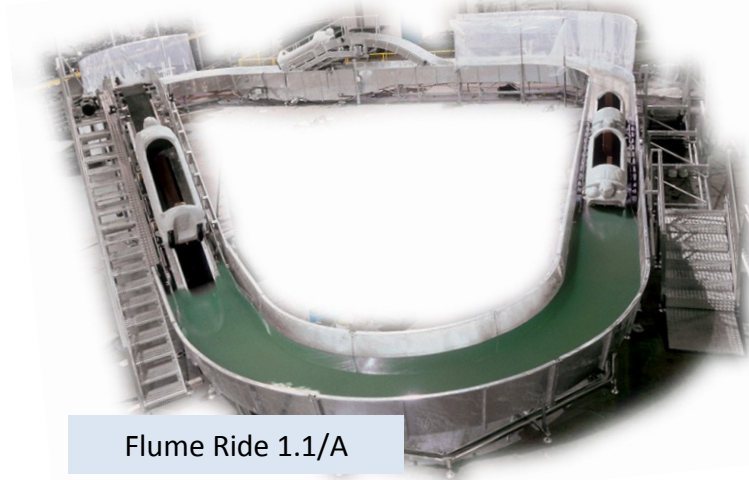
Flume Photos



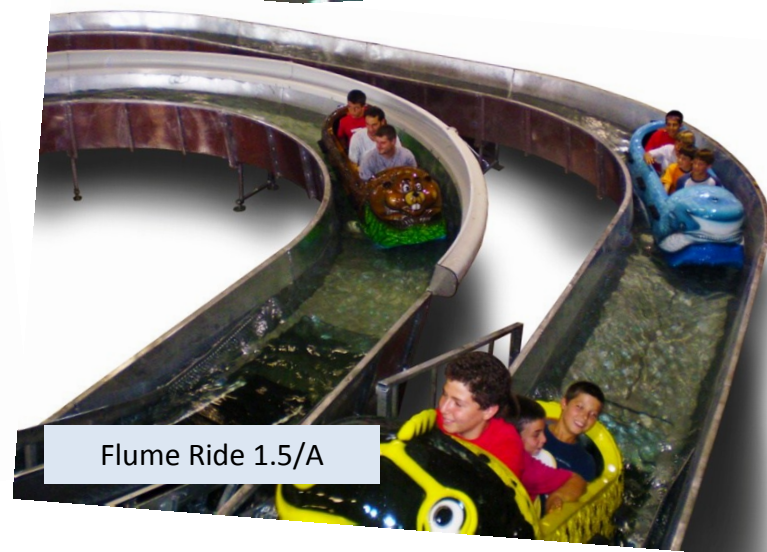
Flume Ride 1.2/A



Flume Ride 1.5



Flume Ride 1.1/A



Flume Ride 1.5/A

Boats Photos

Hyppo



Seal



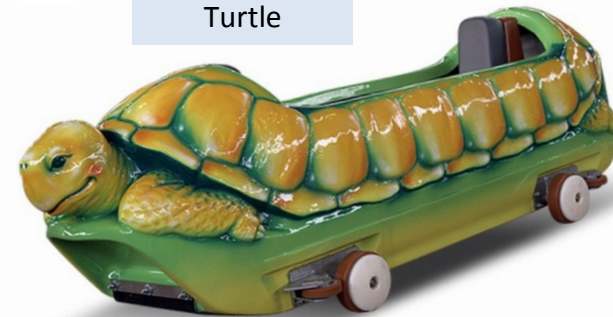
Bear



Tree trunk



Turtle



Dragon

