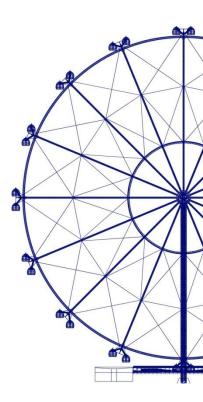
# Panoramic Wheel 55 m



25 years - since 1988

## Commercial Offer





Strictly confidential

International Patent No. PCT/RU 2010/000261

Panoramic wheel 55 m



## We have designed and built 520 objects in

## Russia, Europe and USA for 25 years

- Pax Group of Companies is the creator of the first Roller Coaster in Russia 1989.
- In 1991 the first looping roller coaster was created in Russia.
- In 1995 the biggest panoramic wheel of 70 m in height was created in Russia.
- In 1998 the roller coaster with two loops was created for Dammam, Saudi Arabia, King Fahad Park. Due to the high popularity of the amusement ride the park was re-named into Cobra Amusement Park.
- In 1998 the highest panoramic wheel (for the moment of installation) of 90 meters in height was created in Mirabilandia park, Ravenna, Italy.
- In 2001 the panoramic wheel of 80 meters in height was installed on the roof of 24 meters building, Ulsan, South Korea. The total height is 104 meters.
- In 2010 ISO/TC 254 committee was created under the leadership of Dr. V. Gnezdilov. Three international standards "Safety of amusement rides" were developed in the years of 2011-13.
- In 2013 the Russian and International Union of Scientific and Engineering Public Organizations awarded the specialists of Pax Group of Companies with the Golden medal named after V.G. Shukhov for the creation of Mobile Gantry for SOYUZ launch vehicles for Guiana Space Center, Kourou, French Guiana.



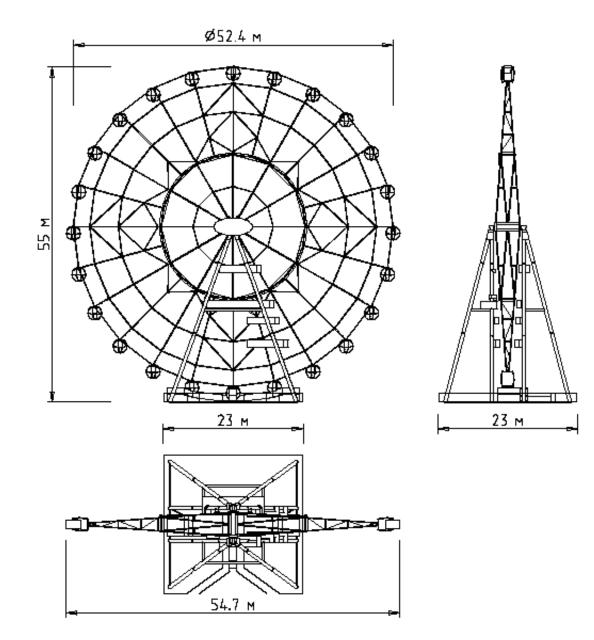
Panoramic wheel 55 m





#### Panoramic wheel 55 m





## Technical data (preliminary)



### **Sizes**

Height, m	55
Diameter by cabins suspension units, m	52
Size of the site under supports, not more than, m	23x23
Basement type	Foundation

## Cabins

Number of cabins, pcs.	24
Number of passengers in cabin, pers.	4-6
Total number of passengers on the wheel, pers.	96-144

## **Dynamic characteristics**

Cabin speed at the station, nominal, m/sec	0,25
Time of one wheel revolution, nom., min	11
Number of revolutions per hour	5,5
Capacity, nom., pers./hour Capacity, nom., mln. pers./year	528-792 <b>2,3-3,4</b>

## **Electrical equipment**

Mail drive	motor-reducer
Capacity of main drive, kW	30
Capacity of illumination, kW	52
Average power consumption at maximum intensive work of amusement ride including illumination, kW	40
Power supply	380B/3/50Hz

**Strictly confidential** 



## TERMS

## Wheel manufacture

5 months

Assembly

14 shifts (7 days)

Number of trailers (L=13,6) for transportation – 30 pcs.



## **Standards**

- EN 13814, GOST 53130
- Production is certified in accordance with ISO 9001.
- Stability to hurricanes up to 28 m/sec.
- Earthquakes in accordance with Building regulations (intensity up to 9 by Richter's scale).
- Electrical safety by EN 60204.41.
- Design life not less than 35000 hours.
- Operational documentation EN 13814, GOST 53130.

### **Basic delivery set**

1. Operational and maintenance manual for all the elements of the amusement ride.

2. Main support.

2. Frame of the movable part.

3. Transmission of the panoramic wheel: 2 motor reduction unit with 2 pressure wheels.

4. 18 four-place glassed cabins.

5. Main axle.

6. Electrical equipment: control cabinet, operator panel, cables set.

7. Coating – paint coating.

8. Supervisor coming to manage the assembly of amusement ride and for personnel training (without costs for travel, accommodation and meals). The Buyer is to provide assemble workers, technique and equipment to fulfill assemble works.

9. Set of spare parts.

#### Services

- Assembly at the Buyer site by the Seller's work team by request
- Certification by request



## Standard conditions of payment

- 1. **70**% of prepayment from the total cost of the contract not later than 10 days from the date of contract signing.
- 2. 25% from the total cost of the contract is to be paid upon completion of the amusement ride manufacture.
- a) whether from the letter of credit against shipping documents of the transport company,

b) or by stages proportionally to the shipped containers or trailers.

3. 5% is to be paid by the readiness of the amusement ride for operation but before signing of the act of transferring ownership and permission for operation

#### The delivery set does not include:

1. Getting of permissions for installation and assembly of amusement ride.

2. Manufacture of concrete foundation.

3. Preparation of site for installation of amusement ride, organization of assembly works at the Buyer's site.

4. Power cable laying up to the entrance into control cabinet.

5. Rent of technique, equipment, involvement of specialists required for assembly.

6. Earthing and lightning protection systems outside the Buyer site.

#### Guarantees

- Guarantees for metal structures 10 years (under condition of providing the stability of the foundation (supports) of the amusement ride)
- Guarantees for replaceable parts in accordance with Operational manual.
- Guarantees for painted surfaces 2 years (provided regular restoration of the coating at defect areas).
- Design service life of main structures of amusement ride not less than 35 000 hours (provided corresponding maintenance and timely repair and change of wearing parts of amusement ride).



## PAX GROUP OF COMPANIES PROFILE

- PAX GROUP of COMPANIES has been created on July 15, 1988,
- PAX GROUP of COMPANIES is in the International market since 1993,
- Basis of PAX GROUP of COMPANIES is made up of specialists with large work experience in the aerospace industry,
- We create amusement rides and space equipment,

• Our product is certified by TÜV SÜD (Munich), Central Research Institute of Building Constructions named after Kutcherenko (Russia), "Promservice" Ltd. in compliance with Russian and European standards, and the production in certified in accordance with ISO 9001.

• PAX GROUP of COMPANIES is a base organization for ISO 254 technical committee "Safety of amusement rides and devices".

## PAX GROUP OF COMPANIES EXPERIENCE

- "Moscow 850" Panoramic Wheel, Russia
- Panoramic Wheel 90 m in height for Mirabilandia park, Italy
- Panoramic Wheel 80 m in height on the roof of 24 m building, Ulsan, South Korea
- Panoramic Wheel 81 m in height, the highest in CIS, Sochi, Russia
- Cobra Roller Coasters 46 m in height, Kazakhstan
- Roller Coasters for Saudi Arabia, France (Parc Saint-Paul); Austria (Erlebnispark); certified by Coulter (USA) and TÜV NORD (Germany);
- Over 170 major rides around the world
- 350 telecommunication and TV towers up to 130 meters in height
- Mobile Gantry for Guiana Space Center, Russia

• Set of containers for "Soyuz-CT" launchers transportation and other equipment for the European Space Agency and Russian Space Agency facilities. In October 21, 2011 by means of Mobile Gantry the assembly of launcher "Soyuz-CT" and "Galileo" satellite was held, and successful launch and orbiting was conducted.

#### PAX GROUP OF COMPANIES

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