BAROKS

Hyperbaric & Diving Systems

HBO Monoplace Chambers


mono
mono

ABOUT US

Baroks specialized in manufacturing medical Hyperbaric Oxygen Chambers, Tunnel Construction and Diving Chambers for Public, Military and Private customers as a Turn-Key Projects using an innovative approach. As a company, we are able to provide solutions throughout a large area. We have a web of international partners/suppliers in order to develop and implement solutions for the hyperbaric and diving community as we have been part of 100 projects over 25 countries based on 4 continents. Our dynamic staff/team is always there to help our customers and make their job even easier through projects.

We do our very best to answer our customer's needs from the very beginning until the installation process. We continuously incorporate the latest technologies into every new and diverse chamber with flexible design aiming manufacture at competitive prices. The production itself as well as the side components is made according to European and U.S.A standards. Baroks ongoing investment as well as its overall commitment to the manufacturing industry gives customers constant access to new and cutting edge solutions while solidifying its position as a leading provider of innovative safe and best quality hyperbaric & diving chambers and systems.

We will continue take on new challenges as one of the worlds top Hyperbaric Oxygen Chambers producer. It is a great honor to contribute to the health of people's lives through our chambers.

Taner İNCİ
Founder & CEO

O_2mono CHAMBER

The Baroks O_2mono Model Monoplace Hyperbaric Treatment System, is designed to safely provide hyperbaric oxygen therapy to patients at pressure up to 2 bar (3ATA). Our monoplace chambers are designed for professional medical use, according to European Standarts and is tested according to EN14931 requirements.

Only quality-certified “Pressure Steel” with test reports is used in our Monoplace Chamber production. In addition; before production of the chamber, ultrasonic lamination tests and after welding process; x-ray, magnetic particle and ultrasonic tests (Non-destructive tests) have been done by professional engineering staff. All these process is controlled and reported by certification company. After chamber production, hydrostatic tests is done by the certification authority surveyors.

We are manufacturing two type monoplace chamber: Half Acrylic (HA) and Full Acrylic (FA).

HALF ACRYLIC

FULL ACRYLIC


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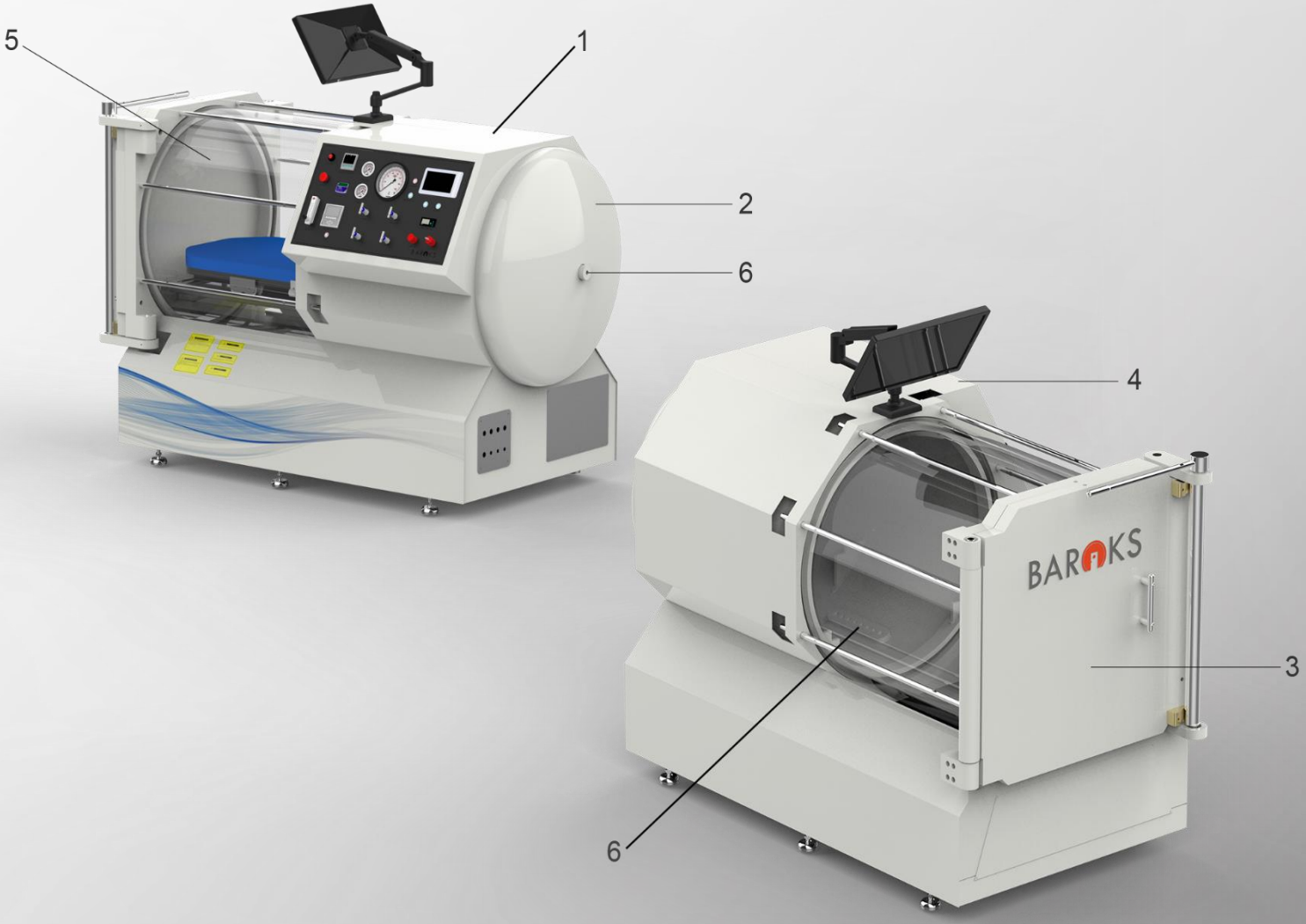
Monoplace HBOT Chamber mainly consists of the following parts:

Chamber Parts

No	Part Name
1	Cylindrical Body
2	Torispherical Head
3	Door
4	Body Wall
5	Acrylic Window
6	Nozlles (ports) up to 8 ports for liquids, gas, cables

2.11



6.

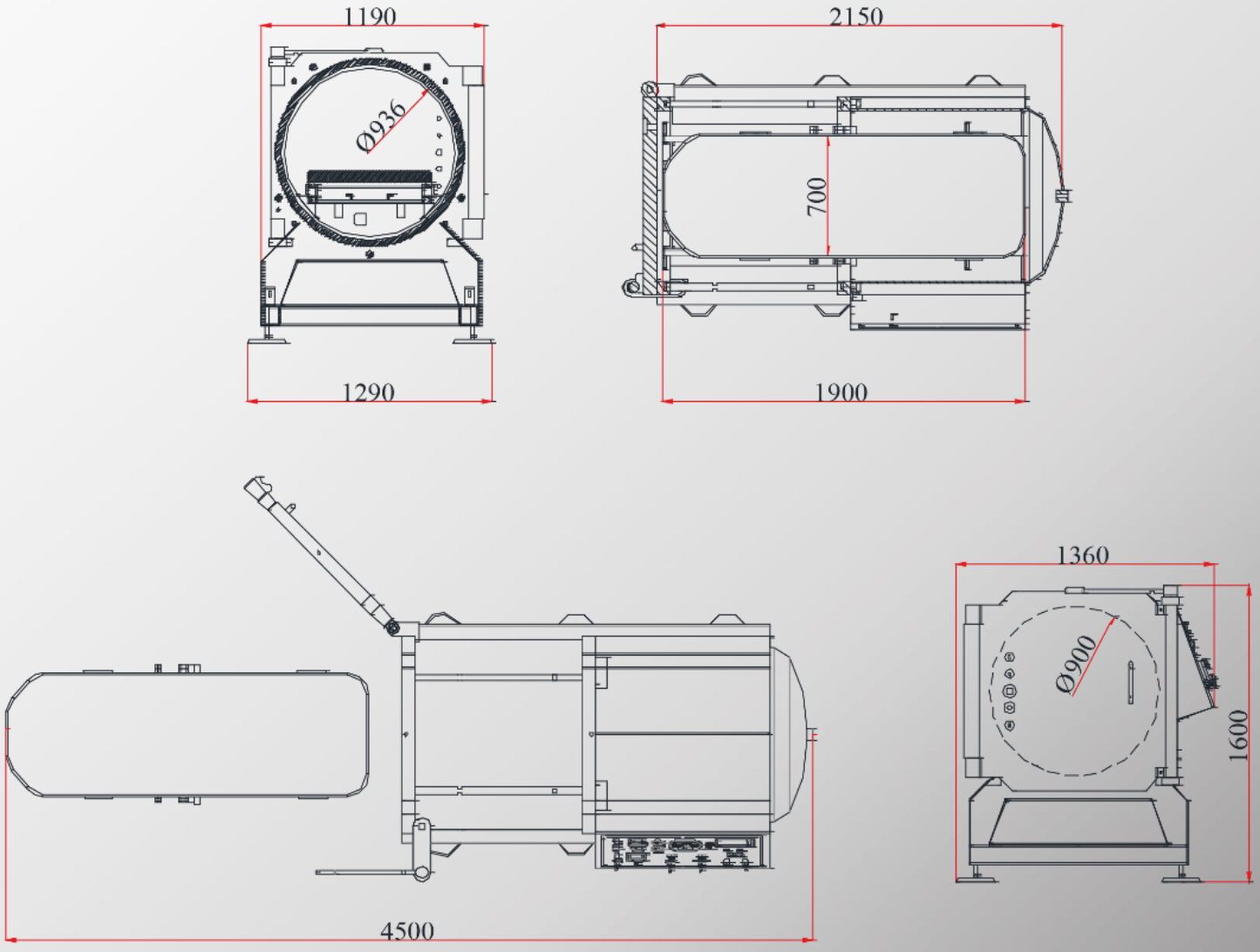
Cylindrical Shell (Body)

The chamber length is 1000 mm and inner diameter is 940 mm.

The square door size of the chamber is 1050 mm. X 1050 mm and it provides entrance and exit easily.

Door

Door size is 1050 mm X 1050 mm. It has also locking mechanism for safety.



Half Acrylic Model General Dimensions

Lock Mechanism

The door of the system can be opened or closed by using Lock Arm. The system cannot be pressurized if both lock key and door key are not closed. Camshaft provides maximum sticking on the door Automatic Locking Cylinder locks the door when the pressure reaches 0,04 bar.

Viewport

2.1

Viewports are manufactured from PMMA: (Poly Methl Meth Acrylate) material where chemical and physical properties are given in ASME PVHO standard.

The following table shows technical specifications of both type of monoplace chamber system.

TECHNICAL SPECIFICATIONS			
	Half Acrylic	**Full Acrylic**	
Working Pressure	3 ATA (2 bar)	3 ATA (2 bar)	2.4
Hydrostatic Test Pressure	4 ATA (3 bar)	4 ATA (3 bar)	
Working Temperature	0°C and 45°C	0°C and 45°C	
Inner Diameter	940 mm.(37 inch)	940 mm.(37 inch)	2.2
Chamber Length (Inside)	2150 mm	2150 mm	2.3
Total Length (Outside)	2500 mm	2500 mm	
Acrylic Window Length	900 mm	1850 mm	
Max. Width	1360mm	1290 mm	
Max. Height	1600 mm	1600 mm	
Material	Pressure Steel	Pressure Steel	
Door Opening	Ø 900 mm	Ø 900 mm	
Electrical Power	3 KW	3 KW	
Electrical Connection	220 Volt, 50 Hz	220 Volt, 50 Hz	
HBO patient grounding	Strap port	Strap port	2.8
Certification	Medical CE certified	Medical CE certified	
Air Supply Pressure	3.8 ÷ 6.5 bar	3.8 ÷ 6.5 bar	
Oxygen Supply Pressure	3.8 ÷ 6.5 bar	3.8 ÷ 6.5 bar	
Oxygen Supply Flow Rate	40 ÷ 400 liter/min.	40 ÷ 400 liter/min.	2.6
Compression Rate	0,01 ÷ 0.4 bar/min	0,01 ÷ 0.4 bar/min	
Emergency Decomp. Rate	2 bar to 0 bar in 100 sec	2 bar to 0 bar in 100 sec	2.5

CHAMBER EQUIPMENTS

Our standart O_2 mono chamber consists of the following main parts.

- Breathing System
- Control Panel
- Entertainment System
- Electrical Supply Unit
- Patient Transfer Unit
- Set of Spare Parts (O_2 mono) 4.4

The chambers are covered with flame retardent non-toxic epoxy paint on both exterior and interior surfaces. The paint, due to its flame retardency property starts burning at high temperatures, the burning only ensuses at the centre of the heat source and is extinguished by itself when it is removed. Also the fumes that ensues during burning is not toxic for humans.

Breathing System

Breathing system provides required breathing air/oxygen to patients and evacuates exhaust air via exhaust system

Drager X-Plore 3300 BIBS mask is a breathing mask that is used to deliver the treatment gas to the patient.

Inlet Regulator

Outlet Regulator

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CONTROL PANEL

O_2 mono Control panel consist of the following equipment's which enables the operator take control of the chamber safely and reliable. All main operations and functions of the chamber can be done with this panel. The control panel of the hyperbaric chamber is located on the chamber and provides following operations:

- Treatments control,
- Maintain and adapt the interior environment of the chamber,
- Communication and lighting of the chamber, 2.9
- Supply, evacuation and exchange of the medical working gases,

Monitoring of important information such as humidity, temperature and oxygen concentration of patients.

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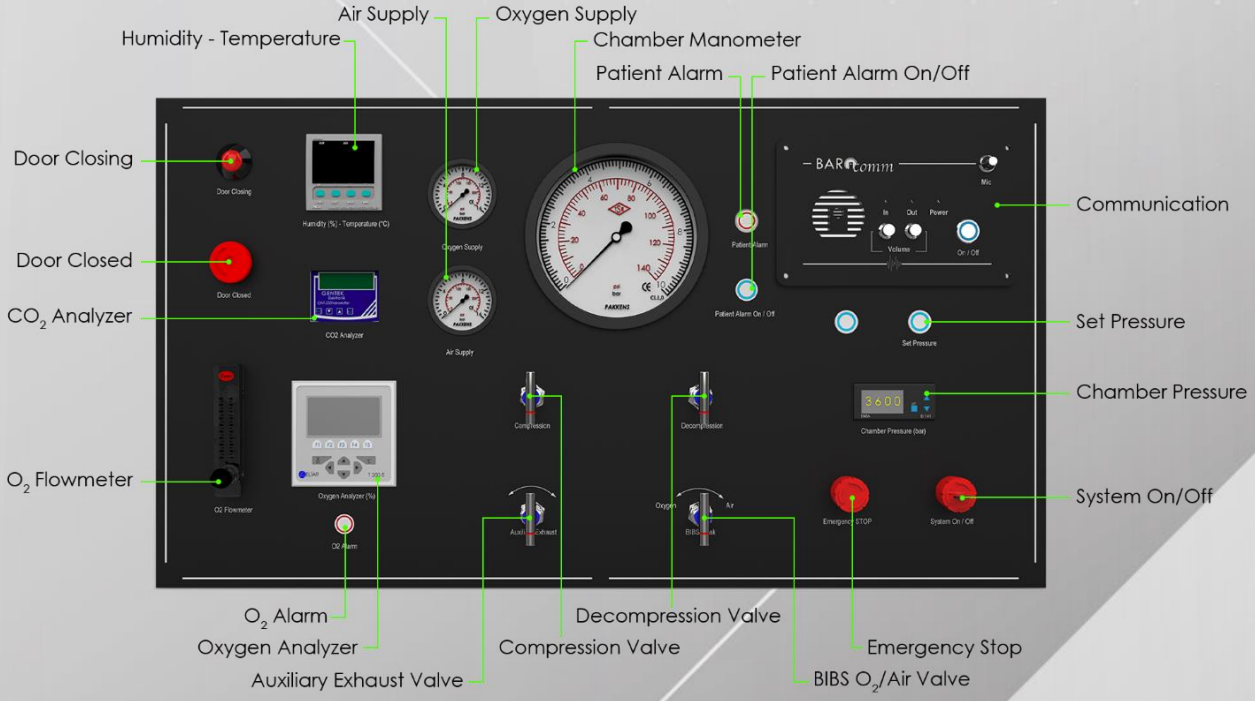
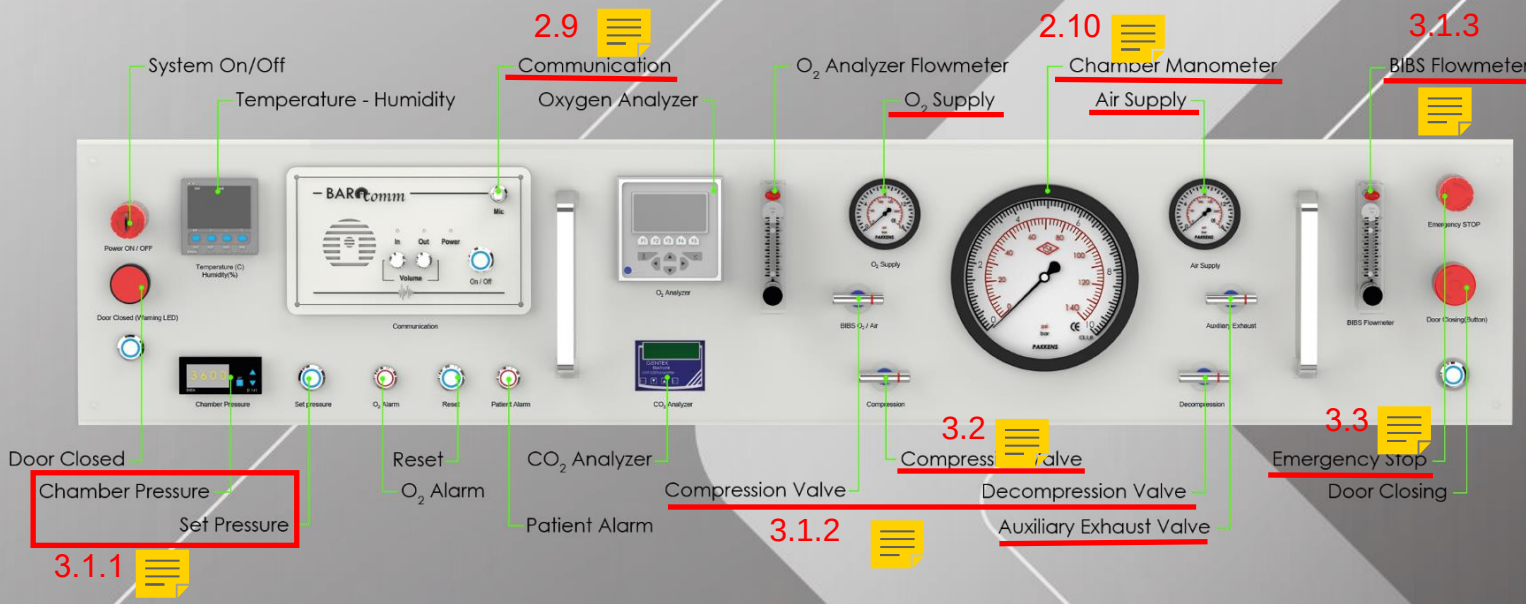
HALF ACRYLIC CONTROL





FULL ACRYLIC CONTROL PANEL

Entertainment Unit 4.5

During the treatment session, an LCD entertainment monitor is mounted on the chamber to spend time during the treatment. It provides opportunity to watch audio/video and TV to patient.

Electrical Supply Unit

O_2 mono electric system generally consists of

- Power Stage
- Communication
- Digital Indicators
- Analyzers
- The electrical system is supplied with 220V AC. It is also reduced 24V DC using electronic transformers.
- Communication System consists of the operator and operator warning system.
- Digital indicators show pressure, temperature, humidity and CO_2 value shows.
- Oxygen and carbon dioxide analyzer is available.
- The input voltage system 220 V AC ± 10%, frequency 50 Hz ± 5%. There is power supply in order to support the system at least 30 minutes in cases where input voltage is not present, cut or go beyond the limit value.

Patient Transfer Unit

4.2 Stretcher is used for patient transferring and it consists of two parts as chamber internal 4.3 stretcher and transfer stretcher. Internal strecher consists of two parts, has back support pillow. 4.1 Mattress made of foam, suitable for prevention of bedsores. Internal stretcher is transported 4.2 with transfer stretcher while the patient is transported into the chamber by pushing. The stretcher is designed for working in hyperbaric conditions as mechanically. Safe working load (SWL) 230 kg. 2.7

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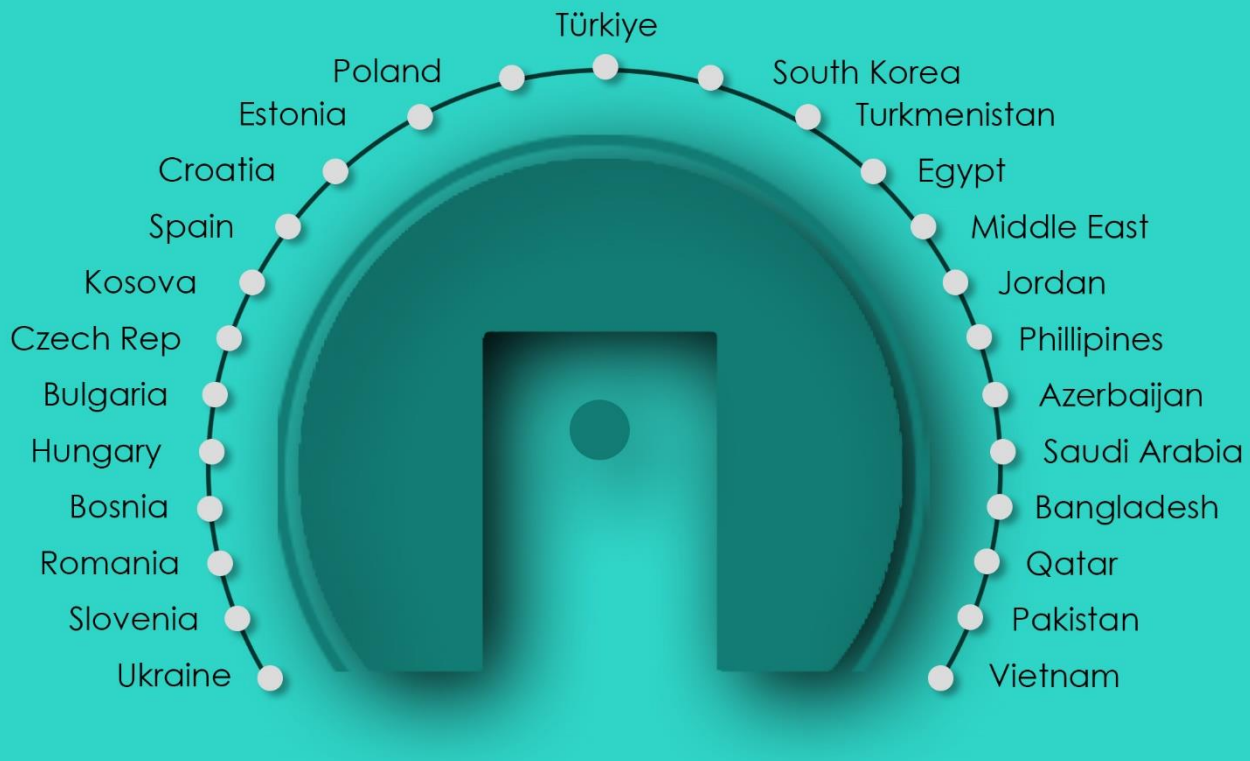

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Contact Us

Aydıntepe Mah. Dinçel Sok.
No:1 Kat:4 Tuzla / İstanbul

www.baroks.eu

info@baroks.eu

+90 216 394 10 20

+90 545 622 41 70