

Kian Gostaresh Salamat



## MOBILE CLEANROOM CONTAINERS

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### ———— KGS specializes in

advanced cleanroom solutions, offering cutting-edge products like cleanroom cabinets and mobile cleanroom containers. Our expertise from years of working closely with clients ensures innovative, user-friendly, and robust systems. With a focus on efficiency and cost-effectiveness, KGS delivers exceptional quality without compromise.



# About Kian Gostareh Salamat (KGS)

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— Working closely with hundreds of customers has allowed us to develop, perfect, and expand our clean product range over the years. Besides our standard cleanroom equipment such as HVAC-pass box- -monitoring systems, we have recently launched several new products, such as clean room cabinets. Mobile clean room containers are the newest and most substantial addition to the KGS product family.

— Our products were perfected by the experience of developing close to many cleanroom implementations in the past decade. We used our expertise to create a product range that withstands xtreme mechanical stress, yet is pleasing to the eye. KGS systems fulfill all cleanroom requirements and hey are user-friendly, as they are easy to install and maintain. What makes, however, these products ruly unique is the outstandingly competitive price level we can maintain thanks to scale and ffcient technologies. We offer exceptional quality at very affordable prices since we believe that cost-efficiency should never compromise quality.



# MOBILE CLEANROOM CONTAINERS

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## Mobile clean room containers can do all that!

These portable versions are built into standard **20' or 40' HC** containers that have standard attachment points, facilitating easy shipping by boat or on the road. **Only an adequate source of power is needed to work the mobile clean room container.**





# » Sandwich Panel:

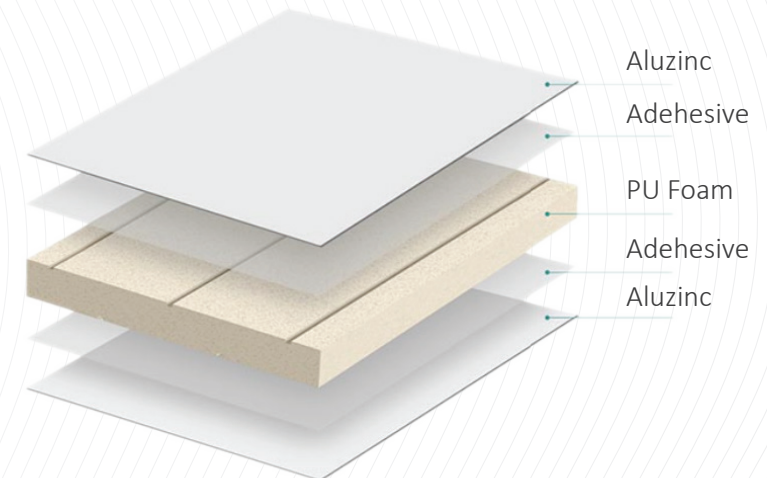
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The sheets used in sandwich panels have the following technical specifications:

- ✓ Outer layer sheet thickness: 0.5 mm (in Aluzinc panel)
- ✓ Inner layer sheet thickness: 0.5 mm (in Aluzinc panel)
- ✓ Low thermal conductivity coefficient
- ✓ Resistant to erosion and corrosion
- ✓ Moisture resistant
- ✓ Antibacterial
- ✓ Low weight relative to density
- ✓ Resistant to both cold and hot weather
- ✓ Polyurethane density can range from 30 to 100 kg per cubic meter
- ✓ Non-toxic
- ✓ Polyurethane foam is recognized as the best insulation material in the world regarding thermal conductivity and is therefore widely used for building insulation.
- ✓ This type of sandwich panel is produced with flame-resistant polyurethane foam from Germany, classified as B1, which is known as PIR and is completely fire-resistant.
- ✓ In the production of sandwich panels, if the density of the polyurethane exceeds 43, it can hurt the insulating properties of the panel. Therefore, the panels used by us have polyurethane insulation with densities of  $40 \pm 2 \text{ kg/m}^3$ .

Reports provided regarding the electrostatic coating of the sandwich panels include:

- ✓ Thickness measurement
- ✓ Adhesion determination
- ✓ Flexibility test of the paint and coating
- ✓ Surface corrosion
- ✓ Coating hardness
- ✓ The manufacturer of the sandwich panel used has CE certification.





# » Flooring:

——— Technical specifications and features of Forbo brand anti-static flooring, manufactured in the Netherlands, categorized according to **EN ISO 10581 – ASTM 1700 standards**:

- ✓ Available in specific models for clean rooms ranging from ISO 14644 Class 8 to ISO 14644 Class 2.
- ✓ The material used for the anti-static flooring is vinyl sheets, recognized as high-quality polymers.
- ✓ The thickness of the clean room flooring ranges from 2 mm to 10.3 mm in standard dimensions.
- ✓ The weight of these floorings is approximately 3.2 to 12 kg per square meter.
- ✓ They have good flexibility, which facilitates easy installation.
- ✓ The durable and strong material of these floorings enhances their longevity and durability.
- ✓ They possess adequate electrostatic discharge (ESD) properties and can effectively dissipate high volumes of static electric loads.
- ✓ Classified with an R9 anti-slip rating according to DIN 51130 standards.
- ✓ Completely hygienic and antibacterial according to ISO 846 standards.
- ✓ Rated 6 for light reflectance in flooring according to EN ISO 105-B02 standards.
- ✓ The high flexibility and elasticity of the anti-static flooring ensure that they do not become uneven. Any severe point loads on the flooring should not lead to dents or depressions. Therefore, standard floorings must have adequate elasticity to return to their original form after each indentation. This valuable feature helps maintain the flooring's aesthetic appeal and ensures its appearance remains intact.

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# » Containers:

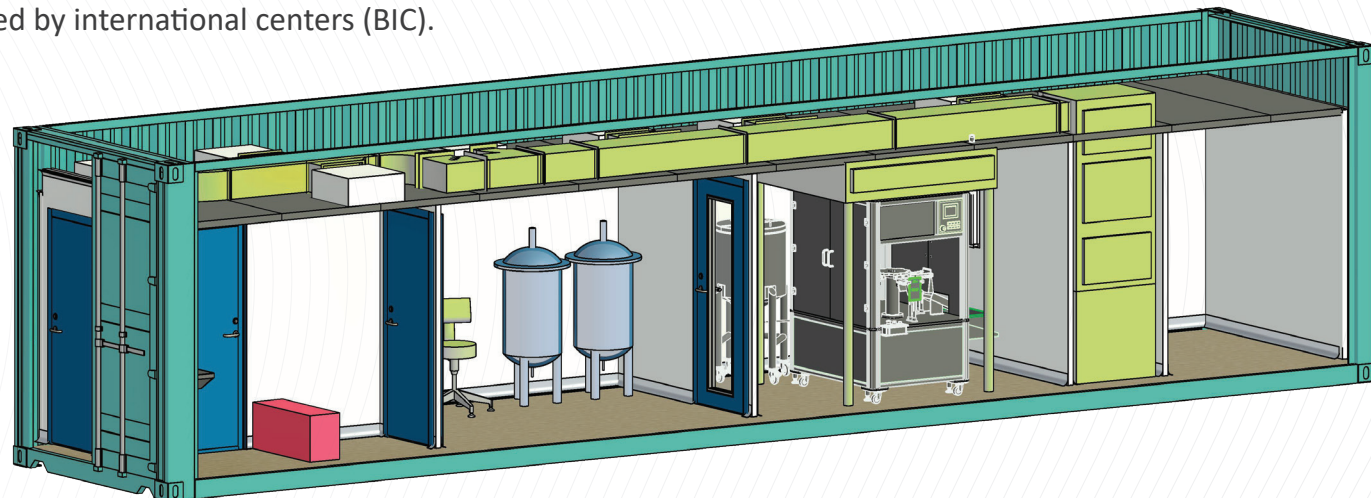
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\_\_\_\_\_ **One of the most practical tools used in transportation for cargo transfer is the container.**

A container is a metal chamber made of steel sheets with a wooden floor, which is sent to the intended destination via various means of transport such as trains, airplanes, trucks, and ships.

The portable clean room by Kian Gostarsh Salamat is built on commercial and standard containers and has the following specifications and features:

- ✓ Manufactured in three sizes: 20-foot and 40-foot high and 2x 40-foot cubes, and they can be assembled like a puzzle next to each other.
- ✓ Impermeable to water and moisture.
- ✓ Provides the necessary strength against impacts and damage.
- ✓ Resistant to adverse weather conditions.
- ✓ The use of containers allows for quick loading and unloading processes.
- ✓ With containers, the cargo transport process is made very easy and hassle-free.
- ✓ Has a unique and standard code based on ISO 6346 standard.
- ✓ Possesses a safety certificate issued by international centers (BIC).



# » Ventilation System in KGS Portable Clean Room:

\_\_\_\_\_ In the Kian Health portable clean room system, the entire HVAC system, including air ventilation and circulation, cooling, heating, dehumidification, etc. is managed through a comprehensive system with the following specifications:

- ✓ Hygienic air handling system compliant with VDI 6022 and DIN 1946-4 standards.
- ✓ Internal walls made of 304 stainless steel with a thickness of 1 mm.
- ✓ External walls made of galvanized sheet metal with a thickness of 1 mm.
- ✓ Chassis made of galvanized sheet metal with a thickness of 3 mm, laser-cut.
- ✓ Backward plug fan from Nicotra or Comefri brand.
- ✓ Electric motor from Siemens brand.
- ✓ Cooling and heating coils by AHRI 410-2023 standard, made of copper with a thickness of 0.6 mm, tested under 20 bar pressure.
- ✓ Aluminum fins with an epoxy coating.
- ✓ Air filters from the ULPATEK brand.
- ✓ Monitoring system for air handling unit flow rate, filter pressure drops, temperature, and humidity from Domat brand.
- ✓ Equipped with return, supply, and fresh air dampers.
- ✓ Damper motor from Lufberg brand for flow rate control.
- ✓ All utilized equipment complies with CE standards.
- ✓ Cooling and heating system as DX and Heat Pump with a compressor from Copeland brand.
- ✓ Control system from Danfoss brand.
- ✓ Condenser cooling system with a fan from the ebm-papst brand.
- ✓ Air intake and exhaust via filter boxes and plenum boxes with swirl or linear based on the type of room.
- ✓ Air transport system through galvanized sheet metal ducts with polymer insulation from K-FLEX brand.



# » Containers Size

Container Dimensions	Width	Height	Length
Door opening in feet	7' 8 1/2"	7' 6 1/4"	
Door opening in meters	2.34 m	2.29 m	
Interior dimensions in feet	7' 6 5/8"	7' 6 1/4"	19' 4 1/4"
Interior dimensions in meters	2.352 m	2.2098 m	5.8674 m
Container Weight	Max Gross	Tare	Max Payload
Weight in lbs	52,831 lbs	4,914 lbs	47,899 lbs
Weight in kgs	23,956 kg	2,229 kg	21.727 kg
Container Volume	In CFT	In CBM	
Load Capacity	1.112 CFT	33.2 CBM	

Container Dimensions	Width	Height	Length
Door opening in feet	7' 8 1/2"	8' 6 1/4"	
Door opening in meters	2.34 m	2.56 m	
Interior dimensions in feet	7' 6"	8' 10 1/8"	39' 5 5/8"
Interior dimensions in meters	2.352 m	2.69 m	12.01 m
Container Weight	Max Gross	Tare	Max Payload
Weight in lbs	67,196 lbs	8,747 lbs	58.448 lbs
Weight in kgs	30,480 kg	3,968 kg	26.512 kg
Container Volume	In CFT	In CBM	
Load Capacity	2,694 CFT	76.3 CBM	

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# » Key Benefits

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## Affordability

Relying on a standardized design in a marine container, we can offer KleanLabs mobile clean room containers. at an affordable price level. Should you need extra clean room capacity quickly, these containers provide a costeffective solution.



## Portability

Built onto the structure of a standard marine container, our mobile clean room containers suited for transport according to (ISO) standard 668:2020 can be shipped by boat, rail or on the road. They can be moved either from the bottom - by forklift - or from above - by crane.

## Quick availability

KleanLabs mobile clean room containers are shipped pre-assembled, meaning that they are ready to be used as soon as they arrive.



## Exceptional durability

Designed for shipping, KleanLabs mobile clean room containers can withstand harsh conditions, including chemical and physical impact.



# » DELIVERY

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## — Worldwide delivery

If you need clean room capacity delivered to a remote location, neither distance nor scale are a problem for us. Our reliable logistics partner network offers delivery to any country. Feel free to contact us with further questions about shipping.



## — Shipping in 12-24 weeks after payment

We are extremely proud of our fast manufacturing processes.

After receiving the payment, your product will be assembled and ready to be shipped within 12-24 weeks. By default, we offer shipping under EXW terms, so our products are ready for pickup at our site.

Further delivery options are available upon request.





# » SUPPORT

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We care about our customers to a great extent. As manufacturers, we have the best and most efficient solutions to any problem that may arise. Based on the comprehensive knowledge of our expert engineering team, we offer full-scale customer service.



## 1-year warranty

KleanLabs is proud to stand by the quality of all manufactured products. We never abandon our customers once we delivered. We provide 1 year warranty free of charge for all our containers. For extra security and prolonged care, inquiry about options to extend the warranty.



## Spare part inventory

A key benefit of ordering directly from the manufacturer is that we keep every component on stock. Should there be any failure in your mobile clean room container, spare parts can be ordered right away from KGS Labs with fast delivery.



## Customer service



[www.kgsco.org](http://www.kgsco.org)  
[Info@kgsco.org](mailto:Info@kgsco.org)

