



SYNERGY MED
GLOBAL DESIGN SOLUTIONS®

US Patent No.: US10,071,177 B1
US10,369,242 B1
SNRGY-00300
Issuance in process



CLEAN CUBE MEDICAL SYSTEM

Streamlined Development, Manufacturing, Construction & Delivery of Complex, Clean Clinical Environments. Delivering a Safer, Smarter Space to Patients and Staff.

Now all this is in the Palm of Your Hand.



FAQ

The CLEAN CUBE concept was conceived after witnessing the difficulties health care facilities have with the design, coordination, and construction of complex spaces in their facilities. The concept gained momentum after a comprehensive analysis of Hospital Acquired Infection (HAI) and Surgical Site Infection (SSI) data. Synergy Med Global Design Solutions has engineered a groundbreaking approach to room integration that can dramatically reduce the potential for infection.

MISSION STATEMENT

1

To provide Streamlined Development, Delivery & Construction of Complex, Clean Clinical Environments. Delivering a Safer Environment to Patient and Staff.

PRODUCTS/SERVICES

2

CLEAN CUBE is a pre-templated, pre-engineered, pre-fabricated, turnkey construction solution for Perioperative, Interventional, Critical Care, Sterile Processing and other critical environments. Synergy's product offering now includes MC3 mobile CLEAN CUBE Medical Systems

COMPANY INFORMATION

3

Synergy Med was founded in 2015 in Colorado.



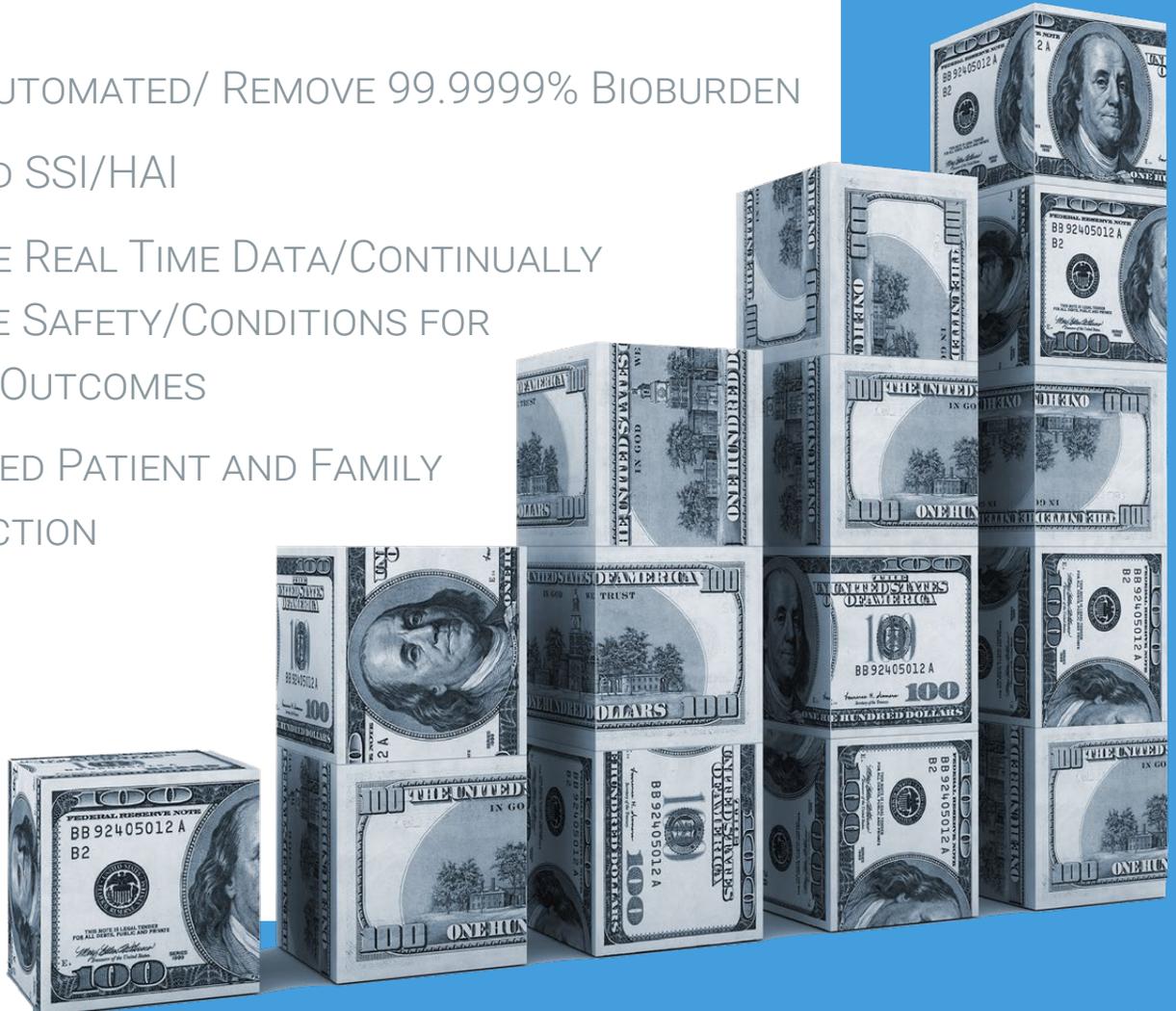
RETURN ON INVESTMENT

1 DESIGN & CONSTRUCT

- \$ REDUCED DESIGN TEAM BOTTLENECKS
- \$ INCREASED SPEED TO CONSTRUCT
- \$ REDUCED NEED AND TIME FOR RENOVATION
- \$ REDUCED DUST & DEBRIS IN RENOVATION
- \$ INCREASED QUALITY CONTROL

2 OPERATIONS/CLINICAL

- \$ FULLY AUTOMATED/ REMOVE 99.9999% BIOBURDEN
- \$ REDUCED SSI/HAI
- \$ CAPTURE REAL TIME DATA/CONTINUALLY IMPROVE SAFETY/CONDITIONS FOR BETTER OUTCOMES
- \$ INCREASED PATIENT AND FAMILY SATISFACTION



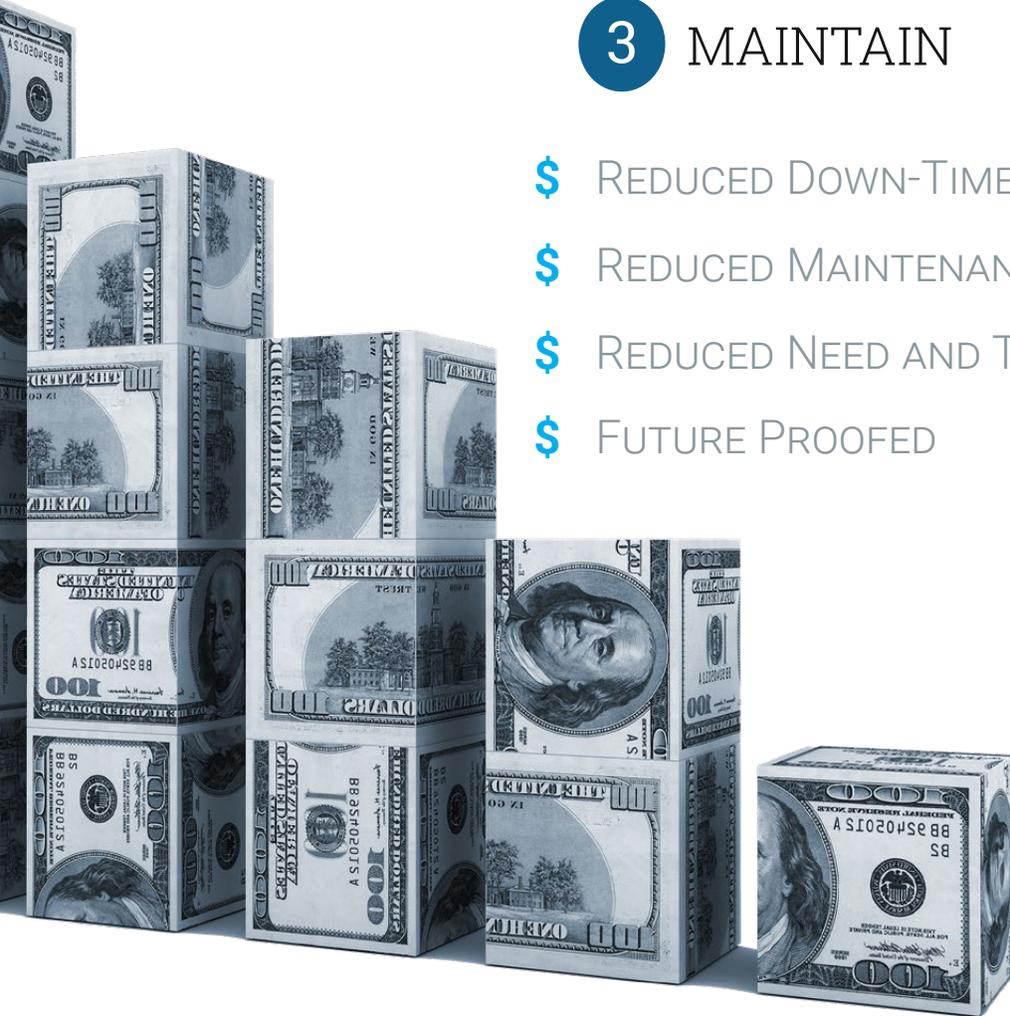
RETURN ON INVESTMENT

2.5 OPERATIONS/NON-CLINICAL

- \$ REDUCED OPERATING EXPENSES
- \$ REDUCED TURNAROUND TIME FOR FULL CLEAN
- \$ INCREASED PATIENT AND FAMILY SATISFACTION
- \$ MARKETING
- \$ ENHANCED REPUTATION
- \$ RECRUITING & RETENTION
- \$ LAWSUIT REDUCTION

3 MAINTAIN

- \$ REDUCED DOWN-TIME
- \$ REDUCED MAINTENANCE AND REPAIR
- \$ REDUCED NEED AND TIME FOR RENOVATION
- \$ FUTURE PROOFED



STATISTICS

HAIs (Hospital Acquired Infections) are extremely costly and with new healthcare reforms, costs associated with these infections are not reimbursed to the healthcare facility. Current CDC statistics show that in the US, 1 in every 25 hospital patients will contract an HAI and of those, 1 in 9 will die.



1 in 25

RATE OF H.A.I. INFECTION

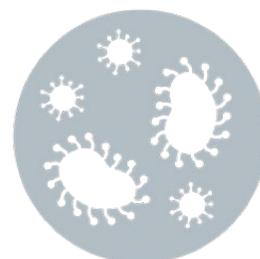
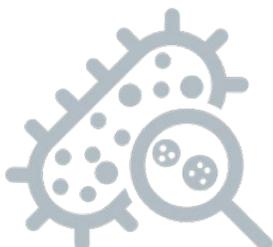


1 in 9

H.A.I. MORTALITY RATE

The United States alone has an estimated 1.7 million infections a year representing \$36-47 billion in unreimbursed expenses a year. All of this equates to over 100,000 deaths linked to HAIs annually. Clinical white papers will show that the implementation of the "CLEAN CUBE" solution with vaporized H₂O₂ and purge or catalytic extraction in these critical areas in

a healthcare facility can measurably decrease these costly infections. This will enable a cost savings due to the reduced infection rate and create a compelling marketing opportunity to differentiate as a safer health care facility and thus drive more patients through the doors.



TIME IS MONEY

Time is money and the faster a healthcare institution is up and running, the faster the revenue generating stream can be turned on. Healthcare reform is quickly changing the environment and has created the race to be the big fish in the big pond. Market saturation, mergers, acquisitions and being the best are the essence of survival.

The modular pre-templated, pre-engineered, pre-manufactured components of the "CLEAN CUBE" will allow for a dramatic reduction in construction time. This

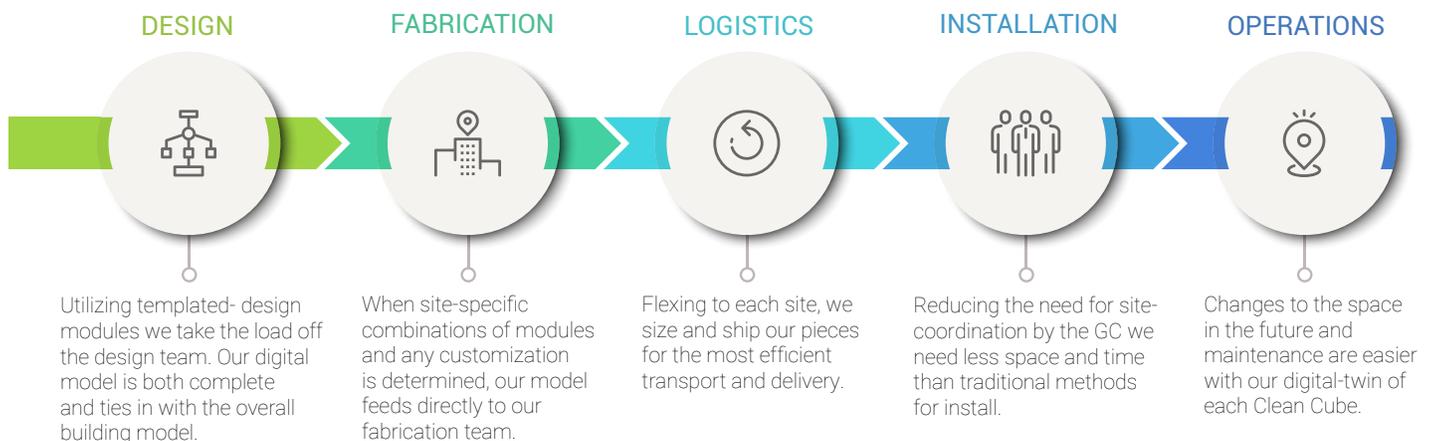
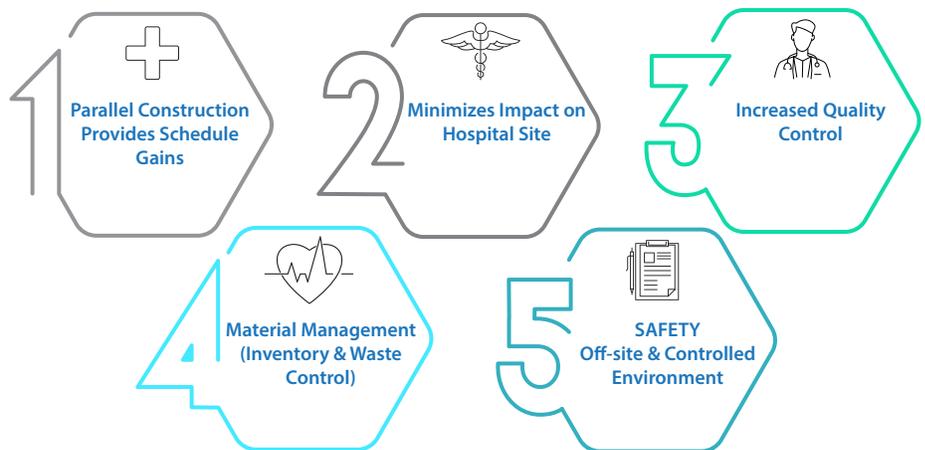
will save in construction dollars by reducing time, change orders and cost overruns. The modularity of the system is designed to be clinically vendor neutral and future proofed for all clinically driven capital and integration items thus eliminating construction bottlenecks due to clinical uncertainty. This will allow for these top revenue generating areas to be down for less time and up and running sooner; producing a revenue stream much quicker than conventional construction.

PRE-FABRICATED MODULAR DESIGN DELIVERS CONSTRUCTION EFFICIENCY AND FASTER REVENUE

MAJOR ADVANTAGES

Pre-fabricated components when maximized have a significant positive impact on all aspects from design through a lifetime of operation.

The Clean Cube fabrication off-site allows an accelerated construction schedule and reduces congestion on site. It also supports more control with QA/QC, reduces excess materials on site and reduces the risk of injury to our install and fabrication teams.



THE CLEAN CUBE SYSTEM



The CLEAN CUBE medical system is...a modular pre-designed, pre-engineered, future-proofed clinical room/space with a universal, pre-templated design that supports efficient clinical operations and clean room components that promote the highest level of infection control. It includes the perfect combination of cleanable non-porous walls and ceilings, hermetically sealing doors & ceiling system, hygienic slip resistant floor, laminar diffusers with integrated air curtain including imbedded led lighting, a built in automated room disinfection systems along with a sequence of operations and control that will help reduce hospital acquired and surgical site infections. Utilizing the CLEAN CUBE Medical System will help assure a full and uniform decontamination each and every time while allowing for an effective terminal clean with significantly reduced downtime for the space. While conventional cleaning provides differing levels of cleanliness, the clinical team can be confident that the space is 99.9999% germ free when entering the CLEAN CUBE after the patented sequence is performed.

The system's components, combined with universal design and engineering, allow for architecture and construction to proceed ahead of difficult equipment decisions while also providing for a clean, efficient installation that expedites new construction and significantly reduces renovation down-time and its impact on adjacent operations.

SPACES IMPLEMENTING THE CLEAN CUBE MEDICAL SYSTEM:

- Surgical Suites
- ICU Patient Rooms/Isolation Rooms
- Burn Unit
- Trauma Bays
- Interventional and Procedural Suites
- GI Suites
- Sterile Processing
- Stem Cell Transplant & More



SYSTEM COMPONENTS

STRUCTURAL SUPPORT

Modular grid system is site adaptable and manufactured to the largest size the site conditions will allow for. System is designed to be clinically vendor neutral and accommodate any and all mounting, plumbing, electrical, integration and other rough in specifications. Last minute modifications to equipment vendor make and model and even vendor change are seamless and extremely easy.



Site adaptable, dynamic and future proofed mounting structural system allows for adding and/or relocating ceiling mounted equipment easily versus a static plenum system. Structural grid is either engineered to mount to the building structure or deck. If building structure deck cannot accommodate tolerances or interstitial space is too congested, a trapeze mount option with structural members posted within or behind the wall is available.



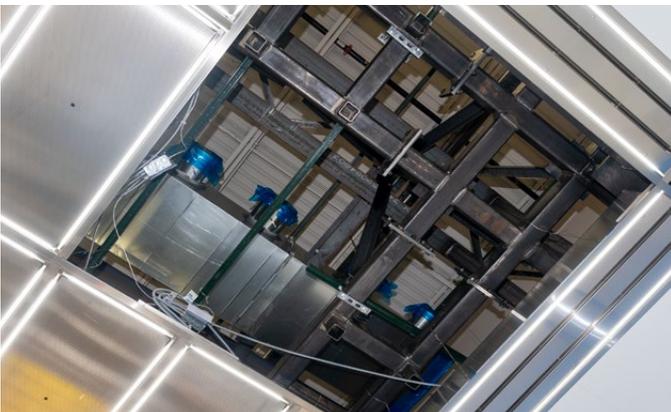
SYSTEM COMPONENTS

AIRFLOW MANAGEMENT & MEP

The air distribution is a modular, integrated, custom designed Laminar Air Flow System which delivers above and beyond ASHRE 170 standards with near 0 turbulence. Perimeter air curtain pushes dirty air out and blocks dirty air from entering, following microchip cleanroom standards (a room within a room within a room). Adjustable integrated LED trim lighting delivers the light needed in the field without compromising the air stream. The integrated design allows for optimum functionality of all ceiling mounted equipment. The diffuser/nest system allows for ease of modifying or adding equipment locations or vendors, adding or renovating a ceiling.



The diffuser system allows for modifications that a plenum system cannot accommodate. All mechanical to the structural nest is supplied and installed from a predetermined and coordinated location within 12" outside or inside the OR space. The system is able to be site adapted to work well with FGI minimum guidelines of 20 ACH but higher ACH around 35 is optimal. HVAC booster units are available and engineered within the system for facilities that demand better, cleaner critical environments.



MEP

All Mechanical, Electrical, and Plumbing in the ceiling space within the room is incorporated into the design and construction of the CLEAN CUBE. HEPA filtered air passes through a dry H2O2 generator or UV lighting system before exiting diffusers. These components will be pre-manufactured into modules that have been coordinated with the structure and the laminar air system for a clean, efficient installation.

SYSTEM COMPONENTS



INFECTION CONTROL VAPOR TECHNOLOGY

Powered by Bioquell

World leaders in decontamination and infection control solutions. Integrated Vaporized H₂O₂ system eliminates bacteria, viruses, fungi, spores and more from every exposed surface in your clinical

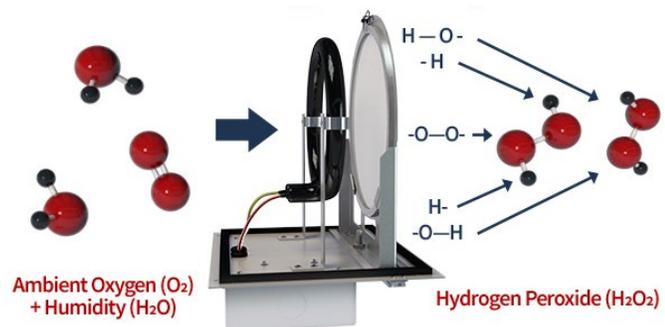
space. It is effective in every corner, floor to ceiling, and every nook and cranny. Decontaminate the entire space with just a single dosing cycle. Achieve >6-log reduction on bacterial spores (the gold standard), killing 99.9999% of pathogens in the room.

Studies have shown that patients in certain hospital spaces are well over 50% less likely to acquire a multi drug resistant infection with use of H₂O₂ fogging systems.



Continuous Decontamination

The Clean Cube deploys microbial reduction technology that produces dry hydrogen peroxide (H₂O₂) in the same physical state as the oxygen and nitrogen in the air, creating a clinical environment where continuous decontamination protocol is possible.



Glass Options

Glass wall panels incorporate silver infused, UV reactive glass.

UV Options

Options for **in line UV** and **UV & Near UV** room lighting are available for all room installations.





INTEGRATED ROOM CONTROL

Full integrated room / system control for CLEAN CUBE sequence of operations. All operations within a clinical space shall be controlled by a room specific controller and shall have full BacNet interface with the facilities Building Automation System (BAS). Each clinical space will have an Operator's Graphical Interface (OGI). All set points and adjustments can be made at the OGI or at the facilities BAS.



STATION SOLUTIONS

The storage system is high density, modular, air tight and provides the option to change the interior configuration at any time and can be manufactured as passthrough. The integration cabinet is designed to meet the needs of all systems with built in conduits, cooling and exhaust. The Integration cabinet can have a removable back for access to equipment if the design permits.. The design promotes a cleaner environment by restricting the flow of air and debris between the cabinet and the clinical environment. The nurse documentation station is a configurable and can be made of glass, solid surface, or stainless steel.



CEILING DESIGN

The modular ceiling is finished with surrounding hermetically sealed, heat welded PVCu polymer hygienic cladding with integrated LED lighting and all other in-room ceiling components. There is the option to add custom illuminated soothing motif ceiling panels to aid lessening the patient's anxiety while in their most vulnerable state of mind.

SYSTEM COMPONENTS

MODULAR WALL SYSTEM EXPERTISE



Expertise comes from strong relationships and 6+ years of meticulous design and engineering with our industry leading engineers and designers. Knowledge for our final design, implementation, fit & finish comes from partners in glass fabrication, modular component manufacturing, lighting, monitors and more. Attention to detail is unmatched by any in the industry.

From backlit glass, recessed monitors and hermetically sealing doors, the glass cladding finish is designed and engineered as a full system solution with parts, pieces and designs catalogued for a uniform custom modular delivery each and every time.

There are numerous studies that couple aesthetics with the constructed environment and their relation to positive outcomes. This is what glass enables you to do. Glass is one of the smoothest, cleanest, most nonporous constructible materials. The doors are hygienic and hermetically sealing with a glass or stainless-steel sliding door option that will reduce turbulence and secure the room for the 6 LOG+ decontamination process.





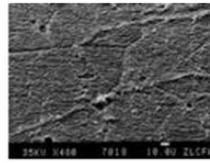
The glass provides for a smooth, hygienic surface that is easy to clean and resistant to the powerful cleaning agents used today. A perfect combination to support infection control procedures. Glass is the best choice for areas needing extremely hygienic surfaces. You can see the difference below.



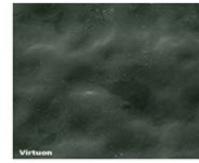
Glass



Stainless Steel



Paint



HPL

SYSTEM COMPONENTS

MODULAR WALL SYSTEM: GLASS MANUFACTURING EXPERTISE

Our best in class partnership with Skyline Design for the manufacture and fabrication of Clean Cubes glass cladding finish assures the best of quality, fit and finish.

Made in Chicago for almost 40 years, Skyline Design has continually redefined patterned glass in architecture, making glass the prominent creative building material it is today. The company's award-winning products are proudly manufactured in the United States and shipped to clients worldwide. They ensure the highest quality product by overseeing every step of the production process, from file preparation and color matching to laminating and tempering. Skyline Design has set industry standards by pairing passion and knowledge about fabricating glass with a resolute commitment to design.



MODULAR WALL SYSTEM: MEP LOADED SUBSTRUCTURE

The Clean Cube Substructure is a proprietary designed and engineered system by Synergy Med. The system materials and components are made in the US and meet all code and regulatory standards nationwide. Synergy Med manufactures each wall section for new construction and renovation to the largest size the site conditions will allow for. Wall sections contain all the templated and pre-determined MEP, rough-ins and are adjustable within each section. The sections arrive on site clean with all critical MEP tested and certified from our manufacturing facility. The sections install quickly by connecting to each other with Synergy's proprietary snap-lock design.



SYSTEM COMPONENTS



FLOORING

Poured resin flooring that can be installed, cured and usable in less than a day. Hygienic, cleanable, safe and slip resistant, impact resistant and durable, long life and renewable, easy to repair. The flooring is stain and odor resistant, unaffected by betadine, blood, silver nitrate, and other fluids.



TURNKEY INSTALL OR REMODEL

In addition to full project management of the CLEAN CUBE Medical System, Synergy Med GDS also offers full turnkey renovation and construction services. Our deployment/installation/construction teams are extremely qualified, experienced contractors that specialize in the healthcare arena and handle everything from permitting, demo, infection control sign-off and certification.



PROJECT MANAGEMENT

Custom Planning, Design, Engineering and Project Management are part of our comprehensive services.



Synergy Med Global Design Solutions is the developer of the original CLEAN CUBE Medical System and a leader of clean clinical space design. With over 50 years of experience and three patented products, we strive to develop safer, smarter clinical spaces for employees, patients and medical professionals.

PARTNERS





Synergy Med Global Design Solutions has pioneered multiple commercial initiatives focused on improving medical care for patients and practitioners alike. Please contact us for more information.



MEDICAL SYSTEM



SMART CUBE
TECHNOLOGY
* Patent Pending



VIRTUAL CUBE



MC3
Mobile CLEAN CUBE





SMART CUBE TECHNOLOGY

* Patent Pending

SMART CUBE technologies will further the safety for patient and staff as well as monitor the health of critical medical equipment. The SMART CUBE technology will monitor the CLEAN CUBE's critical components, staff actions, and other hospital equipment.

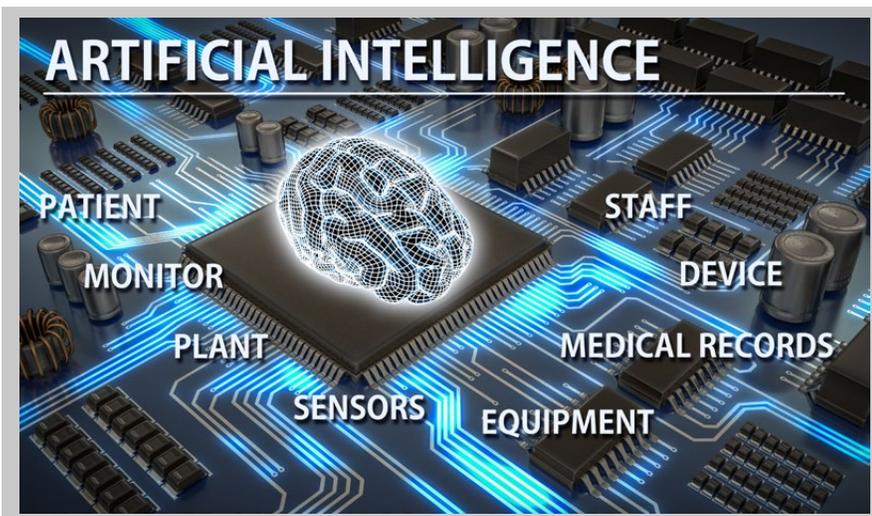
A wise CMO once said, "If I had the choice to change the physical environment or human habits.... I would change the environment, you can't change habits. I know I can change the environment for the better"

CLEAN CUBE with SMART CUBE INSIDE targets what has been difficult to change and accomplishes it through continuous improvement.



VIRTUAL CUBE

VIRTUAL CUBE is delivered through the SMART CUBE technology database with the addition of smart visual and motion technology. Virtual reality scenarios can be produced for specific training for new cutting-edge procedures, complex standard procedures, routine simple procedures and general new clinician training. The software and hardware-based modules can be used to in a "real time" virtual mode, train on what to do and what not to do in general, emergent situations, and specific procedures with real time alerts and re-direction. The vision for VIRTUAL CUBE is limitless and scalable and adaptable for any healthcare institution.



GET IN TOUCH

Please contact us for more details or additional information:

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The CLEAN CUBE Medical System:

US Patent No.: US10,071,177 B1 and US10,369,242 B1

SMART CUBE & VIRTUAL CUBE: Patent Pending

SNRGY-00300 Issuance in process

Multiple financing options available:

