# NIXUS a brand of ZEPELIN

# Rapid Deployment Infrastructure

in a service of armed forces





# Company Introduction

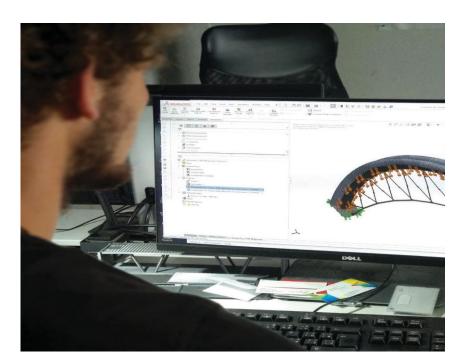
#### Focusing to the NextGen products development



- ZEPELIN born in 1996 in Trencin, SK Specializing to fast deployment structures 5000 m2 of manufacturing, 80 people and
- growing
- Professional team and modern machinery ISO 9001:2017, 14001:2017, AQAP 2110:2016 All engineered and produced in Slovakia

- Own skilled development team
- Latest CAD software
- Cooperation with external specialists
- Continued Research & Development





# NextGen

#### Patented technology



# THE SECRET IS IN THE DETAIL...



- . RIBS multi-tube high-pressure technology
- . ERA angled high-pressure tube system
- . ECOS expandable container shelter system
- . FOLD compact folding frame system



domestic and international patents of NIXUS technical solutions since 2014, concerning:

Industrial Property Office of the Slovak Republic

# NextGen HIGH PRESSURE Inflatable Technology

#### NIXUS | HIGH PRESSURE BEAM TECHNOLOGY

- Inflatable truss beams supports wider structures
- Patented system of angled high-pressure ERA beam

High pressure inflatable technology represents the Next Generation of Deployable Infrastructure. It is combining positive features of low pressure inflatable and metal structures: Easy to transport and fast to deploy as an inflatable structure ulletRigid and worry-free as a metal structure

• Patented system of multi-tube, high-pressure RIBS beam

Effective Roof Angle created by bent beam to optimize interior space

• Patented ECOS expandable container with a high-pressure roof A unique way to extend an ISO container creating a large secure area

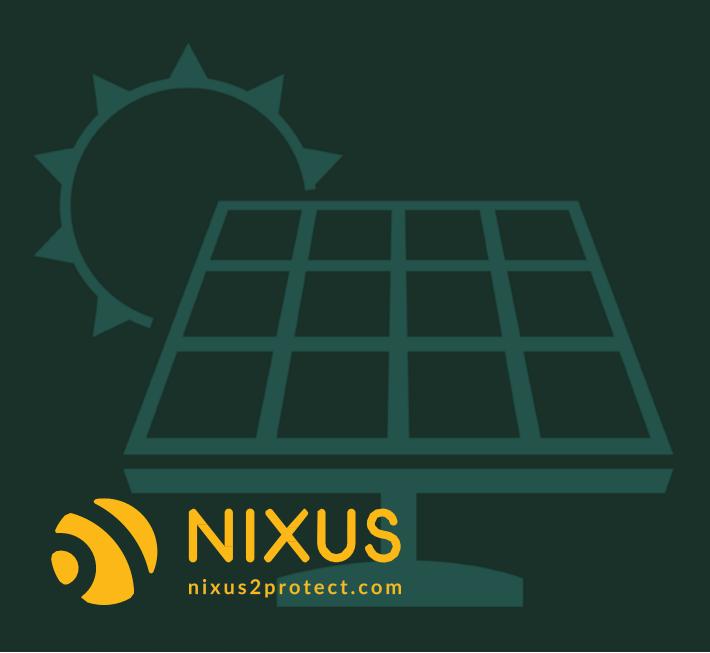
# NextGen One-piece FOLDING FRAME

#### NIXUS | COMPACT FOLDING FRAME TECHNOLOGY

- Patented method of attaching a ridge rafter to a beam
  Swivel mount allowing the frame to be folded without being disconnected
- **Patented method of mutual locking beams** Gravity locking of the joints, simplifying and accelerating the assembly of the frame.
- Construction made as one compact piece, consisting of anodized profiles of class AW6060 T66 and cast aluminum parts
- Two compatible profile sizes for reduction into compact unit
- No loose parts to become disconnected and lose
- Easy to service on-site

# NextGen

### Reliable solutions



# WHY USING NIXUS

- $\cdot$  High quality and reliability of products
- Quick feedback and implementation of improvements
- Innovative approach to product development
- Increasing user comfort
- $\cdot$  Decreasing operational cost
- Saving energy

### SHELTER INNOVATION COMPANY

# PRODUCT OVERVIEW





### HIGH PRESSURE inflatable tents operational pressure 6-8 bar



#### **COMMAND POSTS**



CAMPS







#### DECONTAMINATION





# ALUMINIUM FRAME tents and shelters folding frame and keder systems



HOSPITALS



HANGARS



CAMPS

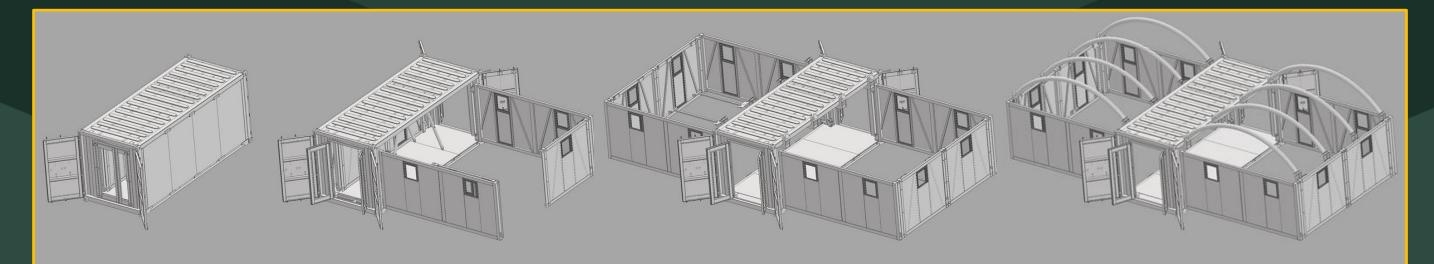




# **EXPANDABLE CONTAINER shelter** *expands 5x the original floor plan*



#### **ECOS lift system**



way of expansion



#### ECOS expandable container

# ALUMINIUM FRAME Folding and keder tents



## NIXUS FOLD ... aluminium folding frame structure

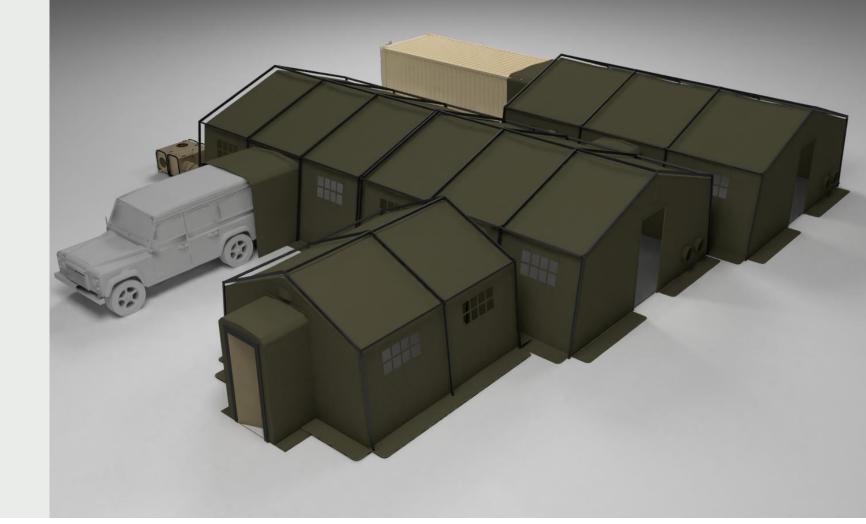
# Fast deployment, one-piece folding frame tent system

Patented compact tent system with folding aluminum frame, folds down small for easy transport and quick deployment.

Widths from 4m to 9,5m and beam spacing of 2m to 3m allows two roof options: suspended (EXO) and covered (ENDO).

Universal modular tent system. The compact design rolled into one piece up to 1.6m has no loose parts which helps with the speedy set-up and reduces the risk of lost parts. Easy to repair and replace parts on-site. The beam placement ensures the highest load capacity for snow and wind. Both roof types are compatible with one frame style which give the system maximum versatility in any application.





# NIXUS | FOLD-ISO

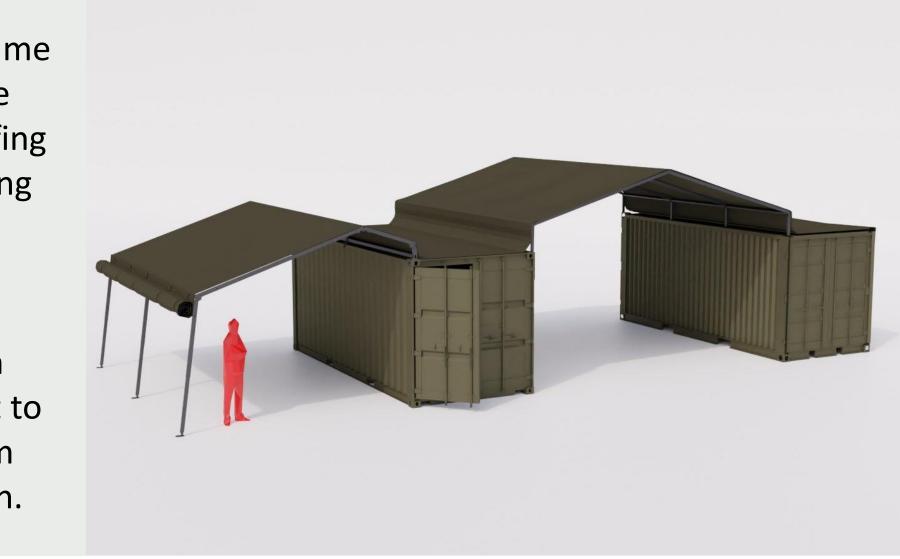
... aluminium folding frame structure

Fast deployment, one-piece folding frame tent system, integrated with ISO containers Based on compact FOLD frame system provides fast, simple and reliable way to get roofing around standard ISO shipping containers, including gable walls.

Both versions ISO (between containers) and ISO-H (next to container) offer widths from 4m to 6m x container length.

FOLD-ISO represents a professional solution for roofing spaces between containers in the form of individual objects, including front walls (e.g. drone hangar, gym, command post) and as corridors (e.g. field hospital). The structure is integrated with the container in a simple and solid way through the corner elements. ENDO or EXO roofing can be integrated with the container to create one compact space.





### NIXUS | HUB ... aluminium keder frame structure

# Large modular tents and hangars

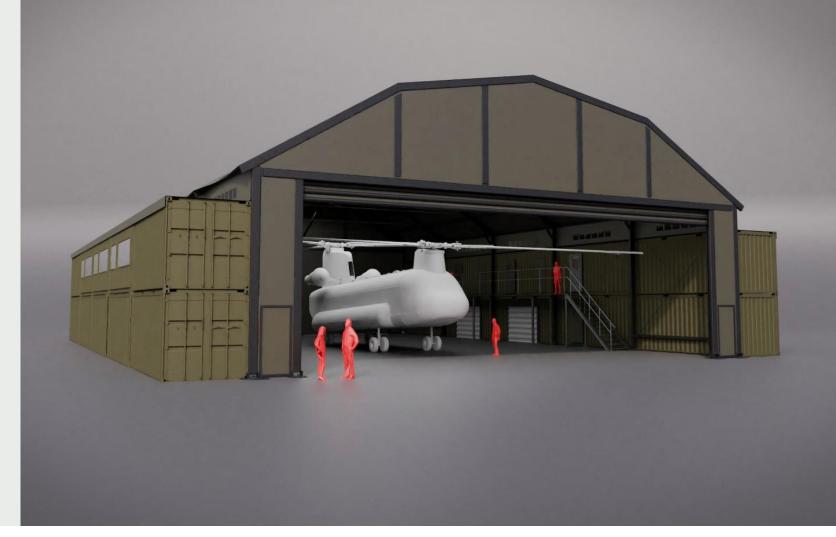
HUB represents a series of large modular buildings, created on the basis of beams made of anodized aluminum with grooves, into which PVC fabric is inserted, forming the roof and eventually the walls of the building.

HUB is produced in widths from 10m to 30m, with an unlimited number of 3-6m long modules.

HUB is the largest of the NIXUS product family. It offers solutions for temporary and permanent buildings for the purpose of hangars, storage, service, production, sports, etc. It is possible to integrate ISO containers on the lateral sides, which are a compact part of the interior space and at the same time stabilize the building. Hangar doors can be placed on the front sides. Retractable gates for vehicles can be on all sides.







# LOW PRESSURE Inflatable tents



### NIXUS PGK-L/T ... low pressure inflatable structure

# Rapid deployment tent based on light and slim TPU tubes

Slim beams made of TPU fabric (PGK-T) or double layer TPU-PES (PGK-L) pressurized to 0.4 bar form the tents structures with a width of 4.6m, 5m or 5.5m and in a variety of lengths. The beams can be connected by inflatable tubes or aluminum purlins. The tents also have an automatic pressure control option.

Inflatable tent with extra light TPU beams and polyester roof are best for quick deployment in the medical and rescue fields. The tent is defined by the small transportation footprint and the rapid inflation time by pump or compressed air. A variety of accessories are available for these tents including, sun visors, inner linings, nets, partitions, lighting, air conditioning, etc. This tent can also be printed with logos or text.





# **NIXUS PGK** ... low pressure inflatable structure

Rapid deployment tent based on traditional size PVC tubes Low-pressure beams pressurized to 0.3 bar form the tents structure with a width of 5.6m or 6m in a variety of lengths. The beams can be connected with tubes or aluminum purlins. The tent can be equipped with automatic pressure control.

Inflatable tent with heavy duty PVC beams and a polyester or PVC roof, designed for quick deployment for fire and rescue services. The tents are characterized by relatively small transport dimensions and rapid inflation times by pump of compressed air. Accessories are available for these tents including, sun visors, inner linings, nets, partitions, lighting, air conditioning, etc. This tent in a polyester version can also be printed with logos or text.

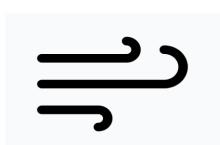




# HIGH PRESSURE Inflatable tents



#### HIGH PRESSURE Inflatable Technology offers...



Extreme Wind rating of 120km per hour

Making Nixus the strongest available



Extreme temperature range

Making Nixus the best solution for hot and cold destinations



Rapid Deployment and operational from 10mins

Making Nixus the fastest and less labour intense install



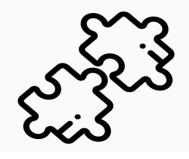
Extreme Snow Loading of over 50kg per m2

Making Nixus the strongest available



Independence from temperature fluctuations

High pressure tents do not need an automatic pressure correction system



Fully modular, the complete range fits together.

Connectivity to Land Rovers, ISO Pods and all other vehicles

# NIXUS PRO ... high pressure inflatable structure

# Reliable tent for any weather conditions

Arched beams pressurized to 8 bar, available in a width of 5.1 m and 6.1 m and spacing of beams 2m.

The ELR (Extended Load Resistance) model reliably withstands snow loads above 60 kg / m2 and winds above 120 km / h.

Heavy duty universal high-pressure tent for a wide range of use (accommodation, field hospital, in conjunction with the PRO-X model as a command post, after material modification as COLPRO). The tent can be equipped with a sun shade, inner liner, porch, additional floor and many other accessories.



#### NIXUS | PRO 6,1 x 12,0m



# NIXUS | ERA ... high pressure inflatable structure

# Versatile tent with efficient inner space

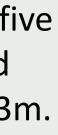
Heavy duty tent available in five widths from 3.5 to 6.0 m and beam spacing from 2.0 to 3.3m.

Thanks to the patented angled beam pressurized to 8 bar, it is the only one on the market to offer efficient interior space in a version with beams inside or outside the tent (ENDO or EXO).

NIXUS' flagship, high-pressure tent with the widest possible range of uses. Ideal for accommodations, field hospitals or any intervention. With material modifications it works as COLPRO and with external beams and the inner corridors it is a perfect DECON tent. The tent can be equipped with sun shades, inner liners, porch, additional flooring and many other accessories.









# NIXUS ERA-L ... high pressure inflatable structure

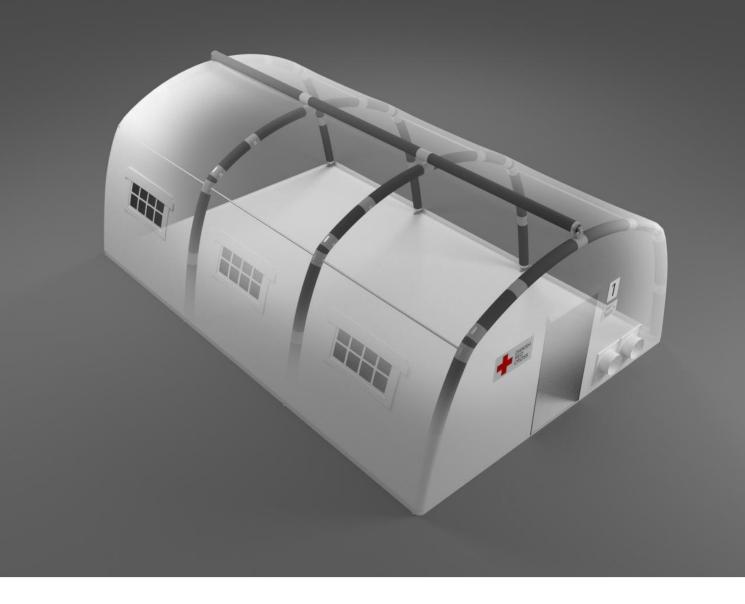
# Strong but light and handy tent

Using slimmer high-pressure tubes, the lightweight sibling of the ERA model comes a solid, reliable solution for quick deployment.

Similar weight and volume parameters as low-pressure tents, but significantly higher strength. Defined by its easy and trouble-free operation.

The ideal tent for quick interventions by firefighters, EMT and rescue teams in the most severe weather conditions. Beams inflate with compressed air to a pressure of 8 bar. No need for a pressure compensator as there are no pressure fluctuations due to temperature changes. A wide range of materials, accessories and colors allow for a variety of uses for rapid rescue services.





## NIXUS RIBS ... high pressure multi-tube structure

# Safe solution for rapid deployment technical infrastructure

Patented multi-tube beam system pressurized to 8 bar, available in widths from 8.5 to 12.0 m and beam spacing of 2.8 or 3.0 m. Mechanically connected tubes based on the truss principle are airindependent and extremely strong.

Inflatable halls with possible use as service and storage tents, dining rooms, etc. They are manufactured in segments for easier handling, installation of any size can be handled by 4-6 people. RIBS is compact for transport, easy to install and strong and safe to operate. Unlike traditional inflatable tents, the beams are 30 cm thick in profile and do not form an obstacle inside the tent.





## NIXUS | ECOS ... expandable container shelter

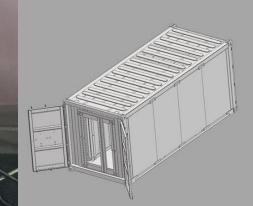
# Expandable container shelter

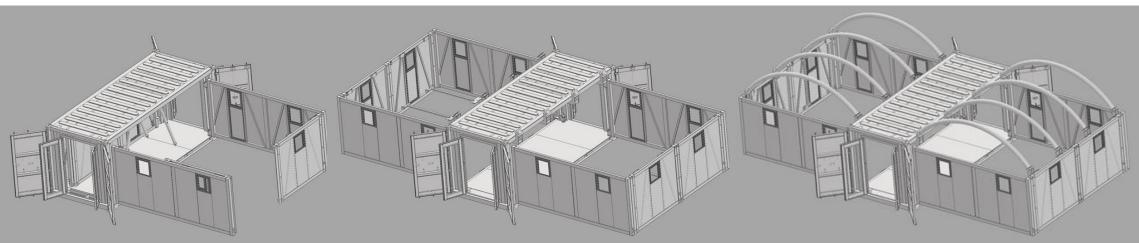
PATENTED



8 bar, the space of the the original floor plan.

An efficient shelter for disaster situations, to be rapidly deployed as a field hospital, temporary accommodations or command post. All components needed to cover the area are contained in the container during transportation and are ready for installation which can be handled by 2 people. Insulated walls, nets, electrical, HVAC and water can be installed depending on your needs. ECOS is a modular system and is connectable to other ECOS modules, ISO containers, tents and other products.





# **ISOLATION UNITS**



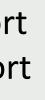
### NIXUS ICH ... isolation units

# Transport biobag

The ICH is a biobag transport system designed to transport infectious persons across clean zones or, conversely, to protect the patient from external infection during transport. The system is hermetically sealed, air flows through the filter system and filter-ventilation unit.

The ICH system consists of your components - the bag itself, the optional inflatable pad and the optional stretcher. In close cooperation with Ferno, we currently offer two support systems. ICH-D2 is equipped with a pad and folding hand carriers, compatible with the Ferno Mondial model. ICH-FPX1 is equipped with a pad shaped for the Ferno Power X1 model. We can ensure compatibility with other systems on request.







### **NIXUS** IRO ... Isolation units

# Isolation room

The IRO is a light temporary system for the immediate isolation of infectious persons. The room made of PVC coated fabric, suspended under the inflatable structure is equipped with gas-tight zippers, filters and filter-ventilation units.

The system is packed in a compact transport bag, along with filter-ventilation units and filters. The package also includes an electric inflation pump and, optionally, a hand pump and a reducer for a 300 bar pressure bottle. It only takes a few minutes to unpack and inflate the structure. The filter-ventilation units are powered by their own batteries with an operating time of up to 10 hours.





# FLEXIBLE TANKS



### NIXUS | OTO ... flexible tanks

# Helicopter water transport tank

The OTO-VAK was designed to transport water firefighting and other inaccessible areas. The tank is produced in several sizes up to 2000 liters. The latest abrasion resistant TPU fabric is used for production.

The OTO-VAK was developed at the request of the Fire and Rescue Corps of Slovak Republic for forest fires. It is certified by the Transport Authority of the Slovak Republic.







# Cascading water tank for extinguishing forest fires

The so-called JAZZ-VAK is a light tank to enable cascading pumping of water in inaccessible forest areas. The tank is packed in a practical backpack, allowing manual delivery to the destination. It is produced in sizes 600 liters and 1000 liters.

JAZZ-VAK is made of light but durable PVC material in several basic colors, equipped with a protective pad and rope to secure the working position. The universal fitting allows the fastening of quick couplings up to a diameter of 2".





# SHELTER INNOVATION COMPANY fore more than 25 years

