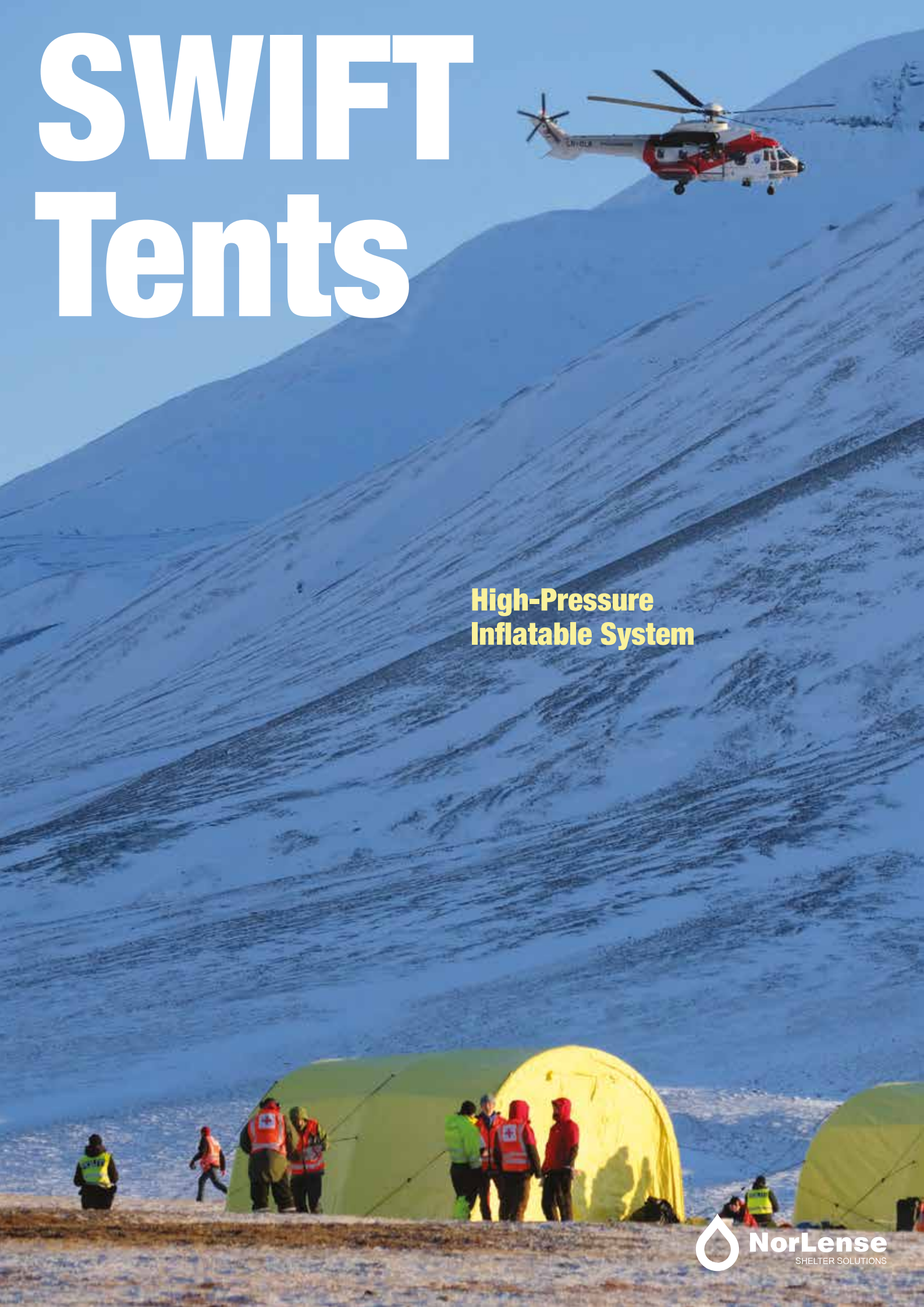
SWIFT Tents



High-Pressure Inflatable System

NorLense
SHELTER SOLUTIONS

About

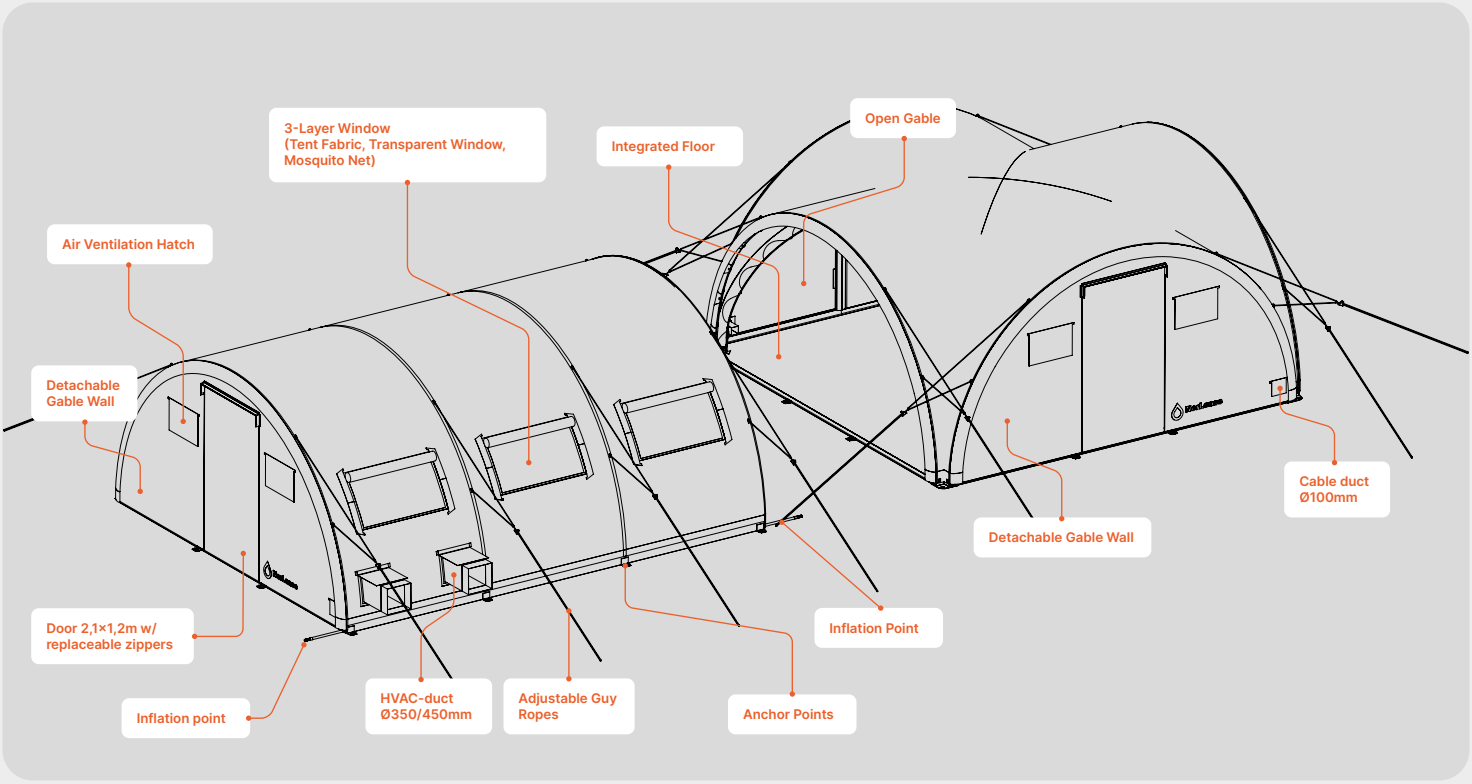
NorLense has been serving the oil industry globally as one of the leading suppliers in the world with oil spill recovery equipment on sea since 1974. We have worked with armed forces and humanitarian organizations worldwide with our unique High-Pressure Inflatable Shelter Solutions since 1999. As the first company with high-pressure technology in shelters, and with our close cooperation with armed forces, we have developed easy to use and resource efficient infrastructure. Having gained experience over the years from our products sold all over the world, we offer the highest quality products.

Torstein Hansen – a fisherman from Loften and founder of the company – changed oil spill recovery ever since introducing the first prototype of an oil boom.

Key advantages

Why choose NorLense

- Rapid deployment and easy operation
  - Self-supporting structure within 5-10 minutes
- Installation on any surface
  - Thicker anti-slip PVC for floor
  - Reinforced anchoring points
- One-piece solution – no loose parts
- Modular and multifunctional
  - Various sizes to fit customers' needs
  - Easy tent-to-tent connections
  - Quick camp arrangement
- No need for constant air supply
  - Air source is disconnected once tent is inflated
- Low weight and transport volume
  - Highly mobile
  - Lightweight and compact packaging
- Suitable for all weather climates and harsh conditions
- Unaffected by temperature changes
- Minimum maintenance
- Low life cycle cost and high durability



Size

↔ Width	3 meter	4 meter	5 meter	6 meter	7 meter	8 meter	10 meter
↕ Height	2,1 m	2,4 m	2,5 m	3 m	3,5 m	4 m	4,65 m
Ø Air Beam Structure:	Ø75mm	Ø102mm	Ø102mm	Ø125mm	Ø125mm	Ø125mm	Ø150mm
W×L / Weight [1]:	3×2,5 m 66 kg	4×4 m 88 kg	5×4 m 112 kg	6×4 m 170 kg	7×4 m 190 kg	8×6 m 200 kg	10×6 m 290 kg [3]
	3×4 m 81 kg	4×6 m 110 kg	5×6 m 160 kg	6×6 m 200 kg	7×6 m 230 kg	8×8 m 260 kg	10×12,3 m 658 kg [2]
			5×8 m 208 kg	6×8 m 230 kg	7×8 m 280 kg	8×10 m 320 kg	
			5×10 m 256 kg	6×10 m 260 kg	7×10 m 320 kg	8×12,3 m 380 kg [2]	
				6×12 m 290 kg	7×12 m 360 kg		
		+ Connector Tents	5×5 m 190 kg	6×6 m 232 kg			

[1] Weight with ropes (700 g/m² tent fabric)
[2] 2 sections of 6m length
[3] Without gable walls

Color

White	Grey	Sandstone	Olive Green	NATO Green

Fabric density
outer shell 700±50 g/m2
floor 900±50 g/m2

⚠ Other colours/black-out options available upon request

Technical features

- One inflation point
  - Air structure beams are interconnected
  - Inflation points on both sides of tent for rapid deployment needs
- Wind resistance up to 145 km/h
- Snow load capacity up to 50 kg/m2
- Temperature resistance from -45˚C to 70˚C
- High-pressure air arches and horizontal air beams:
  - Operating pressure: 6-8 bar
  - Closing valves in between air structure components
  - Exchangeable air structure components
- Self-supporting structure in 5-10 min @2,5 bar
- Fully inflated after 10 min
- No need for constant air supply, air source disconnected after installation
- UV-resistant, waterproof and flame-retardant PVC
- 3-layered windows – colour PVC, transparent PVC and mosquito net
- Wide configuration range
  - Number of doors and windows
  - Removable/fixed end walls
- Highly customizable construction solutions

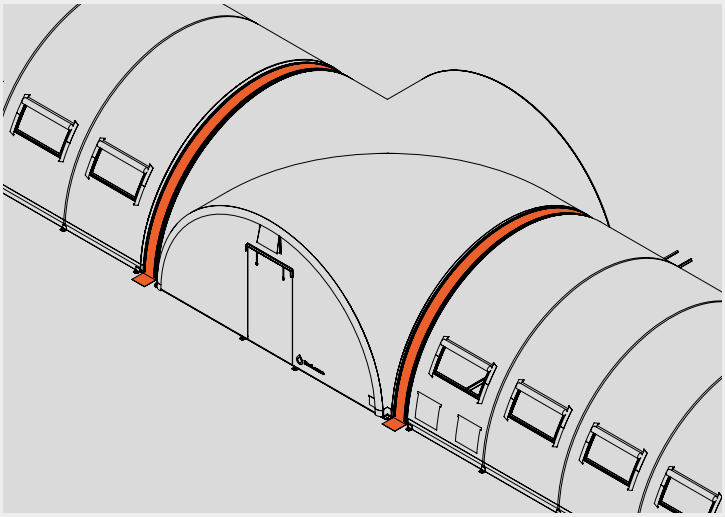
5m wide tent fitted with inner liner and power distribution system with lights

6m wide tent – inside, air beam structure

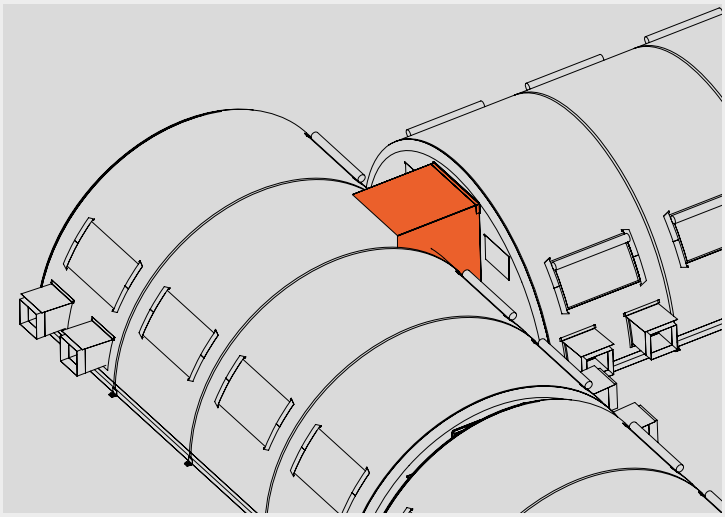
Modularity & flexibility

Our SWIFT system allows creating structures that meet customers' needs using variety of connectors:

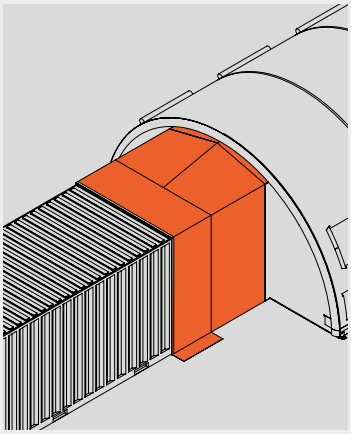
All the connectors are water- and bug-tight ensuring comfortable working environment.



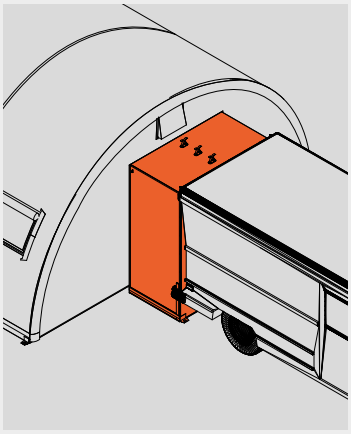
Gable-to-gable



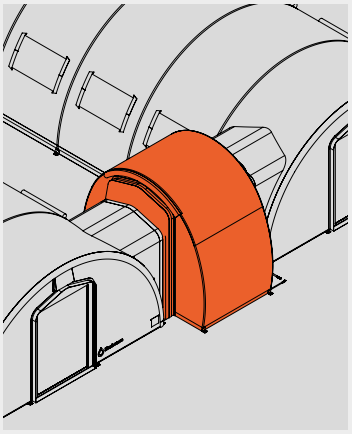
Door-to-door (also gable door-to-gable door, and side door-to-side door)



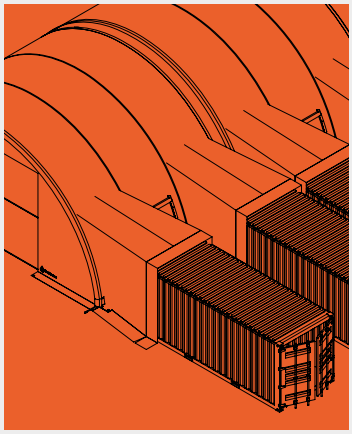
Container-to-tent



Vehicle-to-tent



Tunnel/corridor

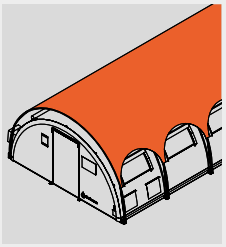


Custom solutions

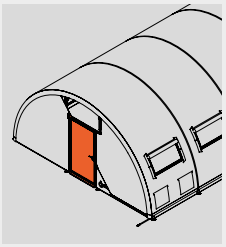
Tent accessories

Examples of available accessories

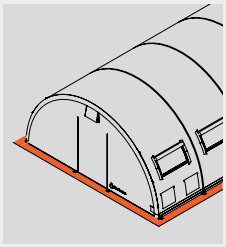
Inner tent
thermal insulation for more effective heating/ cooling



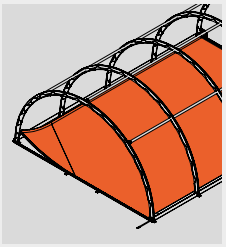
Sun screen
external sheet insulation against sun in hot climates



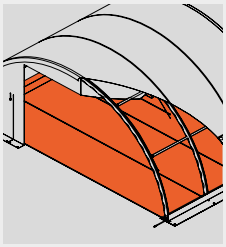
Hard door
for easier entry in frequently used areas



Ground sheet
extra protection for the floor of the tent

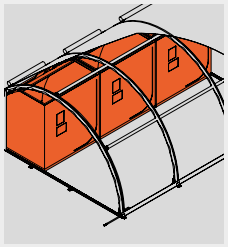


Soft insulated floor
extra thermal insulation

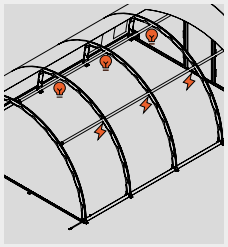


Detachable/removable floor
If no floor option is required/additional floor for easy cleaning

Partition wall
dividing tent into rooms

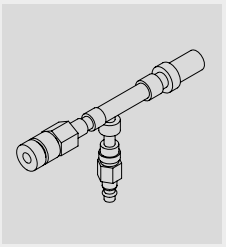


Hang up sleeping cabins
increased privacy when used for accommodation

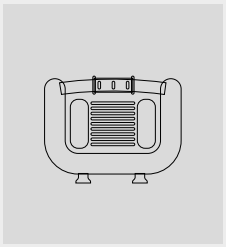


Power and light
convenient power distribution sets and lighting systems

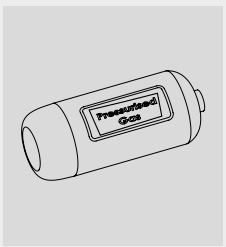
Different levels of repair and spare part kits



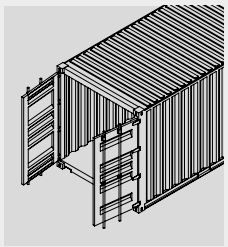
Ejector
utilizes compressor power to extract residual air from the system



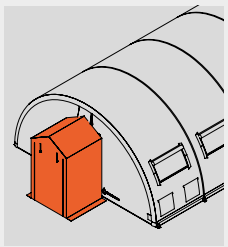
Portable electric compressor



Air bottles
with pressure regulators instead of air compressor

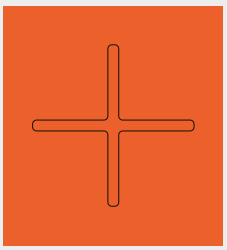


Shipping containers
various shipping containers/boxes/crates for transport efficiency



Vestibule
extra step of separation from the external environment

Ballistic walls
H x W: 0,5-2m x 2m panels for ballistic and fragmentation/shrapnel protection, thermal and sound suppression



Other accesories
water cylinder tent anchorage;
mosquito door;
rigid floor – PVC tiles

Photo: Håkon Daae Brensholm, Visit Svalbard

Complete camp solution provider

NorLense can provide and integrate complete camp solutions along with proper equipment.

Most common use:
- Field hospitals
- Command posts
- Accommodation
- Office
- Sanitary
- Kitchen
- Dining
- Storage
- CBRN

Third party products:
- Kitchen solutions
- Power generation and distribution
- HVAC systems and heaters
- Lighting systems
- Water treatment and storage
- CBRN decontamination and ColPro systems
- Sanitary solutions
- Furniture
- Camp infrastructure
- Flooring systems
- Medical equipment

Our customers:
- Armed forces
- Civil defence
- Rescue services
- Emergency organisations
- Police
- Humanitarian organisations

NorLense

Green DOG

NorLense Energy Systems

Green Deployment Off Grid is a hybrid energy system integrated with SWIFT tents to provide quiet, efficient and pollution-free electrical power.

Flexible and rollable solar panel sun screen
one-of-a-kind solution using flexible solar cells integrated into sun screen.

Mobile Smart Battery
Arvey B2 is a next level mobile military power unit, that can aggregate different energy sources, store and distribute electricity. Battery capacity of 2,4 kWh and recharging time under 1 hour serves well most field operations.

Methanol fuel cell
gives no heat signature, no emission and is completely silent, making it very attractive in special operations. The fuel cell produces stable 125 W DC in voltage 12-30 V DC, and the battery pack controls the fuel cell switching it on and off when needed.

The Green DOG system, as displayed (1 solar sun screen, 1 smart battery and 1 methanol fuel cell), can run 20+ laptops and monitors 24/7 – 365. The system is scalable. More solar panels, larger fuel cells and more batteries can be added to generate and store more energy.

For heaters or air conditioning systems, the methanol fuel cell can be replaced with a diesel generator to effectively run the systems. The smart battery will automatically derive the needed amount of energy from the fuel cell or the generator, and will always prefer solar power, making the fuel efficiency enormous.

Preferred supplier to the Norwegian Ministry of Defense
Developed and tested in cooperation with Norwegian Army

Why choose NorLense

Rigid Frame Tents	SWIFT High-Pressure Inflatable Tents (8 bar)	Low-Pressure Inflatable Tents (0,3-0,5 bar)
+ strong bearing structure requiring very little maintenance	+ strong bearing structure requiring very little maintenance	– low bearing capacity of structure
+ harsh conditions resistant	+ harsh conditions resistant	– low performance on snow capacity and wind resistance
+ small footprint of bearing structure inside	+ small footprint of bearing structure inside	– large footprint of bearing structure inside
– complicated logistics	+ light and easy on logistics	+ light and easy on logistics
– requires assembly, includes loose parts, with potential need for future resupply	+ one-piece solution, no loose parts	+ quite easy structure
– need for numerous personnel and time to assembly	+ minimum personnel and time to assembly	+ minimum personnel and time to assembly
+ no need for special equipment for installation	– compressor, air bottle or brake air required	– compressor, fan or pump required
	+ when erected no need for air supply	– pump/compressor always to be connected
	+ not affected by change in air temperature	– heavily affected by change in air temperature
	+ difficult to puncture	– easy to puncture

Experience
We offer reliable and mature products that customers can trust to perform in extreme conditions. The experience we have collected since introducing the very first high-pressure inflatable tent in 2000 makes us a trusted and reliable quality leader.

Safety
High safety margins – our air beam structure is designed with a safety factor, FoS>3. Tests of our standard products have been carried out in all environments: tropical, desert, arctic, and high altitude.

Ease of Operation
Our one-piece tent solution, without any loose parts, ensures the easiest, no-missing-parts operation. The packed tent is compact and lightweight – easy to transport when enclosed in a box/bag with selected accessories, making it the cleanest possible logistics choice.

Comfort
Our tents are watertight, not only from heavy rain showers but also from water running along the ground. Bug tightness ensures a clean resting and working environment. With the use of blackout fabric, SWIFT tents are constructed to be impermeable to light in both directions.

Modularity
The SWIFT system allows for building and extending structures in any size and direction. Providing a wide range of accessories, camps can be equipped with all necessary equipment.

We comply with the United Nations' goals on Sustainable Development focusing on:
8. Decent work and economic growth
12. Responsible consumption and production

STRIL POSEIDON
LMDC

Oil spill recovery products

NorLense offers full scale solutions for oil spill recovery that was the ground for establishing the company in 1975. With a wide range of products for offshore, coastal, terminal and harbour systems, we offer analysis, consulting, preparedness, training, maintenance and development of custom solutions. Our products are made to meet requirements from the worst possible environmental challenges.

We offer
innovative high-speed sweep system, oil trawl, boom systems, storage tanks, absorbents.

Key features
- One operator – single inflation point
- Minimum crew required
- Rapid deployment
- Minimum deck space required
- High durability
- Low lifetime costs
- Innovative solutions
- Full solution provider

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For the good of mankind and environment

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Photo: Håkon Daae Brensholm, Visit Svalbard