

Introducing, the
Design Shelter COVID-19 Surge Capacity Kit

specially designed for

Remote Towns, Villages and Communities





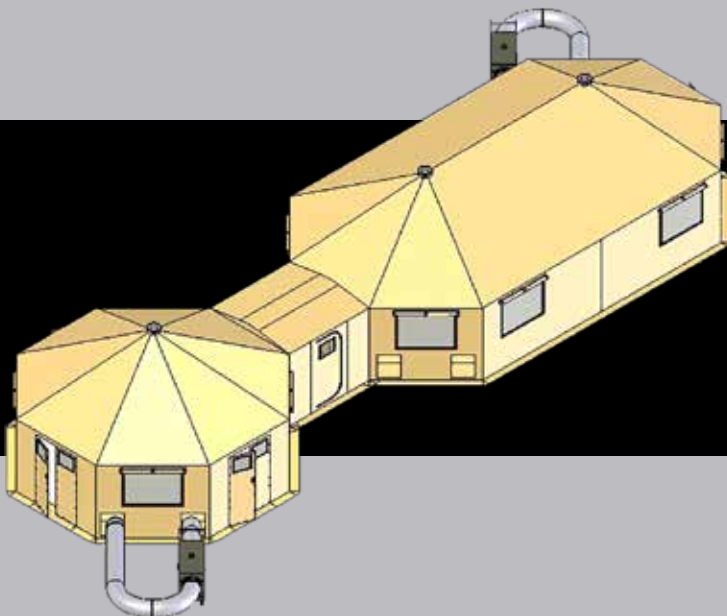
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Design Shelter has partnered with leading international manufacturing experts to design a standalone remote-based 10 bed surge capacity solution for any remote based communities. Each kit is relatively lightweight, designed for either fly-in or road access communities and easily deployed without tools. It has been designed to offer remote communities a solution for surge capacity of COVID-19 patient assessment, treatment and care. Each kit includes the basic facilities for the triage of up to 50 patients per day and can temporarily accommodate up to 10 patients. Design Shelter has been fabricating our unique portable shelter system for more than 30 years and has extensive experience globally. Design Shelters were specifically created to provide exceptional value over a long period. This is no ordinary tent.

The DS-FNIM-10 kit comprises the following equipment:

- QTY 1 x DS-MLH1935 Insulated soft walled portable shelter c/w QTY 2 double doors, vinyl floor and standard ambient light kit w/wiring harness (12 x dual gang receptacles). Shelter is 52m² of floor space.
- QTY 1 x DS-MH20 Insulated soft walled portable shelter c/w 2 double doors, vinyl floor and standard ambient light kit w/wiring harness (6 x dual gang receptacles). Shelter is 26m² of floor space.
- QTY 1 x DS-WTV20 Insulated interconnection hallway c/w 1 emergency exit zipper door and vinyl floor. Hallway shelter provides 6m² of floor space.
- QTY 150m² Warrior brand hard panel flooring.
- QTY 2 x Flagro 55 kWh indirect diesel fired air heaters c/w air ducting and remote thermostat.
- QTY 2 x LG brand 7 kWh split type air conditioners c/w mounting rack and remote control.
- QTY 1 x Sommers brand diesel fired 20 kW electric generator c/w electrical panel and trailer mounted.
- QTY 3 x Quatro brand AF1000-IF advanced HEPA filtration system. The AF1000-IF also delivers negative pressure isolation and germicidal UV light disinfection. Note: 2 units are required for the MLH1935 and 1 unit for the MH20 shelters.
- QTY 12 x SA-MEBEDCMPT EBed medical treatment bed with IV pole.



Kit Model DS-FNIM-10

DS-MLH1935



Thermal Insulation Package with Vinyl Floor

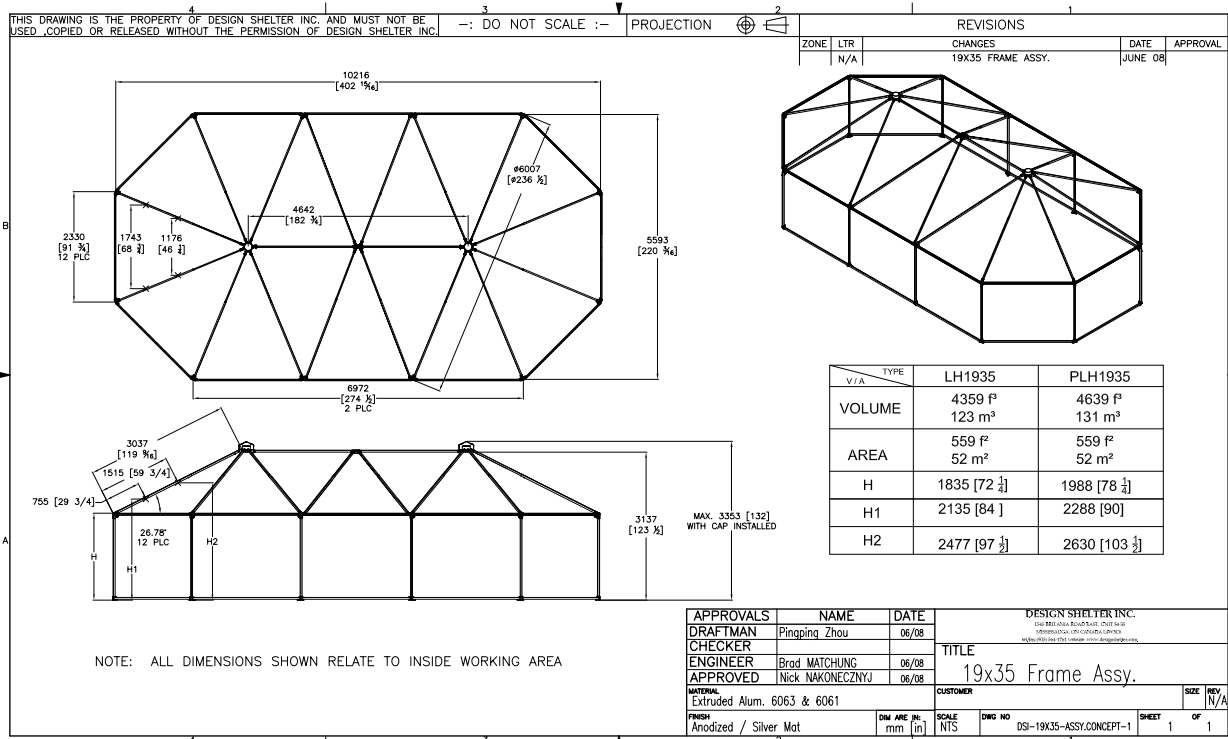


Double Door entry/exit w/ threshold ramp



Typical packaging for the shelter kit, Crate dimensions are 2.5m L x 1.1m T x 0.8m W. Each crate weighs approximately 300kg.

MLH1935 requires 2 crates, MH20 requires 1 crate

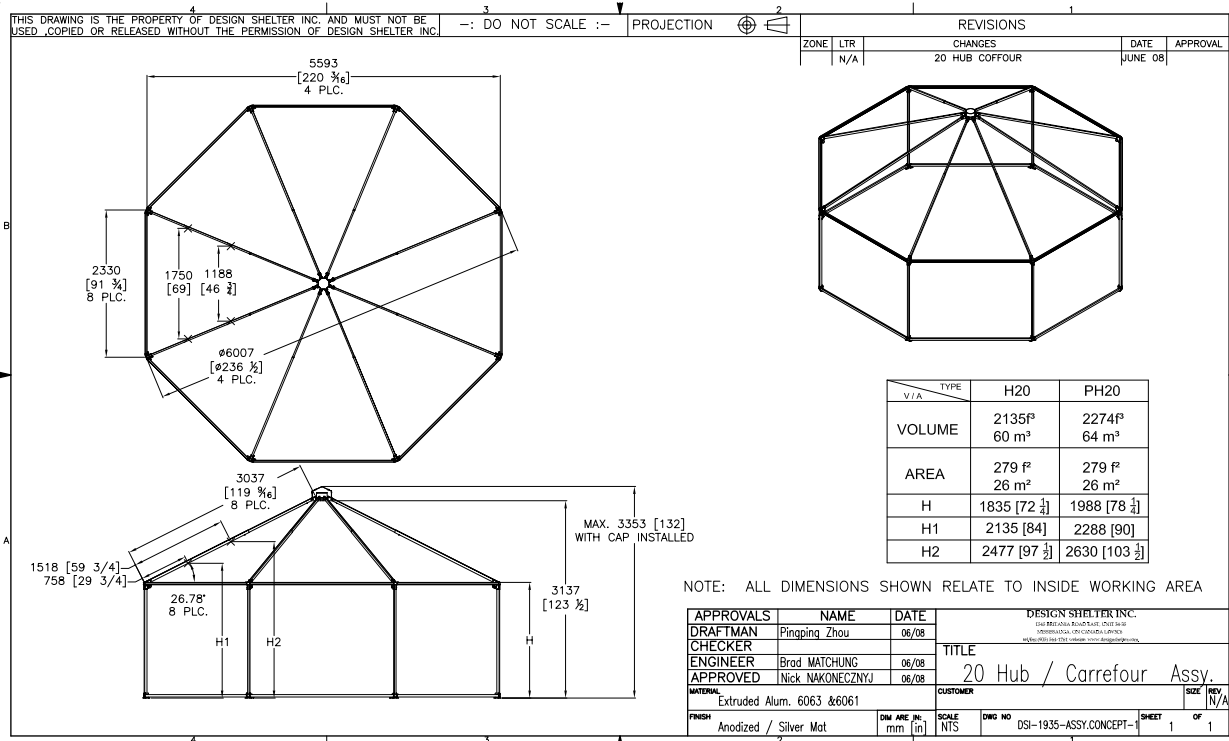


Design Shelters are;

- High quality, lightweight, and modular soft walled portable shelter systems.
- Durable.
- Waterproof.
- UV protected.
- Easy to assemble/disassemble, no tools required, and minimal training needed.
- Fabricated with washable antimicrobial materials appropriate for medical use. Easy to disinfect and clean.
- Rapid deployment for emergencies.
- Superior thermal insulation package included.
- Easy to install air heating or air conditioning.
- Ergonomic wiring harness w/receptacles and ambient lighting provided.
- Multiple configurations possible by connecting different shelters together with hallways.
- Locations of doors and windows can be relocated anywhere on the shelter within 10 minutes.
- 20+ year lifespan.

DS-MH20





Design Shelter products are proudly manufactured with the highest quality international standards.

- Design Shelters are field proven worldwide utilizing aircraft grade 6063-T6 aluminum framework and vinyl coated polyester scrim cover set with UV protection, fire retardant, RF welded waterproof seams and anti-microbial inhibitors for extraordinary long life (20+ year lifespan)
- Each shelter is 5.9 m wide by either 5.9m or 10.7m long elongated octagonal by providing comfortable unencumbered floor space with vertical sidewall of 1.83 m tall clear height. Each MH20 shelter provides 26m² and the MLH1935 shelter provides 52m² in total floor area.
- Structural mainframe shape is engineered to evenly distribute wind loads for superior integrity in demanding weather conditions. All Design Shelters must be properly anchored to the ground. With recommended anchoring, the structure will support up to 100 kph wind speeds and 120 kph wind gusts. Maximum snow load capacity is 25 kg per square meter.
- Design Shelters are completely waterproof allowing occupants to stay cool and dry inside.
- Superior thermal resistance maximizes cooling capacity and saves on energy costs. Maximum measured thermal resistance delivered is 1.11 K m²/W (R 6.3).

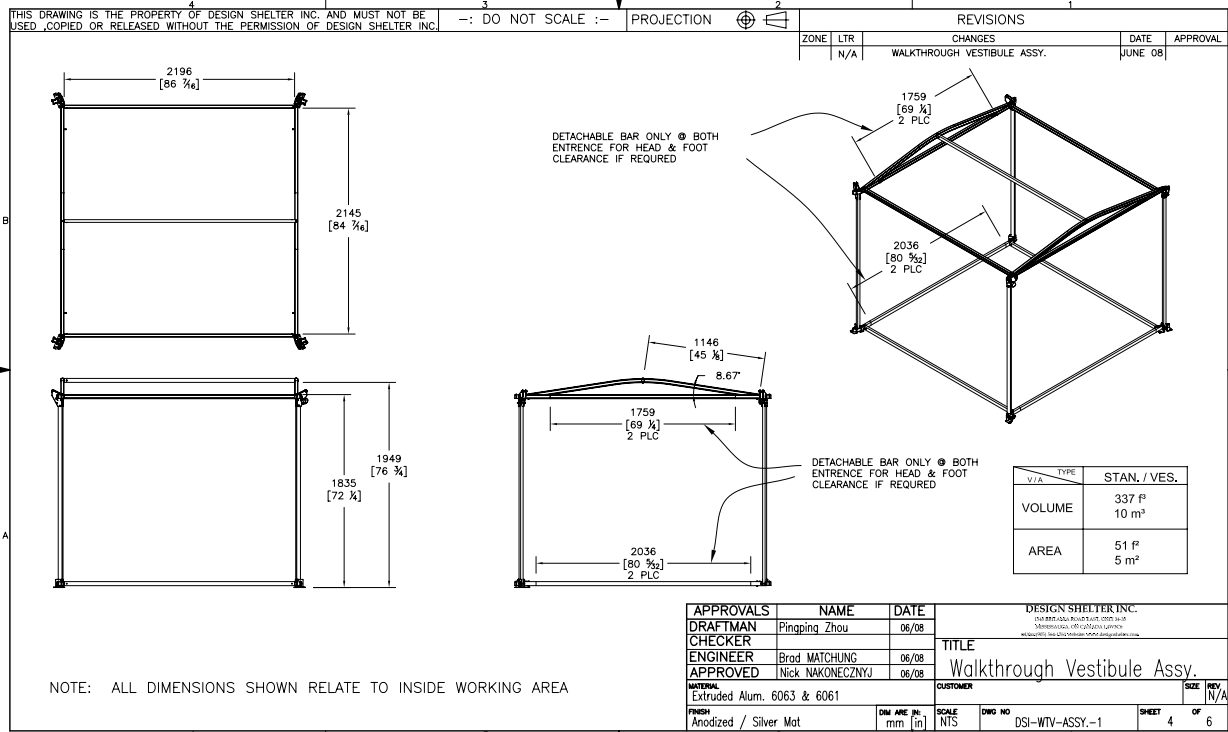
DS-WTV20



WTV20 Hallway Shelter



Emergency Exit Zipper Door



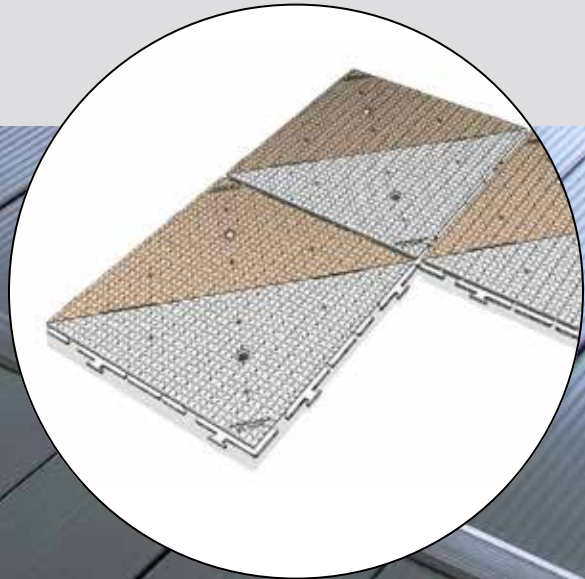
The Design Shelter WTV20 interconnecting hallway kit is designed to attach any two MH20's or two MLH1935's together including an MH20 to an MLH1935. The WTV20 can be located at any position around the perimeter of the shelter allowing flexibility in how to expand the complex. Multiple hallways are possible between MLH1935 shelters. For clients wishing to connect identical DS-FNIM-10 complexes together, additional WTV20 interconnect kits need to be procured and are sold separately. Options include the stand-alone model SAV20 entry/exit vestibule kit as well as interior doorways for both the WTV20 and SAV20 shelters for medical ante-room applications.







WARRIOR FLOORING



The Warrior brand of portable utility flooring for any remote field application. Specially designed for extreme conditions, Warrior floor panels will exceed performance expectations anywhere in the -40°C to +50°C ambient temperature range. Ideal as base camp flooring with special impact resistant modifiers allowing it to perform well across a broad temperature range. Easily connected in the field to form a large surface area in a matter of minutes.

Warrior Floor Panels are fabricated utilizing high pressure injection molded polyolefin thermoplastic and delivers the following attributes;

- Single part number design
- Offered at 4 cm (1.5") thick by 77 cm (30.5") square profile.
Per panel surface area is 0.3 m² (3.23 ft²). Optional 1m (39.4") square panels are available
- Integrated cable management system – supports up to 10 x CAT 5 or CAT6 data cables or equivalent
- Optionally offered in either recycled (colored black) or virgin polyolefin thermoplastic (colored desert sand or grey) formulations.
- Superior impact and static load resistance in the -40°C to +50°C ambient temperature range.
- UV protected
- Waterproof
- Non-slip tread surface
- Adequate capacity for a 2 cm (3/4") diameter ground stake
- Environmentally friendly
- Stackable for stable skid mounted loads.
- Easy to carry including assembly and disassembly in any weather condition.
No tools required. Lightweight at 3.4 kg (8.8 lbs) per panel
- Unique "friction-hinge" design to accommodate uneven surfaces and small under floor obstructions



Remote Thermostat FV-THB

Flagro Indirect Fired Heater Model Number: FVO-200RC42

- 55 kWh indirect Fired Oil Heater - Recirculating Hood & 160 litre tank
- Proven Riello burner technology including nozzle pre-heater for cold weather start up & upgraded low temperature fuel pump
- Powerful backward incline blower provides ultra-quiet operation & low amperage, ducting up to 45 metres
- Smart power indicator control verifies proper power supply to the heater
- 40.6 cm Flat Free Wheels

Heat Capacity	55 kWh
Fuel Capacity / Run Time	160 L / 35 HRS
Power Requirements	115V/15 AMPS (6AMP Draw) (230V available)
Fan Motor / Air Circulation	120 kW / 1,230 L/s
Heat Exchanger	1.3 mm 304 Stainless Steel
Ignition	Direct Spark
Nozzle Size / Pump Pressure	1.10 x 70A / 1,240 kPa
Air Outlet	1 x 30.5 cm Dia or 1 X 40.6 cm Dia
Air Intake	1 x 30.5 cm Dia
Wheels	2 x 40.6 cm Dia Flat Free
Dimensions / Weight	130.8 cm x 68.6 cm x 121.9 cm / 160 kg
Approvals	cETLus



Design Shelter has successfully utilized split-type air conditioning systems worldwide in some of the harshest temperature conditions. This simple adaptation of a standard “home” fit unit performs remarkably well inside Design Shelter tents. In association with our thermal insulation package, comfortable interior temperatures can be maintained.

Kit includes an LG Smart Thin Q (or equivalent) brand split type 7 kW wall mounted deluxe single-split type air conditioner unit w/ dual inverter compressor model LAN240HYV1. Unit is Energy Star rated with TUV Rheinland, optimized Jet Cool air outlet, auto cleaning feature and utilizes Gold Fin technology for better resistance to corrosion. Also included is a stand-alone frame for the distribution/fan unit.



SOMMERS

Generator Systems



60Hz PERKINS 404D-22G Tier 3

DGPSW 20 ST T3

Measures:
L: 1875 mm H: 1215 mm
W: 862 mm

Weight (dry):
2138 lbs / 970 kg



-  60Hz
-  Diesel
-  Water cooled
-  Soundproofed
-  1800
-  CSA Approved or Equivalent

Genset General Description

› Soundproof genset with automatic startup, control card allows automatic, manual or signal start-up.

General Technical Data			
Engine	PERKINS 404D-22G		
Alternators	240/120V	Wdg	STAMFORD P1144D
		05	
	208/120V	Wdg	STAMFORD P1144E
		311	
	600/347V	Wdg	STAMFORD P1144J
		17	
Performance Class	G2		
Frequency	60Hz		
Control Panel	240/120V	DSE 7320 MKII	
	208/120V	DSE 7320 MKII	
	600/347V	DSE 7320 MKII	
Noise level (dBA@7m)	63		
Voltage (v)	PRP (kW)	ESP (kW)	PRP/ESP (A)
240/120V	18	20	75/83
208/120V	20	21	67/72
600/347V	20	21	23/25

PRP: Continuous power ("Prime Power") ISO 8528-1 standard.
ESP: Emergency power ("Emergency Standby Power") ISO8528-1 standard.

› PERKINS 404D-22G Diesel engine, inline 4 cylinders-cylinders, 4-stroke. Natural aspiration, air intake system. Mechanical regulation, Complying Tier 3 emissions.

Engine General Data			
Manufacturer/Model	PERKINS 404D-22G	Number of Cylinders	4 cylinders
R.P.M.	1800	Engine Capacity	7
Max. Power (kWm) (net)	23.9	Cooling System	Water cooled
Power PRP (Kw) (net)	21.6	Regulation Type	Mechanical
Fuel	Diesel	Engine Type/Injection/ Suction	Diesel /indirect/Natural



NOTE:

This kit is supplied on a towable trailer. Skid/ski mounting is available upon request at additional cost.

QUATRO
AIR TECHNOLOGIES INC.



AF1000-IF (ISOLATION-FILTRATION)
ADVANCED HEPA FILTRATION
For healthcare facilities, isolation rooms and infection control areas

CLEAN AIR is the key factor in creating a safe environment for patients and staff.

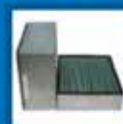
The hospital and healthcare environments require high quality air management solutions to protect patients and staff against infections and occupational diseases.

Our units offer complete air purification solutions against airborne microorganisms (bacteria, viruses, and fungal spores), gaseous contaminants, chemicals and odors.

MULTI-STAGE FILTRATION SYSTEM



F007 Prefilter



F015 Pleated Filter



Germicidal UV Lights



F057 HEPA Filter

PRODUCT HIGHLIGHTS

- High volumetric flow rate
- Whisper quiet operation
- Filtration system: prefilter, high capacity and HEPA filter
- Germicidal UV lights
- Intelligent controls, digital speed control, audible and visual alarms, "Autoflow" feature*

* As debris starts accumulating in the filters, the air flow through the unit decreases. The "Autoflow" feature increases the motor speed automatically to increase air flow.

Air Flow:	Nominal 283 l/s / 600 CFM
Voltage:	120V (2A) or 230V (1A)
Dimensions:	56"H x 16"W x 22"D / 132cm x 40cm x 56cm
Filtration:	2" Pre-filter MERV10 12" High capacity pleated filter MERV12 6" Medical grade HEPA filter 99.97% (down to 0.3 micron) Germicidal UV lamps
Inlet:	Optional: chemical filter (up to 50 lbs/23 kg) Bottom inlet
Discharge:	6" Discharge collar (4", 8" optional)
Sound Level:	Whisper quiet, 54 dBA
Controls:	Remote ON/OFF, communication capabilities, audible and visual alarms

STANDARD CONFIGURATION

W2-2020(04.0) Quatro reserves the right to modify any specifications, at any time without prior notice.

EBed**EBed Features and Benefits**

- Versatile, sturdy and durable multi-use medical treatment bed.
- Patient accessibility: bed handrails quickly remove to access patients.
- Adjustable backrest for patient comfort/multiple treatment needs.
- RF-welded mattress seams allow for decontamination.
- Anti-microbial cover fabric can be disinfected for re-use
- 5.1 cm pressure relief convoluted foam mattress provides comfortable sleeping surface.
- Constructed of medical grade stainless steel for strength and durability.
- Locking caster wheels with 25.4 cm leg extensions keeps bed safely in place.
- Complies with WCFR 1633 fire code components.
- Adjustable leg extensions with locking casters.
- Handrails.
- Adjustable backrest and molded ABS patient deck.
- Adjustable IV pole.
- Mesh shelf.



The Design Shelter DS-FNIM-10 portable shelter kit has been specifically created with remote communities in mind.

All products have been carefully chosen from bonafide manufactures to bring you decades worth of experience, quality and reliability.

This kit is versatile; its primary purpose is to deliver a turnkey portable facility for medical surge capacity created by the COVID-19 pandemic. This same kit can also be used in countless applications including temporary accomodations, field medical clinics, staff rooms, school rooms, command and control, work camps and for community events to name a few. And it is scalable in the event the community wishes to add and re-locate units.

Each piece of equipment is designed to provide reliable service for 20+ years and has been field proven worldwide.

Your decision to procure a DS-FNIM-10 portable shelter solution will benefit your community for many years to come.

Additional details including technical specifications on any of the equipment offered here is available upon request.

Sample rendition of a
40 Bed Field Hospital



NOTE: For transportability – all kit is sized and packaged for transport by cargo aircraft to remote communities. From there it can be easily transported by pickup truck or on sleds if needed. No tools are required for assembly and most items can be handled by two people. Where applicable, the heavy equipment is trailer or skid mounted for ease of movement on any road or path. Transport by barge, sled or truck is all possible.

Due to unforeseen circumstances related to COVID-19, Design Shelter reserves the right to substitute equivalent products to this kit as necessary.

Price is available upon request. Price is FOB Mississauga Canada. The cost of shipping to the nearest main city/town that serves either road or air freight to northern communities is offered separately. Distribution of each kit to individual communities from the point of primary delivery is the responsibility of the client.



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