



The DSI Portable Shelter

**DESIGN SHELTER INC.** 

Authorized distributor:

 **FABRIC8**  
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# The DSI Portable Shelter

# The DSI Portable Shelter Specifications



## THE DSI PORTABLE SHELTERS

Introducing the Ultimate Portable Shelter Solution: Design Shelter's Habitat Series (MH Series) and Long Habitat Series (MLH Series).

For over 30 years, Design Shelter has been mastering the craft of lightweight portable shelter systems, evolving the basic octagonal shape to bring you the finest quality in its class.

DSI's portable shelters are available in two shapes - The Habitat and the Long Habitat. Each series consists of several models with varying floor space configurations. DSI strives to create value-added shelter systems and base camps by creating customer-specific innovations and enhancements to their designs. They offer shelter interconnection kits that allow for the creation of a large complex and can configure interior spaces with hard walls and sound-attenuating partitions.

## KEY FEATURES OF MH AND MLH SERIES SHELTERS

**Spacious and Unencumbered:** Each shelter is 5.6m (18.3ft) wide and comes in four length options (5.6m, 10.2m, or 14.9m). Choose from four floor area sizes: MH16 at 17m<sup>2</sup> (183ft<sup>2</sup>), MH20 at 26m<sup>2</sup> (280ft<sup>2</sup>), MLH1935 at 52m<sup>2</sup> (560ft<sup>2</sup>), or MLH1950 at 78m<sup>2</sup> (840ft<sup>2</sup>). Our elongated octagonal design ensures a comfortable and unobstructed floor space.

**Engineered for Stability:** The structural mainframe shape is expertly designed to distribute wind loads evenly, providing superior integrity even in the most demanding weather conditions.

**Advanced Thermal Insulation:** The DSI Shelters are equipped with a state-of-the-art insulation fabric that features a reflective metalized poly layer. The use of argon gas bubbles also provides 34% higher thermal resistance than air. This ensures maximum solar radiation deflection, keeping your shelter cool and comfortable.

**Heavy-Duty Flooring:** Durable vinyl floors with 680gms/m<sup>2</sup> (20oz/yd<sup>2</sup>) density are secured using heavy-duty Velcro to the shelter sidewalls. This unique attachment method prevents running groundwater or pests from entering the shelter.

**Built to Withstand the Elements:** The DSI Shelters are rated for 100 kph (60mph) sustained winds and 120 kph (70mph) wind gusts, ensuring durability and resilience in harsh conditions. Please note that shelters MUST be properly anchored to the ground at all times.

Discover the Design Shelter difference and trust in our commitment to quality. Choose the MH and MLH series shelters for your next portable shelter solution.

## FABRIC SPECIFICATIONS

- Exterior shelter fabric thickness - 475gms/m<sup>2</sup> (14oz/yd<sup>2</sup>), (warp tear strength = 280N/mm (1598lbf/in), weft tear strength = 223N/mm (1273lbf/in), Shelter floor fabric thickness = 680gms/m<sup>2</sup> (20oz/yd<sup>2</sup>) shelter floor fabric (warp tear strength = 280N/mm (1598lbf/in), weft tear strength = 247N/mm (1410lbf/in)).
- Meets NFPA 701 American fire retardant specification.
- Weft inserted polyester scrim (anti-wick).
- Vinyl coated both sides.
- 1,000 Denier, 9 x 9 scrim.
- UV protected.
- Anti-microbial inhibitor.
- High tear strength.
- Cold crack to -30°C.
- Matte lacquer finish top side only.
- Velvet emboss.

## MAINFRAME SPECIFICATIONS

- 25.8mm (1") x 38.4mm (1.5") (exterior profile) x 1.8mm (5/64") (wall thickness) 6061-T6 reinforced extruded structural tubular aluminum alloy (aircraft grade). Clear coat anodised to 10 microns.
- 6063-T5 alloy utilized for extruded solid bar stock and is also clear coat anodised to 10 microns.
- All components are either anodised aluminum or zinc plated to prevent corrosion by oxidation or degradation from salted air (sea spray).
- Double door interior width is a minimum of 1.15m (45.3").

## DSI HEAVY DUTY VELCRO SPECIFICATIONS

- Nylon construction.
- UV protected.
- Colourfast (will not bleed).
- Full rating to -30°C (-22°F).
- 20kg (44lb) shear strength.
- 800gm (1.8lb) peel strength.
- 90% reliability after 1,000 separations.
- Retains 50% holding strength in submerged water and returns to full strength when dry.

## DSI ALUMINIUM SPECIFICATIONS

- Proprietary aluminum extruded hollow profiles and flat bar are 6061-T6 alloy and clear coat anodized to 10 microns.
- Proprietary aluminum solid profiles are 6063-T5 alloy and clear coat anodized to 10 microns.

## DSI FASTENER SPECIFICATIONS

- Grade 5 zinc plated steel nuts and bolts.
- Aluminium rivets.

# The MH Series Portable Shelter



## MH SERIES

The MH Series is military quality inspired and is Design Shelter's most versatile portable shelter design. Due to its simplicity in construction and octagonal shape it assembles easily and is extremely stable in high wind conditions. It is ideally suited to be used in the field for sleeping accommodations, medical operations, command and control centers, communications and project administration.

Other primary uses include mess halls, shower facilities, ablution shelters, cache storage, remote makeshift hospitals and portable classrooms to name a few.

We take remote portable shelter manufacturing very seriously. If a job, incident or task at hand requires temporary soft walled shelter, we have taken every aspect of human convenience into consideration.

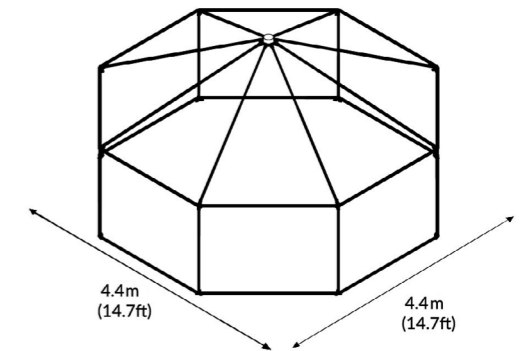


# The MH Series Portable Shelter

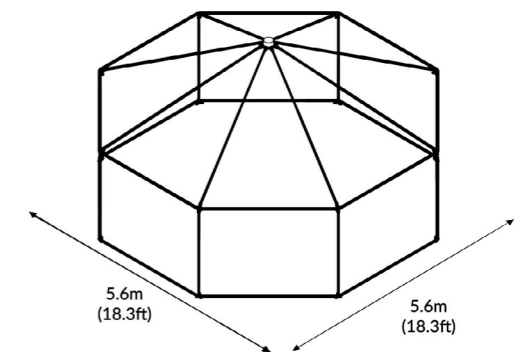
## UNIQUE FEATURES

- Easily erected by 2-3 trained people without tools in less than 15 minutes.
- Structurally superior 6063-T5 and 6061-T6 reinforced extruded tubular aluminium (aircraft grade), anodised to 10 microns.
- All fabric is 100% waterproof and is easily disinfected (anti-microbial feature), with high frequency welded seams.
- Fabric meets NFPA 701 American fire retardant specification.
- Full height 1800mm (6ft) vertical interior walls to maximize utilization of working space.
- Folding aluminium frame double door (vinyl only cover and optional insulated door cover available) at 1330mm (53") wide by 1830mm (72") tall.
- Lightweight and specially designed for a high degree of mobility.
- Designed for lightweight tactical mobility with a superior lifespan which exceeds 20 years.
- Thermal insulated fabric offers a minimum average thermal resistance of 1.5 K m<sup>2</sup>/W (8.8ft<sup>2</sup>•h•°F/Btu or ~R-9).
- Thermal insulation fabric utilizes argon filled bubbles which delivers 34% better thermal resistance than air.
- Delivers superior performance in +50°C to -50°C (+122°F to -58°F) ambient temperature range - naturally cooler in tropical environments.
- Design Shelters offer a standard one year warranty. Extended warranty is available upon request and offered on a case by case basis. Additional cost for extended warranty may be applicable.

## MH16



## MH20



## ACCESSORY OPTIONS

- Insulated cover sets.
- Electrical light and wiring harness set.
- Additional field support equipment including:
  - Custom fit vinyl ground covers.
  - Air conditioning.
  - Exhaust fans.
  - HEPA air filtration systems.
  - Pressure control for negative pressure isolation or positive pressure containment.
  - Portable water storage bladders.
  - Grey water storage bladders.
  - Power supply (diesel generator).
  - Water/Sand Anchor Bladder Kit.



## NOTES

- Window dimensions - 1,016mm x 762mm (40" x 30").
- Air duct access panel dimension - 508mm x 508mm (20" x 20").
- Natural ventilation is provided at the peak at the structure to allow hot trapped air to escape.
- Vinyl fabric is UV protected, fire retardant and tear strength is superior - cuts and abrasions can be easily repaired in the field.
- 100% waterproof vinyl floors are secured to shelter sidewalls to prevent water entering the shelter.
- Sewing thread specs- Tex: 135g (0.3lb), Tkt: 20, Ply: 6, Strength: 7097cN, Thickness: 0.45mm (0.02").

# The MH Series Portable Shelters

## THE HABITAT DATA AND SPECIFICATIONS

	MH16	MH20
Area	17m <sup>2</sup> (183ft <sup>2</sup> )	26m <sup>2</sup> (280ft <sup>2</sup> )
Hospital Bed Capacity	3-4	4-5
Double Deck Bed Capacity	6-8	8-10
Diameter (Corner to Corner)	4.9m (16ft)	6.0m (20ft)
Width (Flat Edge to Flat Edge)	4.5m (14.7ft)	5.6m (18.3ft)
Length	4.5m (14.7ft)	5.6m (18.3ft)
Vertical Wall Height	1.8m (6ft)	1.8m (6ft)
Peak Height	2.9m (9.6ft)	3.1m (10.3ft)
Weight (Fully Insulated Shelter)	180kg (397lbs)	220kg (485lbs)
Standard Windows	4 windows	4 windows
Packaging (Heavy Duty Vinyl Field Bags)	7pcs Assorted Bags	9pcs Assorted Bags

## STANDARD SHELTER PACKAGES INCLUDE

MH16	MH20
<ul style="list-style-type: none"> <li>1 Window Wall Panel with Air Duct.</li> <li>3 Window Wall Panels no Air Duct.</li> <li>3 Blank Wall Panels no Air Duct.</li> <li>1 Aluminium Double Door.</li> <li>1 Threshold Ramp.</li> <li>Field Repair Kit.</li> <li>Heavy Duty Integral Vinyl Floor System.</li> </ul>	<ul style="list-style-type: none"> <li>1 Window Wall Panel with Air Duct.</li> <li>3 Window Wall Panels no Air Duct.</li> <li>3 Blank Wall Panels no Air Duct.</li> <li>1 Aluminium Double Door.</li> <li>1 Threshold Ramp.</li> <li>Field Repair Kit.</li> <li>Heavy Duty Integral Vinyl Floor System.</li> </ul>



# The MH Series Portable Shelters

## PACKAGING WEIGHT AND DIMENSIONS

MH16	Bags (pcs)	Weight	Dimensions
Insulated Roof, Vinyl Roof, Vinyl Floor	1pc	± 38kg (84lb)	1860mm x 270mm x 680mm (73.2" x 10.6" x 26.7")
Window Panels, Wall Panels, Filler Panels	1pc	± 49kg (108lb)	1860mm x 270mm x 680mm (73.2" x 10.6" x 26.7")
Insulated Double Doors	1pc	± 25kg (55lb)	1920mm x 680mm x 150mm (75.5" x 26.7" x 5.9")
Main Frame	1pc	± 35kg (77lb)	2500mm x 520mm x 520mm (98.4" x 20.4" x 20.4")
Eave and Eaves Bars	1pc	± 22.5kg (50lb)	2350mm x 180mm x 160mm (92.5" x 7.1" x 6.3")
Weather Caps, Stainless Steel Frame Clips	1pc	± 3.5kg (8lb)	490mm x 490mm x 400mm (19.3" x 19.3" x 15.7")
Repair Kit	1pc	± 4kg (9lb)	690mm x 220mm x 140mm (27.1" x 8.7" x 5.5")
Threshold Ramp		± 4kg (9lb)	
<b>TOTAL</b>	<b>7pcs</b>	<b>± 181kg (399lb)</b>	
<b>TOTAL (with crate)</b>		<b>± 260kg (573lb)</b>	

MH20	Bags (pcs)	Weight	Dimensions
Vinyl Roof	1pc	± 40kg (88lb)	1860mm x 270mm x 680mm (73.2" x 10.6" x 26.7")
Insulated Roof, Wall Panels	2pc	± 35kg (77lb)	1860mm x 270mm x 680mm (73.2" x 10.6" x 26.7")
Insulated Double Doors	1pc	± 25kg (55lb)	1920mm x 680mm x 150mm (75.5" x 26.7" x 5.9")
Main Frame	1pc	± 37kg (82lb)	2500mm x 520mm x 520mm (98.4" x 20.4" x 20.4")
Eave and Eaves Bars	1pc	± 28kg (62lb)	2350mm x 180mm x 160mm (92.5" x 7.1" x 6.3")
Weather Caps, Stainless Steel Frame Clips	1pc	± 5kg (11lb)	490mm x 490mm x 400mm (19.3" x 19.3" x 15.7")
Repair Kit	1pc	± 4kg (9lb)	690mm x 220mm x 140mm (27.1" x 8.7" x 5.5")
Threshold Ramp	1pc	± 5kg (11lb)	
<b>TOTAL</b>	<b>9pcs</b>	<b>± 179kg (395lb)</b>	
<b>TOTAL (with crate)</b>		<b>± 258kg (569lb)</b>	

## CRATE DIMENSIONS

Crate Size	2400mm x 700mm x 1100mm (94" x 27.5" x 43")
Estimated Crate Weight (without contents)	79kgs (174lb)
Crates Inside 20'	12 crates (double stacked)
Crates Inside 40'	30 crates (double stacked)
Crates Required for MH Series	1 crate



# The MLH Series Portable Shelters



## MLH Series

The MLH Series from Design Shelter is constructed to military-grade standards, featuring a straightforward design that makes for easy assembly and exceptional stability in high wind conditions. It's a versatile choice for a range of field applications, including sleeping accommodations, medical operations, command and control centers, communications, and project administration.

The Long Habitat is an extended version of the Habitat product, offering additional floor space for even more flexibility. Along with its primary use as sleeping quarters, medical facilities, command centers, and communication hubs, this portable shelter is ideal for a range of other purposes, such as mess halls, shower facilities, ablution shelters, cache storage, makeshift hospitals, and portable classrooms. Overall, Design Shelter's Long Habitat is the most adaptable mid-sized portable shelter on the market.

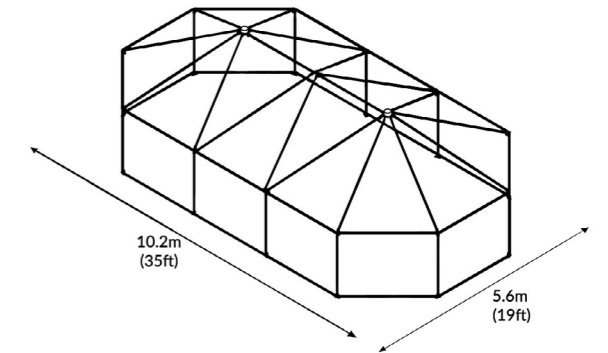


# The MLH Series Portable Shelters

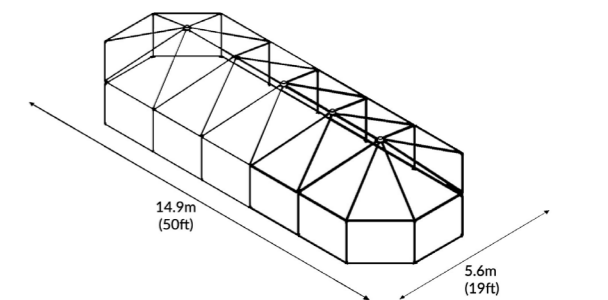
## UNIQUE FEATURES

- Easily erected by 2-3 trained people without tools in less than 30 minutes.
- Structurally superior 6063-T5 and 6061-T6 reinforced extruded tubular aluminium (aircraft grade), anodised to 10 microns.
- All fabric is 100% waterproof and is easily disinfected (anti-microbial feature), with high frequency welded seams
- Fabric meets NFPA 701 American fire retardant specification
- Full height 1800mm (6ft) vertical interior walls to maximize utilization of working space.
- Folding aluminium frame double door (vinyl only cover and optional insulated door cover available) at 1350mm (53") wide by 1830mm (72") tall.
- Lightweight and specially designed for a high degree of mobility.
- Designed for lightweight tactical mobility with a superior lifespan which exceeds 20 years.
- Thermal insulated fabric offers a minimum average thermal resistance of  $1.5 \text{ K m}^2/\text{W}$  ( $8.8 \text{ ft}^2 \cdot \text{h} \cdot ^\circ\text{F}/\text{Btu}$  or  $\sim R-9$ ).
- Thermal insulation fabric utilizes argon filled bubbles which delivers 34% better thermal resistance than air.
- Delivers superior performance in  $+50^\circ\text{C}$  to  $-50^\circ\text{C}$  ( $+122^\circ\text{F}$  to  $-58^\circ\text{F}$ ) ambient temperature range – naturally cooler in tropical environments.
- Design Shelters offer a standard one year warranty. Extended warranty is available upon request and offered on a case by case basis. Additional cost for extended warranty may be applicable.

## MLH1935



## MLH1950



## ACCESSORY OPTIONS

- Insulated cover sets.
- Electrical light and wiring harness set.
- Additional field support equipment including:
  - Custom fit vinyl ground covers.
  - Air conditioning.
  - Exhaust fans.
  - HEPA air filtration systems.
  - Pressure control for negative pressure isolation or positive pressure containment.
  - Portable water storage bladders.
  - Grey water storage bladders.
  - Power supply (diesel generator).
  - Water/Sand Anchor Bladder Kit.



## NOTES

- Window dimensions - 1,016mm x 762mm (40" x 30").
- Air duct access panel dimension - 508mm x 508mm (20" x 20").
- Natural ventilation is provided at the peak at the structure to allow hot trapped air to escape.
- Vinyl fabric is UV protected, fire retardant and tear strength is superior - cuts and abrasions can be easily repaired in the field.
- 100% waterproof vinyl floors are secured to shelter sidewalls to prevent water entering the shelter.
- Sewing thread specs- Tex: 135g (0.3lb), Tkt: 20, Ply: 6, Strength: 7097cN, Thickness: 0.45mm (0.02").

# The MLH Series Portable Shelters

## THE LONG HABITAT DATA AND SPECIFICATIONS

	MLH1935	MLH1950
Area	52m <sup>2</sup> (560ft <sup>2</sup> )	78m <sup>2</sup> (840ft <sup>2</sup> )
Hospital Bed Capacity	10-12	14-16
Double Deck Bed Capacity	20-24	28-32
Width (Flat Edge to Flat Edge)	5.6m (19ft)	5.6m (19ft)
Length	10.2m (35ft)	14.9m (50ft)
Vertical Wall Height	1.8m (6ft)	1.8m (6ft)
Peak Height	3.1m (10.3ft)	3.1m (10.3ft)
Weight (Fully Insulated Shelter)	360kg (794lbs)	476kg (1049lbs)
Standard Windows	6 windows	8 windows
Packaging (Heavy Duty Vinyl Field Bags)	14pcs Assorted Bags	16pcs Assorted Bags

## STANDARD SHELTER PACKAGES INCLUDE

MLH1935	MLH1950
<ul style="list-style-type: none"> <li>• 2 Window Wall Panels with Air Duct.</li> <li>• 4 Window Wall Panels no Air Duct.</li> <li>• 4 Blank Wall Panels no Air Duct.</li> <li>• 2 Aluminium Double Doors.</li> <li>• 2 Threshold Ramps.</li> <li>• Field Repair Kit.</li> <li>• Heavy Duty Integral Vinyl Floor System.</li> </ul>	<ul style="list-style-type: none"> <li>• 2 Window Wall Panels with Air Duct.</li> <li>• 6 Window Wall Panel no Air Duct.</li> <li>• 6 Blank Wall Panels no Air Duct.</li> <li>• 2 Aluminium Double Doors.</li> <li>• 2 Threshold Ramps.</li> <li>• Field Repair Kit.</li> <li>• Heavy Duty Integral Vinyl Floor System.</li> </ul>

## CRATE DIMENSIONS

Crate Size	2400mm x 700mm x 1100mm (94"x 27.5" x 43")
Estimated Crate Weight (without contents)	79kgs (174lb)
Crates Inside 20'	12 crates (double stacked)
Crates Inside 40'	30 crates (double stacked)
Crates Required for MLH1935	2 crates
Crates Required for MLH1950	3 crates



# The MLH Series Portable Shelters

## PACKAGING WEIGHT AND DIMENSIONS

MLH1935	Bags	Weight	Dimensions
Thermal Insulated Roof	1pc	± 32kg (71lb)	1860mm x 270mm x 680mm (73.2" x 10.6" x 26.7")
Vinyl Roof, Vinyl Floor	2pc	± 40kg (88lb)	1860mm x 270mm x 680mm (73.2" x 10.6" x 26.7")
Window Panels, Wall Panels, Filler Panels	2pc	± 35kg (77lb)	1860mm x 270mm x 680mm (73.2" x 10.6" x 26.7")
Insulated Double Doors, Filler Panels	2pc	± 26kg (57lb)	1920mm x 680mm x 150mm (75.5" x 26.7" x 5.9")
Main Frame	1pc	± 31kg (68lb)	2500mm x 520mm x 520mm (98.4" x 20.4" x 20.4")
Main Frame, Mid-Section Frame	1pc	± 47kg (105lb)	2500mm x 520mm x 520mm (98.4" x 20.4" x 20.4")
Eave and Eaves Bars	1pc	± 36kg (79lb)	2350mm x 180mm x 160mm (92.5" x 7.1" x 6.3")
Weather Caps, Stainless Steel Frame Clips	1pc	± 6kg (13lb)	490mm x 490mm x 400mm (19.3" x 19.3" x 15.7")
Repair Kit	1pc	± 5kg (11lb)	690mm x 220mm x 140mm (27.1" x 8.7" x 5.5")
Threshold Ramp	2pc	± 4kg (9lb)	
<b>TOTAL</b>	<b>14pcs</b>	<b>± 262kg (578lb)</b>	
<b>TOTAL (with crate)</b>		<b>± 420kg (926lb)</b>	
MLH1950	Bags	Weight	Dimensions
Thermal Insulated Roof	1pc	± 42kg (93lb)	1860mm x 270mm x 680mm (73.2" x 10.6" x 26.7")
Vinyl Roof	1pc	± 53kg (116lb)	1860mm x 270mm x 680mm (73.2" x 10.6" x 26.7")
Vinyl Floor	1pc	± 61kg (134lb)	1860mm x 270mm x 680mm (73.2" x 10.6" x 26.7")
Window Panels, Wall Panels, Filler Panels	2pc	± 45kg (100lb)	1860mm x 270mm x 680mm (73.2" x 10.6" x 26.7")
Insulated Double Doors, Filler Panels	2pc	± 26kg (57lb)	1920mm x 680mm x 150mm (75.5" x 26.7" x 5.9")
Main Frame, Mid-Section Frame	2pc	± 44kg (97lb)	2500mm x 520mm x 520mm (98.4" x 20.4" x 20.4")
Middle Main Frame	1pc	± 22.5kg (50lb)	2500mm x 520mm x 520mm (98.4" x 20.4" x 20.4")
Eave and Eaves Bars	2pc	± 25kg (55lb)	2350mm x 180mm x 160mm (92.5" x 7.1" x 6.3")
Weather Caps, Stainless Steel Frame Clips	1pc	± 5.5kg (12lb)	490mm x 490mm x 400mm (19.3" x 19.3" x 15.7")
Repair Kit	1pc	± 5kg (11lb)	690mm x 220mm x 140mm (27.1" x 8.7" x 5.5")
Threshold Ramp	2pc	± 4kg (9lb)	
<b>TOTAL</b>	<b>16pcs</b>	<b>± 333kg (734lb)</b>	
<b>TOTAL (with crate)</b>		<b>± 570kg (1256lb)</b>	

# Contact Us



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