

# "Duro-STOR" modular housing systems

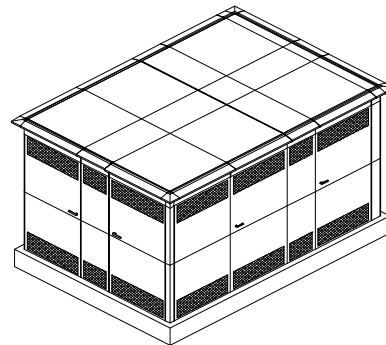
## "Duro-STOR" GRP (SMC) HOT PRESS MOULDED MODULAR HOUSING SYSTEMS



### "Duro-STOR"

- ❑ CANOPIES
- ❑ KIOSKS
- ❑ SHELTERS
- ❑ PLANT ROOMS
- ❑ ENCLOSURES
- ❑ COLD ROOMS
- ❑ SITE OFFICES
- ❑ CABINS

### GRP - Kiosk 3.8m x 2.65m x 2.25m



DEVI POLYMERS PRIVATE LIMITED

An ISO 9000 COMPANY

## INTRODUCTION

**Glass Reinforced Polyester (GRP)** hot press moulded panels manufactured using high capacity hydraulic presses, form the basic unit of **"Duro-STOR" modular housing systems**.

These predrilled panels are easy to assemble at site providing free standing, floor mounted, independent outdoor, and weatherproof modular housing systems.

These panels moulded with high quality GRP sheet moulding compound (SMC) from matched metal steel moulds at 150° C and high pressure, offer excellent strength and high dimensional accuracy ( $\pm 0.5\text{mm}$  over 1m).

Practically any size & shape of modular housing system can be built/assembled to suit requirements and space constraints.

Standard GRP (SMC) panels of sizes 1m x 1m, 1m x 0.5m, 1m x 0.15m and " L " angle of size 1m x 0.075m for joining junctions, are available for assembly of **"Duro-STOR" modular housing systems**.

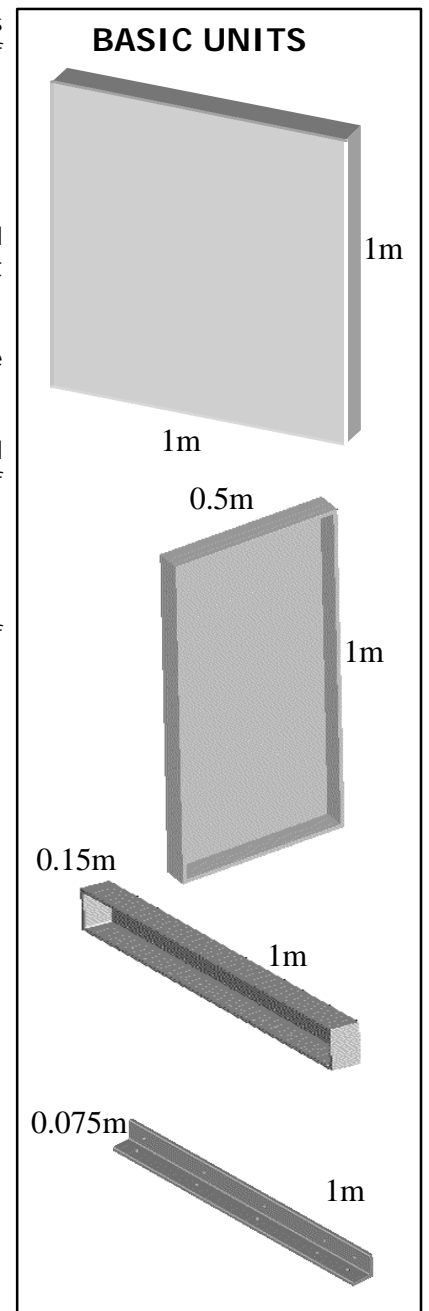
**"Duro-STOR" modular housing system** with pleasing appearance, 'UV' protected, weather proof, Insulated to achieve acoustic and thermal insulation, provide unlimited areas of usage for extensive applications, requiring many years of usage for temporary, permanent and re-locatable housing systems.

## APPLICATIONS

- Pocket substations
- Electrical enclosures & Electronic housings
- Silent canopies for Gensets & air Compressors (dB reduction from +110 to 60)
- Bunk houses/Kiosks
- Canopies
- Quick assembly shelters
- Site offices
- Air condition plant rooms
- Lift shaft motor rooms
- Packaged plant rooms
- Outdoor equipment & Storages
- Rural telephone Exchanges
- Site offices for forward areas, mines and oil fields
- Cold storage applications ( Up to  $-40^{\circ}\text{C}$  )

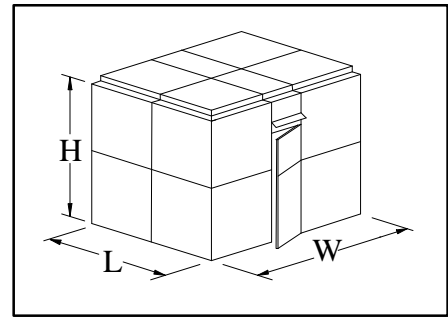
## MODULAR HOUSING SYSTEMS - WHY ?

- Machine Moulded** - Dimensionally accurate, Consistent & Reliable Quality
- Lightweight & easy to assemble** – Requires only few hours to assemble at site. Does not need any special equipment & tackles at site for assembly.
- Re-Locatable**, can be easily shifted to new locations as and when required by dismantling basic units. No cranes required for this purpose.
- Maintenance free** due to use of corrosion resistant, GRP(SMC) materials.
- Extension** of dimensions when need arises
- Tailor made** product to suit custom requirements
- Can be assembled at **any location** and in **any climate**
- Detachable** sides & roof
- 100% leak proof joints** with 75mm wide, 12mm thick flanges, which are bolted with thick special weatherproof gasket in between for water, air and dust ingress protection.
- Available as a custom built **CKD-Kit** as per customer requirements for easy assembly at site, by semi-skilled personnel.



## SIZES AND SELECTION

- WIDTH (W)** = Minimum 1m up to 40m  
(Increments in steps of 0.15m/0.5m/1m)
- LENGTH (L)** = 1m to 3m - without internal steel support  
3m to 10m - with minimum internal steel support
- HEIGHT (H)** = Minimum 1m up to 4m  
(Increments in steps of 0.15m/0.5m/1m)



## STANDARD FEATURES

Provision of location, sizes and number of doors as per customer requirements,

- 6mm or 8mm thick panels with 12mm flange
- Stainless steel hinges and bolts
- Hot dip galvanized steel structure
- UV stabilized light grey colour
- UL-94 V0 fire retardant, with Limiting Oxygen Index +40 and halogen free (Non toxic)
- Free standing with great resistance to heat and impact
- Doors with locking facilities
- Flat Roof

## OPTIONS

Ventilation arrangements such as **Windows, Louvers and Exhaust fans etc.** to customer specifications

- Internal **partitions**
- Glass wool insulation for **noise reduction** applications
- Polyurethane foam (PUF) insulated for **thermal & Cold store applications**
- Variable insulation thickness
- Concrete** foundation or **Steel** skid base
- See through **window** for observation
- Gable roof**
- Lean to roof**

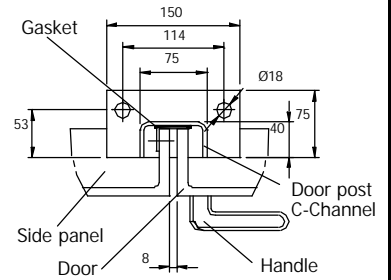
## TECHNICAL DETAILS

S. No.	Description	Specifications	
1.	Ingress protection	As per customer requirement. (Up to IP 55)	
2.	Over all dimensions – External	As per customer requirement. For example 2225mm (H) x 3800mm (W) x 2650mm(D)	
3.	Total Weight of empty system	800 / 900 Kg. Approx. (for above example)	
4.	Thickness of roof panel	6 or 8mm	
5.	Thickness of side wall panel	6 or 8mm	
6.	Thickness of door panel	6 or 8mm	
7.	Continuous thermal resistance	100° C	
8.	Max. Thermal resistance	130° C	
	<b>Panel Properties</b>	<b>Standard</b>	<b>Value</b>
9.	Tensile strength	BS 2782 P3-320 E:1976	750 kg/cm <sup>2</sup>
10.	Bending strength	BS 2782	1400 kg/cm <sup>2</sup>
11.	Impact strength	BS 2782 P3-350:1993	50 kgcm/cm <sup>2</sup>
12.	Water absorption	BS 2782 P4-430 A:1983	0.3% max.
13.	Barcol Hardness	EN 59	50 BHU
14.	Glass content	BS 2782	30%
15.	Flame retardancy	UL- 94	V0
16.	Limiting Oxygen Index	ASTM D 2863	+40%

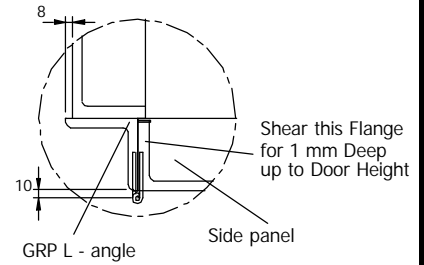
# GENERAL ARRANGEMENT & ASSEMBLY DETAILS



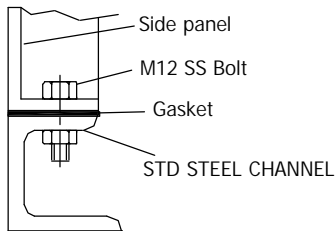
**"Duro-STOR" modular housing system** being assembled at site.



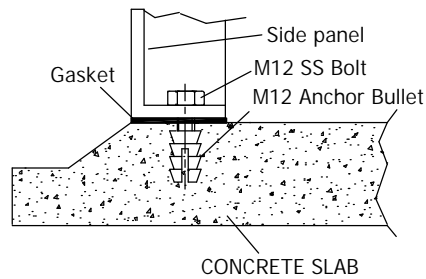
**DOOR SEALING DETAILS**



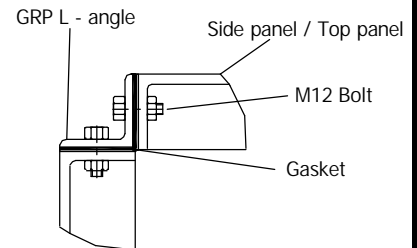
**DOOR HINGE DETAILS**



**MOUNTING ON STEEL SKID BASE**

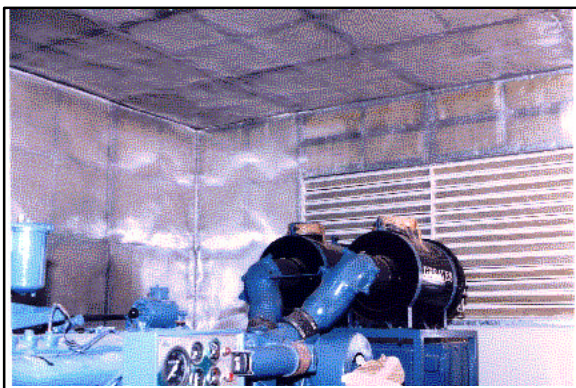


**MOUNTING ON RAISED CONCRETE SLAB**



**CORNER JOINT DETAILS**

As per customers' specifications, requirements complete detailed drawings can be furnished & system supplied as a **CKD** kit.



**Genset housed in a "Duro-STOR" Silent canopy**

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