



GRSE

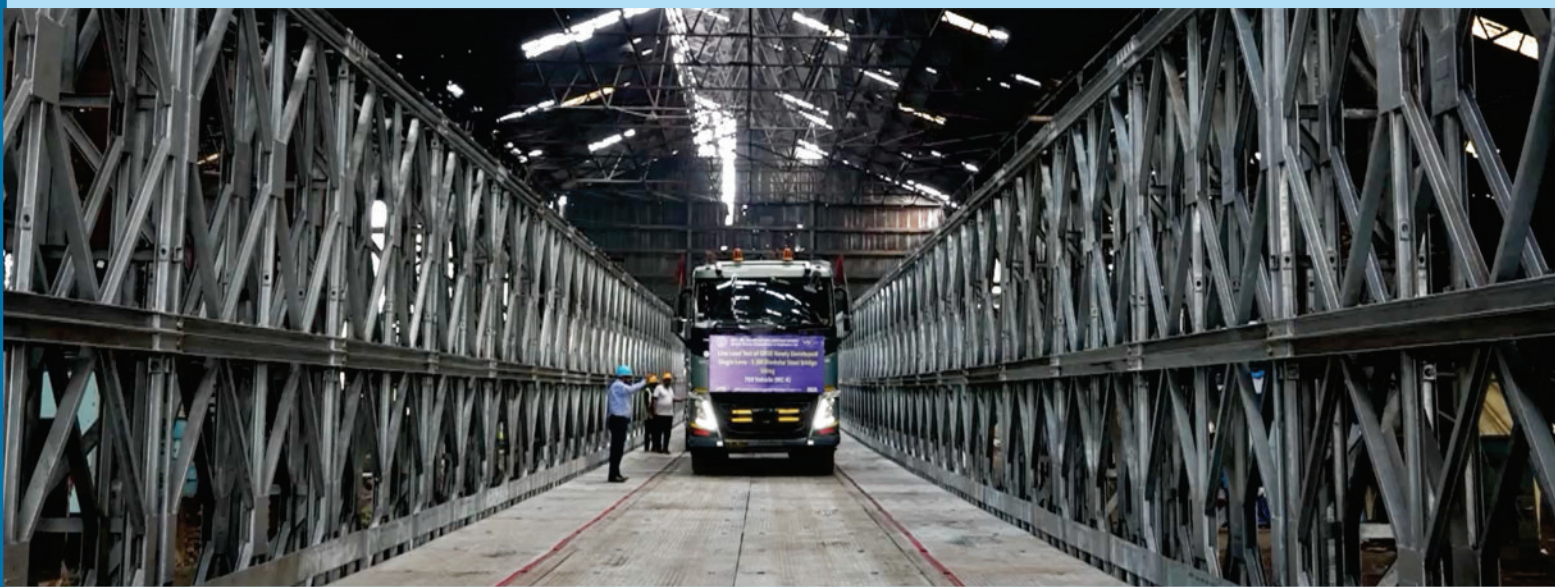
SINGLE LANE MODULAR STEEL BRIDGE

CARRIAGEWAY WIDTH - 5.30 M

BUILDERS OF 100+ WARSHIPS



INFINITE PASSION
MEETS UNWAVERING COMMITMENT



GRSE has embarked / endeavoured in the field of designing and manufacturing Portable Modular Steel Bridges that have the distinct advantages over conventional Bailey Bridges in terms of Load Carrying Capacity, Maximum Single Span and Cost benefit (by way of reducing weight). The design of such Modular Steel bridges has been successfully vetted and validated by SERC-CSIR, Chennai. The ibid bridges cater to both IRC as well as AASHTO Load Classes.

Specification:

MODEL-GBB[®] 9000

SL. NO.	TYPE OF BRIDGE	ROAD WIDTH (M)	MAX SPAN (Ft.)	IRC-6* LOAD CLASS	WEIGHT OF EQUIVALENT WHEELED VEHICLE
1.	Single Lane Modular Bridge (Steel Deck)	5.30	220	30R	38 MT
			210	40R	55 MT
			200	70R	100 MT
2.	Single Lane Modular Bridge (Steel Deck) (With walkway attachment)	5.30	210	30R	38 MT
			200	40R	55 MT
			190	70R	100 MT

Salient Features

- Designed for longer Span & higher Loads using 7 Ft High Panel as against 5 Ft used in earlier design
- Manufactured, designed & developed with heavy axle loading with carriage way width of 5.3 M
- Pre-engineered & Pre-fabricated 10 Ft x 7 Ft Main Girder / Panel Bridge
- Consist of Modular Components that can be quickly connected to form a bridge of the desired length and high load capacity
- Modular design for easy & quick installation and an ideal solution to bridging problems
- Capable of handling various load capacities from 20 MT to 100 MT
- Using special Reinforced Chord for structural support and it's rigidity
- Combination of Strength & Versatility
- Robust construction for permanent application of 45-50 years with high durability and reliability
- Portable which makes it ideal for semi-permanent, permanent applications and emergency situations
- Ideally suited for providing quick access to remote, inaccessible areas and facilitating viable socio-economic development
- Ideal for fast track end time bound projects
- Take care of 2-way hassle free traffic
- Walkway attachment 1.0 m / 1.5 m on both sides on single lane bridges
- Manufactured with 100% Indigenous Material
- Design verified and validated (i.e. live load testing of sample bridge) by CSIR-SERC Chennai



GRSE

SINGLE LANE MODULAR STEEL BRIDGE

CARRIAGEWAY WIDTH - 4.25 M

BUILDERS OF 100+ WARSHIPS



INFINITE PASSION
MEETS UNWAVERING COMMITMENT



GRSE has developed new design Single Lane (4.25 M carriageway width) Modular Steel Bridge which is superior to the conventional Bailey bridge. GRSE is the sole indigenous manufacturer of Modular Steel Bridges (using 7 Feet Panel) in India and has been successful in supply and installation of ibid bridges in remote areas involving difficult terrains

Specification:

MODEL - GBB[®] 7000

SL. NO.	TYPE OF BRIDGE	ROAD WIDTH (m)	MAX SPAN (Ft.)	IRC-6* LOAD CLASS	WEIGHT OF EQUIVALENT WHEELED VEHICLE
1.	Single Lane Modular Bridge (Steel Deck)	4.25	230	30R	38 MT
			230	40R	55 MT
			200	70R	100 MT

Salient Features

- Manufactured and designed & developed with heavy axle loading
- Designed for longer Span & higher Loads using 7 Ft High Panel as against 5 Ft used in earlier design
- Pre-engineered & Pre-fabricated 10 Ft x 7 Ft Main Girder I Panel
- Modular design for easy & quick installation and an ideal solution to bridging problems
- Combination of Strength & Versatility
- Modular design of GRSE bridges are Innovative and unique designs conforming to IRC (India) / AASHTO standards (International).
- Robust construction for permanent application of 45-50 years with high durability and reliability
- Re-usable and Portable which makes it ideal for semi-permanent & permanent applications and emergency situations
- Walkway attachment 1.0 m at both side on single lane bridge Manufactured with 100% indigenous material
- Ideally suited for providing quick access to remote, inaccessible areas & faster socio-economic development
- Bridge launching is simple and quick assembled using a small crew working with Light Mobile crane and standard tools
- Design verified and validated (i.e. Live Load Testing of Sample Bridge) by CSIR-SERC Chennai



GRSE

DOUBLE LANE MODULAR STEEL BRIDGE

CARRIAGEWAY WIDTH - 7.50 M

BUILDERS OF 100+ WARSHIPS



INFINITE PASSION
MEETS UNWAVERING COMMITMENT



GRSE has developed new design Double Lane (7.50 M carriageway width) Modular Steel Bridge. GRSE is the sole indigenous manufacturer of Modular Steel Bridges (using 7 Feet Panel) in India and has been successful in supply and installation of ibid bridges in remote areas involving difficult terrains. This bridge is also first of its kind designed and manufactured indigenously by GRSE.

Specification:

MODEL - GBB® 8000

SL. NO.	TYPE OF BRIDGE	ROAD WIDTH (m)	MAX SPAN (Ft.)	IRC-6* LOAD CLASS	WEIGHT OF EQUIVALENT WHEELED VEHICLE
1.	Double Lane Modular Bridge (Steel Deck)	7.50	140	70R/CL-A	100 MT/ 55.4 MT (DOUBLE)

* Indian Roads Congress: 6

Salient Features

- Takes care of two-way hassle free traffic designed with heavy axle loading as per IRC-6
- Pre-engineered & Pre-fabricated 10 Ft x 7 Ft Main Girder / Panel
- Modular design for easy & quick installation and an ideal solution to bridging problems
- Combination of Strength & Versatility
- Modular design of GRSE bridges are Innovative and unique designs conforming to IRC (India)/AASHTO standards (International) .
- Robust construction for permanent application of 45-50 years with high durability and reliability
- Portable which makes it ideal for permanent applications and emergency situations
- Ideal for fast track and time bound projects
- Manufactured with 100% indigenous material
- Ideally suited for providing quick access to remote, inaccessible areas and facilitating viable socio-economic development
- Bridge launching is simple and quick assembled using a small crew working with Light Mobile crane and standard tools
- Design verified and validated (i.e. Live Load Testing of Sample Bridge) by CSIR-SERC Chennai



GRSE

PORTABLE LIGHT WEIGHT MODULAR ASSAULT BRIDGE

BUILDERS OF 100+ WARSHIPS



INFINITE PASSION
MEETS UNWAVERING COMMITMENT



Salient Features

- TYPE OF APPLICATION / CONSTRUCTION:** Multi-Variants to suit different function / requirement.
- HIGH STRENGTH:** The Bridge is made out of high-strength to weight ratio-Carbon Fiber Reinforced Polymer Composites.
- LIGHT WEIGHT:** Weight of any individual component is less than 24 Kg can be carried on the Back by the soldiers.
- PORTABLE:** Each component is man-portable and full bridge can be manually portable.
- VARIABLE SPAN:** Bridge Span is Min 15 Ft & Max 30 Ft in 5 Ft increment.
- MODULAR CONSTRUCTION:** Panels are Modular, suits deployment in variable spans in 5 Ft increment (i.e. 1.5 m) to form a bridge.
- EASY ASSEMBLY:** Designed on modular concept for easy assembling / dismantling. All connections are made on-site using bolts that can be easily and quickly installed at site manu using small crew of people.
- EASY LAUNCHING:** The Bridge system is capable of being installed by the method of cantilever launching across the gap to be bridges in less than one houallyr, without the need for any temporary intermediate supports.
- SERVICE:** Minimum maintenance for service being carbon fibre material. The environmental resistance to corrosion of the component is primarily due to the excellent corrosion resistance characteristics of the resin.
- VALIDATION:** Certification on Innovative Design & Development of Portable Pedestrian (Assault) Bridge by IIT, Hyderabad.

Specification:

SL.	TYPE OF BRIDGE	SPAN (FT)	TOTAL WEIGHT (KG)	ROAD WIDTH (FT)	IRC-6* CLASS	APPLICATION
01	SINGLE TREADWAY PEDESTRIAN ASSAULT BRIDGE	Min Span - 15 ft Max Span - 30 ft	92 170	2.3	400 kg/sqm	Used for Pedestrian crossings
02	DOUBLE TREADWAY PEDESTRIAN ASSAULT BRIDGE	Min Span - 15 ft Max Span - 30 ft	178 328	4.6	400 kg/sq m	Used for crossing of hassle-free Pedestrian traffic and ATV# Vehicle (Max width 1.2 m; Max 1100 kg)
03	TWO TREADWAY MOTORABLE ASSAULT BRIDGE	Min Span - 15 ft Max Span - 30 ft	196 340	6.9	400 kg/sq m	Used for crossing of ATV# Vehicle (Max width 1.9 m; Max 1100 kg)

*Indian Road Congress: 6, # All-Terrain Vehicle





GRSE

PORTABLE STEEL BRIDGE (BAILEY TYPE)

CARRIAGEWAY WIDTH - 3.32 M / 4.25 M

(Since 1975)

BUILDERS OF 100+ WARSHIPS



INFINITE PASSION
MEETS UNWAVERING COMMITMENT



- Garden Reach Shipbuilders & Engineers Limited (GRSE) is a Premier Govt. Company of India and is the largest manufacturer of Portable Steel Bridges (Bailey type) in India, besides being the leading manufacturer of Warships, Deck Machinery Equipment & Marine Diesel Engines for ships.
- GRSE Portable steel bridge unit was set up in 1975 on the advice of the Defence Ministry and enjoys more than four decades of excellent track record in design, manufacturing, supply and erection of Bailey type Portable Steel Bridges.
- Customer Profile for GRSE Portable Steel Bridges (Bailey type) includes Indian Army, Border Roads Organisation (BRO), National Rural Roads Development Agency (NRRDA), various State PWDs, Hydel projects and other private organisations, besides exporting to foreign countries (Bangladesh, Bhutan, Nepal, Myanmar and Sri Lanka).
- Distinction of achieving a Guinness World record for "bridge at highest altitude (5602m)", erected at Khordung-Lo (Karakoram) in Leh, India.
- The Quality Management System of the unit is certified for ISO 9001: 2015 and is well established in GRSE for design & manufacturing of Bailey type bridges. GRSE has been nominated as supplier to Indian Army, BRO and many state PWDs which speaks about the high quality & performance of GRSE Bailey type bridges.
- Only Shipyard to receive Green Channel Certification by DGQA for supply of Bailey type Portable steel Bridges to Indian Army.

MODEL - GBB

SL. NO.	TYPE OF BRIDGE	ROAD WIDTH (m)	MAX SPAN (Ft.)	IRC-6* LOAD CLASS	WEIGHT OF EQUIVALENT WHEELED
1.	Single Lane Bailey type Bridge (Steel Deck)	3.32 (SW) / 4.25 (EW)	200 / 200	30R	38 MT
			190 / 180	40R	55 MT
			140 / 140	70R	100 MT

* Indian Road Congress : 6

MODEL - GBSB

SL. NO.	TYPE OF BRIDGE	ROAD WIDTH (m)	MAX SPAN (Ft.)	BMLC** LOAD CLASS
1.	Suspension Bridge (Wooden / Steel Deck)	3.277	400	Class 18
			360 ft & below	Class 24

** British Military Load Classification