



FIBERA[®]

Composites Innovation, To Its Excellence

FIBERA COMPOSITES DRAINAGE SOLUTIONS

PRODUCT CATALOGUE

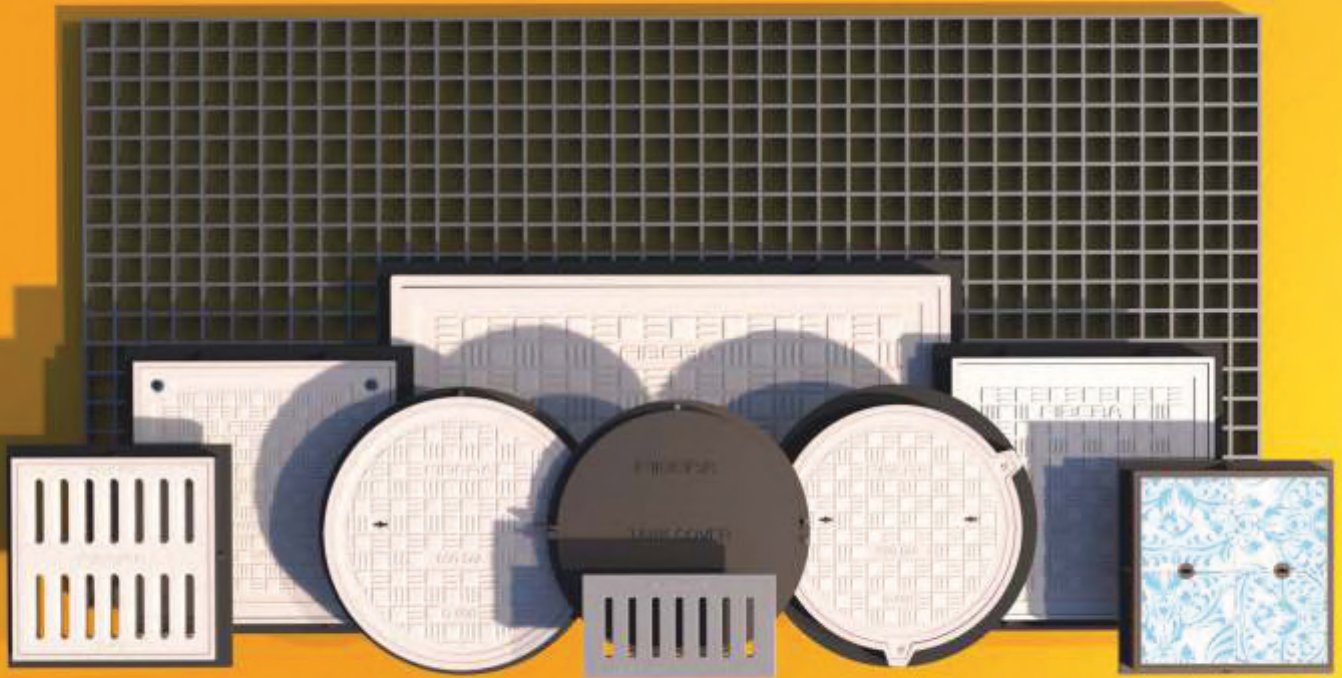


FIBERA

FRP MANHOLE COVERS | TANK COVERS | GULLY COVERS | RECESSED COVERS | MOULDED GRATINGS

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Fibera Composites India Private Limited is a leading manufacturer, supplier of FRP composite products, with the state of art technology and constant Research & Development with back up capacity to meet production requirement in tune for **6000+ sets per month**. We remain at the forefront of manufacturing heavy duty manhole covers and gratings in India. With a focus on continuous improvement we combine our technical expertise, process control, and innovative designs to offer solutions of the highest performance to meet the needs of all stakeholders

Specialized in FRP based drainage solutions, some of our popular products are FRP Manhole, Overhead & underground Gully Covers & Moulded Gratings with expertise in manufacturing **custom made products**.

FRP composite products are based on **next generation technology which is fast replacing the use of traditional materials like Cast Iron, Ductile Iron, Concrete, PVC, Mild Steel** etc. due to its superior properties. Just to mention a few, our products have **superior load taking capacity, zero scrap value, non-corrosive, weather proof, light in weight, lower carbon emission** & can be manufactured in several decorative design, colors & finish. We have adopted this technology to design products that are suitable to both Indian Government Municipal Corporations & International market.

Fibera Composites India Private Limited is an ISO 9001:2015 certified company and our products are approved by various Municipal Corporations, Government and Semi-Govt. institutions.

We have successfully developed FRP Manhole covers with frame & Gully Gratings as per **BS EN 124:2015 Class ranging from A15 to E600**. The directors of this company bring in more than 20+ years of combined experience working with composites & fiber glass technology. Adopting modern technology, continuous product innovations & exceptional services have been the pillars behind our superior quality product. This has helped us in delivering greatest possible value to our customer.

We have well-equipped manufacturing unit with stringent quality control & in house testing infrastructure with a team of trained & dedicated workforce which help us to deliver superior quality product in large quantities within tight deadlines. We follow and adhere all the standard testing code including but not limited to EN 124:2015, IS 1726, BS 9124 & AASHTO.



**Uglier on road
and Dangerous**



THIS
IS
A
COMMON
SIGHT
ON
ROAD
WITH
CONCRETE
OR
METAL
COVERS...



FRP stands for Fiberglass - Reinforced Polymer material that has the strength of steel at the fraction of the weight. FRP won't corrode, rot, warp, attract insects, or rust, making it an ideal and long-lasting replacement for steel, wood and aluminium in a wide range of applications.

FRP is a composite material made up of fiberglass reinforcements and polymer resins. The glass fiber provides the strength and stiffness, and the resin provides shape and protects the fibers.

FRP composite contains:

1. **Fiberglass** like Glass, Aramid, Carbon, Ceramic
2. **Matrix** of Polymer like Orthophthalic, Terephthalic, Isophthalic, Vinyl ester etc.
3. **Additives** like Pigments, Fire inhibitors, UV retardants, Quartz, Initiators, Promoters etc.



FRP materials can be made in various ways. In terms of manufacturing methods, type and number of products manufactured, these are the most versatile materials. They can be moulded, pushed, pulled, profiled, rotated etc. The shape they can form is only limited by imagination.

MATERIAL OF CONTENT (MOC)

FIBERA Manhole Covers and Gully Covers are made of Unsaturated Polyester Resin with fiberglass reinforced.

We majorly use chopped strand mat (CSM) Emulsion type glass fibres. Other Glass Fibres used are Rovings, Woven Rovings, UD Rovings depending upon the product being load taking capacity of the product.

Special UV treated resin is used on the top surface of the cover, frame and grating. Quartz mixed with corundum crystals are used for their hardness and abrasion strength. The core is mixed with glass fibre and polymers.



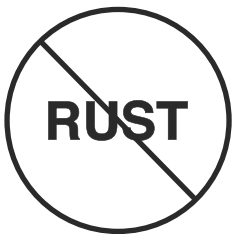


HIGH LOAD RATING AND STRENGTH:

- Similar hardness in property as cast iron, but major advantages on stretch recovery and bend resistance
- Designed to meet and exceed load ratings from 2.5 MT-60 MT as per BS EN124.
- Less noise and lower vibration transmission.

LIGHTWEIGHT AND EASY INSTALLATION

- Lightweight without compromising strength.
- Compared with cast iron cover, FIBERA FRP covers are 30% lighter.
- Lightweight makes it easy to handle, easy installation and economical.

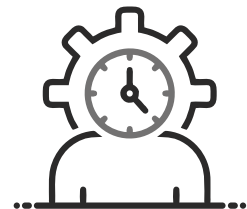


WEATHER PROOF

- FIBERA FRP products does not corrode, does not rust or wear down.
- No effect of UV sunlight, rain or snow.
- Super high temperature tolerance within the range of -200°C to +100°C.
- Does not conduct electricity, Zero thermal conductivity yet radio transparent.

DURABLE SERVICE LIFE

- Abrasion resistant quartz surface - Anti-skid, Long life.
- More than 30 years theoretical service life in lab condition.
- 25% Safety factor while classifying load capacity - Hence Longer life.



AGAINST THEFT AND SAFETY OPTIONS

- Comparing with cast iron cover, FIBERA FRP cover has zero theft value, Which reduces the potential accident and further maintenance cost.
- Surface anti-slip pattern guarantees safe road condition in all weather.
- Zero electricity conduction and zero heat conduction.

CARBON FOOTPRINT SAVING

- Lower embedded energy carbon emission during manufacturing process than cast iron covers.
- New material, manufacturing technology and lean production ideas save carbon footprint.



FIBERA FRP COVERS

CAST / DUCTILE IRON COVERS



LIGHTWEIGHT

Easy to Handle, Cheaper Transport.



Metal = **MORE WEIGHT** Compared to FRP Covers
Higher Freight & Handling Cost.



Zero Scrap Value = **ZERO THEFT**

Higher Safety Values



Metal = High Risk of **THEFT**
Potential Accidents & High Replacement Cost



ZERO RUST = More Life

Chemical Resistant, Corrosion Resistant



Metal = **RUST**

Prone to Chemical Reaction, Corrosion



Zero Thermal Conductivity

No Contraction, No Expansion = **NO HEATING ISSUE**



Metal = High Thermal Conductivity

High Value of Contraction & Expansion, **HEATING ISSUE**



ZERO ELECTRICAL Conductivity

Higher Safety Values



Easy **ELECTRICAL CONDUCTIVITY**

Risk Underground Wiring Installation



WEATHER PROOF

NO effect of Sea Water, Sewer Water, UV Sunlight, Rain, Snow, Heat, Generic, Chemicals etc



High **WEATHER EFFECT**

Prone to Sea water, Sewer Water, Heat, Generic Chemicals, Rust etc



ZERO COLOR FADING, ALL COLOR OPTIONS

Self Pigmented Products, No Need to Paint Ever



NO COLOR OPTION

Painting Required at Regular Intervals, Low Aesthetic

FIBERA FRP COVERS

RCC / SFRC / CONCRETE COVERS



LIGHTWEIGHT

Easy to Handle, Cheaper Transport.



HEAVY WEIGHT Compared to FRP Covers

Very High Freight & Handling Cost



High **STRENGTH** to Weight Ratio

Durable, Long Lasting, Easy Maintenance



LOW STRENGTH to Weight Ratio

Maintenance Headache



ZERO RUST = More Life

Chemical Resistant, Corrosion Resistant



Metal Rebars = **RUST**

Prone to Corrosion, Seepage, Damages



High **ABRASION RESISTANT**

Quartz Top Layer Prevents Abrasion



Low = **ABRASION RESISTANT**

Surface Damage Due to Rain Water & Vehicles



ZERO ENVIRONMENTAL DEGRADATION

Long Life, Resistant to Generic Chemicals



HIGH ENVIRONMENTAL DEGRADATION

Short Life, Chemical & Sewage Water Prone

FIBERA FRP COVERS

RCC / SFRC / PLASTIC COVERS



HAND LAY-UP & VACCUM INFUSION PROCESS

Heavy Load Capacity upto 90 MT



SMC / DMC / BMC / **MACHINE MOULD** Process

Light Duty, Cover Load Failure Around 2 MT



LONG LIFE

Higher Grade of Resin e.g. Ortho, ISO etc



SHORT LIFE

Lower Grade of Resin e.g. PET, General Purpose etc



ZERO FILLERS

High Quality, Durable, More Hardness



50% FILLERS

Power Mix Resin, B Grade Materials, Easily Breakable



ZERO METAL REINFORCEMENT

Corrosion Resistant, Radio Transparent



METAL REINFORCEMENT

Prone to Corrosion, Radio Interference



HIGH MANUFACTURING COST

Quality Product, Individual Quality Check



LOW MANUFACTURING COST

Mass Production, Non-Existent QC, Unskilled Labour



WEATHER PROOF

No effect of Sea Water, Sewer Water, UV Sunlight, Rain, Snow, Heat, Generic Chemicals etc

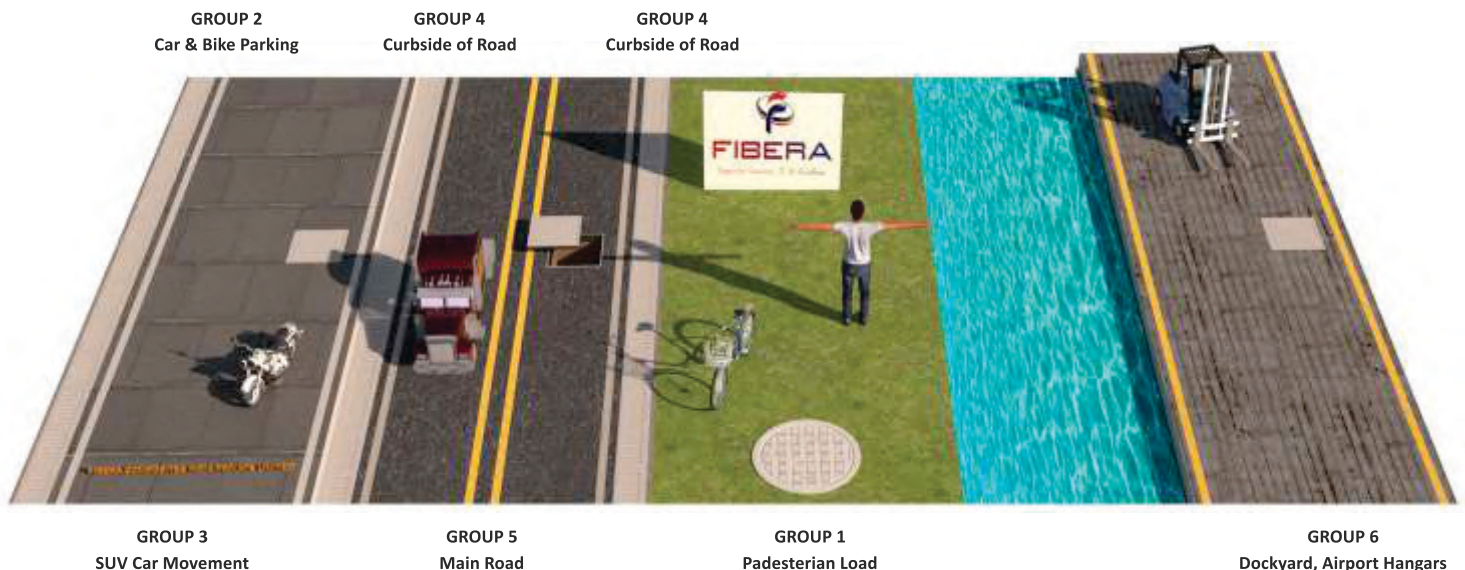


More **WEATHER EFFECT**

Prone to UV Sun Light, Sea water, Sewer Water, Heat, Generic Chemical, Rust etc

ELD 1 GROUP		2.5 MT EXTRA LIGHT DUTY Suitable for bycycle & padesterian load. Takes point load upto 2500 Kg. Application: Cycle Path, Footpath, Garden, Indoor Location etc.
LD 2 GROUP		5 MT LIGHT DUTY Suitable for motorcycle & 3-wheel load. Takes point load upto 5000 Kg. Application: Curb side of car parking, Motorcycle & 3-wheeler parking etc.
B125 3 GROUP		B 125 MEDIUM DUTY Suitable for SUV car movement. Takes point load upto 12.5 Metric Ton. Application: Car only road, Basement parking, Service lane etc.
C250 4 GROUP		C 250 HEAVY DUTY Suitable for curbside of main road. Takes point load upto 25 MT. Application: Curbside of main road, School bus, Ambulance etc.
D400 5 GROUP		D 400 EXTRA HEAVY DUTY Suitable for main traffic road. Takes point load upto 40 MT. Application: Fire tender movement, Heavy vehicle movement etc.
E600 6 GROUP		E 600 SUPER HEAVY DUTY Suitable for industrial road. FIBERA cover takes point load upto 60 MT. Application: Dockyard lane, Airport hangar, Industrial vehicle movement etc

LOAD CLASSIFICATIONS





FEATURES

- All standard circular sizes from Ø530 mm upto Ø900 mm.
- Load capacity from 2.5 MT upto 60 MT according to EN124:2015.
- FIBERA round manhole cover will never fall inside its hole.
- Quartz based granite finish surface in light grey color on both cover and frame improves abrasion resistance.
- FIBERA unique surface anti-slip pattern which aids in road safety in all weather condition.
- Rust proof, Weather proof. No effect of UV sunlight, rain, snow.
- Lightweight manhole covers compared to SFRC/Steel.
- Zero electricity conduction, Zero heat conduction.
- Lower carbon footprint compared to metal based manhole covers.



SIZE TABLE



S. NO.	CLEAR OPENING SIZE		LOAD CAPACITY ITEM CODE					
	In mm	In inches	2.5 MT Extra Light Duty	5 MT Light Duty	12.5 MT B125 Medium Duty	25 MT C250 Heavy Duty	40 MT D400 Extra Heavy Duty	60 MT E600 Super Heavy Duty
1	Ø 590	Ø 21"	CMHCF530ELD	CMHCF530LD	CMHCF530B125	CMHCF530C250	CMHCF530D400	CMHCF530E600
2	Ø 600	Ø 24"	CMHCF600ELD	CMHCF600LD	CMHCF600B125	CMHCF600C250	CMHCF600D400	CMHCF600E600
3	Ø 710	Ø 28"	CMHCF710ELD	CMHCF710LD	CMHCF710B125	CMHCF710C250	CMHCF710D400	CMHCF710E600
4	Ø 900	Ø 36"	CMHCF900ELD	CMHCF900LD	CMHCF900B125	CMHCF900C250	CMHCF900D400	-



FEATURES

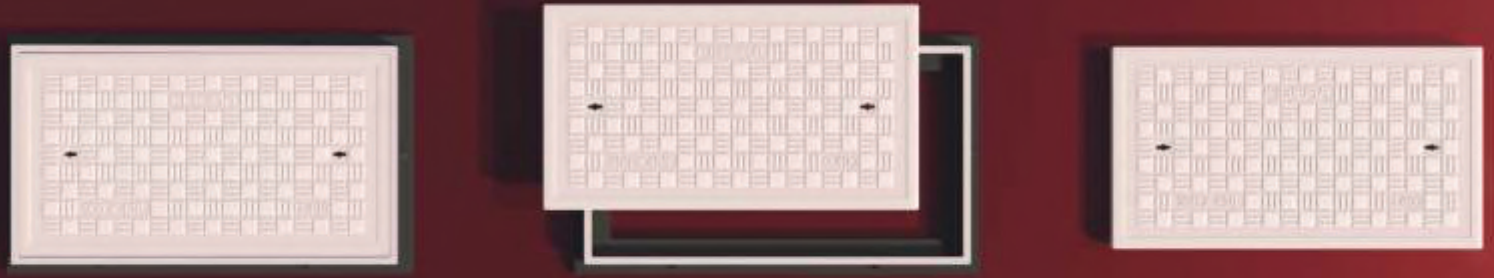
- All standard circular sizes from 300x300 mm upto 1200x1200 mm
- Load capacity from 2.5 MT upto 60 MT according to EN124:2015.
- Quartz based granite finish surface in light grey color on both cover and frame improves abrasion resistance.
- FIBERA unique surface anti-slip pattern which aids in road safety in all weather condition.
- Rust proof, Weather proof. No effect of UV sunlight, rain, snow.
- Lightweight manhole covers compared to SFRC/Steel.
- Zero electricity conduction, Zero heat conduction.
- Lower carbon footprint compared to metal based manhole covers.



SIZE TABLE

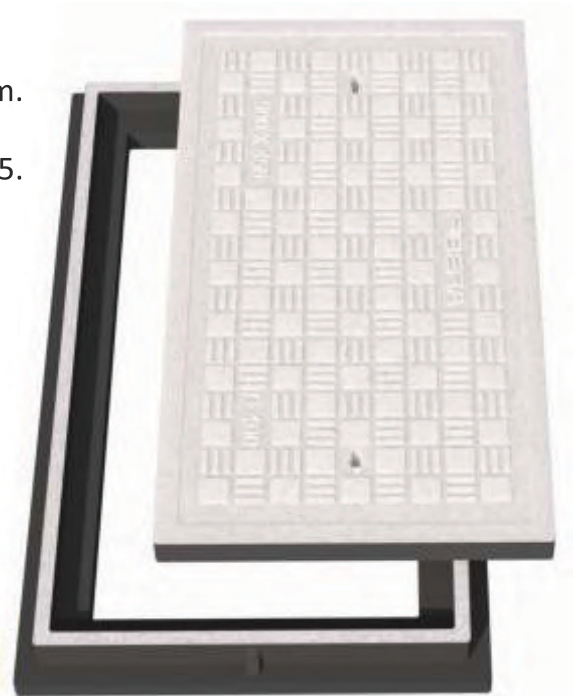


S. NO.	CLEAR OPENING SIZE		LOAD CAPACITY ITEM CODE					
	In mm	In inches	2.5 MT Extra Light Duty	5 MT Light Duty	12.5 MT B125 Medium Duty	25 MT C250 Heavy Duty	40 MT D400 Extra Heavy Duty	60 MT E600 Super Heavy Duty
1	300 x 300	12" x 12"	SMHCF12X12ELD	SMHCF12X12LD	SMHCF12X12B125	SMHCF12X12C250	SMHCF12X12D400	SMHCF12X12E600
2	450 x 450	18" x 18"	SMHCF18X18ELD	SMHCF18X18LD	SMHCF18X18B125	SMHCF18X18C250	SMHCF18X18D400	SMHCF18X18E600
3	600 x 600	24" x 24"	SMHCF24X24ELD	SMHCF24X24LD	SMHCF24X24B125	SMHCF24X24C250	SMHCF24X24D400	SMHCF24X24E600
4	750 x 750	30" x 30"	SMHCF30X30ELD	SMHCF30X30LD	SMHCF30X30B125	SMHCF30X30C250	SMHCF30X30D400	SMHCF30X30E600
5	900 x 900	36" x 36"	SMHCF36X36ELD	SMHCF36X36LD	SMHCF36X36B125	SMHCF36X36C250	SMHCF36X36D400	-
6	1000 x 1000	40" x 40"	SMHCF40X40ELD	SMHCF40X40LD	SMHCF40X40B125	SMHCF40X40C250	SMHCF40X40D400	-
7	1200 x 1200	48" x 48"	SMHCF48X48ELD	SMHCF48X48LD	SMHCF48X48B125	SMHCF48X48C250	SMHCF48X48D400	-



FEATURES

- All standard circular sizes from 600x450 mm upto 1200x900 mm.
- Load capacity from 2.5 MT upto 60 MT according to EN124:2015.
- Quartz based granite finish surface in light grey color on both cover and frame improves abrasion resistance.
- FIBERA unique surface anti-slip pattern which aids in road safety in all weather condition.
- Rust proof, Weather proof. No effect of UV sunlight, rain, snow.
- Lightweight manhole covers compared to SFRC/Steel.
- Zero electricity conduction, Zero heat conduction.
- Zero theft value hence less potential accident and low replacement cost.
- Lower carbon footprint compared to metal based manhole covers.



SIZE TABLE



S. NO.	CLEAR OPENING SIZE		LOAD CAPACITY ITEM CODE					
	In mm (Length x Width)	In inches	2.5 MT Extra Light Duty	5 MT Light Duty	12.5 MT B125 Medium Duty	25 MT C250 Heavy Duty	40 MT D400 Extra Heavy Duty	60 MT E600 Super Heavy Duty
1	600 x 450	24" x 18"	RMHCF24X18ELD	RMHCF24X18LD	RMHCF24X18B125	RMHCF24X18C250	RMHCF24X18D400	RMHCF24X18E600
2	900 x 450	36" x 18"	RMHCF36X18ELD	RMHCF36X18LD	RMHCF36X18B125	RMHCF36X18C250	RMHCF36X18D400	RMHCF36X18E600
3	900 x 600	36" x 24"	RMHCF36X24ELD	RMHCF36X24LD	RMHCF36X24B125	RMHCF36X24C250	RMHCF36X24D400	RMHCF36X24E600
4	1200 x 600	48" x 24"	RMHCF48X24ELD	RMHCF48X24LD	RMHCF48X24B125	RMHCF48X24C250	RMHCF48X24D400	-
5	1200 x 900	48" x 36"	RMHCF48X36ELD	RMHCF48X36LD	RMHCF48X36B125	RMHCF48X36C250	RMHCF48X36D400	-



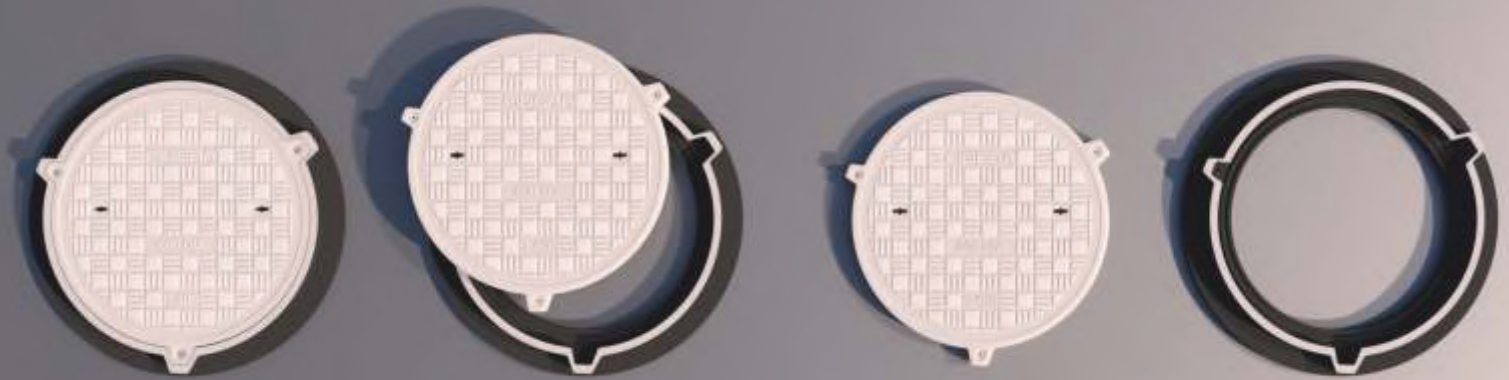
FEATURES

- All standard square & rectangular sizes.
- Load capacity from 2.5 MT upto 40 MT
- Paver Block, Tiles, Stones, Marbles, can be installed.
- Rust proof, Weather proof. No effect of UV sunlight, rain, snow.
- Lightweight manhole covers compared to SFRC/Steel.
- Zero electricity conduction, Zero heat conduction.
- Zero theft value hence low replacement cost.



SIZE TABLE

S. NO.	CLEAR OPENING SIZE		LOAD CAPACITY ITEM CODE				
	In mm	In inches	2.5 MT Extra Light Duty	5 MT Light Duty	12.5 MT B125 Medium Duty	25 MT C250 Heavy Duty	40 MT D400 Extra Heavy Duty
SQUARE							
1	300 x 300	12" x 12"	RCF12X12ELD	RCF12X12LD	RCF12X12B125	RCF12X12C250	RCF12X12D400
2	450 x 450	18" x 18"	RCF18X18ELD	RCF18X18LD	RCF18X18B125	RCF18X18C250	RCF18X18D400
3	600 x 600	24" x 24"	RCF24X24ELD	RCF24X24LD	RCF24X24B125	RCF24X24C250	RCF24X24D400
RECTANGULAR							
1	900x450	36"x18"	RCF36X18ELD	RCF36X18LD	RCF36X18B125	RCF36X18C250	RCF36X18D400
2	900x600	36"x24"	RCF36X24ELD	RCF36X24LD	RCF36X24B125	RCF36X24C250	RCF36X24D400



FEATURES

- All standard circular sizes upto Ø 600 mm.
- Load capacity from 2.5 MT upto 60 MT
- FIBERA Tank cover with double seal rubber gasket and nut-bolt locking arrangement to make water-tight covers.
- Quartz based granite finish surface in light grey color on both cover and frame improves abrasion resistance.
- FIBERA unique surface anti-slip pattern which aids in road safety in all weather condition.
- Rust proof, Weather proof. No effect of UV sunlight
- Zero electricity conduction, Zero heat conduction.
- Lower carbon footprint compared to metal based manhole covers.



SIZE TABLE

S. NO.	CLEAR OPENING SIZE		LOAD CAPACITY ITEM CODE					
	In mm	In inches	2.5 MT Extra Light Duty	5 MT Light Duty	12.5 MT B125 Medium Duty	25 MT C250 Heavy Duty	40 MT D400 Extra Heavy Duty	60 MT E600 Super Heavy Duty
1	Ø 530	Ø 21"	CUGTC530ELD	CUGTC530LD	CUGTC530B125	CUGTC530C250	CUGTC530D400	CUGTC530E600
2	Ø 600	Ø 24"	CUGTC600ELD	CUGTC600LD	CUGTC600B125	CUGTC600C250	CUGTC600D400	CUGTC600E600



FEATURES

- All standard sizes UG tank cover available.
- Load capacity from 2.5 MT upto 60 MT
- FIBERA Tank cover with double seal rubber sasket and nut-bolt locking arrangement to make water-tight covers.
- Quartz based granite finish surface in light grey color on both cover and frame improves abrasion resistance.
- FIBERA unique surface anti-slip pattern which aids in road safety in all weather condition.
- Rust proof, Weather proof. No effect of UV sunlight.



SIZE TABLE

S. NO.	CLEAR OPENING SIZE		LOAD CAPACITY ITEM CODE					
	In mm	In inches	2.5 MT Extra Light Duty	5 MT Light Duty	12.5 MT B125 Medium Duty	25 MT C250 Heavy Duty	40 MT D400 Extra Heavy Duty	60 MT E600 Super Heavy Duty
SQUARE								
1	300x300	12" x 12"	SUGTC12X12ELD	SUGTC12X12LD	SUGTC12X12B125	SUGTC12X12C250	SUGTC12X12D400	SUGTC12X12E600
2	450x450	18" x 18"	SUGTC18X18ELD	SUGTC18X18LD	SUGTC18X18B125	SUGTC18X18C250	SUGTC18X18D400	SUGTC18X18E600
3	600x600	24" x 24"	SUGTC24X24ELD	SUGTC24X24LD	SUGTC24X24B125	SUGTC24X24C250	SUGTC24X24D400	SUGTC24X24E600
4	750x750	30" x 30"	SUGTC30X30ELD	SUGTC30X30LD	SUGTC30X30B125	SUGTC30X30C250	SUGTC30X30D400	-
5	900x900	36" x 36"	SUGTC36X36ELD	SUGTC36X36LD	SUGTC36X36B125	SUGTC36X36C250	SUGTC36X36D400	-
RECTANGULAR								
1	600x450	24" x 18"	RUGTC24X18ELD	RUGTC24X18LD	RUGTC24X18B125	RUGTC24X18C250	RUGTC24X18D400	RUGTC24X18E600
2	900x450	36" x 18"	RUGTC36X18ELD	RUGTC36X18LD	RUGTC36X18B125	RUGTC36X18C250	RUGTC36X18D400	RUGTC36X18E600
3	900x600	36" x 24"	RUGTC36X24ELD	RUGTC36X24LD	RUGTC36X24B125	RUGTC36X24C250	RUGTC36X24D400	RUGTC36X24E600



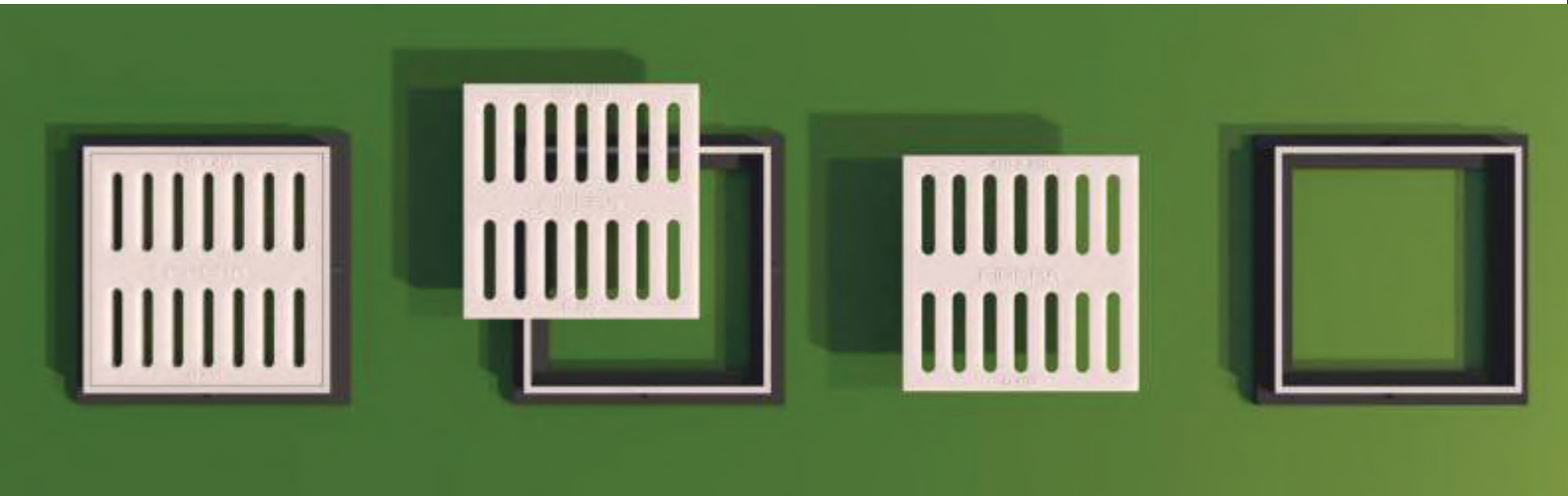
FEATURES

- All standard circular sizes upto Ø 600 mm and square 600x600mm
- Load capacity 500 Kg, Suitable for overhead tanks.
- FIBERA Overhead tank cover with negative mould and locking arrangement to make water-tight covers.
- Rust proof, Weather proof. No effect of UV sunlight
- Zero electricity conduction.
- Zero heat conduction, no heating issue.
- Lower carbon footprint compared to metal based manhole covers.
- Light in weight, Easy to access & maintenance.



SIZE TABLE

S. NO.	CLEAR OPENING SIZE		LOAD CAPACITY ITEM CODE
	In mm	In inches	500 Kg Pedestrian Load Only
1	Ø 600	Ø 24"	OHTC600DIAELD
2	600x600	24"x24"	OHTC600X600ELD



FEATURES

- All standard sizes from 300x300 mm upto 900x900 mm.
- Load capacity from 2.5 MT upto 60 MT according to EN124:2015.
- Quartz based granite finish surface in light grey color on both cover and frame improves abrasion resistance.
- FIBERA Water gully covers contain multiple slots which helps in water flow in case of rain or flood.
- Rust proof, Weather proof. No effect of UV sunlight, rain, snow.
- Lightweight gully covers compared to SFRC/Steel.
- Zero electricity conduction, Zero heat conduction.



SIZE TABLE

S. NO.	CLEAR OPENING SIZE		LOAD CAPACITY ITEM CODE					
	In mm	In inches	2.5 MT Extra Light Duty	5 MT Light Duty	12.5 MT B125 Medium Duty	25 MT C250 Heavy Duty	40 MT D400 Extra Heavy Duty	60 MT E600 Super Heavy Duty
SQUARE								
1	300x300	12" x 12"	WGCF12X12ELD	WGCF12X12LD	WGCF12X12B125	WGCF12X12C250	WGCF12X12D400	WGCF12X12E600
2	450x450	18" x 18"	WGCF18X18ELD	WGCF18X18LD	WGCF18X18B125	WGCF18X18C250	WGCF18X18D400	WGCF18X18E600
3	600x600	24" x 24"	WGCF24X24ELD	WGCF24X24LD	WGCF24X24B125	WGCF24X24C250	WGCF24X24D400	-
4	900x900	36" x 36"	WGCF36X36ELD	WGCF36X36LD	WGCF36X36B125	WGCF36X36C250	WGCF36X36D400	-
RECTANGULAR								
1	500x600	20" x 24"	WGCF20X24ELD	WGCF20X24LD	WGCF20X24B125	WGCF20X24C250	WGCF20X24D400	-
2	900x450	36" x 18"	WGCF36X18ELD	WGCF36X18LD	WGCF36X18B125	WGCF36X18C250	WGCF36X18D400	-
3	900x600	36" x 24"	WGCF36X24ELD	WGCF36X24LD	WGCF36X24B125	WGCF36X24C250	WGCF36X24D400	-



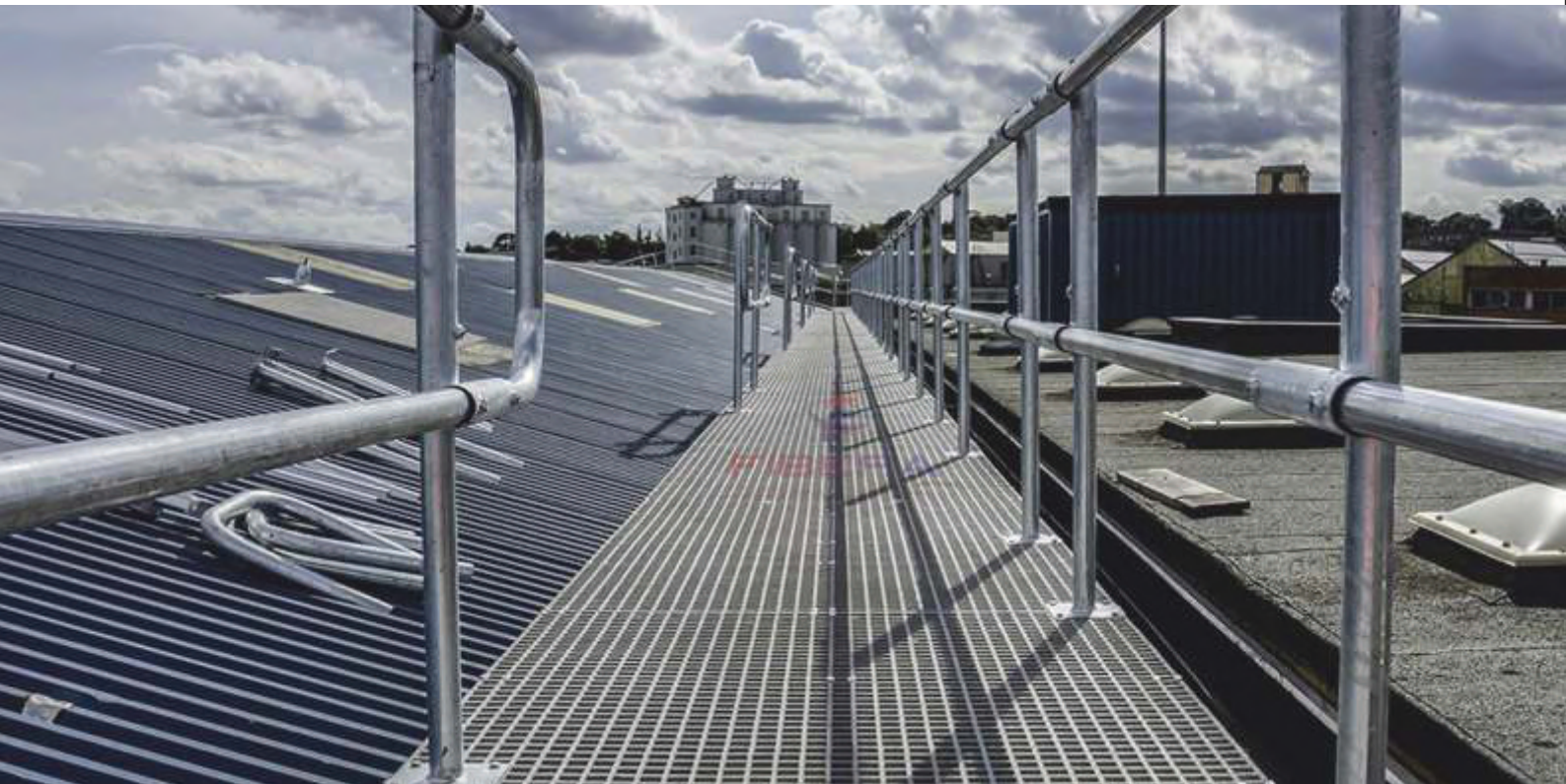
FEATURES

- All standard square sizes from 300x300 mm upto 1200x1200 mm.
- Load capacity from 2.5 MT upto 60 MT according to EN124:2015.
- Quartz based granite finish surface in light grey color on both cover and frame improves abrasion resistance.
- FIBERA gully gratings contain multiple slots which helps in water flow in case of rain or flood.
- Rust proof, Weather proof. No effect of UV sunlight, rain, snow.
- FIBERA gully gratings can be installed on a continuous channel drain.
- Zero electricity conduction, Zero heat conduction.
- Lower carbon footprint compared to metal based gully gratings.



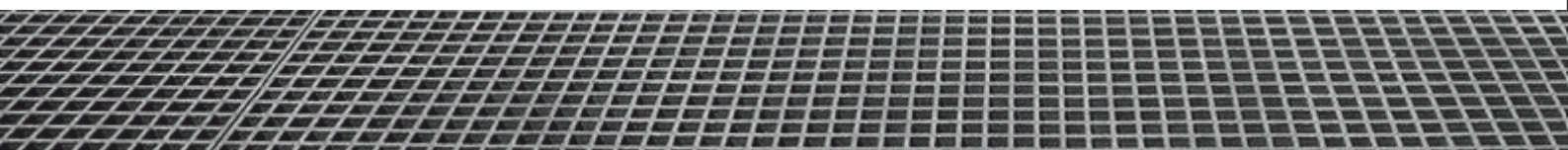
SIZE TABLE

S. NO.	COVER OUT TO OUT SIZE		LOAD CAPACITY ITEM CODE					
	In mm	In inches	2.5 MT Extra Light Duty	5 MT Light Duty	12.5 MT B125 Medium Duty	25 MT C250 Heavy Duty	40 MT D400 Extra Heavy Duty	60 MT E600 Super Heavy Duty
SQUARE								
1	300x700	12" x 27.5"	WGC300X700ELD	WGC300X700LD	WGC300X700B125	WGC300X700C250	WGC300X700D400	WGC300X700E600
2	380x700	15" x 27.5"	WGC380X700ELD	WGC380X700LD	WGC380X700B125	WGC380X700C250	WGC380X700D400	WGC380X700E600
3	424x1000	17" x 39"	WGC424X1000ELD	WGC424X1000LD	WGC424X1000B125	WGC424X1000C250	WGC424X1000D400	-
4	990x680	27" x 26.7"	WGC690X680ELD	WGC690X680LD	WGC690X680B125	WGC690X680C250	WGC690X680D400	-



FIBERA COMPOSITES FRP Moulded gratings are available in multiple panel size and various colours. FIBERA gratings are used in various application e.g. Trench covers, Walkways, Fencing, Maintenance duct covers, Platform. Storm drain application etc.

Technical Data Sheet					
Rib Thickness			5 to 7 mm		
Height			25, 30, 38, 40 mm		
Pitch			38 x 38 mm		
Panel Size			1220 x 3660 mm		
MOC			Glass Fibre E-glass, Polymers		
Length	Width	Height	Pitch	Weight	Panel Weight
1220 mm	3660 mm	25 mm	38 x 38 mm	12.5 kg/m ²	55.81 kg/m ²
1220 mm	3660 mm	30 mm	38 x 38 mm	14.5 kg/m ²	64.74 kg/m ²
1220 mm	3660 mm	38 mm	38 x 38 mm	18.5 kg/m ²	82.60 kg/m ²
Tolerance		Length	Width	Height	Weight
		+1/-4 mm	+1/-4 mm	+2/-2 mm	+10/-10%
Content	Resin			Approx. 68%	
	Glass Fibre			Approx 32%	
Further Indications:					
FRP Gratings are UV resistant.					
Fire Classification B2 (normal ignition acc. to DIN4102 part 1)					
The FRP Gratings have a resistance of conductive discharge of 1.098 x 10 ^{-17m/ohm x mm2}					
Gratings can also be provided with anti-skid surface.					

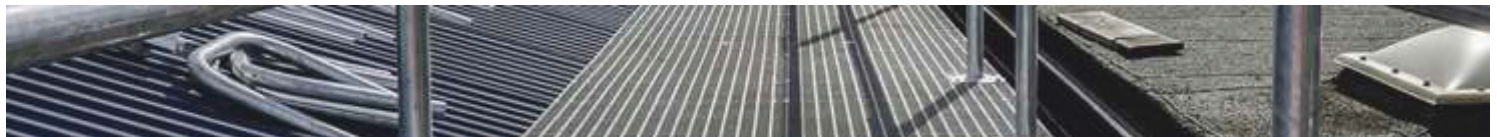


SIZE TABLE

Width		Length							
Holes	Width	Holes	Length	Holes	Length	Holes	Length	Holes	Length
1	43	1	44	33	1261	65	2480		
2	82	2	82	34	1299	66	2518		
3	120	3	120	35	1337	67	2557		
4	157	4	158	36	1376	68	2594		
5	196	5	196	37	1414	69	2632		
6	233	6	234	38	1452	70	2670		
7	272	7	272	39	1490	71	2709		
8	310	8	310	40	1528	72	2747		
9	347	9	348	41	1566	73	2784		
10	386	10	386	42	1604	74	2823		
11	424	11	424	43	1642	75	2860		
12	462	12	462	44	1680	76	2898		
13	500	13	500	45	1718	77	2936		
14	538	14	538	46	1756	78	2974		
15	576	15	576	47	1795	79	3012		
16	614	16	615	48	1833	80	3050		
17	652	17	653	49	1870	81	3088		
18	690	18	690	50	1909	82	3127		
19	728	19	729	51	1947	83	3165		
20	767	20	767	52	1984	84	3202		
21	804	21	805	53	2023	85	3240		
22	842	22	843	54	2061	86	3279		
23	880	23	881	55	2099	87	3316		
24	918	24	919	56	2137	88	3355		
25	956	25	957	57	2175	89	3398		
26	994	26	995	58	2213	90	3430		
27	1032	27	1033	59	2251	91	3469		
28	1070	28	1071	60	2289	92	3507		
29	1108	29	1109	61	2328	93	3545		
30	1146	30	1147	62	2365	94	3583		
31	1184	31	1185	63	2404	95	3622		
32	1221	32	1223	64	2442	96	3660		

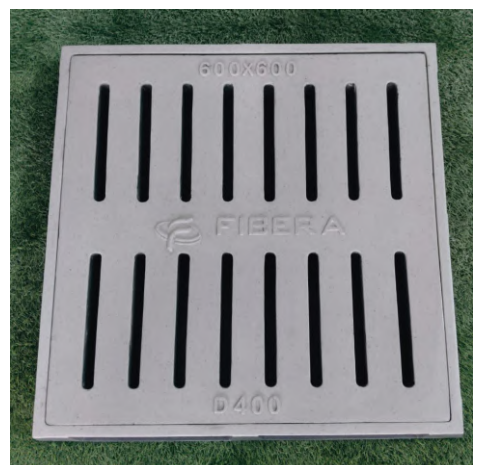
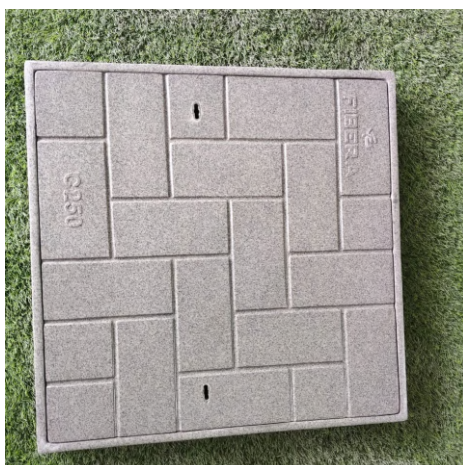
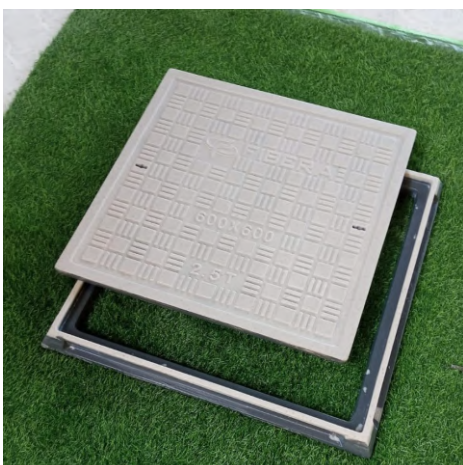
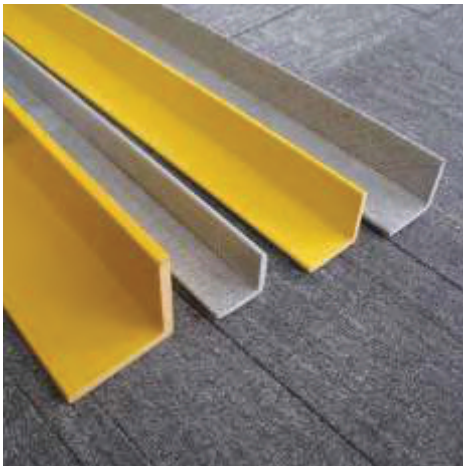


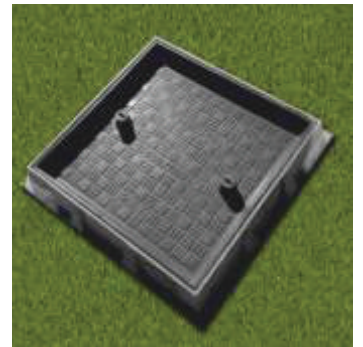
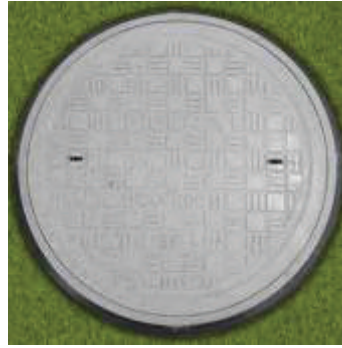
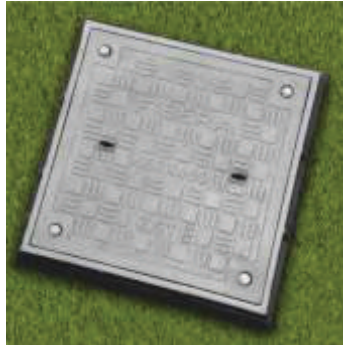
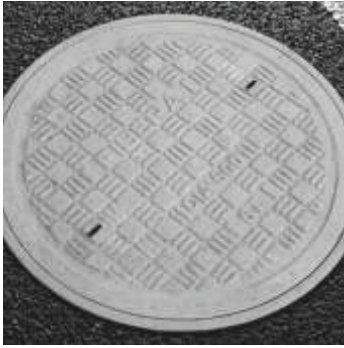
Largest available grating size is 1221 mm x 3660 mm



Point Load Capacity of FIBERA FRP Moulded Gratings

30 mm Height	Load Capacity		30 mm Height	Load Capacity
Clear Span (Out to Out Size)	Description		Clear Span (Out to Out Size)	Description
310 x 1221 mm	4 = Wheel Light Movement		310 x 1221 mm	4 - Wheeler Heavy Movement
386 x 1221 mm	2 - Wheeler Movement		386 x 1221 mm	2 - Wheeler Movement
424 x 1221 mm	Padestrian Movement		424 x 1221 mm	Padestrian Movement





General Precaution when using FIBERA FRP Covers and Gratings

- Ensure that you are using the right load capacity cover and frame based on vehicle/pedestrian movement. Please follow our load selection guide on page no. 7.
- Do not drop or throw FIBERA cover or frame while placing it on the floor.
- Avoid Impact of sharp and/or heavy objects on the cover and frame.
- Do not bump objects on or near the manhole cover, grating and frame.
- Use only Supplied covers with appropriate FIBERA FRP frames.
- Use only FIBERA lifting key supplied with the FRP cover/grating to lift it.
- Occasionally remove the cover from the frame and clean the rim of the frame of any dirt/dust/pebbles
- Do not leave the frame open without placing a cover or grating.



Installation



[A] Prepare the concrete bed after considering height of Fibera FRP frame.

[B] The Fibera FRP frame should be completely embedded in a minimum of M-20 grade concrete.



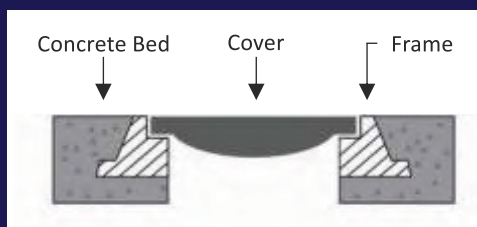
[C] Ensure that the manhole clear opening is equal or less than the opening of Fibera FRP frame. Frame resting should not be hanging without ground support.

[D] Frame should be leveled using a spirit leveler and confirming that the air bubble in leveler remains exactly at the centre. (Zero-Zero Level)

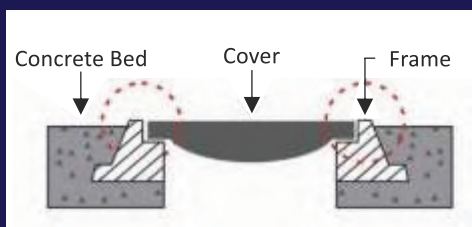


[E] Check gaps under Fibera FRP Frame. Ensure that there are no visible gaps under the frame and smooth bedding material with trowel both inside and outside of chamber.

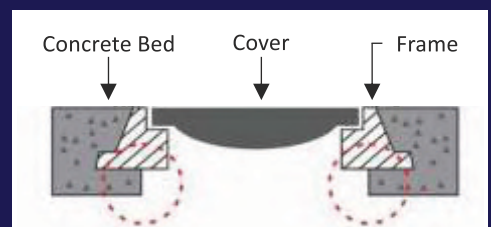
[F] Use the remaining mortar to envelope the Fibera FRP Frame paying particular attention to the corner areas. Smooth out the mortar with a trowel to ensure good bonding with the frame and to avoid any initial cracks in the bedding material.



Correct Method



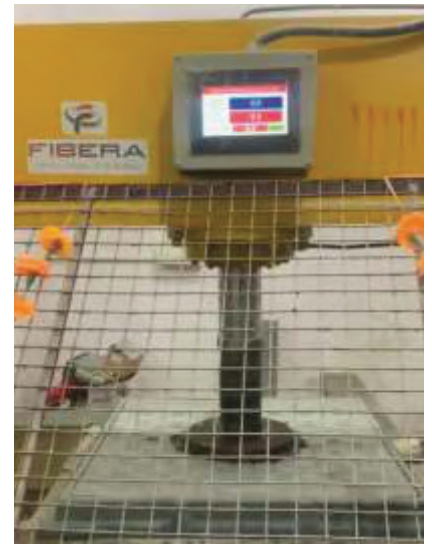
Wrong Method



Wrong Method

LOAD CAPACITY TEST

FIBERA FRP covers are tested for point load capacity and permanent set as per EN124:2015 testing code. EN124:2015 is an European standard for FRP manhole covers, Gully gratings. Permanent set testing is done by multiple loading test to determine the permanent deformation in cover after repeated loading within a short time as specified in the testing code.



VISUAL INSPECTION BY ENGINEERS

Visual inspection is the first step in assessing the condition of product made from FRP composites. Done correctly, visual inspections are essential. Our engineers at FIBERA, individually check every single cover after production and a 30 point QC check list is strictly followed before any dispatch.

QUALITY CONTROL OF RAW MATERIALS

We specifically prevent contamination of raw materials by humidity, rain or dirt and debris. All our raw materials gets stored indoor in a non contaminating protective covering before being moved to the utilisation area. We at FIBERA in-house test every single batch of resin and fiber glass for its said specifications.



ROUTINE & PREVENTIVE MAINTENANCE

The objective of preventive maintenance inspection is to reduce maintenance costs and the threat to safety and reliability caused by unexpected equipment failure. We at FIBERA ensures that our machines are routinely checked for issues and if required takes preventive action to rectify the problem.



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FIBER

FRP MANHOLE COVERS | TANK COVERS | GULLY COVERS | RECESSED COVERS | MOULDED GRATINGS