









# **SMC Manhole Covers & Frames**

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### **MAJOR CLIENTS**





















# COMPANY PROFILE

Fiber Flex Factory L.L.C. was established in 2002, located in Mussafah Industrial City of Abu Dhabi.

Fiber Flex Factory is a leading Manufacturer of all GRP (FRP) component such as , Preformed Manhole Liners, Flat Sheet for Pumping Station, Claddings, Sunscreens, Pipe Fittings, Chemical Tanks, Water Tanks, Heavy duty Cover and Frames, Ladders, Rails.

In 2013 as future plan we already started construction for the new Plant for UPVC Pipe & Fittings from 63mm to 400mm for both solvent welded type as well as rubber socket type. The production line started in fully 2014 as first extension plan in 2015 next extension for the production of HDPE & LDPE pipe.

All of the above manufactured according to the International Standards to meet the Market requirements ISO 4422-2:1996, BS 1452-2000, ISO 422:1990, ISO 4435:2003 & BS 1401:1998, DN 8062:1988, BS EN124

Among our major customers are Abu Dhabi Municipality, Oil and Petrochemical Industries, Chemical Plants, are almost exclusively favored by these Industries.

Contractors and Consultants and Engineers are welcome to visit our Office, Factory at the Industrial area Mussafah Abu Dhabi, to assure themselves that our product are of the highest quality our Technical Department is available at all time for guidance and advice



# SMC MANHOLE, THE REVOLUTION OF MANHOLE COVERS WITH FIBER FLEX

## Fiber Flex SMC Manhole Covers Advantages



RESISTANCE TO DEFORMATION AND STRENGTH



LIGHTNESS AND HANDINESS



ELECTRIC INSULATION



NOISE REDUCTION



RESISTANCE TO CORROSION



> ENVIRONMENTALLY FRIENDLY



CUSTOMIZATION



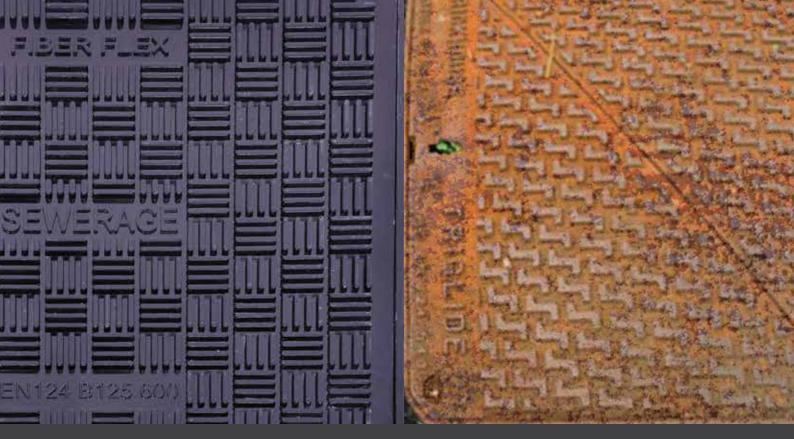
THEFT PREVENTION



RESISTANCE TO TEMPERATURE INVERSIONS



PERMEABILITY TO ELECTROMAGNETIC WAVES



# **RESISTANCE TO CORROSION**

# Fiber flex SMC Manhole Covers Advantage

Fiber Flex SMC MANHOLE Covers	Cast Iron / Ductile Iron MANHOLE Covers
High Strength To Weight Ratio.	Low Strength To Weight Ratio
No Scrap Value Hence No Theft	High RISK Of THEFT
Light Weight - EASY To Handle	Heavy - Needs More Manpower
Corrosion Resistant, No Effect Of SEA / Sewage Water.	Gets Corroded By Sewage & SEA Water
High Aesthetic Value, Available In Granite Finish Or Any Desired Color	Standard Appearance
Self-Pigmented. No Painting Required	Painting Required At Regular Intervals
Less Fright & Handling Cost, Due To Less Weight	Higher Fright And Handling Cost, Due To More Weight
No Extra GRP Plate Is Required To Protect	Extra GRP Plate Is Required Below The Cover To
From Corrosion	Protect From Corrosion
No Steel Content, No Resale Value, Hence No Theft	Theft Happens Due To Presence Of Steel Internally
High Strength To Weight Ratio.	Low Strength To Weight Ratio
Long Life (20-30 YEARS)	Short Life (2-3 YEARS)
Light Weight - Easy To Handle	Heavy - Needs More Manpower
Excellent Abrasion Resistance	Poor Abrasion Resistance
No Erosion Due To Rain Water, And Moving Vehicles	Gets Eroded Due To Rain Water, And Moving Vehicles.
No Effect Of Sewage Water & Chemical Water	Poor Resistance To Sewage Water & Chemical Water
No Environmental Degradation	High Environmental Degradation

### Types of manhole covers against its shape

- > Circular Cover
- > Square Cover
- > Rectangular cover
- 1. Strictly manufactured according to ISO 9001: 2000 and EN124
- 2. High load capacity (Max. 40Ton)
- 3. Contain no metal, no scrap value
- 4. Long service life (Min. 30 years)
- 5. Well sealed, no noise pollution or rebound
- 6. Good wear and corrosion resistance, never rust
- 7. Special Relief Sculpture on Surface with good decorative effect
- 8. Perfect design and rich colors individually against various needs and requirements.

### **Grades of load capacity:**

1. A15 KN

2. A 50 KN

3. B125 KN

4. C250 KN

5. D400 KN

### Component

- 1. Cover
- 2. Frame
- 3. lifting accsessories

# **Specification of GRP Manhole Cover:**

Type: Heavy Duty, Medium Duty, Light Duty

Load Capacity: 400 KN (40 Ton), 250 KN (25 Ton) ve 125 KN (12, 5 Ton) Meets all existing requirements of EN 124

No risk to be stolen.

- Watertight with service replicable seal to the requirements of BS124 PAS26
- Unique anti-slip surface to help prevent slips when wet or icy.
- > Flush installation with finished grade level avoids trip hazard and snow plough damage.
- > Lightweight to reduce the risk of operator injury during opening and closure.
- None Corroding, None Sparking.
- > Water shedding domed cover to disperse standing water.
- > Reduced noise under traffic movements.
- Customer specific colors and labeling options.
- High security options available for use in prisons, embassies, airports and other areas at risk from terrorist activity.
- Comprehensive manufacturer's warranty.
- Fully compatible with Chamber Tite range of manhole chambers.
- Locking & Lifting Key.
- Load tested to exceed the requirements of US H20 standard.



## **CORROSION RESISTANCE**

Fiber reinforced plastic (FRP) products are now being widely used for applications where corrosion can destroy underground infrastructure. Perhaps the prime reason for using FRP products is because of their inherent corrosion resistance.

The corrosion resistance of FRP is a function of both the molding technology and the specific resin used in the laminate. Today, various resin systems are available which can provide long-term resistance to almost every chemical and temperature environment.

One application in which FRP is being widely adopted worldwide and changing specifications away from metal is with manhole access and service trench covers. By helping to reduce the costs of corrosion, composite covers can allow utilities and other operators of underground infrastructure to improve the financial strength of their enterprises.

### TRIED AND TRUSTED

Founded on a tradition of quality and innovation, Fiber flex has been at the forefront of composite technology since 1996. The first ever composite manhole cover was designed by Fiber flex for sewerage, water and electricity in 1998 it was made by hand layup as first sample.

### **ERGONOMIC DESIGN: HEALTH AND SAFETY FRIENDLY**

With recent statistics attributing over half of injuries (resulting in absence from work) to manual handling it's already known that reducing hazards in this are Manual handling weights, we are seeing a global trend towards lighter weight FRP composite manhole and access covers, which also have the benefits of ease of handling.

Lightweight composite covers that provide safe and easy access eliminating unsafe manual handling issues are replacing aging concrete and heavy cast iron access covers all over the world. By using lighter materials, operational injuries are prevented, work sites are made safer and ease of installation and maintenance is made available to utility workers and contractors. The design of these lightweight covers incorporates up to two lifting points for specially designed lifting handles. These allow the operator to remove the cover without trapping fingers or bending over thus maximizing the safety of the lifting technique. The weight is kept close to the body preventing back injury; one of the main causes of absence from work and personal injury claims.



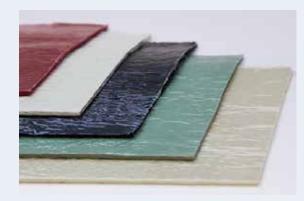
# **CUSTOMIZED, COLORED COVERS FOR IDENTIFICATION**

In response to customer demand, Fiber flex now offers company logos and other brand markings on its covers. Any style logo or other marking can be permanently molded into the upper surface of the cover in single or multiple colors. For additional brand or product identification, or to blend in with the color or layout of a facility, Fiber flex can mold its composite covers in nearly any color or combination of colors.

By introducing the pigment directly into the resin system during the molding process, Fiber flex ensures that the color is not merely applied on the surface of the cover. Instead, the coloring is evenly and completely infused throughout the composite cover and will not fade or wear over time.

Customers have utilized Fiber flex's molded marking and coloring process to identify underground systems in a unique and highly visible way. Color can also be used as a quick and reliable method of identifying underground systems, thereby providing maintenance or emergency personnel with more accurate information about any hazards or special conditions related to the underground infrastructure.

8



- > High Aesthetic Value, Available In Granite Finish Or Any Desired Color
- > Self-Pigmented. No Painting Required
- > Less Fright & Handling Cost, Due To Less Weight
- > No Extra GRP Plate Is Required To Protect From Corrosion



# NO METAL, NO THEFT

The metal theft epidemic is not going away. There are few industries that can hide from the thieves and the water industry is still being severely affected. Cast iron and steel manhole covers and drainage grates are routinely stolen for the scrap value of the metal cover or grate.

And while the financial cost of replacement is quite high, the thefts also lead to open manholes which create significant hazards. Composite covers can solve this problem as the fiberglass material used has no inherent scrap value. With the inability to melt down composite covers into quick cash at the junk yard; there is no incentive for thieves to steal the covers in the first place.

### NO MORE WET, WORN AND SLIPPERY METAL COVERS

FRP composite manhole covers are ideal for problem areas, particularly those prone to skid related accidents. Traditional cast iron covers quickly become polished and therefore provide a poor level of grip which can lead to serious accidents through increased risk of skidding and slipping, even more so when wet.

"Fiber flex's covers incorporate a molded anti-slip tread pattern equivalent to a modern high grade road surface. In fact, Fiber flex's anti-slip/skid surface is guaranteed for the life of the cover providing a Polished Skid Resistance when wet which exceeds the requirements, for potentially high risk sites.

#### **HIGHLY ENGINEERED**

Fiber flex's access covers are lightweight, durable and very strong. They are manufactured using high-technology hot press production methods to create a highly engineered, monolithic composite product. This offers the best strength to

weight ratio in the industry, allowing for maximum load bearing strength and durability while remaining lightweight and easy to handle. Fiber flex's standard manhole covers also offer watertight solutions in a wide range of sizes and shapes.

Fiber flex's comprehensive range of FRP composite trench covers are perfect for covering large areas, gullies, trenches and ducts where occasional or frequent access may be required. In fact, custom sizes are also available.

# **SMC Manhole Cover Advantage**

### High Load rating and strength

- > Similar hard property as cast iron, while having an overwhelming advantage on stretch recovery and bend resistance.
- > Designed to Meet and exceed specifications as per EN standards
- Less Noise and lower vibration transmissions.

### **Against Theft and Safety options**

- Comparing with cast iron manhole cover, composite cover has zero theft value and not attractive to thieves, which reduce the potential accident and further maintenance cost caused by thieves.
- > Surface anti-slip thread guarantees safe road condition even in extreme weather.
- > Locks are available as an option molded into the cover to improve security rate.
- > Non-electricity conduction and non-heat conduction, UV resistance.

### Light weighted

- > Compared with cast iron manhole covers, composited covers are 30% lighter.
- > Lightweight allows easy of handling and more loading per vehicle, more convenient transportation and economical saving.
- > Allows a sager working condition, which a SINGLE worker is enough for a complete installation without risk of injury.
- > Easy of moving ease and reduce the maintenance cost.

### Durable service life

- > More than 30 years theoretical service life at usual road condition.
- > Anti-corrosion, waterproof, dust and pets tight, well-sealed prevent poisonous gas leaking out.
- > Without displacement, freely radio signal passing.
- > Higher and lower temperature tolerance with the range-400C.

### Free design

Composite material itself allows for innovative design features, Clint logo and their own design is available as an option. Much more clear resolution ratio of surface design than cast iron or of other material.



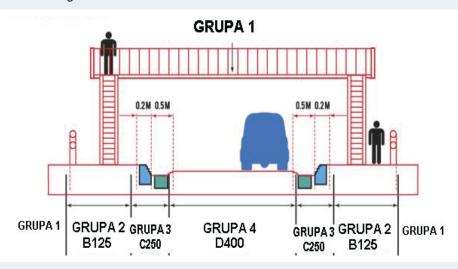
### Classification

### Description of load rating.

A15, B125, C250, D400, E600 and F900.NOTE when the standard is revised in the future, the conversion of class A15 TO A30 may be considered.

### Place of installation

The appropriate class of manhole covers or gully gratings to be used depends upon the place of installation. The various places of installation have been divided into groups numbered 1 to 6 as listed below show the location of some of these groups in a highway environment. A guide as to which class of manhole covers of gully gratings should be used is shown in parentheses for each group. The selection of the appropriate class is the responsibility of the designer. Where there is any doubt, the stronger class should be selected.



- Group 1: Areas which can only be used by pedestrians and pedal cyclists.
- Group 2: Footways, pedestrian areas and comparable areas, car parks or car parking decks.
- Group 3: For gully tops installed in the area of kerbside channels of roads which when measured from the kerb edge, extend a maximum of 0.5 m into the carriageway and a maximum of 0.2m into the footway.
- Group 4: Carriageways of roads, hard shoulders and parking areas, for all types of road vehicles.
- Group 5: Areas imposing high wheel loads, e.g. docks, aircraft pavements.
- Group 6: Areas imposing particularly high wheel loads e.g. Aircraft pavemen



### **COMPOSITE MANHOLE COVERS**

Fiber flex designed the composite manhole covers mainly due to the numerous benefits of composite covers over the heavier alternatives (namely steel and concrete) as well as the metal theft epidemic. The composite covers have no scrap or resale value making them unattractive to thieves.

Fiber flexes composite manhole covers and frames comply with the EN 124 standard. The EN 124 standard was published in 1994 and was essentially a standard for cast iron manhole covers that took little account of other materials such as composites. The inherent properties of composite materials make them ideal for the manhole environment. The EN 124 standard is currently in review and the essential characteristics for the standard. Fiber flex has been at the forefront in incorporating these characteristics into the design of the composite covers.

The Fiber flex composite manhole covers are manufactured locally using a technologically advanced composite manufacturing process to create a highly engineered, incredibly strong composite product. The composite covers are available in a range of sizes and load ratings.

Key benefits offered by Fiber flex composite manhole covers over their steel and concrete counterparts cover an array of technological advances and cost savings including higher quality, improved safety, greater longevity, lower life cycle costs (LCC) and a greatly reduced risk of theft. Due to the light weight of the composite covers there is no need for cranes and other heavy-lifting equipment.

Unlike cast iron and steel manhole covers, the composite covers are non-corrosive and non-conductive. The composite covers have a unique skid resistant surface and will not spin-out, making it safe for road use purposes and designed as a "fit and forget" product for civil engineering applications. Unlike concrete manhole covers, the composite covers will not crumble or crack.

## Composite Savings

Workman's Compensation Claims for Back Injuries from Lifting Heavy Sewer Lids

- Disability Costs
- Investment in Specialized Sewer Cap Lifting Tools
- Overtime for Inefficient Productivity
- Wasted Time Fighting to Open Corroded Covers
- Wasted Time aligning bolt holes (ours are molded-in)
- Replacement Sewer Covers after Theft
- Frequent Lid Replacements and Re-Installation Teams
- Insurance Premiums For Citizen Injury Lawsuits
- Public Relations Shame and Embarrassment

- Employee Morale
- Special Locks
- Tack Welding
- Legal Fees
- Traffic Back-ups



# TECHNICAL DATA SHEET

PROPERTY	STANDARD / METHO	VALUE	TOLERANCE	UNIT
Surface Weight	ASTAR CF.1.01 :1994	1.2	± 0.2	kg/m²
Glass Fiber Content	ASTAR CF.1.02 :1994	60	± 2	%
Reactivity	ASTAR CF.1.03 :1994	65	± 10	S
Flexural Strength	EN ISO 14125 :1998	≥ 400		MPa
Flexural E-Modulus	EN ISO 14125 :1998	≥ 17000		MPa
mpact Strength (Charpy)	EN ISO 179 :2010	≥ 100		kJ/m²
Density	EN ISO 1183-1 :2004	1.93	± 0.05	g/cm³
Shrinkage	ISO 2577 :2014	0.00	± 0.05	%
Water Absorption	EN ISO 62 :2008	< 0.3		%
Flame Retardancy	UL 94 :2012	. HB	@ 1.5	mm
Glow Wire Test	IEC 60695-2-10 :2013	960 °C	@ 3	mm
Oxygen Index	EN ISO 4589-2 :2005	> 23		%
Heat Distortion Temperature	ISO 75-2-A :2005	> 200		°C
Dielectric Strength	IEC 60243-1 :1998	18		kV/mm
Surface Resistivity	IEC 60093 :1993	10 <sup>12</sup>		Ω
Volume Resistivity	IEC 60093 :1993	10 <sup>14</sup>		Ω.cm
Dielectric Constant	IEC 60250 :1969	4		-
Tracking Resistance	EN IEC 60112 :2003	CTI 600		-

## **Corrosion Resistance**

Still using iron for Sewer Lids? Welcome to the future and enjoy the better mousetrap.



LIGHTNESS AND HANDINESS



### **TOTAL WEIGHT OF COVER + FRAME**

### **Round Manhole Cover & Frame**

Model	Grey cast iron (kg)	Ductile cast iron (kg)	Composite material (kg)
ф 900	91.00	78.00	42.00
ф 800	81.00	60.00	34.00
ф 700	75.00	65.00	34.00
ф 600	70.00	50.00	24.00



### Square Lockable Antistatic Manhole Cover & Frames

Model	Grey cast iron (kg) Ghisa Lamellare (kg)	Ductile cast iron (kg) Ghisa Sferoidale (kg)	Composite material (kg) Composito (kg)
600 x600	40.00	29.40	19.22
450 x 450	26.00	18.20	10.55
300 x 300	20.00	15.00	8.08



# **RESISTANCE TO DEFORMATION AND STRENGTH**

### **Composite Manhole Covers**

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### **ENVIRONMENTALLY FRIENDLY**

CO<sub>2</sub> emissions during the manufacturing and installation of **FIBER FLEX** have been tested, allowing us to be certified incompliance with ISO.

There are two key features supporting manhole covers in composite material compared to cast iron:

> lower energy consumption thanks to the temperature for the manufacture (70° for FIBER FLEX manhole cover compared with 1200° for cast iron manhole cover).

> lower transport impact thanks to the reduced weight (it is possible to load a quantity of FIBER FLEX manhole covers three times higher than cast iron manhole covers).

### **MAJOR CLIENTS**















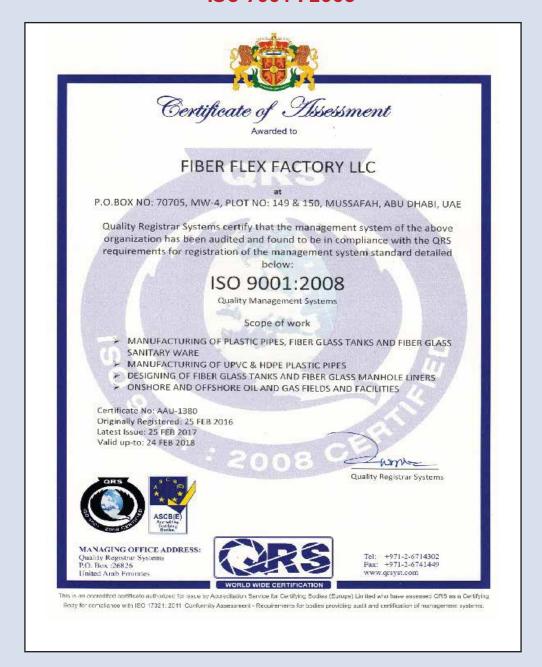




### **High Quality**

Our Company has accreditation to: > ISO 9001 : 2008

ISO 9001: 2008

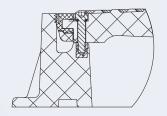




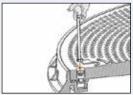
## $\phi$ 900 Clear Opening Sealed Lockable Antistatic Round Manhole Cover & Frame

COVER					
Duty Class	Cover Dimension	Depth of Insertion(h)	Cover Diameter (CO)	Weight kg	
A50	ф1008 x 30mm	30mm	ф1008mm	19.50	
C250	ф1008 x 55mm	30mm	ф1008mm	42.00	
	FRAME				
Frame Dimension	Frame Depth (H)	Frame Outer Diameter (D)	Clear Opening (CO)	Weight kg	
ф1008 x 30mm	65mm	ф1008mm	900mm	11.00	

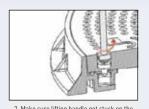
Main Road cover
Water Manhole Cover
Telecom Manhole Cover
Garden and Grass Cover



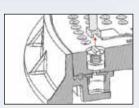
### **OPERATION INSTRUCTIONS:**



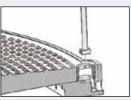
1. Insert the lid lifting handle into lockhole.



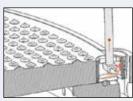
 $2.\,$  Make sure lifting handle get stuck on the slotted locking bar, then push down and turn  $90^{\circ}$  anticlockwise



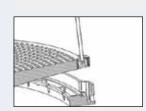
 Keep spring lock open, Open the other two locks in the same way.



4. Insert opening lifter into handle hole.

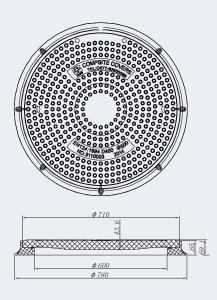


5. Turn 90° anticlockwise to keep opening tool fixed on the handle hole, lift the cover.



6. Open and remove cover







### φ800 Clear Opening Sealed Lockable Antistatic Round Manhole Cover & Frame

COVER						
Duty Class	Cover Dimension	Depth of Insertion(h)	Cover Diameter (CO)	Weight kg		
D400	ф870 x 55mm	30mm	ф870mm	44.00		
C250	ф870 x 55mm	30mm	ф870mm	43.50		
A50	ф870 x 30mm	30mm	ф870mm	28.00		
B125	ф870 x 35mm	30mm	ф870mm	34.00		

FRAME					
Frame Dimension	Frame Depth (H)	Frame Outer Diameter (D)	Clear Opening (CO)	Weight kg	
ф970 x 100mm	100mm	ф970mm	800mm	15.50	

Fiber Flex composite covers are 70% lighter than cast iron covers.

Thanks to their low weight they are easy to handle and to install, which means cost savings in both labour and plant, in addition to potential reductions in injuries during Installation and maintenance.

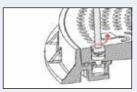
#### **OPERATION INSTRUCTIONS:**



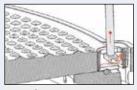
1. Insert the lid lifting handle into lockhole.

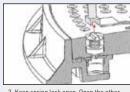


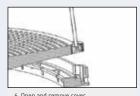
4. Insert opening lifter into handle hole



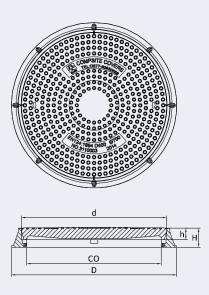
2. Make sure lifting handle get stuck on the slotted locking bar, then push down and turn 90° anticlockwise













 $\phi$ 700 Clear Opening Sealed Lockable Antistatic Round Manhole Cover & Frame

COVER					
Duty Class	Cover Dimension	Depth of Insertion(h)	Cover Diameter (CO)	Weight kg	
C250	ф756 x 50mm	50mm	ф756mm	34.00	
D400	φ756 x 50mm	50mm	ф756mm	37.00	

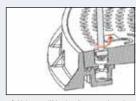
FRAME					
Frame Dimension	Frame Depth (H)	Frame Outer Diameter (D)	Clear Opening (CO)	Weight kg	
ф950 x 100mm	100mm	ф950mm	700mm	26.00	

No Steel Content, No Resale Value, Hence No Theft High Strength To Weight Ratio. Long Life (20-30 YEARS) Light Weight - Easy To Handle

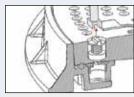
#### **OPERATION INSTRUCTIONS:**



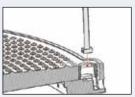
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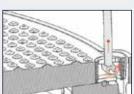
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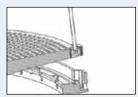
 Keep spring lock open, Open the other two locks in the same way.



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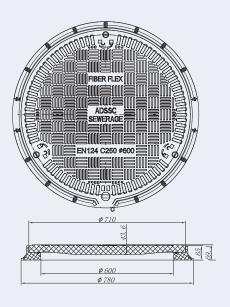


 Turn 90° anticlockwise to keep opening tool fixed on the handle hole, lift the cover.



6. Open and remove cover







 $\phi$ 600 Clear Opening Sealed Lockable Antistatic Round Manhole Cover & Frame

COVER						
Duty Class	Cover Dimension mm	Depth of Insertion(h)	Cover Diameter (CO)	Weight kg		
C250	ф708 х 40	30mm	ф708mm	24.00		

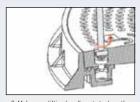
FRAME					
Frame Dimension	Frame Depth (H)	Frame Outer Diameter (D)	Clear Opening (CO)	Weight kg	
ф780 x 65mm	65mm	ф780mm	600mm	8.00	

Fiber Flex greatly reduces noise pollution. Fiber Flex, is lower density than cast iron, and deadens the noise and disturbance caused by vehicles driving over installed covers. The Fiber Flex material and optional sealing system available on Fiber Flex products are effective in preventing the dispersion of odours from man-way chambers.

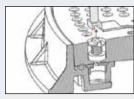
#### **OPERATION INSTRUCTIONS:**



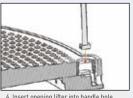
1. Insert the lid lifting handle into lockhole.



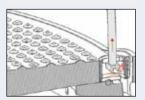
2. Make sure lifting handle get stuck on the slotted locking bar, then push down and turn 90° anticlockwise



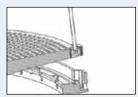
Keep spring lock open, Open the other two locks in the same way.



4. Insert opening lifter into handle hole.

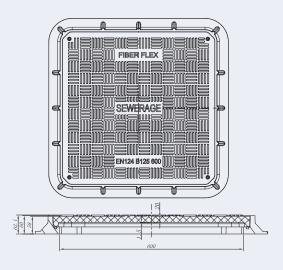


5. Turn 90° anticlockwise to keep opening tool fixed on the handle hole, lift the cover.



6. Open and remove cover







### 600 x600 Clear Opening sealed Square Lockable Antistatic Manhole Cover & Frames

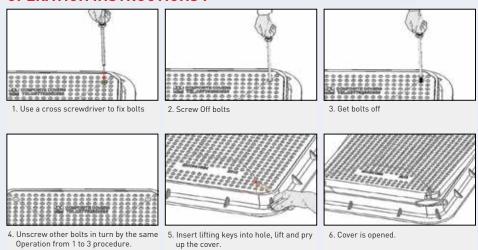
COVER					
Duty Class	Cover Dimension mm	Depth of Insertion(h)	axb mm	Weight kg	
B125	644x644x24.5	35mm	644x644	19.22	
C250	644x644x42.5	35mm	644x644	24.27	
A50	644x644x12	35mm	644x644	13.5	
A15	644x644x10.5	35mm	644x644	11 .00	

FRAME				
Frame Dimension	Frame Depth (H)	Frame Outer Diameter (D)	Clear Opening (CO)	Weight kg
760x760x60mm	60mm	760x760mm	600x600mm	6.5

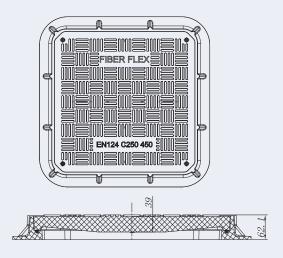
Fiber Fkex covers can be costumized with a company name, service type or other required information.

Our Products can also be produced in a range of colours.

#### **OPERATION INSTRUCTIONS:**









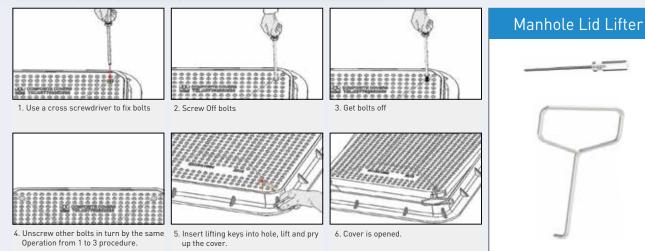
450 x 450 Clear Opening Square Composite Lockable Antistatic Cover & Frame

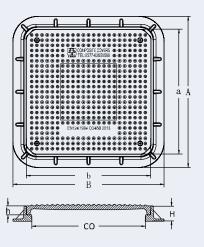
COVER				
Duty Class	Cover Dimension	Depth of Insertion(h)	axb mm	Weight kg
B125	494x494x22	35	494X494	10.55
A50	494x494x	35	494X494	6.00
A15	494x494x	35	494X494	4.50

FRAME				
Frame Dimension	Frame Depth (H)	Frame Outer Diameter (D)	Clear Opening (CO)	Weight kg
600x600x60mm	60mm	600x600mm	450mm	5.00

Fiber Flex was tested at -30° C and +150° C, and it maintains its characteristics of loading resistance, so it is particularly suitable for very hot and very cold areas.

#### **OPERATION INSTRUCTIONS:**







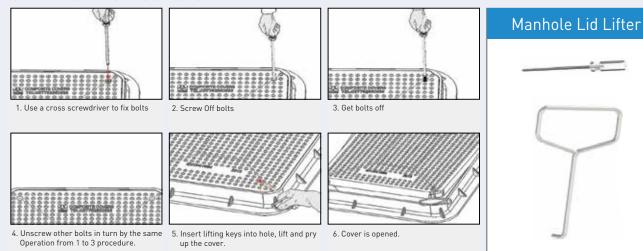
300 x 300 Clear Opening Square Composite Lockable Antistatic Cover & Frame

COVER					
Duty Class	Cover Dimension	Depth of Insertion(h)	axb mm	Weight kg	
B125	494x494x22	35	344X344	8.08	
A50	494x494x	35	344X344	6.75	

FRAME				
Frame Dimension	Frame Depth (H)	Frame Outer Diameter (D)	Clear Opening (CO)	Weight kg
600x600x60mm	60mm	600x600mm	450mm	4.67

Specific dimensions are available for fuel stations and industrial area applications: square 950 x 950 and round Ø 1100 in class C250 and D400.

#### **OPERATION INSTRUCTIONS:**





### **RESISTANCE TO TEMPERATURE INVERSIONS**

FIBER Flex was tested at -30° C and +150° C, and it maintains its characteristics of loading resistance, so it is particularly suitable for very hot and very cold areas.

### **BIG DIMENSIONS**

Specific dimensions are available for fuel stations and industrial area applications: square 900 x 900 and round Ø 900 in class C250 and D400.



### **FRAMES**

The standard frame for FIBER FLEX system has "U" shape internal seating for airtightness.

Thanks to the new frame's flat profile (available for class B125 in sizes  $400 \times 400$ ,  $500 \times 500$  and  $600 \times 600$ ),

FIBER FLEX manhole covers are ideal for installation with interlocking pavers and natural stone.



### **MAJOR CLIENTS**



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# **MACHINERY**



Load testing







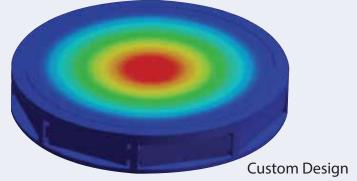
800 Ton Hydraulic Press



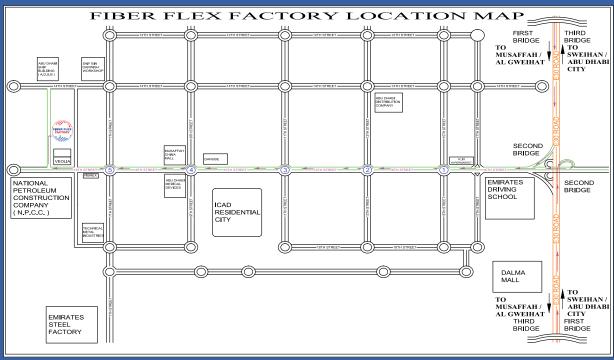
All type of test



Impact test









# FIBER FLEX FACTORY LLC.

MW4 Plot No. 149 -150

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