Bengal Iron Corporation

CASTING A BETTER FUTURE. SINCE 1965.



DUCTILE IRON
MANHOLE COVERS & GRATINGS

Company Profile



Founded in 1965, Bengal Iron Corporation (BIC) is a specialist in manufacturing of ductile iron and cast iron products such as manhole covers, gratings and surface boxes, pipes and pipe fittings, ornamental castings, and industrial castings. With an in-house machine shop, laboratory, load testing machines, sand testing equipment as well as pattern making capabilities we pride ourselves to be able to closely monitor our processes from raw material procurement to finished goods quality checking. This ensures we provide superior quality and enables high customizability.

We have 2 manufacturing facilities located in Howrah & Burdwan, West Bengal that boasts of a combined annual manufacturing capacity of 28,000 MT. The production is monitored by qualified engineers and a nearly 350 strong work force. Our head office is in Kolkata along with branches & representatives in Delhi, Bangalore, Chandigarh and Ahmedabad. Additionally, an extensive export network enables us to serve customers from several countries such as Australia, Canada, England, Iceland, Italy, Saudi Arabia, Spain, Switzerland, the UK and the USA.

Our Values

Growth & Learning
We are growing. We will continue to grow. With continuous learning, we will always strive for growth & improvement.

Integrity
We deliver what we commit to all our team members and channel partners. We do our level best to be fair even in adverse situations.

Quality Conscious
We ensure that the raw materials we purchase meet our stringent requirements. We do not compromise on the quality and functionality of our finished goods.

Karm Hi Dharm
We never shy away from hard work. We believe that the eternal duty of a human being is to give 100% to their work without cutting corners. Loosely translated, work is worship.

Manufacturing Infrastructure

Induction Furnace
Inductotherm make, tri-track, 3MT/hour



Cupola Furnace
Divided Blast, 5MT/hour - 2 nos.



Centrifugal Casting Machine
12 machines for CI Pipes



Sand Plant
80MT Sand Storage and 1.5MT Batch Capacity



Vertical High Pressure Moulding Machine
150 moulds/hour



Jolt Squeeze Machine
30 moulds/hour



Hand Moulding

150+ workers engaged in making odd sized and customized castings



Shot Blasting Machine

Continious Monorail Type, 500Kg Hook Capacity

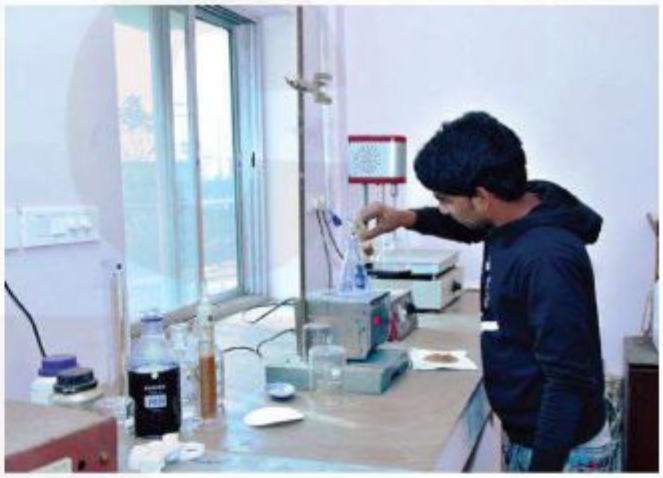


Spectrometer

Ark Spark Spectrometer



Sand Testing



Tensile Testing & Hardness



Inverted Microscope with Computer Imaging System



BIC Ductile Iron Manhole Covers

BIC's latest range of manhole covers & gratings forays into a different material – Ductile Iron. While we have been exporting DI Covers for many years, we are proud to introduce these in India. These covers are designed in accordance with the international standard EN 124-2 keeping in mind optimal safety, reliability and long service life.



Why choose BIC's Ductile Iron Manhole Covers & Gratings



Superior Engineering Design

Our products are designed to export standards and are highly optimized leading to reduction in weight while still retaining the load bearing capacity.



Optimised Weights

Our products are upto 68% lighter than the competition, while retaining the same load bearing capacity, thus helping you save major purchasing costs.



Reduced Labour

Owing to its lighter weight, the ease of handling and efficiency of installation increases significantly for the workers, leading to more savings for the buyer.



Theft Safe

Our hinge type designs are suited for spaces without security as they prevent stealing of covers & grates.



Longevity

DI covers are a fit & forget solution and will last longer than any other material available in the market.

Product Selector Guide

Type of Weight (Symbol)	EN124	Design Load	Place of Installation
	A15	15 kN	In areas which can only be used by pedestrians and pedal cyclists.
	B125	125 kN	Suitable for pedestrian areas and comparable areas, car parks or car parking decks.
	C250	250 kN	Meant for the area of kerbside channels of roads which, when measured from the kerb edge, extends a maximum of 0.5 m into the carriageway and a maximum of 0.2 m into the pedestrian area.
	D400	400 kN	On the carriageways of roads (including pedestrian streets), hard shoulders and parking areas, for all types of road vehicles.
	E600	600 kN	In areas imposing high wheel loads, e.g. docks, aircraft pavements.
	F900	900 kN	Suitable for areas imposing particularly high wheel loads, e.g. aircraft pavements.

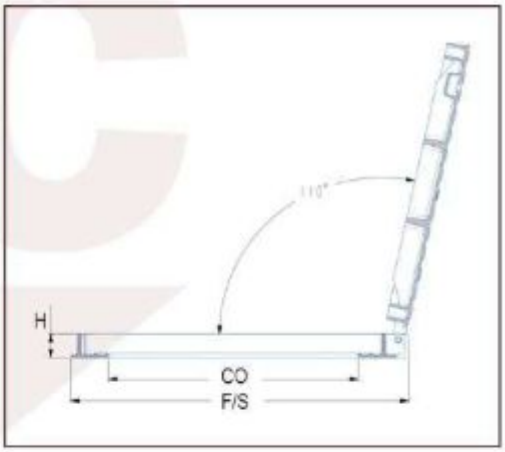
Technical Parameters

Solid Top Covers & Frames with Hinges

Product Code	Size – Clear Opening mm	Frame Overbase mm	Height mm	Load Class	Seal
MH-H3030-MD	300x300	365x365	25	B125	Single Seal
MH-H3030-HD	300x300	415x415	50	C250	Single Seal
MH-H4545-MD	450x450	600x600	40	B125	Double Seal
MH-H4545-HD	450x450	630x630	60	C250	Double Seal
MH-H4560-MD	450x600	600x750	40	B125	Double Seal
MH-H4560-HD	450x600	600x750	40	C250	Double Seal
MH-H6060-MD	600x600	760x760	40	B125	Double Seal
MH-H6060-HD	600x600	780x780	60	C250	Double Seal
MH-H6060-EHD	600x600	780x780	100	D400	Double Seal
MH-H9060-MD	900x600	1050X765	100	B125	Single Seal
MH-H9060-HD	900x600	1050X765	100	C250	Single Seal
MH-H9060-EHD	900x600	1050X765	100	D400	Single Seal
MH-H9090-MD	900x900	1130X1130	100	B125	Single Seal
MH-H9090-HD	900x900	1130X1130	100	C250	Single Seal
MH-H9090-EHD	900x900	1130X1130	100	D400	Single Seal



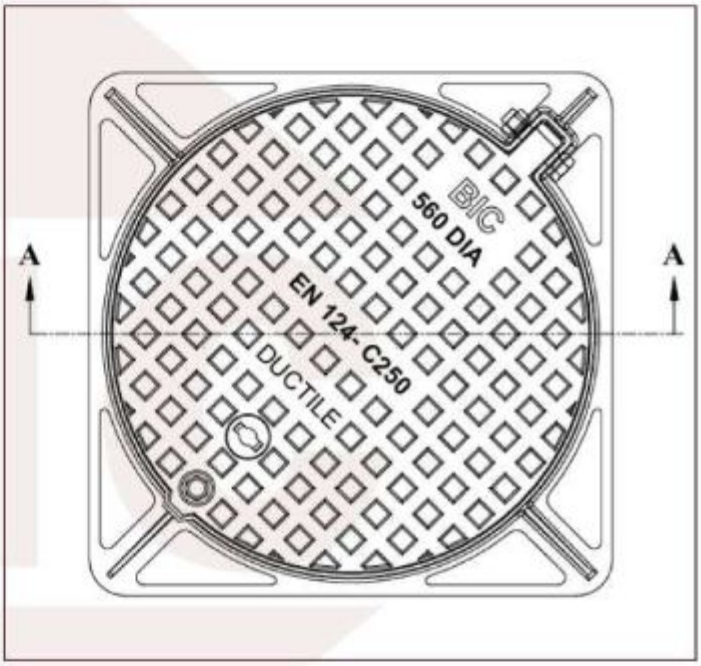


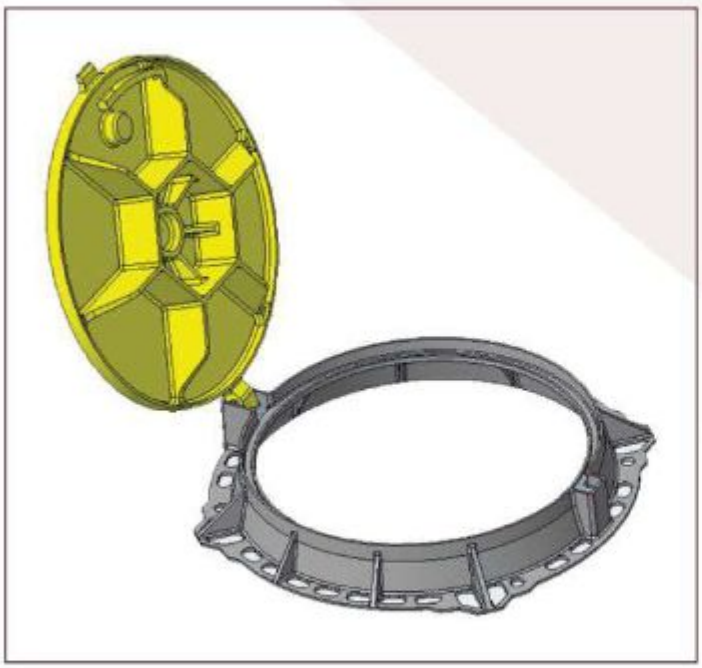


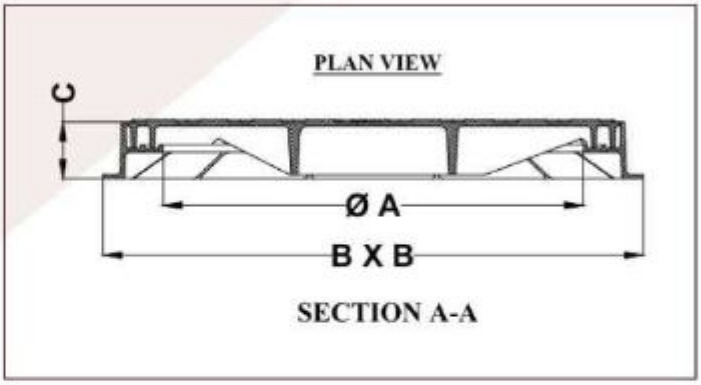
Solid Top Round Cover with Round or Square Frame with Hinges

Product Code	Size – Clear Opening mm	Frame Overbase mm	Height mm	Load Class	Seal
MH-H560-HD	560 dia	715x715	75	C250	Double Seal
MH-H560-EHD	560 dia	715x715	75	D400	Double Seal
MH-H600R-MD	600 dia	800 dia	65	B125	Single Seal
MH-H600R-HD	600 dia	850 dia	100	C250	Single Seal
MH-H600R-EHD	600 dia	850 dia	100	D400	Single Seal
MH-H600-HD	600 dia	765X765	100	C250	Double Seal
MH-H600-EHD	600 dia	765X765	100	D400	Double Seal





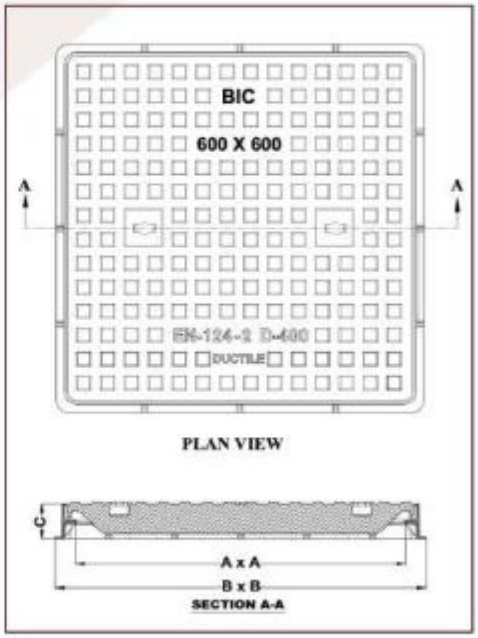




Solid Top Single Seal Covers & Frames

PRODUCT CODE	SIZE – CLEAR OPENING MM	FRAME OVERBASE MM	HEIGHT MM	LOAD CLASS	SEAL
MH-2020-MD	200x200	300x300	25	B125	Single Seal
MH-3030-MD	300x300	400x400	25	B125	Single Seal
MH-4040-MD	400x400	500x500	30	B125	Single Seal
MH-4545-MD	450x450	600x600	35	B125	Single Seal
MH-4560-MD	450x600	530x680	40	B125	Single Seal
MH-4575-MD	450x750	570x870	50	B125	Single Seal
MH-5050-MD	500x500	600x600	35	B125	Single Seal
MH-5555-MD	550x550	620x620	36	B125	Single Seal
MH-6060-MD	600x600	700x700	40	B125	Single Seal
MH-7575-MD	750x750	900x900	75	B125	Single Seal
MH-9045-MD	900x450	1010x565	45	B125	Single Seal
MH-9060-MD	900x600	765x1060	45	B125	Single Seal
MH-9090-MD	900x900	1000x1000	100	B125	Single Seal
MH-3030-HD	300x300	400x400	40	C250	Single Seal
MH-4040-HD	400x400	500x500	40	C250	Single Seal
MH-4545-HD	450x450	600x600	45	C250	Single Seal
MH-5050-HD	500x500	600x600	45	C250	Single Seal
MH-6060-HD	600x600	700x700	45	C250	Single Seal
MH-7575-HD	750x750	900x900	75	C250	Single Seal
MH-9045-HD	900x450	1040x585	45	C250	Single Seal
MH-9090-HD	900x900	1000x1000	100	C250	Single Seal
MH-3030-EHD	300x300	400x400	75	D400	Single Seal
MH-4040-EHD	400x400	500x500	75	D400	Single Seal
MH-4545-EHD	450x450	600x600	75	D400	Single Seal
MH-5050-EHD	500x500	600x600	75	D400	Single Seal
MH-6060-EHD	600x600	700x700	75	D400	Single Seal
MH-7575-EHD	750x750	900x900	75	D400	Single Seal
MH-9090-EHD	900x900	1100x1100	100	D400	Single Seal

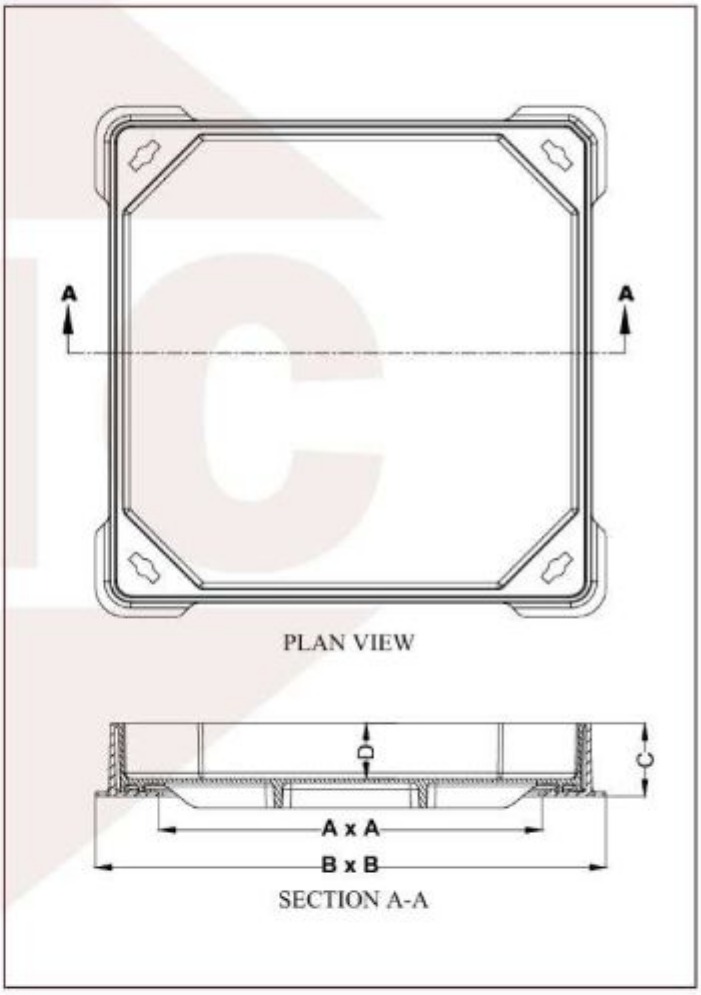




Recessed Covers & Frames

Product Code	Size – Clear Opening mm	Frame Overbase mm	Height mm	Load Class	Recess Depth	Seal
REC-3030-MD	300x300	430X430	65	B125	40	Double Seal
REC-4545-MD	450x450	600x600	85	B125	65	Double Seal
REC-4545-HD	450x450	600x600	85	C250	65	Double Seal
REC-4545-EHD	450x450	600x600	85	D400	65	Double Seal
REC-6060-MD	600x600	720x720	80	B125	60	Double Seal
REC-6060-HD	600x600	720x720	80	C250	60	Double Seal
REC-6060-EHD	600x600	725x725	95	D400	70	Double Seal



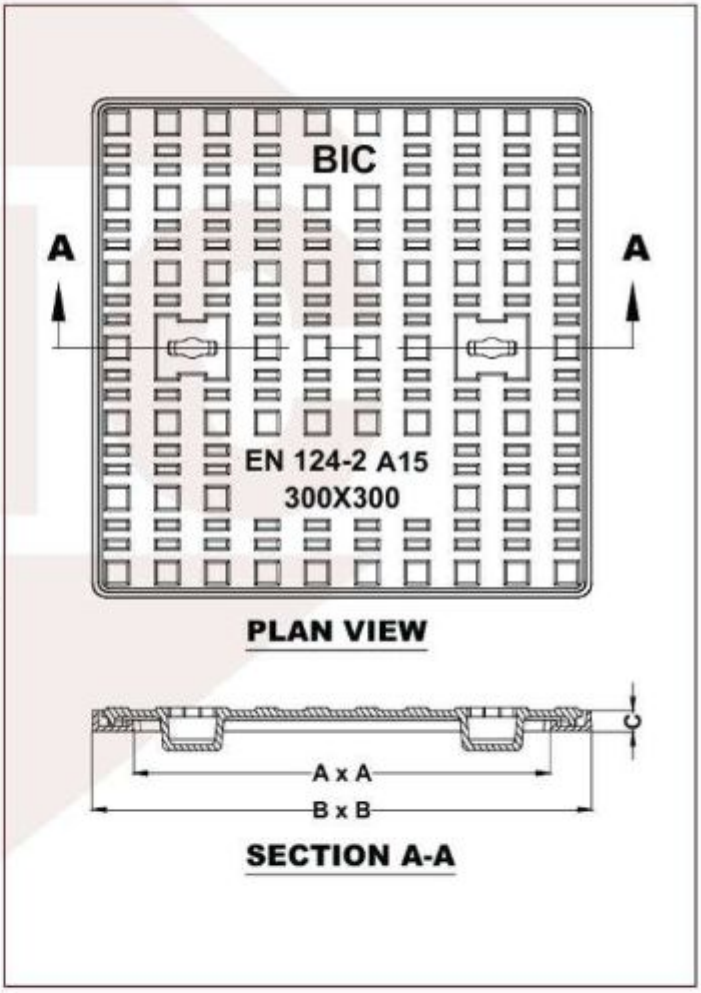


Solid Top Covers & Frames – Smart Series

Product Code	Size – Clear Opening mm	Frame Overbase mm	Height mm	Load Class	Seal
MH-3030-LD	270x270	300x300	18	A15	Single Seal
MH-4545-LD	450x450	520x520	22	A15	Single Seal
MH-6060-LD	550x550	600x600	26	A15	Single Seal
MH-3030-5MT *	270x270	300x300	18	5MT	Single Seal
MH-4545-5MT *	450x450	520x520	22	5MT	Single Seal
MH-6060-5MT *	550x550	600x600	26	5MT	Single Seal

*5MT Covers are designed by BIC and not part of EN124 classification

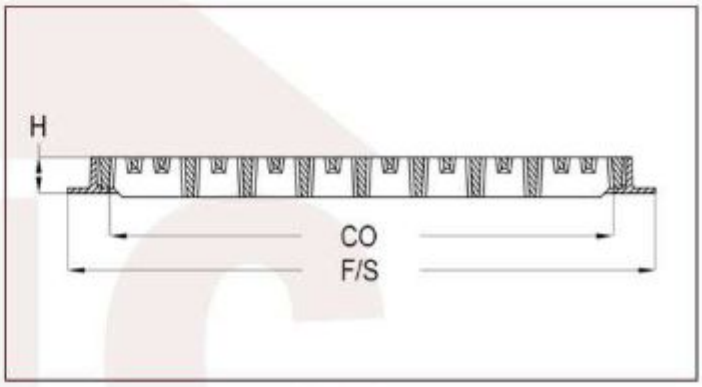




Gully Grate & Frame

Product Code	Size – Clear Opening mm	Frame Overbase mm	Height mm	Load Class	Features
G-3030-MD	300x300	330x330	38	B125	
G-4545-MD	450x450	490x490	60	B125	
G-4545-HD	450x450	490x490	60	C250	
G-4545-EHD-DT	450x450	550x600	100	D400	Double Triangular
G-6060-MD	600x600	700x700	75	B125	
G-6060-HD	600x600	700x700	75	C250	
G-6060-EHD	600x600	700x700	75	D400	
G-6060-HD-C	600x600	700x700	60	C250	Concave Top

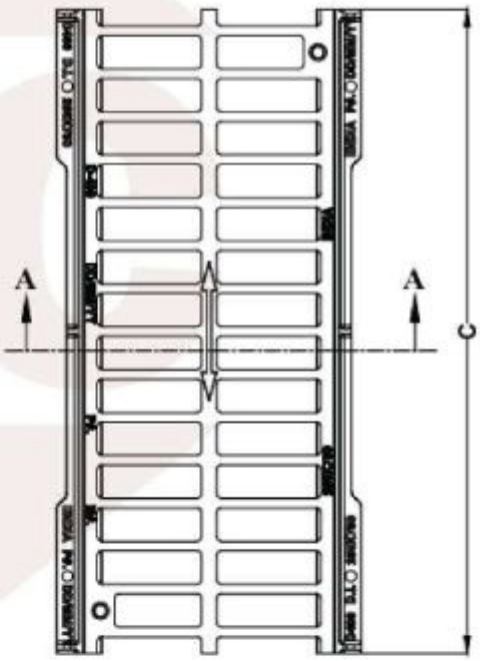




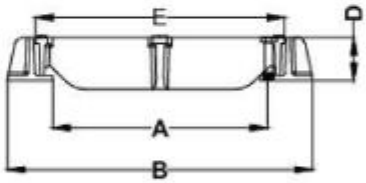
Trench Grates with Channel

Product Code	Trench Width	Grate Width	Length	Channel Height	Load Class
CG-2575-LD	250	300	750	35	A15
CG-3075-MD	300	350	750	45	B125
CG-3075-HD	300	350	750	45	C250
CG-3060-EHD	300	340	600	100	D400
CG-3575-MD	350	400	750	45	B125
CG-3575-HD	350	400	750	45	C250
CG-4075-MD	400	450	750	45	B125
CG-4575-MD	450	500	750	45	B125
CG-4575-EHD	450	500	750	45	D400
CG-6075-EHD	600	650	750	45	D400





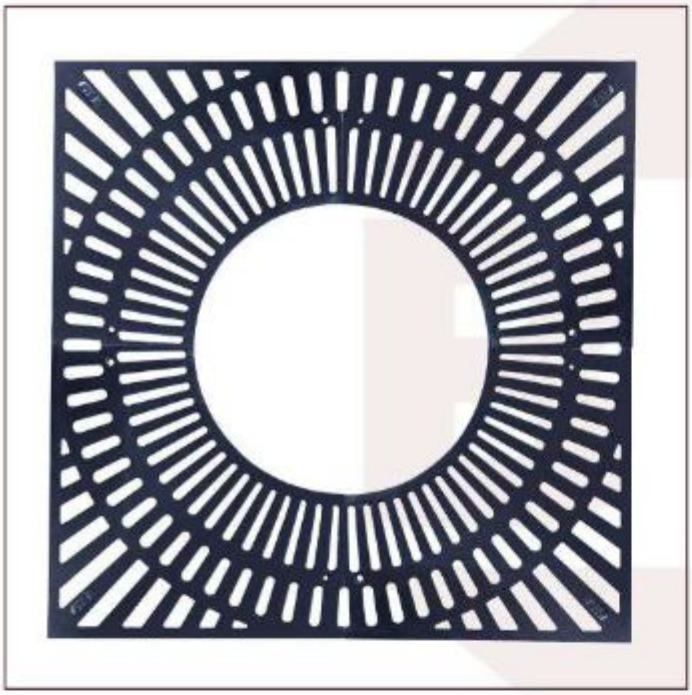
PLAN VIEW

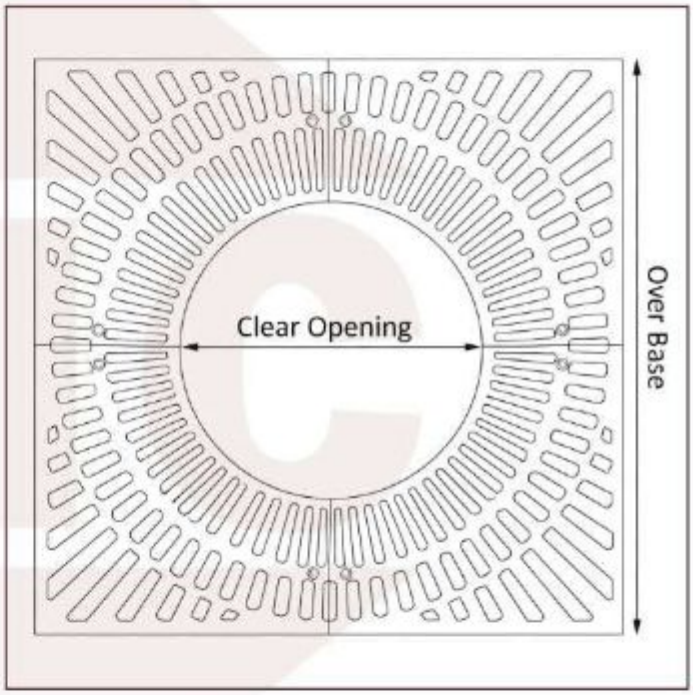


SECTION A-A

Tree Gratings

Product Code	Outer Size	Inner Dia	Height		
TG800	800x800	400	24	Set of 4 pcs	Supplied with Fixing Bolts & Clips
TG1000	1000x1000	500	24		
TG1200	1200x1200	600	26		
TG1400	1400x1400	700	40		
TG1500	1500x1500	750	40		
TG800R	800 dia	400	24		
TG1000R	1000 dia	500	24		
TG1200R	1200 dia	600	26		





Quality & Assurance

At BIC, quality is engineered into every stage of the manufacturing cycle to ensure consistent mechanical performance, dimensional integrity, and long service life of our ductile iron covers & gratings.

Design & Engineering

Products are designed using EN124 load classifications with optimized section thickness, rib geometry, and load transfer characteristics. Designs are validated through physical load testing to ensure real-world performance.

Raw Material & Melting

Charge mix and melting practices are controlled to achieve specified chemical composition, carbon equivalent, and nodularity. Inoculation and magnesium treatment are closely monitored and timed.

Moulding & Production

High-pressure moulding and controlled sand parameters ensure uniform compaction, dimensional consistency, and defect minimization technology.

Fettling & Machining

Critical surfaces are grinded or machined to maintain flatness, seating accuracy, and interchangeability within specified tolerances.

Inspection & Testing

Systematic quality checks include:

- Dimensional verification with calibrated gauges
- Microstructural evaluation
- Mechanical and load testing as per EN124 standards

Surface Protection (Painting/Coating)

Covers are shot blasted using steel grits to achieve a clean surface profile, followed by application of protective coatings (bitumen/epoxy-based) for enhanced corrosion resistance and durability in aggressive environments.

Final Dispatch & Traceability

Each casting is batch-traceable, with final inspection ensuring compliance to specifications prior to dispatch.

At BIC, our systems are designed to deliver repeatable quality with minimal variation, ensuring dependable field performance.

Our Projects

Disa India Ltd. , Bangalore Office



SAP Labs India, Head Office



Salarpuria Sattva Aspire, Bangalore





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BIC

Bengal Iron Corporation

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An ISO 9001:2015 company