

# DUCTILE IRON

PRODUCT CATALOGUE



MANHOLE  
COVERS





## LATE BHAGAWATI PRASAD KEJRIWAL

### FOUNDER

**I**n 1956, just nine years after India gained independence, the nation was grappling with the aftermath of partition. Amidst this challenging backdrop, a young enthusiast from Rajasthan, driven by a zeal to make a difference and an eye for opportunities, took a bold step. He ventured into setting up a cast iron foundry in Howrah, West Bengal. This marked the beginning of the remarkable journey of our founder, a visionary, the late **Shri Bhagwati Prasad Kejriwal**.

Hailing from the small town of Ramgarh in Rajasthan, Shri Kejriwal had limited formal education. However, he more than compensated for this with his hard work, sincerity, dedication, and acute business sense. His passion and integrity were the cornerstones of his success. As Shri Kejriwal wisely said, “In the realms of business and industry, it is vision and perseverance that pave the way to success.”

The journey that began with a modest foundry in 1956 has undergone numerous transformations over nearly seven decades. Today, Kejriwal Castings Ltd stands as a testament to sheer willpower and endurance. Under the visionary leadership of Shri Bhagwati Prasad Kejriwal, the company thrived on a foundation of quality, ethical practices, and forward-thinking approaches.

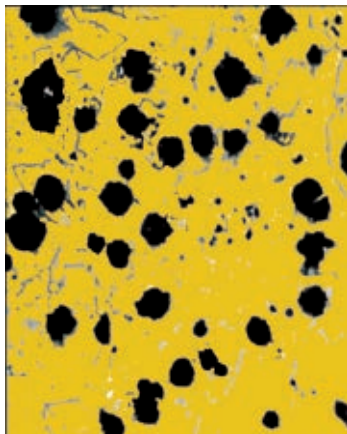
A true pioneer, Shri Kejriwal's passion for pushing boundaries and embracing new challenges was the hallmark of our growth. From the early days, he recognized the importance of staying ahead of technological advancements and integrating them into our processes. His relentless pursuit of excellence and deep understanding of market dynamics enabled the company to evolve and flourish in an ever-changing landscape, achieving numerous firsts in the field.

As the Rig Veda wisely notes, “**When there is harmony between the mind, heart, and resolution, then nothing is impossible.**”

*Kejriwal*  
CASTINGS LIMITED



Photomicrograph of Grey Cast Iron (100X) showing carbon in the form of graphite flakes.



Photomicrograph of Ductile Cast Iron (100X) showing carbon in the form of graphite nodules.

# Advancement of Ductile Iron

Cast Iron has long been the standard material for conveying water and sewage in municipal, utility and industrial piping systems.

The real life expectancy of cast iron pipe is unknown, but is usually estimated at 100 years or more. The oldest operating cast iron main is that at Versailles, France, installed in 1664. In several countries there are members of the Cast Iron Pipe Century Club, a unique organization composed of cities or utilities who have cast iron pipe still in service after 100 years.

Ductile Iron Pipe, a product of advanced metallurgy, offers unique properties for conveying water under pressure, and other piping uses. It combines the physical strength of mild steel with the long life of grey cast iron.

Ductile iron offers the greatest possible margin of safety against service failures due to ground movement and beam stresses. Virtually unbreakable in ordinary service, it also provides increased resistance to breakage caused by rough handling in shipping and installation.

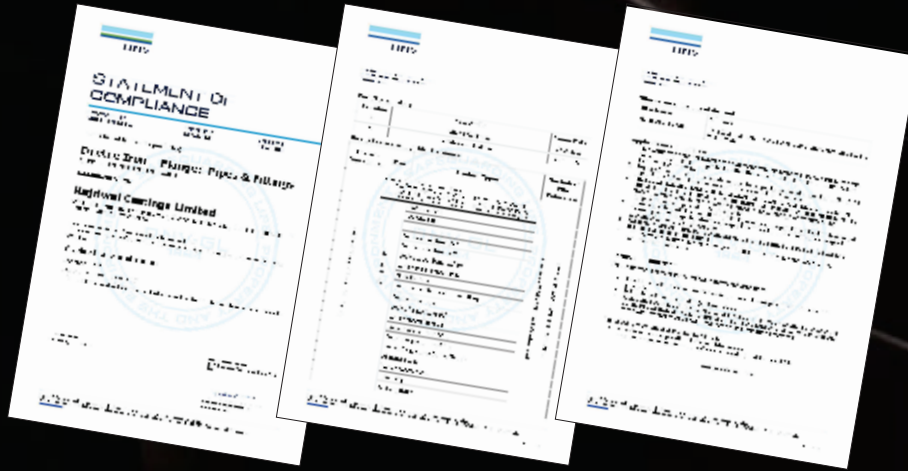
The corrosion resistance of ductile iron pipe has been proved in a wide variety of accelerated tests to be at least the equal of gray cast iron. Ductile iron is produced by adding a closely controlled amount of magnesium alloy to a molten iron of low phosphorous and low sulfur content. The magnesium alloy addition produces a remarkable change in the microstructure by causing the carbon in the iron to assume a spheroidal or nodular shape, (as contrasted to the flake form of graphite in gray cast iron), and at the same time producing a finer grained iron matrix in the surrounding ferrite structure. As a result of this remarkable change, a far stronger, tougher, and ductile material is obtained.

In addition to the benefits of long life, corrosion resistance, high structural strength, and tight joints, ductile iron is also readily machinable, an important requirement in any pipe that must be drilled, tapped or cut.



# CERTIFICATIONS

## DNV PRODUCT CONFORMITY CERTIFICATE FOR FITTINGS



## SGS CAPABILITY CERTIFICATE FOR FITTINGS



## ISO 9001, 14001, 45001 Certificates

## NABL



# Extracts from EN 124-1:2015



## Scope

**EN 124-1 : 2015 Standard** is applicable to manhole tops and gully tops with a clear opening up to and including 1000 mm for covering gullies, manholes and inspection chambers installed in areas subjected to pedestrian and/or vehicular traffic. It specifies definitions, classification, general principles of design, performance requirements and test methods for gully tops and manhole tops according to EN 124-2, for gully tops and manhole tops made of cast iron.

## Classification

**Basis of the classification :** Based on the test loads gully tops or manhole tops shall be classified into one of the following classes : **A 15, B 125, C 250, D 400, E 600 or F 900.**



**GROUP 1  
A15**

Areas which can only be used by pedestrians and pedal cyclists.



**GROUP 2  
B125**

Pedestrian areas and comparable areas, car parks or car parking decks.



**GROUP 3  
C25**

For gully tops, installed in the area of kerbside channels of roads (Fig-5) 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.



**GROUP 4  
D400**

Carriageways of roads (including pedestrian streets), hard shoulders (Fig-6) and parking areas, for all types of road vehicles.



**GROUP 5  
E600**

Areas imposing high wheel loads, e.g. docks, aircraft pavements.



**GROUP 6  
F900**

Areas imposing high wheel loads, e.g. docks, aircraft pavements.

For concave gratings the places of installation shall be limited to the following places of intended uses :

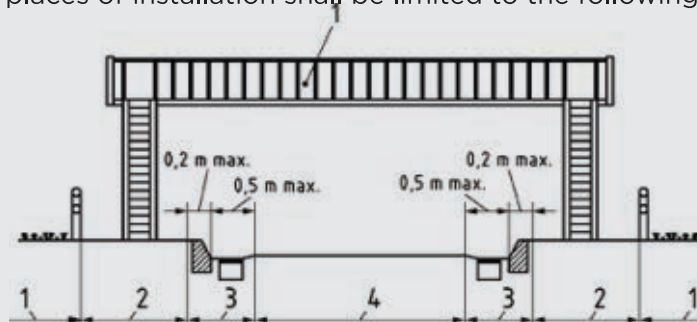


Fig. 1 : Typical highway cross-section showing the location of the groups



## Terms and Definitions, Symbols, Units and Abbreviated Terms

### Terms and definitions

#### Manhole

Structure with a removable cover constructed on a drain or sewer to permit entry by personnel.

#### Inspection chamber

Structure with a removable cover constructed on a drain or sewer that permits the introduction of cleaning and inspection equipment from surface level, but does not provide access for personnel

#### Gully

Assembly to receive water for discharge into a drainage system

#### Gully top

Upper part of a gully consisting of a frame and grating with or without cover

#### Manhole top

Upper part of a manhole or inspection chamber consisting of a frame and cover and/or grating

#### Frame

Part of a gully top or manhole top which receives and supports a grating and/or a cover

#### Frame depth

Distance between the top surface and the bottom surface of the frame

#### Grating

Movable part(s) or opening within a manhole top or a gully top which permit(s) the passage of water through itself into the gully or manhole

#### Cover

Movable part(s) of a manhole top or a gully top which covers the manhole or gully opening

#### Element

Frame or cover or grating of a manhole top or gully top

\*Note : Hinges, locking accessories and other accessories are not elements.

#### Vent

Opening in the cover of a manhole top to provide ventilation

#### Dirt bucket

Removable component of a gully top which collects debris

#### Dirt pan

Removable component of manhole top which collects debris

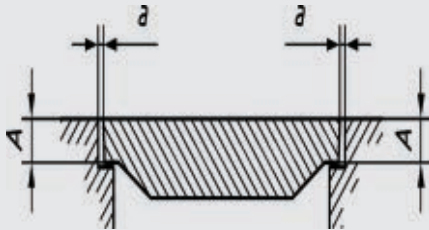
#### Seating

Surface on which the grating or the cover rests in the frame

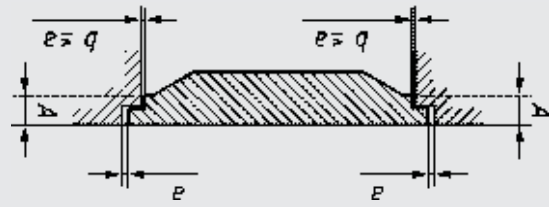


**Depth of insertion (A)**

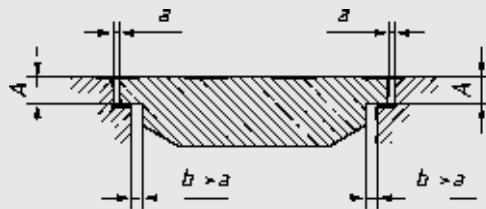
Distance between the top of the frame and the bottom of the cover or grating adjacent to the seating



Example 1 : A for non-stepped covers/gratings



Example 2 : A for stepped covers/gratings when  $b \leq a$



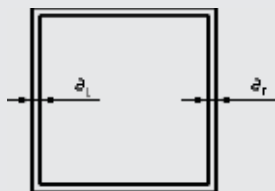
Example 3 : A for stepped covers/gratings when  $b > a$

**Fig. 2 : Examples for determination of depth of insertion**

\*Note: The depth of insertion is expressed in millimeters (mm).

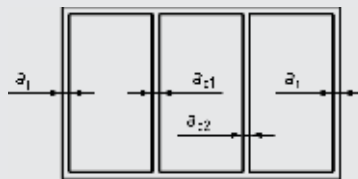
**Total clearance ( $\Sigma a$ )**

Sum of the maximum individual clearances between adjacent elements of the frame and grating/cover



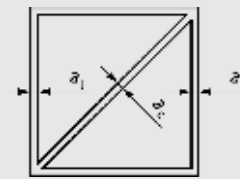
$\Sigma a = a_l + a_r$

Example 1



$\Sigma a = a_l + a_{c1} + a_{c2} + a_r$

Example 2



$\Sigma a = a_l + a_r + a_r$

Example 3

**Key :**  $a_l$  clearance left       $a_c$  clearance centre       $a_r$  clearance right

**Fig. 3 : Examples for the determination of total clearance**

\*Note: The total clearance is expressed in millimetres (mm).

**Frame bearing area ( $A_b$ )**

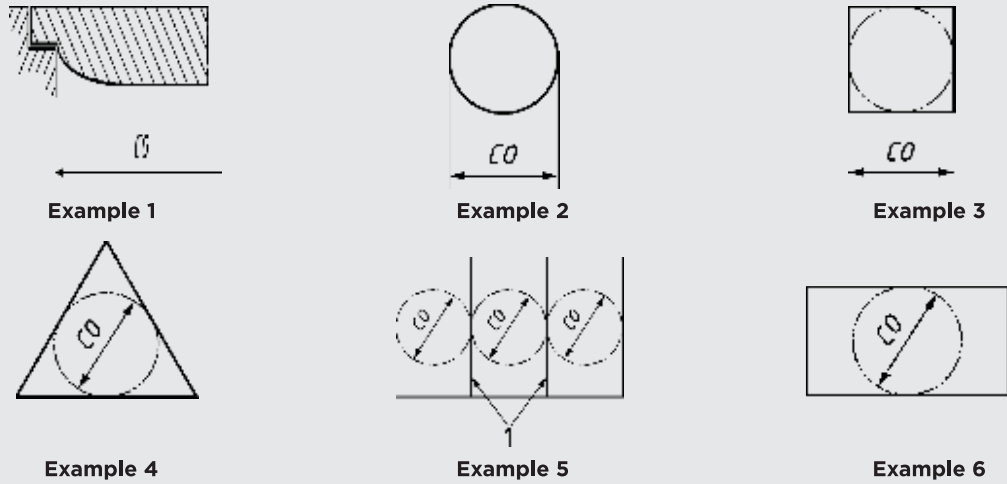
Surface of the underside of a frame which rests upon the supporting structure

\*Note: The bearing area is expressed in square millimetres (mm<sup>2</sup>).



## Clear opening (CO)

Diameter of the largest circle that can be inscribed in the clear area (3.1.19) of the frame

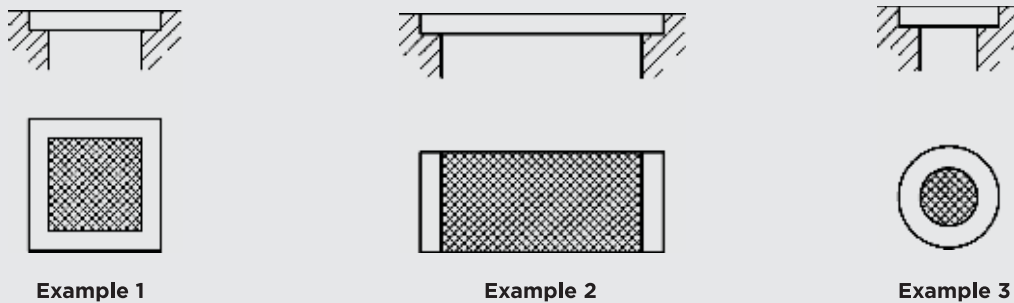


**Fig. 4 : Examples of clear opening**

**Note :** The clear opening is expressed in millimeters (mm).

## Clear area (CA)

Unobstructed area between the seatings in the frame



The clear area is expressed in square millimetres (mm<sup>2</sup>).

**Note :** Examples for unobstructed areas are shown as the shaded area in Figure 4 a) to Figure 4 c). In the case that the area of seatings in the frame is interrupted by functional areas, for example, areas for drainage of water, areas for holding dirt pans or means for access to manholes and spaces for hinges, locking and securing systems, these functional areas are not considered for the calculation of mass per unit area. If there are more possibilities the larger of the possible clear areas need to be used.

## Design requirements

### a. Clear opening of manhole tops for man entry

The clear opening of manhole tops shall be declared in the product documentation.

### b. Depth of insertion

Gully tops and manhole tops of classes D 400, E 600 and F 900 with the exception of those secured shall have a depth of insertion *A* of minimum 50 mm

**NOTE :** In the vast majority of Member States the clear opening is considered to be at least 600 mm for man entry. In some other Member States larger openings are required.



## C. Clearance

### I. Total clearance

The clearance between the different elements of gully tops and manhole tops is defined in 3.1.16. This clearance can lead to horizontal displacement of the cover or grating in its frame. In order to limit this displacement, the total clearance  $\Sigma\alpha$ , shall conform to the following requirements :

- a) for covers or gratings in one or two parts:
  - 1) clear opening  $CO \leq 400$  mm:  $\Sigma a \leq 7$  mm,
  - 2) clear opening  $CO > 400$  mm:  $\Sigma a \leq 9$  mm;
- b) for covers or gratings with three or more parts secured in the frame each individual clearance ( $\alpha$  ,  $\alpha_1$  ,  $\alpha_c$  ), shall be limited to a maximum of 5 mm;
- c) for covers or gratings with three or more parts not secured in the frame, the total clearance  $\Sigma\alpha$  resulting from the displacement of all parts shall not exceed 15 mm. Dimensions in mm.
- d) Slot dimensions of gratings
  - 1) Waterway area  
For all classes the dimensions of slots in gratings shall be selected having regard to the hydraulic capacity and the slots shall be evenly distributed over clear area. The waterway area shall not be less than 30 % of the clear area and shall be provided by the manufacturer.
  - 2) Slot dimensions  
The slots in gratings shall have the dimensions stated in Table 3. The dimensions of slots for classes C 250 to F 900 shall be dependent on the orientation of the longitudinal axis of the slots in relation to the direction of traffic, in accordance with Table 3 and Figure 8.

#### Key

1. orientation pos. 1
2. orientation pos. 2
3. direction of traffic

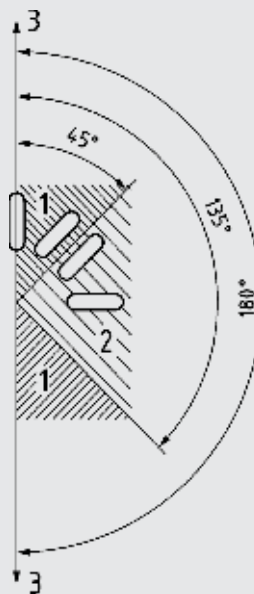


Fig. 6 : Orientation of slots in gratings

**NOTE :** The dimensions of the waterway area and the openings of side entry or kerb gullies are not specified in this document.



## EXTRACTS FROM EN 124-1:2015

### Slot dimensions

Openings			Class	Width <sup>a</sup> (mm)	Lenght (mm)
Straight slots	Orientation according to Figure 8	Pos. 1 and Pos. 2	A 15 and B 125	8 to 18	No limitation
				> 18 to 25	≤ 170
		Pos. 1	C 250 to F 900	16 to 32	≤ 170
		Pos. 2	C 250	16 to 42	No limitation
D 400 to F 900	18 to 42		No limitation		
Slots in other shapes	Slots in other shapes shall not exceed a width of 25 mm for classes A 15 and B 125 and a width of 42 mm for classes C 250 to F 900. They shall be designed in such a way as to prevent the 170 mm length of the gauge from entering the slot. The gauge shall be held vertically with its 170 mm edge parallel to the surface of the grating.				
<sup>a</sup> In pedestrian areas and/or pedestrian streets, a reduction of the slot width to 5 mm is permitted.					

**NOTE :** The minimum width values of this table do not apply for the slots immediately adjacent to the hinged side of the grating associated with the opening of the grating

#### e) Frame depth

The depth of the frame of manhole tops or gully tops of class D 400, E 600 and F 900 shall be at least 100 mm.

For class D 400 the frame depth may be reduced to 75 mm provided that the frame is made either of cast iron or steel and provides anchoring facilities.

#### f) Opening angle of hinged covers/grating

The opening angle of hinged covers or gratings shall be at least 100° to the horizontal unless additional stays are provided.

**NOTE :** Additional provisions can be required to prevent the cover or grating from accidental closing, e.g. site or service conditions.

#### g) Covers with fillings

Covers with fillings and covers designed to be filled subsequently shall comply with EN 124-2 for gully tops and manhole tops made of cast iron or EN 124-3 for gully tops and manhole tops made of steel or aluminium alloys. The manufacturer shall provide all necessary instructions for filling unless the filling has been carried out at the manufacturer's plant.

### Load bearing capacity

When tested gully tops and manhole tops with a clear opening (CO) equal to or greater than 250 mm shall withstand the test load according to Table 2 for each class independent of the material. Where the clear opening (CO) is less than 250 mm, the test load shall be as shown in Table 4, multiplied by CO/250 but not less than 0,6 times of the test load according to Table 2.

The load bearing capacity shall be declared as corresponding class according to Table 2

### Test Loads

Class	A15	B 125	C 250	D 400	E 600	F 900
F <sub>T</sub> in kN	15	125	C 250	250	400	900

**NOTE :** For class A, the manufacturer can, if requested by the specifier, declare the test load achieved.

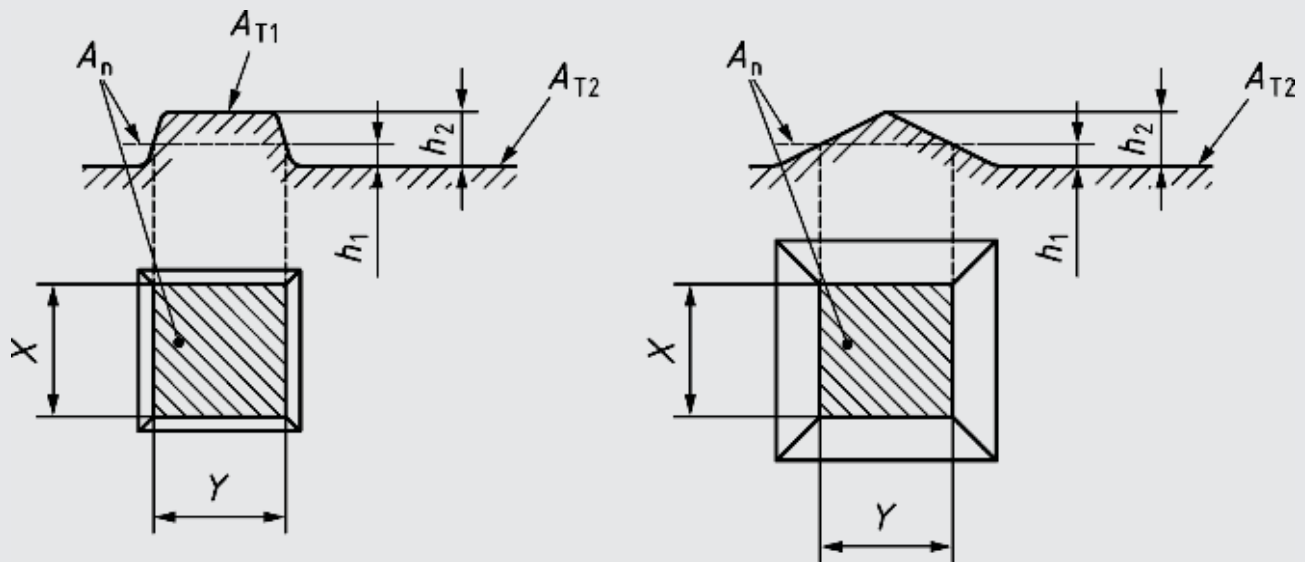


### Skid resistance of covers

The upper surface of covers shall have a structured upper surface with a defined raised pattern or a coarse textured upper surface which permits free drainage/dispersion of water to the surrounding area and complies with the following dimensional requirements :

- When measured from the total plan surface, the raised pattern shall have a height of 2 mm to 6 mm for classes A 15, B 125, and C 250 and a height of 3 mm to 8 mm for classes D 400, E 600, and F 900.
- The raised pattern shall be distributed as far as possible evenly over the total plan surface area of the manhole top.
- The total surface area of raised pattern ( $\Sigma A_n$ ) shall be not less than 10 % and not more than 70 % of the total projected surface area ( $A_{T2}$ ).
- The surface area of any single raised pattern defined as  $A_n$  shall be determined as shown in Figure 9.

Parts of logo that are within the height requirements are considered as part of the raised pattern and shall provide free drainage/dispersion of water.



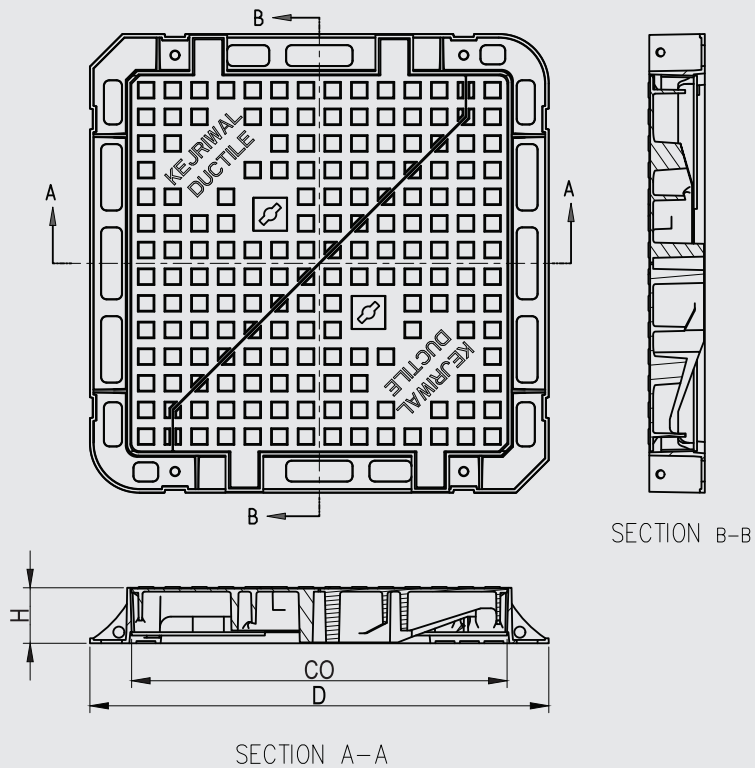
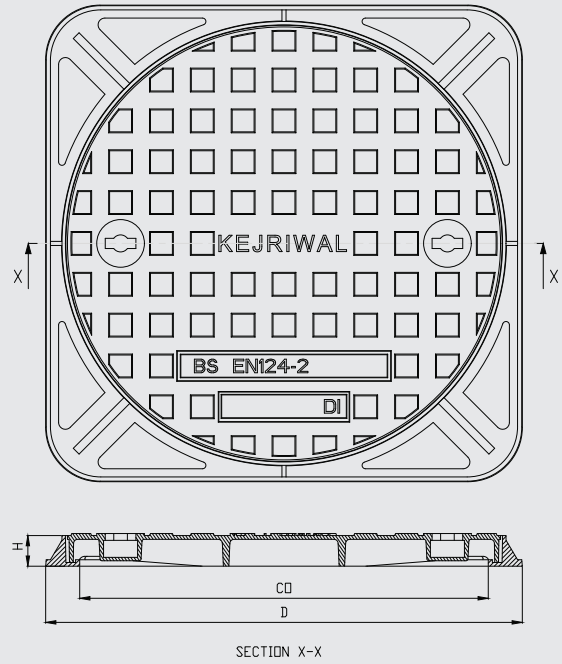
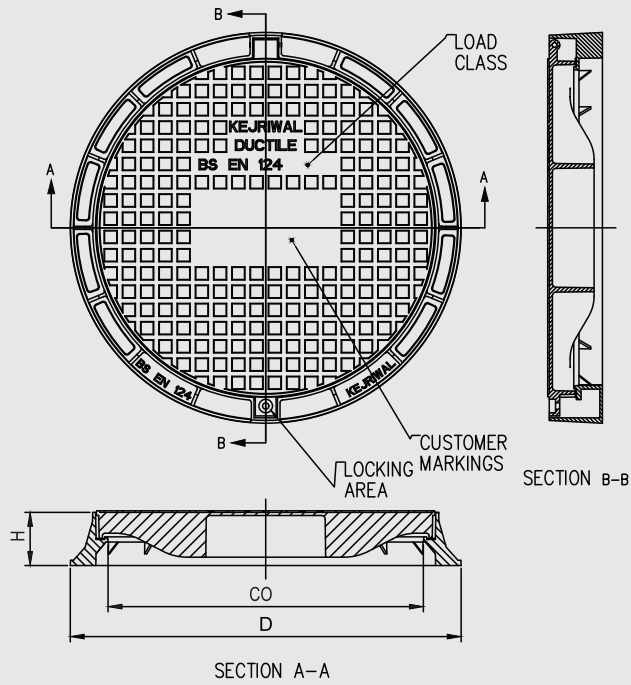
**Key**

$A_n$	surface area of a single raised pattern at height $h_1$ as measured from the total plan surface of the manhole top	$A_{T1}$	upper surface of raised pattern
$h_2$	height of raised pattern	$A_{T2}$	total projected surface area of manhole top
$h_1$	minimum height of raised pattern	$Y$	length of raised pattern measured at $A_n$
		$X$	width of raised pattern measured at $A_n$

**Fig. 7 : Example for determination of raised pattern**

# Manhole Covers & Frame

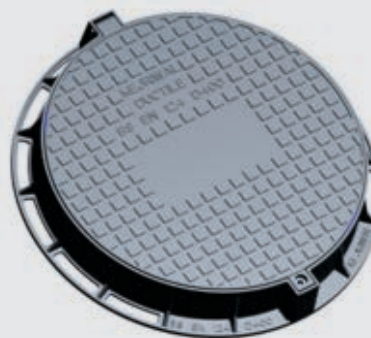
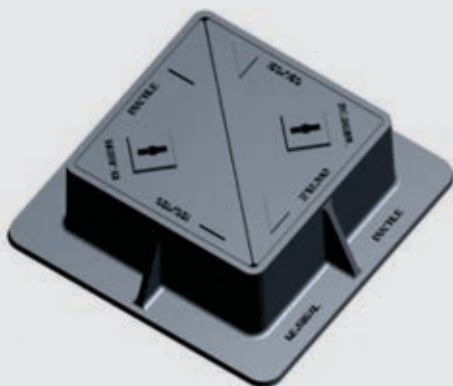
## EN124-1:2015





A-15								
CIRCULAR SINGLE SEAL SOLID TOP WITH CIRCULAR BASE FRAME			CIRCULAR SINGLE SEAL SOLID TOP WITH CIRCULAR BASE FRAME			SQUARE/RECTANGULAR SINGLE SEAL SOLID TOP WITH SQUARE/RECTANGULAR BASE FRAME		
Clear Opening (CO)	Over Base (D)	Frame Depth (H)	Clear Opening (CO)	Over Base (D)	Frame Depth (H)	Clear Opening (CO)	Over Base (D)	Frame Depth (H)
150	300	35	150	300 X 300	35	150 X 150	300 X 300	35
200	350	35	200	350 X 350	35	200 X 200	350 X 350	35
300	450	35	300	450 X 450	35	380 X 230	530 X 380	35
400	560	35	400	550 X 550	35	300 X 300	450 X 450	35
450	560	35	450	600 X 600	35	400 X 400	550 X 550	35
500	650	35	500	650 X 650	35	450 X 450	570 X 570	35
550	700	35	550	700 X 700	35	500 X 500	650 X 650	35
600	800	35	600	700 X 700	35	600 X 600	750 X 750	35
600	740	35	675	825 X 825	35	550 X 550	700 X 700	35
675	825	35	700	850 X 850	35	600 X 450	750 X 600	35
700	850	35	750	900 X 900	35	675 X 675	825 X 825	35
750	850	35	800	950 X 950	35	700 X 700	850 X 850	35
800	950	35	900	1050 X 1050	35	750 X 600	900 X 750	35
900	1050	35	1000	1150 X 1150	35	750 X 750	900 X 900	35
1000	1150	35				800 X 800	950 X 950	35
						900 X 600	1105 X 645	35
						900 X 900	1050 X 1050	35
						1000 X 1000	1150 X 1150	35

\* We can customize any size & dimensions as per customized drawing & requirements.

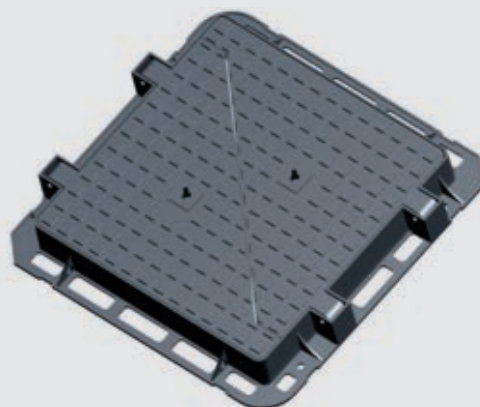
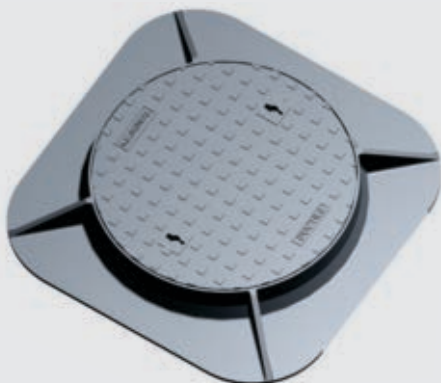




# MANHOLE COVERS & FRAME EN 124-1:2015

B-125								
CIRCULAR SINGLE SEAL SOLID TOP WITH CIRCULAR BASE FRAME			CIRCULAR SINGLE SEAL SOLID TOP WITH CIRCULAR BASE FRAME			SQUARE/RECTANGULAR SINGLE SEAL SOLID TOP WITH SQUARE/RECTANGULAR BASE FRAME		
Clear Opening (CO)	Over Base (D)	Frame Depth (H)	Clear Opening (CO)	Over Base (D)	Frame Depth (H)	Clear Opening (CO)	Over Base (D)	Frame Depth (H)
150	300	40	150	300 X 300	40	150 X 150	300 X 300	40
200	350	40	200	350 X 350	40	200 X 200	350 X 350	40
300	450	40	300	450 X 450	40	380 X 230	530 X 380	40
400	560	50	400	550 X 550	40	300 X 300	450 X 450	40
450	560	50	450	600 X 600	40	400 X 400	550 X 550	40
500	650	40	500	650 X 650	40	450 X 450	570 X 570	40
550	700	40	550	700 X 700	40	500 X 500	650 X 650	40
600	800	50	600	700 X 700	45	600 X 600	750 X 750	40
600	740	75	675	825 X 825	40	550 X 550	700 X 700	40
675	825	40	700	850 X 850	40	600 X 450	750 X 600	40
700	850	40	750	900 X 900	75	675 X 675	825 X 825	40
750	850	40	800	950 X 950	40	700 X 700	850 X 850	40
800	950	40	900	1050 X 1050	40	750 X 600	900 X 750	40
900	1050	40	1000	1150 X 1150	40	750 X 750	900 X 900	40
1000	1150	50				800 X 800	950 X 950	40
600	750	75				900 X 600	1105 X 645	40
						900 X 900	1050 X 1050	40
						1000 X 1000	1150 X 1150	40

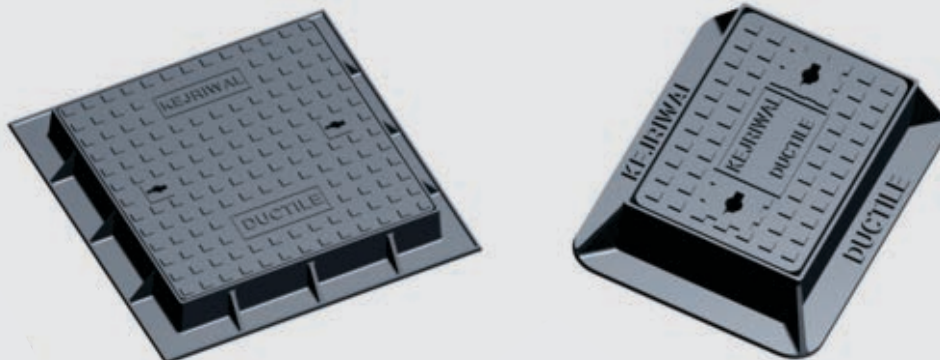
\* We can customize any size & dimensions as per customized drawing & requirements.





C-250								
CIRCULAR SINGLE SEAL SOLID TOP WITH CIRCULAR BASE FRAME			CIRCULAR SINGLE SEAL SOLID TOP WITH CIRCULAR BASE FRAME			SQUARE/RECTANGULAR SINGLE SEAL SOLID TOP WITH SQUARE/RECTANGULAR BASE FRAME		
Clear Opening (CO)	Over Base (D)	Frame Depth (H)	Clear Opening (CO)	Over Base (D)	Frame Depth (H)	Clear Opening (CO)	Over Base (D)	Frame Depth (H)
150	300	80	150	300 X 300	100	150 X 150	225 X 225	80
200	350	80	200	350 X 350	100	200 X 200	350 X 350	80
300	450	80	300	450 X 450	100	225 X 225	360 X 360	80
400	550	80	400	550 X 550	100	380 X 230	530 X 530	80
450	600	80	450	600 X 600	100	300 X 300	450 X 450	80
500	650	80	500	650 X 650	100	400 X 250	520 X 380	80
560	700	80	550	700 X 700	100	400 X 400	500 X 500	80
600	740	80	600	740 X 740	100	450 X 450	590 X 590	80
650	825	80	675	825 X 825	100	500 X 500	650 X 650	80
675	875	80	700	850 X 850	100	600 X 600	740 X 740	80
700	850	80	750	850 X 850	100	550 X 550	700 X 700	80
750	850	80	800	1000 X 1000	100	600 X 450	750 X 600	80
800	1000	80	900	1040 X 1040	100	675 X 675	825 X 825	80
900	1040	80	1000	1150 X 1150	100	700 X 700	850 X 850	80
1000	1150	80				750 X 600	900 X 750	80
						750 X 750	900 X 900	80
						800 X 800	950 X 950	80
						900 X 600	1050 X 750	80
						900 X 900	1040 X 1040	80
						1000 X 1000	1150 X 1150	80
						1070X1070	1200X1200	80

\* We can customize any size & dimensions as per customized drawing & requirements.

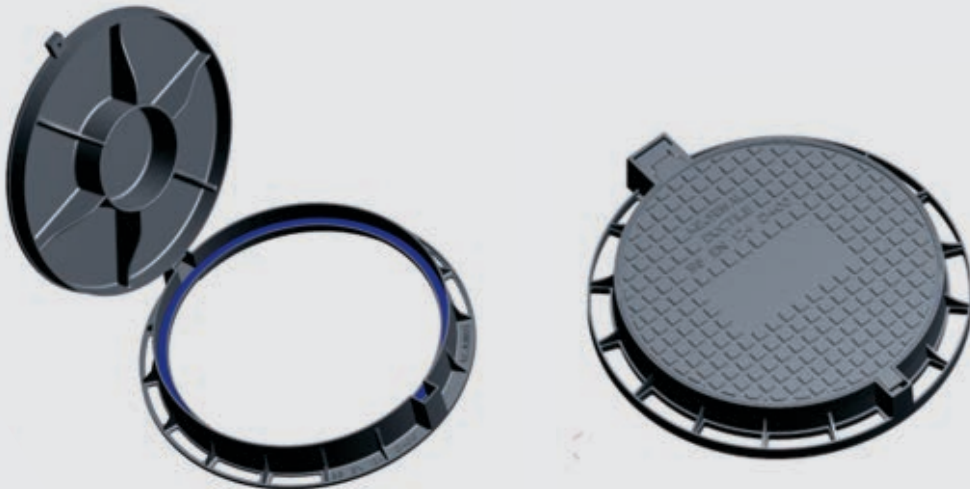




# MANHOLE COVERS & FRAME EN 124-1:2015

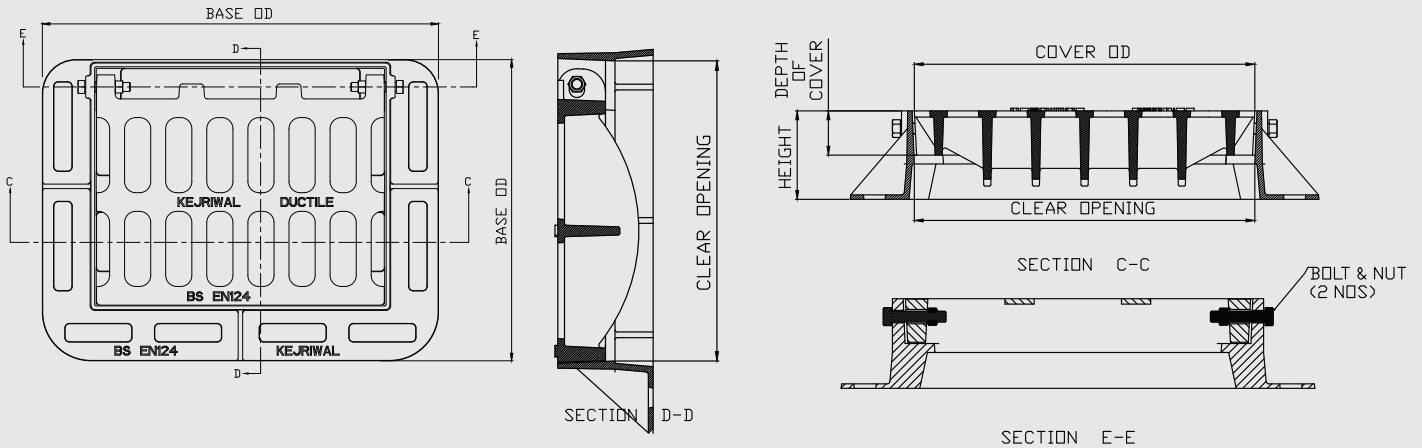
D - 400								
CIRCULAR SINGLE SEAL SOLID TOP WITH CIRCULAR BASE FRAME			CIRCULAR SINGLE SEAL SOLID TOP WITH CIRCULAR BASE FRAME			SQUARE/RECTANGULAR SINGLE SEAL SOLID TOP WITH SQUARE/RECTANGULAR BASE FRAME		
Clear Opening (CO)	Over Base (D)	Frame Depth (H)	Clear Opening (CO)	Over Base (D)	Frame Depth (H)	Clear Opening (CO)	Over Base (D)	Frame Depth (H)
150	300	100	150	300 X 300	100	150 X 150	225 X 225	100
200	350	100	200	350 X 350	100	200 X 200	350 X 350	100
300	450	100	300	450 X 450	100	225 X 225	360 X 360	100
400	550	100	400	550 X 550	100	380 X 230	530 X 530	100
450	600	100	450	600 X 600	100	300 X 300	450 X 450	100
500	650	100	500	650 X 650	100	400 X 250	520 X 380	100
560	700	100	550	700 X 700	100	400 X 400	500 X 500	100
600	740	100	600	740 X 740	100	450 X 450	590 X 590	100
650	825	100	675	825 X 825	100	500 X 500	650 X 650	100
675	875	100	700	850 X 850	100	600 X 600	740 X 740	100
700	850	100	750	850 X 850	100	550 X 550	700 X 700	100
750	850	100	800	1000 X 1000	100	600 X 450	750 X 600	100
800	1000	100	900	1040 X 1040	100	675 X 675	825 X 825	100
900	1040	100	1000	1150 X 1150	100	700 X 700	850 X 850	100
1000	1150	100				750 X 600	900 X 750	100
						750 X 750	900 X 900	100
						800 X 800	950 X 950	100
						900 X 600	1050 X 750	100
						900 X 900	1040 X 1040	100
						1000 X 1000	1150 X 1150	100

\* We can customize any size & dimensions as per customized drawing & requirements.



# Gully Tops

## EN124-1:2015

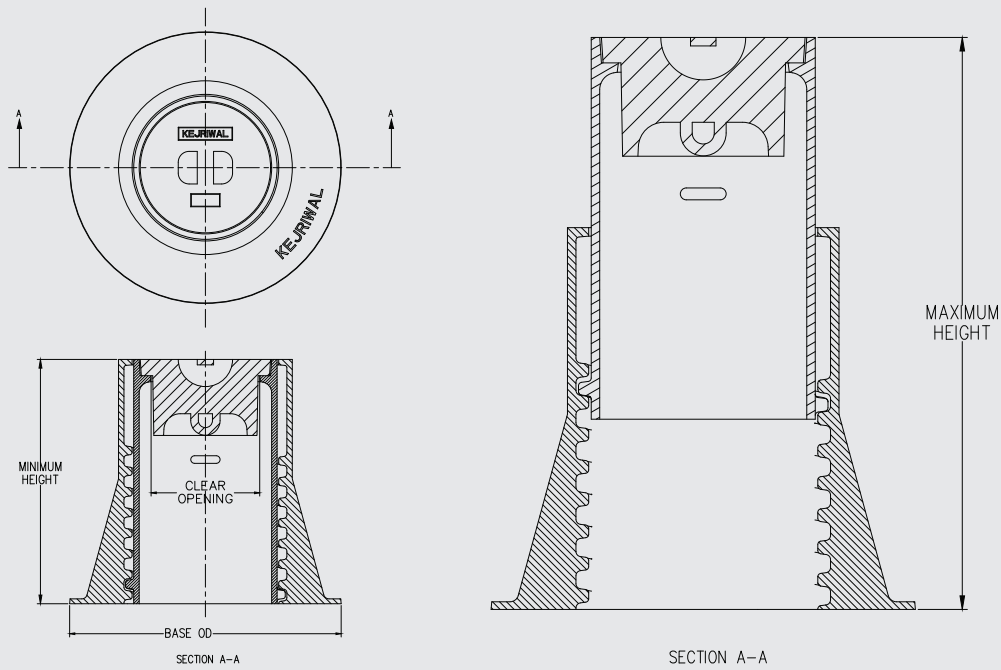


- Options available**
- Ductile Iron
  - Grey Iron
  - Customized markings
  - Ventilated covers
  - Epoxy powder coating
- Features**
- Non-rock seating
  - Black bitumen coated
  - Extra heavy duty traffic loading for airports & docks
  - Convenient length for ease of use
  - Large water way area

B-125			C-250			D-400		
Clear Opening	Base OD	Height	Clear Opening	Base OD	Height	Clear Opening	Base OD	Height
224 x 225	360 x 360	75	225 x 225	375 x 310	75	400 x 400	500 x 500	100
300 x 300	430 x 380	75	300 x 300	440 x 440	75	450 x 450	600 x 450	100
325 x 325	445 x 445	75	325 x 325	445 x 445	75	600 x 450	740 x 540	100
400 x 350	550 x 430	75	400 x 350	550 x 430	75	600 x 600	740 x 740	100
420 x 420	520 x 480	75	420 x 420	520 x 480	75			
450 x 450	550 x 510	75	450 x 450	530 x 500	75			
500 x 350	600 x 400	75	500 x 350	600 x 410	75			

\* We can customize any size & dimensions as per customized drawing & requirements.

# Telescopic Surface Box



**NOTE :** Dimensions will be shared as per requirements



Parts of Telescopic Surface box



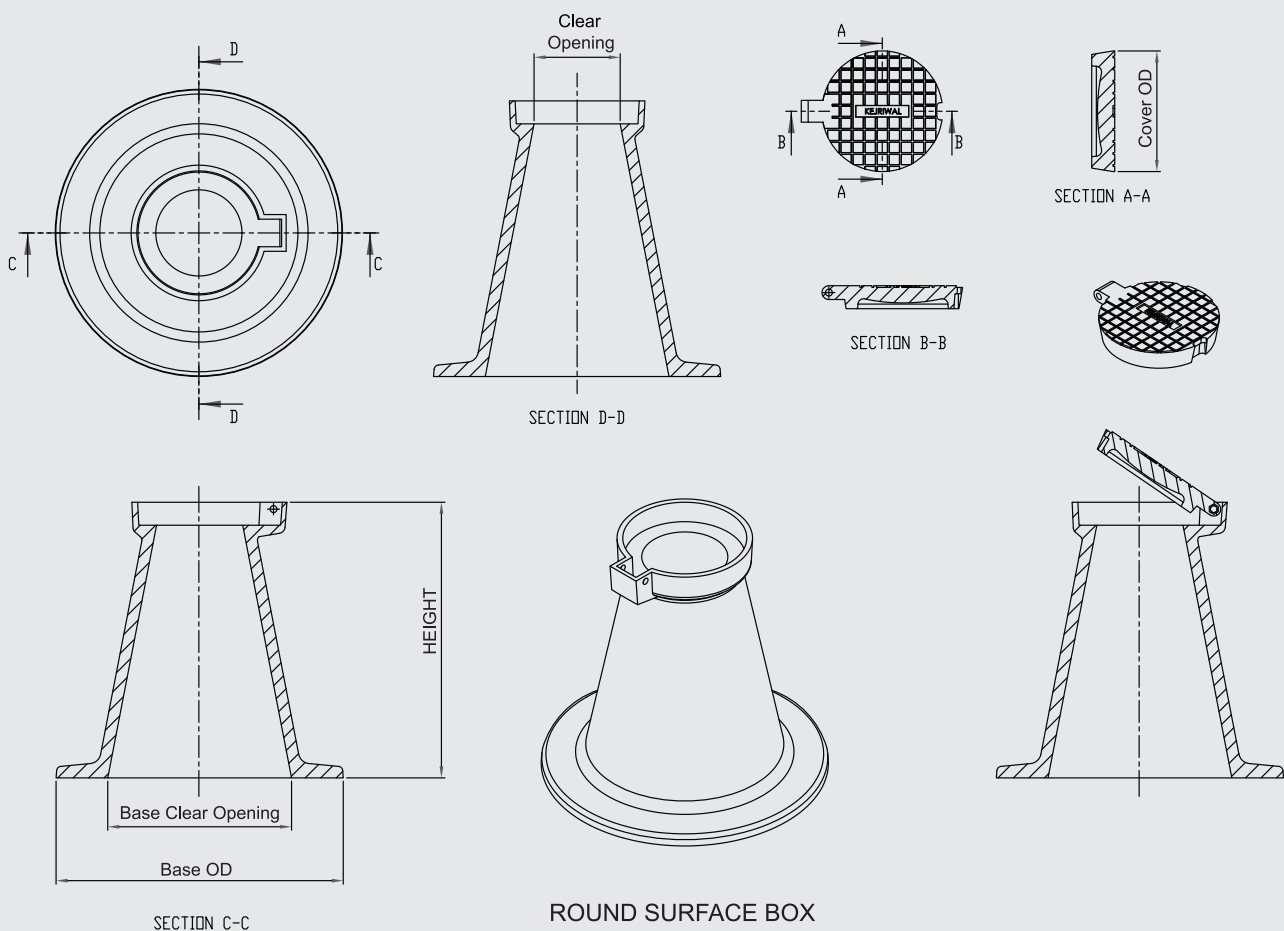
Assembly of Telescopic Surface box  
(Open Condition)



Assembly of Telescopic Surface box  
(Closed condition)

# Surface Box - Round

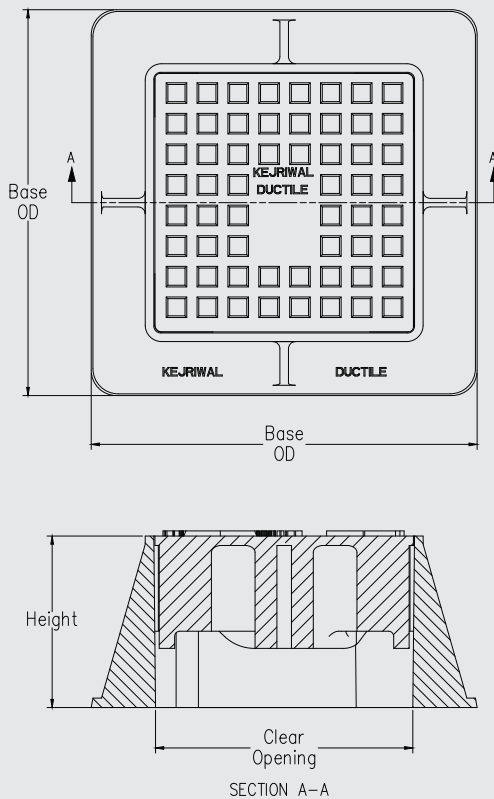
## EN124-1:2015



Base OD	Base Clear Opening	Total Height	Top Clear Opening	Top Cover OD
(A)	(B)	(C)	(D)	(E)
205	95	225	85	105
220	152	215	72	105
250	160	240	75	103
300	245	300	220	237

# Surface Box - Square

## EN124-1:2015



### Options available

- Ductile Iron
- Grey Iron
- Customized markings
- Security requirements
- Epoxy powder coating

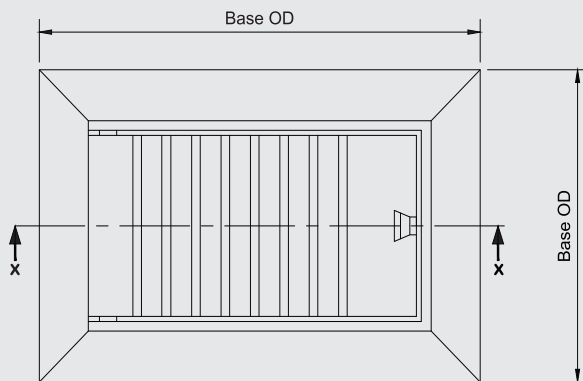
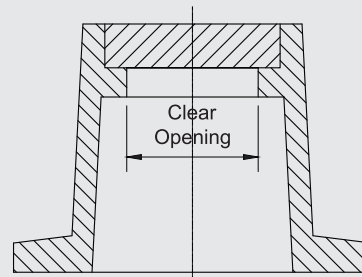
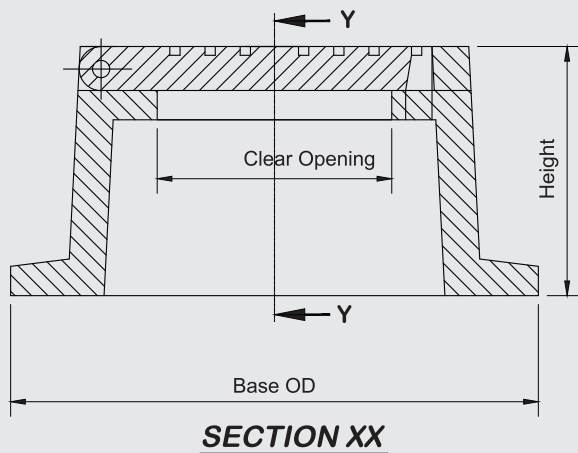
### Features

- Non-rock seating
- Black bitumen coated
- Prising slots
- Closed keyholes
- Heavy duty for traffic loading
- Non-skid checker design

Clear Opening	Over Base	Depth
(A)	(B)	(C)
100 x 100 mm	190 x 190 mm	100 mm
150 x 150 mm	225 x 225 mm	100 mm
150 x 150 mm	225 x 225 mm	150 mm
225 x 225 mm	330 x 330 mm	100 mm
300 x 300 mm	405 x 405 mm	75 mm
300 X 300 mm	405 X 405 mm	100 mm
380 x 230 mm	538 x 380 mm	100 mm
380 x 230 mm	538 x 380 mm	125 mm
430 x 280 mm	550 x 450 mm	100 mm

# Surface Box - Rectangular

## EN124-1:2015



### Options available

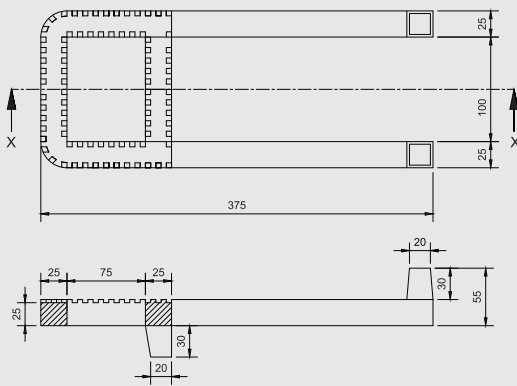
- Ductile Iron
- Grey Iron
- Customised markings
- Epoxy powder coating

### Features

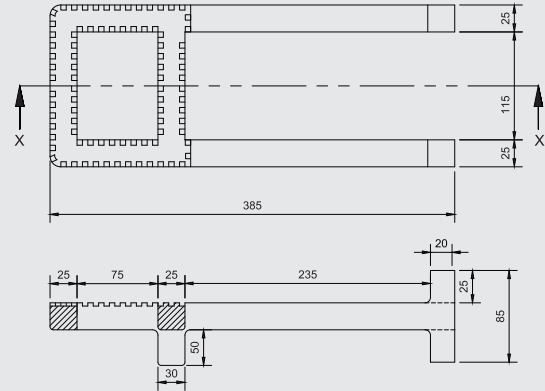
- Non-rock seating
- Black bitumen coated
- Prising slots
- Closed keyholes
- Medium duty for traffic loading
- Non-skid checker design

Clear Opening	Over Base	Depth
(A)	(B)	(C)
380 x 230 mm	530 x 380 mm	75 mm
380 x 230 mm	530 x 380 mm	100 mm
380 x 230 mm	530 x 380 mm	125 mm
430 x 280 mm	550 x 400 mm	75 mm

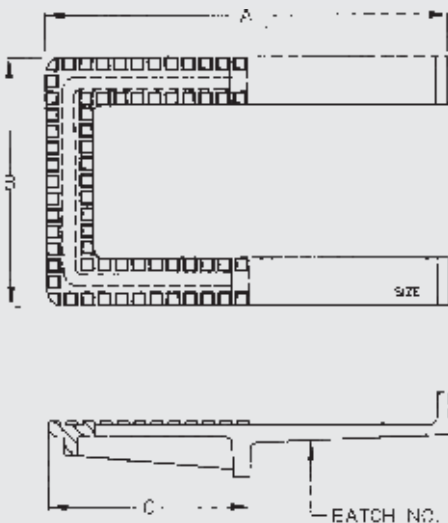
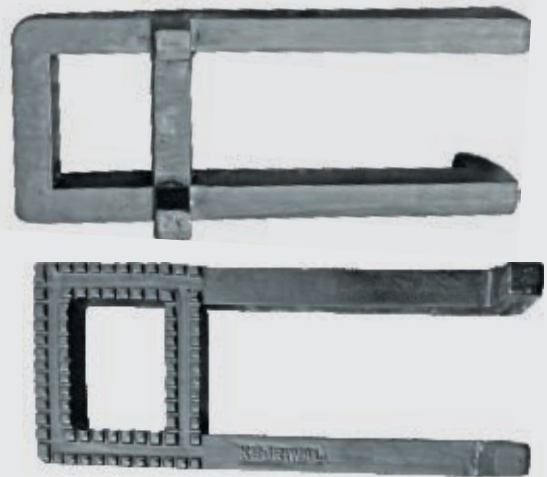
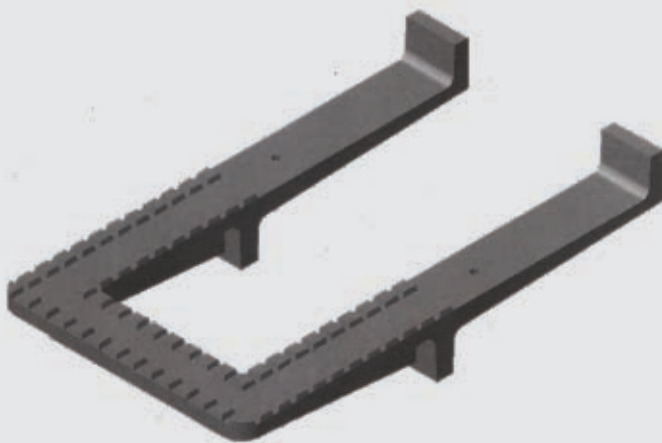
# Manhole Steps / Foot Steps



SECTION X-X  
PATTERN - 1



SECTION X-X  
PATTERN - 2



### Options available

- Ductile Iron
- Grey Iron
- Customised markings
- Epoxy powder coating

### Features

- Black bitumen coated
- Non-skid checker design
- Hot dip galvanized

Clear Opening	Overall Width	Terad Length
(A)	(B)	(C)
175 mm	145 mm	125 mm
185 mm	145 mm	125 mm
250 mm	145 mm	125 mm
370 mm	145 mm	125 mm



## Disclaimer

All information contained in this Technical Catalogue should serve only as a guide and is subject to change without notice. Kejriwal does not invite any person to act or rely upon such information and liability for such information is excluded. Kejriwal reserves the right in its discretion to make changes with the advent of new technologies.

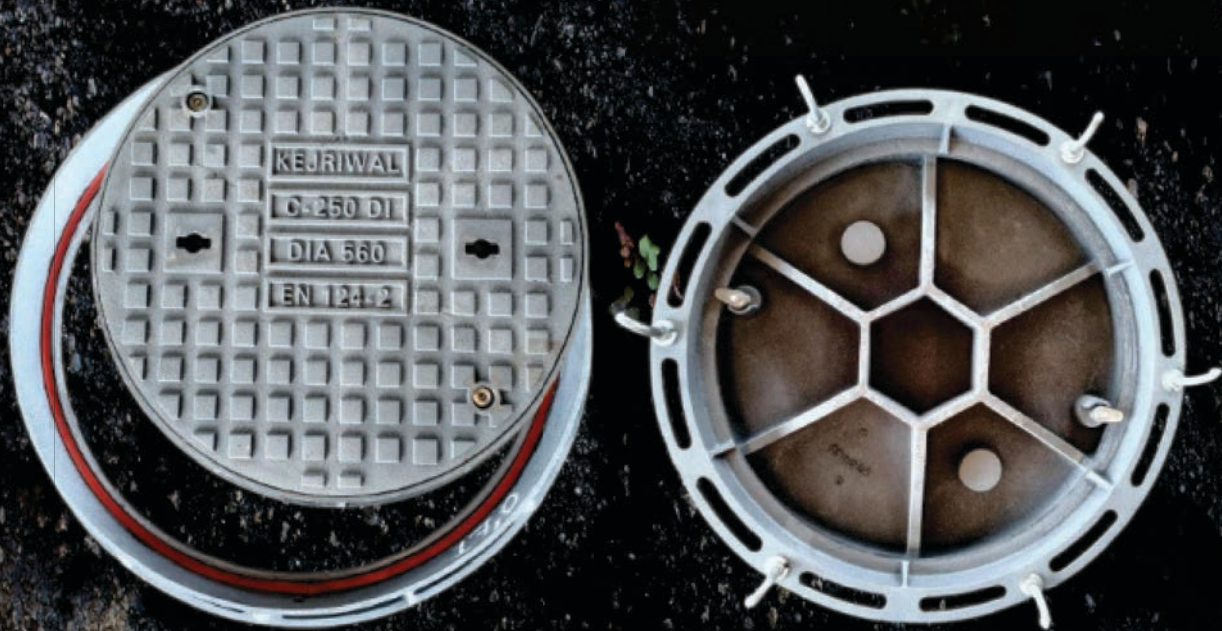
The information contained in this Technical Catalogue does not form part of the terms and conditions of sale or constitute the description of any goods to be supplied by Kejriwal or its distributors. It is advised that customers should seek current product information from their distributor and seek expert advice on their particular intended use and application for the product.

Copyright © Kejriwal. No part of this Technical Catalogue may be reproduced, stored in a retrieval system or transmitted in any form, electronic, mechanical recording or otherwise, without the consent of Kejriwal.

Kejriwal is a registered trademark of Kejriwal Castings Limited.

Designed Concept & Printed at

**COLOUR PRINTS**, +91 9830044157, Kolkata



**Kejriwal**  
**CASTINGS LIMITED**

Mfg. of Ductile Iron, Cast Iron Pipes, Fittings, Valves Etc

*You name it. We cast it!*

Millenium City  
DN 62, Salt Lake  
Sector - V, 14th Floor  
Tower 2  
Kolkata 700091  
Bharat (India)

Phone: 033 4801 6753/5964  
033 4804 0845/0849

E-mail: [info@kejriwalcastings.com](mailto:info@kejriwalcastings.com)  
Website: [www.kejriwalcastings.com](http://www.kejriwalcastings.com)

**Works Unit I :**  
NH-6, Chamrail,  
Howrah - 711 114  
West Bengal  
Bharat (India)  
Phone : +91 0321 2247244  
+91 0321 2247527

**Works Unit II :**  
Bamunara Industrial Estate  
Bamunara, Durgapur 713 212  
West Bengal  
Bharat (India)