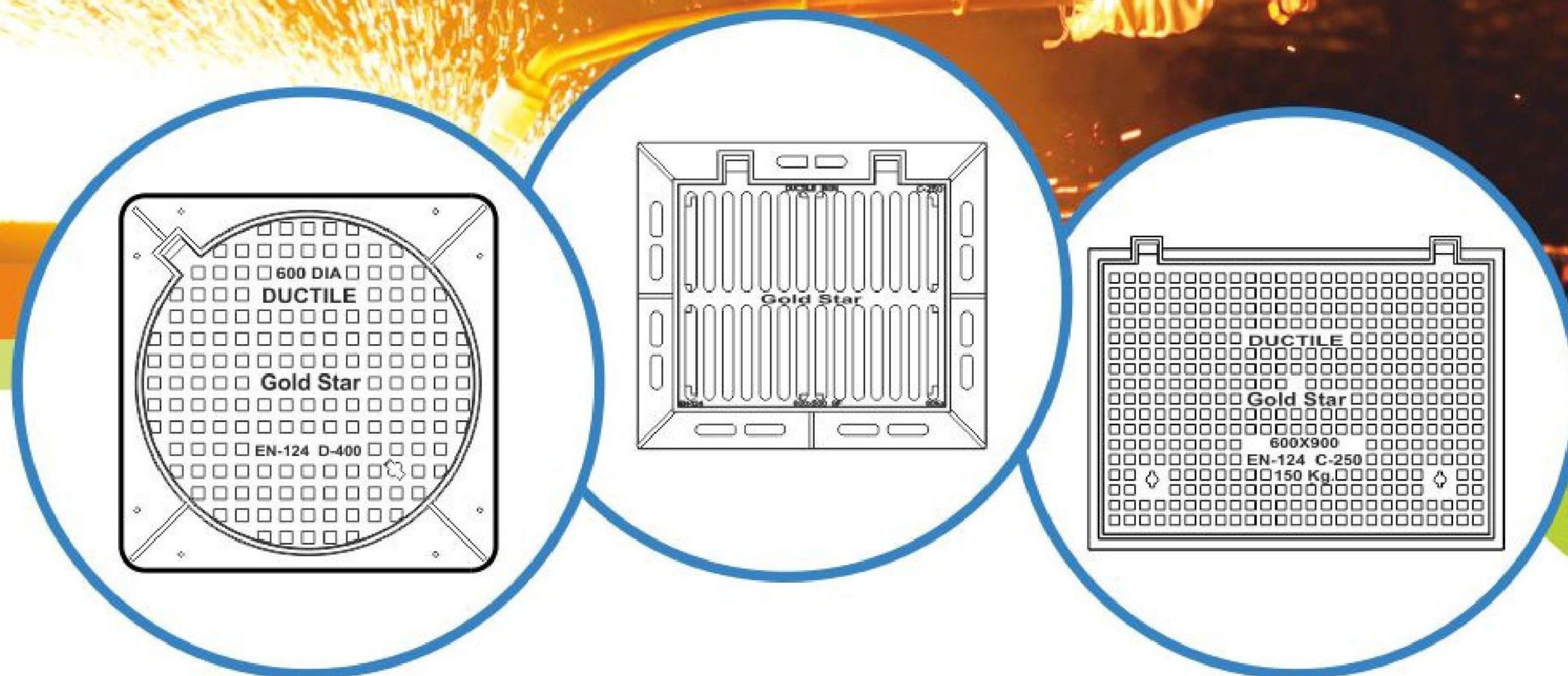


Gold Star Steels (P) Ltd.

MANUFACTURER OF DUCTILE IRON CASTINGS / MANHOLE COVERS



Shaping the
METAL
for **FUTURE**



Solid Manhole Frame & Covers

Recessed Manhole Frame & Covers

Multileaf Manhole Covers

53/A, Industrial Area, Bhanpuri, P.O.: Birgaon, RAIPUR 493 221 (C.G.) INDIA
Cell : 7611100419 / 7611100423, E-mail : info@gsspl.co.in / marketing@gsspl.co.in

About Gold Star Steels (P) Ltd.

Gold Star Steels (P) Ltd. is an induction melting foundry.

Established in the year _1999. **Gold Star Steels (P) Ltd.** has made its market in the world market as one of the leading manufactures of Ductile Iron, Grey cast Iron & Cast Steel products.

We Manufacture SGCI Inserts for Railway Sleepers Under strict quality control measures of RITES and RDSO.

We Manufacture 3 x 3 ply High Carbon Wires for Railway Sleepers and various other applications.

We Manufacture Ductile Iron Manhole covers other general agriculture and industrial castings.

In last 15 years **Gold Star Steel (P) Ltd.** has evolved itself as India's leading casting manufacturer. Over a period of more than two decades **Gold Star Steels (P) Ltd.** has evolved its production techniques and tirelessly worked on quality aspects. Always alert sensitive about the importance of quality, **Gold Star Steels (P) Ltd.** seeks to present value-added propositions to all its customers.

We are proud to declare that we have Fully Equipped Laboratory and state of art testing facility.

From Spectrometer to chemical testing lab, from UTMs to Load Testing machines everything required we have under one roof.



IS : 6006

CM/L8362276

OUR QUALITY

We have an experience team of engineers & a full proof **QUALITY ASSURANCE PLAN** which help us to successfully meet the quality requirements of our clients. We have fully equipped Labs as detailed below :

1. Sand Labs :

For testing Moisture, Sand Compatibility, Sand Compressive, Permeability , clay content ,sieve Analysis, Mould Hardness Testers etc.

2. Chemical Labs :

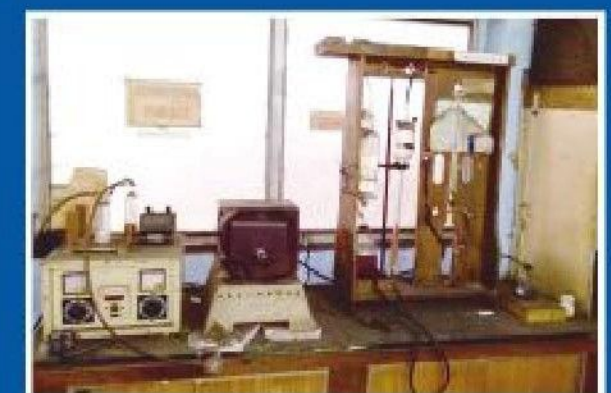
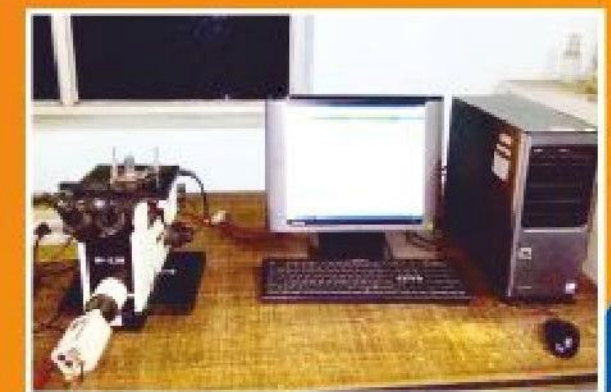
Instant determination of C, Si, S , P, Mn, Residual Mg, CE. wet lab for fuel Chemical Analysis

3. Physical Lab :

Computerized Universal testing Machine, Microscope with image Analyzer, Brinell Hardness tester, temperature thru immersion pyrometer.

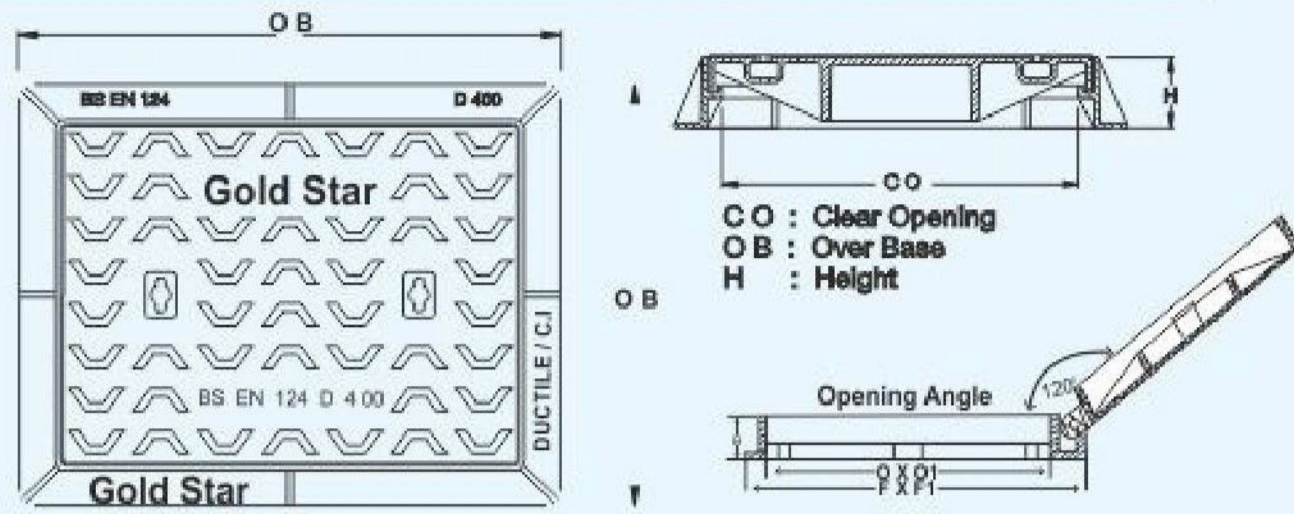
4. Load Testing Machine

We have 60 MT break load testing facility.



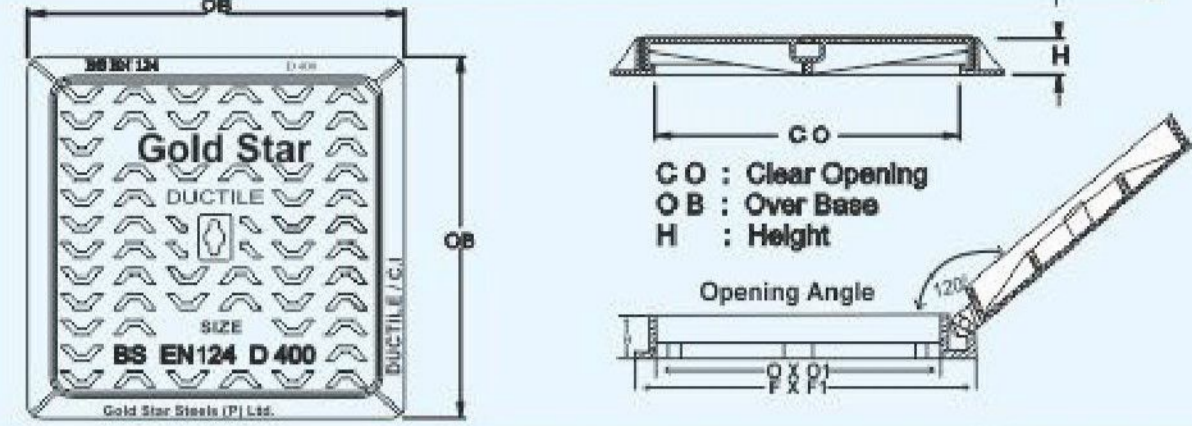
OUR PRODUCTS & SPECIFICATIONS

RECTANGULAR COVER WITH FRAME



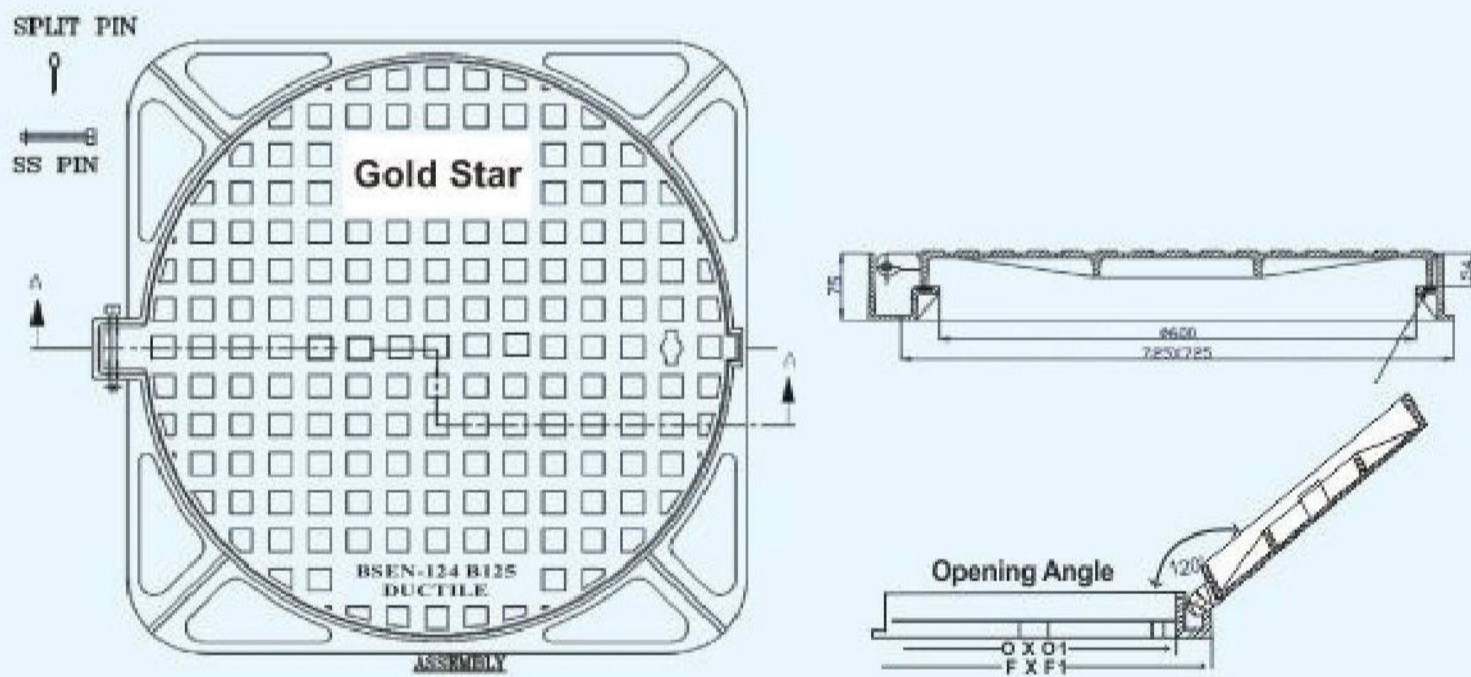
Size (mm)	Grade	Frame Dimensions			Weight Approx (kg)
		Clear Opening	Frame Outer	Height (mm)	
		OXO1	FXF1	H	Wt
450X600	A -15	450X600	580X730	40	30
450X600	B - 125	450X600	675X825	75	70
450X600	C - 250	450X600	675X825	100	100
450X900	A - 15	450X900	585x1030	40	50
450X900	B - 125	450X900	600x1055	75	75
450X900	C - 250	450X900	615x1060	100	125
600X900	A - 15	600X900	745x1040	40	65
600X900	B - 125	600X900	755x1050	75	105
600X900	C - 250	600X900	775x1070	100	150
450X900	D - 400	450X900	615x1060	100	160
600X900	D - 400	600X900	775x1070	100	170
1200X900	SCRAPPER	1200X900	1350X1100	100	310

SQUARE COVER WITH FRAME



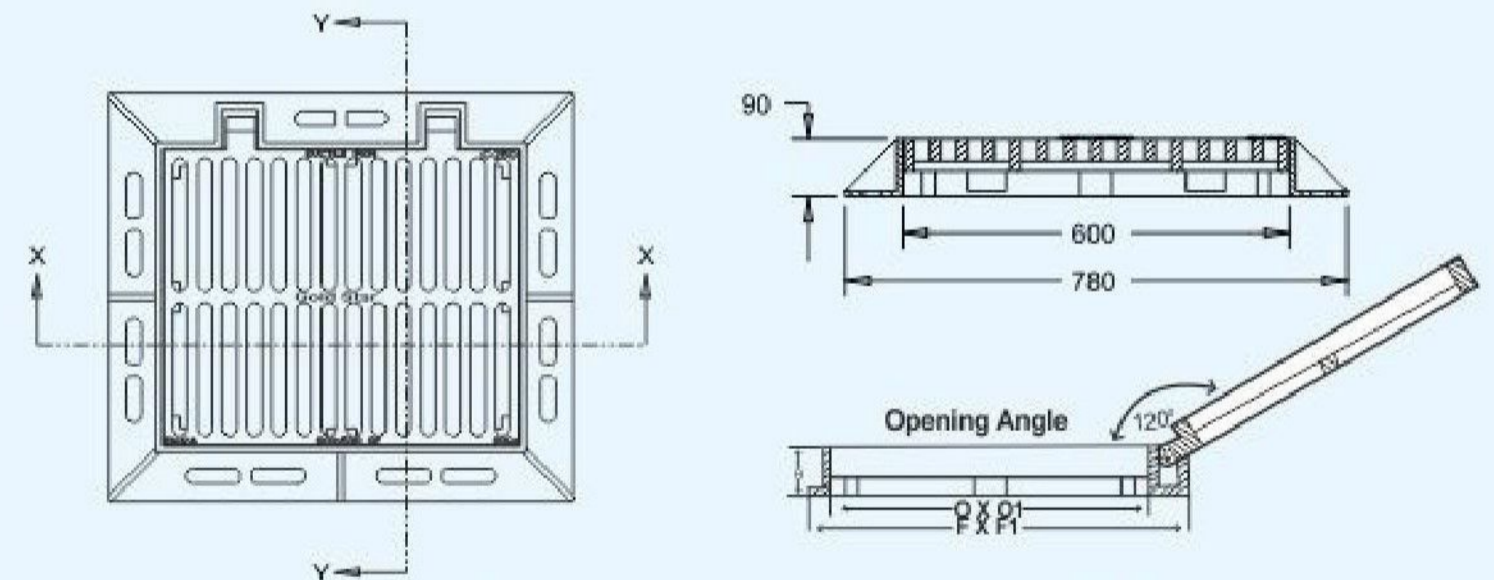
Size (mm)	Grade	Frame Dimensions			Weight Approx (kg)
		Clear Opening	Frame Outer	Height (mm)	
		OXO1	FXF1	H	Wt
300X300	A -15	300X300	385X385	30	8
300X300	C -250	300X300	445X445	75	33
450X450	A- 15	450X450	560X560	40	22
450X450	B- 125	450X450	590x590	75	45
560X560	C - 250D/S	560X560	740x740	75	90
600X600	A - 15	600X600	730x730	40	40
600X600	B - 125	600X600	750x750	75	65
600X600	C - 250	600X600	750x750	100	90
750X750	C - 250	750X750	895x895	75	125
800X800	B - 125	800X800	950x950	75	115
800X800	C - 250	800X800	970x970	100	140
900X900	B - 125	900X900	1050X1050	75	125
900X900	C - 250	900X900	1070X1070	100	170
300X300	D - 400	300X300	460X460	100	40
600X600	D - 400	600X600	775X775	100	105
900X900	D - 400	900X900	1070X1070	100	195
300X300	B - 125	300X300	445X445	75	28
450X450	C - 250	450X450	590X590	75	58
750X750	B - 125	750X750	895X895	75	100

CIRCULAR COVER WITH SQUARE FRAME



Size (mm)	Grade	Frame Dimensions			Weight Approx (kg)
		Clear Opening	Frame Outer	Height (mm)	
		OXO1	FXF1	H	Wt
350 Dia	A -15	350 Dia	470X470	40	22
450 Dia	C -250	450 Dia	600X600	100	55
500 Dia	A- 15	500 Dia	625X625	40	25
500 Dia	B- 125	500 Dia	650X650	75	45
500 Dia	C - 250	500 Dia	650X650	100	65
525 Dia	A - 15	525 Dia	650X650	40	33
525 Dia	B - 125	525 Dia	665X665	75	50
525 Dia	C- 250	525 Dia	685X685	100	75
560 Dia	A - 15	560 Dia	690X690	40	38
560 Dia	B - 125	560 Dia	710X710	75	55
560 Dia	C - 250	560 Dia	710X710	100	80
600 Dia	A - 15	600 Dia	730X730	40	42
600 Dia	B - 125	600 Dia	755X755	75	60
600 Dia	C - 250	600 Dia	760X760	100	85
600 Dia	C - 250 D/S	600 Dia	770X770	75	100
600 Dia	C - 250 D/H	600 Dia	790X790	100	85
600 Dia	D - 400	600 Dia	765X765	100	95

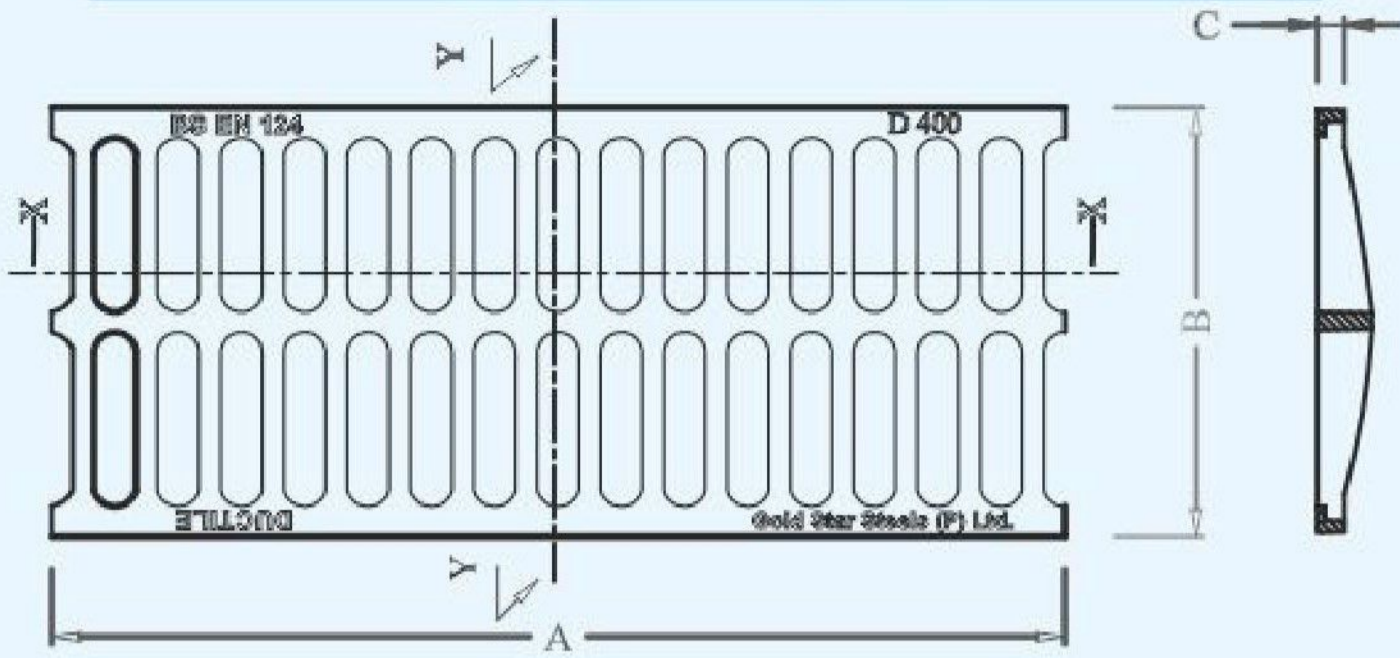
GRATING WITH FRAME



Size (mm)	Grade	Frame Dimensions			Weight Approx (kg)
		Clear Opening	Frame Outer	Height (mm)	
		OXO1	FXF1	H	Wt
450X450	A -15	450X450	555X555	50	32
450X450	C -250	450X450	630X630	90	56
450X500	C -250	450X500	550X600	100	58
450X600	A-15	450X600	560X705	50	38
500X600	C -250	500X600	685X780	90	80
525X700	B- 125	525X700	650X800	75	70
525X700	C - 250	525X700	650X800	75	90
600X600	B- 125	600X600	700X725	75	70
600X600	C - 250	600X600	700X725	75	90
750X750	C - 250	750X750	850X850	100	130
800X800	B- 125	800X800	900X900	75	135
800X800	C - 250	800X800	900X900	75	180
300X300	A-15	300X300	350X350	40	12
550X550	C - 250	550X550	650X650	75	85
600X900	C - 250	600X900	750X1050	100	120
900X900	C - 250	900X900	1050X1050	100	150
750X750	D - 400	750X750	930X930	100	165

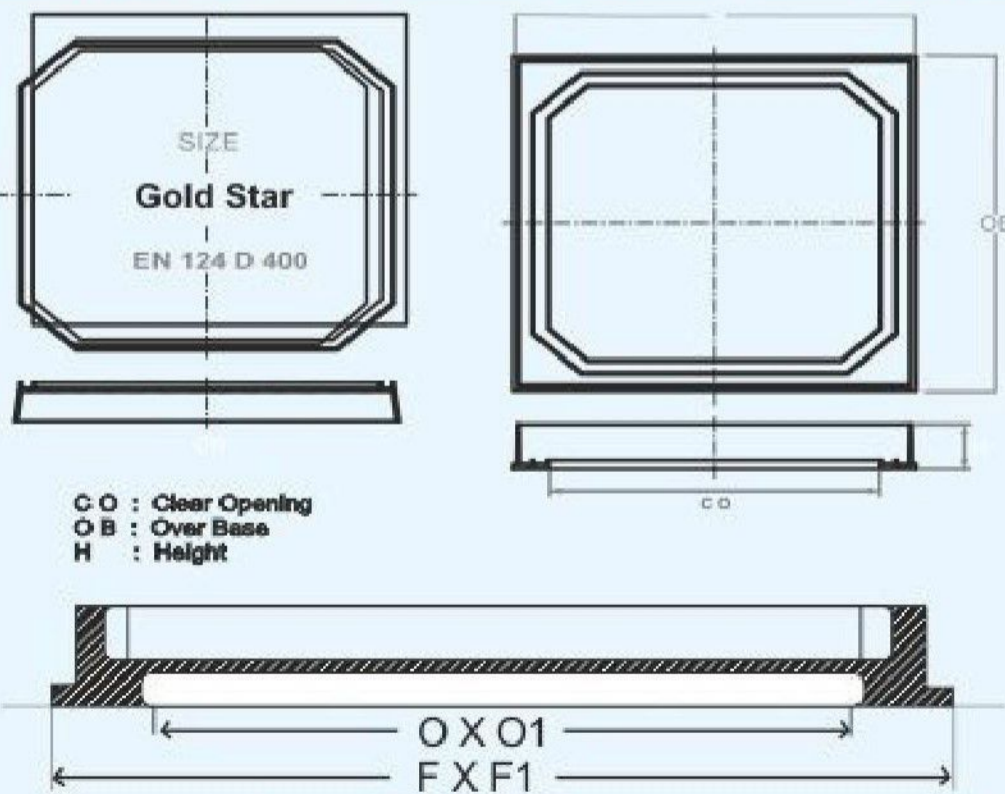
OUR PRODUCTS & SPECIFICATIONS

ONLY GRATING



Size (mm)	Grade	Frame Dimensions		Weight Approx (kg)
		Frame Outer	Height (mm)	
		G X G1	H	Wt
100X450	B-125	100X450	25	5
300X600	A-15	300X600	40	12
300X600	C-250	300X600	40	35
340X600	A-15	340X600	40	15
450X600	A-15	450X600	40	16
450X600	C-250	450X600	40	40
550X600	C-250	550X600	40	56
400X400	A-15	400X400	40	15
400X400	C-250	400X400	50	40
500X500	A-15	500X500	50	33
500X500	C-250	500X500	50	48
600X600	A-15	600X600	40	21
600X600	C-250	600X600	40	60
700X700	C-250	700X700	50	90
800X800	C-250	800X800	50	120
380X600	B-125	380X600	25	28
380X600	C-250	380X600	25	38
545X600	D-400	545X600	40	43
645X600	D-400	645X600	40	58
500X600	C-250	500X600	40	38
370X500	D-400	370X500	40	38
520X500	D-400	520X500	40	50
670X500	D-400	670X500	40	64
370X500	F-900	370X500	65	64
670X500	F-900	670X500	65	124

RECESS COVER WITH FRAME



Size (mm)	Grade	Frame Dimensions				Weight Approx (kg)
		Clear Opening	Frame Outer	Depth (mm)	Height (mm)	
		OXO1	FXF1	D	H	Wt
450X450	A-15	450X450	595X595	30	50	35
450X450	B-125	450X450	595X595	35	60	42
600X600	A-15	600X600	755X755	30	50	45
600X600	B-125	600X600	755X755	35	65	65
450X450	B-125	450X450	610X610	70	100	55
450X450	C-250	450X450	610X610	70	100	62
600X600	D-400	600X600	760X760	70	100	90

INSTALLATIONS : Selection of Class As Per Test Load

GROUP 1 [MIN. CLASS .A 15]

This Class can with stand load up to 1.5 MT Maximum.

GROUP 2 [MIN. CLASS .B 125]

Foot ways, pedestrians area and comparable area, car parks or car parking decks.

This Class can with stand load up to 12.5 MT Maximum.

GROUP 3 [MIN. CLASS .C 250]

Heavy Traffic Area

This Class can with stand load up to 25 MT Maximum.

GROUP 4 [MIN. CLASS .D 400]

Carriage ways of roads including pedestrian streets hard shoulders and parking areas, for all types of heavy road vehicles.

This Class can with stand load up to 40 MT Maximum.

GROUP 4 [MIN. CLASS .E 600]

Area imposing high wheel loads, eg. docks, aircraft pavements.

This Class can with stand load up to 60 MT Maximum.

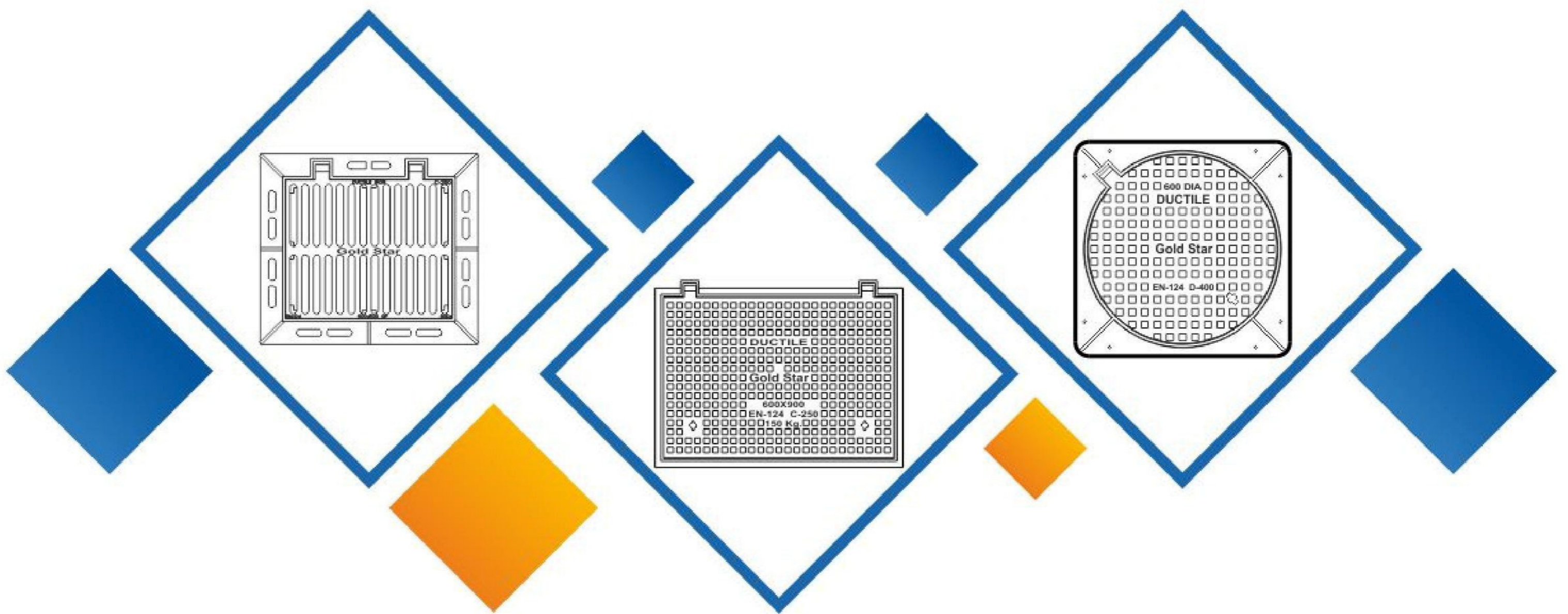
GROUP 6 [MIN. CLASS .F 900]

Area imposing particularly high wheel loads, eg. aircraft pavements.



This Class can with stand load up to 90 MT Maximum.

TEST LOAD TABLE CLASS TEST LOAD (M.T.)

CLASS	TEST LOAD (M.T.)
A15	1.5
B125	12.5
C250	25
D400	40
E600	60
F900	90



MAJOR ADVANTAGES OF DUCTILE IRON OVER CAST IRON

Sr. No.	Points	'Ductile Iron' (DI)	Cast Iron' (CI)
1	DEFINITION	A specially prepared Iron treated in the molten condition with a small percentage of Magnesium, Cerium & Other agents that will cause a large proportion of its Carbon to occur as Spheroidal type of Graphite form.	An Iron having a chemical composition such that, after solidification a large portion of its Carbon is distributed through the casting as Free or Graphitic Carbon in Flake form.
2	TENSILE STRENGTH	500 N/mm ² 150 N/mm ²	
3	HARDNESS	160 - 240 HBS	130 - 180 HBS
4	ELONGATION	(%)7% min. due to elongation, material is ductile, hence does not give sudden fracture.	No elongation, hence material is brittle, can give sudden fracture.
5	IMPACT RESISTANCE	High' sudden impact resistance. 	Low' sudden impact resistance. 
6	SECTION THICKNESS	Lesser section thickness, hence lesser weight. More load bearing capacity in test condition,	More section thickness, hence more weight. Comparatively less load bearing capacity,
7	LOAD BEARING CAPACITY	impact load & movable load. Light duty - 1.5 MT load Medium duty - 12.5 MT load Heavy duty - 25 MT load	although weight & section thickness is more. Light duty - 1.0 MT load Medium duty - 10 MT load Heavy duty - 20 MT load
8	HANDLING	Due to lesser weight, easy in handling during transportation, installation & maintenance during service conditions.	Due to more weight, comparatively difficult to handle during transportation. installation & maintenance during service conditions.
9	LOCKING ARRANGEMENTS	One end of the Cover is hinged with frame, hence no extra cost is incurred.	Galvanised chain alongwith hook can be provided to Cover & Frame, hence incurs extra cost.
10	COST	Overall cost is less by @10 - 20% than 'CI' .	Comparatively more costly than 'DI'.
11	YIELD STRENGTH	320 N/mm ²	--

Features :

Manufacturing standard : BS EN-124
 Material : SG Iron Grade 500/7
 Cast Iron Also Available in all sizes
 Single Seal/ Double for Odour Prevention
 Coating Black Bitumen Paint / EPOXY on Request
 Markings as per customer's requirements
 Closed key Holes
 Anti-Skid Checkers Design.



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DEALER :

Company reserves a right to change the design of the specified models according to the latest technological changes without any prior notice. Information given in the catalogue is just for guidance only.