

In search of Excellence



Sanitary Casting Catalogue

Nandikeshwari Engineering LLP

www.nellp.in

Standard EN 124 : 2015

Recommendations of Load Class & Application



BS EN124 CLASS	APPLICATION
A15 GROUP 1	

Areas used by pedestrians and pedal cyclists only.



BS EN124 CLASS	APPLICATION
B125 GROUP 2	

Footways, pedestrian areas, car park and car parking decks



BS EN124 CLASS	APPLICATION
C250 GROUP 3	

For Gully tops installed in the area of Kerbside channels of roads which, when measured from the kerb edge, extended to a maximum of 0.5m into the carriageway and a maximum of 0.2m into the footway and also for manhole cover & frame.



BS EN124 CLASS	APPLICATION
D400 GROUP 4	

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



BS EN124 CLASS	APPLICATION
E600 GROUP 5	

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



BS EN124 CLASS	APPLICATION
F900 GROUP 6	

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

Material Composition:

NELLP products are Grey Cast Iron, Ductile Iron & Fabricated Steel

Grey Cast Iron

Grey Iron i.e, Flaked Graphite Iron having tremendous comprehensive strength and desired U.T.S. Our Grey Iron Products are according to EN -124

Ductile Iron

Ductile Iron is variety of Iron with microstructure spherical grained graphite having comparatively higher ultimate tensile strength and other properties like:

- A) Good esistance of Corrosion
- B) Good workability
- C) Good capacity to absorb vibrations

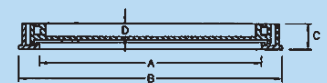
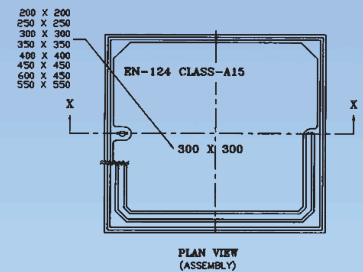
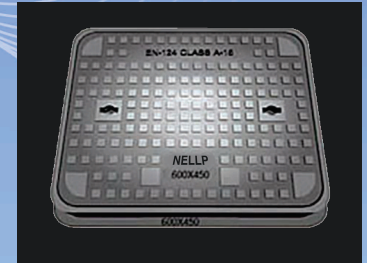
We make Ductile Iron products to EN-124



A-15 Manhole Covers & Frames

Grey Iron Manhole Covers & Frames

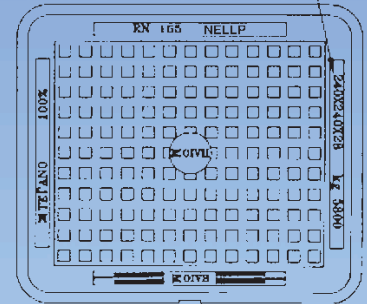
EN 124 Class	DESCRIPTION	Clear Opening mm	Over Base mm	Depth mm	Product Ref.
A - 15	450 MM ROUND FRAME & COVER	450 dia	540 dia	55	NE - 002
A - 15	600 X 450 MANHOLE FRAME & COVER	600 x 450	680 x 530	40	NE - 003
A - 15	600 X 600 MANHOLE FRAME & COVER	600 x 600	680 x 680	40	NE - 004
A - 15	450 X 450 FRAME & COVER	450 x 450	530 x 530	40	NE - 005
A - 15	750 X 600 MANHOLE FRAME & COVER	750 x 600	830 x 680	40	NE - 006
A - 15	900 X 600 MANHOLE FRAME & COVER	900 x 600	980 x 680	40	NE - 007
A - 15	450 X 450 MANHOLE FRAME & COVER	450 x 450	530 x 530	25	NE - 008
A - 15	600 X 450 MANHOLE FRAME & COVER	600 x 450	680 x 530	25	NE - 009
A - 15	600 X 600 MANHOLE FRAME & COVER	600 x 600	680 x 680	30	NE - 010
A - 15	600 X 600 MANHOLE FRAME & COVER	600 x 600	680 x 680	25	NE - 011
A - 15	600 X 450 MANHOLE FRAME & COVER	600 x 450	690 x 540	30	NE - 012
A - 15	LIGHT DUTY DOUBLE SEAL RECESSED TYPE FRAME & COVER	300 x 300	420 x 420	40	NE - 091
A - 15	LIGHT DUTY DOUBLE SEAL FRAME AND COVER	600 x 450	800 x 650	30	NE - 114
A - 15	300 X 300 MANHOLE FRAME & COVER	300 X 300	380 X 380	30	NE - 129
A - 15	600 DIA X 30 COVER WITH ROUND FRAME	600 dia	750 dia	30	NE - 135
A - 15	600 DIA X 75 COVER & SQUARE FRAME	600 dia	690 x 690	75	NE - 138
A - 15	MARLEY INSPECTION CHAMBER	450 dia	545 dia	50	NE - 140
A - 15	SINGLE SEAL RECESSED TYPE FRAME & COVER	200 x 200	250 x 250	50	NE - 141
A - 15	SINGLE SEAL RECESSED TYPE FRAME & COVER	250 x 250	300 x 300	50	NE - 141
A - 15	SINGLE SEAL RECESSED TYPE FRAME & COVER	300 x 300	350 x 350	50	NE - 141
A - 15	SINGLE SEAL RECESSED TYPE FRAME & COVER	350 x 350	400 x 400	50	NE - 141
A - 15	SINGLE SEAL RECESSED TYPE FRAME & COVER	400 x 400	450 x 450	50	NE - 141
A - 15	SINGLE SEAL RECESSED TYPE FRAME & COVER	450 x 450	500 x 500	50	NE - 141
A - 15	SINGLE SEAL RECESSED TYPE FRAME & COVER	600 x 450	650 x 500	50	NE - 141
A - 15	SINGLE SEAL RECESSED TYPE FRAME & COVER	550 x 550	600 x 600	50	NE - 141
A - 15	520 X 520 MANHOLE FRAME & COVER	520 x 520	600 x 600	25	NE - 147
A - 15	LIGHT DUTY SINGLE SEAL MANHOLE FRAME & COVER	300 x 300	380 X 380	25	NE - 150
A - 15	LIGHT DUTY SINGLE SEAL MANHOLE FRAME & COVER	450 x 450	540 x 540	40	NE - 151
A - 15	288 SQUARE TO ROUND FRAME & COVER	287 dia	332 x 332	40.5	NE - 152
A - 15	LIGHT DUTY SINGLE SEAL MANHOLE FRAME & COVER	150 x 150	200 x 200	25	NE - 153 (A)
A - 15	LIGHT DUTY SINGLE SEAL MANHOLE FRAME & COVER	200 x 200	250 x 250	25	NE - 153 (B)
A - 15	LIGHT DUTY SINGLE SEAL MANHOLE FRAME & COVER	250 x 250	300 x 300	25	NE - 153 (C)
A - 15	LIGHT DUTY SINGLE SEAL MANHOLE FRAME & COVER	350 x 350	400 x 400	25	NE - 153 (D)
A - 15	LIGHT DUTY SINGLE SEAL MANHOLE FRAME & COVER	400 x 400	450 x 450	25	NE - 153 (E)
A - 15	LIGHT DUTY DOUBLE SEAL MANHOLE FRAME & COVER	324 x 324	400 x 400	40	NE - 154 (A)
A - 15	LIGHT DUTY DOUBLE SEAL MANHOLE FRAME & COVER	424 x 424	500 x 500	40	NE - 154 (B)
A - 15	LIGHT DUTY DOUBLE SEAL MANHOLE FRAME & COVER	424 x 524	500 x 600	40	NE - 154 (C)
A - 15	LIGHT DUTY DOUBLE SEAL MANHOLE FRAME & COVER	524 x 524	600 x 600	40	NE - 154 (D)



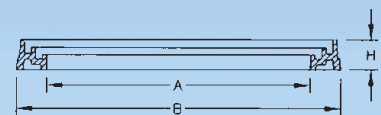
Grey Iron Manhole Covers & Frames

EN 124 Class	DESCRIPTION	Clear Opening mm	Over Base mm	Depth mm	Product Ref.
A - 15	LIGHT DUTY DOUBLE SEAL MANHOLE FRAME & COVER	524 x 624	600 x 700	40	NE - 154 (E)
A - 15	LIGHT DUTY DOUBLE SEAL MANHOLE FRAME & COVER	624 x 624	700 x 700	40	NE - 154 (F)
A - 15	LIGHT DUTY DOUBLE SEAL MANHOLE FRAME & COVER	220 x 220	300 x 300	40	NE - 155
A - 15	LIGHT DUTY DOUBLE SEAL MANHOLE FRAME & COVER	220 x 220	300 x 300	40	NE - 155 A
A - 15	FRAME & COVER	170 x 170	250 x 250	30	NE - 158 (A)
A - 15	FRAME & COVER	220 x 220	300 x 300	30	NE - 158 (B)
A - 15	FRAME & COVER	420 x 420	500 x 500	30	NE - 158 (C)
A - 15	FRAME & COVER	320 x 320	400 x 400	30	NE - 158 (D)
A - 15	FRAME & COVER	220 x 320	300 x 400	30	NE - 159 (A)
A - 15	FRAME & COVER	320 x 420	400 x 500	30	NE - 159 (B)
A - 15	300 X 300 FRAME & COVER	260 x 260	300 x 300	17	NE - 160
A - 15	LIGHT DUTY DOUBLE SEAL MANHOLE FRAME & COVER	170 x 170	240 x 240	28	NE - 161
A - 15	LIGHT DUTY DOUBLE SEAL MANHOLE FRAME & COVER	170 x 170	240 x 240	28	NE - 165 (A)
A - 15	LIGHT DUTY DOUBLE SEAL MANHOLE FRAME & COVER	170 x 170	250 x 250	28	NE - 165 (B)
A - 15	LIGHT DUTY DOUBLE SEAL MANHOLE FRAME & COVER	170 x 270	250 x 350	28	NE - 165 (C)
A - 15	LIGHT DUTY DOUBLE SEAL MANHOLE FRAME & COVER	220 x 320	300 x 400	35	NE - 165 (D)
A - 15	LIGHT DUTY DOUBLE SEAL MANHOLE FRAME & COVER	270 x 370	350 x 450	35	NE - 165 (E)
A - 15	LIGHT DUTY DOUBLE SEAL MANHOLE FRAME & COVER	320 x 420	400 x 500	35	NE - 165 (F)
A - 15	LIGHT DUTY DOUBLE SEAL MANHOLE FRAME & COVER	324 x 324	400 x 400	40	NE - 166 (A)
A - 15	LIGHT DUTY DOUBLE SEAL MANHOLE FRAME & COVER	424 x 424	500 x 500	40	NE - 166 (B)
A - 15	LIGHT DUTY DOUBLE SEAL MANHOLE FRAME & COVER	424 x 524	500 x 600	40	NE - 166 (C)
A - 15	LIGHT DUTY DOUBLE SEAL MANHOLE FRAME & COVER	524 x 524	600 x 600	40	NE - 166 (D)
A - 15	LIGHT DUTY DOUBLE SEAL MANHOLE FRAME & COVER	524 x 624	600 x 700	40	NE - 166 (E)
A - 15	LIGHT DUTY DOUBLE SEAL MANHOLE FRAME & COVER	624 x 624	700 x 700	40	NE - 166 (F)
A - 15	LIGHT DUTY DOUBLE SEAL MANHOLE FRAME & COVER	324 x 324	400 x 400	40	NE - 167 (A)
A - 15	LIGHT DUTY DOUBLE SEAL MANHOLE FRAME & COVER	424 x 424	500 x 500	40	NE - 167 (B)
A - 15	LIGHT DUTY DOUBLE SEAL MANHOLE FRAME & COVER	424 x 524	500 x 600	40	NE - 167 (C)
A - 15	LIGHT DUTY DOUBLE SEAL MANHOLE FRAME & COVER	524 x 524	600 x 600	40	NE - 167 (D)
A - 15	LIGHT DUTY DOUBLE SEAL MANHOLE FRAME & COVER	524 x 624	600 x 700	40	NE - 167 (E)
A - 15	LIGHT DUTY DOUBLE SEAL MANHOLE FRAME & COVER	624 x 624	700 x 700	40	NE - 167 (F)
A - 15	FRAME & COVER	220 x 320	300 x 400	30	NE - 168 (A)
A - 15	FRAME & COVER	320 x 420	400 x 500	30	NE - 168 (B)
A - 15	LIGHT DUTY DOUBLE SEAL MANHOLE FRAME & COVER	170 x 170	240 x 240	28	NE - 188 (A)
A - 15	LIGHT DUTY DOUBLE SEAL MANHOLE FRAME & COVER	170 x 170	250 x 250	28	NE - 188 (B)
A - 15	LIGHT DUTY DOUBLE SEAL MANHOLE FRAME & COVER	170 x 170	250 x 350	28	NE - 188 (C)
A - 15	LIGHT DUTY DOUBLE SEAL MANHOLE FRAME & COVER	220 x 320	300 x 400	35	NE - 188 (D)
A - 15	LIGHT DUTY DOUBLE SEAL MANHOLE FRAME & COVER	270 x 370	350 x 450	35	NE - 188 (E)
A - 15	LIGHT DUTY DOUBLE SEAL MANHOLE FRAME & COVER	320 x 420	400 x 500	35	NE - 188 (F)
A - 15	460 X 460 FRAME & COVER	460 x 460	505 x 505	30	NE - 195
A - 15	390 X 390 FRAME & COVER	390 x 390	450 x 450	-	NE - 196

350 X 250 X 28
 250 X 350 X 28
 300 X 400 X 35
 350 X 450 X 35
 400 X 500 X 35



COVER



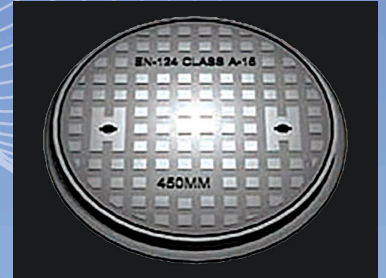
FRAME SECTION



A-15 Manhole Covers & Frames

Grey Iron/PPIC Range Manhole Covers & Frames

EN 124 Class	Description	Clear Opening mm	Over Base mm	Depth mm	Product Ref.
A - 15	450 Dia Round Cover With Plastic Frame	450 dia	545 dia	45	NE - 001
A - 15	450 Dia Round Plastic Frame only	450 dia	545 dia	42	NE - 001 A
A - 15	450 Dia Round Cover With Plastic Frame (Locking)	450 dia	545 dia	45	NE - 107
A - 15	Circular C.I Cover With Plastic Frame (Locking)	450 dia	545 dia	45	NE - 122
A - 15	Circular C.I. Cover With Plastic Frame (Locking)	450 dia	545 dia	45	NE - 142



Gratings and Frames

Grey Iron Gratings & Frame

Class	Clear Opening mm	Over Base mm	Depth mm	Product Ref.
B-125	500 x 350	650 x 440	100	NE-071
B-125	225 x 225	279 x 279	65	NE-072
B-125	300 x 300	350 x 350	65	NE-073
B-125	225 x 225	279 x 279	65	NE-117
B-125	300 x 300	350 x 350	65	NE-116



V-gully Grating & Frame

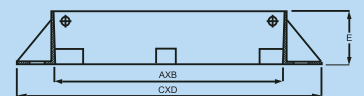
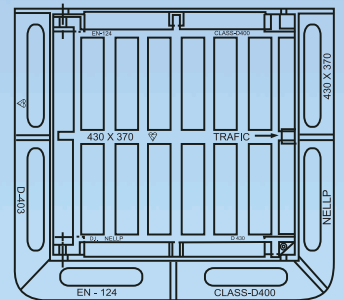
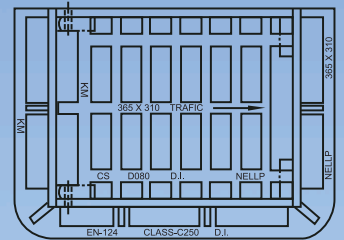
Class	Clear Opening mm	Over Base mm	Depth mm	Waterway Area (cm ²)	Product Ref.
D-400	630 x 630	794 x 794	150	2380	NE- 634



Municipal Captive Hinged Gratings

Class	Clear Opening AxB mm	Over base CxD mm	Depth E mm	Product ref.
C250	365 x 310	515 x 400	75	NE-D 080
C250	450 x 450	600 x 535	75	NE-D 075
C250	500 x 350	650 x 435	75	NE-D 071

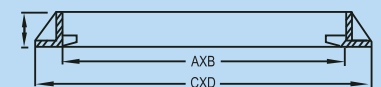
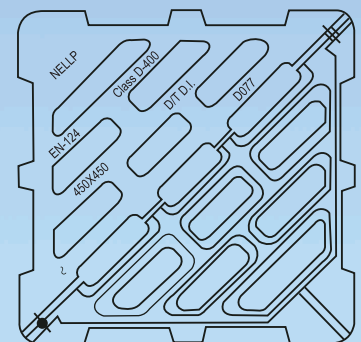
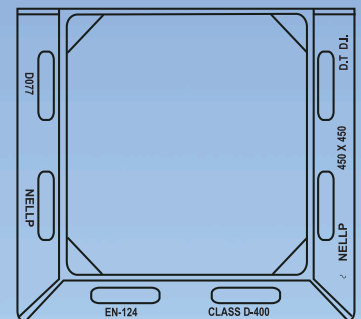
Class	Clear Opening AxB mm	Over base CxD mm	Depth E mm	Product ref.
D400	420 x 420	496 x 563	100	NE-D 319
D400	430 x 370	580 x 454	100	NE-D 403
D400	530 x 350	650 x 435	100	NE-D 081



Municipal Double Triangular Gullies

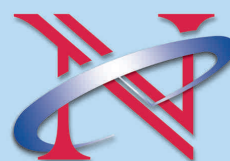
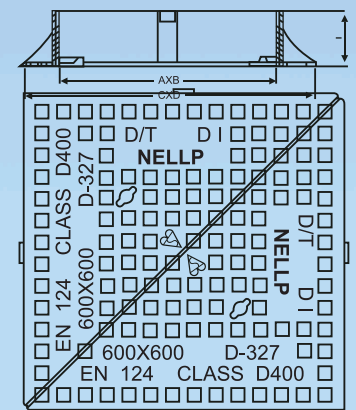
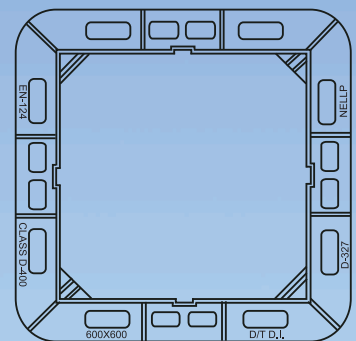
Class	Clear Opening AxB mm	Over base CxD mm	Depth E mm	Product ref.
C250	450 x 450	600 x 600	75	NE-D 076

Class	Clear Opening AxB mm	Over base CxD mm	Depth E mm	Product ref.
D400	420 x 420	574 x 505	100	NE-D 318
D400	600 x 600	750 x 750	100	NE-D 117
D400	600 x 600	750 x 750	150	NE-D 118



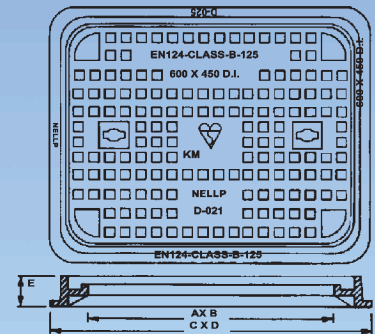
Municipal Double Triangular Covers

Class	Clear Opening AxB mm	Over base CxD mm	Depth E mm	Product ref.
D400	450 x 450	600 x 600	100	NE-D 284
D400	600 x 450	750 x 600	100	NE-D 082
D400	600 x 600	750 x 750	100	NE-D 321
D400	675 x 675	825 x 825	100	NE-D 329
D400	750 x 600	890 x 740	100	NE-D 068
D400	750 x 750	904 x 904	100	NE-D 396
D400	900 x 600	1050 x 750	100	NE-D 085
D400	1220 x 675	1370 x 825	100	NE-D 331



Municipal Solid Top Covers

Class	Clear Opening Ax B mm	Over base Cx D mm	Depth E mm	Product ref.
C250	450 x 450	560 x 560	100	NE-D 162
C250	600 x 450	720 x 570	100	NE-D 101
C250	600 x 600	720 x 720	100	NE-D 102
C250	750 x 600	890 x 740	100	NE-D 103
C250	900 x 600	1020 x 720	100	NE-D 104

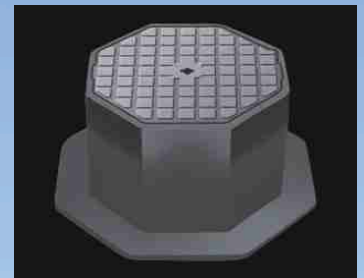


Class	Clear Opening Ax B mm	Over base Cx D mm	Depth E mm	Product ref.
B125	600 dia	690 dia	75	NE-D 021
B125	450 dia	540 dia	60	NE-D 024
B125	450 dia	540 dia	40	NE-D 219
B125	600 x 450	720 x 570	40	NE-D 025
B125	600 x 450	720 x 570	75	NE-D 023
B125	600 x 600	720 x 720	40	NE-D 026
B125	600 x 600	720 x 720	75	NE-D 022
D400	600 dia	750 dia	100	NE-D 065











Municipal Surface Boxes

Class	Clear Opening Ax B mm	Over base Cx D mm	Depth E mm	Product ref.
Heavy	380 x 230	430 x 280	125	NE-D 411
Heavy	430 x 280	480 x 330	100	NE-D 122
Heavy	150 x 150	240 x 240	100	NE-D 124
Heavy	300 x 300	385 x 385	100	NE-D 126
Heavy	150 x 150	235 x 235	150	NE-D 164
Heavy	225 x 225	315 x 315	150	NE-D 165
Medium	135 x 125	175 dia	75	NE-D 129
Medium	480 dia	520 dia	110	NE-D 131



Fabricated Steel Items:

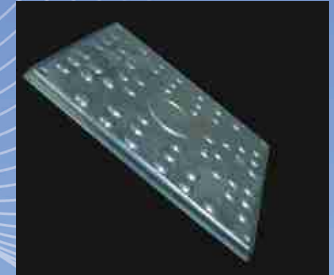
"Our Steel items are Pressed Steel, Block Paviments, Recessed Trays, Gear Boxes, Anchor Stands, Flanges, Housing Water Meter Boxes of mild steel to IS 226/75"

FACTA Class	EN-124 Class**	SMWL* Load Tonnes	Gross Plated Weight	Application Area of Use	Picture
A	A-15	0.6 (5kN)	2.5 T	Pedestrian and Cycle Tracks	
AA	N/A	1.5 (15kN)	5 T	Areas of light vehicle such as driveways	
AAA	N/A	2.5 (25kN)	10 T	Areas of restricted access and service areas	
B	B-125	5 (50kN)	20 T	Areas restricted to small rigid commercial vehicle	
C	C-250	6.5 (65kN)	26 T	Industrial Area	
D	D-400	11 (108kN)	44 T	Areas accessible to heavy goods vehicles	
E	E-600	16 (158kN)	-	"Very Heavy Industrial Areas such as port, dockyard"	
F	F-900	24 (237kN)	-	Airports	
<p>** Slow Moving Wheel Loads are deemed to be speeds no greater than 20mph, in low intensity trafficked areas. Where higher intensity traffic is expected, a higher load classification of cover is recommended"</p>					
<p>** These comparisons are indicative of the typical suitable area of application of each product class and are not like-for-like performance comparison. Comparison are for guidance only and not intended to be exact</p>					

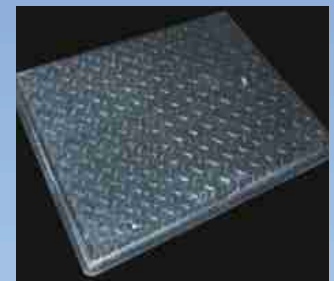
"NOTE- Steel Covers are meant for areas subject to slow moving traffic only. They are not suitable for fast moving carriageway environment. Also not suitable for applications where non pneumatic tyres are used such as Short Trolleys, Pump Trucks and abnormal load etc. Please contact us for any technical assistance on covers for these applications"

Pressed Steel:

Facta Load Class SMWL Tonnes	Gross Plated Weight Tonnes	Clear Opening A x B mm	Over Base C x D mm	Total Depth E mm	Product ref.
0.6	2.5	300 x 300	336 x 336	22	NE - 6281 (A)
0.6	2.5	450 x 450	486 x 486	22	NE - 6283 (A)
0.6	2.5	600 x 450	636 x 486	22	NE - 6282 (A)
0.6	2.5	600 x 600	636 x 636	22	NE - 6284 (A)



Facta Load Class SMWL Tonnes	Gross Plated Weight Tonnes	Clear Opening A x B mm	Over Base C x D mm	Total Depth E mm	Product ref.
1.25	5	300 x 300	336 x 336	22	NE - 6281 (B)
1.25	5	450 x 450	486 x 486	22	NE - 6283 (B)
1.25	5	600 x 450	636 x 486	22	NE - 6282 (B)
1.25	5	600 x 600	636 x 636	22	NE - 6284 (B)



Facta Load Class SMWL Tonnes	Gross Plated Weight Tonnes	Clear Opening A x B mm	Over Base C x D mm	Total Depth E mm	Product ref.
2.5	10	300 x 300	336 x 336	22	NE - 6281 (C)
2.5	10	450 x 450	486 x 486	22	NE - 6283 (C)
2.5	10	600 x 450	636 x 486	22	NE - 6282 (C)
2.5	10	600 x 600	636 x 636	22	NE - 6284 (C)



Facta Load Class SMWL Tonnes	Gross Plated Weight Tonnes	Clear Opening A x B mm	Over Base C x D mm	Total Depth E mm	Product ref.
6.25	25	300 x 300	336 x 336	22	NE - 6281 (E)
6.25	25	450 x 450	486 x 486	22	NE - 6283 (E)
6.25	25	600 x 450	636 x 486	22	NE - 6282 (E)
6.25	25	600 x 600	636 x 636	22	NE - 6284 (E)



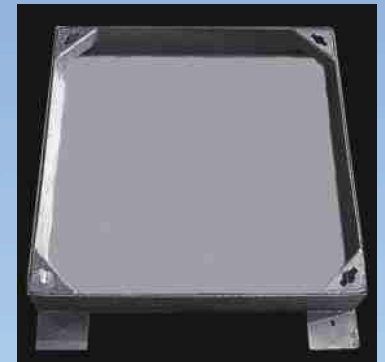
Facta Load Class SMWL Tonnes	Gross Plated Weight Tonnes	Clear Opening A x B mm	Over Base C x D mm	Total Depth E mm	Product ref.
10	38	300 x 300	336 x 336	35	NE - 6281 (F)
10	38	450 x 450	486 x 486	35	NE - 6283 (F)
10	38	600 x 450	636 x 486	35	NE - 6282 (F)
10	38	600 x 600	636 x 636	35	NE - 6284 (F)

Block Paviours:

Facta Load Class SMWL Tonnes	Gross Plated Weight Tonnes	Clear Opening A x B mm	Over Base C x D mm	Total Depth E mm	Product ref.
2.5	10	300 x 300	400 x 400	82	NE - 6278
2.5	10	450 x 450	550 x 550	82	NE - 6247
2.5	10	600 x 450	700 x 550	82	NE - 6269
2.5	10	600 x 600	700 x 700	82	NE - 6272



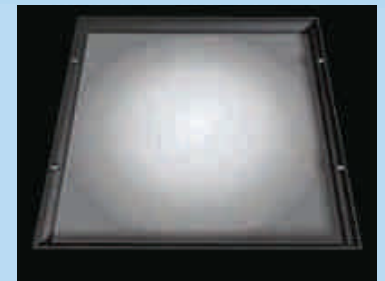
Facta Load Class SMWL Tonnes	Gross Plated Weight Tonnes	Clear Opening A x B mm	Over Base C x D mm	Total Depth E mm	Product ref.
5	20	300 x 300	400 x 400	102	NE - 6298
5	20	450 x 450	550 x 550	102	NE - 6322
5	20	600 x 450	700 x 550	82	NE - 6243
5	20	600 x 600	700 x 700	86	NE - 6240



Facta Load Class SMWL Tonnes	Gross Plated Weight Tonnes	Clear Opening A x B mm	Over Base C x D mm	Total Depth E mm	Product ref.
11	44	600 x 450	700 x 550	102.5	NE - 6337
11	44	600 x 600	700 x 700	102.5	NE - 6296

Recessed Tray:

Facta Load Class SMWL Tonnes	Gross Plated Weight Tonnes	Clear Opening A x B mm	Over Base C x D mm	Total Depth E mm	Product Ref.
2.5	10	300 x 300	522 x 375	25	NE - 6352
2.5	10	450 x 450	530 x 530	25	NE - 6349
2.5	10	600 x 450	672 x 525	25	NE - 6350
2.5	10	600 x 600	822 x 675	25	NE - 6351



Accessories:

Lifting Keys

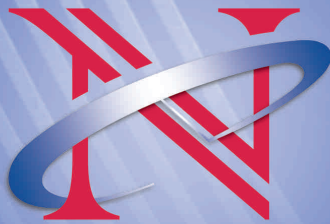
Particular Keys	Usage Area	Product Ref.
Loop Handled Key	Suitable for use with D400, C250 Casting and some surface boxes	NE-6253
Tee Handled Key	Suitable for use with B125 covers and some surface boxes	NE-5018
17" Lock Handle Key	Suitable for use with covers and some surface boxes	NE-5018 (3)



Step Iron:

Item	Dimension	Product Ref.
Step Iron (D1)	230 mm	NE-166
Step Iron (D1)	115 mm	NE-167
Step Iron (D1)	Bolt Type	NE-168





Nandikeshwari Engineering LLP

Registered Office & Foundry
AGV International
Ghoshpara, Balitikuri, Howrah - 711113, India
Phone : +91-98300 38600
E-Mail : amit@agvindia.com
Website : www.agvindia.com
