SLO EN

KATALOG /// CATALOG

industries

ZAKAJ LIVAR

KER LIVAR, d.d. POMENI:

VARNOST
- skladnost izdelkov z zahtevami standarda SIST EN 124, SIST EN 1433
- sistem kakovosti v skladu z zahtevami ISO 9001 od 2015
- za izdelke pridobimo potrdila o skladnosti pri certifikacijskem organu ZAG Ljubljana

FUNKCIONALNOST
- velika izbira asortimana
- lastna proizvodnja
- več kot 40-letne izkušnje
- prilagajanje izdelkov določenim uporabnikovim zahtevam

RAZVOJ
- izdelki so plod lastnega razvoja, pripravljeni smo jih prilagajati in nadalje razvijati po željah kupca

ZNAČILNOSTI PROIZVODOV
1. Enostavno za ravnanje med prevozom, pri vgradnji in vzdrževanju. Zaradi materiala, nodularne litine, je teža izdelkov v primerjavi z izdelki z enako nosilnostjo iz sive litine nižja za 10 – 50%.

2. Med obremenitvijo so izdelki stabilni, umeščeni v svojem sedežu, ni več nadležnega ropota.

3. Izboljšana oblika okvirjev je dobro prilagojena vgradnemu mestu, zato okvir ne more odstopiti od podlage.

4. Pokrovi za kabelski program imajo vgrajeno tesnilno gumo, protihrupni vložek, zaprti so s pomočjo vzmetnih zaklepov ali s pomočjo vijačenja.

5. Skladnost z zahtevami standarda SIST EN 124, stalni nadzor proizvodnje s strani certifikacijskega organa ZAG (SLO), ZIK (HR).

BECAUSE BRAND NAME LIVAR, d.d. stands for:

SECURITY
- compliance with the requirements of standard SIST EN 124, SIST EN 1433
- the quality system in accordance with the requirements of ISO 9001 since 2015
- for our products we obtained the certificate of compliance from the certification body ZAG Ljubljana

UTILITY
- large range of choice
- our own production
- more than 40 years of experience
- adapting products to the user's requirements

DEVELOPMENT
- products of our own development, we are willing to adapt and continue to develop all the products according to customer specifications

PRODUCT FEATURES
1. Easy to handle during transportation, the installation and maintenance. Because of the material, ductile iron, the weight of the products compared to products with the same capacity made from grey cast iron is down by 10 – 50%.

2. During loading the products are stable, fixed in their seat, no more annoying noise ...

3. Improved frame design is well suited to built-in place, so the framework cannot depart from the ground.

4. Covers for cable program are installed with a sealing rubber, sound barrier input and springs or screw system.

5. Compliance with the requirements of SIST EN 124 standard, continuous monitoring of production by the certification body and additional safeguards provide security.

ZAGOTOVILO KAKOVOSTI
Zahteve standarda SIST EN 124
- značilnosti izdelkov (geometrijske)
- klasificiranje (nosilnostni razredi)
- mesta za vgradnjo
- osnove za vgradnjo
- materiali, ki se lahko uporabljajo za izdelavo
- označevanje izdelkov
- preizkušanje in nadzor

MESTO VGRADNJE
Kolesarske steze, pešpoti, parkirišča za osebni in tovorni promet, vozišča ...

KARAKTERISTIKE
Protihrupni vložek, zaklep, odprtine za zračenje ali brez zračenja, možnost izdelave grba, vodotesni vložek, varovanje proti odpiranju.

MOŽNI NAPISI
VODOVOD, KANALIZACIJA, TELEFON, JAVNA RAZSVETLJAVA, ELEKTRIKA ali BREZ NAPISA oziroma po naročilu

MATERIAL
Okvir in pokrov sta izdelana iz nodularne litine (po SIST EN 1563:2012)

ZAŠČITA
Antikorozijsko so zaščiteni s črno barvo na vodni osnovi.

EMBALAŽA
Artikli so sestavljeni in zloženi na lesene palete in zaščiteni s PVC folijo.

QUALITY POLICY
Requirements of SIST EN 124
- product characteristics (geometry)
- classification (capacity classes)
- installation locations
- the basics of installation
- materials that can be used for manufacturing
- labeling of the products
- testing and monitoring

USE
Bike lanes, footways, parking areas, roads ...

FEATURES
Noise barrier input, locking system, ventilation holes or no ventilation, the ability to create the city coat of arm, waterproof insert ...

INSCRIPTION
WATER, SEWAGE, PHONE, PUBLIC LIGHTING, ELECTRICITY or WITHOUT INSCRIPTION

MATERIAL
Frame and cover are made of ductile cast iron EN-GJS-400-15 (1563:2012)

PROTECTION
Protected from corrosion by black water based paint.

PACKING
Products are assembled and stacked on wooden pallets and connected by a metal band.

KAZALO IZDELKOV

KVADRATNI / SQUARE

NOSILNOST CAPACITY	DIMENZIJE DIMENSIONS	ARTIKEL ARTICLE	ZAKLEP LOCKING SYSTEM	PROTIHRUPNI VLOŽEK NOISE BARRIER INPUT	TESNILNA GUMA TIGHTENING	VIJAČEN POKROV SCREW COVER	BETONSKI VENEC CONCRETE RING	POSEBNOSTI SPECIALITIES	STRAN PAGE
A 15 kN	350 x 350	500 A	x	x	x	x	x		10
A 15 kN	350 x 450	500 B	x	x	x	x	x		11
A 15 kN	600 x 600	501	x	x	x	x	x		12
B 125 kN	600 x 600	502	x	x	x	x	x		16
B 125 kN	400 x 400	513	x	x	x	x	x	OLJNI ŽLEB / OIL GUTTER	17
B 125 kN	500 x 500	520	x	x	x	x	x		18
B 125 kN	600 x 600	803	✓	✓	✓	x	x		19
B 125 kN	600 x 1300	811	✓	✓	✓	x	x	SNEMLJIVA PREČKA, VIJAČEN OKVIR / DETACHABLE CROSSBAR, BOLTED FRAME	20
B 125 kN	800 x 800	903	x	x	x	x	x	VIJAČEN OKVIR / BOLTED FRAME	21
C 250 kN	600 x 600	503	✓	✓	x	x	x		32
C 250 kN	500 x 500	521	x	x	x	✓	x		33
D 400 kN	600 x 600	504 MODEL 2016	✓	✓	✓	x	✓		44
D 400 kN	600 x 600	802 A MODEL 2016	✓	✓	✓	✓	x		45
D 400 kN	600 x 600	804 MODEL 2016	✓	✓	✓	x	x		46
D 400 kN	600 x 1300	812 A	✓	✓	✓	✓	x	POKROVA VIJAČENA, SNEMLJIVA PREČKA, VIJAČEN OKVIR / BOLTED COVERS, DETACHABLE CROSSBAR, BOLTED FRAME	47
D 400 kN	800 x 800	904	x	✓	x	✓	x	SNEMLJIVA PREČKA, VIJAČEN OKVIR / DETACHABLE CROSSBAR, BOLTED FRAME	48

OKROGLI/ROUND

NOSILNOST CAPACITY	DIMENZIJE DIMENSIONS	ARTIKEL ARTICLE	ZAKLEP LOCKING SYSTEM	PROTIHRUPNI VLOŽEK NOISE BARRIER INPUT	TESNILNA GUMA TIGHTENING	VIJAČEN POKROV SCREW COVER	BETONSKI VENEC CONCRETE RING	POSEBNOSTVVTI SPECIALITIES	STRAN PAGE
B 125 kN	Ø 600	600	x	x	x	x	✓		22
B 125 kN	Ø 600	601	x	x	x	x	✓		23
B 125 kN	Ø 450	610	x	x	x	x	x		24
B 125 kN	Ø 600	611	x	x	x	x	x		25
B 125 kN	Ø 500	621	x	x	✓	✓	x	PREČKA Z VIJAKOM / BOLTED CROSSBAR	26
B 125 kN	Ø 500	622	x	x	x	x	x		27
C 250 kN	Ø 600	603	✓	✓	x	x	✓		34
C 250 kN	Ø 600	603 B.L.	✓	✓	x	x	✓		35
D 400 kN	Ø 600	602	x	x	x	x	x		49
D 400 kN	Ø 600	604 MODEL 2016	✓	✓	x	x	✓	OPCIJA VIJAČENJA/ BOLT OPTIONAL	50
D 400 kN	Ø 600	605 MODEL 2016	✓	✓	x	x	✓	OPCIJA VIJAČENJA/ BOLT OPTIONAL	51
D 400 kN	Ø 600	607	x	x	✓	✓	✓	VODOTESEN / WATERTIGHT	52
D 400 kN	Ø 600	634	✓	✓	x	x	x		53
D 400 kN	Ø 600	635	✓	✓	x	x	x		54
D 400 kN	Ø 600	644	✓	✓	x	x	x		55
D 400 kN	Ø 600	645	✓	✓	x	x	x		56
D 400 kN	Ø 600	654	✓	✓	x	x	x		57
D 400 kN	Ø 600	655	✓	✓	x	x	x		57
D 600 kN	Ø 600	606	x	x	✓	✓	✓		66

REŠETKE / GRATINGS

NOSILNOST CAPACITY	DIMENZIJE DIMENSIONS	ARTIKEL ARTICLE	ZAKLEP LOCKING SYSTEM	PROTIHRUPNI VLOŽEK NOISE BARRIER INPUT	TESNILNA GUMA TIGHTENING	VIJAČEN POKROV SCREW COVER	POSEBNOSTI SPECIALITIES	STRAN PAGE
B 125 kN	Ø 600	703	x	x	x	x		28
C 250 kN	300 x 300	700	✓	x	x	x	MOŽEN PESKOLOV / OPTION DIRT CATHER	36
C 250 kN	400 x 400	705	x	x	x	x		37
C 250 kN	400 x 400	706	x	x	x	x		38
C 250 kN	500 x 200	711 MODEL 2016	✓	x	x	x		39
C 250 kN	500 x 100	721	✓	x	x	x	S KANALETO / WITH CHANNEL	40
C 250 kN	500 x 200	723	✓	x	x	x	S KANALETO / WITH CHANNEL	41
D 400 kN	400 x 400	701	✓	x	x	x	MOŽEN PESKOLOV / OPTION DIRT CATHER	58
D 400 kN	400 x 400	701 B	✓	x	x	x		59
D 400 kN	400 x 400	702	✓	x	x	x	MOŽEN PESKOLOV / OPTION DIRT CATHER	60
D 400 kN	400 x 400	702 B	✓	x	x	x		61
D 400 kN	Ø 600	704	✓	x	x	x		62
D 400 kN	500 x 300	724	✓	x	x	x	S KANALETO / WITH CHANNEL	63

OSTALO / OTHER

KATEGORIJA CATAGORY	ARTIKEL ARTICLE	POSEBNOSTI SPECIALITIES	STRAN PAGE
ARMIRANI BETONSKI VENCI REINFORCED CONCRETE RINGS	X	X	70
PESKOLOV SAND CATCHER	700A	X	74
	702A	X	75
	VSTOPNO ŽELEZO ENTRY PART		76
ORODJA ZA ODPIRANJE IN DVIGOVANJE POKROVOV ACCESSORIES - TOOLS FOR OPENING AND LIFTING OF MANHOLE COVERS	KLEŠČE ZA ODPIRANJE POKROVOV PLIERS FOR OPNING COVERS	X	80
	VZVOD UNIVERSAL OPENING BAR	X	81

KOMUNALNI
PROGRAM

NOSILNOST
CAPACITY A15
15kN

NOSILNOST
CAPACITY A15
15kN

/// NOSILNOST /// CAPACITY /// A15 /// 15kN ////

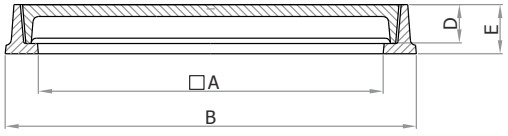
NOSILNOST
CAPACITY A15
15kN

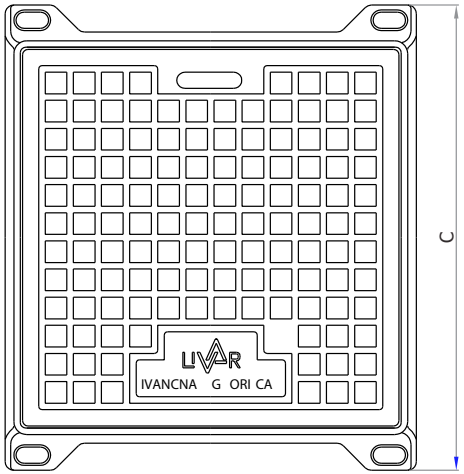
art. 500 A
KANALSKI POKROV IN OKVIR 350 x 350 (KVADRATNI)
A15, SIST EN124, NODULARNA IZVEDBA

Mesto vgradnje:
ZELENICE - PEŠPOTI - KOLESARSKE STEZE

art. 500 A
MANHOLE COVER AND FRAME 350 x 350 (SQUARE)
A15, SIST EN124, DUCTILE CAST IRON

Use:
LAWNS – FOOTWAYS – BIKE LANES





SI	razred	nosilnost	artikel	A	B	C	D	E	teža
EN	class	capacity	art.no.	A	B	C	D	E	unit weight
	A	15kN	500A	320	380	430	36	46	17 kg

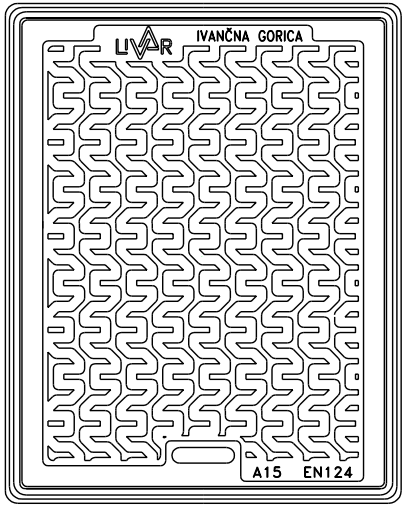
art. 500 B
KANALSKI POKROV IN OKVIR 350 x 450 (PODOLGOVATI)
A15, SIST EN124, NODULARNA IZVEDBA

Mesto vgradnje:
ZELENICE - PEŠPOTI - KOLESARSKE STEZE

NOSILNOST
CAPACITY A15
15kN

art. 500 B
MANHOLE COVER AND FRAME 350 x 450 (RECTANGULAR)
A15, SIST EN124, DUCTILE CAST IRON

Use:
LAWNS – FOOTWAYS – BIKE LANES



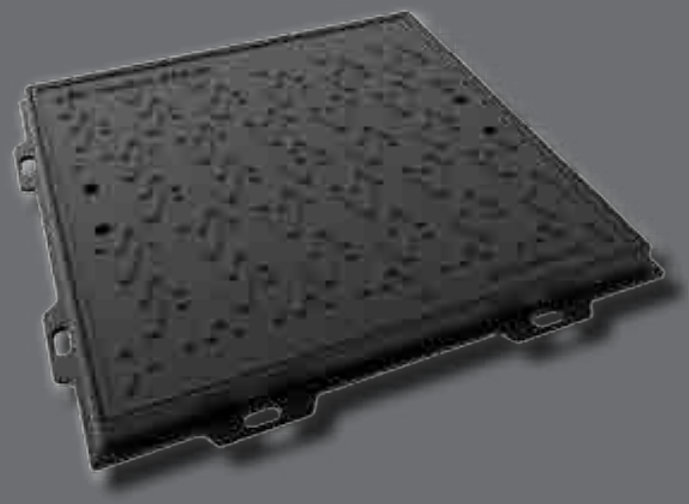
SI	razred	nosilnost	artikel	A	B	C	D	E	F	teža
EN	class	capacity	art.no.	A	B	C	D	E	F	unit weight
	A	15kN	500B	420	320	480	380	36	46	23 kg

NOSILNOST
CAPACITY A15
15kN

art. 501
KANALSKI POKROV IN OKVIR 600 X 600 (KVADRATNI)
A15, SIST EN124, NODULARNA IZVEDBA

Možna izvedba z grbom in/ali napisom:
KANALIZACIJA - VODOVOD - JAVNA RAZSVETLJAVA -
ELEKTRIKA - TELEFON - CATV ALI BREZ NAPISA

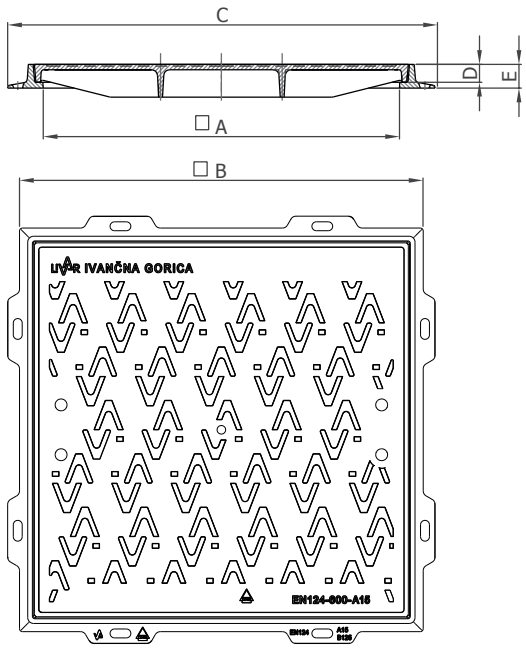
Mesto vgradnje:
ZELENICE - PEŠPOTI - KOLESARSKE STEZE



art. 501
MANHOLE COVER AND FRAME 600 X 600 (SQUARE)
A15, SIST EN124, DUCTILE CAST IRON

Option with inscription and/or city coat of arms:
SEWAGE – WATER – PUBLIC LIGHTING – ELECTRICITY – PHONE –
CABEL TV OR WITHOUT INSCRIPTION

Use:
LAWNS – FOOTWAYS – BIKE LANES



SI	razred	nosilnost	artikel	A	B	C	D	E	teža
EN	class	capacity	art.no.	A	B	C	D	E	unit weight
	A	15kN	501	600	680	720	30	40	41 kg

NOSILNOST
CAPACITY A15
15kN

KOMUNALNI
PROGRAM

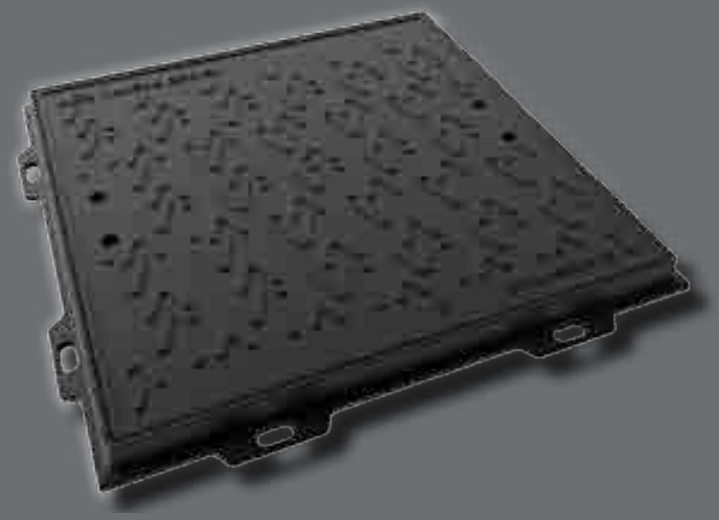
NOSILNOST
CAPACITY B125
125kN

NOSILNOST
CAPACITY B125
125kN

/// NOSILNOST /// CAPACITY /// B125 /// 125kN ///

NOSILNOST
CAPACITY B125
125kN

art. 502
KANALSKI POKROV IN OKVIR 600 x 600 (KVADRATNI)
B125, SIST EN124, NODULARNA IZVEDBA



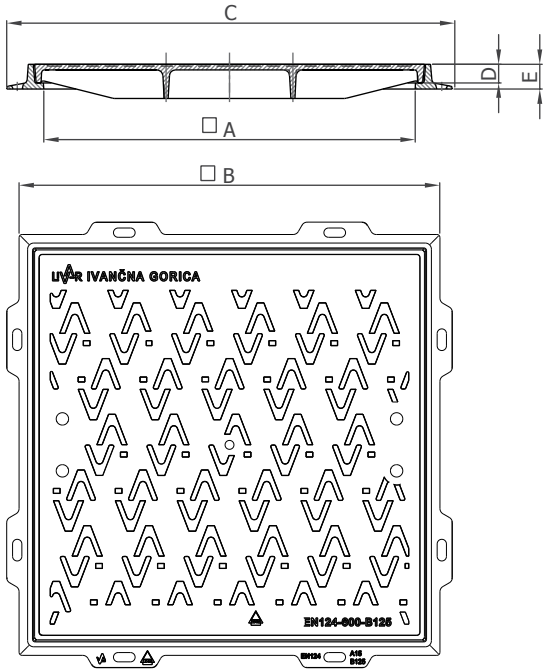
Možna izvedba z grbom in/ali napis:
KANALIZACIJA - VODOVOD - JAVNA RAZSVETLJAVA -
ELEKTRIKA - TELEFON - CATV ALI BREZ NAPISA

Mesto vgradnje:
PLOČNIKI – PEŠPOTI – PARKIRIŠČA ZA OSEBNA VOZILA

art. 502
MANHOLE COVER AND FRAME 600 x 600 (SQUARE)
B125, SIST EN124, DUCTILE CAST IRON

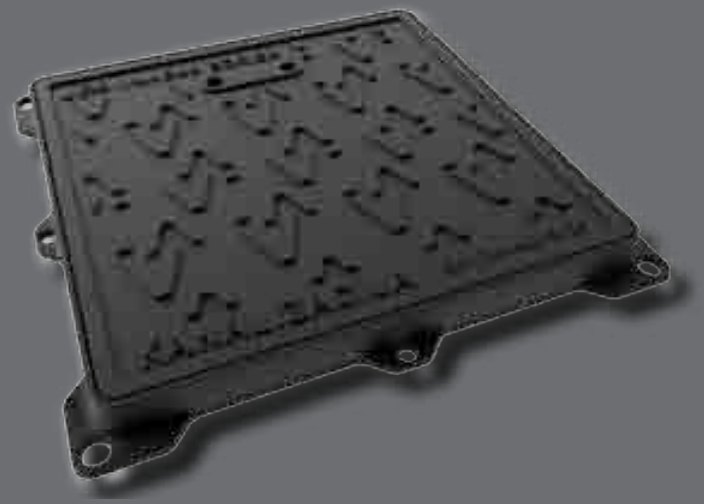
Option with inscription and/or city coat of arms:
SEWAGE – WATER – PUBLIC LIGHTING – ELECTRICITY –
PHONE – CABEL TV OR WITHOUT INSCRIPTION – BY AGREEMENT

Use:
SIDEWALKS – FOOTWAYS – PARKING AREAS FOR CARS



SI	razred	nosilnost	artikel	A	B	C	D	E	teža
EN	class	capacity	art.no.	A	B	C	D	E	unit weight
	B	125kN	502	600	680	720	30	40	42 kg

art. 513
KANALSKI POKROV IN OKVIR 400 x 400 (KVADRATNI)
B125, SIST EN124, NODULARNA IZVEDBA



Z OLJNIM ŽLEBOM (smradotesen)

Možnost napisa:
KANALIZACIJA
ALI BREZ NAPISA

Mesto vgradnje:
PLOČNIKI – PEŠPOTI – PARKIRIŠČA ZA OSEBNA VOZILA

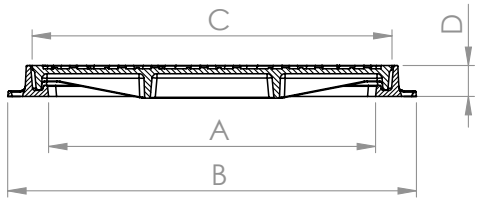
NOSILNOST
CAPACITY B125
125kN

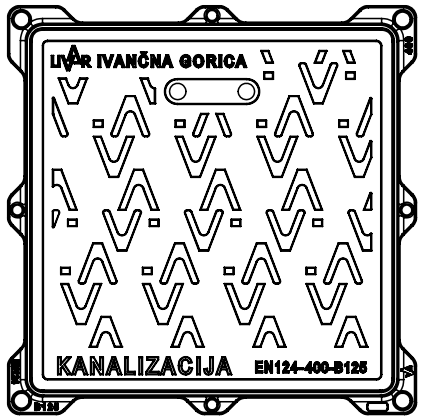
art. 513
MANHOLE COVER AND FRAME 400 x 400 (SQUARE)
B125, SIST EN124, DUCTILE CAST IRON

OIL GUTTER (smell sealed)

Option with inscription:
SEWAGE
OR WITHOUT INSCRIPTION

Use:
SIDEWALKS – FOOTWAYS – PARKING AREAS FOR CARS

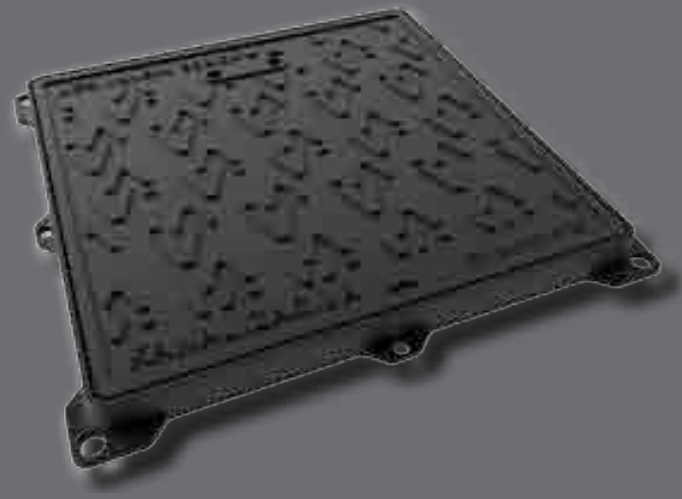




SI	razred	nosilnost	artikel	A	B	C	D	teža
EN	class	capacity	art.no.	A	B	C	D	unit weight
	B	125kN	513	400	500	440	38	21 kg

NOSILNOST
CAPACITY B125
125kN

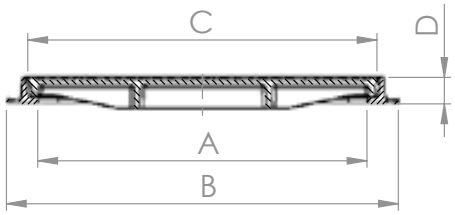
art. 520
KANALSKI POKROV IN OKVIR 500 x 500 (KVADRATNI)
B125, SIST EN124, NODULARNA IZVEDBA



Mesto vgradnje:
PLOČNIKI – PEŠPOTI – PARKIRIŠČA ZA OSEBNA VOZILA

Možni napisi:
KANALIZACIJA,
BREZ NAPISA

art. 520
MANHOLE COVER AND FRAME 500 x 500 (SQUARE)
B125, SIST EN124, DUCTILE CAST IRON



Use:
SIDEWALKS – FOOTWAYS – PARKING AREAS FOR CARS

Possible inscriptions:
CANALISATION,
WITHOUT INSCRIPTION

SI	razred	nosilnost	artikel	A	B	C	D	teža
EN	class	capacity	art.no.	A	B	C	D	unit weight
	B	125kN	520	500	591X595	530	40	28 kg

art. 803
KANALSKI POKROV IN OKVIR 600 x 600 (KVADRATNI)
B125, SIST EN124, NODULARNA IZVEDBA

S TESNENJEM TER PROTIHRUPNIM VLOŽKOM IN DVOJNIM SIMETRIČNIM ZAKLEPOM

Mesto vgradnje:
PLOČNIKI – PEŠPOTI – PARKIRIŠČA ZA OSEBNA VOZILA

Možni napisi:
ELEKTRIKA,
BREZ NAPISA, PO DOGOVORU

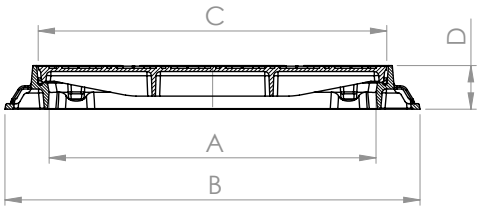
NOSILNOST
CAPACITY B125
125kN

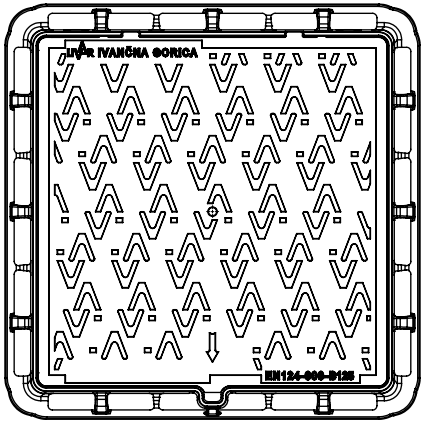
art. 803
MANHOLE COVER AND FRAME 600 x 600 (SQUARE)
B125, SIST EN124, DUCTILE CAST IRON

WITH TIGHTENING, NOISE BARRIER INSERT AND DOUBLE SYMETRICAL LOCKING SYSTEM

Use:
SIDEWALKS – FOOTWAYS – PARKING AREAS FOR CARS

Possible inscriptions:
ELECTRICITY,
WITHOUT INSCRIPTION, BY AGREEMENT

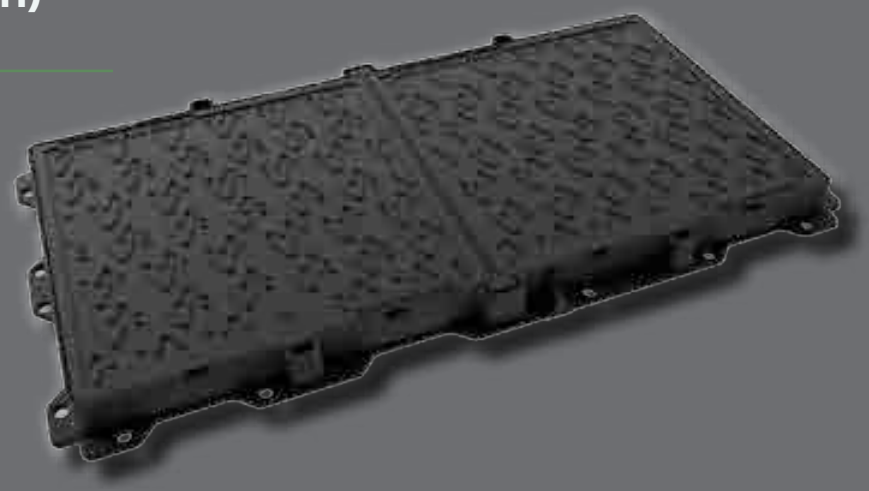




SI	razred	nosilnost	artikel	A	B	C	D	teža
EN	class	capacity	art.no.	A	B	C	D	unit weight
	B	125kN	803	600	762	640	80	59 kg

NOSILNOST
CAPACITY B125
125kN

art. 811
KANALSKI POKROV IN OKVIR 600 x 1300 (PODOLGOVATI)
B125, SIST EN124, NODULARNA IZVEDBA

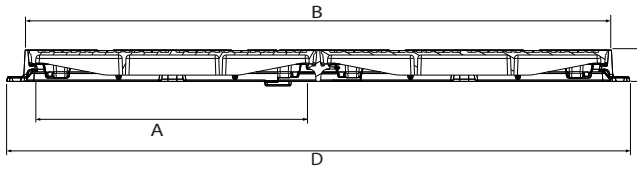


S TESNENJEM IN DVOJNIM SIMETRIČNIM ZAKLEPOM

Možna izvedba z grbom in/ali napis:
ELEKTRIKA – BREZ NAPISA – PO DOGOVORU

Mesto vgradnje:
PLOČNIKI – PEŠPOTI – PARKIRIŠČA ZA OSEBNA VOZILA

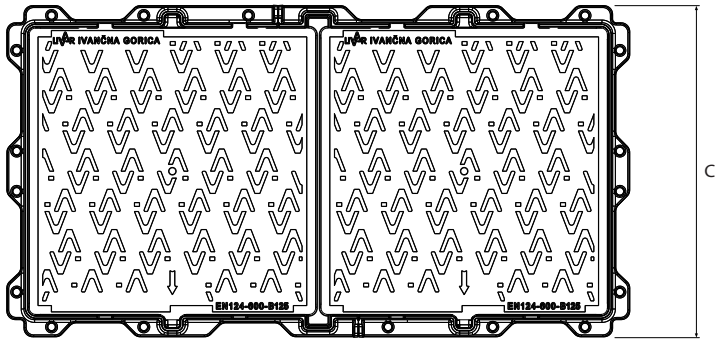
art. 811
MANHOLE COVER AND FRAME 600 x 1300 (RECTANGULAR)
B125, SIST EN124, DUCTILE CAST IRON



WITH TIGHTENING, NOISE BARRIER INSERT AND DOUBLE SYMETRICAL LOCKING SYSTEM

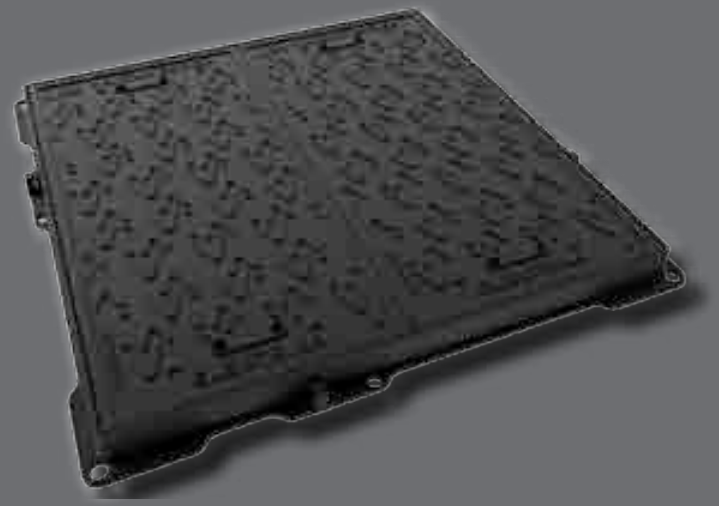
Option with inscription and/or city coat of arms:
ELECTRICITY OR WITHOUT INSCRIPTION – BY AGREEMENT

Use:
SIDEWALKS – FOOTWAYS – PARKING AREAS FOR CARS



SI	razred	nosilnost	artikel	A	B	C	D	E	teža
EN	class	capacity	art.no.	A	B	C	D	E	unit weight
	B	125kN	811	600	1254	740	1392	70	114 kg

art. 903
KANALSKI POKROV IN OKVIR 800 x 800 (KVADRATNI)
B125, SIST EN124, NODULARNA IZVEDBA



Možen napis:
ELEKTRIKA
ALI BREZ NAPISA

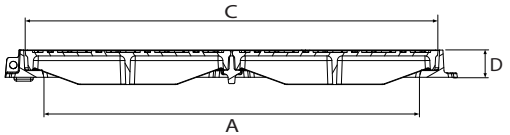
Mesto vgradnje:
PLOČNIKI – PEŠPOTI – PARKIRIŠČA ZA OSEBNA VOZILA

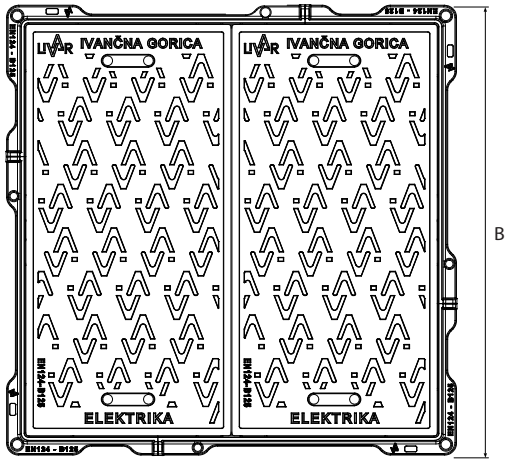
NOSILNOST
CAPACITY B125
125kN

art. 903
MANHOLE COVER AND FRAME 800 x 800 (SQUARE)
B125, SIST EN124, DUCTILE CAST IRON

Option with inscription:
ELECTRICITY
OR WITHOUT INSCRIPTION

Use:
SIDEWALKS – FOOTWAYS – PARKING AREAS FOR CARS





SI	razred	nosilnost	artikel	A	B	C	D	teža
EN	class	capacity	art.no.	A	B	C	D	unit weight
	B	125kN	903	800	930X930	850	56	106 kg

NOSILNOST
CAPACITY B125
125kN

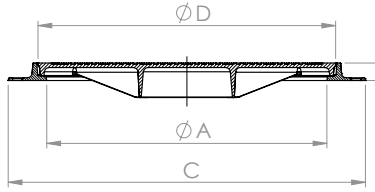
art. 600
KANALSKI POKROV IN OKVIR Ø 600 (OKROGLI)
B125, SIST EN124, NODULARNA IZVEDBA

MOŽNOST Z BETONSKIM VENCEM

Možnost napisa:
KANALIZACIJA
ALI BREZ NAPISA

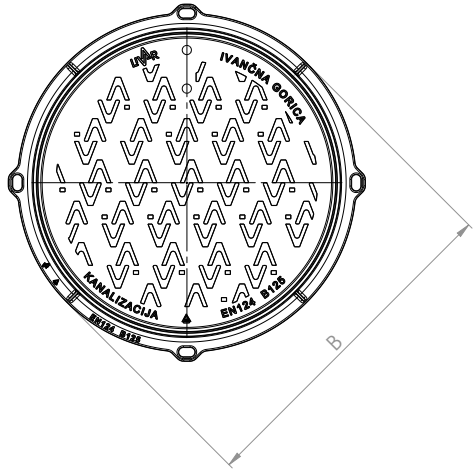
Mesto vgradnje:
PLOČNIKI – PEŠPOTI – PARKIRIŠČA ZA OSEBNA VOZILA

art. 600
MANHOLE COVER AND FRAME Ø 600 (ROUND)
B125, SIST EN124, DUCTILE CAST IRON



Option with inscription:
CANALISATION, WITHOUT INSCRIPTION

Use:
SIDEWALKS – FOOTWAYS – PARKING AREAS FOR CARS



SI	razred	nosilnost	artikel	A	B	C	D	E	teža
EN	class	capacity	art.no.	A	B	C	D	E	unit weight
	B	125kN	600	610	738	778	648	39	45 kg

art. 601
KANALSKA POKROV IN OKVIR Ø 600 (OKROGLI)
B125, SIST EN124, NODULARNA IZVEDBA

MOŽNOST Z BETONSKIM VENCEM

Možnost napisa:
KANALIZACIJA
ALI BREZ NAPISA

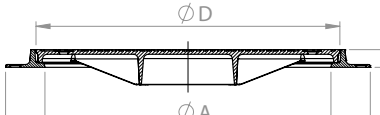
Mesto vgradnje:
PLOČNIKI – PEŠPOTI – PARKIRIŠČA ZA OSEBNA VOZILA

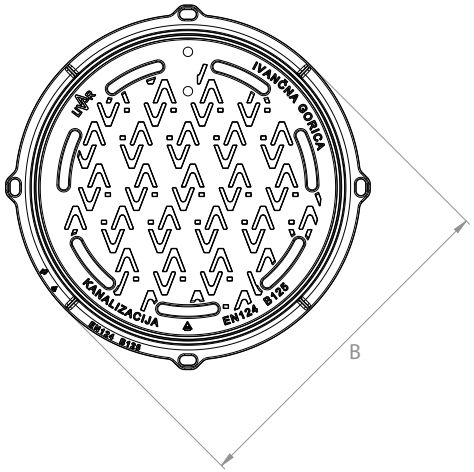
NOSILNOST
CAPACITY B125
125kN

art. 601
MANHOLE COVER AND FRAME Ø 600 (ROUND)
B125, SIST EN124, DUCTILE CAST IRON

Option with inscription:
CANALISATION,
WITHOUT INSCRIPTION

Use:
SIDEWALKS – FOOTWAYS – PARKING AREAS FOR CARS





SI	razred	nosilnost	artikel	A	B	C	D	E	teža
EN	class	capacity	art.no.	A	B	C	D	E	unit weight
	B	125kN	601	610	738	778	648	39	42 kg

NOSILNOST
CAPACITY B125
125kN

art. 610
KANALSKI POKROV IN OKVIR Ø 450 (OKROGLI)
B125, SIST EN124, NODULARNA IZVEDBA

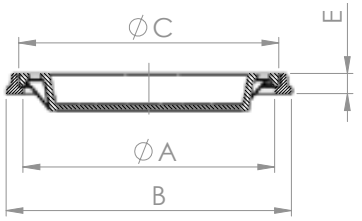
PROSTOR ZA POLNILO (asfalt, tlakovci, beton)

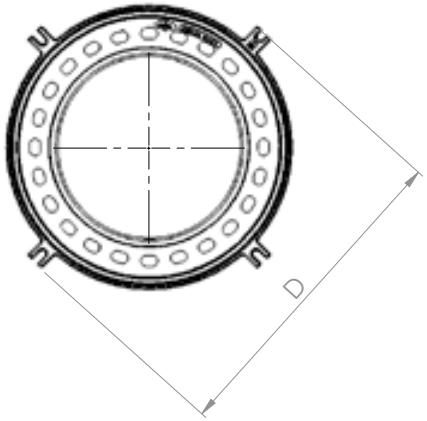
Mesto vgradnje:
PLOČNIKI – PEŠPOTI – PARKIRIŠČA ZA OSEBNA VOZILA

art. 610
MANHOLE COVER AND FRAME Ø 450 (ROUND)
B125, SIST EN124, DUCTILE CAST IRON

PLACE FOR FILLING (asphalt, pavers, concrete)

Use:
SIDEWALKS – FOOTWAYS – PARKING AREAS FOR CARS





SI	razred	nosilnost	artikel	A	B	C	D	E	teža
EN	class	capacity	art.no.	A	B	C	D	E	unit weight
	B	125kN	610	450	510	465	580	36	20 kg

art. 611
KANALSKI POKROV IN OKVIR Ø 600 (OKROGLI)
B125, SIST EN124, NODULARNA IZVEDBA

PROSTOR ZA POLNILO (asfalt, tlakovci, beton)

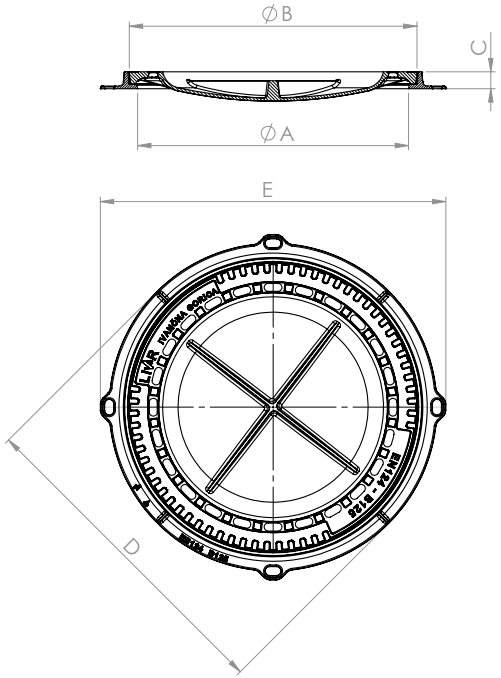
Mesto vgradnje:
PLOČNIKI – PEŠPOTI – PARKIRIŠČA ZA OSEBNA VOZIL**A**

NOSILNOST
CAPACITY B125
125kN

art. 611
MANHOLE COVER AND FRAME Ø 600 (ROUND)
B125, SIST EN124, DUCTILE CAST IRON

PLACE FOR FILLING (asphalt, pavers, concrete)

Use:
SIDEWALKS – FOOTWAYS – PARKING AREAS FOR CARS



SI	razred	nosilnost	artikel	A	B	C	D	E	teža
EN	class	capacity	art.no.	A	B	C	D	E	unit weight
	B	125kN	611	610	650	39	738	778	43 kg

NOSILNOST
CAPACITY B125
125kN

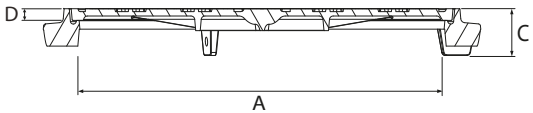
art. 621
KANALSKI POKROV IN OKVIR Ø 500 (OKROGLI)
B125, SIST EN124, NODULARNA IZVEDBA

Možnost napisa:
BREZ NAPISA - PO DOGOVORU

S TESNENJEM (pritrdilna prečka z vijakom)

Mesto vgradnje:
PLOČNIKI – PEŠPOTI – PARKIRIŠČA ZA OSEBNA VOZIL**A**

art. 621
MANHOLE COVER AND FRAME Ø 500 (ROUND)
B125, SIST EN124, DUCTILE CAST IRON



OPTION WITH INSCRIPTION:
WITHOUT INSCRIPTION, BY AGREEMENT

WITHN TIGHTENING (bolted crossbar)

Use:
SIDEWALKS – FOOTWAYS – PARKING AREAS FOR CARS

SI	razred	nosilnost	artikel	A	B	C	D	teža
EN	class	capacity	art.no.	A	B	C	D	unit weight
	B	125kN	621	500	600	58	16	26,5 kg

art. 622
KANALSKI POKROV IN OKVIR Ø 500 (OKROGLI)
B125, SIST EN124, NODULARNA IZVEDBA

Možnost napisa:
BREZ NAPISA - PO DOGOVORU

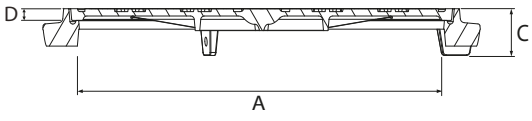
Mesto vgradnje:
PLOČNIKI – PEŠPOTI – PARKIRIŠČA ZA OSEBNA VOZILA

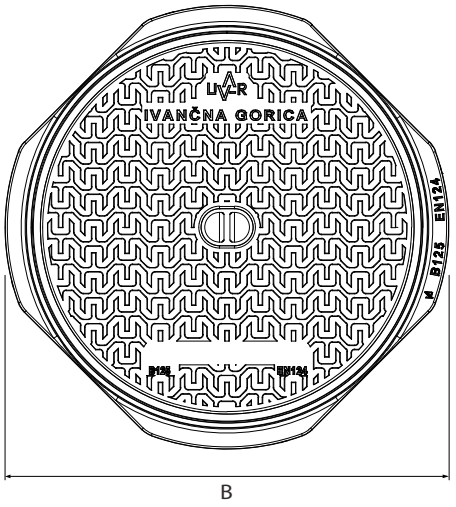
NOSILNOST
CAPACITY B125
125kN

art. 622
MANHOLE COVER AND FRAME Ø 500 (ROUND)
B125, SIST EN124, DUCTILE CAST IRON

OPTION WITH INSCRIPTION:
WITHOUT INSCRIPTION, BY AGREEMENT

Use:
SIDEWALKS – FOOTWAYS – PARKING AREAS FOR CARS





SI	razred	nosilnost	artikel	A	B	C	D	teža
EN	class	capacity	art.no.	A	B	C	D	unit weight
	B	125kN	622	500	600	58	16	25 kg

NOSILNOST
CAPACITY B125
125kN

art. 703
KANALSKA REŠETKA IN OKVIR Ø 600 (OKROGLI)
B125, SIST EN124, NODULARNA IZVEDBA

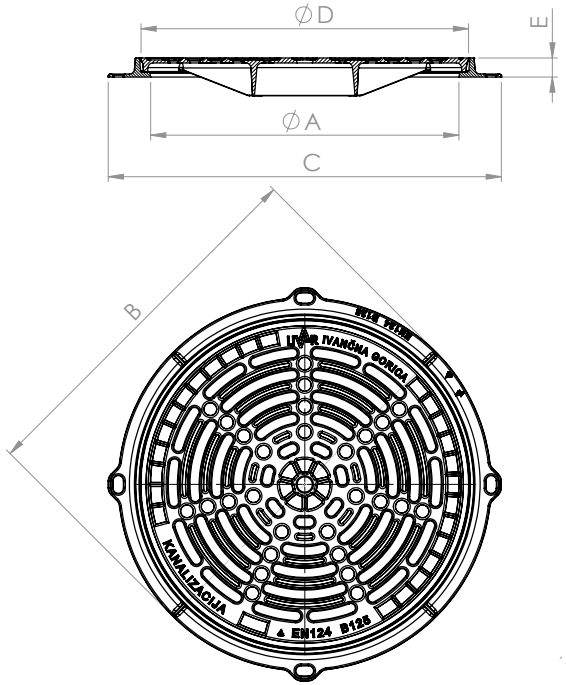
Možnost napisa:
KANALIZACIJA – BREZ NAPISA – PO DOGOVORU

Mesto vgradnje:
PLOČNIKI – PEŠPOTI – PARKIRIŠČA ZA OSEBNA VOZILA

art. 703
GULLY GRATING AND FRAME Ø 600 (ROUND)
B125, SIST EN124, DUCTILE CAST IRON

Option with inscription:
SEWAGE – WITHOUT INSCRIPTION – BY AGREEMENT

Use:
SIDEWALKS – FOOTWAYS – PARKING AREAS FOR CARS



SI	razred	nosilnost	artikel	A	B	C	D	E	teža
EN	class	capacity	art.no.	A	B	C	D	E	unit weight
	B	125kN	703	610	738	778	648	39	38 kg

NOSILNOST
CAPACITY B125
125kN

KOMUNALNI
PROGRAM

NOSILNOST
CAPACITY C250
250kN

NOSILNOST
CAPACITY C250
250kN

/// NOSILNOST /// CAPACITY /// C250 /// 250kN ///

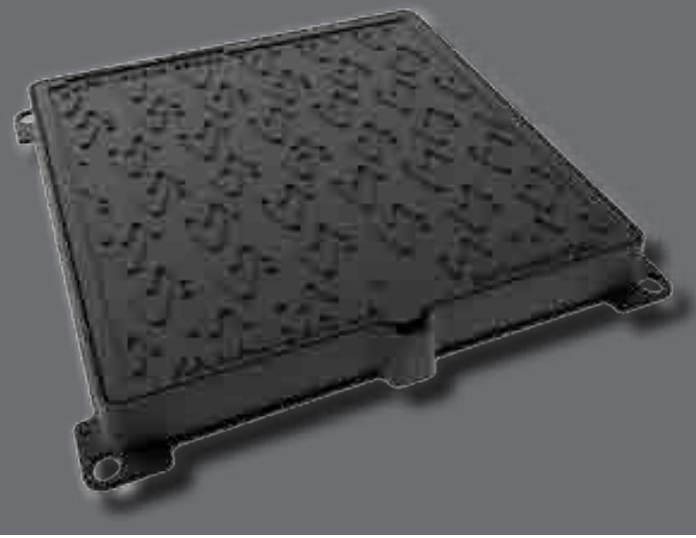
NOSILNOST
CAPACITY C250
250kN

art. 503
KANALSKI POKROV IN OKVIR 600 x 600 (KVADRATNI)
C250, SIST EN124, NODULARNA IZVEDBA

S PROTIHRUPNIM VLOŽKOM IN DVOJNIM SIMETRIČNIM ZAKLEPOM

Možna izvedba z grbom in/ali napis:
KANALIZACIJA – VODOVOD – JAVNA RAZSVETLJAVA – ELEKTRIKA – TELEFON – CATV
ALI BREZ NAPISA

Mesto vgradnje:
BANKINE – PLOČNIKI – STRANSKI PASOVI CEST – PARKIRIŠČA ZA TOVORNA VOZILA

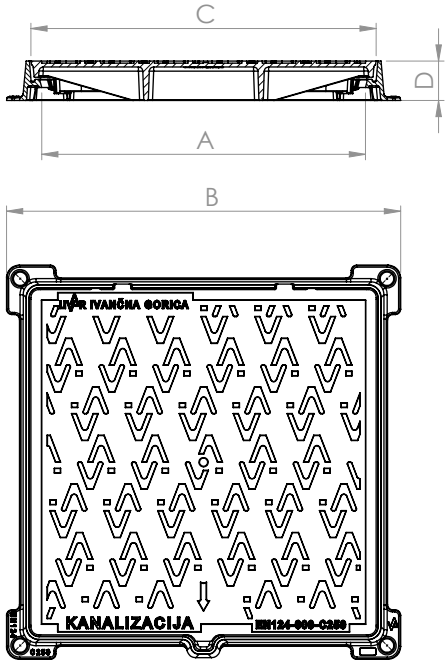


art. 503
MANHOLE COVER AND FRAME 600 x 600 (SQUARE)
C250, SIST EN124, DUCTILE CAST IRON

WITH NOISE BARRIER INSERT AND DOUBLE SYMETRICAL LOCKING SYSTEM

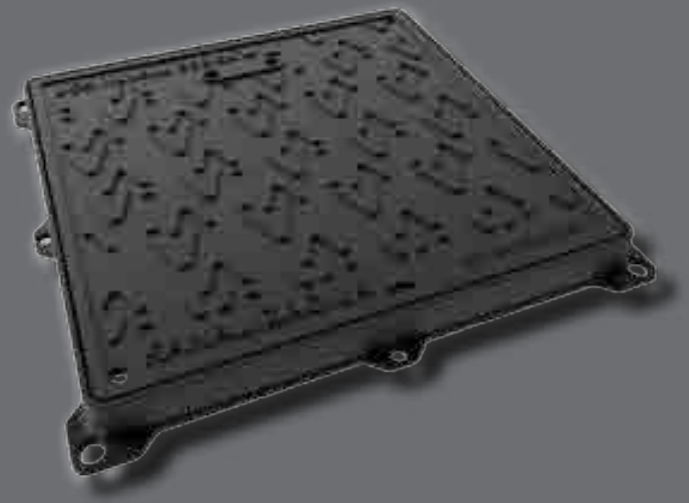
Option with inscription and/or city coat of arms:
SEWAGE – WATER – PUBLIC LIGHTING – ELECTRICITY – PHONE – CABEL TV OR WITHOUT INSCRIPTION

Use:
AREAS OF KERBSIDES – SIDEWALKS – EDGE OF ROADS – PARKING AREAS FOR TRUCKS



SI	razred	nosilnost	artikel	A	B	C	D	teža
EN	class	capacity	art.no.	A	B	C	D	unit weight
	C	250kN	503	600	737	640	73	59 kg

art. 521
KANALSKI POKROV IN OKVIR 500 x 500 (KVADRATNI)
C250, SIST EN124, NODULARNA IZVEDBA

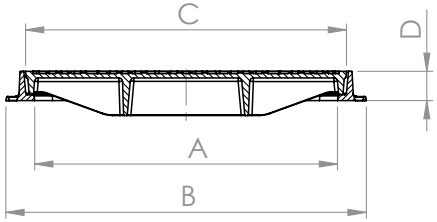


Možna izvedba z napisom:
KANALIZACIJA
ALI BREZ NAPISA

Mesto vgradnje:
BANKINE – PLOČNIKI – STRANSKI PASOVI CEST – PARKIRIŠČA ZA TOVORNA VOZILA

POKROV PRIVIJAČEN (2x)

NOSILNOST
CAPACITY C250
250kN



art. 521
MANHOLE COVER AND FRAME 500 x 500 (SQUARE)
C250, SIST EN124, DUCTILE CAST IRON

Option with inscription:
SEWAGE
OR WITHOUT INSCRIPTION

Use:
AREAS OF KERBSIDES – SIDEWALKS – EDGE OF ROADS – PARING AREAS FOR TRUCKS

BOLTED COVER (2x)

SI	razred	nosilnost	artikel	A	B	C	D	teža
EN	class	capacity	art.no.	A	B	C	D	unit weight
	C	250kN	521	500	595	530	50	38 kg

NOSILNOST
CAPACITY C250
250kN

art. 603
KANALSKI POKROV IN OKVIR Ø 600 (OKROGLI)
C250, SIST EN124, NODULARNA IZVEDBA

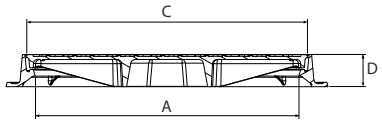
MOŽNOST Z BETONSKIM VENCEM

S PROTIHRUPNIM VLOŽKOM IN DVOJNIM SIMETRIČNIM ZAKLEPOM

Možna izvedba, z grbom in/ali napis:
KANALIZACIJA
ALI BREZ NAPISA

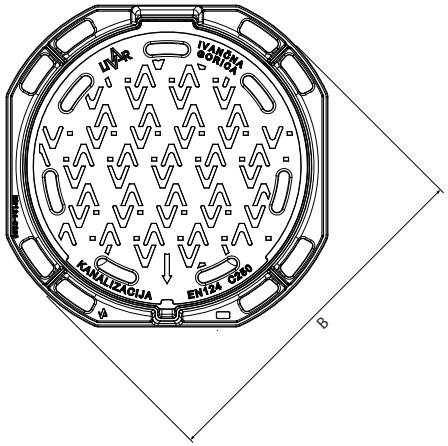
Mesto vgradnje:
BANKINE – PLOČNIKI – STRANSKI PASOVI CEST – PARKIRIŠČA ZA TOVORNA VOZILA

art. 603
MANHOLE COVER AND FRAME Ø 600 (ROUND)
C250, SIST EN124, DUCTILE CAST IRON



WITH NOISE BARRIER INSERT AND DOUBLE SYMETRICAL LOCKING SYSTEM

Option with inscription and/or city coat of arms:
SEWAGE
OR WITHOUT INSCRIPTION



Use:
AREAS OF KERBSIDES – SIDEWALKS – EDGE OF ROADS – PARKING AREAS FOR TRUCKS

SI	razred	nosilnost	artikel	A	B	C	D	teža
EN	class	capacity	art.no.	A	B	C	D	unit weight
	C	250kN	603	600	800	640	100	48 kg

art. 603 B.L.
KANALSKI POKROV IN OKVIR Ø 600 (OKROGLI)
C250, SIST EN124, NODULARNA IZVEDBA

MOŽNOST Z BETONSKIM VENCEM

NOSILNOST
CAPACITY C250
250kN

S PROTIHRUPNIM VLOŽKOM IN DVOJNIM SIMETRIČNIM ZAKLEPOM

Možna izvedba, z grbom in/ali napis:
KANALIZACIJA
ALI BREZ NAPISA

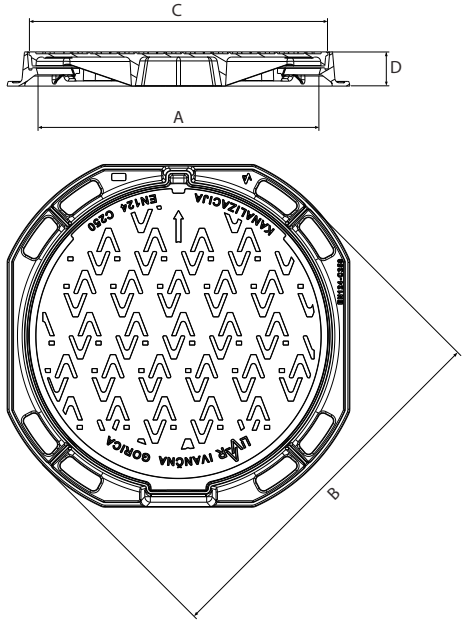
Mesto vgradnje:
BANKINE – PLOČNIKI – STRANSKI PASOVI CEST – PARKIRIŠČA ZA TOVORNA VOZILA

art. 603 B.L.
MANHOLE COVER AND FRAME Ø 600 (ROUND)
C250, SIST EN124, DUCTILE CAST IRON

WITH NOISE BARRIER INSERT AND DOUBLE SYMETRICAL LOCKING SYSTEM

Option, with inscription and/or city coat of arms:
SEWAGE
OR WITHOUT INSCRIPTION

Use:
AREAS OF KERBSIDES – SIDEWALKS – EDGE OF ROADS – PARKING AREAS FOR TRUCKS



SI	razred	nosilnost	artikel	A	B	C	D	teža
EN	class	capacity	art.no.	A	B	C	D	unit weight
	C	250kN	603 B.L.	600	800	640	100	49 kg

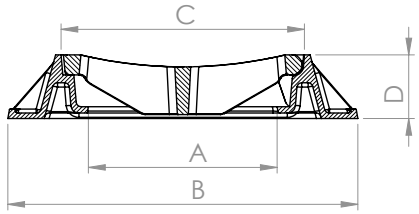
NOSILNOST
CAPACITY C250
250kN

art. 700 (VBOČENA)
KANALSKA REŠETKA IN OKVIR 300 x 300 (KVADRATNA)
C250, SIST EN124, NODULARNA IZVEDBA

MOŽNA IZVEDBA S PESKOLOVOM

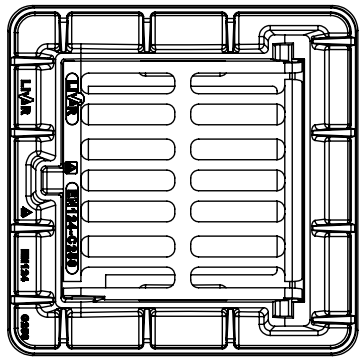
Mesto vgradnje:
BANKINE – PLOČNIKI – STRANSKI PASOVI CEST – PARKIRIŠČA ZA TOVORNA VOZILA

art. 700 (CONCAVE)
GULLY GRATING AND FRAME 300 x 300 (SQUARE)
C250, SIST EN124, DUCTILE CAST IRON



Option WITH DIRT CATCHER

Use:
AREAS OF KERBSIDES – SIDEWALKS – EDGE OF ROADS – PARKING AREAS FOR TRUCKS



SI	razred	nosilnost	artikel	A	B	C	D	teža
EN	class	capacity	art.no.	A	B	C	D	unit weight
	C	250kN	700	240	440	300	80	26 kg

art. 705 (RAVNA)
KANALSKA REŠETKA IN OKVIR 400 x 400 (KVADRATNA)
C250, SIST EN124, NODULARNA IZVEDBA

NI MOŽNA IZVEDBA S PESKOLOVOM

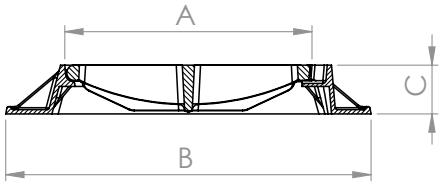
Mesto vgradnje:
BANKINE - PLOČNIKI-STRANSKI PASOVI CEST - PARKIRIŠČA ZA TOVORNA VOZILA

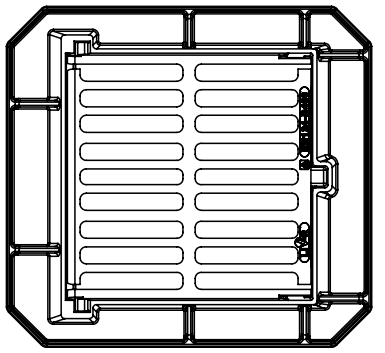
NOSILNOST
CAPACITY C250
250kN

art. 705 (FLAT)
CHANNEL GRATING 400 x 400 (SQUARE)
C250, SIST EN124, DUCTILE CAST IRON

NO OPTION WITH DIRT CATCHER

Use:
SHOULDER - PAVEMENT - SIDE STRAPS ROAD - PARKING LOT FOR TRUCKS





SI	razred	nosilnost	artikel	A	B	C	teža
EN	class	capacity	art.no.	A	B	C	unit weight
	C	250kN	705	400	600X560	80	34,0 kg

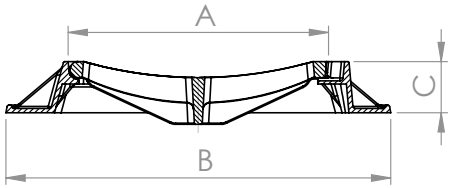
NOSILNOST
CAPACITY C250
250kN

art. 706 (VBOČENA)
KANALSKA REŠETKA IN OKVIR 400 x 400 (KVADRATNA)
C250, SIST EN124, NODULARNA IZVEDBA

NI MOŽNA IZVEDBA S PESKOLOVOM

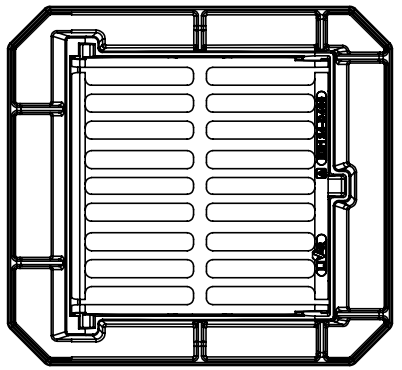
Mesto vgradnje:
BANKINE - PLOČNIKI - STRANSKI PASOVI CEST - PARKIRIŠČA ZA TOVORNA VOZILA

art. 706 (CONCAVE)
CHANNEL GRATING 400 x 400 (SQUARE)
C250, SIST EN124, DUCTILE CAST IRON



NO OPTION WITH DIRT CATCHER

Use:
SHOULDER - PAVEMENT - SIDE STRAPS ROAD - PARKING LOT FOR TRUCKS



SI	razred	nosilnost	artikel	A	B	C	teža
EN	class	capacity	art.no.	A	B	C	unit weight
	C	250kN	706	400	600x560	80	33,0 kg

art. 711
KANALSKA REŠETKA IN OKVIR 500 x 200
C250, SIST EN1433, NODULARNA IZVEDBA

MODEL 2016

Z ZAKLEPOM

Mesto vgradnje:
BANKINE – PLOČNIKI – STRANSKI PASOVI CEST – PARKIRIŠČA ZA TOVORNA VOZILA

Spajanje ene v drugo

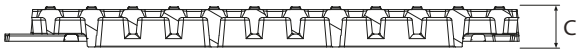
NOSILNOST
CAPACITY C250
250kN

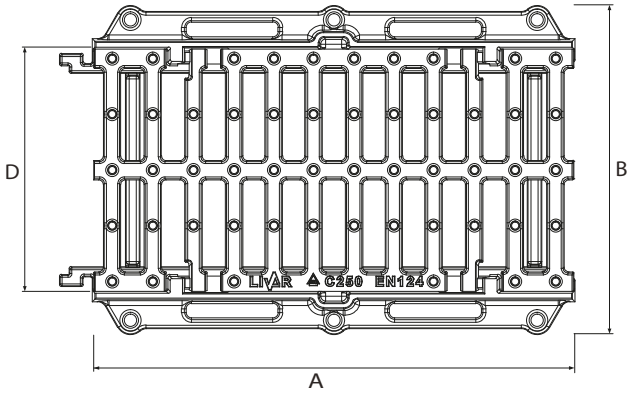
art. 711
CHANNEL GRATING AND FRAME 500 x 200
C250, SIST EN1433, DUCTILE CAST IRON

WITH LOCKING SYSTEM

Use:
AREAS OF KERBSIDES – SIDEWALKS – EDGE OF ROADS – PARKING AREAS FOR TRUCKS

Locking of one gully grating into another





SI	razred	nosilnost	artikel	A	B	C	D	teža
EN	class	capacity	art.no.	A	B	C	D	unit weight
	C	250kN	711	522	330	32	250	15 kg

NOSILNOST
CAPACITY C250
250kN

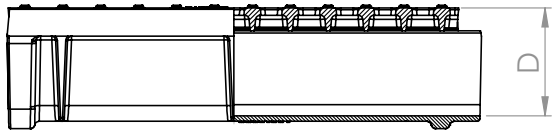
art. 721
KANALSKA REŠETKA S KANALETO 500 x 100
C250, SIST EN1433, NODULARNA IZVEDBA

Z ZAKLEPOM

Mesto vgradnje:
BANKINE – PLOČNIKI – STRANSKI PASOVI CEST – PARKIRIŠČA ZA TOVORNA VOZILA

Spajanje ene v drugo

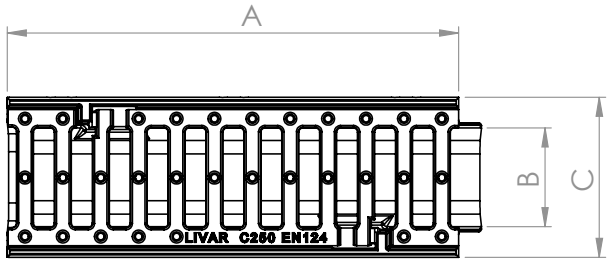
art. 721
CHANNEL GRATING 500 x 100
C250, SIST EN1433, DUCTILE CAST IRON



WITH LOCKING SYSTEM

Use:
AREAS OF KERBSIDES – SIDEWALKS – EDGE OF ROADS – PARKING AREAS FOR TRUCKS

Locking of one input element into output element of neighbor housing



SI	razred	nosilnost	artikel	A	B	C	D	teža
EN	class	capacity	art.no.	A	B	C	D	unit weight
	C	250kN	721	500	110	175	120	16 kg

art. 723
KANALSKA REŠETKA S KANALETO 500 x 200
C250, SIST EN1433, NODULARNA IZVEDBA

Z ZAKLEPOM

Mesto vgradnje:
BANKINE – PLOČNIKI – STRANSKI PASOVI CEST – PARKIRIŠČA ZA TOVORNA VOZILA

Spajanje ene v drugo

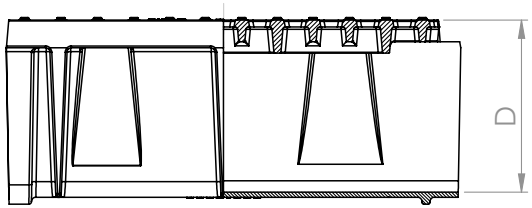
NOSILNOST
CAPACITY C250
250kN

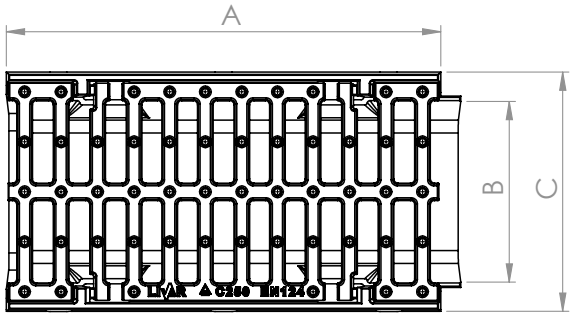
art. 723
CHANNEL GRATING 500 x 200
C250, SIST EN1433, DUCTILE CAST IRON

WITH LOCKING SYSTEM

Use:
AREAS OF KERBSIDES – SIDEWALKS – EDGE OF ROADS – PARKING AREAS FOR TRUCKS

Locking of one gully grating into another





SI	razred	nosilnost	artikel	A	B	C	D	teža
EN	class	capacity	art.no.	A	B	C	D	unit weight
	C	250kN	723	500	210	275	200	25 kg

KOMUNALNI PROGRAM

NOSILNOST
CAPACITY D400
400 kN

NOSILNOST
CAPACITY D400
400kN

/// NOSILNOST /// CAPACITY /// D400 /// 400kN ///

NOSILNOST
CAPACITY D400
400 kN

art. 504
KANALSKI POKROV IN OKVIR 600 x 600 (KVADRATNI)
D400, SIST EN124, NODULARNA IZVEDBA

MODEL 2016

MOŽNOST Z BETONSKIM VENCEM

S PROTIHRUPNIM VLOŽKOM IN DVOJNIM SIMETRIČNIM ZAKLEPOM

Možna izvedba z grbom in/ali napis:
KANALIZACIJA – VODOVOD – JAVNA RAZSVETLJAVA – ELEKTRIKA – TELEFON – CATV
ALI BREZ NAPISA

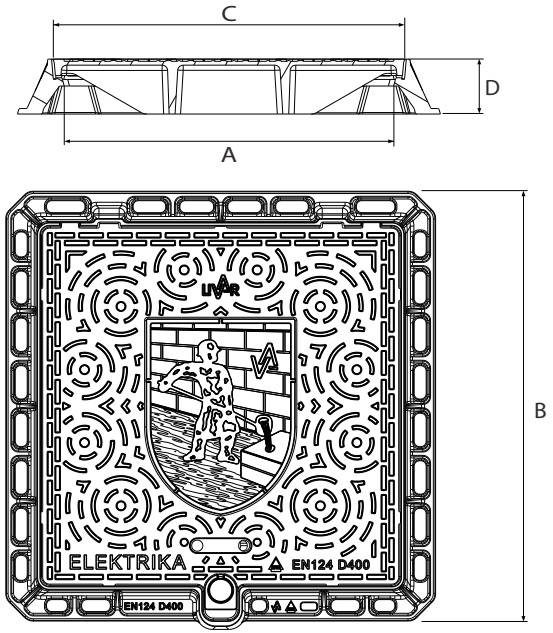
Mesto vgradnje:
VOZIŠČE

art. 504
MANHOLE COVER AND FRAME 600 x 600 (SQUARE)
D400, SIST EN124, DUCTILE CAST IRON

WITH NOISE BARRIER INSERT AND DOUBLE SYMETRICAL LOCKING SYSTEM

Option with inscription and/or city coat of arms:
SEWAGE – WATER – PUBLIC LIGHTING – ELECTRICITY – PHONE – CABEL TV
OR WITHOUT INSCRIPTION

Use:
HEAVY TRAFFIC



SI	razred	nosilnost	artikel	A	B	C	D	teža
EN	class	capacity	art.no.	A	B	C	D	unit weight
	D	400kN	504	600	770	640	100	67 kg

art. 802A
KANALSKI POKROV IN OKVIR 600 x 600 (KVADRATNI)
D400, SIST EN124, NODULARNA IZVEDBA

S PROTIHRUPNIM VLOŽKOM, TESNENJEM IN ZAKLEPOM – VAROVAN Z VIJAKOM

Možnost napisa:
ELEKTRIKA – TELEFON
ALI BREZ NAPISA

Mesto vgradnje:
VOZIŠČE

MODEL 2016

MOŽNOST Z BETONSKIM VENCEM

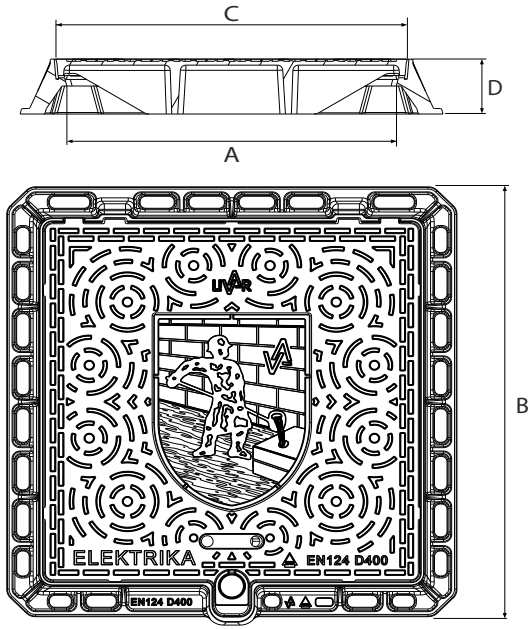
NOSILNOST
CAPACITY D400
400kN

art. 802A
MANHOLE COVER AND FRAME 600 x 600 (SQUARE)
D400, SIST EN124, DUCTILE CAST IRON

WITH NOISE BARRIER INSERT, TIGHTENING AND LOCKING SYSTEM – PROTECTED WITH A BOLT

Option with inscription:
ELECTRICITY – PHON
OR WITHOUT INSCRIPTION

Use:
HEAVY TRAFFIC



SI	razred	nosilnost	artikel	A	B	C	D	teža
EN	class	capacity	art.no.	A	B	C	D	unit weight
	D	400kN	802A	600	770	640	100	67 kg

NOSILNOST
CAPACITY D400
400 kN

art. 804
KANALSKA REŠETKA IN OKVIR 600 x 600 (KVADRATNI)
D400, SIST EN124, NODULARNA IZVEDBA

S PROTIHRUPNIM VLOŽKOM, TESNENJEM IN DVOJNIM SIMETRIČNIM ZAKLEPOM

Možna izvedba z grbom in/ali napis:
BREZ NAPISA – PO DOGOVORU

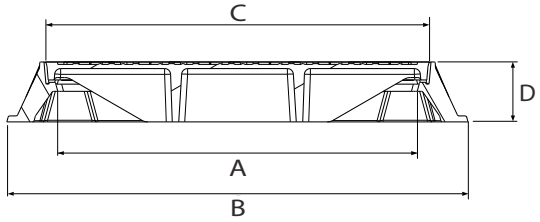
Mesto vgradnje:
VOZIŠČE

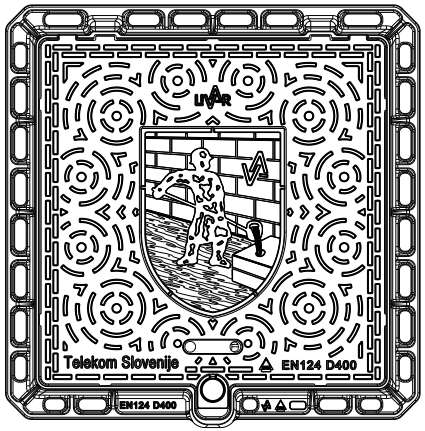
art. 804
GULLY GRATING AND FRAME 600 x 600 (SQUARE)
D400, SIST EN124, DUCTILE CAST IRON

WITH NOISE BARRIER INSERT, TIGHTENING AND DOUBLE SYMETRICAL LOCKING SYSTEM

Option with inscription and/or city coat of arms:
WITHOUT INSCRIPTION – BY AGREEMENT

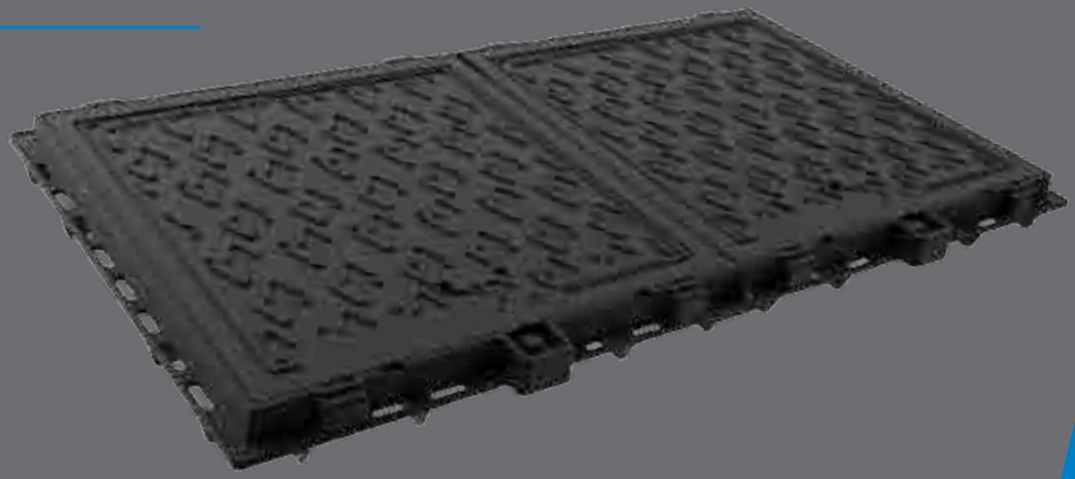
Use:
HEAVY TRAFFIC





SI	razred	nosilnost	artikel	A	B	C	D	teža
EN	class	capacity	art.no.	A	B	C	D	unit weight
	D	400kN	804	600	770	640	100	67 kg

art. 812A
KANALSKI POKROV IN OKVIR 600 x 1300 (PODOLGOVATI)
D400, SIST EN124, NODULARNA IZVEDBA



S TESNENJEM TER PROTIHRUPNIM VLOŽKOM IN DVOJNIM SIMETRIČNIM ZAKLEPOM

POKROVA VIJAČENA

Možna izvedba z grbom in/ali napis:
ELEKTRIKA – BREZ NAPISA

Mesto vgradnje:
VOZIŠČE

NOSILNOST
CAPACITY D400
400kN

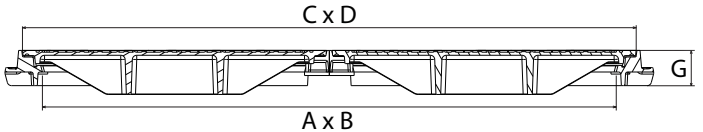
art. 812A
MANHOLE COVER AND FRAME 600 x 1300 (RECTANGULAR)
D400, SIST EN124, DUCTILE CAST IRON

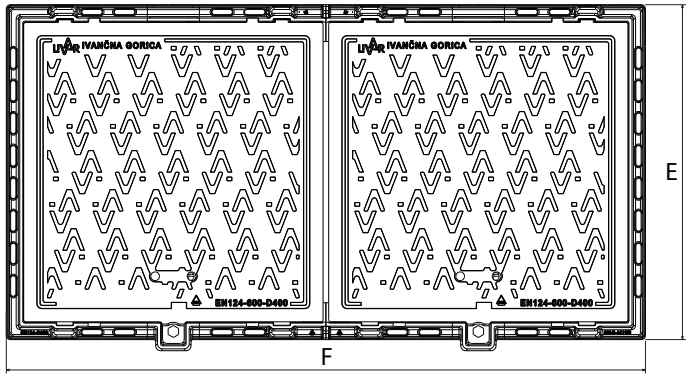
WITH TIGHTENING, NOISE BARRIER INSERT AND DOUBLE SYMETRICAL LOCKING SYSTEM

BOLTED COVERS

Option with inscription and/or city coat of arms:
ELECTRICITY – WITHOUT INSCRIPTION

Use:
HEAVY TRAFFIC

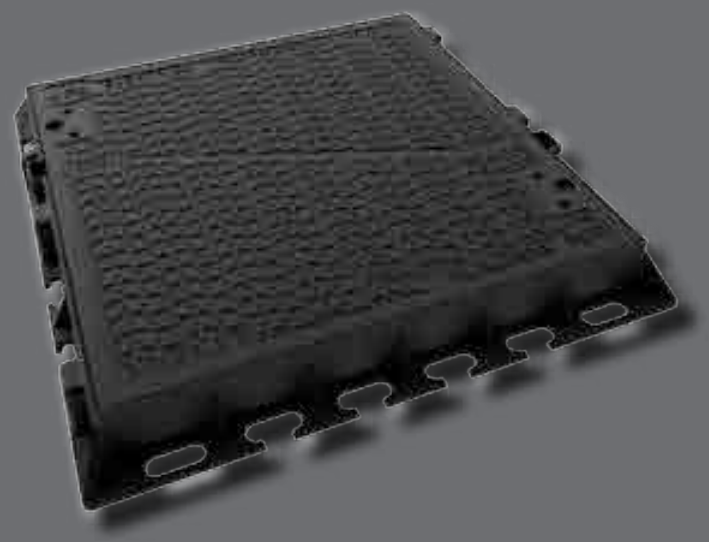




SI	razred	nosilnost	artikel	A	B	C	D	E	F	G	teža
EN	class	capacity	art.no.	A	B	C	D	E	F	G	unit weight
	D	400kN	812	600	1300	630	1330	770	1470	80	167 kg

NOSILNOST
CAPACITY D400
400 kN

art. 904
KANALSKI POKROV IN OKVIR 800 x 800 (KVADRATNI)
D400, SIST EN124, NODULARNA IZVEDBA

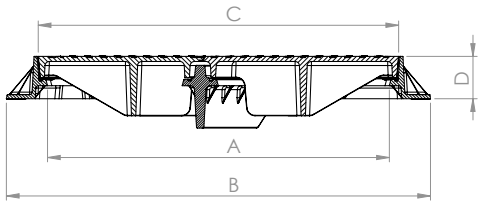


Možen napis:
ELEKTRIKA
ALI BREZ NAPISA

Mesto vgradnje:
VOZIŠČE

PROTIHRUPNI VLOŽEK, VIJAČEN POKROV

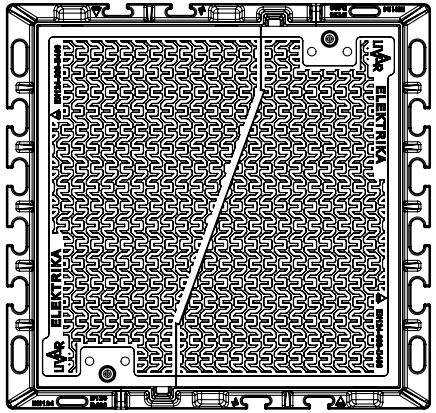
art. 904
MANHOLE COVER AND FRAME 800 x 800 (SQUARE)
D400, SIST EN124, DUCTILE CAST IRON



Option with inscription:
ELECTRICITY
OR WITHOUT INSCRIPTION

Use:
HEAVY TRAFFIC

WITH NOISE BARRIER INSERT, BOLTED COVER



SI	razred	nosilnost	artikel	A	B	C	D	teža
EN	class	capacity	art.no.	A	B	C	D	unit weight
	D	400kN	904	800	1000X956	850	100	174 kg

art. 602
KANALSKI POKROV IN OKVIR Ø 600 (OKROGLI)
D400, SIST EN124, NODULARNA IZVEDBA

PROSTOR ZA POLNILO (asfalt, tlakovci, beton)
TER PROTIHRUPNIM VLOŽKOM

Možnost napisa:
KANALIZACIJA
ALI BREZ NAPISA

Mesto vgradnje:
VOZIŠČE

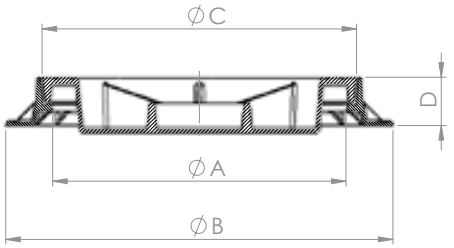
NOSILNOST
CAPACITY D400
400kN

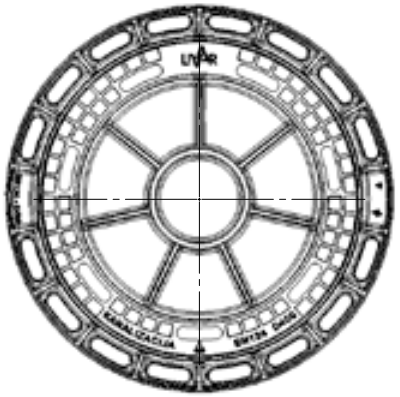
art. 602
MANHOLE COVER AND FRAME Ø 600 (ROUND)
D400, SIST EN124, DUCTILE CAST IRON

PLACE FOR FILLING (asphalt, pavers, concrete)
AND NOISE BARRIER INSERT

Option with inscription:
SEWAGE
OR WITHOUT INSCRIPTION

Use:
HEAVY TRAFFIC





SI	razred	nosilnost	artikel	A	B	C	D	teža
EN	class	capacity	art.no.	A	B	C	D	unit weight
	D	400kN	602	600	800	640	100	72 kg

NOSILNOST
CAPACITY D400
400 kN

art. 604
KANALSKI POKROV IN OKVIR Ø 600 (OKROGLI)
D400, SIST EN124, NODULARNA IZVEDBA

MODEL 2016

MOŽNOST Z BETONSKIM VENCEM

S PROTIHRUPNIM VLOŽKOM IN DVOJNIM SIMETRIČNIM ZAKLEPOM, BREZ VENTILACIJSKIH ODPRTIN

Možna izvedba z grbom in/ali napis:
KANALIZACIJA
ALI BREZ NAPISA

Mesto vgradnje:
VOZIŠČE

Opcija: VIJAK

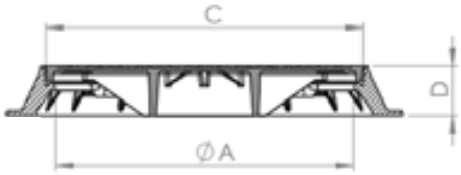
art. 604
MANHOLE COVER AND FRAME Ø 600 (ROUND)
D400, SIST EN124, DUCTILE CAST IRON

WITH NOISE BARRIER INSERT AND DOUBLE SYMETRICAL LOCKING SYSTEM, NO VENTILATION HOLES

Option with inscription and/or city coat of arms:
SEWAGE
OR WITHOUT INSCRIPTION

Use:
HEAVY TRAFFIC

Option: BOLT



SI	razred	nosilnost	artikel	A	B	C	D	teža
EN	class	capacity	art.no.	A	B	C	D	unit weight
	D	400kN	604	600	800	640	100	52 kg

art. 605
KANALSKI POKROV IN OKVIR Ø 600 (OKROGLI)
D400, SIST EN124, NODULARNA IZVEDBA

MODEL 2016

MOŽNOST Z BETONSKIM VENCEM

S PROTIHRUPNIM VLOŽKOM IN DVOJNIM SIMETRIČNIM ZAKLEPOM, VENTILACIJSKE ODPRTINE

Možna izvedba z grbom in/ali napis:
KANALIZACIJA
ALI BREZ NAPISA

Mesto vgradnje:
VOZIŠČE

Opcija: VIJAK

NOSILNOST
CAPACITY D400
400kN

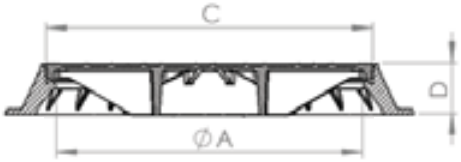
art. 605
MANHOLE COVER AND FRAME Ø 600 (ROUND)
D400, SIST EN124, DUCTILE CAST IRON

WITH NOISE BARRIER INSERT AND DOUBLE SYMETRICAL LOCKING SYSTEM, VENTILATION HOLES

Option with inscription and/or city coat of arms:
SEWAGE
OR WITHOUT INSCRIPTION

Use:
HEAVY TRAFFIC

Option: BOLT



SI	razred	nosilnost	artikel	A	B	C	D	teža
EN	class	capacity	art.no.	A	B	C	D	unit weight
	D	400kN	605	600	800	640	100	51,5 kg

NOSILNOST
CAPACITY D400
400 kN

art. 607
KANALSKI POKROV IN OKVIR Ø 600 (OKROGLI)
D400, SIST EN124, NODULARNA IZVEDBA

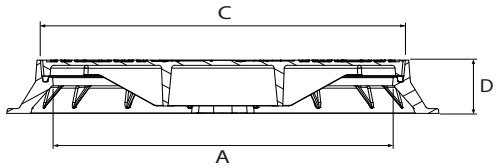
MOŽNOST Z BETONSKIM VENCEM

POKROV JE 3X VIJAČEN, VODOTESEN (CERTIFIKAT VODOTESNOSTI DO 1BAR)

MOŽNOST IZVEDBE Z GRBOM ALI Z BETONSKIM VENCEM

Mesto vgradnje:
VOZIŠČE

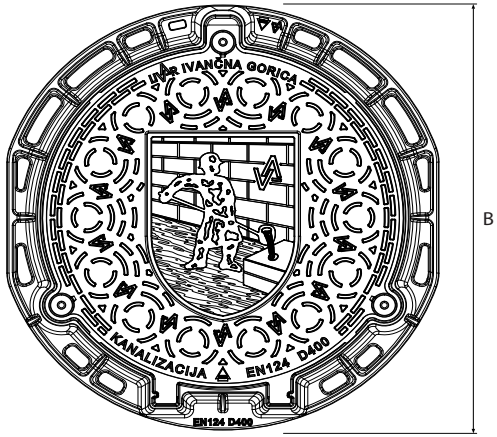
art. 607
MANHOLE COVER AND FRAME Ø 600 (ROUND)
D400, SIST EN124, DUCTILE CAST IRON



PROTECTED WITH 3 BOLTS, WATERTIGHT (with certificate)

OPTION WITH INSCRIPTION, OPTION WITH CONCRETE RINGS

Use:
HEAVY TRAFFIC



SI	razred	nosilnost	artikel	A	B	C	D	teža
EN	class	capacity	art.no.	A	B	C	D	unit weight
	D	400kN	607	600	800	640	100	56 kg

art. 634
KANALSKI POKROV IN OKVIR Ø 600 (OKROGLI)
D400, SIST EN124, NODULARNA IZVEDBA

Možna izvedba z grbom in/ali napis:
KANALIZACIJA
ALI BREZ NAPISA

Mesto vgradnje:
VOZIŠČE

**PROTIHRUPNI VLOŽEK, DVOJNI SIMETRIČNI ZAKLEP,
BREZ VENTILACIJSKIH ODPRTIN**

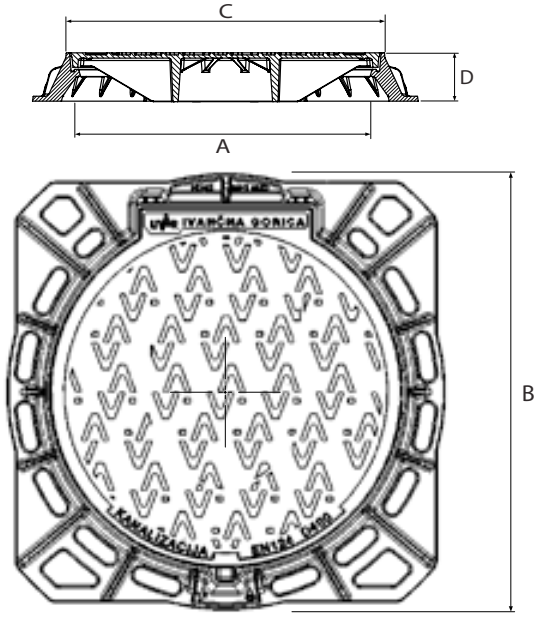
NOSILNOST
CAPACITY D400
400kN

art. 634
MANHOLE COVER AND FRAME Ø 600 (ROUND)
D400, SIST EN124, DUCTILE CAST IRON

Option with inscription and/or city coat of arms:
SEWAGE
OR WITHOUT INSCRIPTION

Use:
HEAVY TRAFFIC

**WITH NOISE BARRIER INSERT, DOUBLE SYMETRICAL LOCKING SYSTEM,
NO VENTILATION HOLES**



SI	razred	nosilnost	artikel	A	B	C	D	teža
EN	class	capacity	art.no.	A	B	C	D	unit weight
	D	400kN	634	600	800	640	100	76 kg

NOSILNOST
CAPACITY D400
400 kN

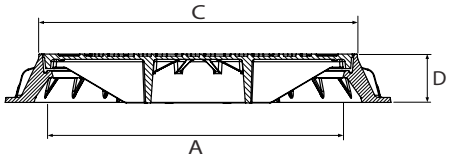
art. 635
KANALSKI POKROV IN OKVIR Ø 600 (OKROGLI)
D400, SIST EN124, NODULARNA IZVEDBA

Možna izvedba z grbom in/ali napis:
KANALIZACIJA
ALI BREZ NAPISA

Mesto vgradnje:
VOZIŠČE

**PROTIHRUPNI VLOŽEK, DVOJNI SIMETRIČNI ZAKLEP,
Z VENTILACIJSKIMI ODPRTINAMI**

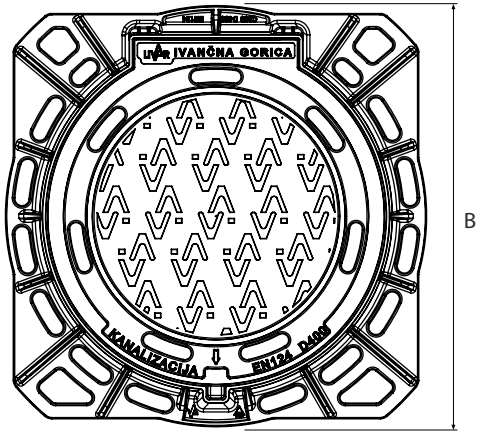
art. 635
MANHOLE COVER AND FRAME Ø 600 (ROUND)
D400, SIST EN124, DUCTILE CAST IRON



Option with inscription and/or city coat of arms:
SEWAGE
OR WITHOUT INSCRIPTION

Use:
HEAVY TRAFFIC

**WITH NOISE BARRIER INSERT, DOUBLE SYMETRICAL LOCKING SYSTEM,
WITH VENTILATION HOLES**

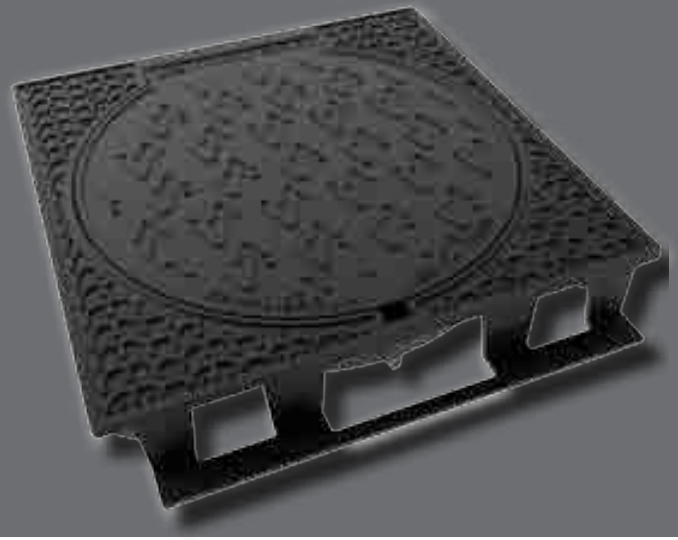


SI	razred	nosilnost	artikel	A	B	C	D	teža
EN	class	capacity	art.no.	A	B	C	D	unit weight
	D	400kN	635	600	800	640	100	75 kg

art. 644

KANALSKI POKROV IN OKVIR Ø 600 (OKROGLI)

D400, SIST EN124, NODULARNA IZVEDBA



Možna izvedba z grbom in/ali napis:
KANALIZACIJA
ALI BREZ NAPISA

Mesto vgradnje:
VOZIŠČE

Opomba:
OBVEZNA VGRADNJA Z ARMIRANIM BETONSKIM VENCEM

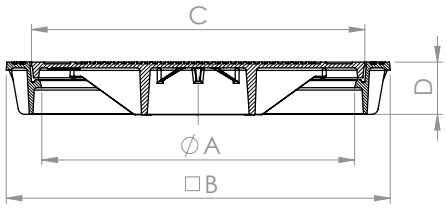
**PROTIHRUPNI VLOŽEK, DVOJNI SIMETRIČNI ZAKLEP,
BREZ VENTILACIJSKIH ODPRTIN**

NOSILNOST
CAPACITY D400
400kN

art. 644

MANHOLE COVER AND FRAME Ø 600 (ROUND)

D400, SIST EN124, DUCTILE CAST IRON

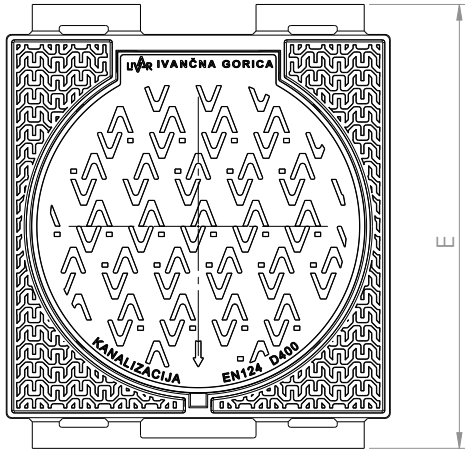


Option with inscription and/or city coat of arms:
SEWAGE
OR WITHOUT INSCRIPTION

Use:
HEAVY TRAFFIC

Note:
INSTALLATION IS NECCESSERY REINFORCED CONCRETE CROWN

**WITH NOISE BARRIER INSERT, DOUBLE SYMETRICAL LOCKING SYSTEM,
NO VENTILATION HOLES**



SI	razred	nosilnost	artikel	A	B	C	D	E	teža
EN	class	capacity	art.no.	A	B	C	D	E	unit weight
	D	400kN	644	600	740	640	100	850	88 kg

NOSILNOST
CAPACITY D400
400 kN

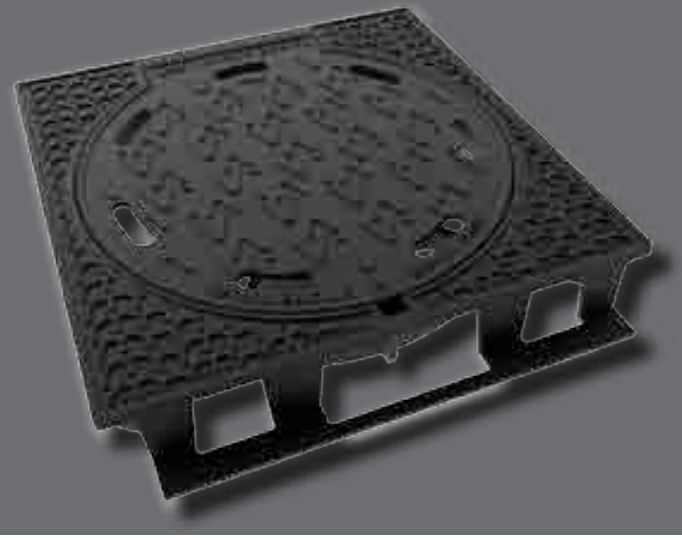
art. 645
KANALSKI POKROV IN OKVIR Ø 600 (OKROGLI)
D400, SIST EN124, NODULARNA IZVEDBA

Možna izvedba z grbom in/ali napis:
KANALIZACIJA
ALI BREZ NAPISA

Mesto vgradnje:
VOZIŠČE

Opomba:
OBVEZNA VGRADNJA Z ARMIRANIM BETONSKIM VENCEM

**PROTIHRUPNI VLOŽEK, DVOJNI SIMETRIČNI ZAKLEP,
Z VENTILACIJSKIMI ODPRTINAMI**



art. 645
MANHOLE COVER AND FRAME Ø 600 (ROUND)
D400, SIST EN124, DUCTILE CAST IRON

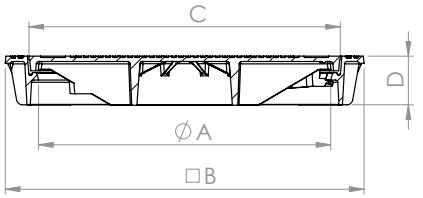
Option with inscription and/or city coat of arms:
SEWAGE
OR WITHOUT INSCRIPTION

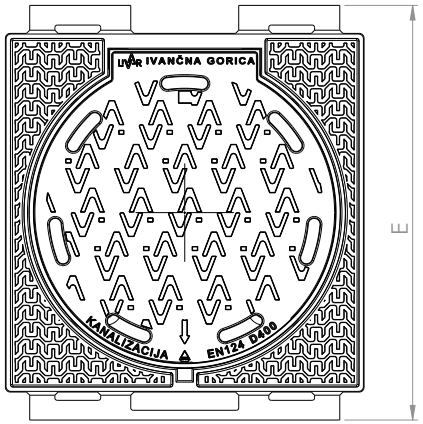
Use:
HEAVY TRAFFIC

Note:
INSTALLATION IS NECCESSERY REINFORCED CONCRETE CROWN

**WITH NOISE BARRIER INSERT, DOUBLE SYMETRICAL LOCKING SYSTEM,
WITH VENTILATION HOLES**

SI	razred	nosilnost	artikel	A	B	C	D	E	teža
EN	class	capacity	art.no.	A	B	C	D	E	unit weight
	D	400kN	645	600	740	640	100	850	87 kg





art. 654
TELESKOPSKI POKROV IN OKVIR Ø 600 (OKROGLI)
D400, SIST EN124, NODULARNA IZVEDBA

PROTIHRUPNI VLOŽEK, DVOJNI SIMETRIČNI ZAKLEP

Možna izvedba z luknjami (art. 655), z grbom in/ali napis:
KANALIZACIJA
ALI BREZ NAPISA

Mesto vgradnje:
VOZIŠČE

UPORABNOST – OPOMBE NA STRANI 90

NOSILNOST
CAPACITY D400
400kN

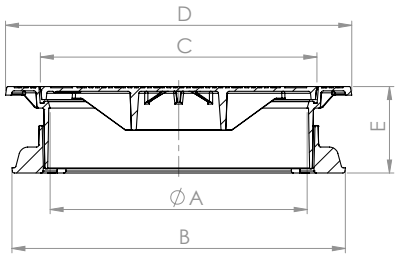
art. 654
TELESCOPIC MANHOLE COVER Ø 600 (ROUND)
D400, SIST EN124, DUCTILE CAST IRON

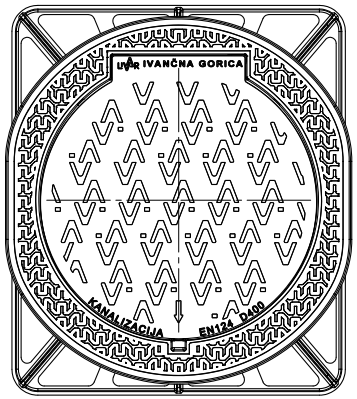
WITH NOISE BARRIER INSERT AND DOUBLE SYMETRICAL LOCKING SYSTEM

Option with holes (art. 655), with inscription and/or city coat of arms:
SEWAGE
OR WITHOUT INSCRIPTION

Use:
HEAVY TRAFFIC

USABILITY – SEE REMARKS ON PAGE 90





SI	razred	nosilnost	artikel	A	B	C	D	E	teža
EN	class	capacity	art.no.	A	B	C	D	E	unit weight
	D	400kN	654	595	770x900	640	800x850	180-260	120 kg

NOSILNOST
CAPACITY D400
400 kN

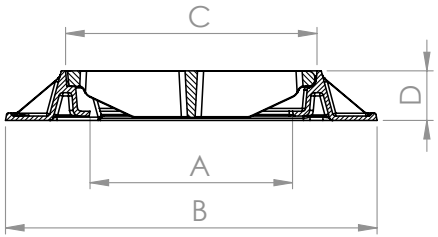
art. 701 (RAVNA)
KANALSKA REŠETKA IN OKVIR 400 x 400 (KVADRATNA)
D400, SIST EN124, NODULARNA IZVEDBA

MOŽNA IZVEDBA S PESKOLOVOM

Z ZAKLEPOM

Mesto vgradnje:
VOZIŠČE

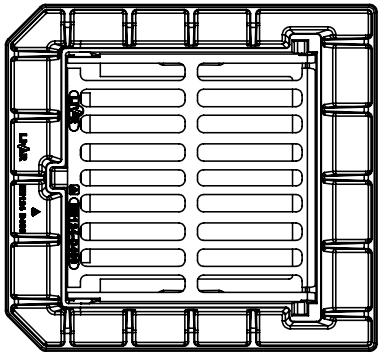
art. 701 (FLAT)
GULLY GRATING AND FRAME 400 x 400 (SQUARE)
D400, SIST EN124, DUCTILE CAST IRON



Option WITH DIRT CATCHER

WITH LOCKING SYSTEM

Use:
HEAVY TRAFFIC



SI	razred	nosilnost	artikel	A	B	C	D	teža
EN	class	capacity	art.no.	A	B	C	D	unit weight
	D	400kN	701	330	600x560	400	80	44 kg

art. 701 B (RAVNA)
KANALSKA REŠETKA IN OKVIR 400 x 400 (KVADRATNA)
D400, SIST EN124, NODULARNA IZVEDBA

NI MOŽNA IZVEDBA S PESKOLOVOM

Z ZAKLEPOM

Mesto vgradnje:
VOZIŠČE

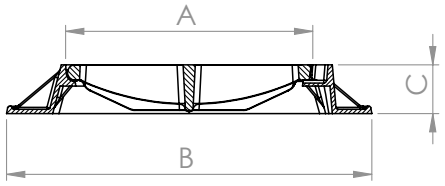
NOSILNOST
CAPACITY D400
400kN

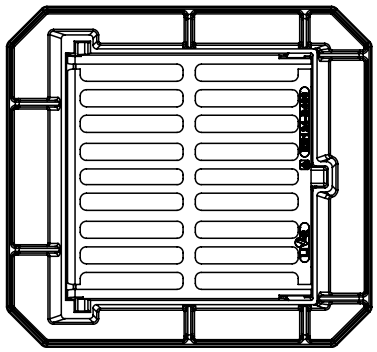
art. 701 B (FLAT)
GULLY GRATING AND FRAME 400 x 400 (SQUARE)
D400, SIST EN124, DUCTILE CAST IRON

No option WITH DIRT CATCHER

WITH LOCKING SYSTEM

Use:
HEAVY TRAFFIC





SI	razred	nosilnost	artikel	A	B	C	teža
EN	class	capacity	art.no.	A	B	C	unit weight
	D	400kN	701B	400	600X560	80	38,5 kg

NOSILNOST
CAPACITY D400
400 kN

art. 702 (VBOČENA)
KANALSKA REŠETKA IN OKVIR 400 x 400 (KVADRATNA)
D400, SIST EN124, NODULARNA IZVEDBA

MOŽNA IZVEDBA S PESKOLOVOM

Z ZAKLEPOM

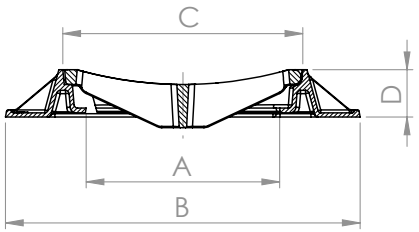
Mesto vgradnje:
VOZIŠČE

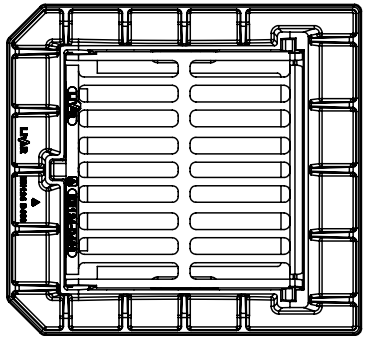
art. 702 (CONCAVE)
GULLY GRATING AND FRAME 400 x 400 (SQUARE)
D400, SIST EN124, DUCTILE CAST IRON

Option WITH DIRT CATCHER

WITH LOCKING SYSTEM

Use:
HEAVY TRAFFIC





SI	razred	nosilnost	artikel	A	B	C	D	teža
EN	class	capacity	art.no.	A	B	C	D	unit weight
	D	400kN	702	330	600x560	400	80	42 kg

art. 702 B (VBOČENA)
KANALSKA REŠETKA IN OKVIR 400 x 400 (KVADRATNA)
D400, SIST EN124, NODULARNA IZVEDBA

NI MOŽNA IZVEDBA S PESKOLOVOM

Z ZAKLEPOM

Mesto vgradnje:
VOZIŠČE

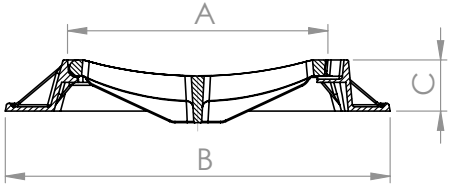
NOSILNOST
CAPACITY D400
400kN

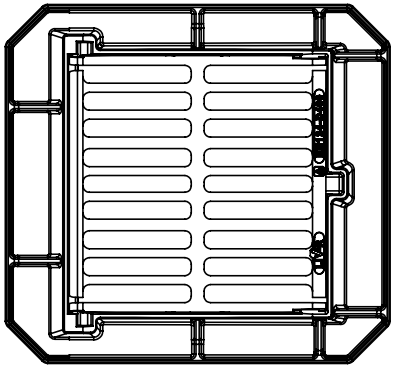
art. 702 B (CONCAVE)
GULLY GRATING AND FRAME 400 x 400 (SQUARE)
D400, SIST EN124, DUCTILE CAST IRON

No option WITH DIRT CATCHER

WITH LOCKING SYSTEM

Use:
HEAVY TRAFFIC





SI	razred	nosilnost	artikel	A	B	C	teža
EN	class	capacity	art.no.	A	B	C	unit weight
	D	400kN	702B	400	600x560	80	35 kg

NOSILNOST
CAPACITY D400
400 kN

art. 704
KANALSKA REŠETKA IN OKVIR Ø 600 (OKROGLI)
D400, SIST EN124, NODULARNA IZVEDBA

S PROTIHRUPNIM VLOŽKOM IN ZAKLEPOM

Možnost napisa:
KANALIZACIJA
ALI BREZ NAPISA

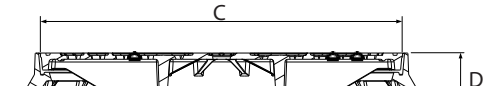
Mesto vgradnje:
VOZIŠČE

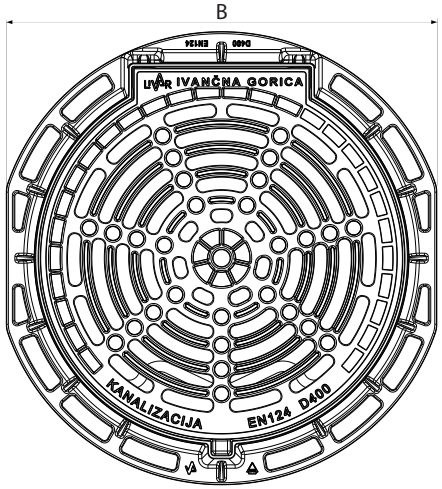
art. 704
GULLY GRATING AND FRAME Ø 600 (ROUND)
D400, SIST EN124, DUCTILE CAST IRON

WITH NOISE BARRIER INSERT AND LOCKING SYSTEM

Option with inscription:
SEWAGE
OR WITHOUT INSCRIPTION

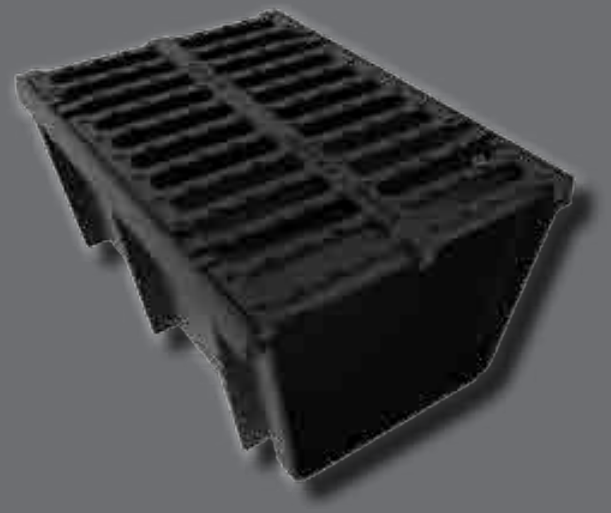
Use:
HEAVY TRAFFIC





SI	razred	nosilnost	artikel	A	B	C	D	teža
EN	class	capacity	art.no.	A	B	C	D	unit weight
	D	400kN	704	600	800	640	100	53 kg

art. 724
KANALSKA REŠETKA S KANALETO 500 x 300
D400, SIST EN1433, NODULARNA IZVEDBA



Z ZAKLEPOM

Mesto vgradnje:
VOZIŠČE

SPAJANJE ENE V DRUGO

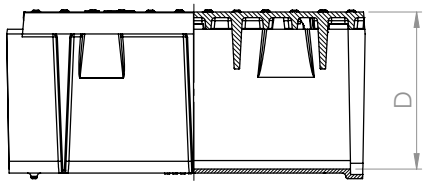
NOSILNOST
CAPACITY D400
400kN

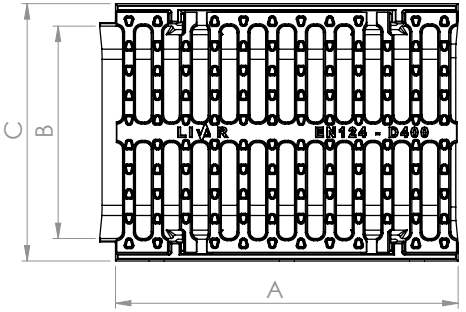
art. 724
CHANNEL GRATING 500 x 300
D400, SIST EN1433, DUCTILE CAST IRON

WITH LOCKING SYSTEM

Use:
HEAVY TRAFFIC

MERGING
Locking of one input element into output element of neighbor housing





SI	razred	nosilnost	artikel	A	B	C	D	teža
EN	class	capacity	art.no.	A	B	C	D	unit weight
	D	400kN	724	500	310	375	230	41 kg

KOMUNALNI
PROGRAM

NOSILNOST
CAPACITY E600
600 kN

NOSILNOST
CAPACITY E600
600kN

/// NOSILNOST /// CAPACITY /// E600 /// 600kN ///

NOSILNOST
CAPACITY E600
600 kN

art. 606
KANALSKI POKROV IN OKVIR Ø 600 (OKROGLI)
E600, SIST EN124, NODULARNA IZVEDBA

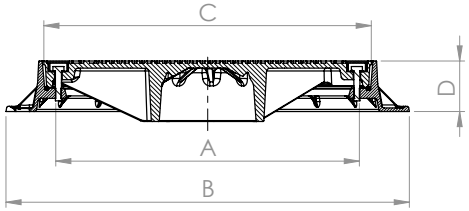
MOŽNOST Z BETONSKIM VENCEM

S PROTIHRUPNIM VLOŽKOM

VAROVANJE Z VIJAKOM (4 x)

Mesto vgradnje:
PREDORI IN PROMETNE POVRŠINE Z VISOKIMI OBREMENITVAMI

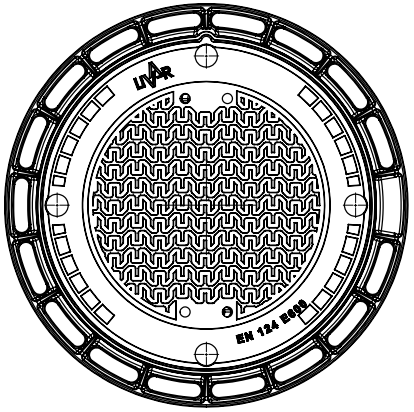
art. 606
MANHOLE COVER AND FRAME Ø 600 (ROUND)
E600, SIST EN124, DUCTILE CAST IRON



WITH NOISE BARRIER INSERT

PROTECTED WITH BOLTS (4x)

Use:
TUNNELS AND TRAFFIC AREAS SUBJECTED TO HIGH WHEEL LOADS



SI	razred	nosilnost	artikel	A	B	C	D	teža
EN	class	capacity	art.no.	A	B	C	D	unit weight
	E	600kN	606	600	800	650	100	93 kg

NOSILNOST
CAPACITY E600
600kN

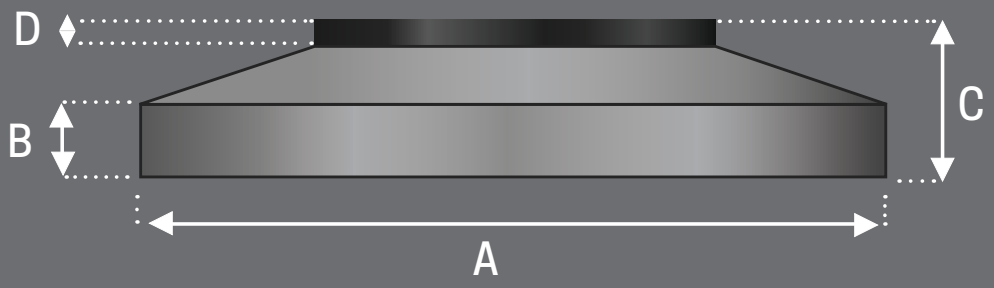
KOMUNALNI PROGRAM

ARMIRANI BETONSKI VENCI

REINFORCED CONCRETE RINGS

/// BETONSKI VENCI ///REINFORCED CONCRETE RINGS///

ARMIRANI BETONSKI VENCI dimenzij Ø1000 in Ø1200



REINFORCED CONCRETE RINGS, dimensions Ø1000 and Ø1200

NAZIV TITLE	KOMPATIBILEN Z ARTIKLOM COMPATIBLE WITH ART. NO.	NOSILNOST CAPACITY	A (mm) A (mm)	B (mm) B (mm)	C (mm) C (mm)	D (mm) D (mm)	TEŽA UNIT WEIGHT
V1	600/601	12,5 t	1200	80	150	18	217 kg
V1.1	600/601	12,5 t	1000	105	150	18	147 kg
V2	603 B.L./603	25 t	1200	120	210	35	302 kg
V2.1	603 B.L./603	25 t	1000	140	210	35	185 kg
V3	604/605	40 t	1200	120	215	40	307 kg
V3.1	604/605	40 t	1000	140	215	40	188 kg
V4	606	60 t	1200	122	210	35	330 kg
V5	607	40 t	1200	120	210	35	321 kg
V6	504	40 t	1200	120	200	30-50	280 kg

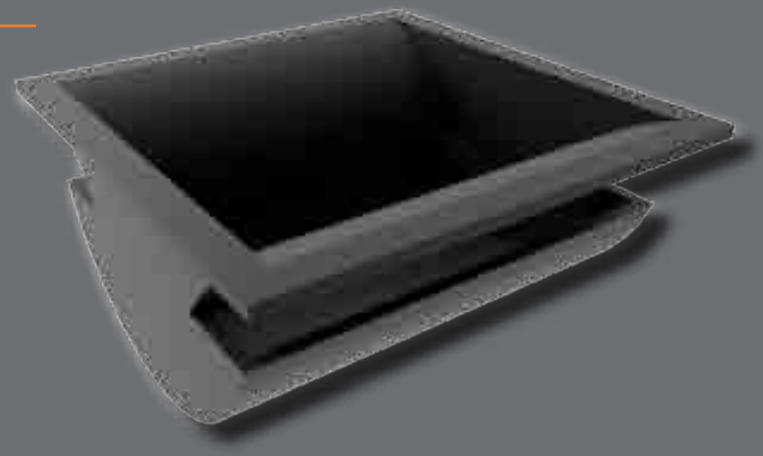
*** možna odstopanja v teži do 2% / possible deviations in weight up to 2%**

KOMUNALNI
PROGRAM

/// OSTALO - DODATNO /// OTHER - ADDITIONAL ///

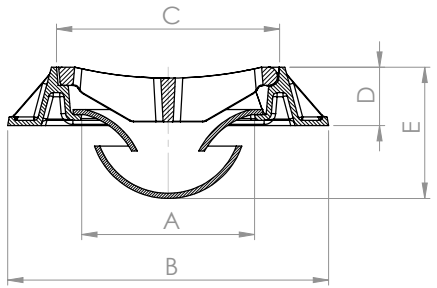
art. 700 A
PESKOLOV
NODULARNA IZVEDBA

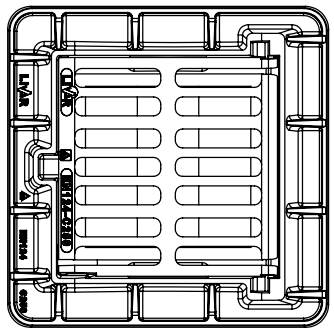
Za artikel 700



art. 700 A
SAND CATCHER
DUCTILE CAST IRON

For art.700

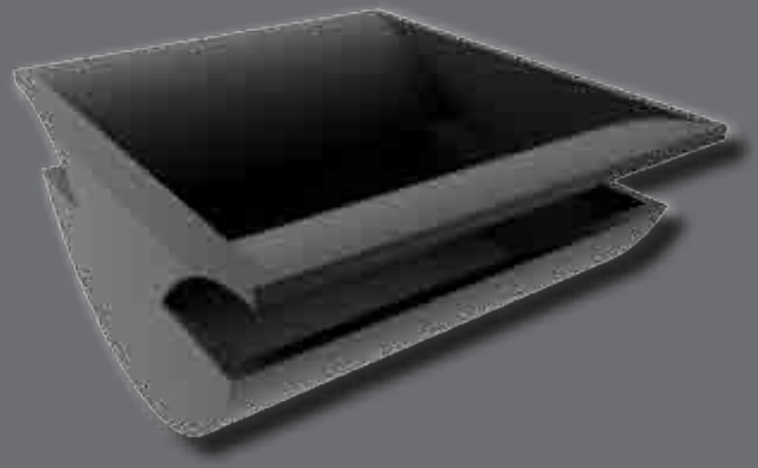




SI	razred	nosilnost	artikel	A	B	C	D	E	teža
EN	class	capacity	art.no.	A	B	C	D	E	unit weight
			700A	240	440	300	80	180	6,5 kg

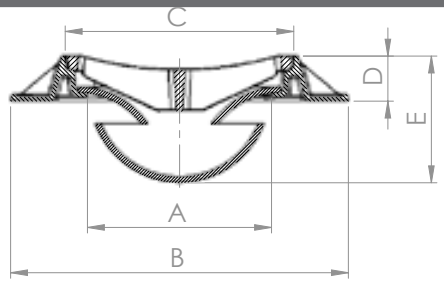
art. 702A
PESKOLOV
NODULARNA IZVEDBA

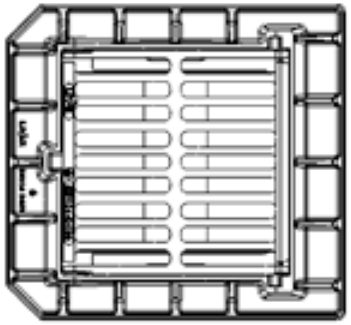
Za artikla 702 in 701



art. 702A
SAND CATCHER
DUCTILE CAST IRON

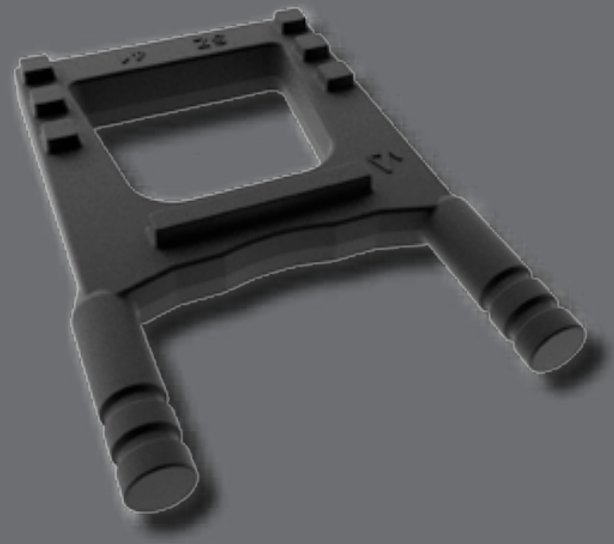
For art. 702 and art. 701



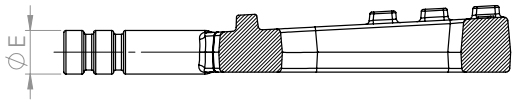


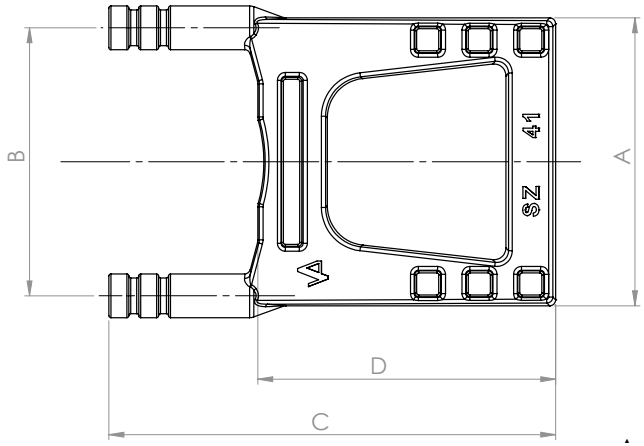
SI	razred	nosilnost	artikel	A	B	C	D	E	teža
EN	class	capacity	art.no.	A	B	C	D	E	unit weight
			702A	330	600x560	400	80	225	16 kg

VSTOPNO ŽELEZO
NODULARNA IZVEDBA



ENTRY PART
DUCTILE CAST IRON





SI	razred	nosilnost	artikel	A	B	C	D	E	teža
EN	class	capacity	art.no.	A	B	C	D	E	unit weight
				145	135	225	150	22	2,5 kg

KOMUNALNI
PROGRAM

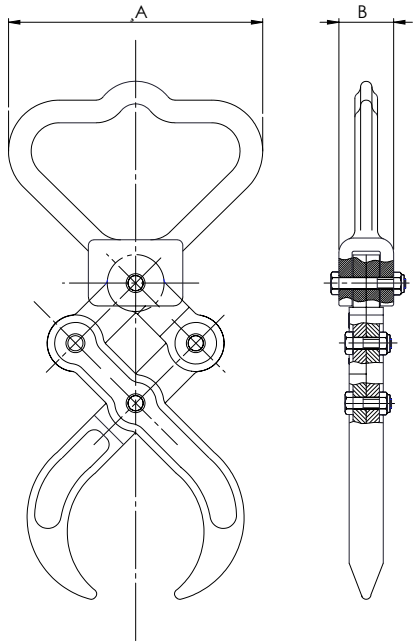
ORODJA ZA ODPIRANJE
ACCESSORIES

ORODJA ZA ODPIRANJE
ACCESSORIES

/// ORODJA ZA ODPIRANJE IN DVIGOVANJE POKROVOV ///
/// ACCESSORIES - TOOLS FOR OPENING AND LIFTING OF MANHOLE COVERS ///

KLEŠČE ZA ODPIRANJE POKROVOV

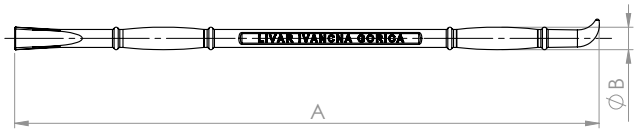
PLIERS FOR OPNING COVERS



SI	razred	nosilnost	artikel	A	B	teža
EN	class	capacity	art.no.	A	B	unit weight
				135	30	1,5 kg

VZVOD

UNIVERSAL OPENING BAR



SI	razred	nosilnost	artikel	A	B	teža
EN	class	capacity	art.no.	A	B	unit weight
				650	25	1,5 kg

KOMUNALNI PROGRAM

NAVODILA
INSTRUCTIONS

NAVODILA
INSTRUCTIONS

/// NAVODILA ZA VGRADNJO KANALSKIH POKROVOV ///
/// INSTRUCTIONS FOR INSTALLATION OF MANHOLE COVERS ///

NAVODILA ZA VGRADNJO KANALSKIH POKROVOV - KOMPLETOV

1 POMEMBNO

- ne postavite okvirja direktno na vrh jaška
- nasekajte vrh jaška in s tem zagotovite oprijemljivost betona
- odstranite prah
- omogočite najmanj 30 mm debelo naležno plast pod prirobnico okvirja

2 POSTAVITEV OKVIRJA

- niveliranje okvirja pred položitvijo asfalta je nezanesljivo, zato se ga praviloma vgrajuje kasneje
- za niveliranje je najprimernejši način prečnih letev, na katere je privezan okvir
- omogočeno je niveliranje ne glede na prečni ali vzdolžni nagib
- preprečite posedanje okvirja zaradi lastne teže, predno se podloga strdi
- niveliranje s podlaganjem okvirja ni priporočljivo

3 IZVEDBA

- pritrdite (privežite) okvir na dve vzporedni letvi
- postavite letvi preko odprtine, tako da ležita na nivoju asfalta
- centrirajte okvir glede na jašek
- pustite približno 3 cm prostora med jaškom in prirobnico okvirja
- votlino ob okvirju polnite z betonom, dokler ne prodre skozi odprtine v prirobnici in zapolni prostor pod njo
- uporabljajte beton kvalitete MB 30
- ne zapolnite odprtine do vrha, ampak pustite cca. 3 cm za zaključno plast
- z notranjo razstavljivo šablono preprečite padanje betona v jašek
- zapolnitev prostora pod sedežem okvirja s finim betonom, kot je prikazana na zgornji skici, ni nujna in je prepuščena izvajalcu
- sedež zaklepa pod okvirjem mora ostati nezapolnjen (vložek iz stiroporja pred polnjenjem z betonom)

INSTRUCTIONS FOR INSTALLATION OF MANHOLE COVERS

1 IMPORTANT

- do not place the frame directly on top of the shaft
- cut the top of the shaft and ensure the adhesion of concrete
- remove the dust
- enable at least 30 mm thick layer under the frame flange

2 FRAME SETTING

- leveling of the height of frame before the laying of asphalt is unreliable, so it is usually installed later
- the best way for smoothing is to use the cross-bars, on which is tied manhole frame
- leveling is enabled regardless of the transverse or longitudinal slope
- avoid movement of the frame due of its own weight, before the base lining is solidified
- leveling with supporting of the frame is not recommended

3 INSTALATION

- fix (fasten) frame with two horizontal slats
- place the slats over the holes, so they lie at the level of asphalt
- center the frame on the shaft
- leave approximately 3 centimeters of space between the shaft and frame flange
- fill the cavity beside the frame with concrete until it penetrates through the openings in the flange and fill the space below
- use concrete quality 30 MB
- do not fill the hole to the top, but leave approx. 3 cm for final layer
- with the template prevent falling of the concrete in the shaft
- filling the space under the frame seat with a fine concrete, as shown in the above diagram, is not necessary and is left to the contractor
- locking seat under the frame must remain empty (the styrofoam input before filling with concrete)

- vlažno polnilo zaščitite z ustreznim sredstvom (stare vreče), da preprečite prehitro sušenje in pokanje betona
- upoštevajte čas strjevanja betona do sprostitve prometa, glede na vremenske razmere in relativno vlažnost
- pri polaganju zaključne plasti asfalta pazite, da se ne zapolni odprtina, ki je namenjena dvigovanju pokrova s kovinskim vzvodom (zaščitite s peskom ali papirjem)
- okvir vgradite tako, da je odprtina za dvig pokrova obrnjena v smeri vožnje
- predlagamo, da pred polaganjem zaključne plasti zaščitite površino pokrova z ustreznim materialom (folija...), ki zaščiti barvo pred poškodbo in naknadnim rjavenjem

- protect wet padding with the appropriate resources (old bags) to prevent rapid drying and cracking of concrete
- consider setting time of concrete before releasing the traffic, depending on weather conditions and relative humidity
- when installing the final layer of asphalt be careful not to fill the hole, which is used for lifting the cover with a metal bar (protect with sand or paper)
- when installing the frame make sure that the opening of the cover is the same as the direction of driving the direction of driving
- we suggest that you protect the surface of the cover with appropriate material, which will protect the color from damage and subsequent corrosion, before laying the final layer.

IZVLEČEK IZ STANDARDA SIST EN 124 STR. 9

Določitev razredov za nastavke in pokrove za mesta vgradnje ni sestavni del te norme.

Vendar se priporoča mesta vgradnje razdeliti na sledeče skupine (glej sliko):

- SKUPINA 1 Prometne površine, ki jih lahko uporabljajo izključno pešci in kolesarji ter podobne površine, npr. zelenice.
- SKUPINA 2 Pločniki, pešcone* ipd. površine, parkirišča za osebna vozila.
- SKUPINA 3 Velja le za nastavke in pokrove za področje robnih žlebov (sl. 1a), ki seže od robnika max. 0,5 m na vozišče in 0,2 m na pločnik, ter za stranske pasove ceste (sl. 1 b).
- SKUPINA 4 Vozišča cest (tudi pešcone**)
- SKUPINA 5 Ne-javne prometne površine, na katerih so posebno visoke obremenitve.
- SKUPINA 6 Posebne površine, kot npr. piste letališč. Pokrovi za vstopne jaške morajo imeti notranjo širino najmanj 600 mm, da bi se omogočilo vstopanje v te jaške z dihalnimi zaščitnimi napravami.

* Področje, ki je namenjeno le pešcem, vožnja po njih pa le zaradi oskrbe ali v nujnih primerih.
** Področje, na katerem je promet z vozili ob določenem času prepovedan (npr. konec delovnega časa, drugače normalen promet z vozili).

EXTRACT FROM THE STANDARD SIST EN 124 page 9

Determination of classes for manhole covers according to their installation location is not an integral part of this norm.

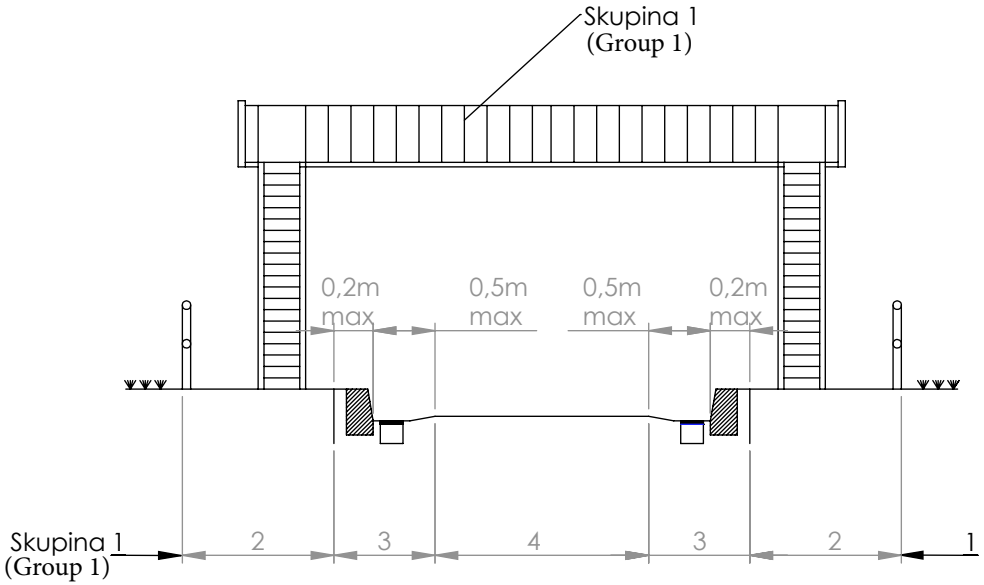
However, it is recommended to divide the installation locations in to following groups (see picture):

- GROUP 1 Traffic areas which can be used only by pedestrian and cyclists.
- GROUP 2 Footpaths, pedestrian* and similar areas, car park areas etc.
- GROUP 3 Kerb areas, extending max. of 0,5 m into the carriageway and max. of 0,2 m into the footway (picture 1a), road shoulders without vehicle traffic (picture 1b) and similar.
- GROUP 4 Road surfaces (also pedestrian streets**), road shoulders and parking spaces for all kinds of road-going vehicles.
- GROUP 5 Surfaces, required to bear heavy wheel loads, e.g. harbors and dock facilities.
- GROUP 6 Surfaces subjected to extremely high wheel loads, e.g. airport operation areas. Covers for manholes shall have an inner width of 600 mm, to allow entry to the manhole with respiratory protective devices.

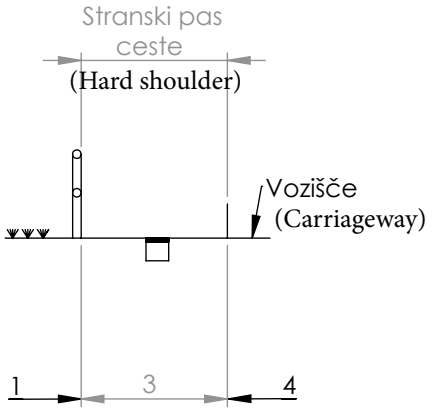
* Area, which is intended only for pedestrians, driving only in case of supply or emergency.
** Area, where vehicles traffic is prohibited at certain times (e.g. at the end of working hours, otherwise normal movement of vehicles).

PRIMERJAVA SKUPIN Z USTREZNIMI NOSILNOSTMI(ni predmet standarda)
COMPARISON OF GRUPS WITH RELEVANT CAPACITIES (not subject to standard)

SKUPINA 1 GROUP 1	USTEZA MEETS	RAZRED A CLASS A	NOSILNOT 15 kN CAPACITY 15 kN
SKUPINA 2 GROUP 2	USTEZA MEETS	RAZRED B CLASS B	NOSILNOT 125 kN CAPACITY 125 kN
SKUPINA 3 GROUP 3	USTEZA MEETS	RAZRED C CLASS C	NOSILNOT 250 kN CAPACITY 250 kN
SKUPINA 4 GROUP 4	USTEZA MEETS	RAZRED D CLASS D	NOSILNOT 400 kN CAPACITY 400 kN
SKUPINA 5 GROUP 5	USTEZA MEETS	RAZRED E CLASS E	NOSILNOT 600 kN CAPACITY 600 kN
SKUPINA 6 GROUP 6	USTEZA MEETS	RAZRED F CLASS F	NOSILNOT 900 kN CAPACITY 900 kN



slika 1a
(Picture 1a)



slika 1b
(Picture 1b)

PRAKTIČNI NASVETI

1. Bodite pozorni na pravilno izbiro pokrovov in okvirjev glede na namen uporabe. Pozorno preglejte in izberite primerne nosilnostne razrede ter vrsto kanalskih pokrovov (pokrovi z odprtinami, ki zagotavljajo ventilacijo, pokrovi s tesnenjem) in/ali rešetke in rešetke s kanaleto)

2. Pravilna montaža pokrovov in okvirjev
Vsi okvirji morajo biti zabetonirani na betonski venec, kar omogoča stabilno postavitev na mesto vgradnje.

3. Postavitev pokrovov glede na smer vožnje
- Pokrovi morajo biti pravilno postavljeni na smer vožnje, kar onemogoča odpiranje pokrova.
- Pokrove postavimo na sredino vozišča, da je obremenitev oz. povoznost manjša, izognemo pa se tudi možnosti nenadnega odpiranja pokrova.
- Pri rešetkah je pomembna orientacija rež glede na smer vožnje (reže morajo biti pravokotno na smer vožnje zaradi kolesarjev).

4. Sestavni deli kompleta
- Pokrov
- Okvir
- Protihrupni vložek (zagotavlja optimalen stik med okvirjem in pokrovom, preprečuje vibracije in trenje kovinskih površin in posledično preprečuje hrup)
- Tesnilna guma na tečajih pokrovov (kar zagotavlja stabilno postavitev pokrova v okvir in tesnost ležišča pokrova v tečaju)
- Tesnilna guma (pri pokrovih s tesnenjem).

Opozorilo: V primeru, da karkoli od naštetega manjka v kanalskem kompletu, lahko privede do napak oziroma težav pri uporabi!

5. Rešetke in rešetke s kanaleto Pri sestavljenju z zapenjanjem in sestavljanjem rešetk si pomagajte z zaklepom v kanaleto.

PRACTICAL TIPS

1. Be careful at the selection of type of manhole covers by knowing correct usage Carefully check and select proper classes and types of manhole covers (ventilated covers, covers with tightening) and channel grating.

2. Proper instalation of frames and covers
All frames must be installed on beton flange, which assure stable fixing of instalation place.

3. Instalation of covers respecting way of traffic driving
- Covers must be properly installed respecting way of traffic driving, which prevent sudden opening of manhole cover.
- Covers must be installed in the middle of traffic way, so intensitiy of traffic is lower, which prevent sudden opening of manhole cover.
- At the channel gratings is important orietation of holes against traffic way (must be 90 degree moved).

4. Complete manhole cover consist of:
- Cover
- Frame
- noise barrier insert (assure proper contact between frame and cover, prevent vibrations and noise)
- Tightening gum at locking of cover (assure proper contact between frame and cover and tightening)
- Tightening gum

Warning: missing elements can lead to serius problems in phase of usage!

5. Channel grating
At assembling of gratings help yourself with locks to attach one gratings with another one.

6. Orodje za odpiranje kanalskega pokrovov in rešetk
Za odpiranje vedno uporabljajte vzvod in klešče za odpiranje.

7. Barvanje oziroma osnovna antikorozijska zaščita

Glede na zahteve standarda kanalske pokrove in rešetka zaščitimo z osnovno antikorozijsko zaščita na vodni osnovi. V primeru, da se pojavi rjavenje ne priznamo nikakršnih reklamacij.

Pogoste napake, ki se pojavljajo pri namestitvi pokrovov in okvirjev, katerih se izogibajte

1. Nepravilna izbira glede na namen uporabe (nosilnostni razred, tesnenje, varovanje proti odpiranju z vijakom, odprtine, itd).

2. Odstranjen ali poškodovan protihrupni vložek (posledice so ropot, vibracije, razpoke asfalta zaradi vibracij).

3. Odstranjena ali poškodovana tesnilna guma na tečajih pokrova.

4. Neočiščeno ležišče pokrova (poškodba protihrupnega vložka, zvijanje zaklepa, poškodba tesnilne gume pri pokrovih s tesnenjem, kar pa pripelje do puščanja, oteženega zapiranja pokrova, zloma okvirja ali pokrova pri zapiranju s silo).

5. Neočiščene odprtine tečaja na okvirju (poškodba gumic na tečajih, zlom tečajev, zvijanje in zlom tečaja na pokrovu, razpoke ali zlom okvirja)

6. Zapiranje pokrova s silo (zlom pokrova, poškodba zaklepa)

6. Tools for opening of covers and gratings
For opening always use nippers and opening bars.

7. Painting of covers – basic anticorrosive water base painting

As requested in standards we paint manhole covers and gratings with basinc anticorrosive water base painting.

In case of sudden appearance of rust we do not cover any costs.

Common errors at instalation of manhole covers, which needs to be prevented:

1. Wrong selection of product (group, tightening, locking system, ventilated holes, ...).

2. Removed or damaged noise barrier insert (consequences are noise, vibrations and cracks on asphalt).

3. Removed or damaged tightening gum at locking of cover.

4. Not clean contact surface of cover (damage of noise barriert insert, bending of lockings, damage of tightening gum on the covers with tightening, which can lead to leakage, diffcult closing of frame, breaking or damage of cover or frame at closing with force).

5. Not cleaned place for locking on frame (can lead to damage of tightening gum, breaking, bending and cracks of lockings or breaking or damage of cover)

6. Closing of mahole cover with a force (can lead to breaking or damage of cover).

POKROVI TELESKOPSKIH JAŠKOV

1. Pogosti problemi obstoječega programa:
   – pokrovi se ne prilegajo podajanju (gibanju) cestišča
   – pokanje cestišča ob okvirju
   – preobremenitev jaškov
   – potrebna je dodatna izdelava betonskega venca
   – kompleksna manipulacija zaradi dimenzij in teže

2. Prednosti pokrova teleskopskih jaškov
   – pokrov nima direktnega stika z jaškom
   – prilagaja se spremembam na cestišču, zato le-ta ne razpoka ob okvirju
   – jašek je bistveno manj obremenjen
   – ni potrebna dodatna izdelava betonskega venca
   – uporaben je za sanacijo različnih načinov vgradnje pokrovov (globina, oblika, velikost)
   – možnost vgradnje na cevi Ø 600 ali Ø 800

3. Pomanjkljivosti:
   – zahtevnejši način vgradnje

4. Zahteva ustrezne funkcionalnosti pokrova:
   – stopnja zgostitve asfalta pod prirobnico pokrova mora ustrezati oblogi ceste med okvirjem in asfaltom mora biti zagotovljena dobra adhezija (sprijemljivost)
   – vse površine okvirja, ki so v stiku z asfaltom, ne smejo biti premazane s sredstvom za ločevanje

A) PREDVIDEN NAČIN VGRADNJE NA NOVO CESTIŠČE

1. Polaganje kompleta
   – možne višine do nivoja cestišča 180 do 260 mm
   – podlaga noge (direktno na jašek, tampon, cestni obroč ali cementna podloga)
   – polaganje vzporedno s cestiščem in v smeri vožnje
   – fiksiranje kompleta z betonom (od 5 do 10 cm, proti premikanju)

TELESCOPIC MANHOLE COVERS

1. Common problems of existing program:
   – Covers and frames are not completely fit to movements of roadways
   – Breaking of roadway along the manhole frames
   – Overloading of manhole covers
   – Necessary is additional manufacture of concrete flange
   – Complexed manipulation due dimensions and weight of manhole covers

2. Advantages of telescopic manhole cover:
   – Cover does not have direct contact with manhole
   – It is flexible to changes/movement of roadways, so it prevent breaking of roadway along the manhole frames
   – Manhole (shaft) is less loaded/burdened
   – It is not necessary to additional manufacture of concrete flange
   – It is usable for sanation of different installations (depths, shape or diameter)
   – It can be installed on tubes Ø 600 or Ø 800

3. Disadvantage:
   – Complexed installation

4. Necessary requests for proper functionality of manhole cover:
   – Degree of density of asphalt under flange must comply with material of surface of roadway
   – Between manhole frame and asphalt must be must be ensured good adhesion
   – All surfaces of the frame, which are in contact with asphalt, should not be coated by liquid for separation

A) INSTALLATION OF TELESCOPIC MANHOLE COVER ON NEW ROADWAY

1. Fitting of complete kit
   – Possible height up to level of roadway 180 to 260 mm
   – Leg base (directly on the shaft, a tampon, a ring or cement base)
   – Installation parallel to the roadway and driving direction
   – Fixing of set with concrete (5 to 10 cm, against movement)

2. Dvig okvirja s pokrovom
- zasipanje in utrjevanje z grobim asfaltom
- utrjevanje z valjanjem in ročno (vibracijsko)
- višina utrjene plasti najprimerneje do višine noge
- med čakanjem na zaključno plast je možno okvir s pokrovom spustiti v položaj III

3. Zasipanje zaključne plasti
- predvidena debelina zaključne plasti min 40mm
- po potrebi ročno zasutje pod prirobnico okvirja

4. Valjanje okvirja
- spustiti okvir na neutrjeno zaključno plast in v obsegu max 300mm okoli okvirja nasuti zaključni sloj do zgornjega nivoja okvirja
- uvaljanje okvirja na zaključni nivo predvideno je min 20 mm razdalje med nogo in okvirjem (po valjanju)
- valjanje obvezno preko cele površine okvirja

B) PREDVIDEN NAČIN VGRADNJE PRI SANACIJI CESTIŠČA

1. Izrezati ali izkopati pokrov jaška predvidenega za sanacijo
- minimalna odprtina do končnega nivoja 900 x 900 x 180
- maksimalna globina 220mm (v primeu večje globine ali neravne podlage dvigniti nivo s cementom ali grobim asfaltom)
- uporabiti primeren opaž

2. Postaviti zaprt komplet v pripravljeno odprtino
- zagotoviti vzporednost pokrova s cestiščem in usmerjenost s smerjo vožnje

3. Dvigniti okvir s pokrovom

4. Zasuti z grobim asfaltom ali cementom in utrditi
- ob nogi do zgornjega nivoja noge, nato pod kotom do višine zaključne plasti

5. Zasuti do končnega nivoja (predvidoma 40 mm)
- pod prirobnico okvirja ročno

6. Spustiti okvir na neutrjeno zaključno plast
- pri debelini plasti pod prirobnico več kot 40 mm, naj se poveča zgostitev ročno in dosuti zaključno plast do zgornjega nivoja okvirja v širini max 30 mm okrog okvirja

7. Uvaljanje z valjanjem ali ročno (vibracijsko)
- valjanje obvezno preko cele površine okvirja

2. Lifting of the frame with a cover
- Burying and fixing with a big grain asphalt
- Strength with a rolling and manually (with vibration)
- Height of hardened layer up to height of leg
- While waiting for a final layer is possible to move frame with manhole cover in third position

3. Burying with a finally layer
- It is foreseen thickness of final layer minimum 40 mm
- If necessary, manually fill up under frame flange

4. Rolling of manhole frame
- Lower the frame on not rolled final layer and in range of max 300mm around frame to burry final layer up to top level of frame
- Rolling of frame on the final level
- It is foreseen min 20 mm of distance between leg and frame (after rolling)
- Rolling is necessary over whole surface of manhole frame

B) INSTALLATION OF TELESCOPIC MANHOLE COVER AT THE SANATION OF ROADWAY

1. Burying of cavity
- Minimal cavity dimensions 900 x 900 x 180 mm
- Max depth 220 mm (in case of bigger depth or not flat surface must be level increased with a concrete or big grain asphalt)
- Must be used proper paneling

2. Install full kit in cavity
- Installation parallel to the roadway and driving direction

3. Raising of the frame with a cover

4. To burry with a big grain asphalt or concrete and fix
- At the leg up to top level of leg, then under angle up to level of final layer

5. To burry up to final level (foreseen is 40 mm)
- Manually fill up under frame flange

6. Lower frame on not rolled final layer
- At the thickness of layer more than 40 mm, should be increased density and to add final layer up to top level of frame in zone of 300 mm around frame

7. Rolling or manual fixing (vibration)
- Rolling is necessary over whole surface of manhole frame

POKROVI TELESKOPSKIH JAŠKOV

C) PREDVIDEN NAČIN VGRADNJE NA TRAVNATO POVRŠINO

1. Polaganje kompleta (položaj I)
– možne višine do nivoja travnate površine 160 – 180
– podlaga noge (direktno na jašek, tampon, cementni obroč ali cementno podlogo)
– polaganje vzporedno z nivojem travnate površine
– fiksiranje kompleta z betonom (5 – 10 cm proti premikanju)

2. Dvig okvirja s pokrovom (položaj II)

3. Zasipanje in utrjevanje s peščeno mešanico ali cementom
– utrjevanje z valjanjem in ročno (vibrator)
– višina utrjene plasti do višine noge
– med čakanjem na končno plast prsti je možno pokrov spustiti v položaj III

4. Zasipanje končne plasti prsti
– predvidena debelina plasti prsti pod okvirjem cca. 400 mm

5. Uvaljanje okvirja
– spustiti okvir na nasuto končno plast prsti (položaj III) in v obsegu min 500 mm okoli okvirja nasuti prst do zgornjega nivoja okvirja
– uvaljanje okvirja na končni nivo (položaj I)
– predvideno je, da po uvaljanju okvir nasede na nogo
– valjanje obvezno preko cele površine okvirja

TELESCOPIC MANHOLE COVERS

C) INSTALLATION OF TELESCOPIC MANHOLE COVER ON AREA WITH GRASS

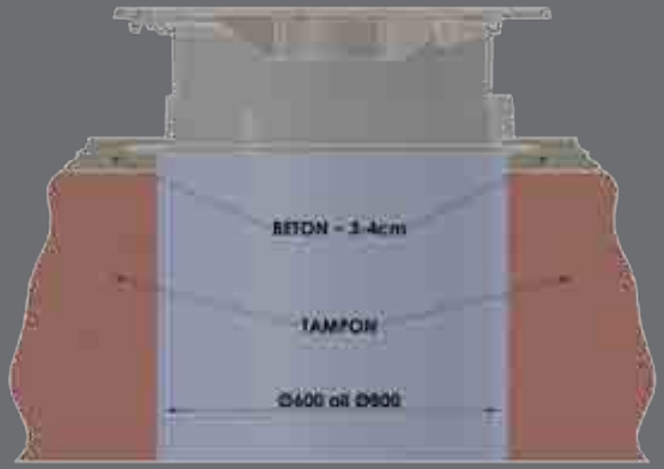
1. Installation of kit
– Possible heights up to level of of area with grass 160 – 180 mm
– Leg base (directly on the shaft, a tampon, a ring or cement base)
– Installation parallel with a level of area with grass
– Fixing of kit with concrete (5 – 10 cm against moving)

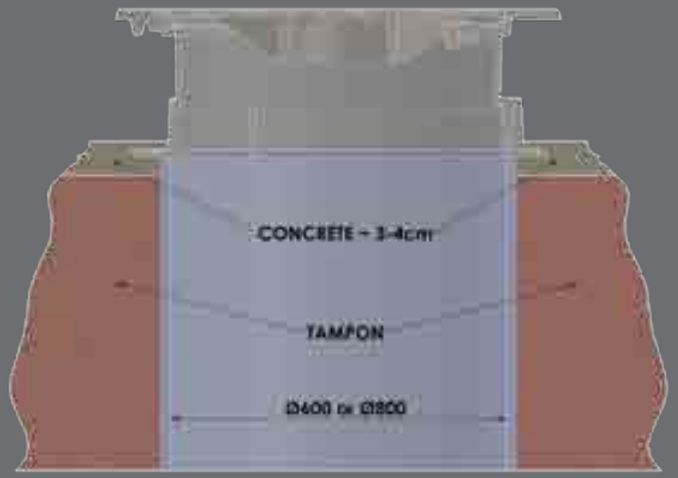
2. Lifting of the frame with a cover

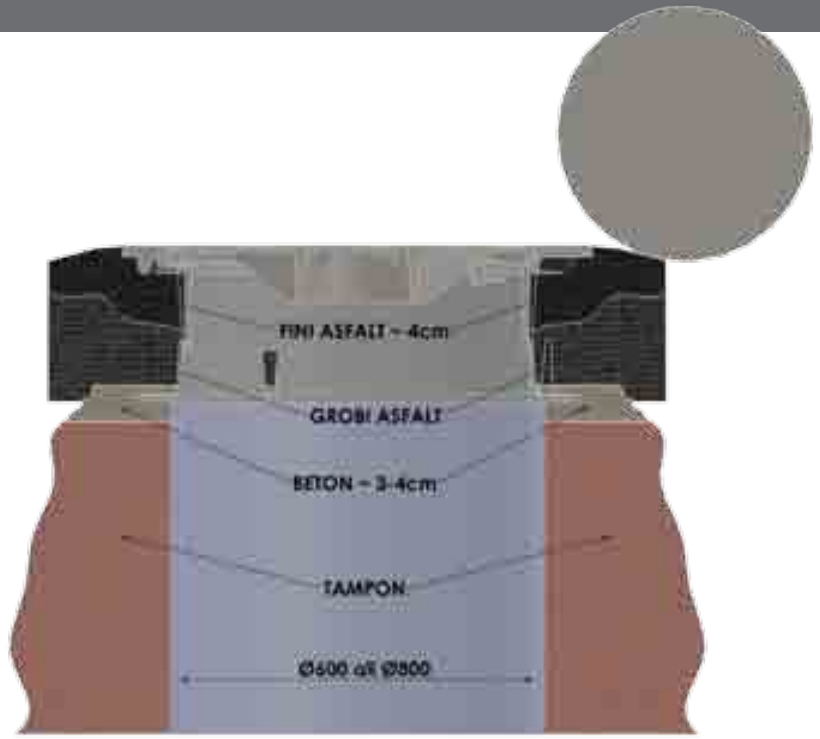
3. Burying with a sand mixture or cement
– Fixing with a rolling and manually
– Height of hardened layer up to height of leg
– While waiting for a final layer of dirt is possible to move frame with manhole cover in third position

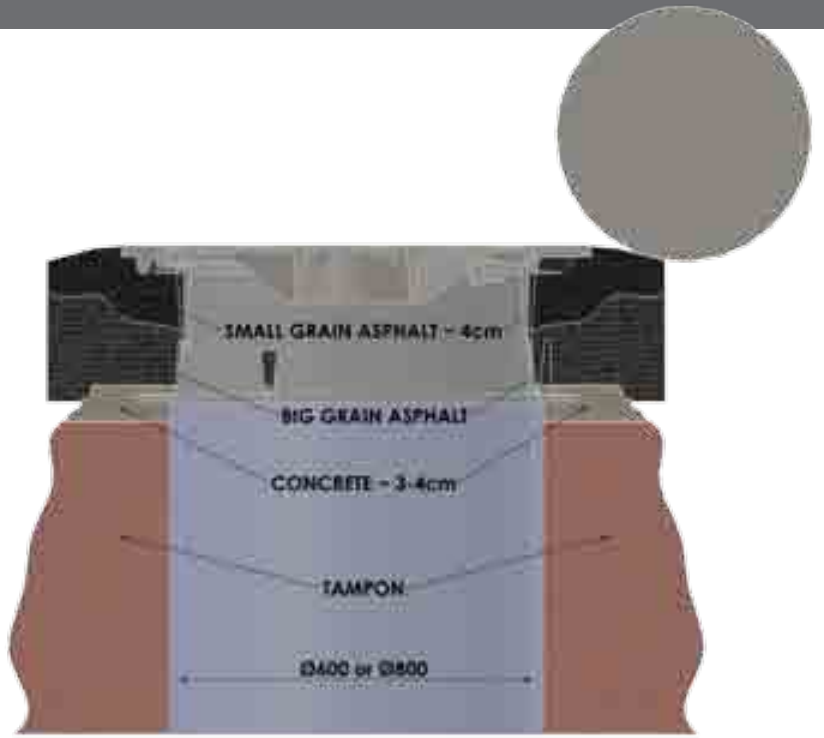
4. Burying of final layer of dirt
- Foreseen thickness of dirt under frame cca. 400 mm

5. Rolling of frame
- Lower frame on final layer of dirt, in zone of min 500 mm around frame to add dirt to upper level of frame
- Rolling of frame on final level
- It is foreseen, that after rolling is frame fitted to leg
- Rolling is necessary over whole surface of manhole frame

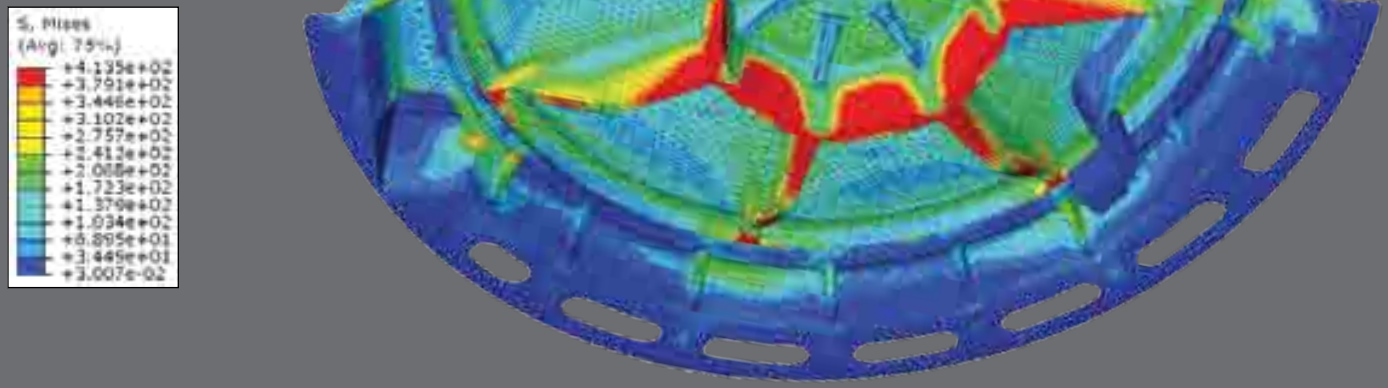

BETON – 3-4cm
TAMPON
Ø600 ali Ø800


CONCRETE – 3-4cm
TAMPON
Ø600 or Ø800

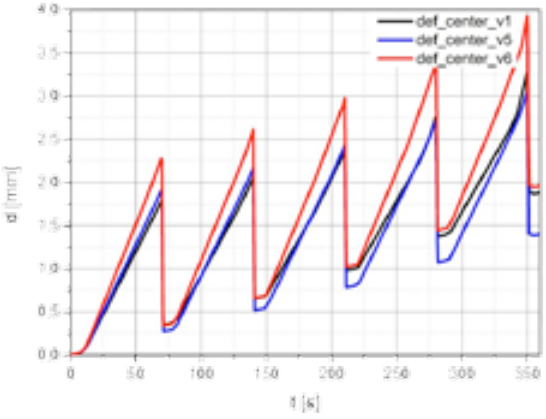

FINI ASFALT – 4cm
GROBI ASFALT
BETON – 3-4cm
TAMPON
Ø600 ali Ø800


SMALL GRAIN ASPHALT – 4cm
BIG GRAIN ASPHALT
CONCRETE – 3-4cm
TAMPON
Ø600 or Ø800

NUMERIČNE SIMULACIJE OBREMENITVENEGA TESTA
PO STANDARDU SIST EN124



NUMERICAL SIMULATION OF THE LOAD TEST
ACCORDING TO SIST EN124



LIVAR industries

LIVAR, proizvodnja in obdelava ulitkov, d.d. ▪ Ljubljanska cesta 43, 1295 Ivančna Gorica
▪ tel.:+386 (0)1 786 99 00 ▪ fax: +386 (0)1 787 73 81 ▪ email: info@livar.si ▪ www.livar.si ▪