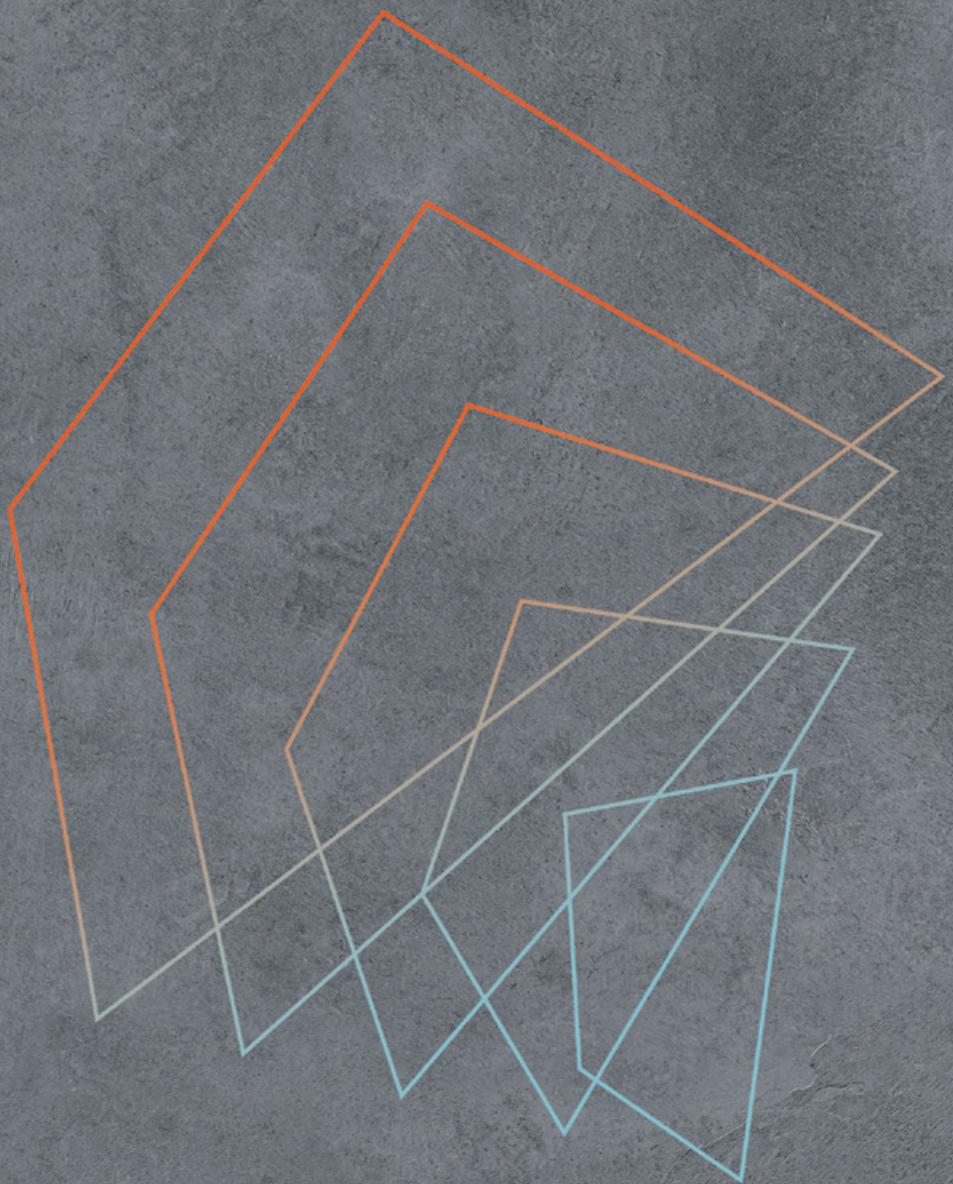




■ KATALOG MONTAŽNIH ELEMENATA
■ CATALOG OF ASSEMBLY ELEMENTS



M O B E C O

MONTAŽNE
BETONSKЕ
KONSTRUKCIJE





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O NAMA

Postojanje i neprestano napredovanje naše kompanije traje duže od dve decenije. Apsolutna posvećenost i predanost poslovanju vremenom su rezultirale proširenjem proizvodnog kapaciteta, poslovni uspehom i ostvarivanjem jakih veza sa našim saradnicima i klijentima. Iz godine u godinu sprovodili smo planove u dela, jačali, iskustveno se nadogradivali, širili ponudu naših usluga i održavali kvalitet gradnje i poslovanja na najvišem nivou. Svaka godina unazad za nas je značajna, no neke od njih smatramo presudnim.

1992 | OSNIVANJE KOMPANIJE

Godina osnivanja kompanije. U početnom periodu osnovna delatnost kojom smo se bavili bila je izgradnja puteva i infrastrukture u niskogradnji, otud i naziv kompanije PUT INŽENJERING.

2000 | EKSPLOATACIJA ŠLJUNKA

Kupovinom šljunkare na Južnoj Moravi, započinjemo sa separisanjem i eksploatacijom šljunka.

2002 | PRVA FABRIKA BETONA

Proširujemo domene i otvaramo prvu fabriku betona. U blizini fabrike betona gradimo upravnu zgradu, halu i pomoćne objekte, što će kasnije prerasti u naš proizvodno-administrativni kompleks u kome smo danas. Ugovaramo kapitalne projekte i modernizujemo gradevinsku mehanizaciju i transportna sredstva.

2005 | MODERNIZACIJA I AUTOMATIZACIJA

Modernizujemo fabriku betona novim softverom za upravljanje proizvodnje betona i postižemo kompletну automatizaciju dozatora cementa, frakcija i vode u procesu spravljanja betona. Kupujemo nove auto-miksere i pumpu za beton.

2007 | KAMENOLOM BELA PALANKA

Zatvaramo šljunkaru i započinjemo radove na otvaranju kamenoloma na teritoriji opštine Bela Palanka.

2009 | ARMIRANI BETON

Počinjemo proizvodnju prefabrikovanih armirano-betonskih elemenata i građenje montažnih

2011 | PREDNAPREGNUTE ŠUPLJE PLOČE

Kupujemo opremu i obezbeđujemo uslove za proizvodnju prednapregnutih ošupljenih ploča. Proširujemo proizvodni pogon i radimo rekonstrukciju poslovnih prostorija. U sastav opreme uključujemo mobilnu betonsku bazu, kapaciteta 100m³/h.konstrukciju.

2012 | SERTIFIKACIJA

Sertifikacija integriranog menadžment sistema (ISO 9001, ISO 14001 i OHSAS 18001).

2014 | NOVA FABRIKA BETONA

U krugu fabričkog kompleksa postavljamo još jednu potpuno automatizovanu fabriku betona i postrojenje za recikliranje svežeg betona.

2015 | POVEĆANJE KAPACITETA PROIZVODNJE

Modernizacijom kamenoloma dupliramo njegov kapacitet proizvodnje. Inovacijama i dopunom opreme i poboljšanjem fabričkih uslova povećavamo kapacitet i ubrzavamo proizvodnju prefabrikovanih elemenata.

2016 | POGON ŽELEZNIK/BEOGRAD

Otvoren je pogon pored Niša i u Beogradu u Železniku.

2017 | CE ZNAK

Dobijamo CE znak za betonske elemente kao dokaz usaglašenosti proizvoda sa direktivama EU o bezbednosti proizvoda.



ABOUT US

Our company has been continually working and developing more than two decades. Absolute commitment to and zeal for fair business dealings have resulted in time in the expansion of production capacity, business success and building strong ties with our partners and clients. Over years we have completed plans, become stronger, upgraded our experience, expanded the offer of our services and maintained the quality of construction and business dealings on the highest level. Each year in the past is significant for us though some of them we consider crucial.

1992 | COMPANY'S FOUNDATION

The year of company's foundation. At the beginning, our primary business activity was the construction of roads and infrastructure in civil engineering, hence the name of the company is PUT INŽENJERING.

2000 | EXPLOITATION OF GRAVEL

By purchasing the gravel pit at the Južna Morava we started the separation and exploitation of gravel.

2002 | FIRST CONCRETE FACTORY

We expanded business activities and opened the first concrete factory. In the factory surrounding we built the administration building, hall and facilities which would in time turn into our production and administration complex of today. We settled capital projects and modernized our construction machinery and transportation facilities.

2005 | MODERNIZATION AND AUTOMATIZATION

We upgraded the concrete factory by introducing a new software for managing concrete production and achieved the complete automation of cement feeders, fractions and waterways in the process of concrete fabrication. We purchased new automated mixers and a concrete pump.

2007 | QUARRY BELA PALANKA

We closed the gravel pit and started operations to open a quarry on the territory of the Municipality of Bela Palanka.

2009 | REINFORCED CONCRETE

We started the production of prefabricated reinforced concrete elements and construction of precast reinforced concrete constructions.

2011 | PRESTRESSED HOLLOW CORE SLABS

We purchased and ensured conditions for the production of prestressed hollow core slabs. Our production plant was expanded and premises reconstructed. We included a mobile concrete plant in the list of equipment, with a capacity of 100m³/h.

2012 | CERTIFICATION

Certified Integrated Management System (ISO 9001, ISO 14001 and OHSAS 18001).

2014 | NEW CONCRETE FACTORY

In the factory complex we installed one more completely automated concrete factory and a plant for recycling fresh concrete.

2015 | ENHANCING THE CAPACITY

By modernising the quarry we doubled its production capacity. By innovating and completing equipment and improving factory conditions we enhanced the capacity and accelerated the production of prefabricated elements.

2016 | PLANT IN ŽELEZNIK/BEOGRAD

A plant was opened next to Niš and Belgrade in Železnik.

2017 | CE MARK

We get the CE mark for concrete elements as a proof of product conformity with EU product safety directives.

ZAŠTO ODABRATI NAS

:: gradimo poverenje

NAJBOLJA STRUČNA PODRŠKA

Naše znanje i iskustvo su vam stalno na raspolaganju. Tesna saradnja je od ključne važnosti već u fazi projektovanja. Optimalna rešenja su isplativa sve do završetka izgradnje objekta. Vrednost dobre stručne podrške je neprocenljiva.

BEST PROFESSIONAL SUPPORT

All our knowledge and experience is at your disposal at all times. A close collaboration is crucial all the way from the design phase. Optimal solutions pay off until the end of construction; a good professional support is invaluable.



WHY CHOOSE US

:: we build trust

PRILAGODLJIVOST

Sistem montažnih betonskih konstrukcija sastoji se od tipskih proizvoda od kojih lako sastavljamo konstrukciju koja u potpunosti odgovara vašim zahtevima. Razumemo sve vaše potrebe i možemo ih predvideti. Naša proizvodnja je dovoljno prilagodljiva da može da zadovolji i najspecifičnije zahteve. Za vaše zadovoljstvo uvek smo spremni otići korak dalje.

POUZDANOST

Svaki objekat ima svoje osobnosti i svaki objekat je potpuno nov izazov. Zato revnosno proveravamo kvalitet i postojano tražimo mogućnosti za unapredjenje. Dogovorene standarde uvek postizemo, a još radije ih prevazilazimo, jer je odlično izgrađen objekat naše najveće zadovoljstvo.

KOREKTNOST

Našu firmu stvaraju ljudi koji se neprestano obučavaju, razmenjuju iskustva i tako doprinose poboljšanju kvaliteta poslovanja. Obavezali smo se i na visoku poslovnu kulturu. Svaki dan i na svakom koraku, kako u preduzeću, tako i sa svojim poslovnim partnerima gradimo dobre odnose zasnovane na poštovanju i poverenju.

ADAPTABILITY

The system of prefabricated concrete structures is composed on type products, from which we can assemble a structure that perfectly fits your requirements. We understand all your needs and we are even able to anticipate them. Our manufacture is flexible enough to be able to follow even the most specific requirements. Therefore we are always ready to take a step further for your satisfaction.

RELIABILITY

Each object is special; each object presents a completely new challenge. We are therefore carefully monitoring quality and constantly looking for the possibilities for improvement. We always achieve the agreed standards or rather exceed them; our greatest satisfaction is a superbly constructed facility.

CORRECTNESS

Our company is created by people, who are continually furthering their knowledge, exchanging experience and thus contributing to improving the quality of business. We are also committed to the high business culture. Every day, every step we are building - as within the company, as well as with our business partners - good relations, based on respect and trust.

■ UBEDLJIVI RAZLOZI

:: montažna gradnja je gradnja budućnosti

■ CONVINCING REASONS

:: prefabricated construction is the future of construction

NAJJEDNOSTAVNIJA

Montažni sistemi pružaju najjednostavnija rešenja za sve građevinske izazove kako u industriji, tako i u izgradnji poslovnih zgrada, javnih objekata i poljoprivredne infrastrukture. Pa i više od toga - ova jednostavna rešenja imaju niz dodatnih prednosti. Upravo zato je montažna gradnja toliko ubedljivija.

SIMPLY

Prefabricated systems offer the simplest solutions to all the challenges in construction as in industry as well as in the construction of business or public buildings and agricultural facilities. Even more, these simple solutions deliver a range of additional benefits. Prefabricated construction is therefore all the more convincing.

EKONOMIČNO

Jednostavnost rešenja, brzina izvođenja i celovitost kvaliteta odlučno utiču na ekonomičnost gradnje. Stručna pomoć naših inženjera dodatno pojednostavljuje izvođenje projekata. Montažne betonske konstrukcije nude najbolji odnos između cene i kvaliteta.

ECONOMICALLY

Simple solutions, fast execution and overall quality of buildings have a decisive impact on the economical construction. Professional support of our engineers further contributes to the rational execution of projects. Prefabricated concrete structures offer the best ratio between price and quality.

EFIKASNO

Naša tehnologija, iskusni stručnjaci i unapređena organizacija garant su za vrhunski kvalitet betonskih proizvoda i procesa izgradnje. Precizno osmišljene i pod strogim nadzorom izgrađene prefabrikovane građevinske elemente prilagođavamo zahtevima projektanata i posebnim željama investitora. Ispunjavamo obećanja i prevazilazimo očekivanja.



BRZO

Koncept montažne gradnje zasniva se na svesti o izuzetnoj važnosti brzine realizovanja ideja. Naš sistem podrazumeva projektovanje, proizvodnju betonskih elemenata, transportovanje i montažu objekta u veoma kratkom vremenu. S obzirom da radimo sa prefabrikovanim elementima, garantujemo kvalitetno građenje i tokom zimskog perioda.

EFFECTIVELY

Our technology, experienced professionals and advanced organisation enable top quality concrete products and construction processes. Carefully designed and manufactured under strict surveillance, prefabricated construction elements can be adapted as to the requirements of their designers as well as to the special wishes of their investors. We accomplish promises and exceed expectations.

EKOLOŠKI

Proizvodnja montažnih betonskih konstrukcija u kontrolisanim uslovima u fabrici već je u osnovi ekološka. Naša odgovornost prema životnoj sredini obuhvata i više od toga. Pomoću pažljivog planiranja smanjujemo opterećenje prirodnog okruženja u fazi montaže objekata, a posebnu pažnju posvećujemo reciklaži objekata nakon isticanja njihovog veka trajanja. Razmišljamo trajno, delujemo odgovorno.

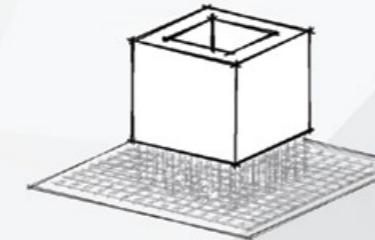
ENVIRONMENTALLY FRIENDLY

Manufacture of prefabricated concrete structures under controlled conditions, provided by the factory, is environmentally friendly in its essence. However, our responsibility to the environment is reaching even further. The burden on the environment at the stage of assembly is reduced through meticulous planning, whereas special attention is also devoted to the recycling of structures after the end of their useful life. We think sustainably, we act responsibly.

QUICKLY

The concept of prefabricated construction is based on our awareness of how important it is to realise the ideas quickly. Our system allows concrete elements design, manufacture, transportation as well as facility assembly in a very short time. All our components being manufactured in the factory, we ensure fast and quality construction even in the winter time.

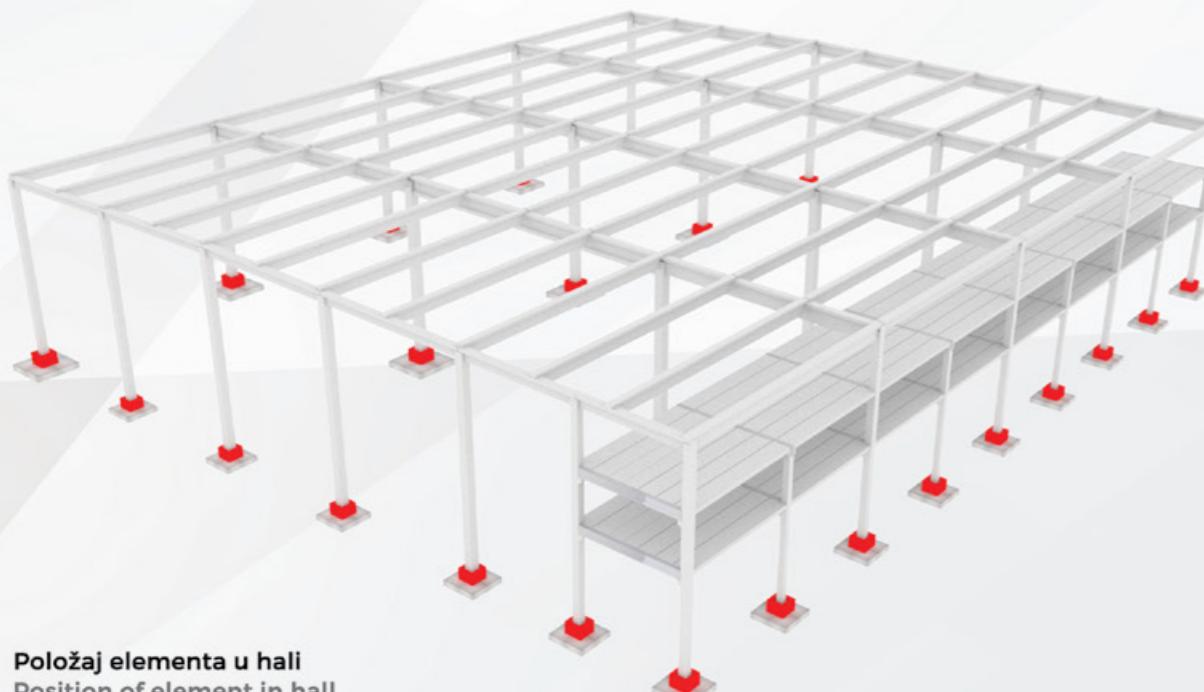
■ ČAŠICE / ■ POCKET FOUNDATIONS



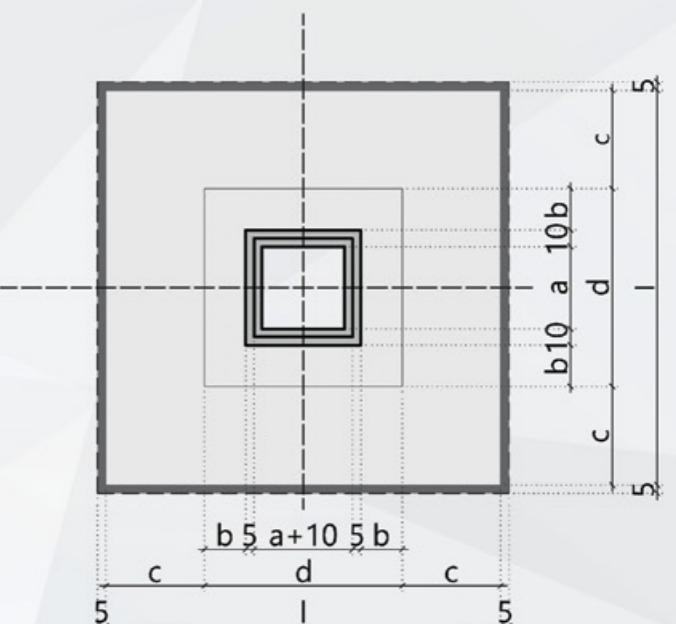
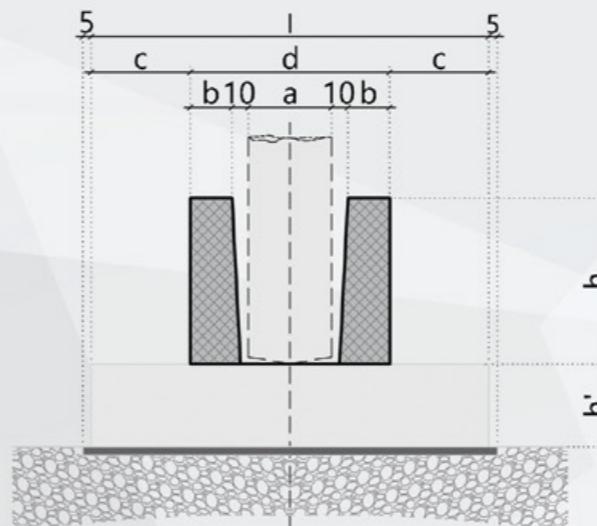
Temeljne čašice su prefabrikovani elementi koji se izraduju u posebnim kalupima u našim pogonima uz odgovarajući nadzor. Njihovom upotrebom se značajno smanjuje vreme realizacije temelja, a samim tim su skraćeni i rokovi izgradnje određenog objekta. U zavisnosti od statičkog proračuna čašice se izraduju od klase betona $C \geq 30/37$, dok su dimenzije date tabelarno u zavisnosti od dimenzije stubova. Unutrašnjost čašica je otrebrena i zakošena zbog bolje monolitizacije i montaže stubova. Gotovi prefabrikovani elementi se odvoze transportnim sredstvima do mesta ugradnje. Montaža čašica se vrši na prethodno postavljenom mršavom betonu, nakon postavljanja odgovarajuće armature temeljne stope. Temeljne stope se izlivaju na licu mesta, zajedno sa temeljnim čašicama čine fundamentalnu celinu.

Pocket foundations are precast elements that are made in casting beds in our plants with proper supervision. Their use significantly reduces the time of footing realization, and therefore the deadline for building a particular facility is shortened.

Depending on the static calculation, pocket foundations are made of concrete $C \geq 30/37$. The dimensions are given in the table below, depending on the dimensions of the columns. The inside of the pocket foundations is ribbed and sloped because of better monolithization and its mounting. Finished prefabricated elements are transported to the place of installation. Installation of the pocket foundations is done on the non-reinforced concrete base after setting the appropriate reinforcement of the footings. Footings are poured on - site, and together with the collars form a fundamental whole.



Položaj elementa u hali
Position of element in hall



tipovi temeljnih čašica-geometrijske karakteristike
type of pocket foundations-geometric characteristics

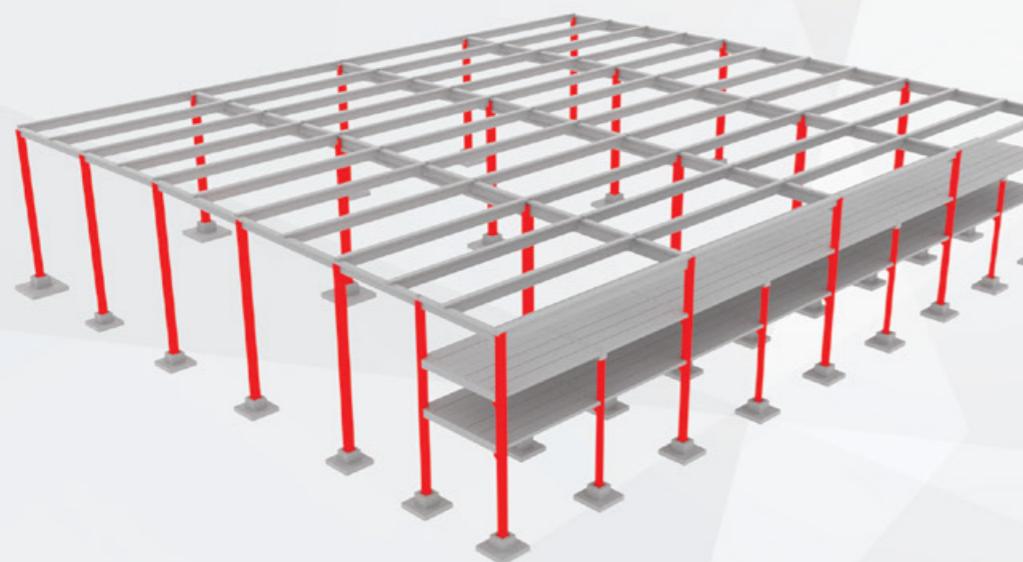
	dužina/length (cm)
a	50 (60;70;80;100)
b	20 (25)
c	50 (60)
d	$= (a+2b+20)$
l	$= (d+2c)$
h	80 (90;100)
h'	40 (50;60)



■ STUBOVI ■ COLUMNS

Prefabrikovani stubovi su vertikalni konstruktivni elementi koji nose elemente krova, međuspratne konstrukcije objekata, obodne gredje, nosače kranskih staza, kao i "T" nosače kod hala koje su denivelisane. Stubovi se montiraju na prethodno pripremljene temelje sa temeljnim čašicama. Klasa betona stubova je $C \geq 30/37$ u zavisnosti od statičkog proračuna. Mogu biti kvadratnog i pravougaonog preseka. Deo stuba koji ulazi u temeljnu čašicu je otreben zbog bolje monolitizacije, a na dnu je pozicioniran "trn" za precizno centriranje stuba prilikom same montaže. Na vrhu stuba, na mestu gde ulazi glavni nosač ostavlja se otvor za vezu.

Reinforced concrete columns are vertical structural elements that carry elements of the roof, plate floors, edge beams, crankshaft supports, as well as "T" carriers in objects which are denivized. Columns are mounted on pre-prepared foundations with pocket foundations. Concrete class of columns is $C \geq 30 / 37$. The dimensions of the AB mounting column and console element date are tabular and depend on statics and architecture, can be square and rectangular cross-section. The part of the pocket foundations that enters the base cup is ribbed for better monolithization, and at the bottom is a "mandrel" for the precise centering of column during assembly. At the top of the column, where the main beam enters, there is left a hole for connection.



Položaj elemenata u hali
Position of element in hall



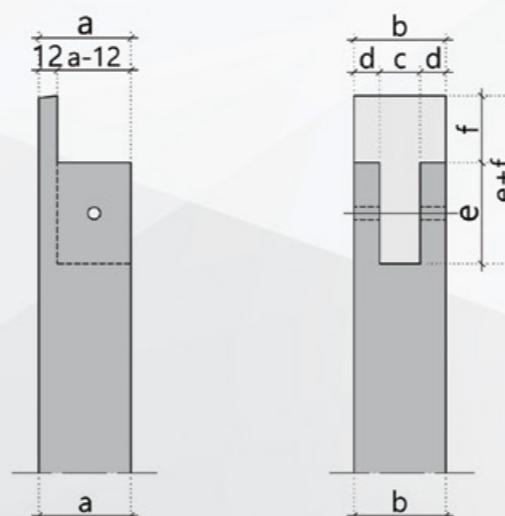
AB MONTAŽNI STUBOVI (samo za prijem glavnih nosača)
AB MOUNTING COLUMN (only for receiving the main carriers)

TIP 1 / TYPE 1

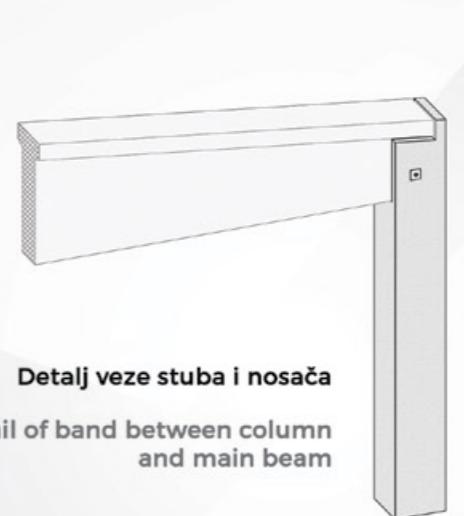
Prikaz glave stuba
Preview of capital of a column



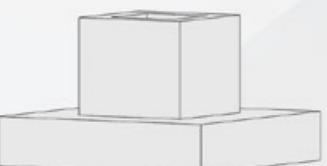
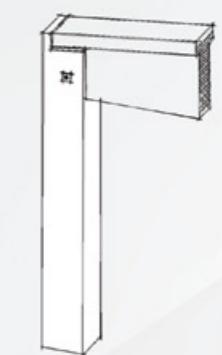
tipovi temeljnih čašica-geometrijske karakteristike
type of pocket foundations-geometric characteristics



	dužina/length (cm)
a	50 (60;70;80;100)
b	50 (60;70;80;100)
c	18 (23;32)
d	$=(b-c)/2$
e	38-155
f	0-35

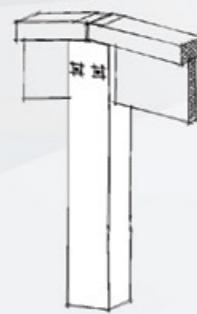


Detalj veze stuba i nosača
Detail of band between column and main beam

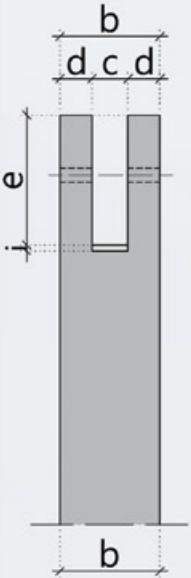
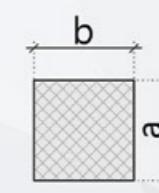
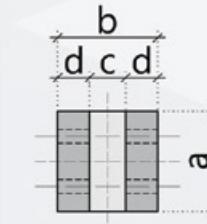




TIP 2 / TYPE 2



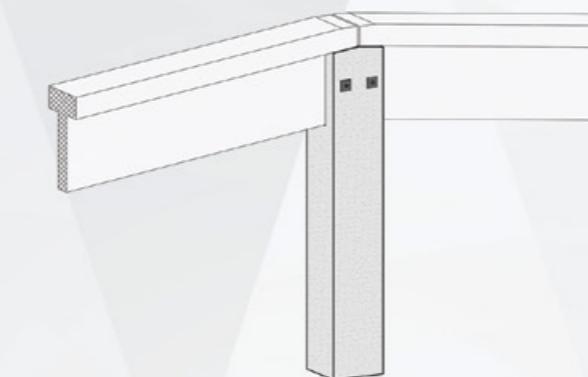
Prikaz glave stuba
Preview of capital of a column



tipovi stubova-geometrijske karakteristike
type of columns-geometric characteristics

	dužina/length (cm)
a	50 (60;70;80;100)
b	50 (60;70;80;100)
c	18 (23;32)
d	= (b-c)/2
e	38-155

Detalj veze stuba i nosača
Detail of band between column and main beam



3D model

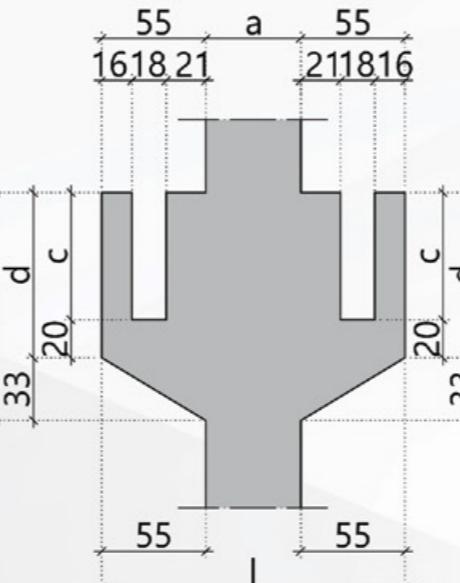
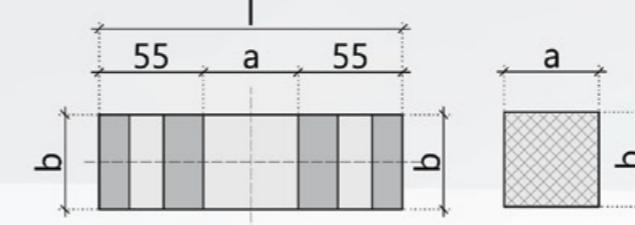


AB MONTAŽNI STUBOVI / AB MOUNTING COLUMN

(dodatao primaju kranske staze i "T" nosače na međunivo) /
(additionally receive crankshaft supports and "T" carriers at the interchange)

TIP 1 / TYPE 1

Prikaz glave stuba
Preview of capital of a column

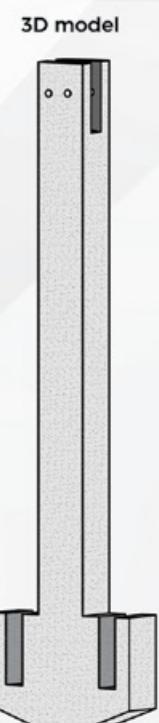
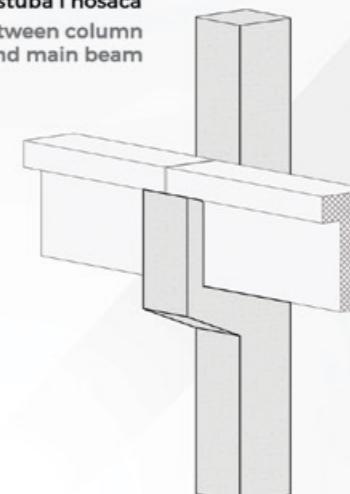


Detalj veze stuba i nosača
Detail of band between column and main beam

tipovi stubova-geometrijske karakteristike
type of columns-geometric characteristics

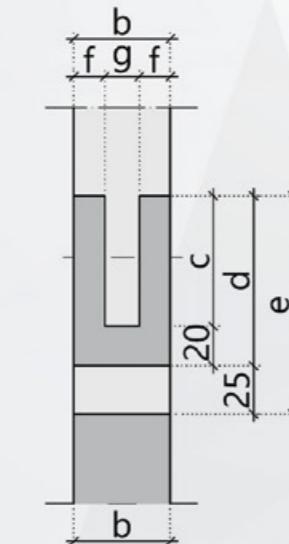
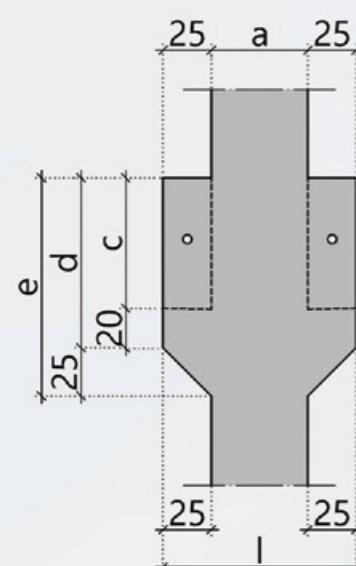
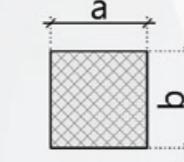
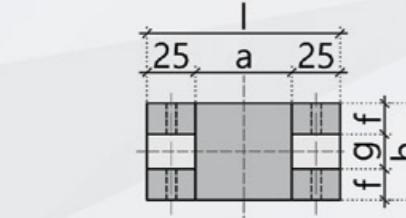
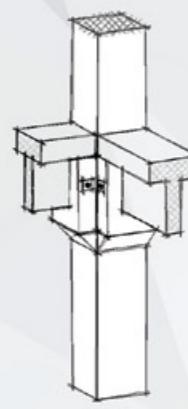
	dužina/length (cm)
a	50 (60;70;80;100)
b	50 (60;70;80;100)
c	67 (87)
d	87 (107)
e	120 (140)
f	= (a+110)

Detalj veze stuba i nosača
Detail of band between column and main beam



TIP 2 / TYPE 2

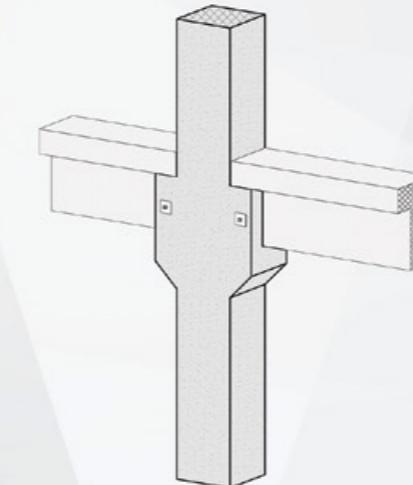
Prikaz glave stuba
Preview of capital of a column



tipovi stubova-geometrijske karakteristike
type of columns-geometric characteristics

	dužina/length (cm)
a	50 (60;70;80;100)
b	50 (60;70;80;100)
c	38-88
d	= (c+20)
e	= (d+25)
f	18 (23;32)
g	= (b-c)/2
i	= (a+50)

3D model



Detalj veze stuba i nosača
Detail of band between column and main beam

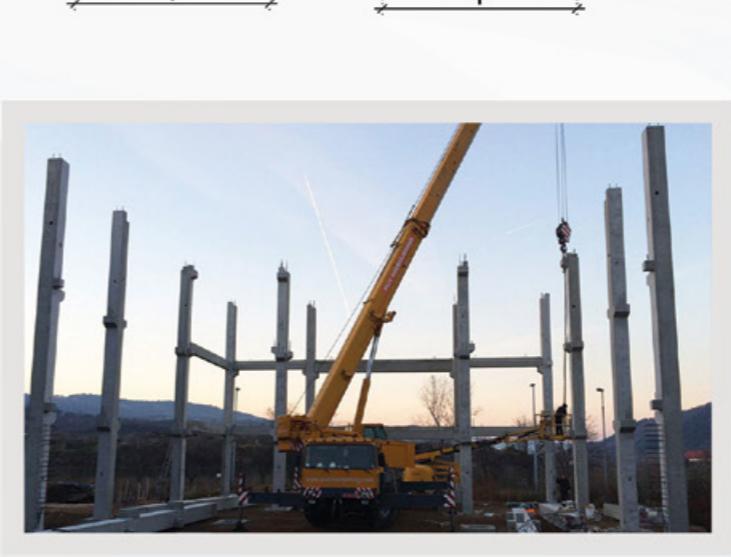
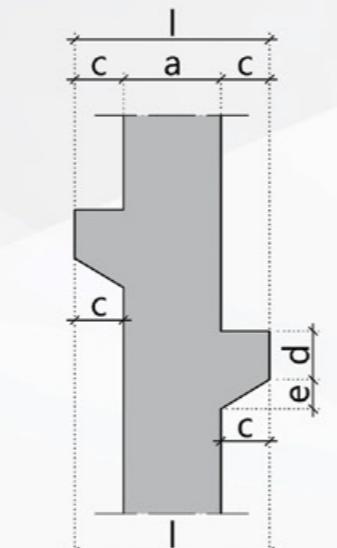
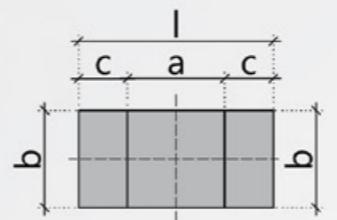
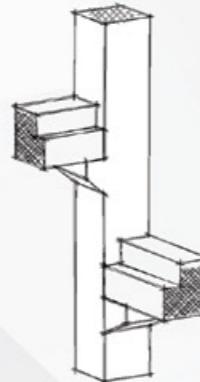


AB MONTAŽNI STUBOVI / AB MOUNTING COLUMN

(dodatno primaju međuspratne grede na njihovom nivou) / (additionally receive floor beams at their level)

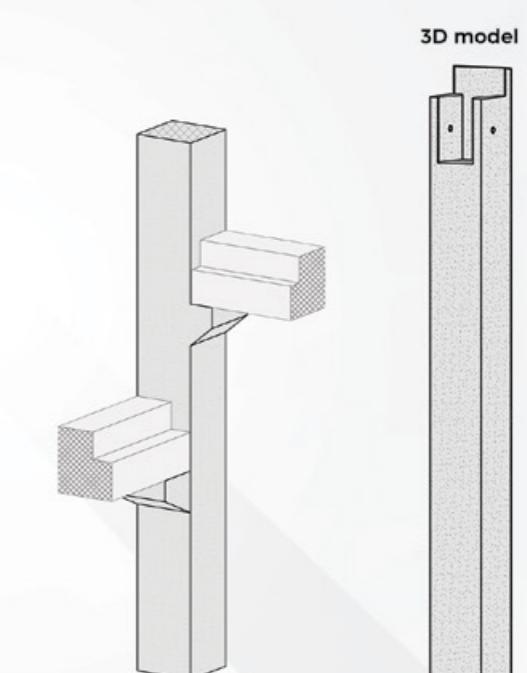
TIP 1 / TYPE 1

Prikaz glave stuba
Preview of capital of a column

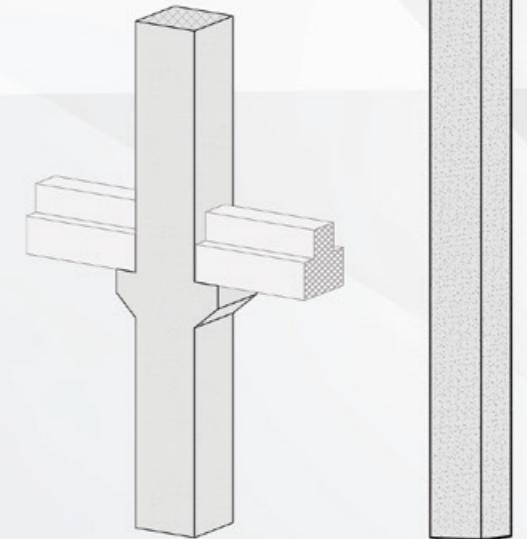


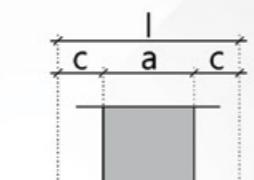
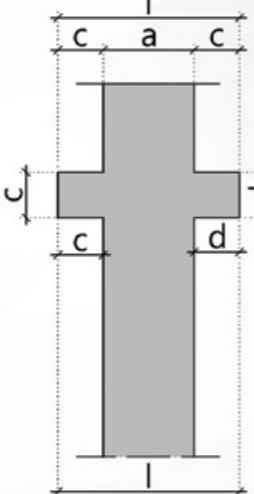
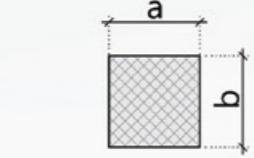
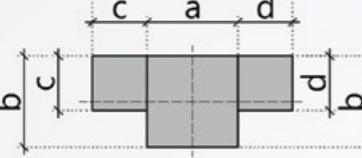
tipovi stubova-geometrijske karakteristike
type of columns-geometric characteristics

	dužina/length (cm)
a	50 (60;70;80;100)
b	50 (60;70;80;100)
c	25 (40)
d	25 (40)
e	15 (20)
i	= (a+2c)



Detalj veze stuba i nosača
Detail of band between column and main beam

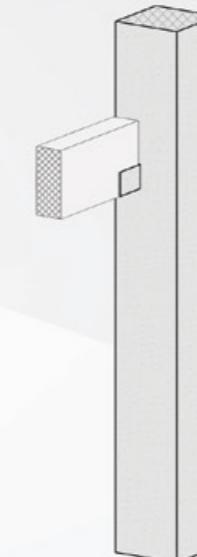




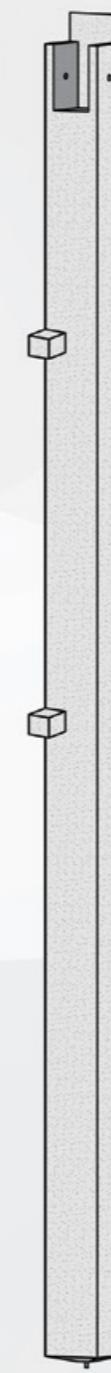
tipovi stubova-geometrijske karakteristike
type of columns-geometric characteristics

	dužina/length (cm)
a	50 (60;70;80;100)
b	50 (60;70;80;100)
c	25-50
d	25-50
l	= $(a+c+d)$

Detalj veze stuba i nosača
Detail of band between column and main beam

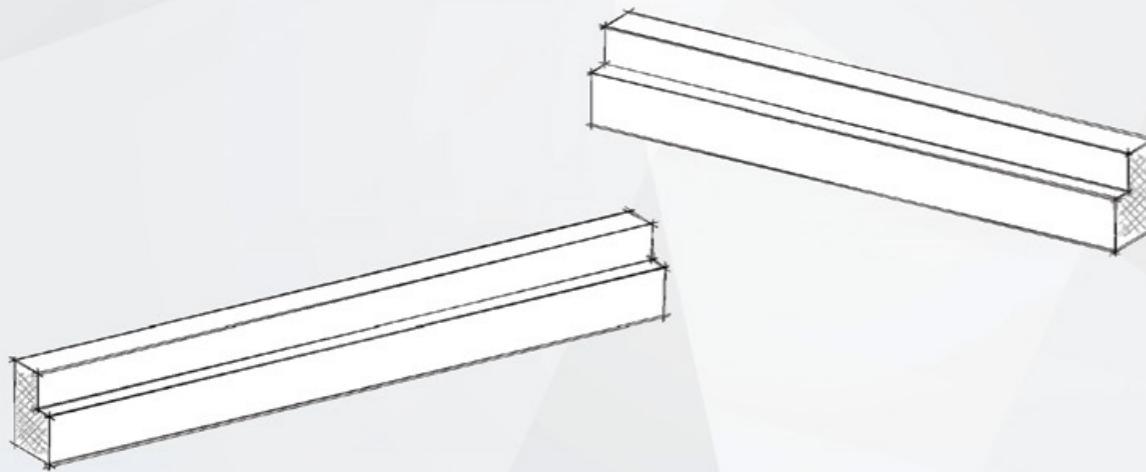


3D model

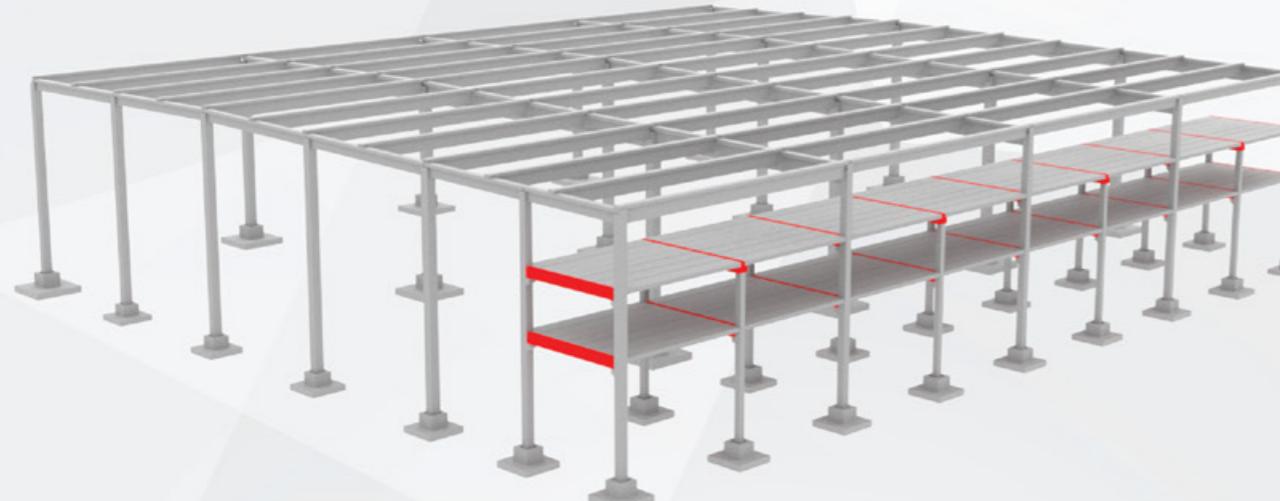


MEĐUSPRATNE GREDE FLOOR BEAM

Međuspratne grede su konstruktivni elementi za prijem šupljih ploča. Naležu na kratke elemente ili vrhove stubova. Dimenzije su date tabelarno, i zavise od statičkog proračuna i visine šupljih ploča. Mogu biti srednje - obrnuto "T" i ivične - "L" poprečnog preseka.

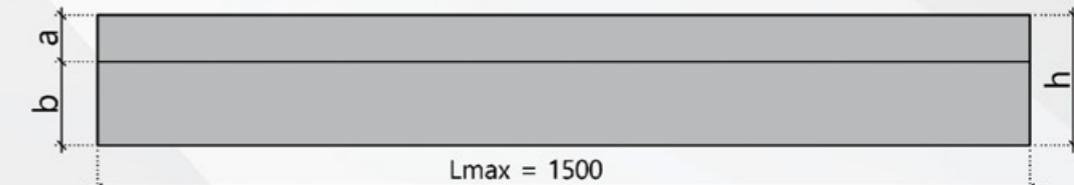
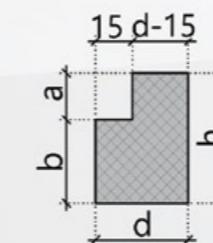


Floor beams are structural elements for carrying hollow-core slabs. They lay down on short elements or tops of columns. Dimensions are given in table below, and depend on the static calculation and height of the hollow-core slabs. They can be middle - reverse "T" and edge - "L" cross - section.



Položaj elementa u hali
Position of element in hall

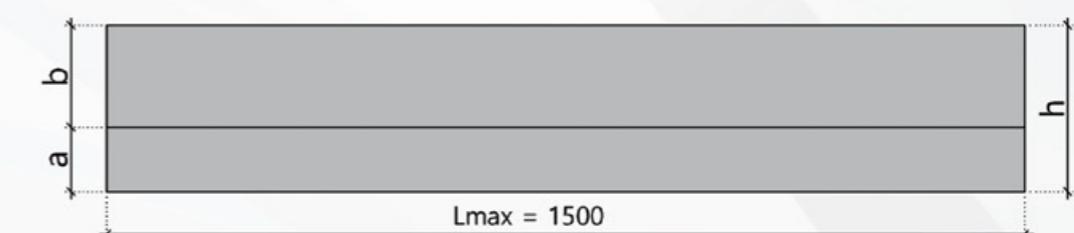
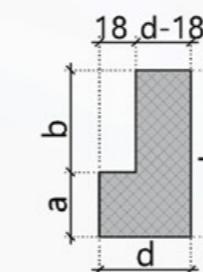
MEĐUSPRATNA GREDA "L" PRESEKA - tip 1
FLOOR BEAMS "L" CROSS-SECTION - type 1



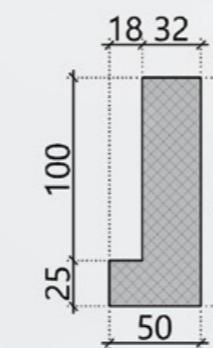
tipovi meduspratnih greda - geometrijske karakteristike
type of floor beams - geometric characteristics

	dužina/length (cm)
a	20-40
b	$=(h-a)$
h	50-130
d	50-90

MEĐUSPRATNA GREDA "L" PRESEKA - tip 2
FLOOR BEAMS "L" CROSS-SECTION - type 2



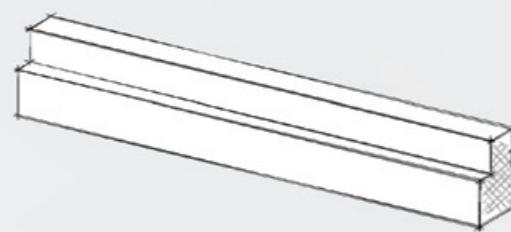
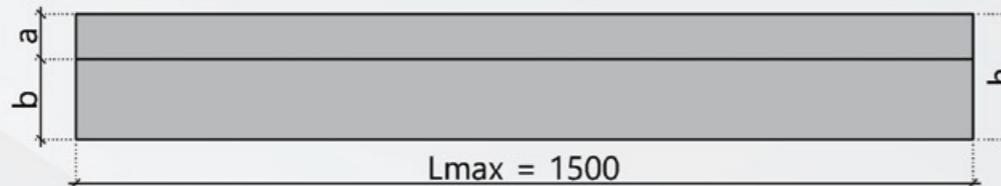
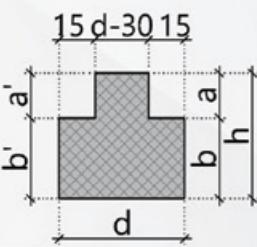
specifičan slučaj
specific case



tipovi meduspratnih greda - geometrijske karakteristike
type of floor beams - geometric characteristics

	dužina/length (cm)
a	25, 35, 45, 55
b	$=(h-a)$
h	84,5; 94,5; 104,5; 114,5
d	50, 60, 70, 80, 90, 100

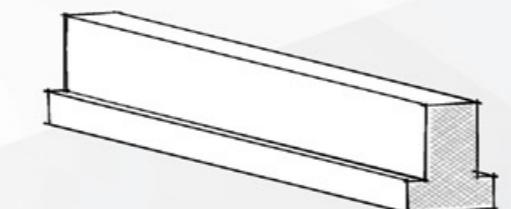
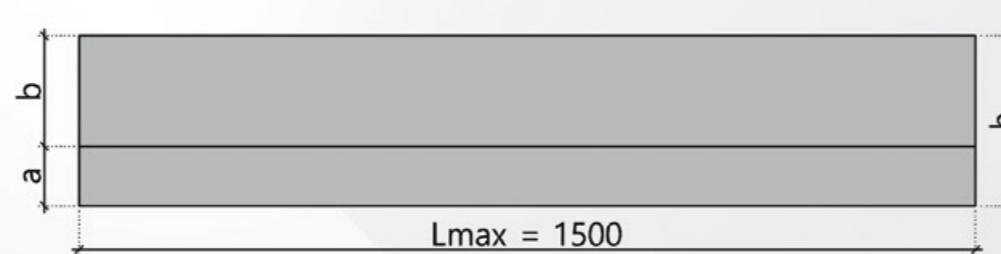
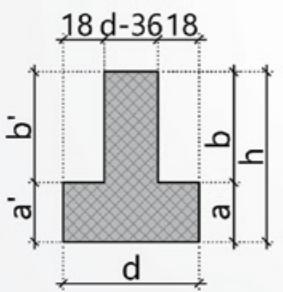
MEĐUSPRATNA GREDA OBRNUTO "T" - tip 1 FLOOR BEAMS REVERSE "T" - type 1



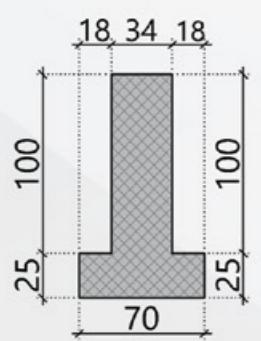
tipovi međuspratnih greda - geometrijske karakteristike
type of floor beams - geometric characteristics

	dužina/length (cm)
a	20-40
b	$=(h-a)$
a'	20-40
b'	$=(h-a')$
h	50-130
d	50-90

MEĐUSPRATNA GREDA OBRNUTO "T" - tip 2 FLOOR BEAMS REVERSE "T" - type 2



specifičan slučaj
specific case

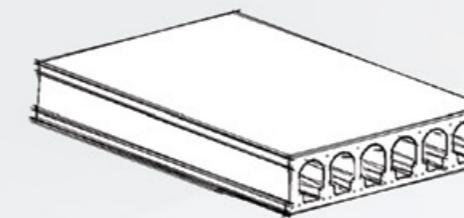


tipovi međuspratnih greda - geometrijske karakteristike
type of floor beams - geometric characteristics

	dužina/length (cm)
a	25, 35, 45, 55
b	$=(h-a)$
a'	25, 35, 45, 55
b'	$=(h-a)$
h	84,5; 94,5; 104,5; 114,5
d	50, 60, 70, 80, 90, 100

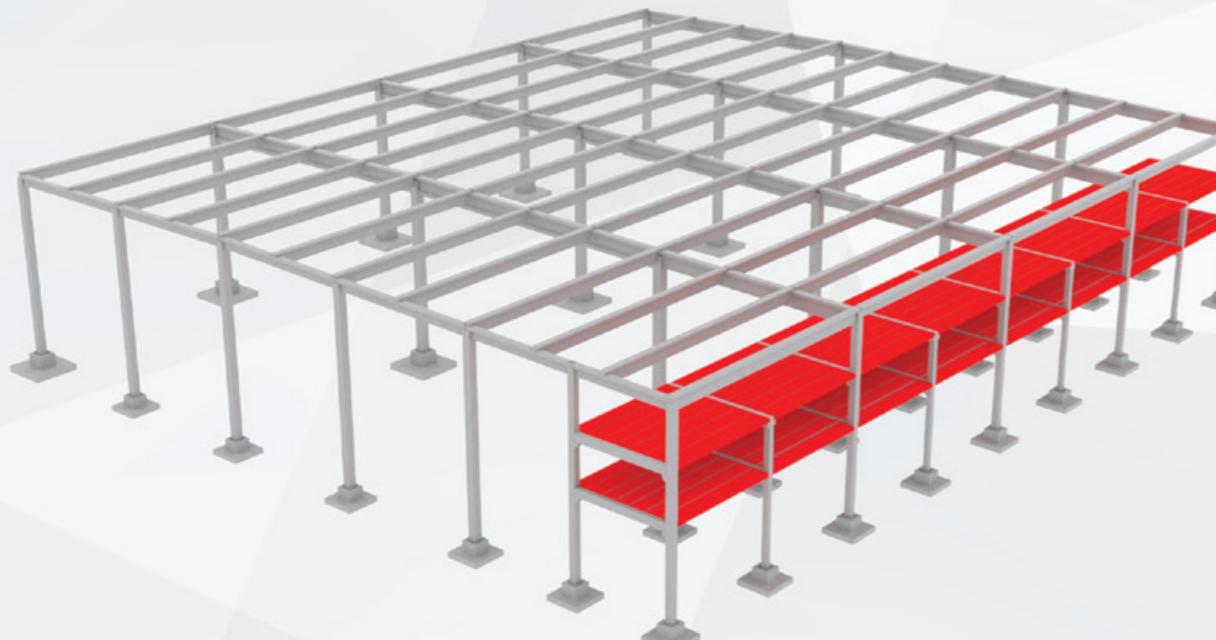


ŠUPLJE PLOČE HOLLOW-CORE SLABS



Prednapregnute šuplje ploče su montažni međuspratni konstruktivni elementi sa kontinuiranim unutrašnjim šupljinama, koje znatno umanjuju težinu elemenata. Proizvode se u širini 1200 mm, uključujući i uzdužne spojeve, dok se u zavisnosti od raspona i opterećenja, određuje debljina i tip utezanja. Izrađuju od betona klase C=50/60. Nakon montaže prednapregnutih šupljih ploča izvodi se podloga od cementnog estriha za završni pod. Standardne šuplje ploče imaju vatrootpornost od 60 min do 120min. Jedna od glavnih prednosti ovih ploča je brza ugradnja, bez potrebe za podupiranjem. Težina ovih ploča je od 37% do 54% manja od uobičajenih monolitnih ploča, što smanjuje potrebne dimenzije ostalih elemenata noseće konstrukcije.

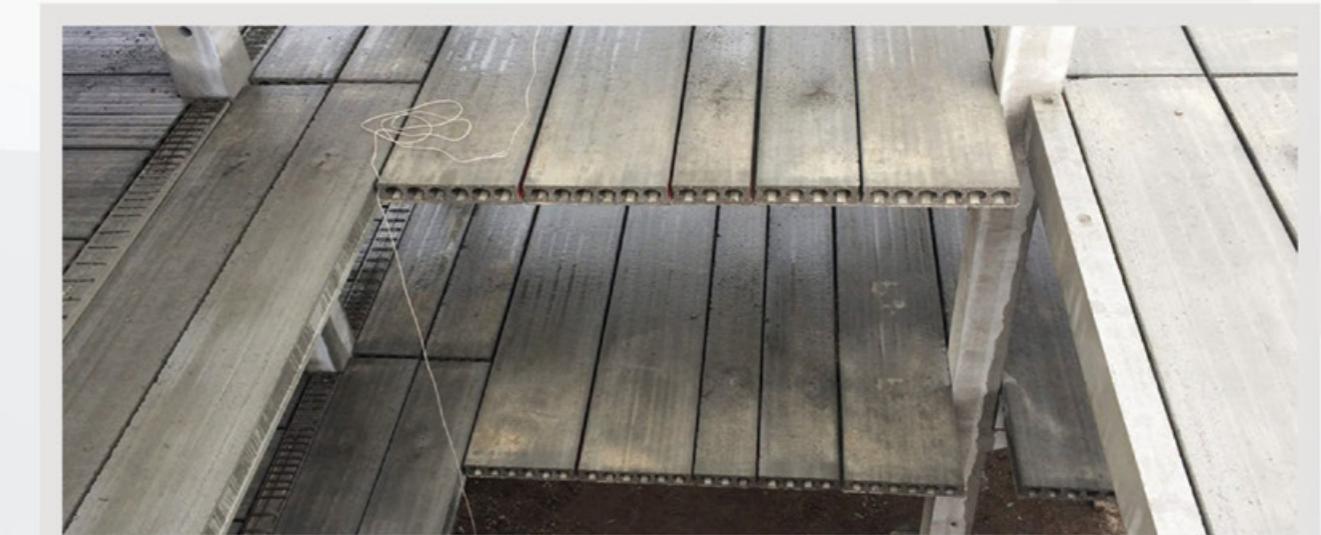
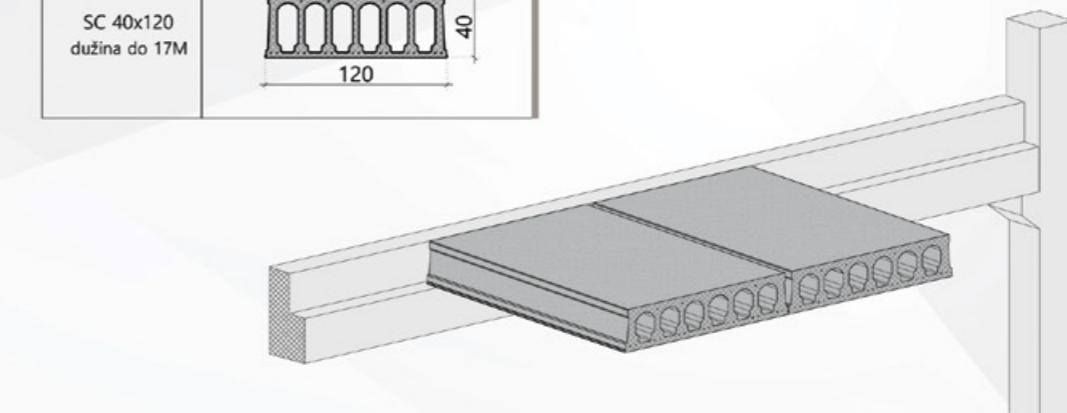
Pre-stressed hollow core slabs are prefabricated structural elements with continuous inner holes, which significantly reduce the weight of the elements, and thus "comes" to the savings in concrete and reinforcement. depending on the range and load, the thickness and type of weights are determined. Producers width is 1200 mm, inclusive of the longitudinal joint, while depending on the range and load, the thickness and type of weights are determined. The hollow core slabs are made of concrete C=50/60. After installation of prestressed hollow core slabs, the workmanship of cement base follows as a base for the final floor. One of the main advantages of these boards is fast installation, with no need for support. Also, the weight of these boards is from 37% up to 54% less than the usual monolithic slabs, which reduces the dimensions of the other elements of the supporting structure.



Položaj elementa u hali
Position of element in hall

tipovi šuplih ploča - geometrijske karakteristike
type of hollow-core slabs - geometric characteristics

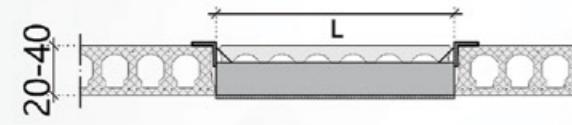
	ECHO	ELEMATIC
SC 15x120 dužina do 7M		SC 20x120 dužina do 11M
SC 20x120 dužina do 11M		SC 26.5x120 dužina do 12M
SC 25x120 dužina do 12M		SC 32x120 dužina do 14M
SC 30x120 dužina do 14M		SC 40x120 dužina do 17M
SC 35x120 dužina do 15M		SC 50x120 dužina do 20M
SC 40x120 dužina do 17M		



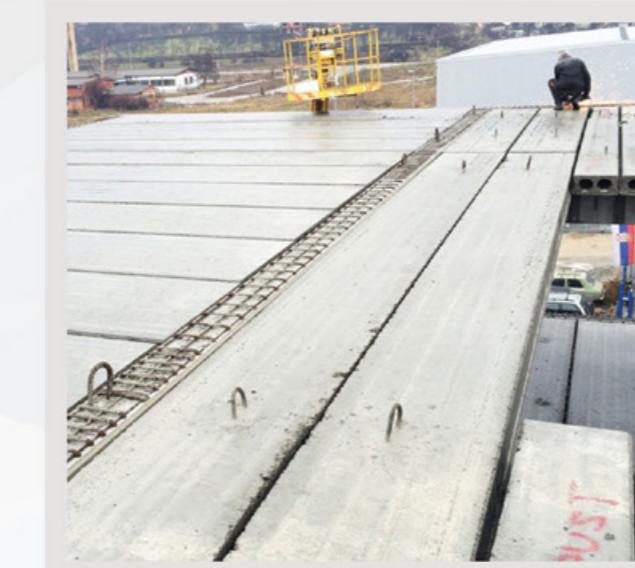
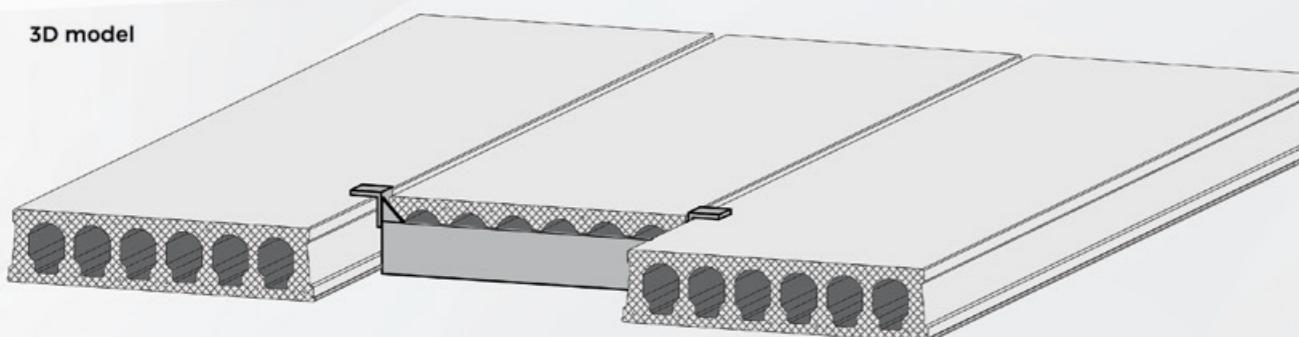
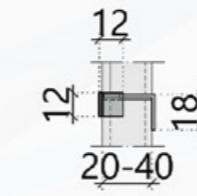
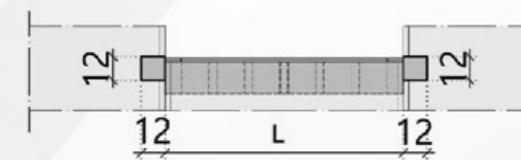
- Otporane na zvuk
Sound resistant
- Otporane na toploto
Heat resistant
- Otporane na vatru
Fire resistant
- Mala težina
Light weight

Otvori za stepenice, kamine i krovne prozore, ako nema druge potpore, mogu se napraviti konstrukcijom zamenskih nosača (vekslom). Zamenski nosač se isporučuje zajedno sa prednapregnutim šupljim pločama.

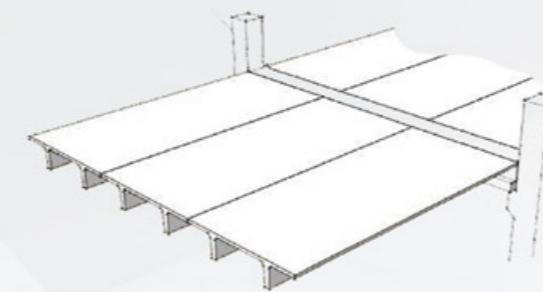
Openings for stairs, fireplaces and roof windows, if there is no other support, can be made by the construction of replacement girders. The replacement girder is supplied with hollow-core slabs.



zamenSKI nosač (veksla)
replacement girder

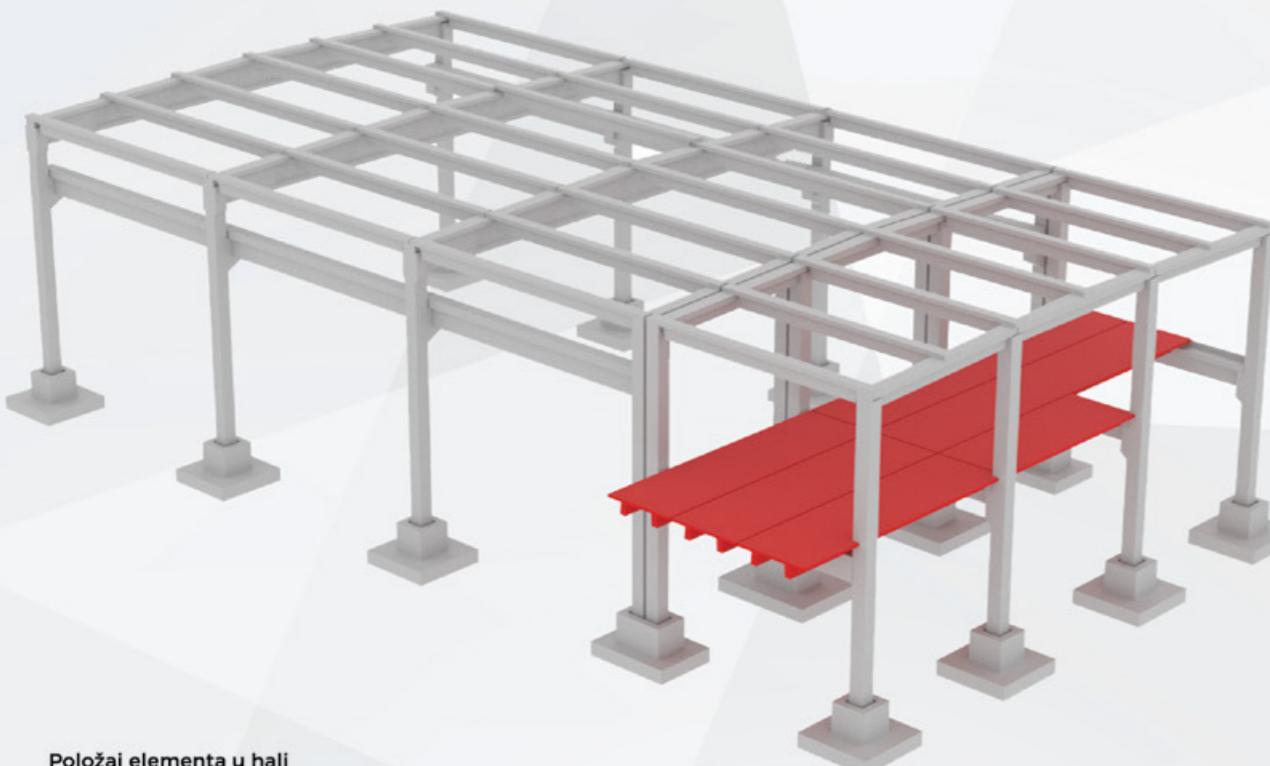


■ TT (pi) PLOČE ■ TT (pi) DOUBLE TEE

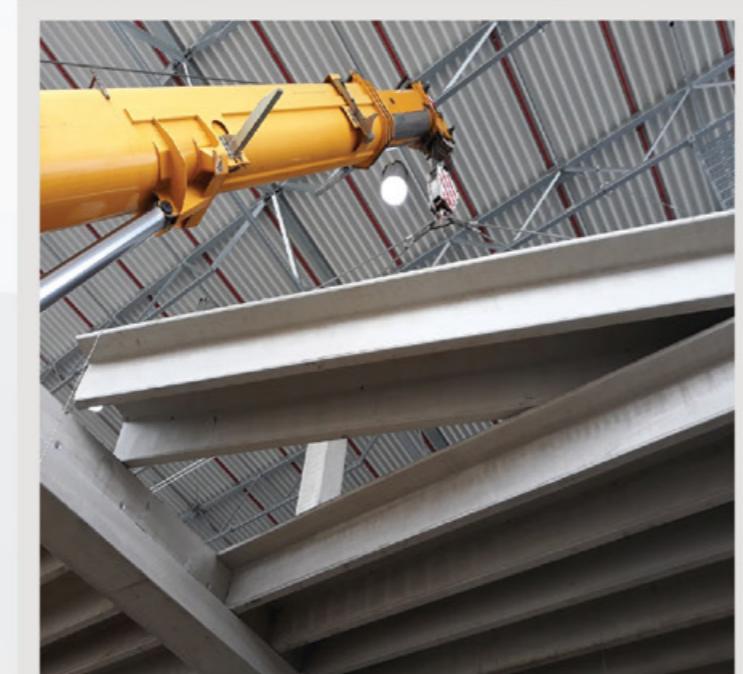
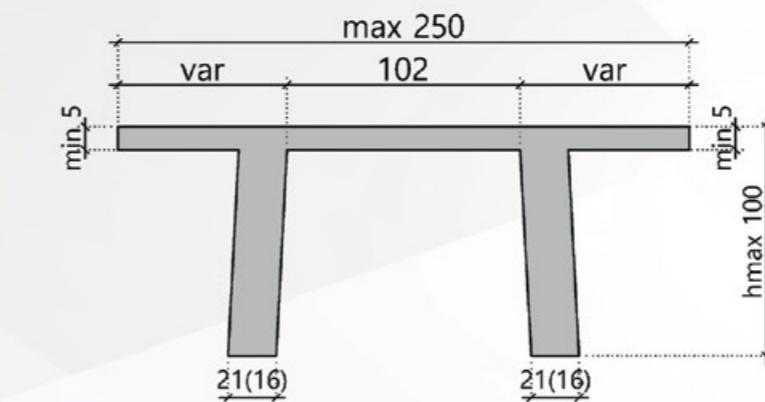
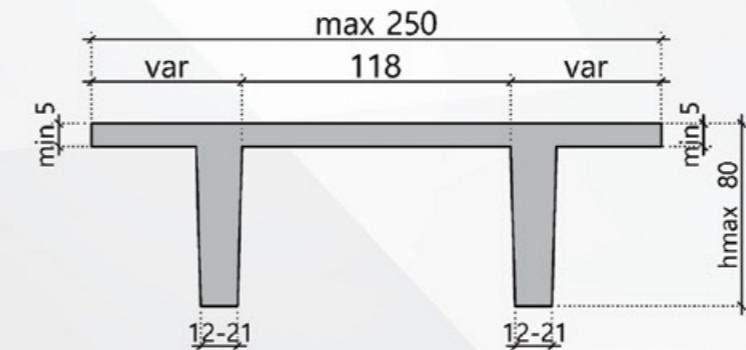


TT ploče omogućavaju brzu izgradnju i fleksibilnost u dizajnu. Ove prefabrikovane - prednapregnute betonske jedinice su idealne za podne i krovne sisteme koji zahtevaju duge, neprekidne raspone. Imaju visoku otpornost na požar. TT ploče su montažni elementi izrađeni od prednapregnutog betona klase C=50/60. Standardne širine pi ploča su do 250cm, sa rebrastim poprečnim presekom. Na pločama se mogu profilisati udubljenja. Na ivicama se mogu napraviti i okrugli otvori za različite vrste instalacija. Položaj i dimenzije udubljenja i otvora moraju biti unapred definisani, jer smanjuju nosivost ploče.

TT boards enable rapid construction and flexibility in design. These prefabricated - pre-stressed concrete units are ideal for floor and roof systems that require long, continuous ranges. They have high fire resistance. TT slabs are prefabricated elements made of prestressed concrete C = 50/60. They are used for the construction of floor structures. The nominated widths of TT units are 250cm, with ribbed cross-section and a smooth under face. In the slabs recesses can be profiled. In the edges, round openings can be made for different types of installations. The position and dimensions of the recesses and holes must be pre-defined, because they reduce the load bearing capacity of a slab.



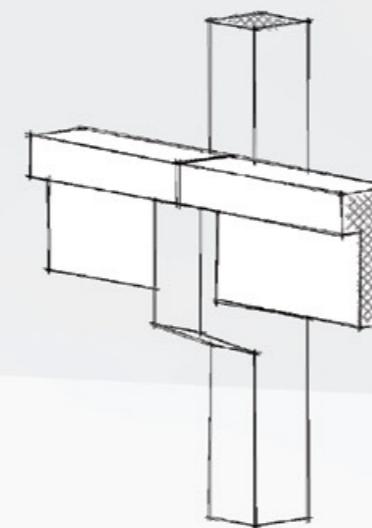
Položaj elementa u hali
Position of element in hall



KRANSKE STAZE CRANE GIRDERS

Kranske staze ili nosači dizalica su elementi koji se postavljaju neposredno ispod šina i služe kao noseća konstrukcija po kojoj se kreće dizalica. Njihovo oslanjanje vrši se direktno preko stubova ili preko konzola kod okvirnih glavnih nosača hala. Glavni nosači koji čine kranske staze su T 90, T 100 i T 120.

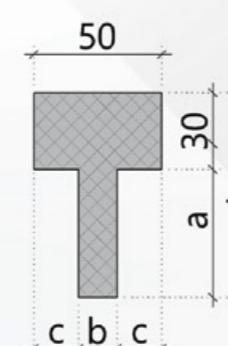
Crane girders or crane supports are elements that are positioned just below the rail and serve as the supporting structure on which the crane is moving. Their backrests are carried out directly through the pillars or through the console of the frame main beams of the hall. The main beams that make the crane girders are T 90, T 100 and T 120.



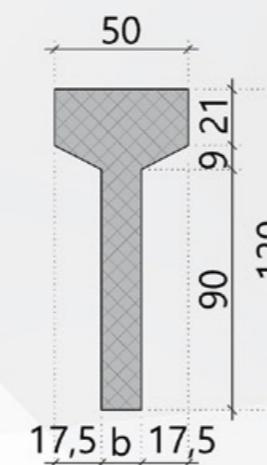
Položaj elementa u hali
Position of element in hall

tipovi kranskih staza -
geometrijske karakteristike

type of crane girders -
geometric characteristics



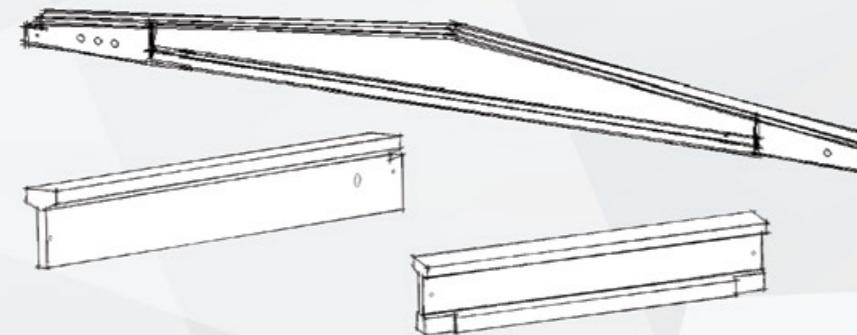
	dužina/length (cm)
a	60 (70)
b	15 (20)
c	17,5 (15)
h	a+30



	dužina/length (cm)
b	15 (20)
c	17,5 (15)
a	90
h	9,21

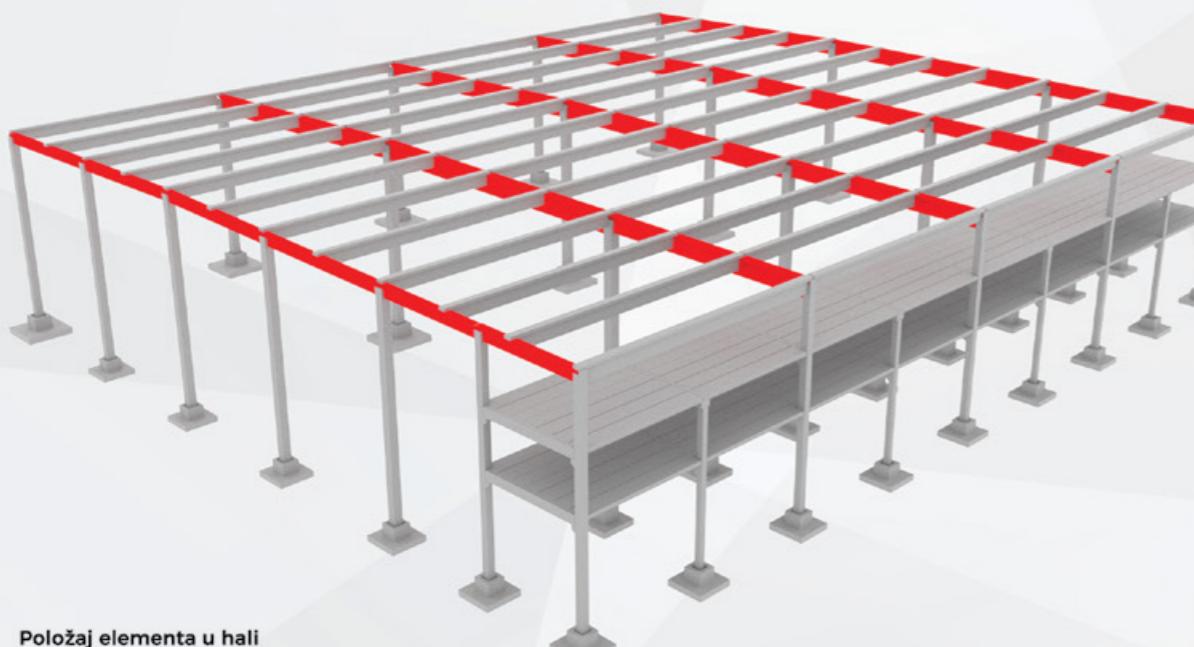


GLAVNI NOSAČI



Glavni nosači su prednapregnuti, horizontalni, noseći konstruktivni elementi, za prijem sekundarnih nosača, šupljih ploča. Izrađeni su od klase betona C \geq 40/50 i različitog su tipa utezanja u zavisnosti od statičkog proračuna. Dimenzije poprečnog preseka su date tabelarno i zavise od raspona i pripadajuće noseće površine. Naležu na vrhove stubova.

Main beams are prestressed elements for receiving secondary beams, hollow-core slabs etc. Concrete that is used is C \geq 40 / 50 and there are different types of weights depending on static calculation. The cross-section dimensions are given in a table below and depend on the range and the associated bearing surface. They lay down at the top of the columns.



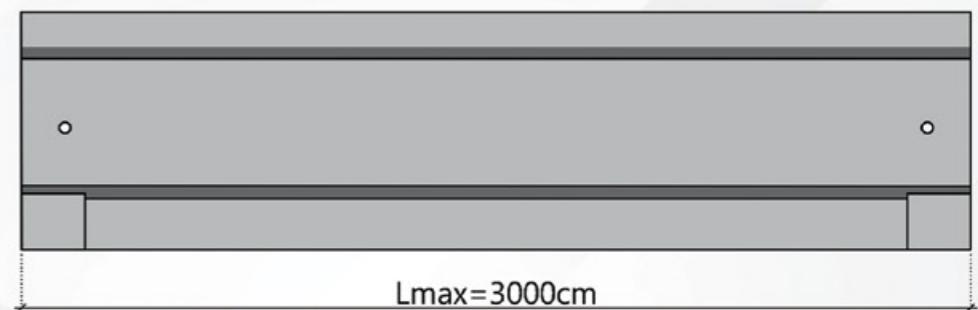
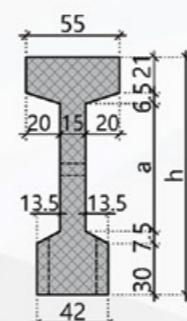
Položaj elementa u hali
Position of element in hall

MAIN BEAMS

PREDNAPREGNUTI "I" NOSAČ PRESTRESSED "I" BEAM

"I" nosači su prednapregnuti elementi za prijem sekundarnih nosača, šupljih ploča. Klasa betona od koje su izrađeni je C \geq 40/50. Postoje različiti tipovi utezanja u zavisnosti od statičkog proračuna. Otpornost na požar je 60 minuta. Dimenzije poprečnog preseka su date tabelarno i zavise od raspona i pripadajuće noseće površine. Naležu na vrhove stubova.

"I" Beams are prestressed elements for receiving secondary beams, hollow-core slabs etc. Concrete that is used is C \geq 40 / 50. There are different types of weights depending on static calculation. Fire resistance to 60 minutes. The cross-section dimensions are given in a table below and depend on the range and the associated bearing surface. They lay at the top of the columns

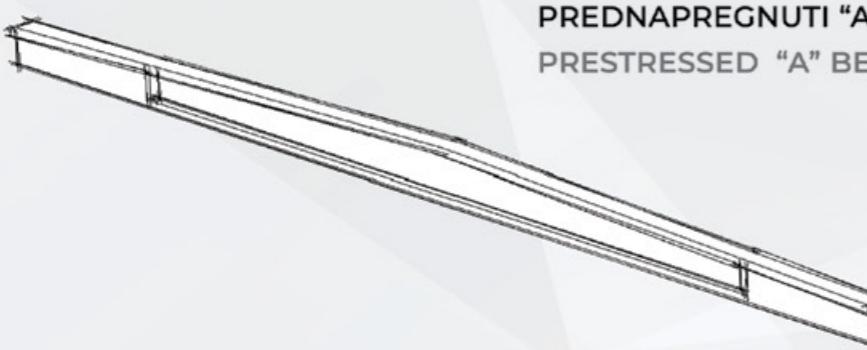


tipovi nosača - geometrijske karakteristike
type of beam - geometric characteristics

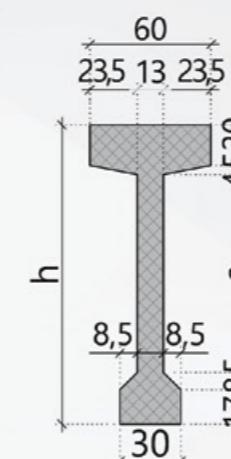
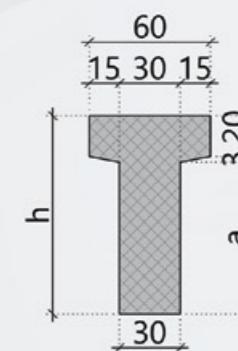
	dužina/length (cm)
a	75-115
h	140-180



PREDNAPREGNUTI "A" NOSAČ
PRESTRESSED "A" BEAM



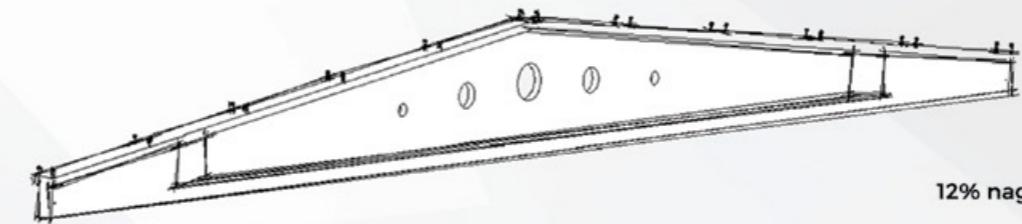
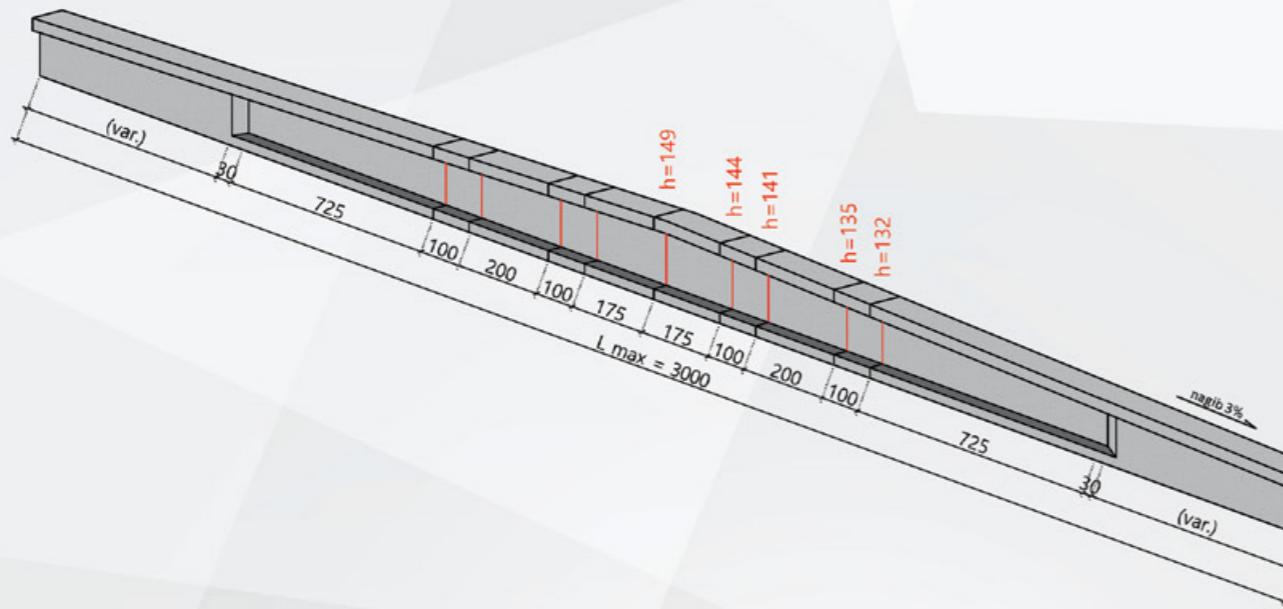
3% nagiba / 3% slop



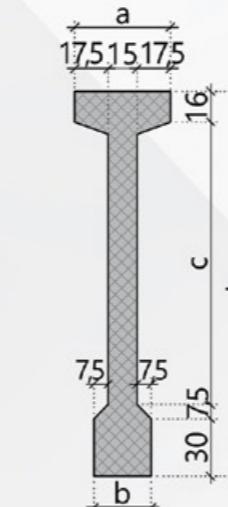
tipovi nosača - geometrijske karakteristike / type of beam - geometric characteristics

dužina/length (cm)		
a	h	var.
h-23		

dužina/length (cm)		
a	h	var. (max 149)
h-50		



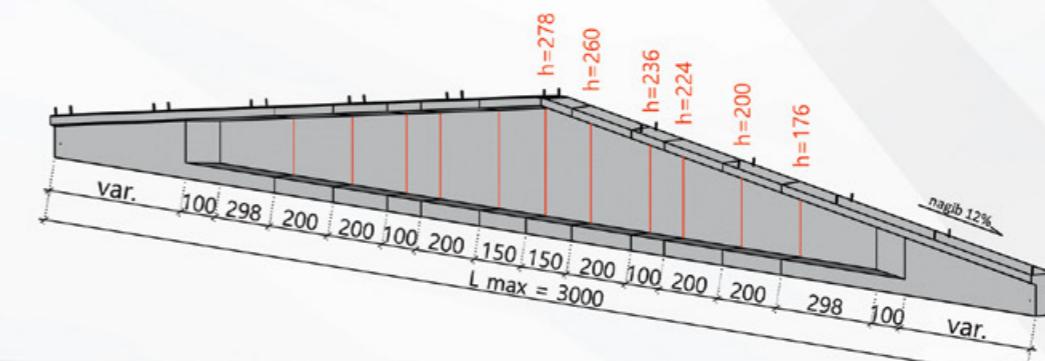
12% nagiba / 12% slop



tipovi nosača - geometrijske karakteristike / type of beam - geometric characteristics

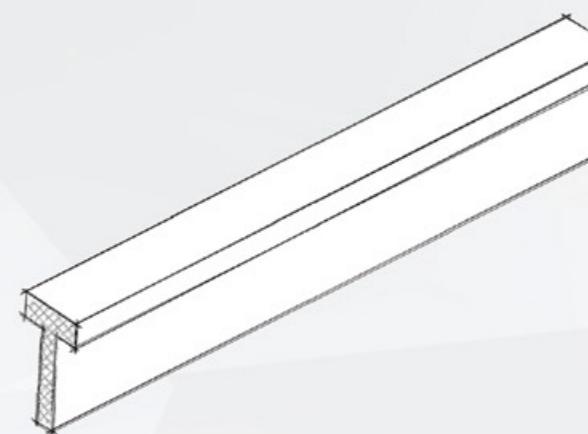
dužina/length (cm)	
a	50 (55)
b	30 (35)
c	=(h-53.5)
h	var. (max 278)

dužina/length (cm)	
a	50 (55)
b	30 (35)
c	=(h-16)
h	var.

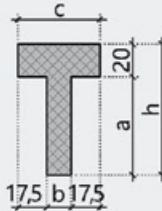


"T" NOSAČI / "T" BEAMS

"T" nosači mogu biti prednapregnuti ili klasično armirani. Klasa betona od koje su izrađeni je C \geq 30/37 u zavisnosti od statičkog proračuna. Dimenzije poprečnog preseka su date tabelarno i zavise od statike (raspona i pripadajuće površine). Naležu na vrhove stubova ili konzolne elemente stubova kod denivelacije.



"T" beams are prestressed or classically reinforced beams. Concrete class C \geq 30 / 37 depending on the static calculation. The cross-sectional dimensions are given in the table below and depend on static calculation (ranges and corresponding surfaces). They lay down at the top of the columns or the console column elements when there is denivelation.

**"T" nosač 60 (70,80,90) / "T" beam 60 (70,80,90)**

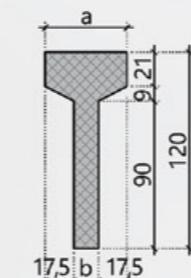
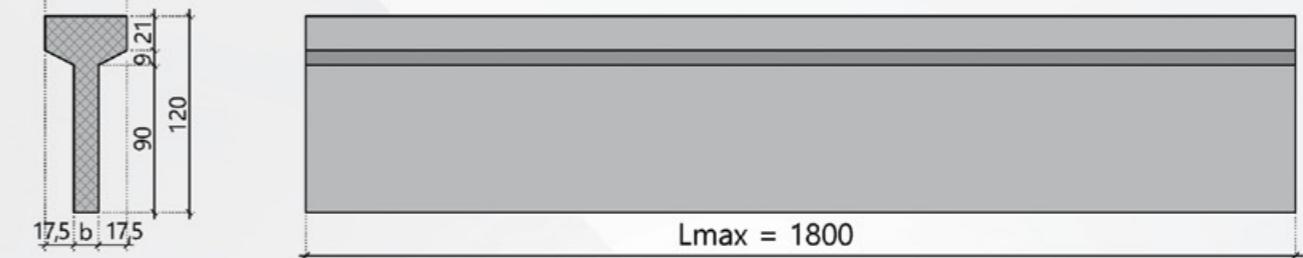
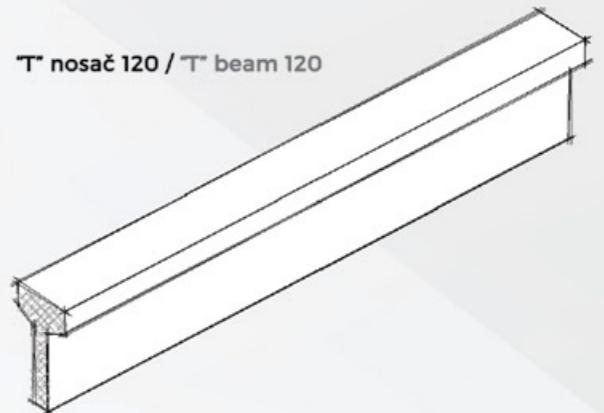
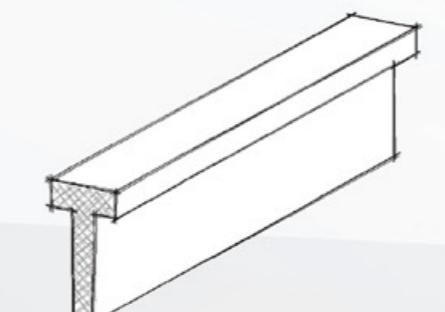
tipovi nosača - geometrijske karakteristike
type of beam - geometric characteristics

	dužina/length (cm)
a	40, 50, 60, 70
b	15 (20)
c	50 (55)
h	60, 70, 80, 90
L max	700, 800, 1000, 1200



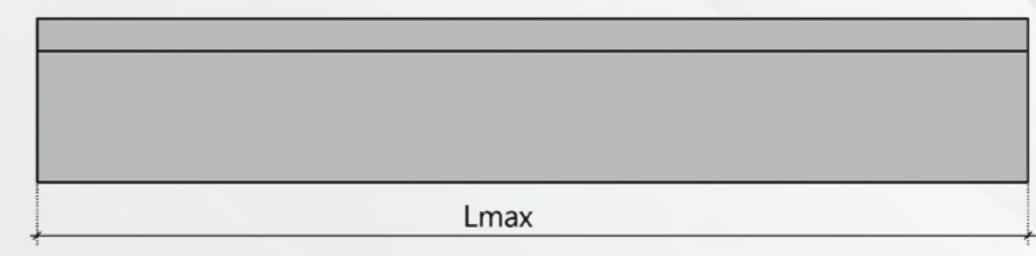
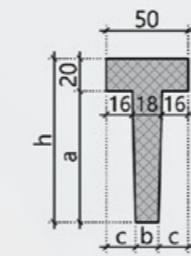
tipovi nosača - geometrijske karakteristike
type of beam - geometric characteristics

	dužina/length (cm)
a	50 (55)
h	15 (20)

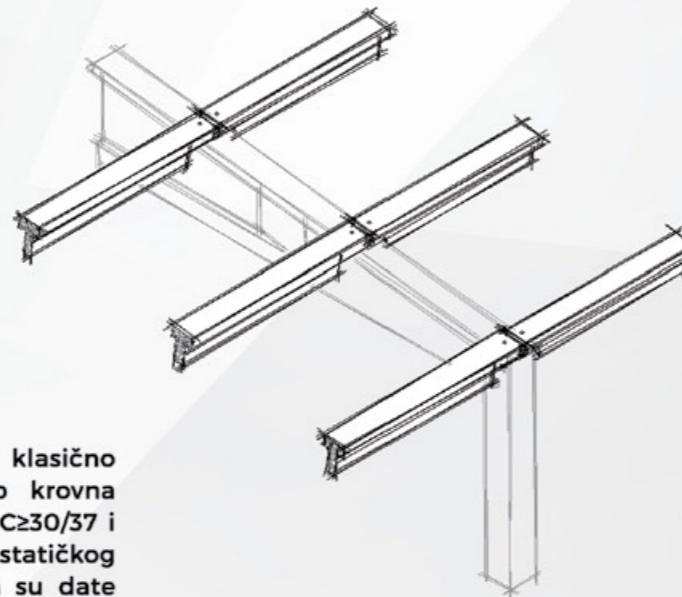
**"T" nosač 120 / "T" beam 120****"T" nosač 60(70,80,90,100) / "T" beam 60(70,80,90,100)**

tipovi nosača - geometrijske karakteristike
type of beam - geometric characteristics

	dužina/length (cm)
a	40,50,60,70,80
b	16, 15, 14
c	17, 17.5, 18
h	60, 80, 100
L max	700, 1000, 1200

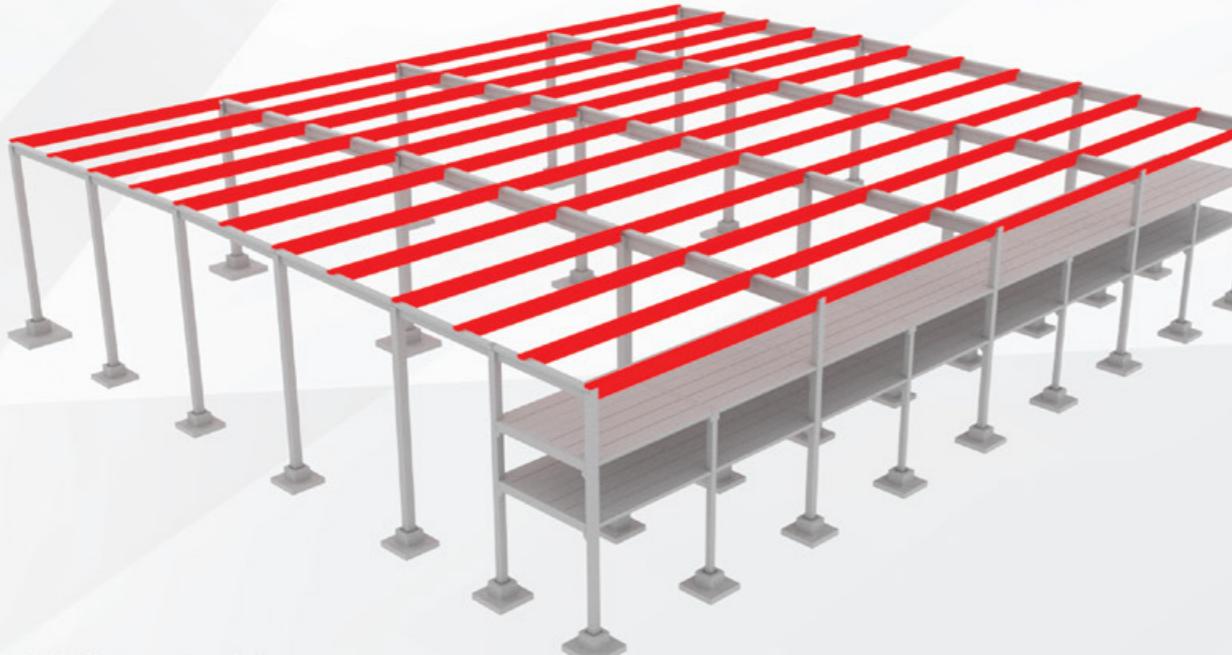


■ ROŽNJAJČE ■ PURLINS



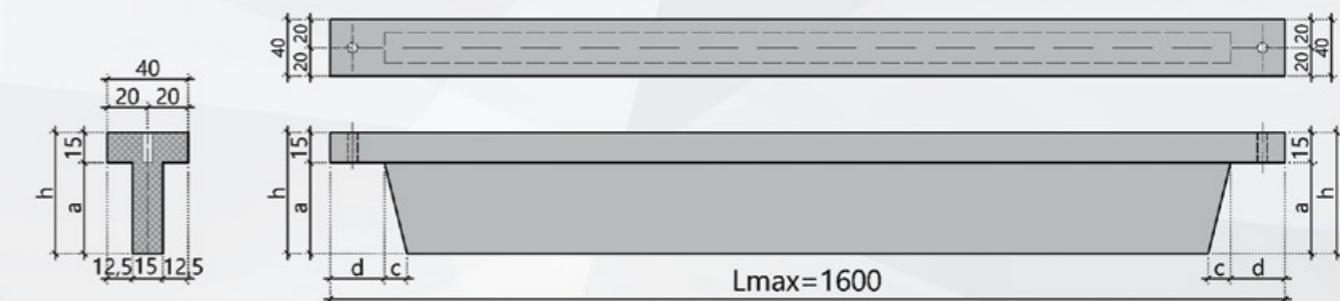
Sekundarni nosači su prednapregnuti ili klasično armirani elementi. Predstavljaju se kao krovna konstrukcija. Izrađuju se od betona klase C \geq 30/37 i različitog tipa utezanja, u zavisnosti od statičkog proračuna. Dimenzije poprečnog preseka su date tabelarno i zavise od raspona i pripadajuće površine. Sekundarni krovni nosači naležu na glavne nosače krovne konstrukcije.

Purlins are prestressed or classically reinforced. They are used as secondary beams for roof structures. Concrete class is C \geq 30 / 37 and there are different types of weights depending on the static calculation. The cross-sectional dimensions are given in the table below and depend on static calculation (ranges and corresponding surfaces). They will be located on the main supports of the roof structure.



Položaj elementa u hali
Position of element in hall

Sn45 i Sn60

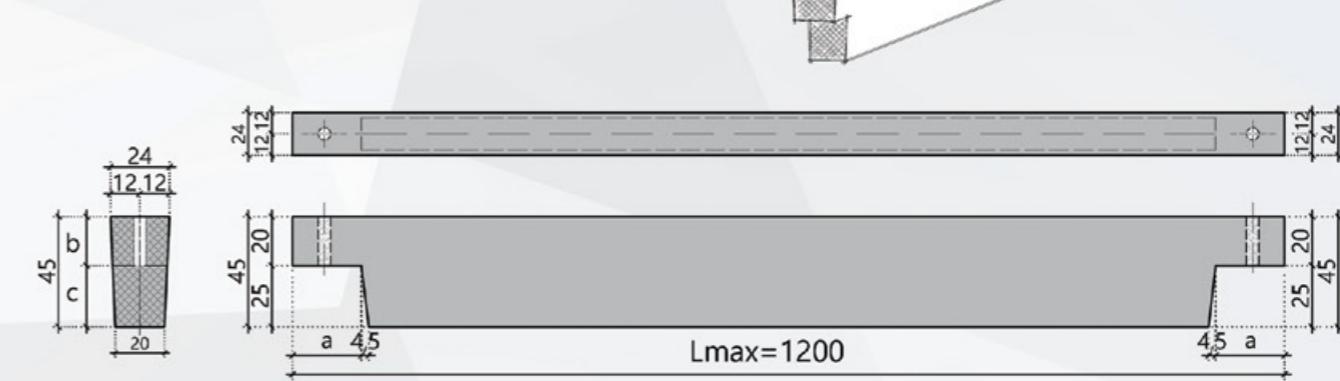


tipovi rožnjača - geometrijske karakteristike
type of purlins - geometric characteristics

	dužina/length (cm)
a	30 (45)
b	14.3 (13)
c	7.5 (11.25)
d	28; 55
h	= (a+15)

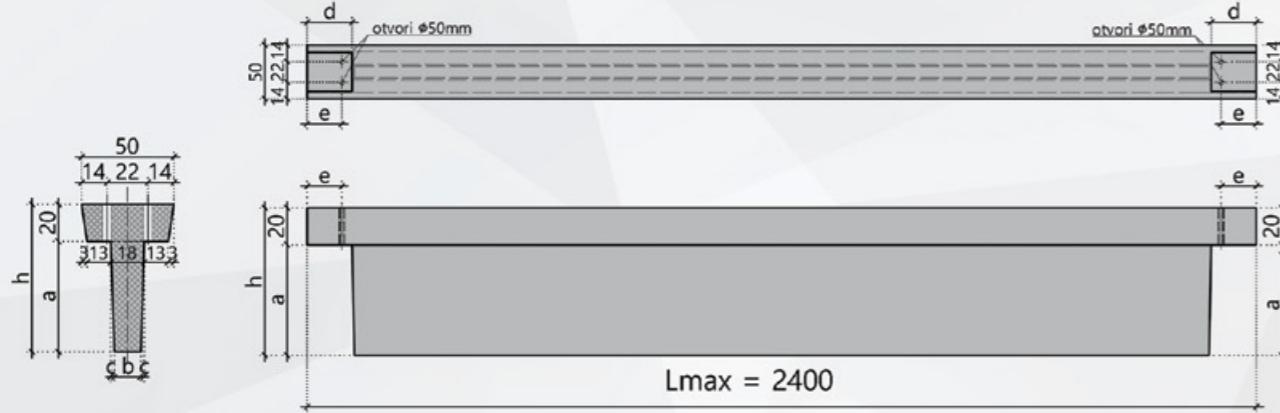


Sn45 - trapezni / Sn45 - trapezoidal



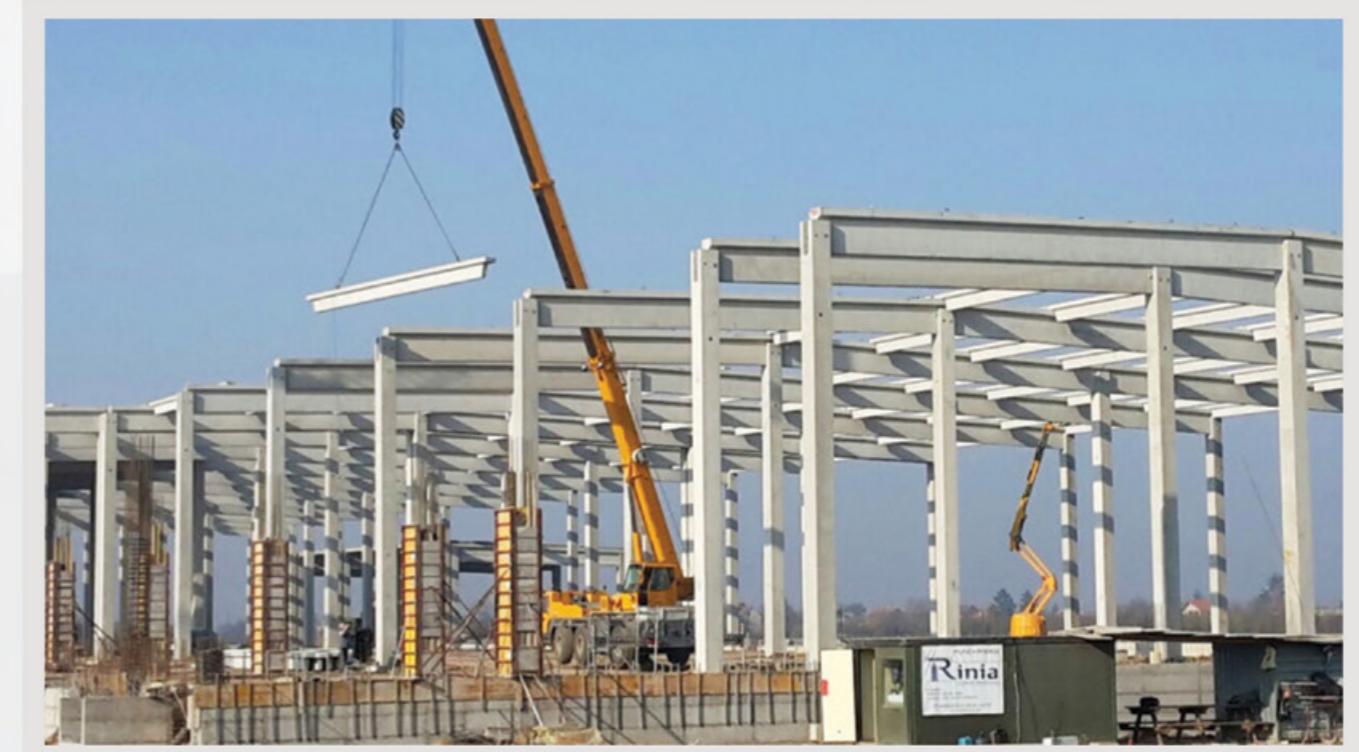
tipovi rožnjača - geometrijske karakteristike
type of purlins - geometric characteristics

	dužina/length (cm)
a	28 (55)
b	15 (20)
c	30 (25)

Sn80, Sn90 i Sn100

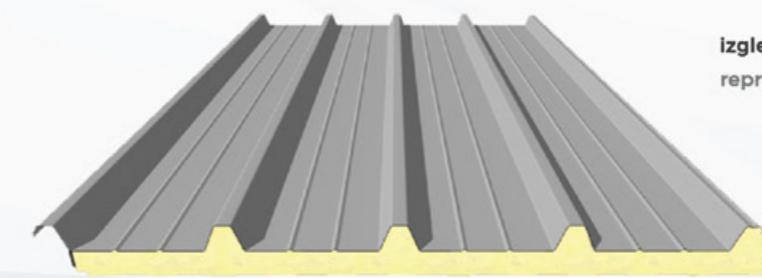
tipovi rožnjača - geometrijske karakteristike
type of purlins - geometric characteristics

	dužina/length (cm)
a	60 (70, 80)
b	13; 13.6; 14.3
c	1.9; 2.2; 2.5
d	25, 34, 49, 60
h	= (a+20)
e	14; 17; 32; 38

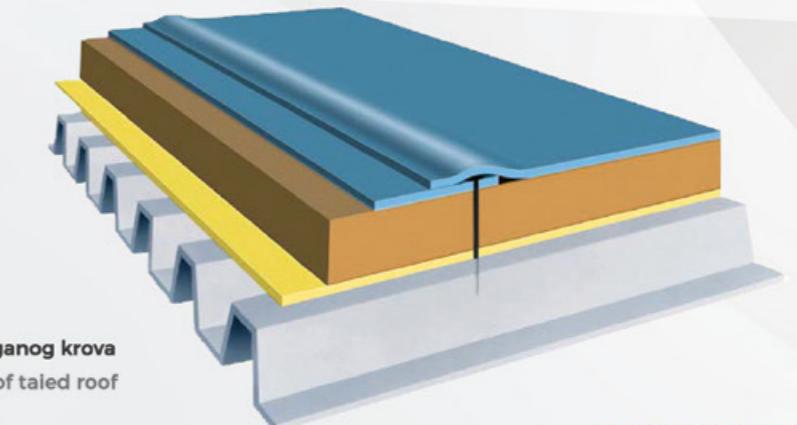


Za pokrivanje naših halskih objekata koristimo krovne panele i slagane krovove (sistem slaganih krovova). Krovne panele primenjujemo kod objekata gde su krovne ravni sa većim padom (min. 5% pada) i neophodno je da rožnjače budu gusto raspoređene, dok slagane krovove koristimo za manje padove (min. 1,5% pada, a najčešće za krovove sa 3%) i rožnjače su ređe postavljene.

To cover our halls, we use roof panels and a system of tiled roofs. Roof panels are used in objects where roof tiles are with a higher fall (min 5% fall) and the purlins are densely distributed, while we use system of tiled roofs for less falls (min. 1,5% falls, and most often for 3% fall) and the purlins are placed rarely.

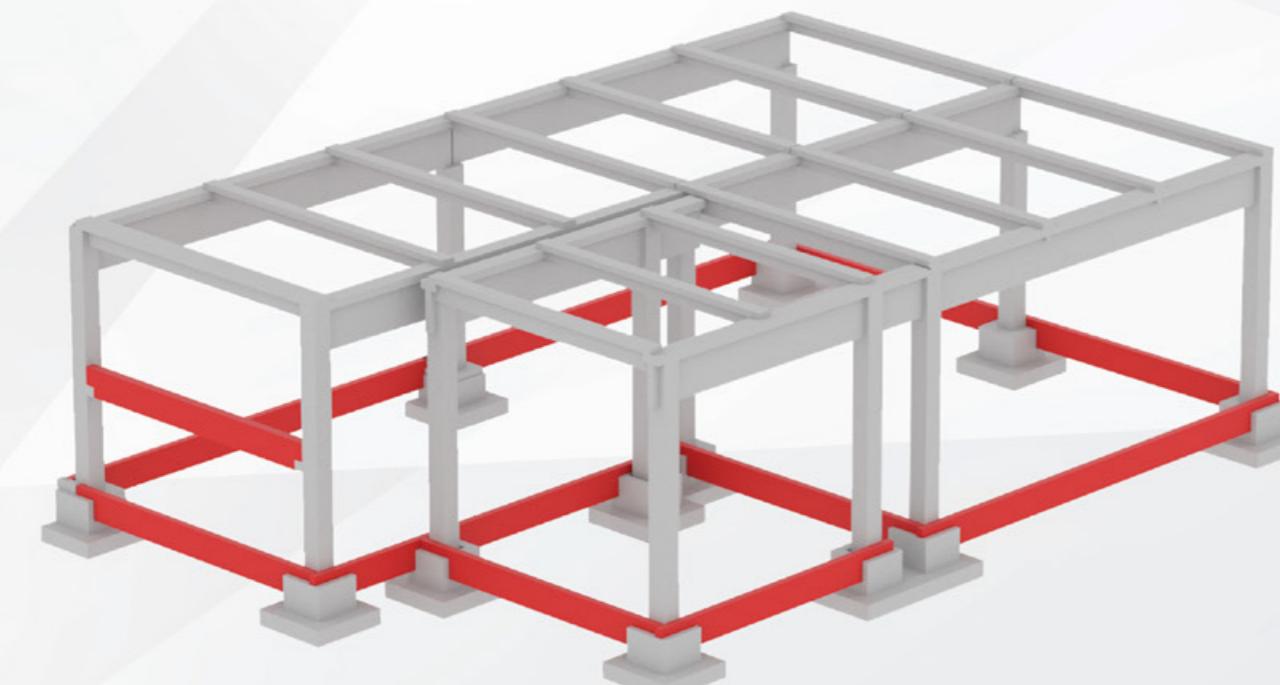


izgled krovnih panela
representation of roof panel



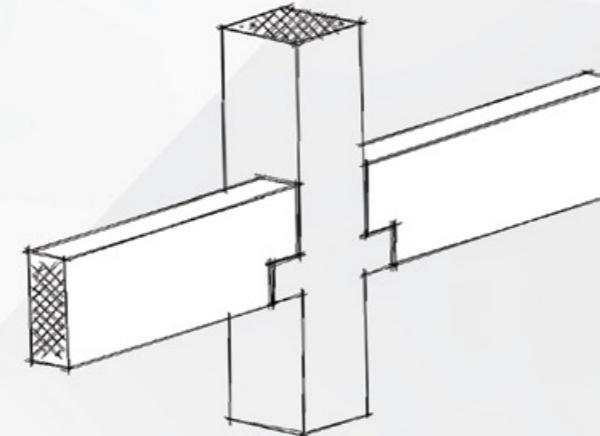
izgled slaganog krova
representation of a system of tiled roof

Položaj elementa u hali
Position of element in hall

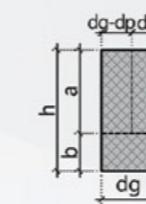


VIŠENAMENSKE PRAVOUGAONE GREDE MULTI-PURPOSE RECTANGULAR BEAMS

Višenamenske pravougaone grede su prefabrikovani elementi, pravougaonog poprečnog preseka i različitih dužina, izrađene od klase betona C \geq 30/37 u zavisnosti od statičkog proračuna. Dimenzije su date tabelarno. Javljuju se u vidu temeljnih greda i obodnih greda za fasadnu konstrukciju.

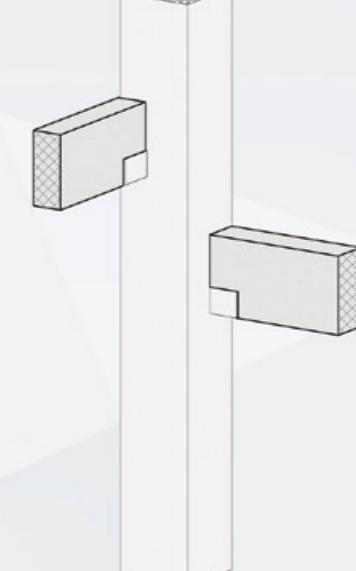
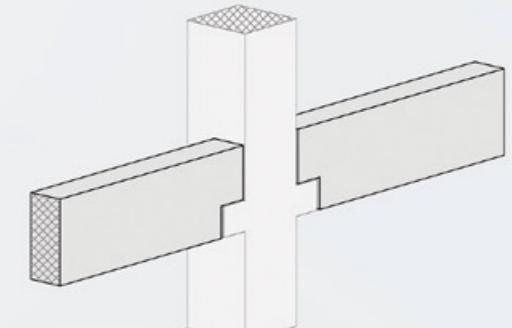
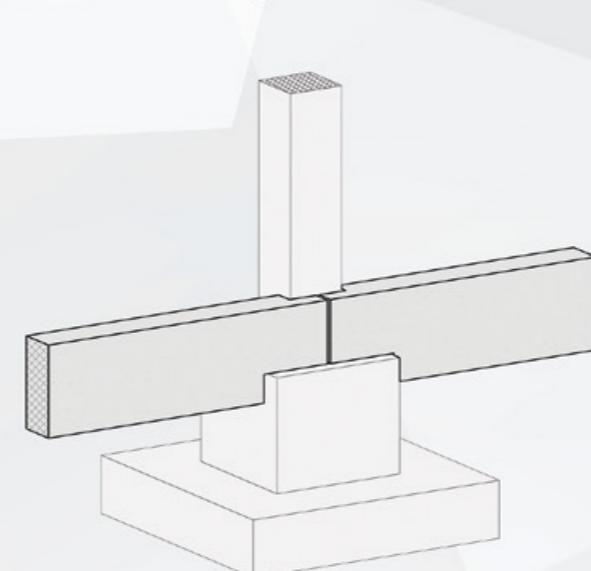
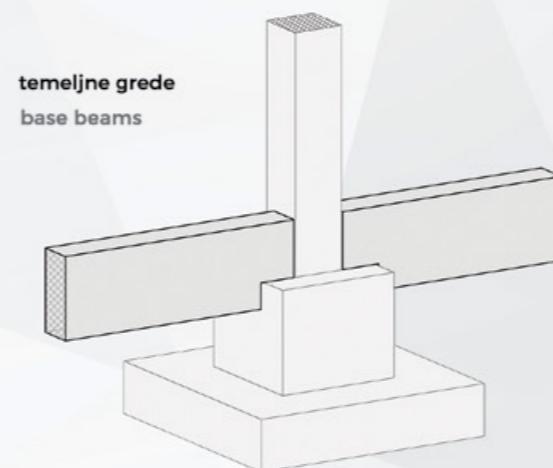


Purlins are prestressed or classically reinforced. They are used as secondary beams for roof structures. Concrete class is C \geq 30 / 37 and there are different types of weights depending on the static calculation. The cross-sectional dimensions are given in the table below and depend on static calculation (ranges and corresponding surfaces). They will be located on the main supports of the roof structure.

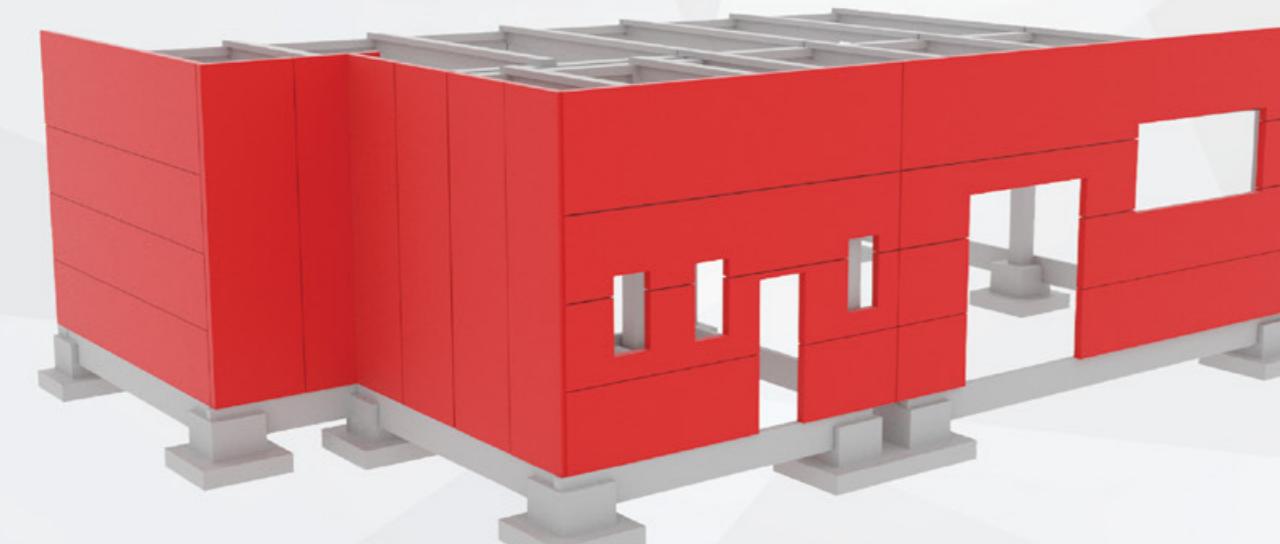


tipovi greda - geometrijske karakteristike
type of beams - geometric characteristics

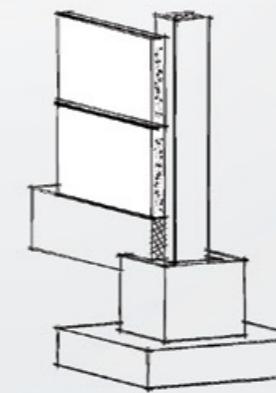
	dužina/length (cm)
a	= (h-b)
b	20-40
h	50-100
dg	20-40
dp	dg-5
c,c'	0-40
e,e'	0-83



Položaj elementa u hali
Position of element in hall



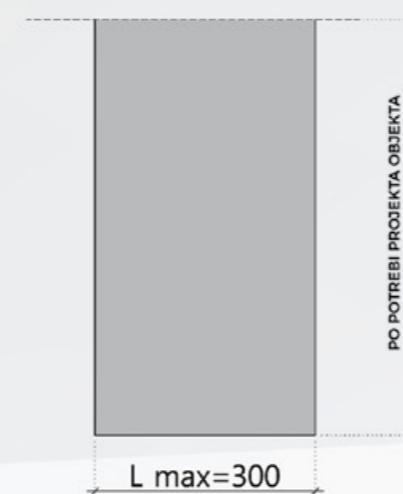
FASADNI PANELI FAÇADE PANELS



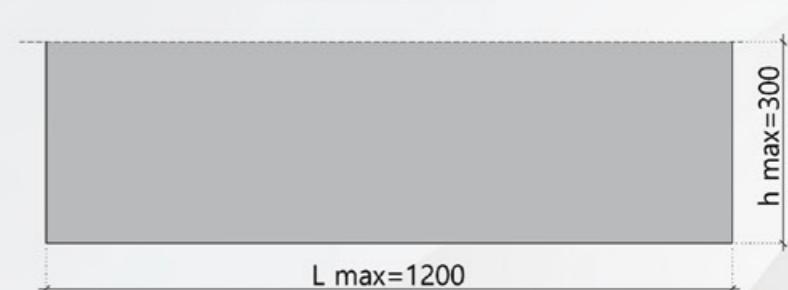
Prefabrikovani betonski paneli se koriste kod izrade spoljašnjih, pregradnih i parapetnih zidova (u kombinaciji sa sendvič panelima). Montiraju se horizontalno, vertikalno i u kombinaciji. Izrađuju se sa i bez izolacije. Prvi red panela se oslanja na vrhove čašica, a mogu se montirati sa spoljašnje strane, unutrašnje ili između stubova. Koeficijent toplotne provodljivosti λ spoljašnjih zidova, dostiže vrednost i do $0.28 \text{ W/m}^2\text{K}$. Zaptivanje horizontalnih i vertikalnih spojeva obezbeđuje se upotrebom trajno elastičnih zaptivnih masa. Kačenje panela za stubove vrši se putem "Halfena" koji se ugrađuju u panele i stubove u fazi proizvodnje. Fasadni elementi se proizvode puni ili sa otvorima za prozore i vrata. Završna obrada može biti natur beton, beton u boji i obrada površine u kuliru.

Prefabricated concrete panels are used in the manufacture of exterior, partition and parapet walls (in combination with sandwich panels). Mounted horizontally, vertically and in combination. They are made with and without insulation. The first row of the panels relies on the tops of the pocket foundations, and can be mounted on the outside, inside or between the columns. The thermal conductivity coefficient λ of the outer walls reaches a value of up to $0.28 \text{ W/m}^2\text{K}$. The sealing of horizontal and vertical joints is ensured by the use of elastic sealing mass. The hanging of the panel for columns is done via "Halfen" which is installed in panels and columns at the production stage. Façade elements are manufactured full or with openings for windows and doors. Finishing can be natural concrete, colored concrete and surface treatment in the "kulir".

VERTIKALNI PANELI
VERTICAL PANELS



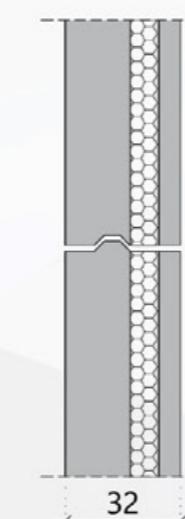
HORIZONTALNI PANELI
HORIZONTAL PANELS



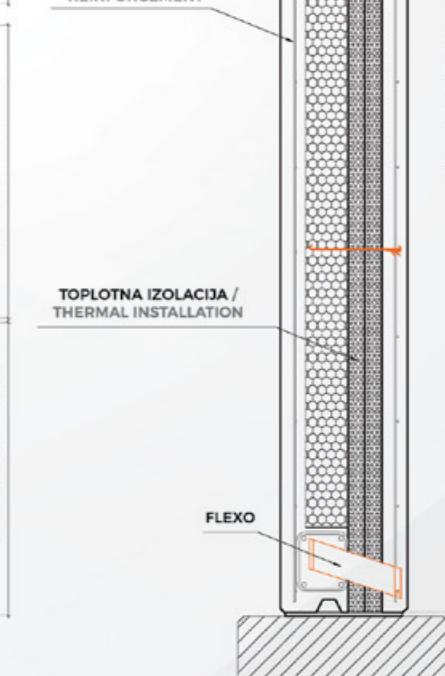
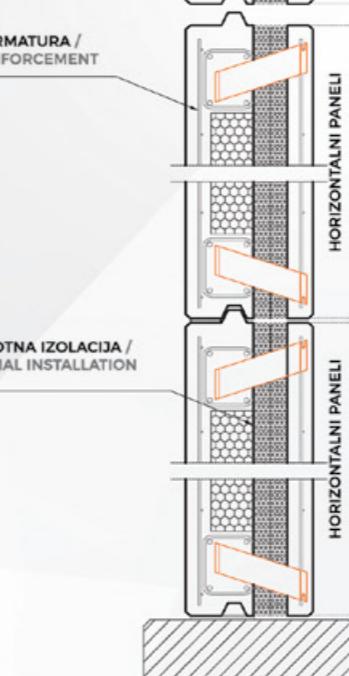
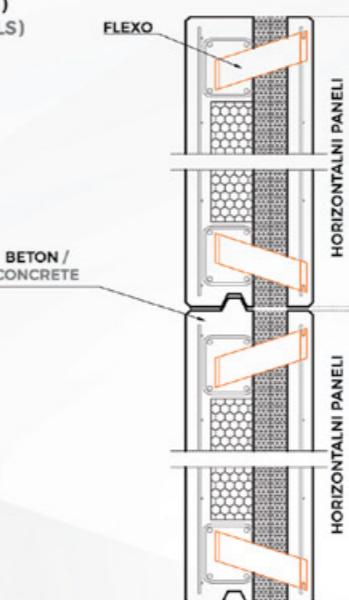
detalji veze betona i termoizolacije

details of the connection between concrete and thermal insulation

SENDVIČ PANELI (TERMO PANELI)
SENDWICH PANELS (TERMO PANELS)



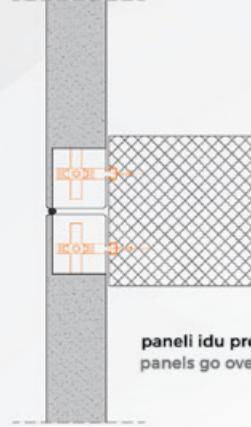
JEDNOSLOJNI PANELI
SINGLE PANELS



moguća izrada sa i bez olakšanja
possible workmanship with and without relief

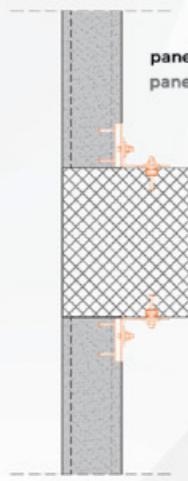
● Detalj veze horizontalnog fasadnog AB panela i nosećeg stuba
 ● Detail of the connection between the horizontal facade AB panel and the supporting column

prikaz veze stuba i fasadnog panela u osnovi (skrivena veza)
 connection between the column and the facade panel in the base (hidden connection)



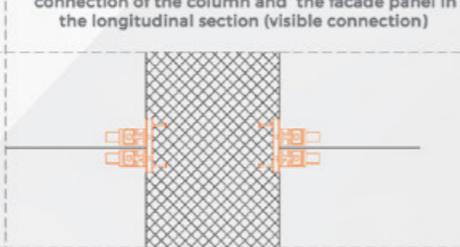
paneli idu preko stuba
 panels go over the column

prikaz veze stuba i fasadnog panela u osnovi (vidljiva veza)
 connection between the column and the facade panel in the base (visible connection)



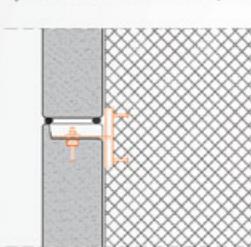
paneli idu do stuba
 panels go to the pillar

prikaz veze stuba i fasadnog panela u podužnom preseku (vidljiva veza)
 connection of the column and the facade panel in the longitudinal section (visible connection)



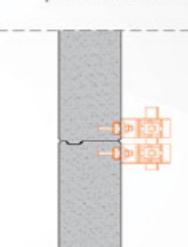
paneli idu preko stuba
 panels go over the column

prikaz veze stuba i fasadnog panela u poprečnom preseku (skrivena veza)
 connection between the column and the facade panel in a cross-section (hidden connection)

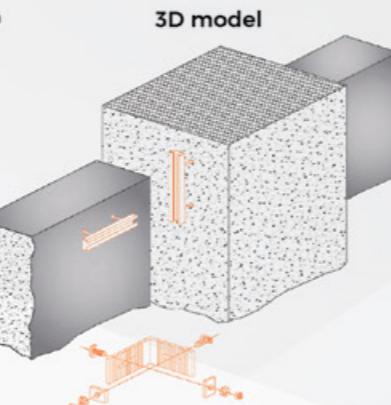


paneli idu preko stuba
 panels go over the column

prikaz veze stuba i fasadnog panela u poprečnom preseku (vidljiva veza)
 connection between the column and the facade panel in the cross-section (visible connection)



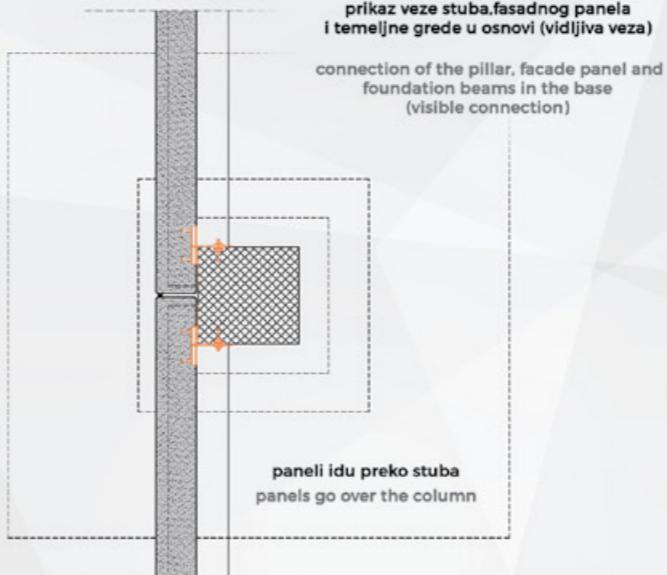
paneli idu preko stuba
 panels go over the column



3D model

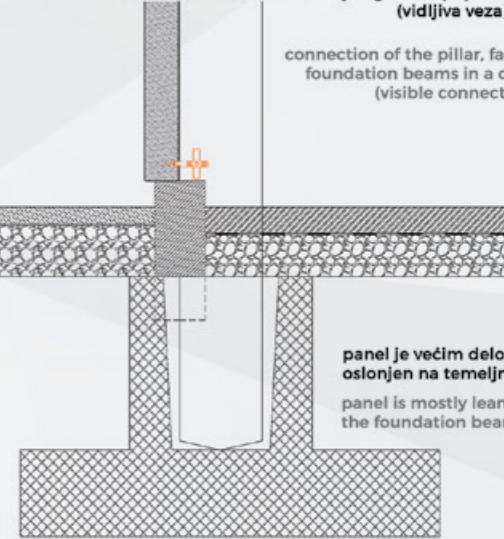
● Detalj veze horizontalnog fasadnog AB panela sa nosećim stubom i temeljnom gredom
 ● Detail of the connection of the horizontal facade AB panel with the supporting column and the pocket foundation

prikaz veze stuba,fasadnog panela i temeljne grede u osnovi (vidljiva veza)
 connection of the pillar, facade panel and foundation beams in the base (visible connection)



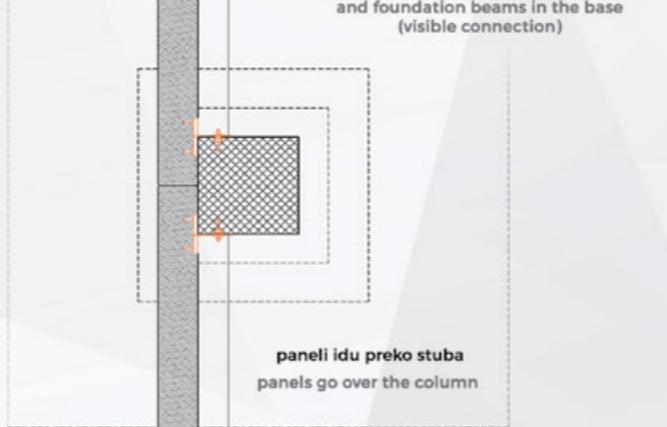
paneli idu preko stuba
 panels go over the column

prikaz veze stuba,fasadnog panela i temeljne grede u poprečnom preseku (vidljiva veza)
 connection of the pillar, facade panel and foundation beams in a cross-section (visible connection)



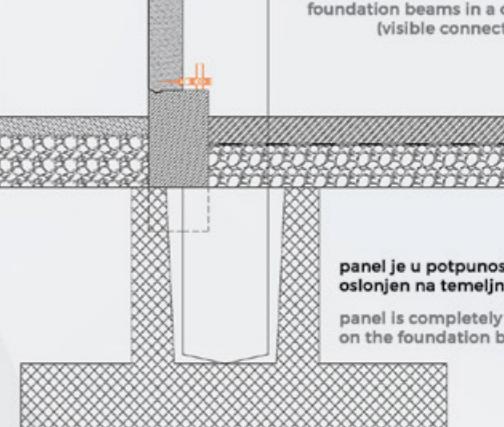
panel je većim delom oslonjen na temeljnu gredu
 panel is mostly lean on the foundation beam

prikaz veze stuba,fasadnog panela i temeljne grede u osnovi (vidljiva veza)
 connection of the pillar, facade panel and foundation beams in the base (visible connection)



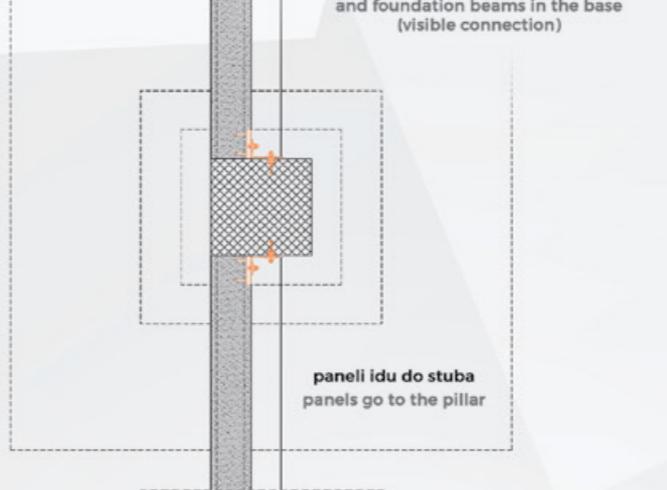
paneli idu preko stuba
 panels go over the column

prikaz veze stuba,fasadnog panela i temeljne grede u poprečnom preseku (vidljiva veza)
 connection of the pillar, facade panel and foundation beams in a cross-section (visible connection)



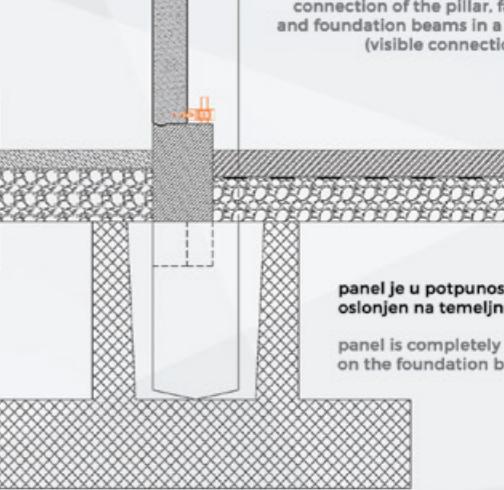
panel je u potpunosti oslonjen na temeljnu gredu
 panel is completely lean on the foundation beam

prikaz veze stuba,fasadnog panela i temeljne grede u osnovi (vidljiva veza)
 connection of the pillar, facade panel and foundation beams in the base (visible connection)



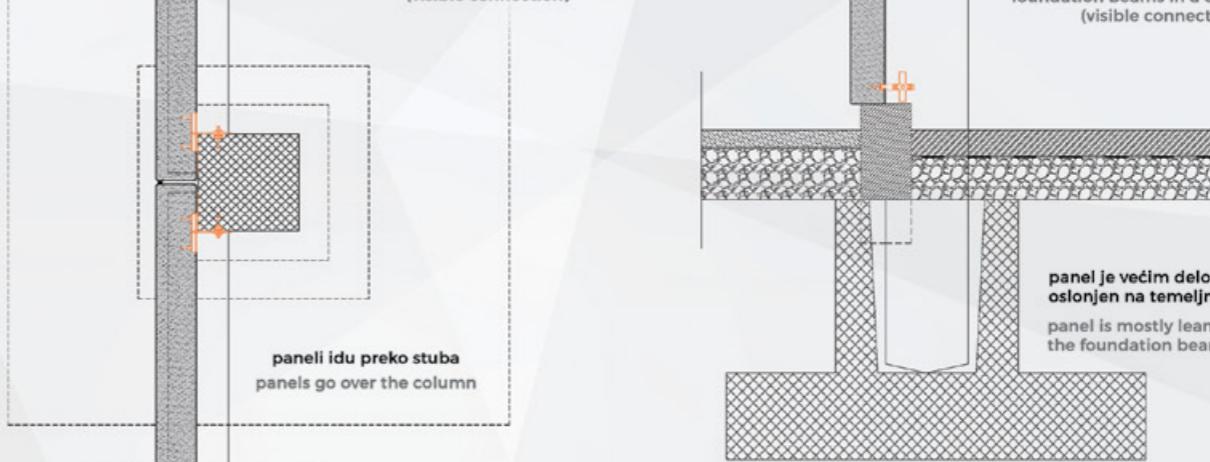
paneli idu do stuba
 panels go to the pillar

prikaz veze stuba,fasadnog panela i temeljne grede u poprečnom preseku (vidljiva veza)
 connection of the pillar, facade panel and foundation beams in a cross-section (visible connection)



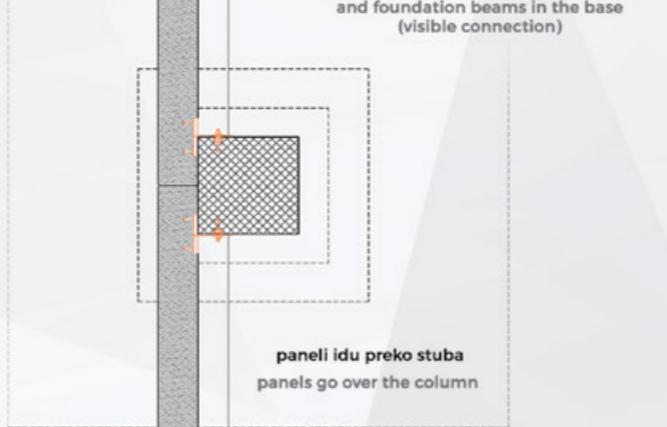
panel je u potpunosti oslonjen na temeljnu gredu
 panel is completely lean on the foundation beam

prikaz veze stuba i fasadnog panela u osnovi (vidljiva veza)
 connection between the column and the facade panel in the base (visible connection)



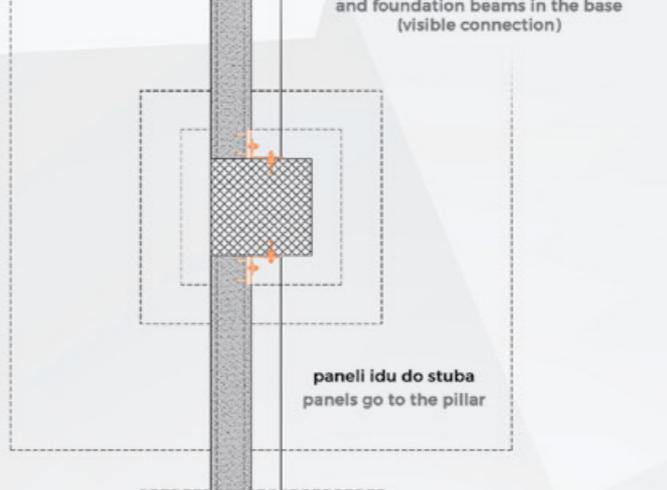
paneli idu preko stuba
 panels go over the column

prikaz veze stuba,fasadnog panela i temeljne grede u osnovi (vidljiva veza)
 connection of the pillar, facade panel and foundation beams in the base (visible connection)



paneli idu preko stuba
 panels go over the column

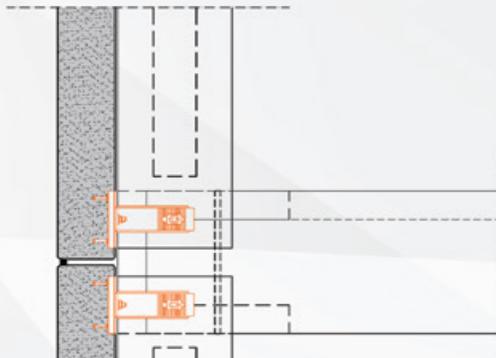
prikaz veze stuba,fasadnog panela i temeljne grede u osnovi (vidljiva veza)
 connection of the pillar, facade panel and foundation beams in the base (visible connection)



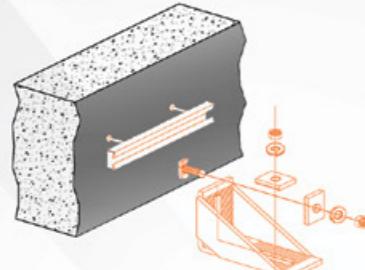
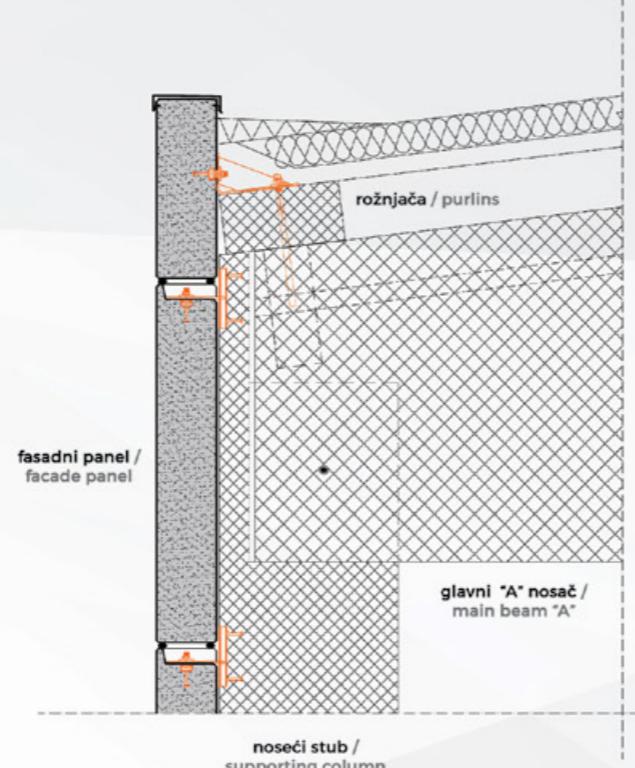
paneli idu do stuba
 panels go to the pillar

● Detalj veze fasadnog AB panela i sekundarnog nosača
 ● Detail of the connection between the facade AB panel and the secondary beam

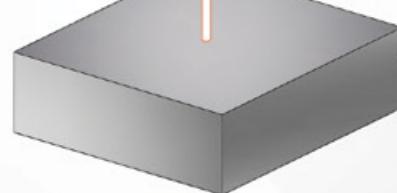
prikaz veze fasadnog panela i rožnjače u osnovi
 connection of the facade panel and the purlins in the base



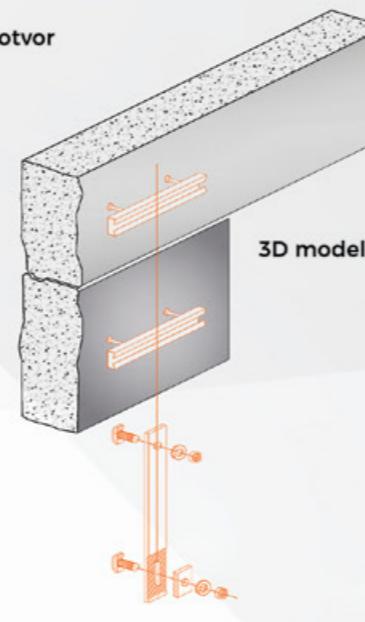
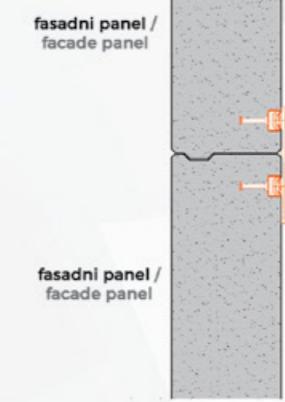
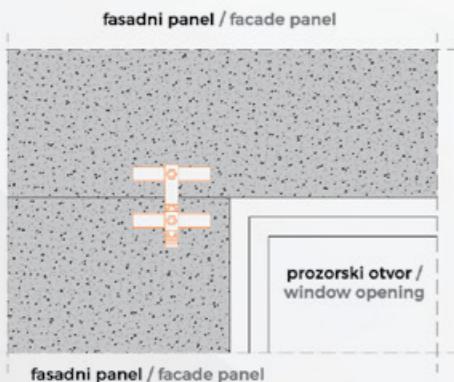
prikaz veze fasadnog panela i rožnjače u preseku
 connection of the facade panel and the purlins in the cross



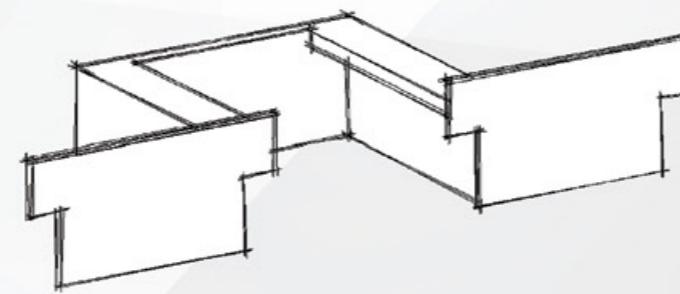
3D model



● Detalj veze dva horizontalna fasadna AB panela u delu fasade na kom se javlja otvor
 ● Detail of the connection of the two horizontal facade AB panels in the part of the facade where the hole appears

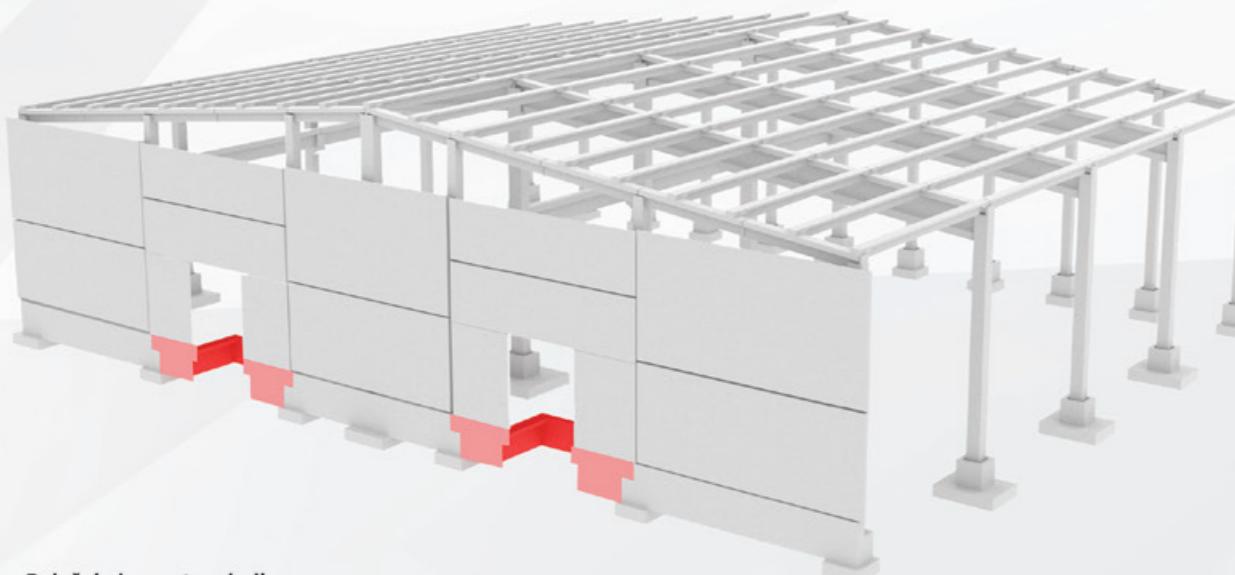


UTOVARNE RAMPE LOADING DOCKS

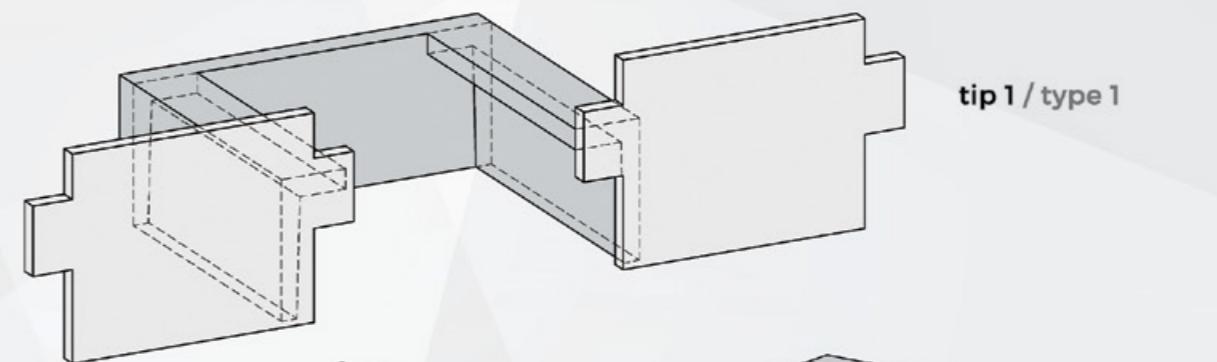
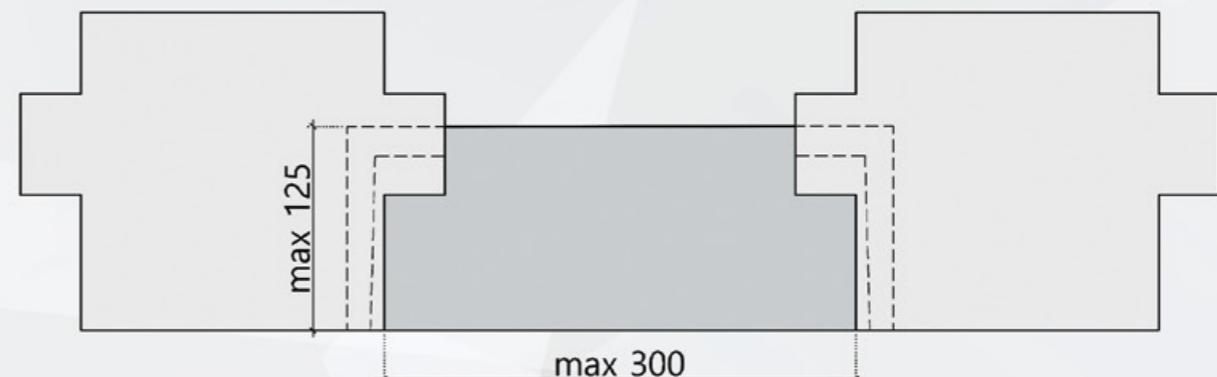


Utovarne rampe su dizajnirane da budu postavljene između magacina i kamiona ili prikolica i obezbede brzo i neometano kretanje viljuškara za vreme utovara i istovara. Prefabrikovani utovarni kanali su dizajnirani, proizvedeni i instalirani u skladu sa zahtevima klijenta. Naše utovarne rampe odlikuje visok kvalitet završne obrade, preciznost i brzina montaže. Okviri ležišta za utovarne rampe se sastoje od: prednjih zidova "T" oblika, zadnjih i krajnjih potpornih zidova, ploča mostova i termo-izolovanih panela.

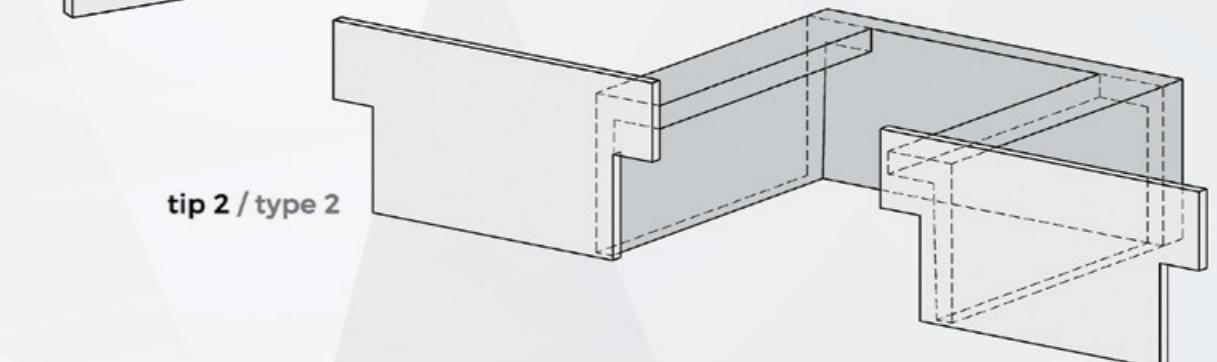
The loading docks are designed to be positioned between the warehouse and the truck or trailer and ensure the fast and undisturbed movement of forklifts during loading and unloading. Prefabricated loading channels are designed, manufactured and installed in accordance with the requirements of the client. Our loading docks combine high quality finishing and precision with mounting speed. The frame of bearing for loading frames consist of: front walls of "T" shapes, rear and end support walls, bridges plate and thermo-insulated panels.



Položaj elementa u hali
Position of element in hall



tip 2 / type 2



SISTEM ZA STAMBENU GRADNJU

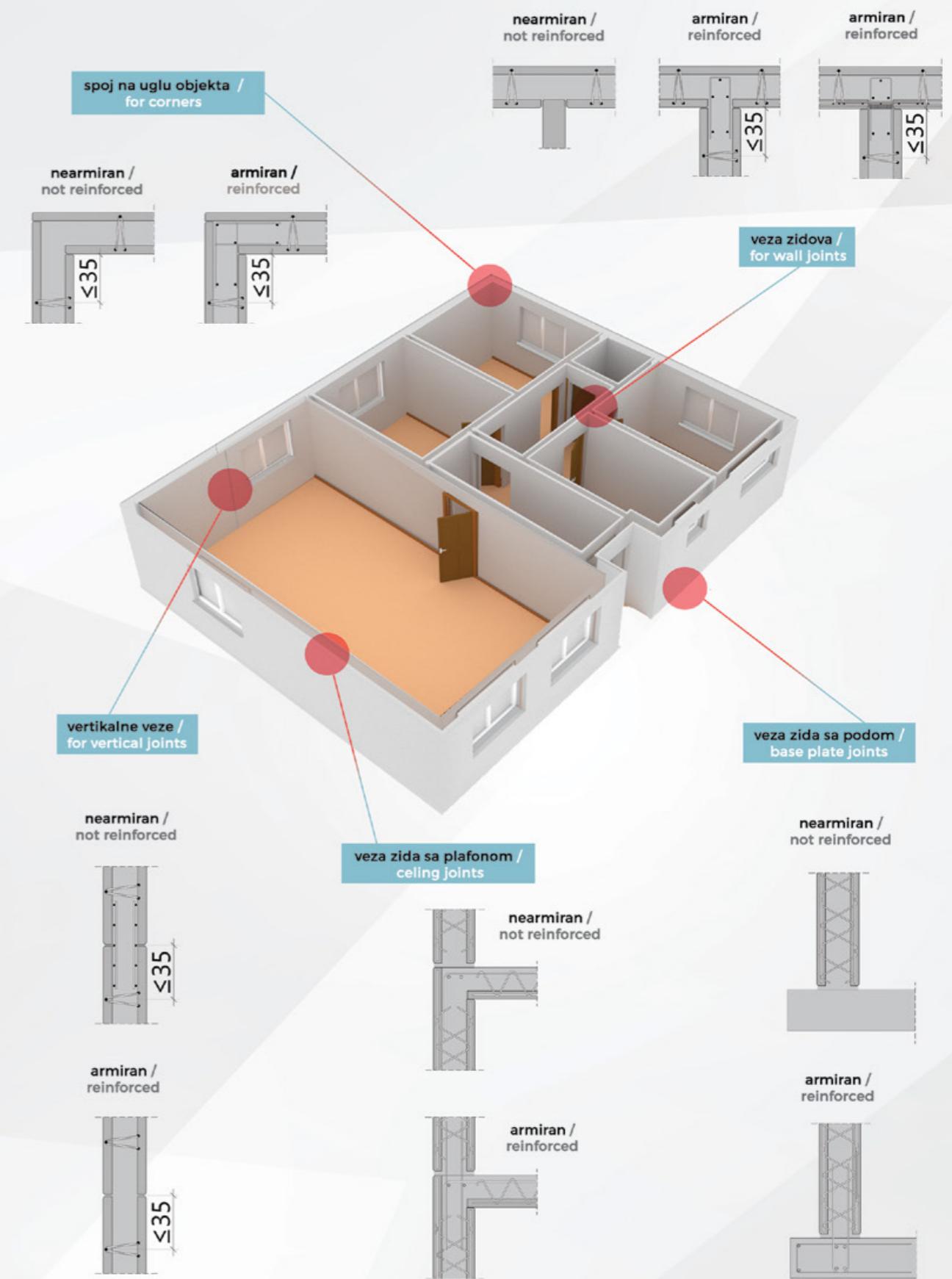
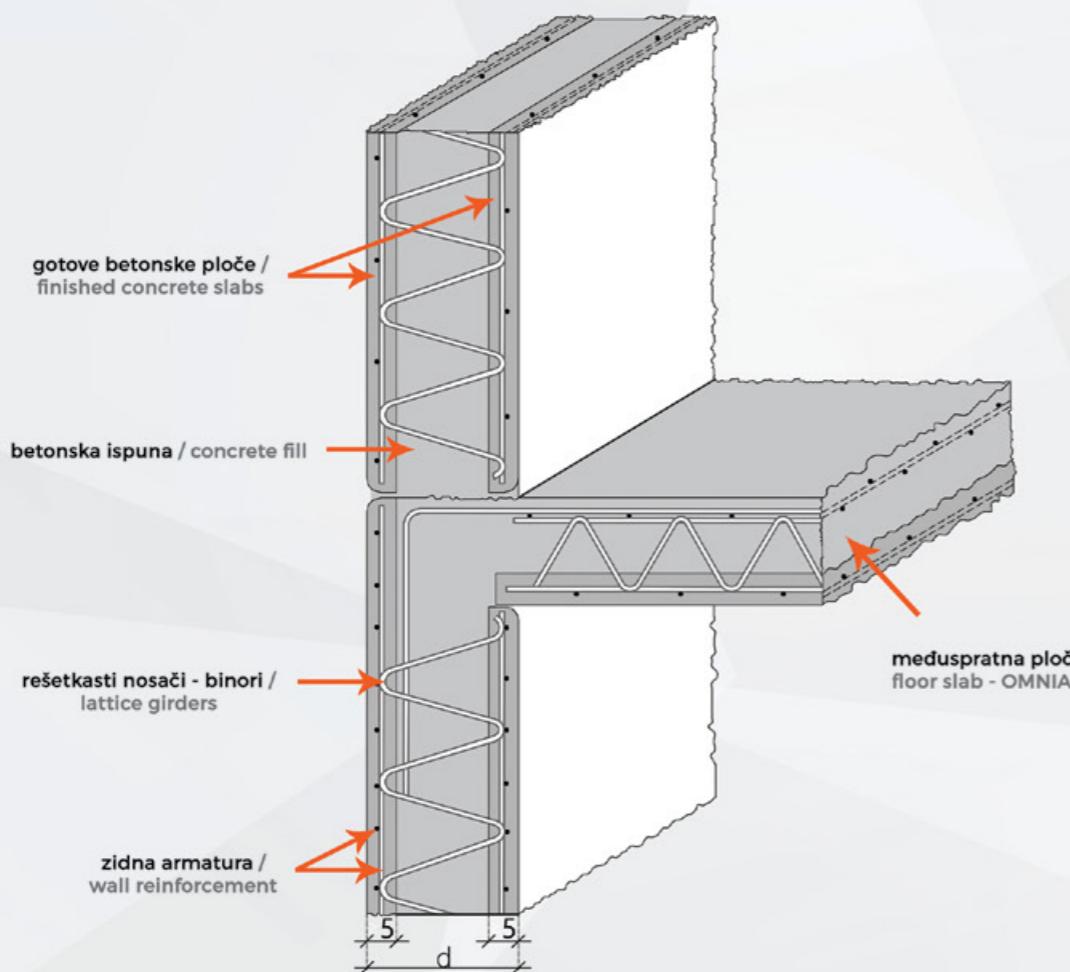
SYSTEM FOR RESIDENTIAL BUILDING

Detaljan raspored montaže - plan i poprečni presek detalja veza
Detailed assembly schedule - plan and cross section of details of connections

Dupli zidovi / Twin walls

Prefabrikovani dupli betonski zidovi predstavljaju konstruktivne noseće zidove, koji se sastoje od gotovih betonskih ploča debeline d= 5-6 cm i povezani su rešetkastim nosačima. Prefabrikovani zidni elementi se montiraju na gradilištu, nalivaju betonom na licu mesta, i ujedno služe kao oplata. Krajnji proizvod je monolitni zid sa glatkom površinom, koji je spremjan za finalnu obradu gletovanje i bojenje sa obe strane. Dimenzije zidnih panela se prilagodavaju projektu, dok se u zidne elemente ugrađuju okviri za vrata i prozore, revizione kutije za elektroinstalacije i ostali instalacioni prodori. Mogu se izradivati sa i bez izolacije.

Precast Concrete Twin Walls are constructive supporting walls, consisting of two finished concrete slabs thickness d=5-6 cm and connected with a steel lattice girders. Prefabricated wall elements are mounted on the site and filled with in-situ concrete on site, perform as formwork. The final wall is a solid concrete wall with a high quality paint-ready finish on both sides. The dimensions of the wall panels are adapted to the project, while the door frame and window frames, boxes for electrical installations and other installation boxes are installed in the wall elements. They can be made with and without isolation.





1 Otvori, prolazi / Openings, passageways

2 Prozorska okna / Window openings

3 Električni priključci / Electrical fittings openings

4 Otvor predviđen za vrata / Door frames

5 Ojačanje za spojeve zaliveno betonom na licu mesta / Reinforcement for joints with concrete poured on-site

6 Cev za vertikalno napajanje električnih instalacija / Pipe for the vertical powering of elecrtical installations

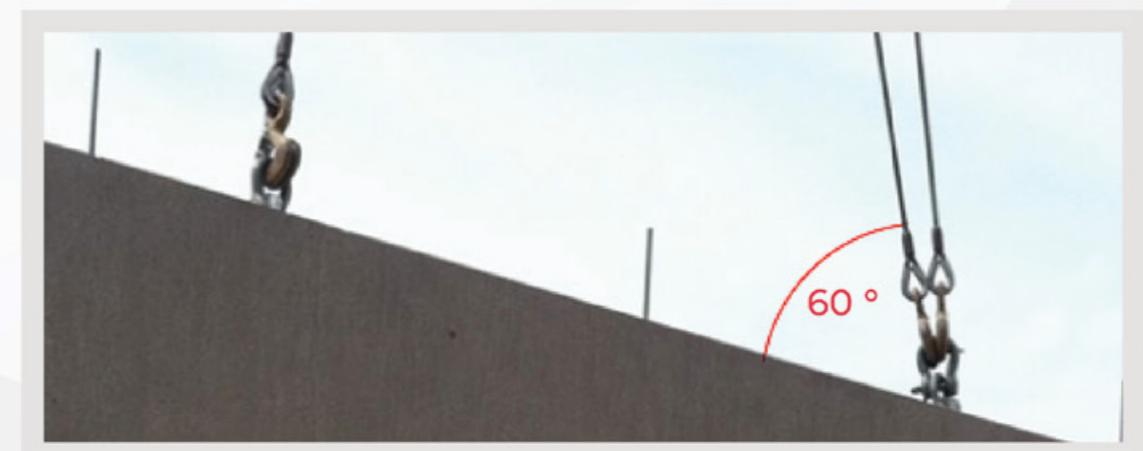
Zato što svaki dizajn ima svoja specifična svojstva, tj specifičan je na svoj način, naši dvostruki zidovi se proizvode u skladu sa zahtevima projekta. Ne samo da svaki zid ima svoje jedinstvene dimenzije, otvore za vrata i prozore, već i ugradni delovi za završnu obradu mogu biti ostavljeni na licu mesta. Ovaj vid izradnje objekta je jako fleksibilan i brz. Na slici je prikazan jedan od primera.

Because each design has its own specific properties - it is specific in its own way, our double walls are produced in accordance with the requirements of the project. Not only does each wall have its own unique dimensions, door and window openings, but the built-in parts for finishing can also be left on site. This form of building an object is very flexible and fast. The picture shows one of the examples.

Transport / transportation

Potrebno je da se omogući da dizalica i duboki utovarivači imaju neometan pristup lokaciji. Moraju se uzeti u obzir moguće opstrukcije ulice, oštrina krivina, parkirana vozila, itd. Transportna vozila imaju dužinu do 18m. Vertikalni transport sa kontejnerom se koristi za zidove čija je maksimalna visina do 2,8m. Prilikom horizontalne isporuke osnovina za oslanjanje elemeta kod kamiona mora biti ravna. Ovaj vid transporta se koristi za zidove više od 2,80 m.

It is necessary to allow the crane and deep loaders to have an undisturbed access to the location. It is necessary to take into account the possible obstruction of the street, curvature of the curves, parked vehicles, etc. Transport vehicles have a length of up to 18m. Vertical transport with a container is used for walls with a maximum height of up to 2.8m. In the case of horizontal shipment, the base for supporting the element in the truck must be straight. This type of transport is used for walls higher than 2.80 m.



Kablovi za podizanje moraju biti dovoljno dugački i ugao koji se formira izmedju elementa i kabla mора biti najmanje 60°.

The lifting cables must be sufficiently long and the angle formed between the element and the cable must be at least 60°.

• Prednosti

- Proizvodnja u fabriči nezavisno od vremenskih uslova
- Nema čekanja za uklanjanje oplate
- Ugradni elementi kao što su prozori, vrata, okviri vrata, kablovski kanali i električne kutije mogu se postaviti u fabriči
- Posebno glatke površine površine iznutra i spolja
- Dobra zvučna izolacija
- Jednostavno povezivanje podne ploče i plafona sa armaturom u betonu

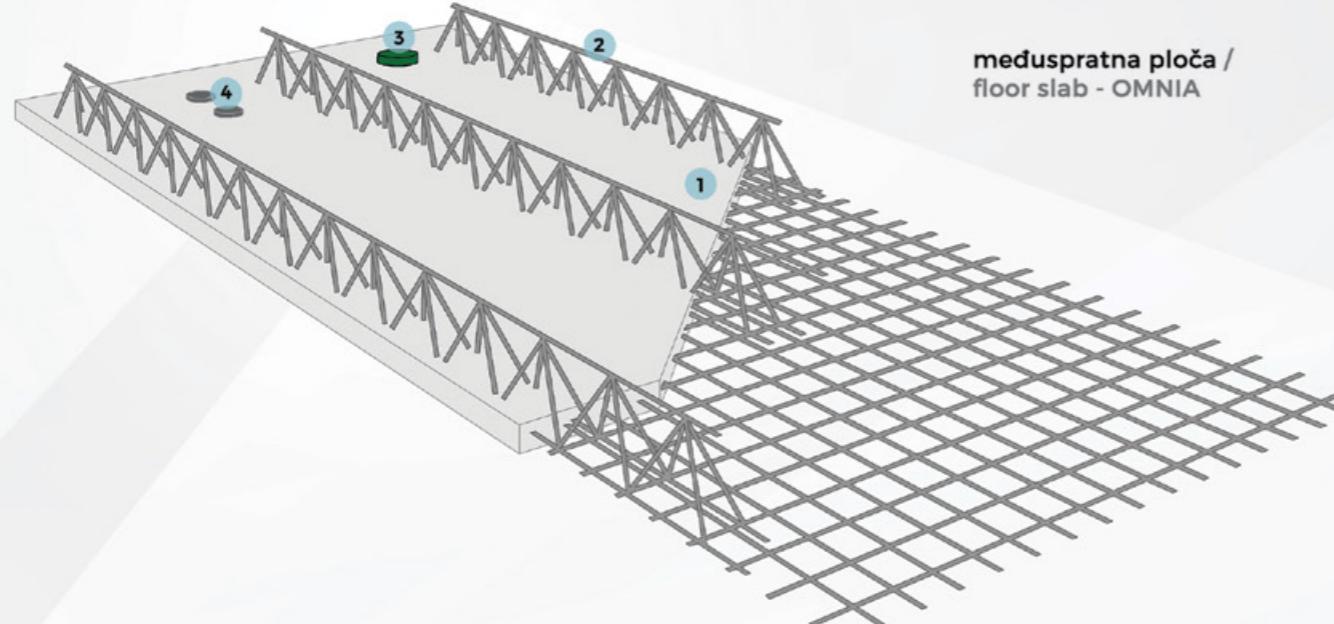
• Gains

- Production at the factory independent of weather conditions
- There is no waiting for removal of the formwork
- Installation elements such as windows, doors, door frames, cable ducts and electrical they can be installed in the factory
- Particularly smooth surfaces inside and outside
- Good sound insulation
- Easy connection of floor slabs and ceilings with reinforcement in concrete

Omnia ploče / Omnia slabs

"Omnia" ploča je prefabrikovana armirano betonska ploča koja se monolitizuje na gradilištu. Debljina "omnia" ploče je 5-6 cm i sadrži rešetkasti nosač koji joj obezbeđuje krutost i olakšava postavljanje gornje mreže. Na gradilištu se postavlja armatura gornje zone i preklopa, i nakon toga se betonira betonom do punе debljine 16 do 20 cm. U "omnia" ploče se ugrađuju razvodne kutije za elektroinstalacije i izvode se svi potrebni otvori i prodori.

"Omnia" slabs are reinforced precast concrete slabs that are being monolithize on the site. The thickness of the omnia slab is 5-6 cm, with built-in reinforcement of the lower zone of the floor slab and lattice girders. On the construction site, the reinforcement of the upper zone and the overlap is installed, and then in-situ concrete is poured on-site to a full thickness of 16 to 20 cm. In the process of making the Omnia slab, it is necessary to take care of the architectural, static and installation requirements.

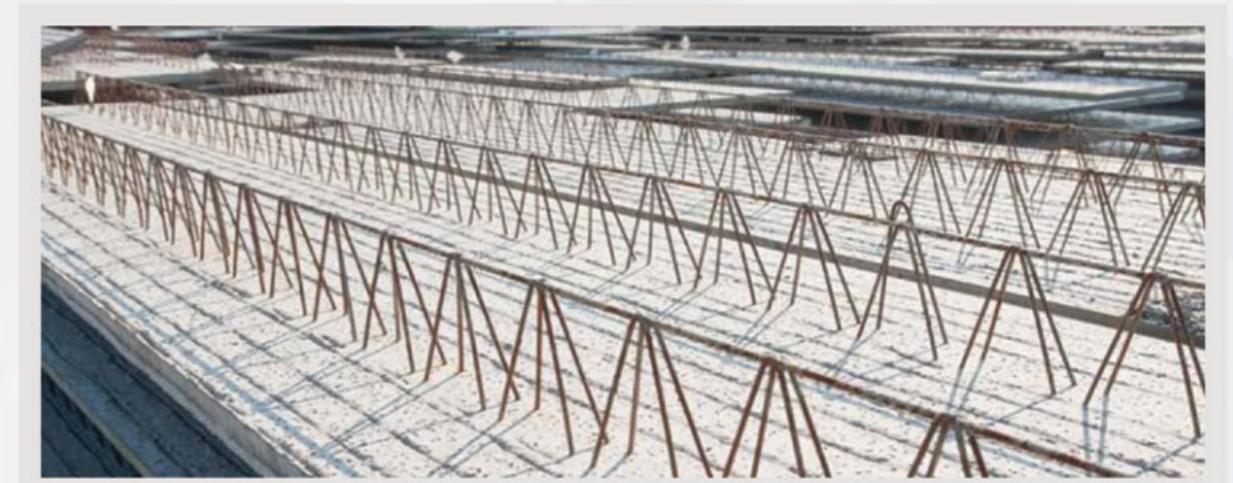


meduspratna ploča /
floor slab - OMNIA

- 2** • Fleksibilnost rešetkaste konstrukcije može da se koristi za modifikovanje rasporeda podupiranja.
• The flexibility of the lattice structure can be used to modify the support schedule.

- 3** • Ugradeni otvor za mehaničku ventilaciju
• Built-in opening for mechanical ventilation

- 4** • Centralne kutije za električne vodove
• Central electrical conduit boxes



- 1** • Armirana betonska ploča koja je totalno fleksibila;
• Dostupan je dvosmerni dizajn koji omogućava smanjenje debljine poda;
• 1 sat otpornosti na požar; do 4 sata je moguce postići promenom debljina ploča;
• Završna verzija poda odgovara najvišim standardima zvučnih propisa;
• Podne obloge od rešetkastih ploča mogu da odgovaraju većini vrsta objekata;
• Može se koristiti sa gotovo svim vrstama konstrukcija.

- Reinforced concrete slab that is completely flexible;
• Two-way design is available to reduce the thickness of the floor;
• 1 hour of fire resistance; Up to 4 hours can be achieved by changing the thickness of the panels;
• The final version of the floor meets the highest standards of sound regulations;
• Floor cladding from grid plates can correspond to most types of objects;
• Can be used with almost all types of constructions.

■ REFERENCE

25 godina apsolutne posvećenosti i predanosti fer poslovanju vremenom je rezultiralo proširenjem proizvodnog kapaciteta, poslovni uspehom i ostvarivanjem jakih veza sa našim saradnicima i klijentima.

25 years of absolute commitment and dedication to fair business over time has resulted in the expansion of production capacity, business success and strong relationships with our associates and clients.

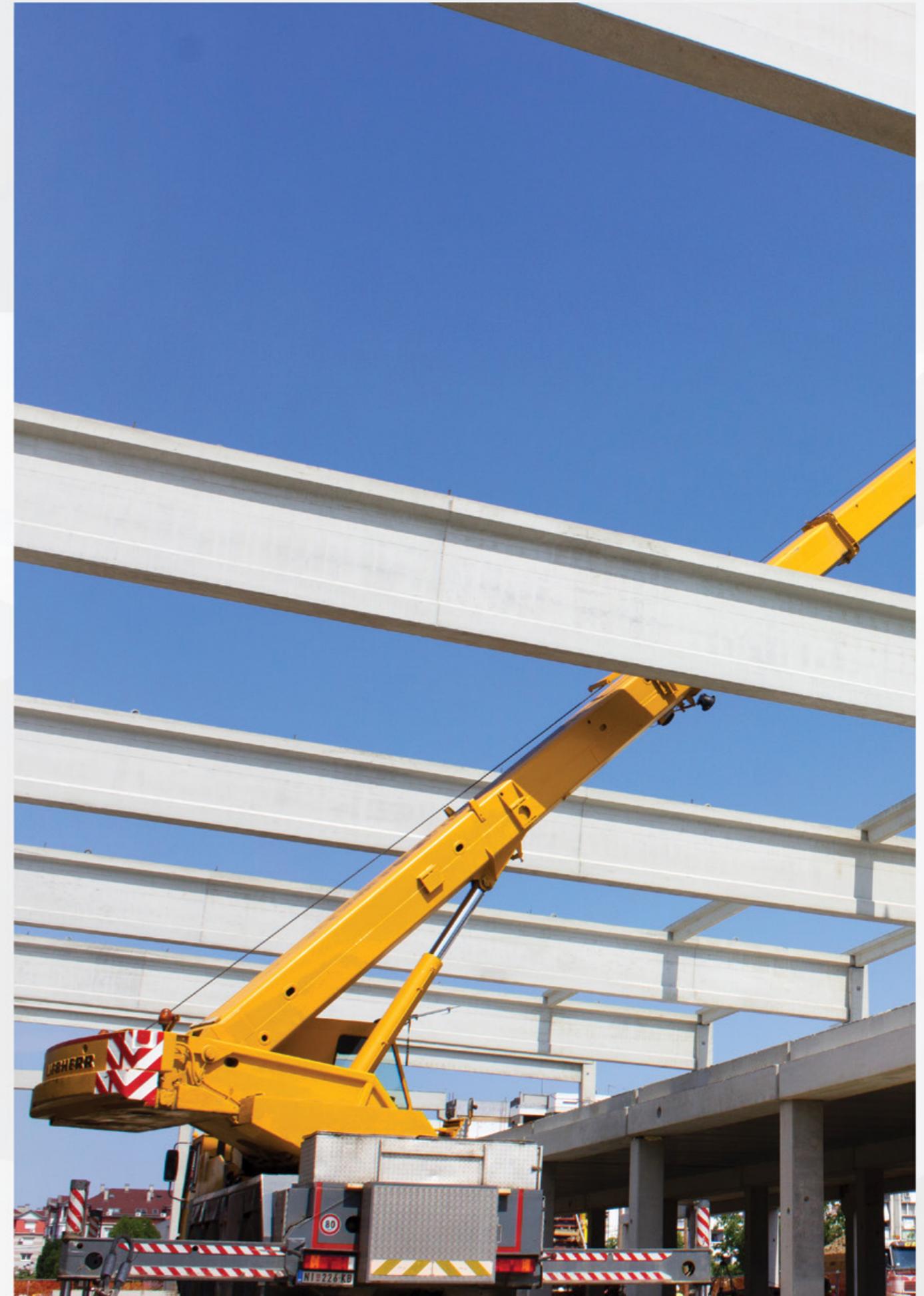
Klijenti / Clients	Mesto / Location	Godina / Year	Površina m ² / Size m ²
Proizvodni pogon - „HT&L FEETING“	Kragujevac, Serbia	2011	5060
Pogon za proizvodnju građevinske stolarije - „SAVABIEN“	Indija, Serbia	2011	790
Proizvodni pogon sa pratećim objektima - „YURA CORPORATION“	Leskovac, Serbia	2011	22000
Proizvodni pogon kablova za automobilsku industriju - „SHINWOOON“	Niš, Serbia	2011	16000
Skladišni objekat - „NITOM“	Novi Banovci, Serbia	2011	2000
Proizvodni pogon za izradu alata - „D-COMPANY“	Pirot, Serbia	2012	2100
Proizvodni pogon za preradu pet ambalaže - „ALWAG“	Bačka Palanaka, Serbia	2012	2400
Poslovno - komercijalni objekat - „INTEREX“	Valjevo, Serbia	2012	2350
Proizvodni pogon - „HT&L FEETING“	Kragujevac, Serbia	2012	2200
Proizvodni pogon za proizvodnju konditorskih proizvoda - „HAJ ARARAT“	Niš, Serbia	2012	2160
Poslovni objekat „Maxi“ - „DELHAEZE SERBIA“	Smed. Palanka, Serbia	2012	1000
Administrativno - skladišni objekat - „POVI-COM“	Niš, Serbia	2012	2000
Proizvodni pogon i upravna zgrada za proizvodnju vunenih tuljaka - „CAPITAL GROUP“	Ruma, Serbia	2012	1550
Proizvodno poslovni objekat - „DUNKERMOTOREN“	Subotica, Serbia	2012	5000
Izmuzište - „PKB“	Indija, Serbia	2012	2160
Farme muznih krava - „PKB“	Vrbovsko, Croatia	2012	7165
Rekonstrukcija i dogradnja distributivnog centra - „COOPER TIR & RUBBER COMPANY SERBIA“	Kruševac, Serbia	2013	17000
Proizvodni pogon - „MARKONIS“	Niš, Serbia	2013	1600
Skladišni objekat - „ALMONT“	Zemun, Serbia	2013	5080
Skladišno - distributivni centar - „MILŠPED“	Krnješevci, Serbia	2013	16250
Pogon mašinske obrade sa aneksom - „YUGOIMPORT-SDPR“	Velikas Plana, Serbia	2013	2470
Centarino skladište - „HENKEL“	Kruševac, Serbia	2013	8365
Skladišna hala sa tunelom - „SRPSKA FABRIKA STAKLA“	Paraćin, Serbia	2013	8300
Farma muznih krava - „PKB“	Crepaja, Serbia	2013	3265
Skladište suvog stajnjaka - „PKB“	Vrbovsko, Croatia	2013	1000
Prodajni centar - „URADI SAM“	Novi Sad, Serbia	2013	3430
Proizvodni centar - „STREIT NOVA“	Stara Pazova, Serbia	2013	8000
Tehnološki park - „FRESENIUS MEDICAL CARE“	Vršac, Serbia	2013	15000
Poslovni objekat - „AUTORITA INVESTMENTS“	Niš, Serbia	2013	1860
Skladište - „SOKO TIM“	Novi Sad, Serbia	2013	1095
Proizvodni pogon - „JOHNSON ELECTRIC INTERNATIONAL“	Niš, Serbia	2013	115000
Aviv Park - „KLUPKO“	Pančeva, Serbia	2014	2315
Shoping park - „VIVO SHOPING PARK“	Jagodina, Serbia	2014	10000
Proizvodni pogon detergenata - „HENKEL“	Kruševac, Serbia	2014	6000
Postrojenje za reciklažu - „JUGO IMPEX“	Niš, Serbia	2014	1000
Skladište prehrambenih proizvoda - „VELE VIVA“	Kruševac, Serbia	2014	1200
Proizvodni pogon borbenih vozila - „YUGOIMPORT-SDPR“	Velika Plana, Serbia	2014	6500
Logistički centar - „EYEMAXX“	Novi Banovci, Serbia	2014	10955
Skladište gotovih proizvoda - „TETRAPAK PRODUCTION“	Cornji Milanovac, Serbia	2014	6000
Poslovno - proizvodni objekat - „STAKLO ZORIĆ“	Stara Pazova, Serbia	2014	2355
Hladnjača - „FRIGONAI“	Kuršumlija, Serbia	2014	400
Proizvodni pogon - „SZUTR STOJANOVIĆ“	Pirot, Serbia	2014	1000
Presaona - „AL PACK“	Subotica, Serbia	2014	1300
Alatnica - „ALATNICA KRSTIĆ“	Pirot, Serbia	2014	600
Poslovno - proizvodni objekat (II faza) - „STREIT NOVA“	Stara Pazova, Serbia	2015	5525

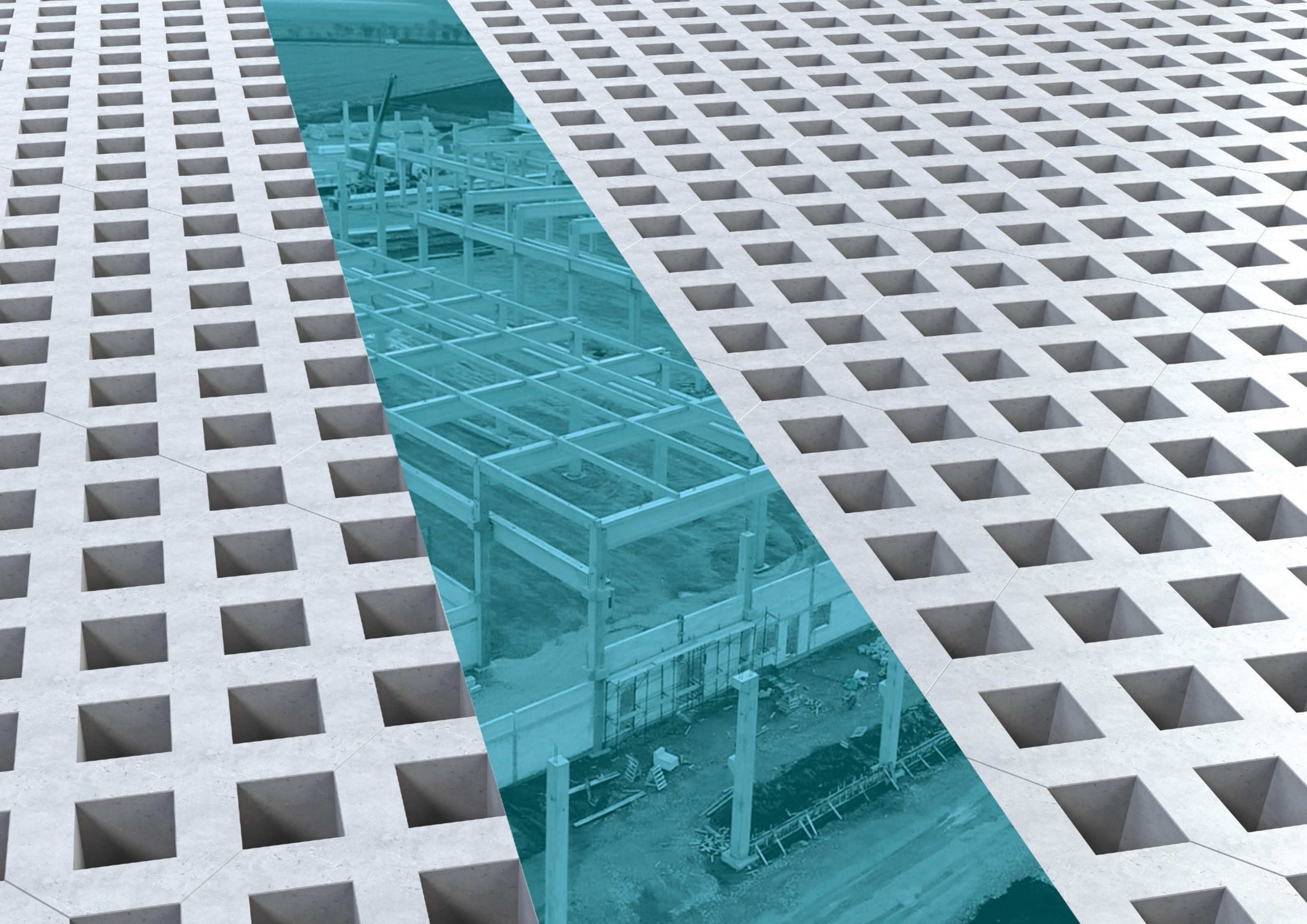
■ REFERENCES

Klijenti / Clients	Mesto / Location	Godina / Year	Površina m ² / Size m ²
Proizvodni pogon - „SCS PLUS“	Krњаћевач, Serbia	2015	810
Poslovni objekat, auto salon i servis - „AGROHIM“	Kragujevac, Serbia	2015	720
Fabrika za izradu alata - „D-COMPANY“	Pirot, Serbia	2015	2345
RETAIL PARK - „AVIV ARRON PRIMA“	Zrenjanin, Serbia	2015	10750
Skladište i peronica - „BUCAJ“	Priština, Kosovo	2015	10935
Retail park - „RETAIL PARK“	Subotica, Serbia	2015	10000
Pogon za proizvodnju sa skladištem sirovina (I faza) - „TIGAR“	Pirot, Serbia	2015	1710
Skladište master bala, žice i lanka - „TIGAR TYRES“	Pirot, Serbia	2015	475
Skladišteni prostor - „STATOVAC KOMERC“	Leskovac, Serbia	2015	900
Objekat za obradu metala i preradu plastike - „PEXIM“	Pirot, Serbia	2015	1360
Proizvodni pogon (II faza) - „JOHNSON ELECTRIC INTERNATIONAL“	Niš, Serbia	2015	13225
Skladište - „VIVA FRESH“	Priština, Kosovo	2015	13185
Retail park - „STOP SHOP 5“	Niš, Serbia	2015	13000
Logistički centar (II faza) - „EYEMAXX“	Novi Banovci, Serbia	2015	7000
Proizvodno - poslovni objekat - „DUNKERMOTOREN“	Subotica, Serbia	2015	750
Destilerija - „AVALA KOMERC“	Niš, Serbia	2015	1050
Upravna zgrada - „D-COMPANY“	Pirot, Serbia	2015	1365
Retail park - „STOP SHOP 7“	Valjevo, Serbia	2015	6130
Retail park Shoppi - „RETAIL PARK DVA“	Borča, Serbia	2016	11403,5
Proizvodni pogon kablova - „YURA CORPORATION“	Leskovac, Serbia	2016	7090,5
Proizvodni pogon automobilskih delova - „MEITA EUROPE“	Barič, Serbia	2016	17303
Industrijski objekat - „LEAR“	Novi Sad, Serbia	2016	26136
Novo skladište logistike - „TIGAR TYRES“	Pirot, Serbia	2016	13571
Proizvodni pogon za hladnu preradu povrća sa hladnjacom - „SVETI NIKOLA“	Sečanj, Serbia	2016	8621
Proizvodno - skladišni objekat - „BAMBINO“	Subotica, Serbia	2016	1600
Proizvodni pogon - „D-COMPANY“	Babućnica, Serbia	2016	1296
Skladišni prostor, dogradnja novih objekata po fazama I-VIII - „TENA“	Jagodina, Serbia	2016	6200
Proizvodni pogon nameštaja - „TOP SOFA“	Vranje, Serbia	2016	4766
Hladnjača - „ZLATIBORAC“	Mačkat, Serbia	2016	1460
Radionica za kalupe sa kancelarijama - „TIGAR TYRES“	Pirot, Serbia	2016	471,5
Garaža hotela - „CRYSTON“	Beč, Austria	2016	555
Radionice za izradu metalnih delova - „JLB SOULIER“	Pirot, Serbia	2016	2194
Tržno - zabavni centar - „PLAZA CENTER LEISURE GROUP“	Beograd, Serbia	2016	17365
Fabrika tekstila - „LUS PROTEKT“	Raška, Serbia	2016	7090,5
Retail park - „SHOPPI“	Smederevo, Serbia	2017	9188
Poslovni objekat - „ELEKTRO SERĐO“	Niš, Serbia	2017	944
Skladište skroba - „ALMEX“	Pirot, Serbia	2017	373
Dogradjna proizvodnog pogona vode Rosa - „VLASINKA“	Surdulica, Serbia	2017	1489
Supermarket - „LIDL“	Leskovac, Serbia	2017	2250
Supermarket - „LIDL“	Sombor, Serbia	2017	2424
Logistički centar - „KUEHNE+NAGEL“	Brnik, Slovenia	2017	35265
Retail park - „KABASHI HOLDING“	Prizren, Kosovo	2017	14669
Pogon za proizvodnju tableta za mašinsko pranje sudova - „HENKEL“	Kruševac, Serbia	2017	1173
Centralno skladište - „HENKEL“	Kruševac, Serbia	2017	3329
Proizvodni pogon (I faza) - „KROMBERG & SCHUBERT“	Kruševac, Serbia	2017	17964
Poslovni objekat - „POLYSEAL“	Trstenik, Serbia	2017	405
Poslovni objekat - „BRANKO MORAVAC“	Požarevac, Serbia	2017	2350
Poslovno - trgovinski objekat - „AMAN“	Niš, Serbia	2017	2160
Proizvodno - skladišna hala - „TODOROVIĆ“	Kragujevac, Serbia	2017	3339
Skladište sirovina - „HENKEL“	Kruševac, Serbia	2017	803
Industrijska hala - „METALIKA“	Sopot, Serbia	2017	750
Supermarket - „LIDL“	Kruševac, Serbia	2017	2811
Supermarket - „LIDL“	Kragujevac, Serbia	2017	2424
Supermarket - „LIDL“	Beograd, Serbia	2017	5429
Objekat kotlarnice na biomasu - „GEBI“	Subotica, Serbia	2017	259
Dogradjna proizvodnog pogona - „NORMA group“	Subotica, Serbia	2017	1336
Skladišni prostor sa upravnim delom - „EDONI“	Priština, Kosovo	2017	12804
Poslovni objekat - dogradnja proizvodnog pogona cevi - „YUGOIMPORT-SDPR“	Velika Plana, Serbia	2017	708
Proizvodno - skladišni objekat - „BRICKOS“	Kosovo	2017	1888



Klijenti / Clients	Mesto / Location	Godina / Year	Površina m ² / Size m ²
Proizvodni pogon - „KM MONT“	Vrbas, Serbia	2017	5969
Objekat za preradu mleka i proizvodnju mlečnih proizvoda - „KRUNA KOMERC“	Velika Plana, Serbia	2017	2887
Proizvodni objekat - „STAKLARSTVO ŠIŠKO“	Novo mesto, Slovenia	2017	1502
Poslovno - servisni objekat, RTC - „DARK TRANS“	Donje Ležeče, Slovenia	2017	1493
Supermarket - „LIDL“	Brnik, Slovenia	2017	35174
Proizvodno-skladišni objekat - „ISKRA ZAŠČITE“	Zaščite, Slovenia	2017	10433
Proizvodni pogon sa administrativnom zgradom i pratećim objektima - „ZUMTOBEL“	Niš, Serbia	2017	27427
Proizvodni pogon - „INTEGRATED MICRO-ELECTRONICS“	Niš, Serbia	2017	13970
Dogradnja proizvodne hale sa pratećim prostorijama - „ALATNICA KRSTIĆ“	Pirot, Serbia	2018	689
Postrojenje za anodizaciju - „ALUMIL YU INDUSTRY“	Stara Pazova, Serbia	2018	6058
Proizvodni pogon automobilskih delova (faza III) - „MEI TA EUROPE“	Barič, Serbia	2018	18614
Proizvodni pogon opreme za vozila - „ZF E-MOBILITY SRB“	Pančevo, Serbia	2018	28844
Skladište robe - „UNIPROMET“	Kraljevo, Serbia	2018	2656
Proizvodni pogon - „UNIPROMET“	Čačak, Serbia	2018	5500
Poslovni kompleks - trgovачki centar - „LESNINA XXXL“	Novi Sad, Serbia	2018	17042
Proizvodni pogon - „MLEKARA GRANICE“	Mladenovac, Serbia	2018	3010
Proizvodni pogon „Čelik“ i „Aluminijum“ - „MIND REAL ESTATE“	Kragujevac, Serbia	2018	17245
Poslovna hala za testiranje elektro komponenata - „MELEXIS“	Sofia, Bulgaria	2018	17136
Dogradnja postojećih i izgradnja novih objekata u industrijskom kompleksu - „YURA CORPORATION“	Leskovac, Serbia	2018	15258
Proizvodni pogon - „YASKAWA“	Kočevje, Slovenia	2018	9000
Proizvodni pogon - „DELPHI PACKAR“	Leskovac, Serbia	2018	27892
Proizvodno-skladišni objekat - „MIZARSTVO NOVINEC“	Zalog, Slovenia	2018	1575
Dogradnja pogona za šivenje - „BLOCKX“	Baščki Petrovac, Serbia	2018	4685
Trgovачki centar FORMA IDEALE - „JCG“	Pirot, Serbia	2018	1530
Skladište aluminijumskih i drvenih profila - „VIZUS“	Niš, Serbia	2018	1370
Proizvodni pogon dogradnja - „ARHIBET“	Sopot, Serbia	2018	1250
Poslovno - industrijski objekat - „EHO“	Štore, Slovenia	2018	2185
Skladište metalne robe - „YUGOMETAL“	Kraljevo, Slovenia	2018	1140
Proizvodno-skladišni objekat - „MESARSTVO BLATNIK“	Škofljica, Slovenia	2018	2272
Poslovno-uslužni objekat - „DOBRAVC TRANSPORT“	Dob, Slovenia	2018	1284
Reciklažni centar - „AGROHIM & KEMOIMPEX“	Dimitrovgrad, Serbia	2018	1538
Proizvodni pogon sa administrativnim delom - „PUT INŽENJERING“	Nova Pazova, Serbia	2018	23000
Proizvodni pogon automobilskih delova - „MEI TA EUROPE“	Bartič, Serbia	2018	18614
Poslovno-proizvodni objekat magacin i hala - „YUGOIMPORT-SDPR“	Velika Plana, Serbia	2018	3573
Proizvodni pogon opreme za vozila - „ZF E-MOBILITY SRB“	Pančevo, Serbia	2018	28844
Proizvodno - poslovni objekat VORWERK/ELDISY	Čačak, Serbia	2018	61527
Poslovno-skladišni prostor - „SPORT VISION“	Šimanovci, Serbia	2018	25986
Logistični centar - „ATL“	Brnik, Slovenia	2018	21830
Proizvodno-poslovni objekat - „IZOTERM PLAMA“	Podgrad, Slovenia	2018	4317
Prva faza proizvodno-poslovnog kompleksa - „AGRISER“	Sombor, Serbia	2018	1624
Isporuka ošupljenih ploča za tržni centar Galerija - „BELGRADE WATERFRONT“	Beograd, Serbia	2018	500000







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