





#### about us

SM NET was established in 2002. In celebrating our 20-year anniversary, we are proud to have earned our reputation as a reliable manufacturer of high-end precast concrete products and structures.

Our success stems from a careful and analytical approach to planning and evaluating a precast concrete project. This is a process known as value engineering, and it underlies all of our work. SM NET is recognizable for its constructive solutions, which include high engineering and modern systems that achieve optimal construction with superior characteristics and minimal consumption of materials.

We strive to provide, not only that each job is delivered on time and within budget, but that there is the best fit between the job specification and the product itself.

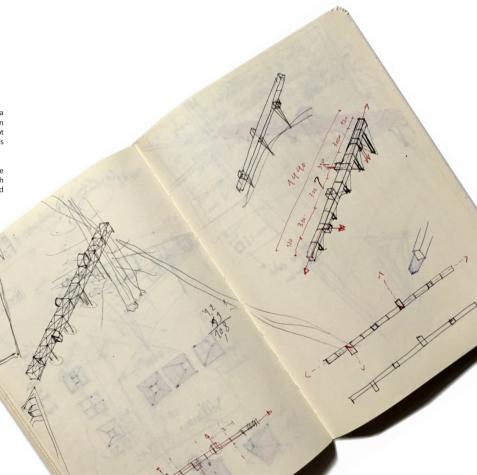
For twenty years, we have demonstrated how prefabricated elements are produced in a factory environment reducing the possibility of human error. The elements are manufactured to strict standards in line with the demands of the client. They are then transported at the right moment to the construction site for assembly, and combined in line with the plan prepared in the field. Custom precast construction is more practical than conventional structural processes: it saves our clients time and cost.



#### design

SM NET offers complete design of precast elements. Our team of designers listen carefully to a client's needs and patiently fulfil all the requirements. Prefabricated elements have been designed and produced according to the specifications of our clients, where by we try to adapt our constructive solution to the maximum extent to the architecture of the project and the needs of our clients, which often results in very original solutions.

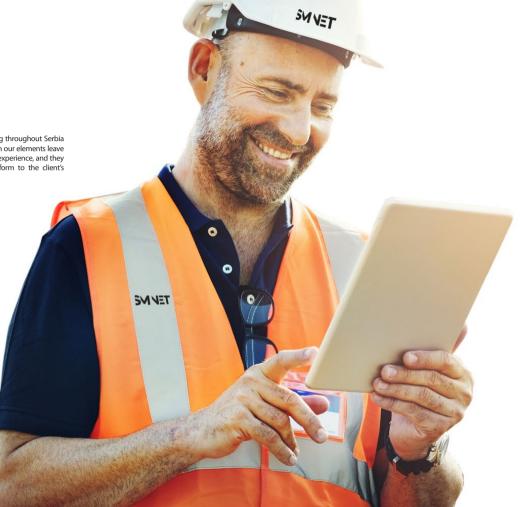
Our designers maintain close communication with our field team on the construction site. We consider this an essential quality and have raised it to the highest level. It helps deal with unforeseen issues, minimises mistakes and makes the final work more precise, efficient and productive.





#### construction

Our construction site teams are fully focused on the project itself. Working throughout Serbia and North Macedonia, we insist on a perfect organization of logistics when our elements leave the production hall. Our site engineers and workers have twenty years of experience, and they strive for perfection in mounting our elements. Everything must conform to the client's demands and be completed to schedule.





references

Serbia:

**HUTCHINSON BIG SHOPPING MALL DREJZER'S VILLAS OFFICE BUILDING BUSINESS BUILDINGS** WÜRTH **ALPHA PLAM HOTEL IZVOR** KLISINA **SIEMENS FEKA AUTOMOTIVE BLACK&WHITE** DAG&CO LSD **CAMINADA** KERAMIKA JOVANOVIĆ North Macedonia:

CERMAT APPLE LAND TINEX



### **HUTCHINSON**

year 2015-2020 area 26000m² location Ruma, Serbia





#### **BIG SHOPPING MALL**

year 2011 area 20000m2 location Novi Sad, Serbia





#### **DREJZERS VILLAS**

year 2006-2007 area 10000m2 location Belgrade, Serbia





#### **OFFICE BUILDING**

year 2008 area 9000m² location Belgrade, Serbia





### **BUSINESS BUILDINGS**

year 2009 area 21000m2 location Belgrade, Serbia





## **WÜRTH**

year 2008 area 4000m2 location Belgrade, Serbia





#### **ALFA PLAM**

year 2012 area 9500m² location Vranje, Serbia





#### **HOTEL IZVOR**

year 2006-2007 area 6000m2 location Arandelovac, Serbia





#### **KLISINA**

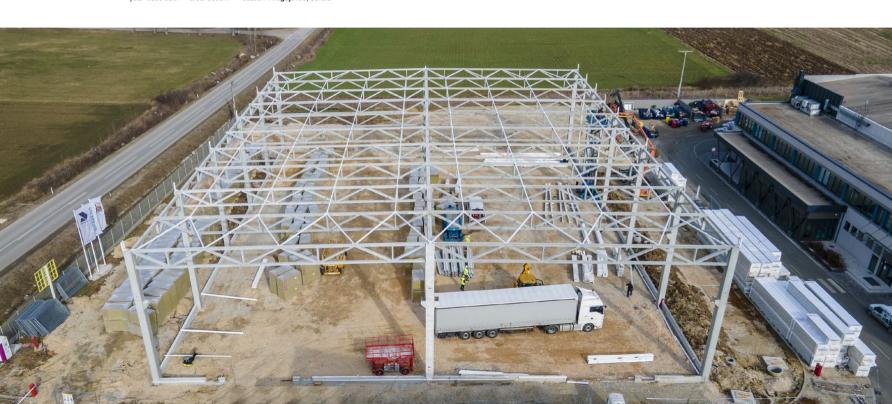
year 2015 area 3800m2 location Belgrade, Serbia





#### **SIEMENS**

year 2020-2021 area 3000m<sup>2</sup> location Kragujevac, Serbia





#### **FEKA AUTOMOTIVE**

year 2019 area 6500m² location Ćuprija, Serbia





#### **BLACK & WHITE**

year 2020 area 2800m<sup>2</sup> location Belgrade, Serbia





#### **DAG&CO**

year 2018 area 3600m<sup>2</sup> location Ruma, Serbia





### LSD

year 2018 area 2400m² location Belgrade, Serbia





### **CAMINADA**

year 2017 area 2500m<sup>2</sup> location Subotica, Serbia





## KERAMIKA JOVANOVIĆ

year 2021 area 3200m<sup>2</sup> location Zrenjanin, Serbia





#### **CERMAT**

year 2016 area 6300m<sup>2</sup> location Bitola, North Macedonia





#### **APPLE LAND**

year 2014 area 6500m2 location Resen, North Macedonia





#### **TINEX**

year 2015 area 11500m² location Skopje, North Macedonia





products

CUSTOM ELEMENTS
RC FOUNDATION COLLARS
RC MOUNTING COLUMNS
RC MOUNTING BEAMS: 'L' AND 'T' CROSS-SECTION
PRE-STRESSED RC 'T' CROSS-SECTION MOUNTING TRUSS
RC PRE-STRESSED MOUNTING TT FLOR SLABS
PRE-STRESSED MOUNTING LATTICE TRUSS



#### **CUSTOM ELEMENTS**

In addition to standard prefabricated elements and high-span lattice, which are presented later in the catalog, we are able to offer you the design and construction of concrete elements according to your requirements.

Custom Prefab Elements can seamlessly be agreed with our design team to take a one of a kind idea and turn it into project success.

Site Specific Design Considerations Custom Technology Configurations Unique Fabrication Requirements Fit for Purpose Design Enhancements





#### **RC FOUNDATION COLLARS**

Precast foundation collars are designed based on column section and static loads. In structural terms they act as a connection between RC column and foundation pad. Finished collars are delivered on site and placed on prepared foundation pad. Anchors and rebars from the collars form a connection with existing foundation reinforcement. After positioning collars according to the design, foundation pads are poured. Upon mounting of RC columns, collars are filled with fine-grade concrete.

Material	Concrete	C40/45				
Material	R. bar B500b					
	b(cm)	110	120	130		
Cross section	d(cm)	110	120	130		
	h(cm)	95	105	115		





#### **RC MOUNTING COLUMNS**

RC mounting columns are vertical structural elements of a square or rectangular cross-section. Their function is to receive complete roof load and carry roof construction elements. Depending on the project design, the columns can have short elements - consoles for accepting inter-floor construction or crane track carrier. The top of each column is shaped according to the roof structure solution and disposition and dimension of roof elements. They are made in a steel formwork with high grade concrete, which provides high quality of finished element.

Material	Concrete	C35/45				
material	R. bar	B500b		GA240/360		
Cross section	b(cm)	40	40	50	50	60
Cross section	d(cm)	40	50	50	60	60





# RC MOUNTING BEAMS: 'L' AND 'T' CROSS-SECTION

RC beams are horizontal, load-bearing elements which purpose is to accept the load of inter-floor structure, or load from roof if they are part of roof structure. Beams rely on short elements of the column or on the top of the column, depending on design. Both elements have precisely positioned in-built steel plates which provide more precise and secure mounting and connection of elements. Mounting beams may be "L" or "T" cross section shape, depending of their position in the construction, and they carry "TT" floor slabs with their lower part -" tooth". After placement of the "TT" floor slabs into a projected position, a monolithization layer is added to provide a minimum 10 cm thickness above beams. Dimensions are determined according to static calculation. Beams are produced in smooth steel formwork.

	Concrete	C35/45			
Material	R. bar	B500b			
	b(cm)	40	50	60	
Cross section	h(cm)	45-100	45-100	45-100	





# PRE-STRESSED RC 'T' CROSS SECTION MOUNTING TRUSS

These structural elements are representing roof structure elements, and they can be main roof girders or purlins. Height of the elements ranges from 44cm to 110cm, and it is determined based on static calculations. They are placed in specially shaped column cups, and thanks to our particular solution, a rigid structure joint between columns and these girders is formed. For production of these elements we use smooth steel formwork.

			C35/45	
Material	R. bar	B500b Mesh reinforcement B500bA		
	Cables	S7 class B		
Cross section	Flange height hf(cm)	Rib height hf(cm)	Total height h(cm)	Flange width w(m)
	14-55	30-55	44-110	20-60





# PRE-STRESSED MOUNTING TT FLOR SLABS

Pre-stressed mounting "TT" floor slabs are used both as roof and inter-floor structure. They are supported by RC mounting beams (""and "T" cross section). "TT" slabs are made of pre-stressed concrete in a smooth steel formwork. They are produced in two different heights: h=35cm, and h=55cm. During assembly, after placement into intended position, a concrete topping of minimum 5cm thickness is required.

		C35/45				
Material	R. bar	B500b Mesh reinforcement B500bA				
	Cables	Ø 15,20 Y1860 S7 klasa B				
Cross section	Slab thickness d(cm)	Rib height hf(cm)	Total height h(cm)	Width w(m)	Lenght L(m)	
	5-10	30-55	35-60 (40-65)	till-2,47	till -17m	





## PRE-STRESSED MOUNTING LATTICE TRUSS

Pre-stressed reinforced concrete mounting lattice girders are horizontal load-bearing elements that are used to carry roof and floor structures. They can be pre-stressed (adhesive prestressing), or post-tensioned. Thanks to their remarkable load bearing capacity they can cover large spans. Due to their geometric characteristics they are convenient for passing installations, ventilation ducts, installing of different equipment etc. Dimensions and shape of the lattice girders are adopted from static calculations and in accordance to the project design requirements. Production of these elements is carried out in the smooth steel formwork with high grade concrete. The RC mounting lattice girders are placed into specially designed column forks, where rigid joint connection is formed by implementation of our system.

Concrete C40/50				
Material	R. bar B500b GA240/360			
	Cables	Ø 15,20 Y1860 S7 klasa B		
Cross section	Width w(cm)	Height h(m)	Lenght L(m)	
Cross section	25-60	0.80-3.50	till 45m	





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