



Quality construction
for sustainable environment

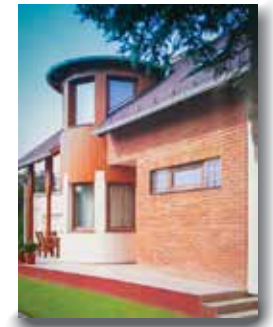


we put together
the **knowledge** of
architecture,
you use it easily to
customize your **home**.
simply.



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About us

Our company has more than 15 years experience in fields of architectural designing and construction. We have contributed to the execution of more than 1000 buildings.

Our main activity is designing economical and passive buildings, with considering the complex connection between architecture, building engineering, and energetics.

All members of our highly qualified team are determined to construct energetically conscious buildings.

As a company in Mosonmagyaróvár, most of our works are located in Győr-Moson-Sopron county, but we have planned buildings all around Hungary, involving family houses and public buildings as well.

Our group provides beyond planning and construction management a wide range of building engineering and construction solutions.

In the most optimal case, we execute and supervise the construction process from the plans until the conveyance. This way we can make sure that the planning is in perfect harmony with the progress, which is a key to the high quality we offer. Our most important principle is managing all tasks with the consideration connected works.

In cases of our general constructed works saving that we harmonize our constructor teams, we control the quick and accurate information flow between the main contractors of the project.

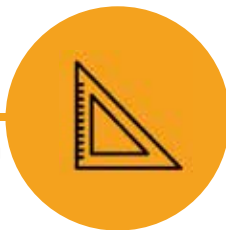
We know that deficient information flow can cause lot of problems what can generate huge unintended extra costs and worse comfort level too.



Schopf Márton

CEO of SM Építész Ltd.

PLANNING



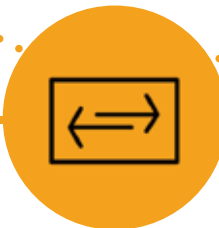
Architectural and building engineering planning from family houses to the biggest industrial and commercial buildings.

CONSTRUCTION



With our team, we cover all of the construction areas.

CONTROLLING



Our engineers control the whole construction process.

GRANTS



We assume every task connected to EU energetical and modernisation grants and tenders

1.
The customer tells the construction company, what they want.
Important things would be the place of rooms, number of the floors, approximate form, and the envisioned heating and building engineering system.
We check the facilities of the plot and the local building regulations.

2.
We prepare the sketches from the preliminary discussions.
We give our reasonable proposals, and discuss it with the customer via e-mail or personally.

3.
If the sketches are matching with the imagine of the customer we prepare the detailed design plan - which will be sent to the local government's Building Office.

4.
Customer shall pay the design fee and the costs of approval procedures before start of the approval process.

5.
For that procedure is needed the applications and statements signed by the customer. If it is necessary we would start the process with the authorization of the customer.

In some situation it may require professional designers:

- Special static-solutions (for example big ceiling spans need an ironing plan for the concrete slabs)
- Building on the special hydrographic area
- In case of fire protection criteria
- etc.

In Hungary, the average time for the licensing procedure is 1-3 months.

5.
If the building office asks for modifying, we discuss it with the customer, modify the plan and transferring the plan for the new licensing procedure.



2.
If the sketches do not fully meet, we effectuate some changes or make new sketches.
If more changes are needed or have to make new sketches, the additional engineering work hours will be paid.

5.
If the plan receives approval and after the customer wants some modifying, we need to make the modified processing plan, and the procedure is played from the beginning. This is an extra cost.

6.
After 15 days the license gets finally valid, from the day we received it, so we can start the construction if the neighbours do not make an appeal.

In the beginning of the construction, we open the construction diary and take care about the necessary administration.

Under the construction, the consultation is continuous between the customer and the designer, and between the designer and the team of the constructors, in order the best actualization.

7.
After the final payment for the building, we start the occupancy procedural process. We take care about the administration.
If the Building Office during the personal check does not find amiss in the building, we give the keys for the customer.

How to use this catalogue

Family house a la carte... We can summary with these words the purpose of this catalogue. Our idea is to give You a catalogue, which can help to see through the building industry and the constructing process. The catalogue helps to see our house building process and helps to make the best choice for You.

If this catalogue is in Your hands, it means that You are interested in our country. Most people do not know, that the hardest part of a construction is the communication. The customer does not know the full depth the construction process-, and this is not the customers business- this is why are we here. Therefore, it is difficult to navigate for an open-mind interested people in the

world of the building materials.

We have more decades of experiences. We developed the concept with the cost of many lessons, which we use in producing our houses. We use exclusively good quality and durability materials, but we do not pay for the completely useless extra things, which are good marketing tricks, but they are unnecessary.

This catalogue is a menu for those people, who want to build a house with us. You can find here all the materials, of which we think that they are appropriate to be in our houses.

We designed the catalogue that the time while You scroll through You can compile your imagined house. In each phrase, we explain what happen, what are the functions of the structural elements and how is it structured.

It is like a menu in a restaurant, and at the end, You can choose the best dinner for You: there are raw materials with good quality, the ingredients are optional and You can flavour it with your taste.



Foundation

The appropriate foundation is very important because this will make your house stable and waterproof. If it is good, we did not notice the effect. If it is made badly, it can produce destruction after, and expensive repairs, and it can cause discomfort feelings.

In the shaping of the building foundation, we have to take care of the building characteristic, the particulars of the way of future using, and the local geological conditions.

In the case of the family houses, the way of the using- aside from the extreme exceptions - is given, but we have to know the mechanical conditions of the ground layers. Another type of foundation is needed in case of the hard, connective soil, or in the case of loose soil, or in the case in the areas where flooding threats..

Strip foundation **BASIC SOLUTION**

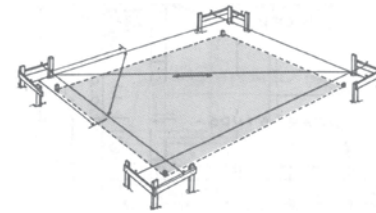
Concrete strip foundation with reinforcement if necessary - SM-VSA

We use in the case of family houses a strip foundation- with iron reinforcement when it is required. The size (thickness, depth) is defined by the construction of the particular house and the quality of the ground.

In our case, the foundation is a strip under the wall and this concrete strip gives the continuous support for the wall. It provides the stable support and the appropriate distribution of the weight of structure on the ground.



Progress of foundation construction:



1

1 SITE-MARKING

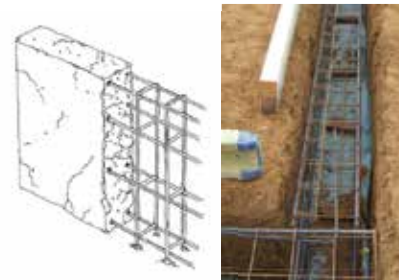
Positioning the foundation based on plan
The precise designation is very important because the form of the foundation is influencing the form of the building. This process we make with the top-quality laser-technology.



2 EXCAVATION

After the measuring and designation, we use an excavator to dig out the foundation using the parameters from the architects.

2



3

3 REINFORCEMENT

In the case of loose soils - when the mechanical soil structures require, we use iron reinforcement in the concrete foundation. We put iron wires and mesh into the excavated ditch, and it raises the strength of the foundation.



4 CONCRETE FILLING

We pour the concrete to the prepared ditch. In most cases it is transported by mixer trucks, and it delivered into the ditch with concrete pumps. During the filling, we compress it continuously. At the end surface will be smooth horizontally.

4



5

5 AFTER-TREATMENT

The concrete needs 28 days to be as hard to can build a load-bear construction in it. It can be calculated into the building process. Under the hardening, we make a professional after-treatment.

Footing, concrete covering

The next process is the footing of the building, and making the concrete covering layer according to the planned floor level. After these processes, we can begin the construction of the walls.

The footing of the building is the section between the building foundation and the walls. Practically, it is a load-bearing wall section, that relays the weight of the building to the foundation, so it has to be very solid, and strong, to do its function.

Depends on the concrete strip foundation level, the footing can reach down under the ground, and maybe we put some humus filling next to it. It has to be frost resistant.

In our houses, the footing made from concrete formwork blocks with concrete filling and reinforced with steel wires in favour of the best stability. This type of footing fills the role of the foundation crown too.

The height of the footing defines the floor level in the house compared to the environment. When the footing is finished, the building (places of the rooms) will be filled, and the whole construction gets a steel-mesh concrete plate coverage. This will be the starting plane for the floor level.

Footing + concrete covering

Leier plinth brick - SM-LE-305023

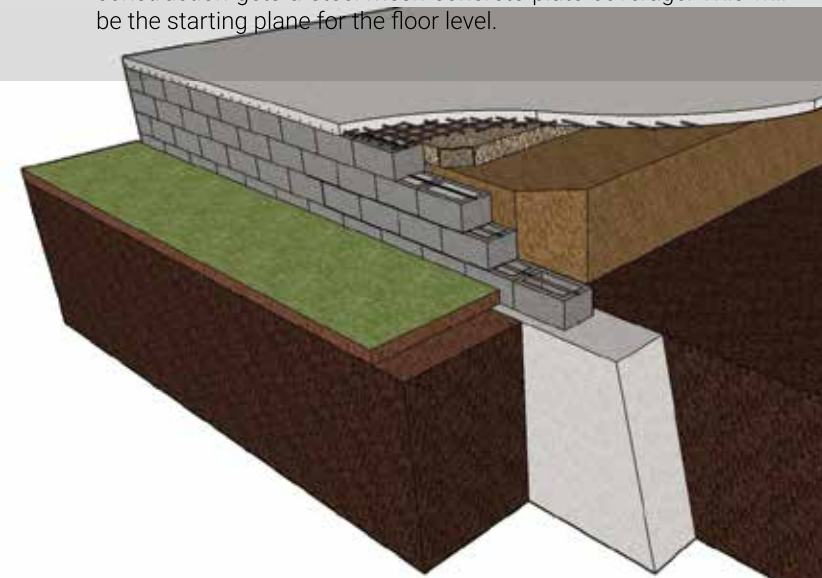
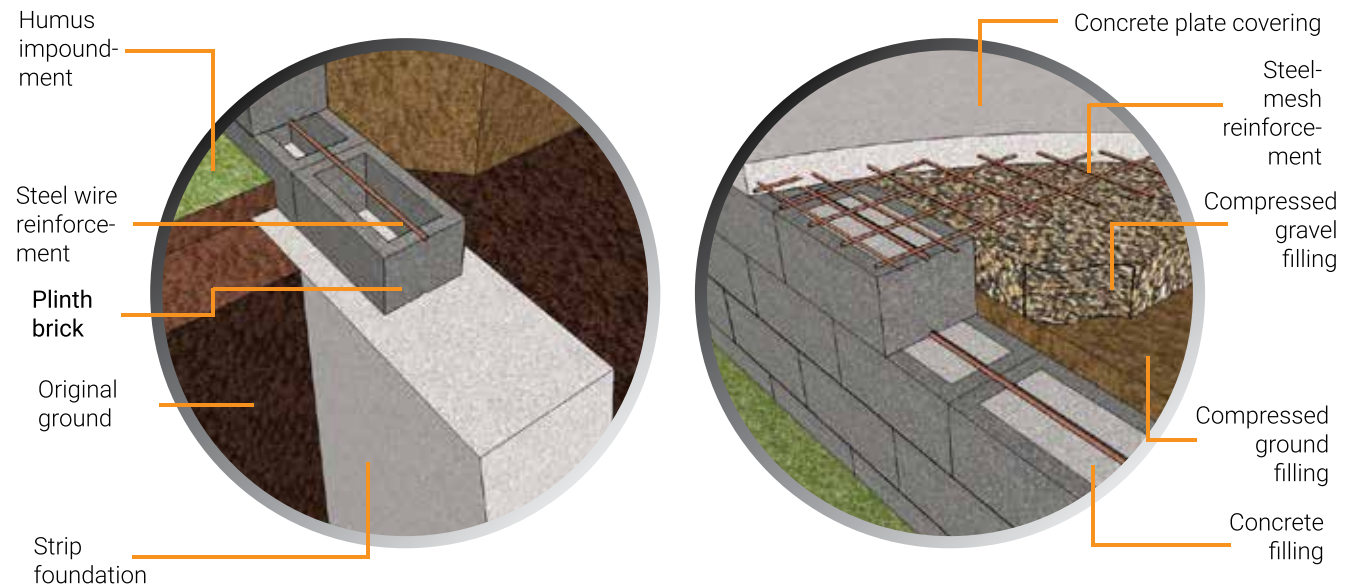
Reinforced concrete covering - SM-MBLF-10

BASIC SOLUTION

We make the footing of our houses from the high-quality Leier plinth bricks. We put onto that 10 cm thick steel reinforced concrete cover which defines the level of the floor.

When the footing is finished, we fill the places of the rooms. First, we put soil into, what we compress with machines. After that, under the concrete covering, we put gravel layer, which we compress before the concrete works also. It is important because of the higher stability and avoids from cracks later.

The 10 cm thick monolith concrete plate covering is enough solid to take the load of the rooms which will be built on it.



Load-bearing walls

Load-bearing walls bear the slab and the roof. This walls bear a load resting upon it by conducting its weight to the foundation structure.

The function of the load-bearing walls is not only dividing the interior from the outside, but weight bearing, heat and sound insulation. Therefore, these are thicker and stronger than the non-load-bearing inside walls.

Onto the concrete covering layer, we put bituminous sheets, merge without gaps - that prevents moisture go into walls.



Ceramic block brick

BASIC SOLUTION

Porotherm NF 30 - SM-PT-NF-30

LeierTherm NF 30 - SM-LT-NF-30

In the case of load-bearing walls, the standard elements are the ceramic blocks which have long tradition.

They're made from natural materials with advanced technology in all over the world, and it allows to be complies with the strict conditions in case of a modern house. We build our houses with this type of brick simply and fast.



The block's structure is cellular and it means that has a some heat-insulating capacity, however, modern houses in continental climate need separately heat-insulation systems. The external wall of the brick is thicker, more massive, it can bear bigger load, and more resistant to the external damages. The internal structure is cellular, and designed to be able to bear the weight of the building. It is fireproof.

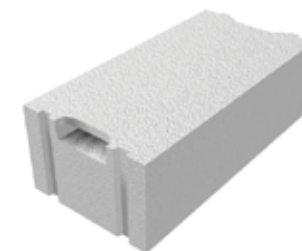
Aerated concrete brick

UPGRADE I.

Ytong Classic NF 30 - SM-YT-P-30

Highly accelerated construction, easy machining, easy afterworks.

Aerated concrete brick with its homogeneous material is easy to use and highly accelerate the construction. It is a big sized brick, elements have exact and very precise size, what is made the construction time shorter, and provide high quality. Compared to the other bricks it is not rigid, not break-splintered, easy to cut - either with hand-saw too.



It contains only minerally materials, so it is totally fireproof.

We can prepare the places for the electrical fittings in the wall easily without any major destruction, so the afterworks need minimal work too.

The tiny pores close air, and it gives very good heat-insulating capacity to the wall. The inside structure is the same at every point of the wall, so from this brick more easily can be built structures without thermal bridges.



Inside walls

The internal walls don't have to be load-bearing, so these have another structure, and it can be thinner than the load-bearing walls.

The most important function is the separation of rooms and other internal places. We can realize the exact shape of rooms with the help of these partition walls. In the case of its structure, there is more solution.

In the case of modern houses - where the modern doors and windows offer excellent closing - the moisture handling is more and more important role.

Some materials can absorb more water vapor than the others. The natural gypsum based structures can absorb vapor when the humidity is high in the houses and release it when the humidity is low.

The internal walls don't have a load-bearing role, they are made after finishing the slab structure.

Ceramic partition wall

← BASIC SOLUTION

Porotherm or Leiertherm 10 NF partition wall brick - SM-PT-301023

Traditional dividing wall from fired ceramic.

It's made of natural materials, which can be built with traditional laying mortar. It conforms to the expectations of the modern age. Traditional plastering goes onto the wall. Between each working phase, we would wait because of the technological bonding time of the mortar and the plaster. The water vapor catching ability is just moderate.



Aerated concrete partition wall

← UPGRADE I.

Ytong PVE 10 NE - SM-YT-601020

It has excellent sound insulation ability and easily can be installed.

Easily can be installed because the form of the units, and everybody can easily form the bricks if needed. Blocks are stacked together with a rapid hardening mortar, what helps to reduce the time between the technological phases. It contains tiny air bubbles, which help the better sound insulation characteristic. It has medium good water vapor ability.



Gypsum based partition wall

← UPGRADE II.

Albafal 8 NF gypsum partition wall - SM-AF-671050

It has excellent water vapor catching abilities. This type of wall construction can be built extremely quick and needs minimal afterworks.

This is the high-end of the dividing wall construction. The totally naturally material bricks can catch the huge part of moisture when the inside relative humidity is high, and when the humidity is low, they can let off it.

The size and the forming ability of the units can provide extra easy and quick building time. The units are smoothy polished, so we need minimal afterworks before the coloring - we can avoid the plastering.

This is the more environment friendly dividing wall material.



Details	Porothermm (BASIC)	YTONG (UPGRADE I.)	ALBAFAL (UPGRADE II.)
Material:	terra-cotta	aerated concrete	gypsum
Size:	300x238x100	600x200x100	657x500x80
Density:	820 kg/m ³	642 kg/m ³	900 kg/m ³
Flammability:	Non-burnabel (A1)	Non-burnable (A1)	Nem-burnable (A1)
Fire resistancy:	EI 90	EI 90	EI 180
Vapor catching ability:	weak	moderate	excellent
Sound insulation:	38-40 dB	39-41 dB	36-38 dB
Construction time demand (wall ready for coloring):	10-20 m ² /day/erson	20-25 m ² /day/person	35-40 m ² /day/person
Idle times until colored wall:	10-28 days	depends on the type of plastering	none

Slab

After completing the load-bearing walls the construction of the slab (attic floor) begins. The slab is a structure that is resting on the load-bearing walls which separate the heated living space and unheated attic.

After completing the load-bearing walls, they are being reinforced with steel concrete crown on top of the walls. This is a concrete strip which is on top of the walls, has a special steel reinforcement. This is important for various reasons:

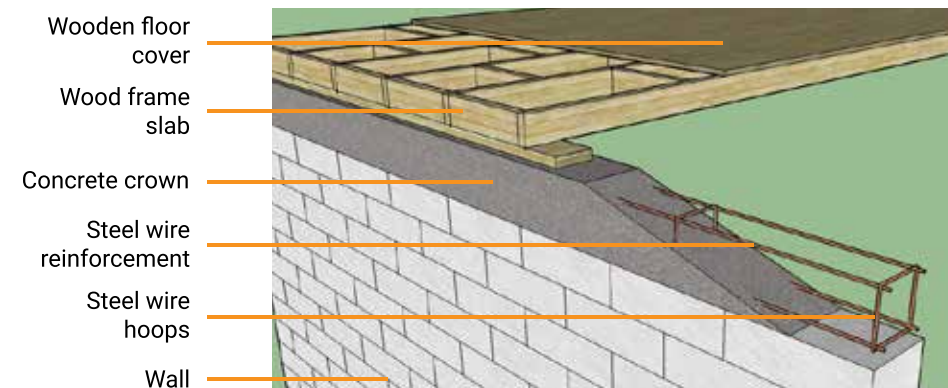
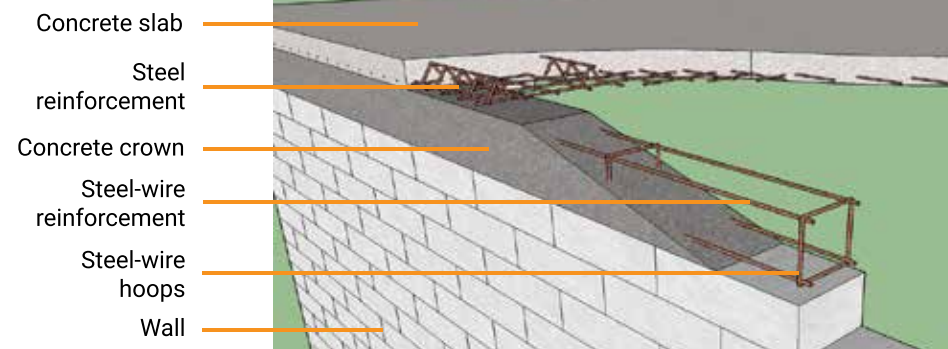
- It helps the cohesion of the horizontal walls, pick up the forces in a horizontal direction (for ex. roof structures side pressure), load and balance a possible unequal force of settling.
- Divide equally the point-like forces, as the pressure of the joists of the roof structure which lay on the wall.
- Ensure the connection between load-bearing walls and the slab structure.
- It helps to distribute the torque vested to a wall section - ex.: in the case of protruding balconies.

After the walls are closed with concrete crown, the slab structure will be built.

We sort them by the holding structure. Accordingly, we give wood slab solutions or reinforced concrete solutions for the houses.

The slab is practically a bounding structure. From below this is the ceiling of the room, from the top view this the floor of the attic.

29%



Wood-structure attic slab

BASIC SOLUTION

Wood slab - SM-FAF

Wood-beamed ceiling structure with transverse reinforcements.

The beam structure goes onto the reinforced concrete crown. This is a light weight ceiling structure. It is faster to build than a monolith concrete structure, but in terms of heat-storing capacity, it is less powerful than the concrete solution. Load capacity is less than the reinforced concrete slabs, but more than enough for family homes if you do not want to store large or heavy stuff in the attic.



Reinforced concrete slab

UPGRADE I.

Concrete slab - SM-MBF

High load capacity, high massivity and heat-storage capability.

The continuous (monolith) concrete slab structures have great benefit from their large weight. Therefore, they have a high heat-storage capacity, thus helping to balance the fluctuations in temperature.

Building them takes a little longer, because we should also include the solidification time of the concrete.



Roof structure

After the completing the slab, the next major step in the construction is the roof structure.

The roof structure specifies the supporting structure for roof tiles and it separates the attic from the outside world. In our cases, we use wooden roof constructions. The roof structure must be designed and constructed beside the aesthetic aspects to maximize the protection of the house.

Roof structure holds the tiles or other covering material on the building. When creating a roof, we need to consider the location specific weather conditions.

In Central Europe on the continental climate all four seasons can be found, so it must withstand both hot summers and cold winters with snow. It must withstand the weight of snow, blowing strong wind and the heat of the sun too.

While making the roof, we pay attention to these things.



Wooden frame roof structure

← BASIC SOLUTION

Roof structure - SM-GTE

Roof structure what congruous to the house.

The first and most important thing is that the roof has to fulfill its true function - to protect the house from bad weather.

After this case, we optimize all the structure that is consistent with the customer's aesthetic needs and take care to should not contain unnecessarily complicated, technically unnecessary and not justified cost-increasing solutions.



Roof tiles

We only use high-quality concrete tiles on our houses which for decades have been shown as excellent resistance to continental climate conditions.

Because of our climate conditions, a roof covering must withstand the heating sun and cold in the winter. During the spring period, it must withstand the fast repeatedly freezing and melting situations. Selection is based on several decades of experience in building of roofing materials, which after construction still stand for the decades and not just only provide the protection but they keep a the beauty of it.

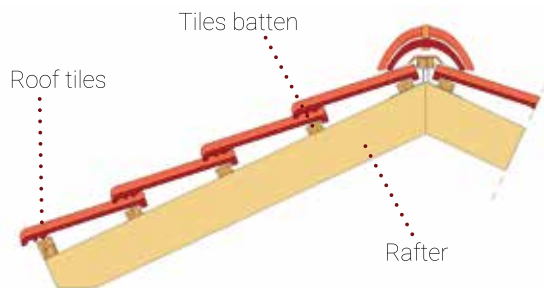
One-colored tiles **BASIC SOLUTION**

- Bramac Roman, Red - SM-TCS-BRRO-P**
- Bramac Roman Antracit - SM-TCS-BRRO-A**
- Bramac Roman, Dark brown - SM-TCS-BRRO-S**

Forms of Tuscany.

The Bramac Roman roof tiles traditional solution. Soft wavy pattern is widely known for quality and reliability far suggests.

The tile surface is smooth, the rounded form gives the building an elegant appearance. Character profile is unmistakably unique and architecture allows for easy shaping. As standard, the Roman model preserves the original color and texture during long time.



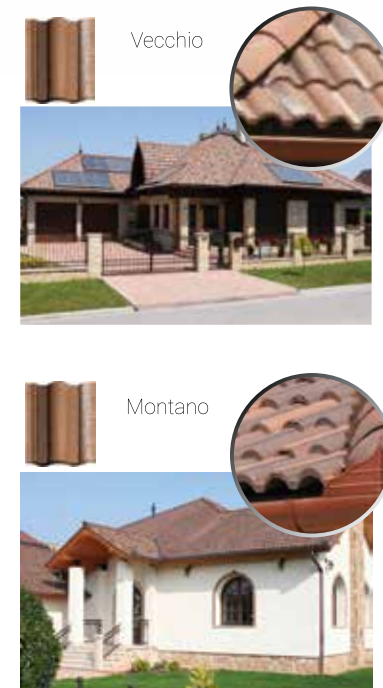
Patterned with special coating **UPGRADE I.**

- Bramac Adria, Vecchio - SM-TCS-BRAD-V**
- Bramac Adria, Vecchio - SM-TCS-BRAD-M**

Authentic Mediterranean lifestyle feeling.

Romantic southern forms, natural colors, unmistakably unique character. Three-layer, multi-colored rustic surface with soft waves make it almost feeling an atmosphere of the Adriatic Sea.

A special feature of the Bramac Adria roof tile is the "Slurry" technology. During manufacturing, colored cement paste is used which is totally merged with the base, does not wear down, thus preserving the original color of the tile up to 30 years. Thanks for the special surface treatment, it is UV-resistant.



Features	BASIC	UPGRADE
Material:	Colored concrete	Colored concrete
Mass:	4,5 kg/pcs	4,4 kg/pcs
Colors:	red dark brown antracit	vecchio montano
Surface:	Standard treatment	Premium treatment, moss-free surface

Gutter system

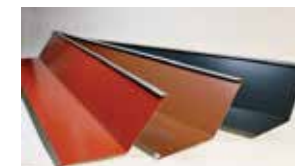
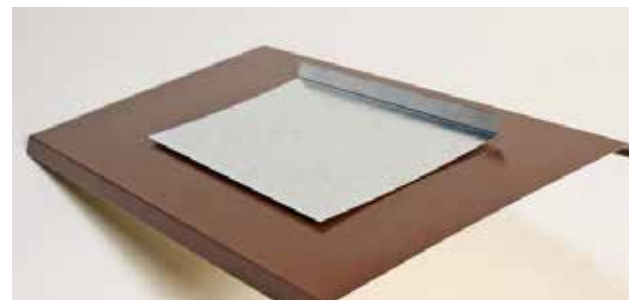
After the completion of the frame of the roof structure, the gutter system installation is the next session of the roof construction.

The drainage of the runoff water from the roof is served by the gutter system. This is the name of the entire system concept. Not only do the gutters themselves are included, each of the other elements serves the efficient drainage of rainwater.

On the continental climate, a significant amount of rainfall can fall in a short time. Appropriate size and shape of canal system is needed for the reason that the total amount of water be able to remove from the roof. It is important to the channel cross-section be big enough in proportion to the roof area.

An integral part of the rain drainage system are those additional curbs and other metal items, which effectively lead off the rain water at some special connection of the different areas of the roof. They are also important to be built well.

We build effective gutter systems in the case of our houses, taking into account all the possible climatic events. Because of this reason only good quality and efficient version is made in all case of our houses.



Colored aluminium gutter system

Colored aluminium gutter system - SM-CSAT-ALU

BASIC SOLUTION

High quality and aesthetic gutter systems are added to each roof we made.

The curbs and joints in all cases made from aluminium sheet matched to the color of the roof tiles. Easy formability and exceptional durability – life, it is not threatened by oxidation!

In the case of gutters and rain water drain tubes we build aluminium elements matching to the tiles too.

PREFA gutter system

PREFA gutter system - SM-CSAT-PREFA

UPGRADE I.

Highest quality PREFA system if needed.

The PREFA surface finish is a guarantee for stable value and long-term quality. It remains fully functional and retains its great look even after years in the hardest of practical tests.

- Corrosion-free and long-lasting
- Certified original quality
- 11 standard color, and unique colors if needed
- Extremely low-maintenance
- Extensive range of roof gutter accessories



Windows

In the case of windows it is especially important to pay attention to professional installation, and for that to the windows not even be a poor quality.

The window is important in the case of a building. For the residents, it provides the brightness of rooms and the view to the environment. Technically, however, much more is required in case of a good window and a good window installation.

If you consider only the window itself, then used to talk about the heat conductivity factor of the frame and the glazing. This factor indicates how much heat is lost through the each of the window structures.

Going under an optimal heat conductivity factor generates unreal huge additional cost. In the case of our houses, windows types are calculated carefully and always keeping the quality in mind.

Note that in each case, the windows break the homogeneous structure of the wall or the roof.

The quality of the installation is also important. As much as possible has to avoid the heat bridges, which produce extra heat loss and condensation which is not required. Our engineers have personally control each building in this process as well.



Double glazing windows

← BASIC SOLUTION

Rehau Euro-Design 70 - SM-REH-EU70

Quality product, good value for the money.

The installation depth is 70 mm and the 5-chamber technology gives an efficient heat protection.

Specification:

- Building depth: 70 mm
- Number of chambers: 5 chambers
- Thermal insulation: $U_f = 1,3 \text{ W/m}^2\text{K}$ (in a case of standard reinforcement)
- Sound proofing: 4 – class (VDI 2719)



Triple glazing windows

← UPGRADE I.

Rehau Euro-Design 86 - SM-REH-EU86

Economical 86 mm system with outstanding thermal insulation.

Higher than average installation depth of 86 mm allows for any type of effective thermal insulation glass, 3-layer glazing windows or doors to install.

The chamber structure of the window profiles represent additional insulation where the insulating material is air.

Specification:

- Building depth: 86 mm
- Number of chambers: 6 chambers
- Thermal insulation: $U_f = 1,1 \text{ W/m}^2\text{K}$
- Sound proofing: 4 – class (VDI 2719)



Triple glazing wood or wood-alu windows

← UPGRADE II.

Módosfa wooden windows - SM-MOD-AB

Natural materials, highest-class construction.

Technical specifications just like the best plastic windows, beautiful natural wood frames and cases. With special aluminium outside covering on demand. We offer only the windows of Módosfa Ltd., what is know from its world standard products.

- Wood or wood-alu combined frame
- 2 or 3 layered glazing with noble gas filling on demand
- Special coloring with demanded colors

We give unique quotation in every case after consultation with the customer.



Rolling shutters

The right choice of rolling shutters is also important for protection and for aesthetics too.

The primary objective is to prevent from outside light and viewer access. Perfect sealing can be achieved by external shutters - we offer for our houses only these types. However, there are other considerations in the case of a good shutter. It protects the windows from external influences: rain, snow, hail or any other damage caused by objects. Closed shutters improve the heat and sound insulation level of the windows.

The shutters cases can be external, or hidden. Hidden shutter case is aesthetically hidden behind the thermal insulation, and gives technically better thermal solution - we offer them for houses.

Hidden shutter case

BASIC SOLUTION

Shutter case hidden under insulation - SM-RRT

Aesthetic and excellent technical preparation for receiving the shutters.

As standard, we ensure the installation of shutter cases in all cases for each house.

The shutter case is located outside of the wall structure, so we do not break the homogenous wall structure and not generate additional heat bridges what could generate more heat loss.

The thick insulation allows the entire shutter case to be installed behind the insulation.

The color of shutters can be chosen by the customer.



Unique colored shutters

OPTION

White shutter - SM-RRB-W
Colored shutter - SM-RRB-COL
Installed mosquito net - SM-RSZB
Motorized shutter moving - SM-RMOT

The shutter system building is an additional service we offer.

Installation of shutters in all cases require an individual discussion process. You have to decide that:

- for which window require shutter and for which not,
- which color do you want
- for which window would like to put a mosquito netting exactly
- would like to install motorized shutter mover, if yes, for which window.

Therefore, in all cases we give quotation after discussion with the customer, knowing of windows sizes and exact demand of the customer.



Thermal insulation

In continental climates, where are characteristic hot summers and cold winters, the thermal insulation of buildings is important.

Basically determines the comfort level of a building.

Without thermal insulation of the building, the house much easier warms up in the summer and more easily cools down in winter. Without optimal insulation, we can use much more energy as needed in the case of a well-optimized insulation system. In addition, the insulation will help save the produced heat in winter, and keep the building cool in summer.

Different types of thermal insulation materials are required for footing, below to the floor, to the walls and ceiling. We take care to the insulation be continuous. Poorly designed and executed thermal insulation can occur unwanted thermal bridges, which can cause condensation on the colder surfaces. Our company pays high attention to this - we have top ranked designers who are admitted in the area of energetics. We pay attention to a cost-effectiveness: we know that above a certain insulation thickness in our climates generates higher investment costs than you can save in the future.

So we always keeping in our mind to offer insulation systems for our buildings that are optimal for cost efficiency and return on investment as well.

If a customer wants to choose more extremely insulation solution as we basically offer, we make an individual calculation for it.

Premium insulation system



Heating insulation system - SM-HSZ

Outstanding thermal insulation solutions in basic price

Footing insulation

In a case of the footing we not just only thinking about heat insulation. The lower section of the wall has a bigger danger of freezing. The material is adapted accordingly.

- Waterproof XPS footing insulation
- 10 cm thickness



Floor insulation:

Adequate floor insulation needed to minimize heat loss what can escape to bottom, prevent from cold surface what can cause unpleasant cold feeling - out of heating season too.

- Step endurance EPS insulation
- 10 cm thickness



Facade insulation:

To minimize the heat loss during the walls, we offer facade insulation system with optimized thickness.

- EPS facade insulation
- 15 cm thickness
- The whole succession of layers: $U_{\text{facade}} = 0,16 \text{ W/m}^2\text{K}$
[required: $U = 0,45 \text{ W/m}^2\text{K}$]



Slab insulation (for ground floor houses):

A significant part of the transmission heat loss goes through the slab. Because of this, slab insulation is much important for us.

- Mineral wool insulation
- Totally 25 cm thickness in 2 layers
- The whole succession of layers: $U_{\text{slab}} = 0,17 \text{ W/m}^2\text{K}$
[required: $U = 0,30 \text{ W/m}^2\text{K}$]



Angular roof insulation (where doesn't exists normal slab)

In case of garret rooms or gallery spaces without normal horizontal slab.

- Glass wool insulation
- Totally 25 cm thickness in 2 layers
- The whole succession of layers: $U_{\text{slab}} = 0,20 \text{ W/m}^2\text{K}$
[required: $U = 0,25 \text{ W/m}^2\text{K}$]



Heating and sanitary hot water

We use low-temperature floor heating system in favour of high comfort.

The heating system of a building significantly affects the conformity of the dwellers. We offer every house with floor heating. This means harmonious temperatures at every place of the house. This is much more comfortable for people the heaters which radiate heat from one concentrated point.

Due to the right planning and setup, heating water with low, 30-35 °C is enough, so the temperature of the floor can't be higher than 26-27 °C, what is comfortable interval for the people.

Besides the traditional boilers, the floor heating is ideal for the renewable source heaters too. Our customers can freely decide what type of heating system do they want to use in their house. Man can choose between lower investment costs at the beginning and long term sustainability.

We offer geothermal source heat pump systems which ensure 4-5 kW heating power from 1 kW electric energy consumption according to the nature of this technical solution.

Natural gas based heating system

Heating system with gas boiler - SM-FFR



Lower investment costs.

In the basic package, we offer the most state of the art condensation gas boilers with high efficiency. The operation is fully automatic, heat the house and make the sanitary hot water too.

Content of the basic heating system:

- Complete pipeline of the floor heating
- Condensation gas boiler with capacity planned to the actual house
- 2 pieces of water tanks with 150 l storage capacity
- 1 piece of towel dryer radiator per bathroom with electric heating cartridge



Heating with renewable resources **UPGRADE I.**

Heating and SHW with alternative resources - SM-AEFR

Sustainable and environmental friendly heating and SHW making system.

Because the rising prices and the decreasing quantity of the fossil energy resources, more and more house contain long term sustainable and environment-friendly building engineering solutions.

Our company is committed upholder of this technology and has big experience in planning and installing these systems.

In upgrade package, we offer heat pump system for heating and hot water making with vertical or horizontal brine tubes on the ground side.

The operation is fully automated and can be managed remotely to.

For demand, we make unique quotation for every house.



Ventilation

Besides the heating and sanitary hot water, there are other building engineering elements what serves the comfort too.

In case of the modern buildings, the heat loss going trough the different structures or heat loss caused by the bad windows and doors is very low. In the case of nowadays buildings, a huge part of heat loss arises as ventilation loss. Fresh air is needed for the houses too, but nobody wants to loose a huge amount of heating energy. The heat recovery ventilation system becomes an important device of a modern building engineering system.

If somebody open the window, whether get too much fresh air and loose more energy than needed or not enough. Simply solution when the frame of the windows will be cut afterwards and equip a little unit what can control the amount of the air with the help of the humidity. This is like an old and "windy" window with optimal air change - but we loose the total energy content of the ventilated air.

To recover the major amount of the ventilation energy loss, we can equip heat recovery ventilation systems. The extracted, used air from the buildig, trough a heat exchanger can heat up the fresh air what comes from outside (in summer in reverse operation). With this solution, the ventilation heat loss can be reduced dramatically (up to 90% saving). That means a 30-40% total heat loss reducing in case of a modern house.



Ventilation tube installation ← OPTION

Flexible pipe system - SM-HRV-FLEXITUBE

Flexible ventilation tube system what can be hidden into the slab too.

We can dimidate the ventilation system. One is the unit itself and another part is the pipe system what forward the air.

If somebody think about ventilation system in the beginning or during the construction, it is expedient to install the tube system during the construction. Afterwards the installation cause big destruction.

We build the pipe system from high-quality, certified flexible ventilation tubes, which can be hidden behind a gypsum board ceiling or into the slab structure too.

The installation of the unit can be chosen later too.



Heat recovery ventilation unit ← OPTION

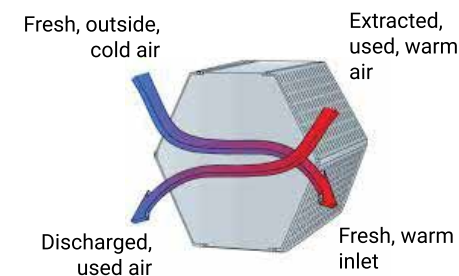
Ventilation unit- SM-HRV-UNIT

Automatic operation, always fresh air with minimal heat loss.

The heat recovery ventilation systems offers the professional solution. They can ventilate the air in a controlled way, and can save the major part of the energy content of the ventilated air with the built-in heat exchanger. They minimize the heat loss.

Two built-in ventilators extract the used air from the house and move the fresh air from outside. The heat exchanger saves the energy content of the air. They have professional controllers which consider a lot of parameters (ventilated air volume, temperatures, humidities, etc.), and give optimal working conditions.

Our company has huge experience in installation of these systems.



Air condition system

Besides the heating and sanitary hot water, the air condition system is another building engineering element, what is a basic element in today's houses.

On continental climate, where the winter is cold and the summer is warm, the demand for effective heating and cooling is side by side needed.

The owners have unique demands: somebody lives the house permanently, somebody only uses it as summer or winter holiday house.

In every case the need of the owner is unique. In a permanently inhabited house, the owner may need air conditioner system, air handling system and efficient heating system too. In a holiday house, maybe not needed every element. (If you use the house only in winter, then air conditioner is not needed on area of traditional continental climate).

It has to take into account that the function of the house can change later.

That is why we construct the houses with pre-installed air conditioner wiring and ducting. If you need, you can mount the A/C units immediately, but if you decide to install them later, then there is not needed to destroy anything.

A/C wiring and pipeline

OPTION

A/C pipeline - SM-ACPIPE

We deliver every house with preinstalled A/C system wiring and pipeline.

In the period of building engineering installation, we make the cable and pipeline works of the air conditioner system. Only after it make we the inside plastering and other finishing works. In this way, customers receive a hidden, aesthetical pipeline system for A/C system. The inside and outside units can be mounted immediately or later too - nobody needs to destroy everything.

The A/C units are optional accessories.



Air conditioner units

BASIC SOLUTION

Air conditioner unit - SM-DA-ACUNIT

We offer to our houses Daikin split A/C units with the best quality.

If you need, we install Daikin split A/C units. The customer tells us the demand, which rooms have to be equipped with A/C units and we choose the right models.

At every single house, we calculate the system capacity according to the cooling demand of the house and the size of the rooms.



Electric network

During the electricity works, not only the cables of electrical and lighting systems but the other communication wirings are installed too.

We configure the electric network according to today's needs. Beside the recommendable amount of plugs, lamp connections, switches in every house basic demand is the prewired broadband internet connection, telephone, and TV too. When the owners will move in, they need only to connect the devices and enjoy their house.

Wires are in cable ducts engraved to the wall. It is hidden, but afterward, it can be more easily modified when it is needed.

We develop power supply for the house what is enough for every residential need.

We have every permission in from the electricity provider, so the owner doesn't have trouble at all with the administration.

Wiring

BASIC SOLUTION

Electricity wiring - SM-VVEZ

Complete wiring works.

We give in basic package the following solution for every family house:

- 3x16 A electric supply
- 1 piece of switch for ceiling lamp in every room
- 3 pieces of sockets in each bedroom
- 1 piece of socket in each bathroom
- 6 pieces of sockets in each living room
- Telephone, TV and internet are wired to the living room

You have to tell us the exact place of sockets switches, lamps and other connections at the planning phase.



Sockets and switches

BASIC SOLUTION

Legrand Cariva white - SM-LEG-CAR-W

Legrand Cariva beige - SM-LEG-CAR-B

Top quality in the basic price.

Legrand is a famous brand in the world of electricity products. Their switches, plugs and other connectors are from very high-quality material, they keep their colors after years too. In the basic package, you can choose a white or beige color from Legrand Cariva type sockets and switches.



Unique sockets and switches

UPGRADE I.

Unique Legrand products - SM-LEG-UN

Elegance and design.

There are a lot of elegant clear-out formed pieces of electric equipment in the range of Legrand. You can find entirely exclusive switches and sockets too. In upgrade package, you can choose other Legrand types over the basic too. We make quotation according to your need.





Painting, wallpaper

The color or decoration of the wall is one of the main interior element in every house. We know it also, so we give distinguished attention to the needs of our customers.

After we made all outside and inside electricity wiring, heating, water and waste water pipe works, we can make the outside insulation, then the inside and outside plastering.

The inside plaster coating is made with special machines. After we made a harsh surfacing, and after it can be plastered the final smooth surface.

If the house has a wooden slab, then the ceiling receive gypsum board covering. In the case of concrete slab, we make the same plastering as on the walls.

After we made the final surfaces inside and outside too, we paint or cover the surfaces according to the choice of our customer.

Wall and ceiling painting **BASIC SOLUTION**

Painting with one color - SM-FEST-BASIC

One-color-paint with chosen colors.

Inside painting:

- One-color wall painting: you can choose one paint color for walls per room
- White ceiling in every room
- If you want to combine more than one color in a room, please ask our unique quotation

Outside painting:

- Plastering and coloring with one color according to your choice
- Any type of decorating element means extra fee



Wallpapers **UPGRADE I.**

Wallpapers - SM-TAP

You can choose wallpapers which have a different type, texture, and material, from modern to retro, from simple to unique style.

You can chose from thousands of wallpapers. The price os these type of wall covers show huge differences what depends on their design, material, type.

You can choose wallpapers from special catalogue and we make quotation according your selection and size of your rooms.



3D decorating elements **OPTION**

3D decorating elements - SM-3D-DEC

In the case of walls and ceiling, a special effect can be achieved with different 3 dimension decor elements, bordures, and frames.

Only fantasy can impose limit how can be used the 3D elements. We can make different bordures to the connection of walls and ceiling, we can make frames divide the different surfaces. There are special 3D elements, rosettes too.

You can choose from the actual range and we make quotation according to your selection and size of your rooms.



Ceramic tiles

Every house has ceramic covers. Besides the aesthetic, they have practical role too.

After the inside plastering and making the final level of the floor filled by estrich composition floor material, we can paste the ceramic tiles.

Practical role: man can clean more easily these surfaces than the painting or wallpapers, or the parquet on the floor. The flushing water or the oily moisture in the kitchen don't induce any problem.

These tiles have an aesthetic role too - determine the view of the interior. Nowadays, more and more customer choose tiles (mainly floor tiles) to living rooms and bedrooms too.

Wall and floor tiles ← BASIC SOLUTION

Zalakerámia wall tiles - SM-ZAL-CS
Zalakerámia floor tiles - SM-ZAL-JL

Value for money.

Zalakerámia is a traditional producer of the ceramic tiles. Every range from their wall or floor tiles has trustful quality.

Content of the basic package:

- Wall tiles in kitchen between cupboards with maximum 4 m² net area.
- Floor tiles in the kitchen
- Floor tiles in corridors
- Floor tiles in bathrooms
- Wall tiles in bathrooms upto the height of the door (up to 2 m).



Extra wall and floor tiles ← UPGRADE I.

Unique wall tiles - SM-CS-EX
Unique floor tiles - SM-JL-EX

Attractive design without compromises.

Whether you like the modern or the antique designs, you can find our assortment solution what is absolutely fit to your taste.

- Exclusive designs and textures
- Diversified design solutions
- Special decor elements

Prices depend on the area, number of special elements, decor tiles, etc. Please ask our special offer.





Laminated floor, parquet, strip floor

In the case of bedrooms and living rooms, we offer a wide range of warm floor covers. The assortment is practically unlimited.

The so-called warm floor covers give a different feeling, it is much more close to nature than tiles.

There are solutions from the simplest laminated floor to the most exclusive natural wood parquet and Sweden (strip) floor.

We attend to select warm floor covers in our houses which answer the requirements of the floor heating system.

Laminated floor

← BASIC SOLUTION

Laminated floor covering - SM-LAM

Simplest warm cover for the comfortable feeling.

We offer in basic package laminated floor with wooden cast in bedrooms and living rooms.



Parquet

← UPGRADE I.

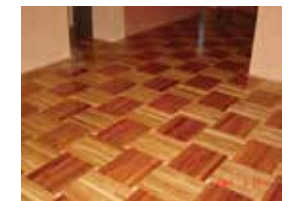
Parquet - SM-PARKETTA

The real parquet is an eternal fashion.

You can choose a smooth pine or a hard beech or oak parquet as cover in this upgrade package.

Practically there is unlimited variant based on the textures.

Prices depend on the area, type of wood, texture, decor elements, etc. Please ask our special offer.



Strip floor, Sweden floor

← UPGRADE II.

Strip floor - SM-HAJOP

Naturel wood, elegant, massive look.

Those who love interior solutions close to nature, for them is a good alternative the wooden strip floor / Sweden floor. This is a real wooden floor cover, what ensure really massive and intense appearance.

Prices depend on the area, type of wood, etc. Please ask our special offer.



Sink, lavatory

Because of the conveniences, the location, size and equipment of the bathrooms and toilets are important.

At the beginning of the planning process, we used to get on the number, the size and the exact place of the bathrooms and toilets.

We can plan the water pipes' and the wastewater system's trace, the place and water supply of the different sanitary elements and we can calculate their costs based on the previous discussions of our customers. That's why it is important to finalize in planning phase the exact demand of the customer. Afterwards modifying the place of a simple water tap it is difficult to and could cause huge damage.

Sanitary products offered by us answer the requirements of the highest qualitative expectations.

Sink

BASIC SOLUTION

Alföldi 4169/70 sink - SM-ALF-4169/70

Excellent value for money.

Hungarian Alföldi products give very good solutions in terms of value for money for every house.

- The basic price contains 1 piece of the below mentioned porcelain sink per bathroom.

Features of Alföldi 4169/70 sink:

- White color
- 60x44 cm size
- It has one mortice for tap
- Without siphon cover



Exclusive sinks

UPGRADE I.

Design sinks - SM-MOS-DS

Unique appearance according to the imagination of the customer.

If you want another sink than the basic solution, we can show you countless type and shaped unique sinks from the classic to the futuristic style.

Quotation and ordering will be done according to the exact choice of the customer. If you interested, please ask our special catalogues.



Monoblock type lavatory

KOLO Idol monoblock lavatory - SM-KOLO-ID-M

Esthetic form, monoblock structure.

Kolo Idol porcelain lavatory has the following features:

- Bottom effusive
- Deep flushed
- Water tank with 2 button - 3/6 l
- White color
- 5 years warranty



Unique lavatory

UPGRADE I.

Unique lavatory - SM-WC-DS

Unique appearance according to the imagination of the customer.

As in the case of the extra sinks, we offer countless type and shaped unique lavatories from the classic to the futuristic style. It can be classical, monoblock structured, built into the wall, etc.

Quotation and ordering will be done according to the exact choice of the customer. If you interested, please ask our special catalogues.





Shower, bathtub

Shower corner with floor gully

← BASIC SOLUTION

Basic shower - SM-ZUH-BASIC

Simple and comfortable.

In the basic package, we construct in every bathroom a shower corner.

We mount onto the wanted place the shower tap. Under a floor gully ensures the drainage of the water.

Shower cabinet or shower wall is not part of the basic package.



Separated shower solutions

← UPGRADE I.

Shower walls - SM-ZUH-FAL

Shower cabins, glass wall, built shower walls.

Several solution exists to separate the shower from the other parts of the bathroom. You can choose fix wall covered with ceramic tiles, esthetic glass wall or the simplest shower cabinet too.

Quotation and ordering will be done according to the exact choice of the customer.



Bathtub

← OPTION

Bathtub according to the customers choice - SM-KAD

Different solutions for the lovers of the tub.

If you want tub, you can ask bathtub installation into the selected bathrooms. Several type exists: alone standing or built-in, corner tub, tub for more person etc.

If you want a bathtub, you need to inform us before the finishing of the planning and select the type of the bathtub.

Quotation and ordering will be done according to the exact choice of the customer.



Water taps

Water taps in bathrooms and toilets.

The places of the water taps are important question already at planning. We have to plan the water pipes and the wastewater system according to this.

We offer the product range of Mofém Zrt., what is the producer of the well-known world class brand "Teka" too. We use their products in case of the basic solution and at upgraded category too. Their product has the same top quality inner construction - only the design is different. You receive every water taps with 5-year producer warranty!



Mofém water taps - basic range **BASIC SOLUTION**

Mofém Junior EVO range - SM-CSAP-BASIC

Top quality in basic price also.

The private label products of Mofém Zrt. have the same inner construction as the world famous Teka products.

5-year warranty belongs to every piece of water taps!

Content of the package:

- 1 piece of shower tap per bathroom:
Junior EVO 153-0047-00
- 1 piece of sink tap per bathroom:
Optional models:
Junior EVO 150-0058-00
Junior EVO 150-0059-00
- 1 piece of tap flushed into the wall per bathroom:
Junior EVO 151-0066-00

153-0047-00



151-0066-00



150-0058-00



150-0057-00



Bidet handshower **BASIC SOLUTION**

Teka Bidetta - SM-KZUH-BASIC

We give bidet handshower to every toilet.

79.005.52.00

According to the modern hygienic conditions, we install a high-quality Teka bidet handshower next to every lavatory.

5-year warranty belongs to this product!

- Teka Bidetta 79.005.52.00



86%

Teka water taps - basic range **UPGRADE I.**

Teka VITA range - SM-MOS-DS

Shapes in style.

As the alternative of the basic package, we offer Teka VITA range water taps. You can order this upgrade instead of the basic package. This upgrade contains the same amount of elements like the basic category.

5-year warranty belongs to every piece of water taps!

Content of the package:

- 1 piece of shower tap per bathroom:
VITA 24.232.02.00
- 1 piece of sink tap per bathroom:
Optional models:
VITA Cascade 24.382.02.00
VITA 24.342.02.00
- 1 piece of tap flushed into the wall per bathroom:
VITA 24.171.02.00

24.382.02.00



24.342.02.00



24.232.02.00



24.171.02.00



Unique chosen Mofém or Teka water taps **UPGRADE II.**

Unique chosen water taps and accessories - SM-MOS-UN

Exclusive appearance, unique solutions.

A wide range of Teka and Mofém water taps and accessories offer products for every need from the simplest to the most elegant solutions.

We install every water taps, showers and other unique accessories from all of the actual range of Mofém or Teka sanitary products.

Quotation and ordering will be done according to the number of items and the exact choice of the customer.



Inside doors

We offer natural wood or laminated CPL inside doors to our houses.

In base price, we offer CPL foil laminated inside doors. These doors have been made with honeycomb structure carrier frame. The cover layer is fixed onto this frame, what can be itself wooden nerved. This layer mounted to the carrier frame with pressure or heat treating.

This covering layer is laminated with a so-called CPL foil, what save the door from the UV radiation, from smaller surface damages, different cleaning detergents. It gives the door a durable surface. A lot of colors and shapes can be produced this way.

Customers who prefer the highest quality can choose inside doors totally from natural wood. We offer the product range of Módosfa company. This Hungarian company is known from their word class wood doors.



CPL laminated inside doors

← BASIC SOLUTION

CPL inside doors - SM-IN-DOOR-CPL

We offer in basic price CPL inside doors.

You can choose freely the shape and color what is the best for your taste.

For price limit please contact us.



Natural wood inside doors

← UPGRADE I.

Natural wood inside doors - SM-IN-DOOR-WOOD

Beautiful, detailed artwork from the best quality of wood.

We offer really attractive, quality natural wood inside doors from the product range of Módosfa Company. They make purportedly always the best quality products.

If you choose this upgrade, we make a quotation from the unique doors and you have to pay the difference what is over the basic price.





Inside window boards

Window boards installed without thermal bridge.

In the case of inside window boards is not the only importance the attractive design and the physical saving of their surface. The installation shall be professional because these elements of the house must not break the thermal insulation case of the house. It is not allowed to feel any cold around the window boards in winter.

We attend to the professional mounting at every installation, so doesn't arise thermal bridge and you can't feel and see any displeasing moisture on the cold surface.



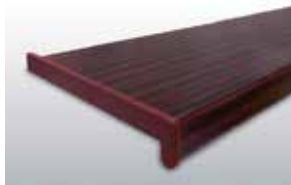
Plastic inside window boards



Plastic inside window board - SM-BAP-PL

We install plastic boards in that color which congruous to the window's color.

We take the windows' colors as starting point when we choose the window boards and install what is the most suitable to the windows in color. The boards are water and UV proof, they keep their color long lasting.



Unique chosen inside window boards



Unique inside window boards - SM-BAP-UN

Unique look and real natural materials.

It is available to choose boards from natural wood, stone, granite or marble too.

In every case, we make a unique quotation to these window boards according to their size, number, and the chosen material type.



Lamps

Lighting and decoration at the same time.

In case of today's modern houses, not only the lighting and generating different types of artificial light are the functions of the inside lamps, but significantly have raised the importance of aesthetic function also.

There is no accounting for tastes. As many houses - what is more - as many rooms, so many types of lamps or other light sources. It can be a standard ceiling lamp, wall lamp, hidden lighting, LED, spot, etc. Practically, there are not two equal solutions.

Lamp socket **BASIC SOLUTION**

Lamp socket - SM-IN-LAMP-SOCKET

Lamp socket in every room.

Since practically it is impossible to guess the taste of every single customer, therefore in the basic price we prepare 1 lamp socket in every room.

The customer can tell the exact place of them before the beginning of the electricity works.



Unique light sources

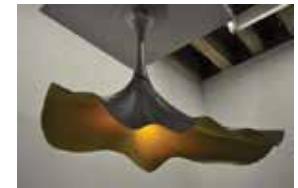
UPGRADE I.

Unique light source - SM-IN-LAMP-UN

Unique lamps and light sources.

Those who want other types of light sources than the basic solution, they can choose from another - directly lighting - catalog.

The cost above the basic price shall be paid.





Alarm and security camera system

Preparation and installing security and surveillance equipment and systems.

If you need, we prepare the cable works for alarm and/or surveillance camera systems, or install and set up the whole system. On demand of our customers, we make the cable works together with the other basic electricity constructions. In this case, all of the cables will be hidden into the wall. After it, you can connect the camera and alarm devices anytime you want. We can install and setup the whole system also.

Precabeling the alarm and security camera system

Pre-cabling alarm system - SM-ALARM-CABLE Pre-cabling camera system - SM-CAM-CABLE



Preparation of security systems.

If a customer doesn't want to install the complete alarm system or surveillance cameras at the moment but wants to keep the opportunity for easy installing of these systems in the future, then it is enough to make the cable work for these systems in the first step.

In this case, the cables will be installed hidden, aesthetic way into the walls. You do not need to destroy anything in the future if you want to mount the devices, or not needed to make inelegant cable works outside the walls.

If you want the preinstalling of cables, please tell it us at latest at the period of electricity planning with the following parameters:

- Exact place of the controller unit of the alarm system
- Place of the siren on the facade
- Type and exact place of sensors inside the house
- Exact place of the cameras
- Exact place of the central unit of camera system
- Exact place of the monitor of the surveillance system



Alarm system



High-end alarm system - SM-ALARM-SYSTEM

High category alarm system range.

Our electrician professionals install and setup only the top quality products of the world leader producers.

At every house, we assemble a system optimized directly to that house. If you want a complete alarm system, please tell it at the period of electricity planning and we make a quotation to you according to your house and your demand.



Surveillance camera system



Camera system - SM-CAM-SYSTEM

High-end camera system.

Besides the alarm systems, we offer top quality surveillance camera systems to our customers. As the alarm systems, these cameras are installed by our electrician professionals too.

If you want surveillance system, please tell it at the period of electricity planning and we make a quotation to you according to your house and your demand.



Fence

To enclose your territory, we offer several types of fences.

When major works of the construction are ready, and no more need to access the construction with huge machines, trucks, etc., then it is possible to build a fence. The main function is to demarcate your territory from the neighbor, but can fill a part of other functions too.

When the area has different ground levels, and you want to fill it up with soil to equalize the level, then the footer of the fence has to prevent pouring the soil to the neighbor's lower territory. The footer has other advantages too: demarcate the vegetation and plant, makes easier to maintain your backyard.

If you do not want to somebody get insight to your backyard, then there are wall-type fences too. The aesthetic is another point of view. There are choices on the market from a simple wire fence to the most expensive stone and wrought-iron combinations. The difference can be more than 50-fold in the price! We offer solutions in three categories.

Wire fence

BASIC SOLUTION

**Wire fence with 2 m height, without footer
- SM-WF20-NF**

Simple demarcation.

If you seek the simplest and maybe the cheapest solution to enclose your territory, the wire fence is the simplest solution what you can choose. There isn't footer, so the installation is quite fast.



3D steel fence

UPGRADE I.

**3D steel fence with 2,0 m height with footer - SM-3DSF20-F
3D steel fence with 2,5 m height with footer - SM-3DSF25-F**

More strength, solid footer.

Until the wire fence is a flexible type of fences, the 3D steel fence is from static steel cord panels. The 3D in the name means that the steel cords have more bends to strengthen the massivity of the fence.

The concrete footer gives very strength lower segment.



Concrete panel fence

UPGRADE II.

**Concrete panel fence with 2,0 m or 2,5 m height, one-side-bricked - SM-CPF-1
Concrete panel fence with 2,0 m or 2,5 m height, two-sides-bricked - SM-CPF-2**

Hides your backyard from any insight.

The main features of the concrete panel fence system are to provide a stable and static fence what can be installed quickly, and prohibit anybody to get insight to your territory. Because of the panel system, the installation process is quick.

For an additional cost, you can choose any color you want.

Type D



Type E



Type F



Type A



Type B



Type C



Pathways and pavements

The pavements and pathways around the house and in the backyard have more function.

In the basic case, the pathway is for foot-walk. After all, there is more aspect what we need to take into account. Pathway directly next to the building shall protect the footing of the building.

A foot-walk, a terrace, and a car drive-in pavement have to have other and other thickness and bearing capacity. The structure has to protect against the chops and changes of the weather too.

In the case of usage: sometimes you need a plain, easily cleanable surface - for example in the case of a covered outdoor terrace -, but sometimes you need directly a rough, skidproof surface - eg. in the case of a non-covered walk-path what can be iced in winter.

Unique solid pavements

OPTION

Unique selected solid pavements from LEIER's products - SM-OUTD-TK

Unique solutions, elegant decor pavement types which gratify every demand.

Whatever outdoor pavement is in the air, several beautiful solution exists. In the case of concrete or stone pavement types our company work with LEIER products which has excellent quality. After a prior consultation, we make for our customer unique outdoor pavements.

In case of every outdoor pavement it is needed to discuss:

- Exact place and measures of the pavements
- Exact type of the pavement
- If you want, the design inside the pavements

Concrete pathway

BASIC SOLUTION

Concrete pathway around the building and to the entrance door - SM-WPATH-C

Concrete pathway in the standard solution.

We make pathways in basic price for our houses with the following conditions::

- Concrete pathway around the house with 80 cm width
- 80 cm wide concrete pathway from the main gate to the entrance door



Additional concrete pathway or pavement

Additional concrete pavements over the basic - SM-WPATH-C-ADD

OPTION

Pathways, drive-in pavement, terrace, other concrete pavement.

If you want additional concrete pavement over the basic, you have to indicate it at the planning phase. All of the concrete pavements are built at the same time. If you request it after we made the agreed areas, additional fieldwork fees can be counted.



Garden, trees and irrigation

Last step before moving into your dream home.

When every other work is ready, and the house is ready for living, there is only one thing remained what convert the house to home: the garden. When you move into a house and you have immediately beautiful green garden, it is more familiar than see the blank ground or the remained of the construction material.

Our gardeners can make special plans directly to your house from a simple grass laying to the most special plants and irrigation system - every time considering the exposure and aptitude of your backyard.

Grass OPTION

Sowed grass - SM-NOV-FU-V
Greensward with mole-mesh - SM-NOV-FU-GY

The basis of all garden.

If you want a beautiful garden, then it is needed to make the final ground level first. It is possible with the equation of level or with additional mold filling. In the case of the new grass, need to clear all the weeds - nobody wants to see different furrow-weed among the grass in a short time.

Sowed grass:

- Traditional, cheap solution
- Requires more caring in the first months
- You have to wait to the growing

Greensward with mole-mesh:

- Ready-made solution, green right now, can be installed quickly
- Recommend to install mole-mesh below



Thujas and pines OPTION

Thuja and pines - SM-NOV-FA-T

Multi-faceted evergreens.

Thujas:

Thujas are popular plants in family house's gardens. Countless types exist. They can be planted separately, or thickly - then they form impenetrable hedge.

Pines:

A beautiful pine tree can be the ornament of the backyard. There are many special types what attract not only the sight but the songbirds too.

Thujas and pines shipped with humus ball on their root. Before the plantation, the fieldworks must be ready.

Measure: 125-150 cm or 150-175 cm

Optimal plantation period:

- April and May
- October and November till the frosts

Prices of the thujas and pines contain the shipping to location, plantation works, materials for plantation (tree-prop, ligament).



Leafy and fruit trees

Leafy trees - SM-NOV-FA-L

Fruit trees - SM-NOV-FA-GY

Decorating element and shade, or plant what gives healthy fruit.

Leafy trees:

A big leafy tree with a garden-seat under can be favourite rest place for children and adults that warm the heart. In summer, they give shade. In winter, the leaves fall down and let go through the sunlight. Therefore, they have good place front of the southern or western windows too.

Fruit trees:

Some rich fruit tree can supply the family fresh and healthy fruit, and nine times out of ten you can save it to winter times too. It is a very good thing to eat the fruit what we grew - and the taste is more delicious than fruits you can buy in the supermarkets.

These trees shipped as containerized trees, it extends the planting period. Before the planting, the field works must be ready.

Optimal plantation period:

- Temperature between 0 °C - 20 °C, and the ground can't be frozen

Measure:

- Leafy trees: Depends on the type
- Fruit trees: 150-200 cm

Prices of the trees contain the shipping to location, plantation works, materials for plantation (tree-prop, ligament).

Fountain and irrigation

Irrigation system - SM-NOV-ONT

Vitalizing water for every plant in the garden - in automatized way if it is needed.

If somebody want a beautiful garden, then the care of plants are unavoidable - mainly the irrigation. You need watering for a nice greensward too - mainly on hot summer days -, and the manual sprinkling can take a lot of time.

In the case of irrigation, it is possible to build systems what gives as much water to a plant as much that type needs. The amount time and duration of the water supply can be planned - this is the difference between sprinkling and irrigation.

We can offer and install you systems from the simplest manual sprinkle solutions to the high-end, full automatized irrigation systems.

We can design and deliver the fountain what is needed to the system too.



FINISH

100%



Full-grown trees

Do not wait for a cozy garden... We have a solution!

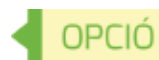
You don't need to wait decades to see your tree in its full-grown size (while your kids grow up and leave the sweet home). Normally, if you build a house and plant trees, then you get from the tree nurseries young trees with thin trunk. They have to grow years (or a decade) to be a full-grown tree which crown can give you shade.

At a new-built house, it is quite out of the common sight if you have immediately a 10 m height trees or bearer fruit trees in the backyard... With our special service, you buy not only trees. You can buy and save time, what is one of the most important things in the world.



Plantation of full-grown trees

Plantation of big trees - SM-NOV-FA-NAGY



Do not wait a decade for a cozy garden!

It is a totally different feeling to sit under a big, elder tree or harvest fruit from a big, bearing tree.

With unique technology and with a little care from the owner the successful re-planting can be guaranteed.

We manage the whole process:

- Choosing of trees
- Removal with special excavator
- Transportation to the planting place
- Planting with special machine

Optimal planting period:

- From March to end of May
- From October until the frosts

We give unique quotation to every project. Request our special catalog.





