

# Features, advantages and disadvantages of factory manufacturing of buildings

Performed by students of the group AS-224  
Brusov Danil, Zhdanova Alyona, Tsiulina Elena

# What is it? Definition and specific features



Precast concrete elements manufactured at specialized enterprises are brought to the place of construction, where they will be installed in the structure. This technology makes it possible to transfer difficult work to the factory facilities, where all the necessary equipment is available. This creates an additional economic benefit, since the cost of producing a unit of product will be much lower than at the construction site.



# Types of products



There are 4 types of prefabricated reinforced concrete structures:

1. For buildings of housing and communal services and general use (residential buildings, social infrastructure) - blocks of different types, piles for clogging, jumpers, columns, flooring.
2. For industrial facilities (factory buildings, workshops, retail warehouses, car garages) - beams for the foundation, arches, column supports.



3. Engineering and Communication Products - Storm trays, chutes, power line supports, pipes, well rings.
4. For objects of special purpose - prefabricated articles made of reinforced concrete are performed according to special technology.





Precast concrete structures are used in the construction of above-ground structures, for example, wall parts.

# Where are they used?

Precast concrete products are used in the following areas:

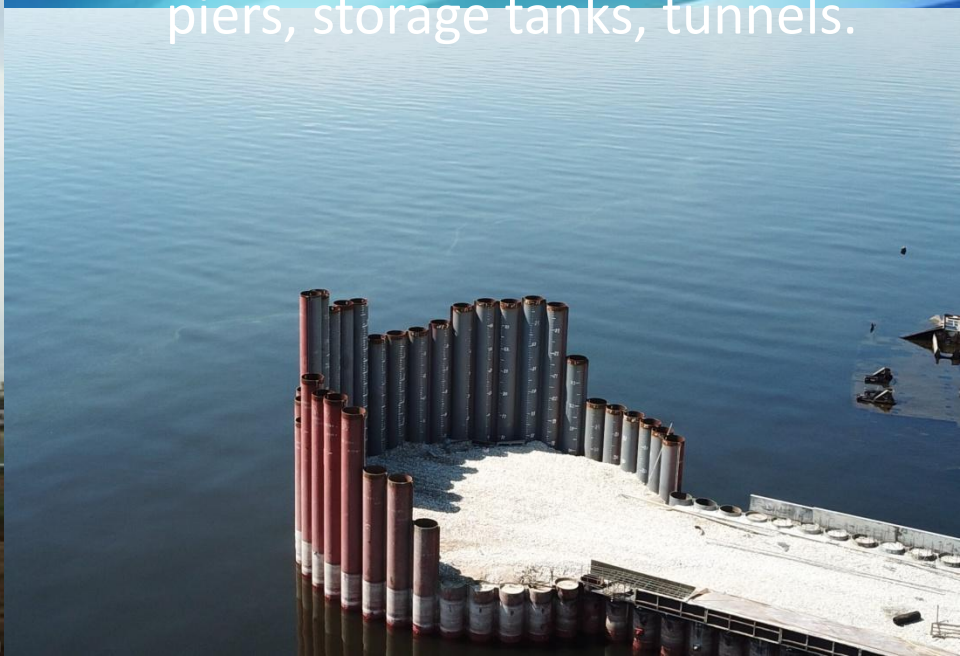
- Underground construction. Elements for foundations, basements, basements room.
- Overhead structures. Wall parts of buildings and structures.
- Frame construction. Used when creating a "skeleton" of buildings.







- Elements of complex structural devices. Arches, balconies, columns, observation platforms.
- Construction of fences. They are used as blocks of a variety of views.
- Communications manufacturing. Rings for wells, sewerage facilities.
- For special purpose facilities. Bunkers, bridges, mooring piers, storage tanks, tunnels.





# Factory reinforced concrete products have advantages and disadvantages. Benefits:



- High installation speed. When erecting large-scale structures, finished blocks are quickly mounted.
- Standard design parameters. Technical errors and fitting of products are excluded during construction; allow you to mechanize construction.
- Increased strength. It is achieved by creating preliminary tension of reinforcement frame in template forms for filling.
- Reduced installation costs. Assembly does not require large labor costs and the involvement of hired special equipment for the preparation of concrete.





- The presence of a large number of connecting seams. The joints should be carefully repaired; "cold bridges" are formed - thermal insulation is required.
- There is no variety in typical projects. The buildings under construction are unified and of the same type.



Possessing a number of advantages and disadvantages, factory reinforced concrete structures still occupy a leading position in use in the construction industry, but it is important to take into account the fact that when using ready-made reinforced concrete products, it is necessary to clearly define the parameters of the future construction.



# Disadvantages:



THANK YOU