

# ACROW

## Products and Solutions Brochure



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Acrow® 700XS® bridges can be successfully used as:

- temporary bridges for service roads in construction sites
- detours during repairs of permanent bridges on public roads (in this application they allow to minimize traffic disruptions - elimination of alternating traffic, they increase the safety of the workers and allow to accelerate the works)
- permanent bridges
- permanent or temporary footbridges
- service bridges - for pipelines, etc.



#### APPLICATION

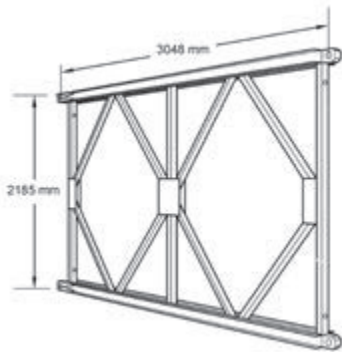
The Acrow® 700XS® truss bridge system is based on the Bailey bridge system, which is well known around the globe.

Acrow® 700XS® bridges have been used for many years on construction sites all over the world. Simplicity in the design and ease of assembly make them very popular. In Poland, the Acrow® 700XS® truss bridge system has obtained the Technical Approval of the Road and Bridge Research Institute No. AT/2009-03-2487.

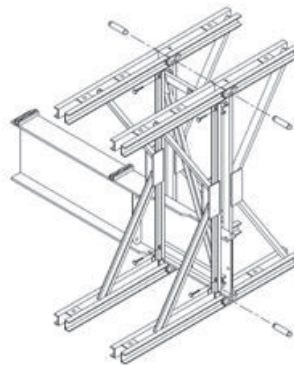




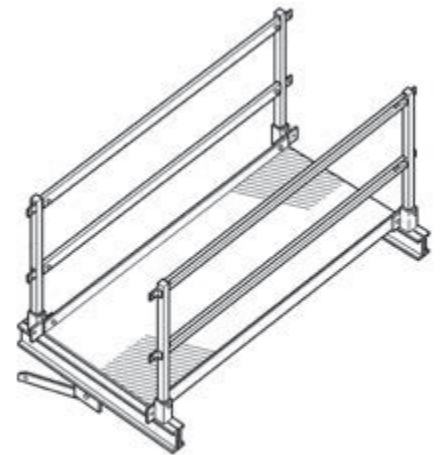
**MAIN ELEMENTS OF THE SYSTEM**



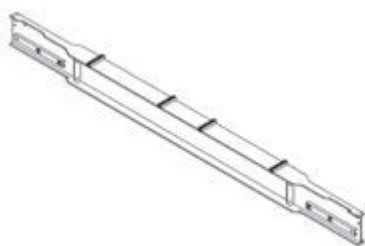
Truss panels with the dimensions of 218.50 cm x 304.80 cm joined together with the use of bolts



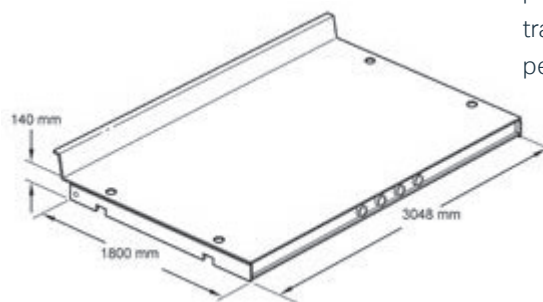
Bracing and fasteners



Cantilevered walkways with the width of 1.5 m, located outside the truss panels ensure separation of pedestrian traffic from the vehicular traffic, which increases the safety of pedestrians.



I-profile crossbars allow building a bridge with six standard widths: 3.65m, 4.14 m, 5.48 m, 7.31 m, 9.14 m, and 10.96 m (width of the deck between curbs). The crossbars are placed every 3.048 m.



Steel decks placed on the crossbars ensure the possibility of vehicular traffic. Surface of the bridge deck in the form of steel plate or steel plate with epoxy coating applied in the factory. It is also possible to make a wooden deck. Fixing the decks to crossbars is very simple and takes place from the level of the deck with the use of bolts



## Advantages

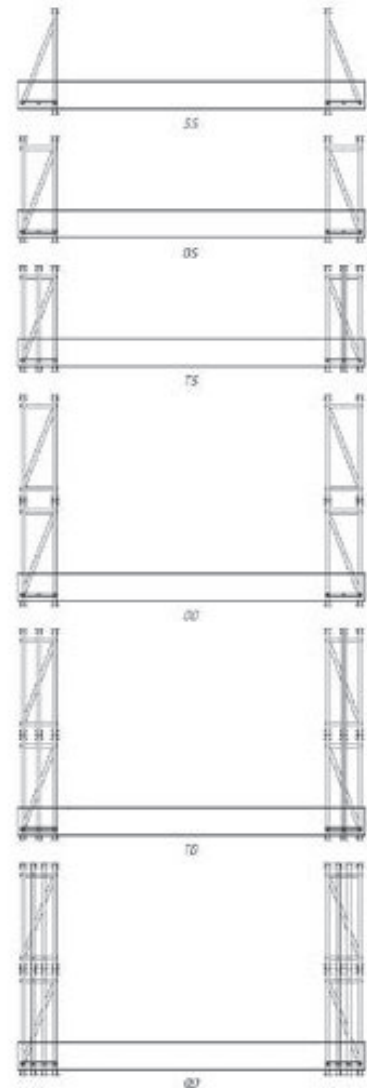
- quick assembly and disassembly and easy adaptation to local conditions
- possibility of multiple uses in various static and assembly systems
- possibility of assembly and disassembly without any support scaffolding
- small number of different parts with uncomplicated connectors
- interchangeability of identical elements
- easy transport

Panels can be installed in various ways to create a structure that will be adapted to any specific design requirements - it is enough to modify the configuration of the panels to change the span or enable carrying higher/lower loads. In order to provide a greater efficiency, these trusses can use light or heavy reinforcing bands.

The bridges can be built as single-span or multi-span structures. The latter can be designed as continuous structures on intermediate piers or in the form of simply supported structures, consisting of a number of individual spans.

Structural elements of the bridges are made of high-strength steel and are protected against corrosion by hot dip galvanizing (coating thickness: 610 g/m<sup>2</sup>).

A short time needed to make a crossing is the reason why Acrow® 700XS® bridges are perfect for use in the event of sudden failures of existing facilities, during implementation of road and bridge investment projects, or in areas affected by natural disasters.



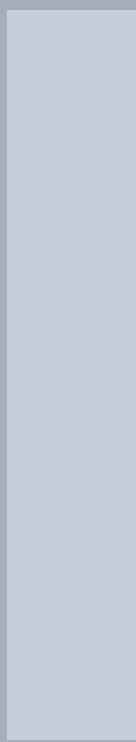


**INSTALLATION METHODS**

The most popular methods include:

- **Cantilevered sliding method** - it consists in assembling bridge elements on one side of an obstacle and then systematically pulling out the bridge towards an intermediate support or an abutment. Pulling out takes place with the use of installation rollers supplied with the structure.
- **Structure lifting method** - it consists in assembling a bridge and lifting its entire structure onto the prepared abutments. In such a case, it is recommended to leave the structure without placing the deck and making the deck after placing the span on the target supports.





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