Technical Data Sheet
MOBISTEK ALL-COMPOSITE BRIDGE SPAN
Foot-bridge spans

***MOBISTEK* all-composite bridge span** is made of polymer composite materials by vacuum infusion.

Typical application: foot-bridge spans and overpasses. This production technique enables manufacture of composite bridges for pedestrians and bike riders, composite bridges for motor vehicles.

Advantages:

- ✓ **Reduced period of construction** (manufacturing plant is capable of manufacturing a bridge span at a single process step without further assembling, the superstructure is completely made of composite material without bolt connections, which enhances reliability of a whole structure)
- ✓ **Reduced cost of construction** (saving in supporting parts due to minor thermal elongation and relatively low weight of superstructures, easy installation)
- ✓ **Reduced cost of useful life, extended inter-maintenance periods** (high resistance to corrosion and aggressive environments, no need to apply paint-and-lacquer coating)
- ✓ **Improved performance characteristics** (extended service life, resistant to corrosion, aggressive media and vandalism, not bendable, not deformable when exposed to high temperatures, not decayable, resistant to fungus, highly fire-resistant, owing to low specific weight of the material, lower pressure is applied to supports, so capital cost of the supports is reduced)
- ✓ **Implementation of various design ideas** (aesthetic qualities, customized manufacturing possible, multiversioned as per architectural concepts)
- ✓ **Actual service life of an all-composite bridge superstructure** is 100 years at almost zero cost of maintenance during operational use

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Technical and economical efficiency of using composite bridges (cost of constructing a ferro-concrete bridge is taken as 100%)

Features	Bridge superstructures of ferro-concrete and metal	Bridge superstructures of composite materials
Long lifetime	60-80 years	>100 years
Building costs including materials	100%	80-90%
Maintenance and report throughout the fist 35-40 years of operational use	35-50% of initial cost	15% of initial cost
Final cost inclusive of operational expenditure within 25 years	135-150%	95-105%

Expenses on erection and use of a ferro-concrete bridge for the whole period are twice the analogous expenses for a composite bridge, economic benefit equals to 40-45%.

The calculation of cost efficiency when using composite superstructures is given according to *Guidelines on analyzing cost-effectiveness of using innovations and scientific-and-technological advances in public road system*, approved by order of RF Ministry of Transportation as of 10.12.2002 №ОС-1109-р.

Standard design of a composite bridge span:

Dimensions	Radius	Materials
Span length is max 30 m Width may vary up to 3 m by increments of 25cm	In positive correlation with length of a span. A 33m-long span may have a 60cm deflection	Glass fiber and polyester resin

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