

# Engineering solutions in the industry



**ON THE WAVE OF NEW TECHNOLOGIES**



ViaCon offers competitive solutions, which are used in industrial applications such as:

- belt conveyor cover
- tunnels under stock piles
- escape tunnels
- ventilation systems
- crossings and culverts
- retaining structures
- temporary bridges
- ground reinforcement
- detention tanks for storm water
- tanks for industrial waste water
- cover of gas and district heating pipelines
- wells for silage leachate
- geotubes for dewatering of industrial and municipal sludge and for restoration of polluted lakes and rivers
- silos



Our products are easy to transport and install. We offer comprehensive services for investment projects, including design, delivery and installation.



# MINING INDUSTRY

The solutions offered by our company can be used in remote locations and installed under all weather conditions, irrespective of the season. Thanks to a high tolerance to an uneven ground subsidence, our products perfectly meet the needs of the mining industry. This is proved by a positive opinion of the Central Mining Institute, on the basis of which the structures and pipes can be used in areas affected by mining.



We are able to offer solutions that have been proven in implementations all over the world.

## Belt conveyor cover

SuperCor® and MultiPlate MP200 structures from corrugated steel plates can be successfully used as belts conveyor cover. A wide range of shapes and sizes of these structures causes that they can be optimally fitted to existing conditions.

Corrugated steel structures/pipes can be equipped with various fittings (e.g. hooper feeders) and openings providing desired functions.



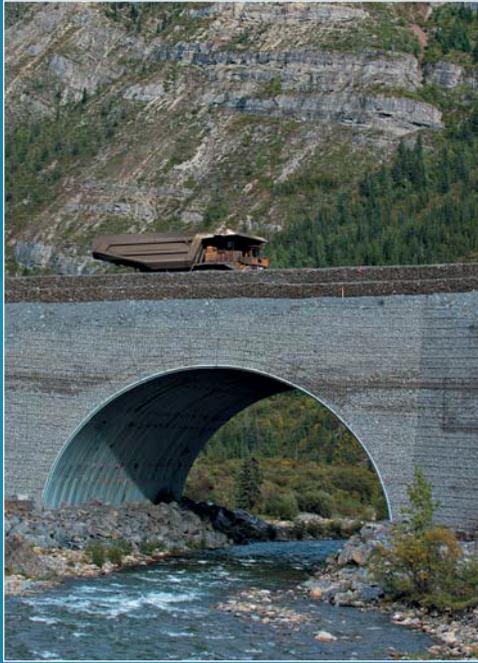
## Cover

Tunnels under stock piles constitute another perfect area of application of the MultiPlate MP200 and SuperCor® corrugated steel structures. The type of structure is selected depending on the height of a heap in order to ensure the required strength parameters.



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## Engineering structures under and over industrial roads

The MultiPlate MP200 and SuperCor® corrugated steel structures are perfect for use as engineering structures. Quick and easy installation and a possibility of dismantling, transporting and installing the structure in another place considerably affect the economy of these solutions.

## Culverts under roads

PECOR OPTIMA® pipes made of high density polyethylene (HDPE), Pecor Quattro pipes made of polypropylene, HelCor® and HelCor PA® steel pipes, as well as MultiPlate MP200 corrugated plate structures can be used as culverts under access and haul roads.



## Tanks

Underground detention tanks made from HelCor® helically corrugated steel pipes with an internal diameter up to 3.6 meters are intended for temporary or permanent storage of storm water, ground water, and industrial waste water. Excellent strength parameters and a protection against corrosion allow building the tanks under vehicle traffic areas, as well as storing waste water with pH ranging from 3 to 12.

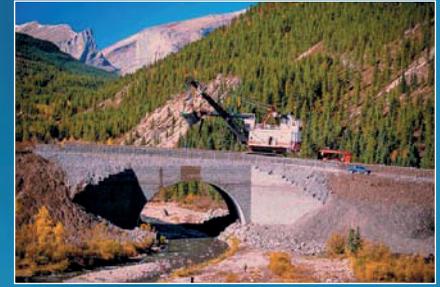


## Retaining walls

The idea of MSE walls is based on soil structure interaction. It provides an optimal solution for construction of vertical walls.

ViaCon offers four retaining wall systems: ViaWall A type 1 - reinforced concrete panel - facing part, steel grid - reinforcing part; ViaWall A type 2 - reinforced concrete panel - facing part, HDPE uniaxial grid - reinforcing part; ViaWall B - facing and reinforcing part - steel grid; ViaBlock - concrete block - facing part, geosynthetic - reinforcing part.

Due to its simplicity and ease of installation these systems are an excellent alternative to cast in place or prefabricated concrete retaining walls. The ViaWall A type 1 and 2, ViaWall B, and ViaBlock retaining walls can also be used for construction of headwalls and wingwalls at engineering structures. Substantial savings of money and time is confirmed by practice.



## Ventilation pipes

HelCor® helically corrugated pipes (galvanized and, as an option, additionally coated with a polymer) can also be used as underground or surface ventilation ducts. It is possible to make all necessary bends, elbows, tees, etc.



# SOLUTIONS FOR INDUSTRY

## Temporary bridges

The Acrow® 700XS® system allows building bridge crossings for each type of variable load, including heavy vehicles. Its advantage is quick and easy installation that does not require the use of specialized equipment. These bridges are also used for passing belt conveyors or pipes over an obstacle.



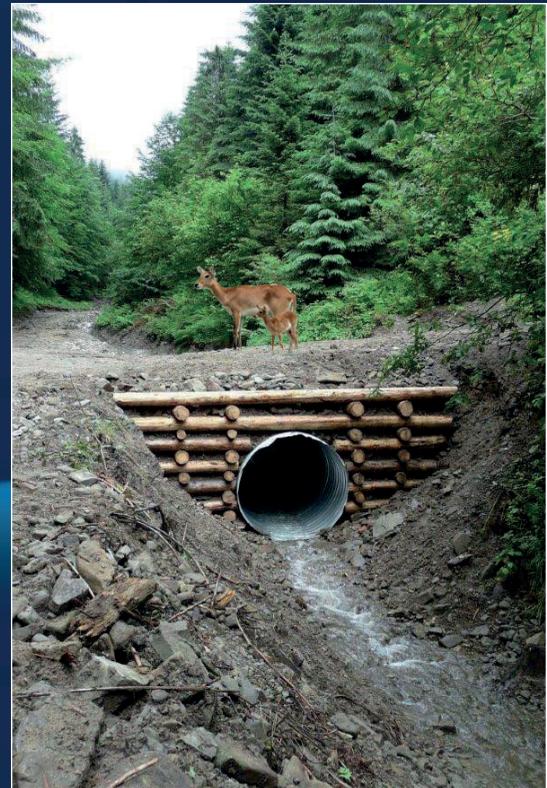
## Geosynthetics

Our offer includes a wide range of geosynthetic materials used for ground reinforcement, bituminous pavement reinforcement, as well as for separation, drainage and erosion protection of slopes. We also offer biodegradable products for reclamation of waste dump slopes and the storage of excavated material.

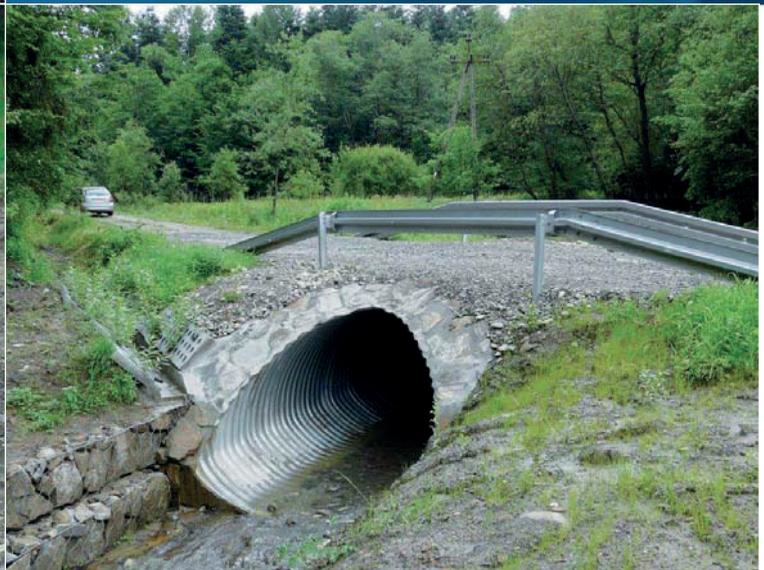


## Wildlife underpasses and crossings in forest areas

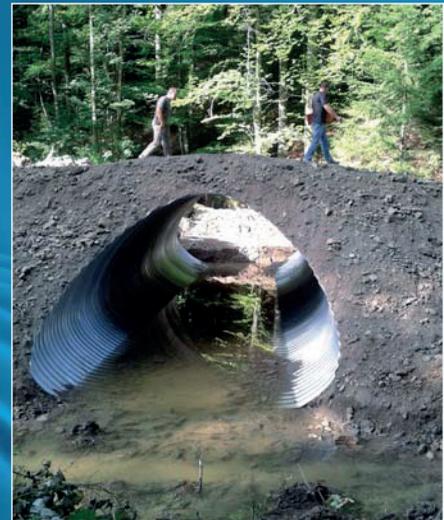
These structures and pipes are made up from small-sized components and thereby interfere to minimum extent with the surrounding natural environment, which is very important when building structures in such areas. Time and money savings provide an additional advantage, because the time of building such underpasses is significantly shorter than in the case of reinforced concrete culverts.



Considering the specific character of the products, it is possible to carry out works almost at any time of year. Such structures are environmentally friendly, so they can be found in the surrounding landscape more and more often.



It should be noted that both corrugated steel structures and helically of helically corrugated pipes are characterized by a long service life estimated at approx. 100 years (provided that appropriate protection against corrosion is used). When smaller diameters are required, underpasses made of plastics, such as HDPE or PP, can be used. The above mentioned structures and pipes are neutral for the natural environment and do not cause pollution of waters. These products can be composed with natural materials, such as stone and wood. This creates considerable possibilities in the scope of shaping the inlets and outlets of the structures and the immediate environment of the underpasses from environmentally friendly construction materials.



## Pipe lines cover

MultiPlate MP200 structures are used as pipe line cover are used as pipelines cover against external loads, especially in the places where pipes pass under roads or car parks.

Such solutions provide also the possibility of constructing thermal compensators in an easy way (e.g. district heating pipes) and enable maintenance of pipes thanks to easy dismantling of individual plates of the MultiPlate MP200 structure.



## Solutions for agriculture

Wells made from Pecor Quattro polypropylene (PP), which are used for drainage of silage leachate from silos and are components of the system protecting the silage storage, are a perfect solution for agricultural industry.



This product enables separation of the silage leachate and the ground water into separate tanks built near a silo.

MultiPlate MP200 corrugated steel structures are used also in agriculture as underpasses for farm animals. They are a perfect solution in places where access to fields and pastures is hindered by roads.

## Waste water treatment plants

MultiPlate MP200 corrugated steel structures are used as tanks for construction of waste water treatment plants. Their design ensures quick and easy installation regardless of the weather conditions. The tanks can be installed in areas under special protection. A wide range of dimensions of the structures ensures that the limiting outline of a tank can be properly selected.

MultiPlate MP200 structures provide an excellent alternative to the costly and labour-consuming reinforced concrete tanks.



# GeotexTuba

GeotexTuba is a textile tube made from high-strength polypropylene or polyester fabric.



They are widely used in dewatering cleaning of large amounts of industrial and municipal sludge. In agriculture, they are a perfect solution in the liquid manure disposal process.



They are proven to provide substantial cleaning effect of the polluted water. GeotexTuba is a very cost effective solution.

For more information about the tanks contact us at the following phone numbers: +48 68 385 22 73 or +48 65 525 45 73

## Application      Product      Characteristics

<p>Tunnels under stock piles Escape tunnels Engineering structures under and over access/haul roads and railroads Warehouses Wildlife underpasses and crossings Culverts</p>	<p><b>SuperCor®</b></p>	<ul style="list-style-type: none"> <li>* Large-span structures made from hot-dip galvanized corrugated plates with a deep corrugation profile</li> <li>* A possibility of providing additional protection with paint coatings</li> <li>* Spans up to 25 m</li> <li>* Corrugation profile: 381x140 mm</li> <li>* Versatile shapes</li> </ul>
<p>Tunnels under stock piles Escape tunnels Engineering structures under and over access/haul roads Warehouses Belt conveyor housings Protection of district heating Underground detension tanks and waste water tanks Silos Culverts, bridges, underpasses</p>	<p><b>MultiPlate MP200</b></p>	<ul style="list-style-type: none"> <li>* Structures with small and medium spans from hot-dip galvanized corrugated plates</li> <li>* A possibility of providing additional protection with paint coatings</li> <li>* Spans up to 12 m</li> <li>* Corrugation profile: 200x55 mm</li> <li>* Available shapes: pipe arch, arch, round, ellipsis, box</li> </ul>
<p>Belt conveyor protection Escape tunnels Ventilation and pipes Underground detension tanks and waste water tanks Wildlife underpasses and crossings</p>	<p><b>HelCor®</b> <b>HelCor PA®</b></p>	<ul style="list-style-type: none"> <li>* Hot-dip galvanized helically corrugated steel pipes with round and pipe arch profiles</li> <li>* A possibility of providing additional protection with a polymer layer</li> <li>* Diameters up to 3.6 m / Spans up to 3.67 m</li> <li>* Corrugation profiles: 68x13 mm and 125x26 mm</li> <li>* Availability of additional accessories and fittings</li> </ul>
<p>Culverts under roads access/haul roads Leachate wells Sewer pipelines</p>	<p><b>PECOR OPTIMA®</b> <b>Pecor Quattro</b></p>	<ul style="list-style-type: none"> <li>* PECOR OPTIMA® corrugated pipes made of high-density polyethylene (HDPE) and polypropylene (PP), with a double wall: outer corrugated wall and inner smooth wall</li> <li>* Stiffness classes: SN6 (6 kPa) and SN8 (8 kPa)</li> <li>* Diameters: 200 - 1200 mm</li> <li>* Standard section lengths: 6, 7, 8, available length up to 12 m</li> <li>* Availability of additional accessories and fittings</li> </ul>
<p>Retaining walls Headwalls Bridge abutments</p>	<p><b>ViaWall A type 1 and 2</b> <b>ViaWall B</b> <b>ViaBlock</b></p>	<ul style="list-style-type: none"> <li>* Retaining structures made from soil reinforced with steel grids (carbon or galvanized steel) or polyethylene grids</li> <li>* Construction of walls with a height exceeding 30 m</li> <li>* Possibility of constructing curved walls</li> </ul>
<p>Bridge crossings Road bridges</p>	<p><b>Acrow® 700XS®</b></p>	<ul style="list-style-type: none"> <li>* All types of live loads, including heavy vehicles and industrial vehicles</li> <li>* Various types of bridge decks (wood, steel)</li> <li>* Bridge floor width: from 3.5 m to 11.0 m</li> <li>* Length of a single span - up to 76.2 m</li> <li>* Easy transport and installation</li> </ul>





Application	Product	Characteristics
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Subsoil reinforcement	<p><b>Geosynthetics</b></p>	<p>* Geotextiles made of polypropylene fibres and polyester fibres with a high tensile strength. They are widely used for reinforcement and separation of soft subsoil.</p>
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Slope reinforcement		<p>* Uniaxial geogrids with rigid nodes as well as polyester geogrids with interwoven nodes are used for reinforcement of steep slopes, construction of railway and road embankments, and construction of mining tunnels.</p>
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Separation, filtration		<p>* Non-woven geotextiles are made of polypropylene fibres. They are used for separation of two soil media. The use of the non-woven geotextile ensures easier and faster consolidation of soft subsoil under road and railway embankments.</p>
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Drainage		<p>* Geocomposites ensure durable soil drainage, inter alia in geotechnical structures.</p>
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Erosion protection		<p>* Both textiles and erosion protection mats are biodegradable and protect embankments and river banks against the action of wind and storm water.</p>
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Protection		<p>* Geomembranes are used in construction of storage yards, landfills, channels, etc.</p>
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Geotubes		<p>* Flexible tanks made of high-strength polypropylene or polyester textiles (GeoTexTuba) are used for dewatering and filtering industrial and municipal sludge as well as for protection of banks against erosion.</p>
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PECOR OPTIMA®



HelCor®



HelCor PA®



MultiPlate MP200



SuperCor®



Acrow® 700XS® - temporary bridges



Woven and non-woven geotextiles



Geogrids



Gabions



HelCor® TC holding tanks



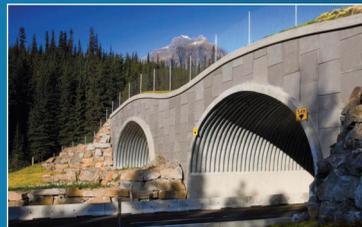
HelCor® wells



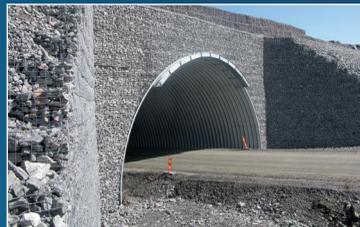
Pecor Quattro sewage system



PECOR OPTIMA® M wells



ViaWall A retaining walls



ViaWall B retaining walls



ViaBlock retaining walls

ViaCon Group is an European leader for flexible pipes and structures as well as soil reinforcement. ViaCon Group supplies a full range of products for roads and railroad construction and other business sectors. We offer complete engineering solutions ranging from designing, producing and selling to assembling at site.



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Our goal is to improve products and to cooperate closely with customers, scientific and research centres, public administration and suppliers.

That's why our motto is:

**"Let's Create a Better Future Together"**

[www.viacon.pl](http://www.viacon.pl)

