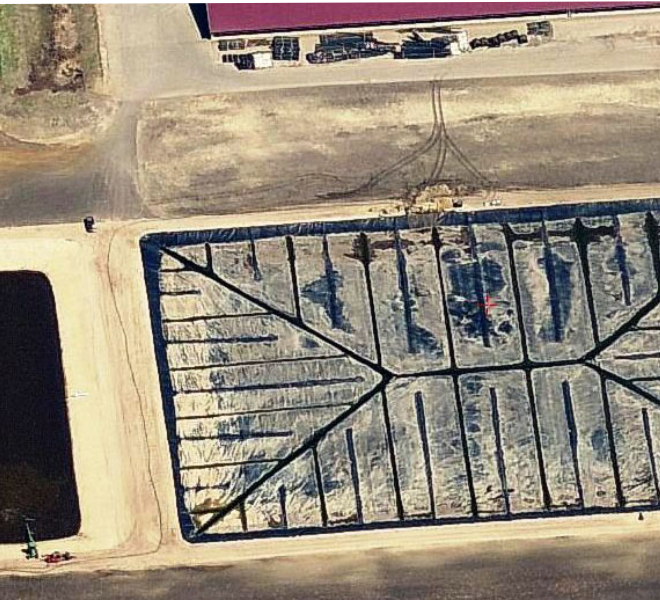


Industrial & Environmental Concepts, Inc.
Pond, Tank and Lagoon Cover and Liner
Systems for Agricultural Applications

Industrial & Environmental Concepts, Inc. (IEC) offers floating cover and liner systems for a range of agricultural applications, including gas collection, rainwater collection, odor control, algae control, anaerobic digesters, temperature control and bird and animal control.



About IEC

IEC is recognized as the worldwide leader in the design, fabrication, and installation of industrial floating covers and liners. IEC was incorporated in 1993, and is known for its innovative modular cover design and low maintenance, competitively priced products. The company is also highly regarded for its experienced installation staff. Today the company has three patented products and more than 600 installations to its name.

IEC’s full time staff of designers, fabricators, and field personnel work together to design and manufacture custom covers to each clients’ specifications. Depending upon the needs of the client, IEC’s teams can provide a full turn-key service from design to installation, or oversee installation by the client.

IEC’s Cover and Liner Products

IEC’s comprehensive cover and liner product line includes:

- **Floating Cover Systems** – IEC offers a true floating cover system that utilizes lateral floats to prevent the floating cover from inflating and being subjected to damage from wind. Ballast weights on the cover collect accumulated rainwater and route it to sumps, while the floats create pathways on the bottom side of the cover for gas to flow beneath the cover to a perimeter pipe where it is routed to a collection point.
- **Modular Floating Covers** – Engineered to the specifications of the client, IEC’s patented modular floating covers for tanks and lagoons are fabricated as a series of interlocking closed cell casings with insulation values from R-4 to R-30. Modular covers require no welding on site and can be installed rapidly with no downtime. Highly buoyant yet rigid, modular floating covers eliminate gas ballooning and adapt to fluctuating levels of liquid. Hatches are built in, if needed, for access to in-basin equipment. Individual casings can also be removed for tank servicing.
- **Gas Collection Systems** – IEC offers both insulated gas collection covers and insulated gas covers for manure pits, ponds, tanks and lagoons. Gas collection covers can be manufactured to collect any type of gas from tanks and basins. Access hatches can be built in for access to in-basin equipment. Insulated gas collection covers are designed to provide a range of R factors and protect the gas cover geomembrane.
- **Custom Floating Tank Covers** – IEC’s floating tank covers offer a cost-effective alternative to many aluminum or fiberglass dome products. The innovative design does not require recirculation or explosion-proof equipment, and does not require venting, in the case of non-gas-collection applications. Floating tank covers install easily. Contents of the tank can be mixed without removing the cover.
- **Liner Systems** – Geomembrane liners are designed to provide primary or secondary container systems as well as containment liners for tanks, landfills, ponds and lagoons. Built for strength and durability, liners are constructed from several different high grade heavy-duty materials that prevent seepage, whether to control loss of resources or for protection of ground water.

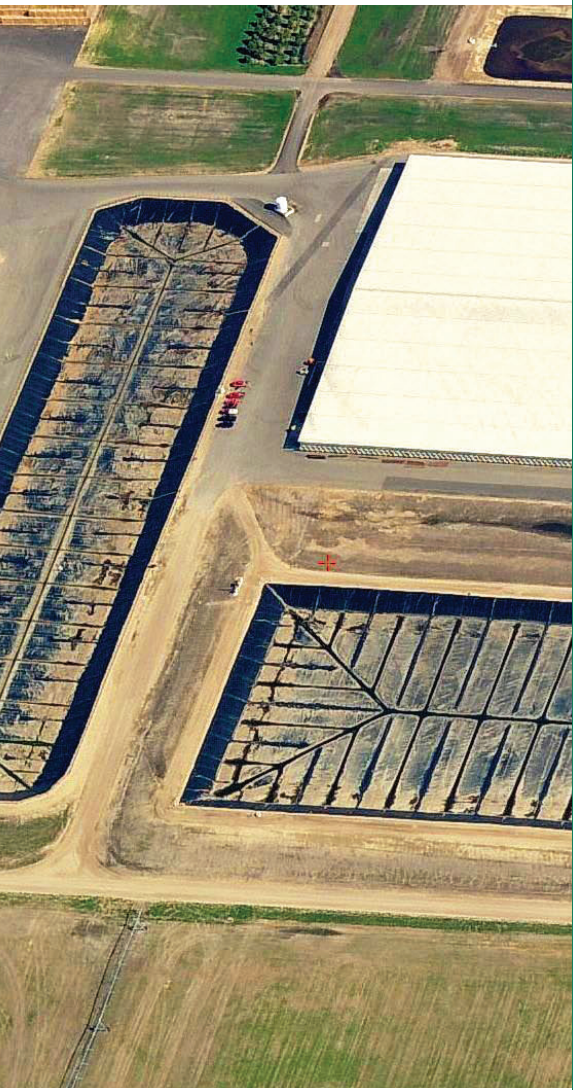
IEC is committed to learning about your needs and providing a tailored, custom cover or liner solution that solves your unique problems at a competitive price.

Durable Construction, Guaranteed

IEC manufactures floating covers from several high grade materials including HDPE, XR5, Reinforced Polypropylene (RPP), and EPDM.

IEC’s cover designs include two key features that differentiate IEC’s floating covers in workmanship and durability:

- A unique lateral float system prevents the geomembrane cover from inflating and becoming exposed to vibration and fatigue due to wind blowing over the inflated cover surface.
- Ballast weights on top of the floating cover channel rainwater and snow melt to sumps and remove all rainwater from the surface to prevent pooling.
- All products come with a 10-year material warranty and a 1-year installation warranty



Agricultural Applications

Gas Collection and Biogas Management

Biogas handling is inherent to all livestock farming. IEC’s gas covers include gas collection and venting systems as well as digester covers, for a greener agricultural solution. In the latter case, “digesters,” or anaerobic bacteria, are used to create methane gas which can be converted readily to fuel for electric generators. For example, on a typical swine farm, fuel generated from gas collection systems can supply more than 150% of the farm’s electrical power requirements. IEC’s insulated gas covers help to keep digesters at proper temperature during the colder months.

Odor Control and Other Applications

Managing manure odor and other farm waste is another common application for IEC’s liner and cover systems. Stagnant ponds also develop offensive odors. IECs cover systems help control odor of agricultural waste and ponds while also providing options for managing waste within controlled tanks or lagoons.

Rainwater Collection

IEC’s cover systems are commonly used for rainwater collection in two ways. Rainwater and snow melt that collect on pond and tank covers creates pooling and stresses on the covers. Therefore,

IEC’s floating covers are designed to collect rainwater and direct it to sumps on the covers. Additionally, rainwater harvesting provides a method for collecting and reusing rainwater for agriculture, which can save on water costs, providing a return on investment. Cost savings are also recognized because rain water is not treated, stored or field-applied with the manure.

Algae Control

Farm ponds often capture storm water runoff as well as nutrients that cause algae and weed growth, which can choke out ecological activity and promote mosquito breeding. IEC’s covers can be used to control algae growth by blocking out sunlight to prevent photosynthesis, while also reducing mosquito populations.

Wastewater Management

Wastewater management is a key agricultural application for IEC’s cover and liner products. IEC’s products are commonly used to eliminate exposure of farm pollutants into the ground water, to treat liquid animal waste to meet environmental regulations, and as containment systems to control odors from animal waste and convert wastewater to inert substances.

If you don’t see what you are looking for, just ask. IEC recognizes that individual requirements differ. Therefore each IEC solution is individually designed to meet the needs and requirements of the client.