

IOC TANKS

Integrated Overflow Compartments



**Newest Innovation
in Overfill Protection
The Modern Way**



MODERN WELDING CO., INC.

IOC TANKS

Integrated Overflow Compartments

Reservoir Area holds up to a minimum of 10% of tank capacity.

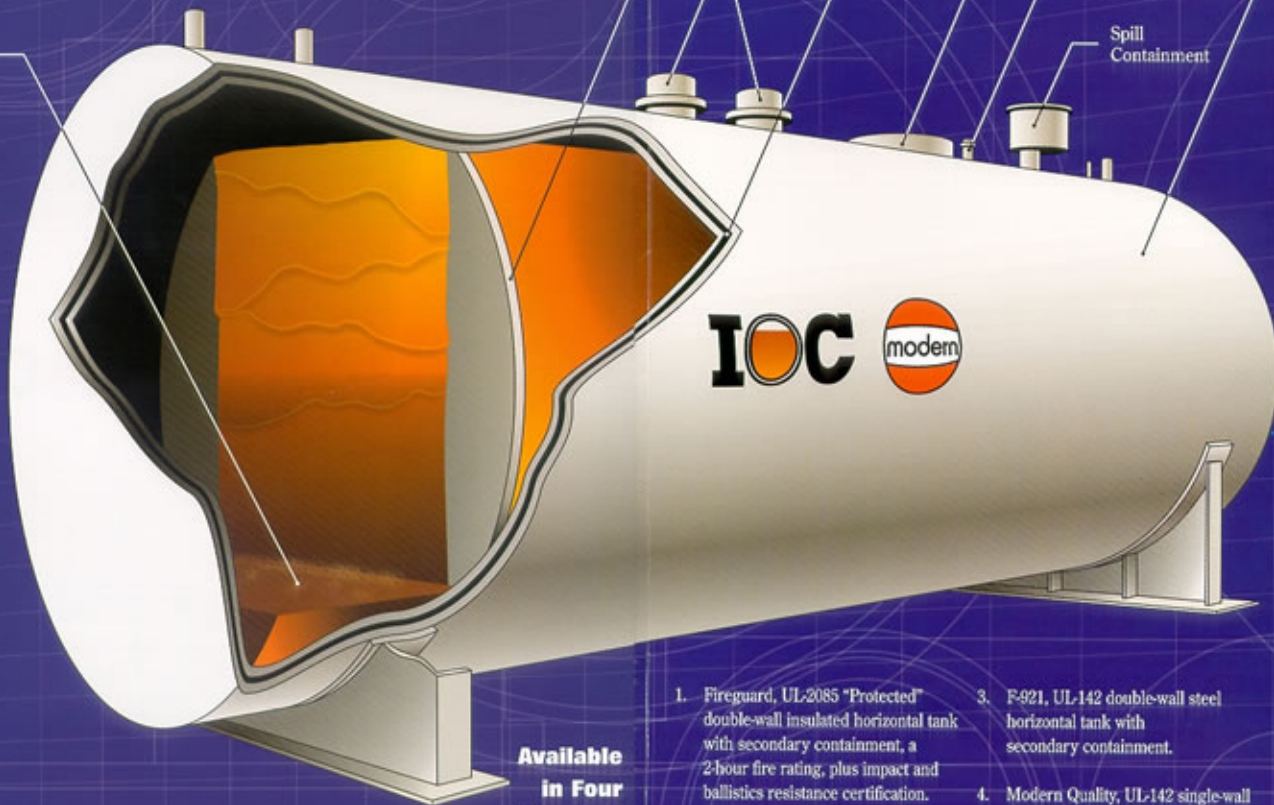
(Can be pumped back to primary area)

Modern's IOC tank was created to eliminate spills, environmental cleanup and monetary loss related to overflowing aboveground storage tanks.

Our IOC tank captures and stores delivery overfills that may be the result of clogged or malfunctioning gauges, delivery equipment break down or just plain old human error during the tank filling procedure.

Modern's special overflow prevention design directs the excess product into the "Integrated Overflow Compartment". This only happens when the product level in the tank exceeds the 95% capacity rating.

The Overflow Compartment is large enough to contain an overflow of at least 10% of the tank's storage volume.* Since the entire IOC tank is UL listed for flammable and combustible product storage, the "Integrated Overflow Compartment" does not need to be cleaned or freed of vapors. The overflowed fuel can be recovered and when convenient, returned to the primary tank by means of a pump located on top of the tank.



Available in Four Standard Steel Aboveground Horizontal Tank Designs

1. Fireguard, UL-2085 "Protected" double-wall insulated horizontal tank with secondary containment, a 2-hour fire rating, plus impact and ballistics resistance certification.
2. Flameshield, Southwest Research Institute, "Fire Resistant" double-wall steel horizontal tank with secondary containment, 2-hour fire tested.
3. F-921, UL-142 double-wall steel horizontal tank with secondary containment.
4. Modern Quality, UL-142 single-wall horizontal tank construction.

Double Wall Construction with interstitial monitoring space

Safety Spillway

Emergency Vents

Access Manway

Level Sensor

Spill Containment

Carbon Steel meets construction standards for the storage of flammable and combustible liquids.
Available from 12 gauge to 3/8" thick.

Space Limitations...

Modern's IOC Tanks are available in rectangular construction designs.

Modern IOC Tanks are constructed of carbon steel and meet Underwriter's Laboratories UL-142, UL-2080, and UL-2085 construction standards for the storage of flammable and combustible liquids. Material thickness can be specified ranging from 12 gauge to 3/8". Flat-flanged heads are standard. All welding and inspections are per UL-142 and Steel Tank Institute specifications. Two 5 psi factory production air tests are performed prior to shipment so you are assured of a leak tight construction.

Materials of construction are carbon steel, stainless steel and stainless steel/carbon steel combinations for storing chemicals and hazardous liquids not compatible with just carbon steel. Interior linings** are available for the storage of aviation gas, jet fuel, specific chemicals and other specialty products.

Aboveground tanks have a standard Acrylathane exterior coating†. This coating provides superior corrosion protection in a single coat application. This coating system is completely VOC compliant and is applied over a commercial blast (SSPC-SP6) for superior adhesion.

*Consult Modern if secondary containment larger than 10% of the primary tank's capacity is required.

**Contact Modern for special interior linings on tank and Integrated Overflow Compartments.

†Coating system may change due to availability and application.

IOC Tank Guide Specification

"Integrated Overflow Compartment" (IOC)

Section 1: Aboveground Tanks with 110% Total Containment Capability
Tanks shall be of diameter and capacity shown on the plans. Tanks shall be of welded steel construction of one of the following styles:

- Underwriters Laboratories UL-142 Double Wall
- Steel Tank Institute F-921 Double Wall
- Flameshield, Southwest Research Institute, Fire Resistant
- Fireguard, Underwriters Laboratories UL-2085, Fire Protected
- SuperVault, Southwest Research Institute, Multi-Hazard Rating

The primary and secondary tanks shall be fabricated in accordance with specified standards, and so labeled.

1. Tanks shall meet all applicable federal and state codes and regulations, and shall be compatible with the products to be stored.
2. Tanks shall include an integrated overflow compartment, capable of containing 10% of the capacity of the primary tank. When the primary tank liquid level exceeds 95% capacity, the product will flow into the "Integrated Overflow Compartment". This meets the NFPA 30 requirement for the primary tank not to exceed the 95% capacity level. Tanks shall be of "Integrated Overflow Compartment" (IOC) design and manufactured by Modern Welding Company.

3. Fittings and accessories:

- 3.1 Normal and emergency venting connections with vents shall be provided.
- 3.2 A minimum 2" pipe connection shall be provided in the secondary tank to monitor the annular space.
- 3.3 24" access manway required on all tanks over 5000 gallon.
- 3.4 Lifting lugs of adequate size and lifting capacity shall be provided.
- 3.5 Tanks shall be furnished with support saddles, skids or stabilizers as shown on plans.

Exterior surfaces of tanks and supports shall be commercial blasted to SSPC-SP-6 and receive a shop applied finished coating system, i.e. Acrylathane or equivalent VOC compliant coating[†].

Tanks shall be tested by the manufacturer in accordance with the specified construction standards.

Tanks shall be installed in accordance with applicable codes, regulations and manufacturer's installation recommendations.

[†]Coating systems may change due to availability and application.



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