

EASIER WAYS TO SHIP DIFFICULT CHEMICALS & GASES



ACT Anderson
Columbiana
Trading

C OMPLETE CONTAINER SOLUTIONS ●●●

Anderson Columbiana Trading (ACT) is the premier supplier of intermodal container solutions for aggressive chemicals and gases. The following pages include a handful of case histories explaining ACT's consultative approach to challenging commodity transportation problems.

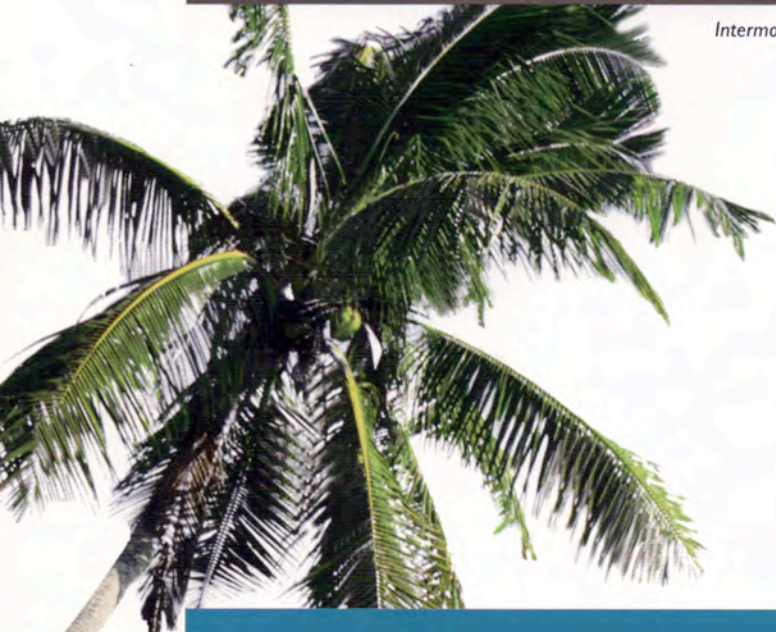


Intermodal Gas Tank (Columbiana Texas)

A Hawaiian distributor of LPG wanted to open a new propane distribution center on the island of Maui, 100 miles away. The company considered using "roll-on, roll-off" transports, but the barge freight cost (based on square footage) for the 11,000 gallon semi-trailers would be "astronomical."

The company found its optimum solution in IMOS/DOT51 intermodal containers supplied by ACT. The 6,400 gallon ISO containers were much more cost effective to transport, especially since they are stackable on the sea-going barges. On land, the containers are transported by slider chassis semi-trailers.

The LPG distributor has steadily added more ISOs to its container fleet, with each order incorporating the latest in ACT design technology.



Intermodal Mini Tanks (Columbiana Texas)

A distributor of diesel fuel required a simplified method of handling and transporting fuel between the islands of Tahiti.

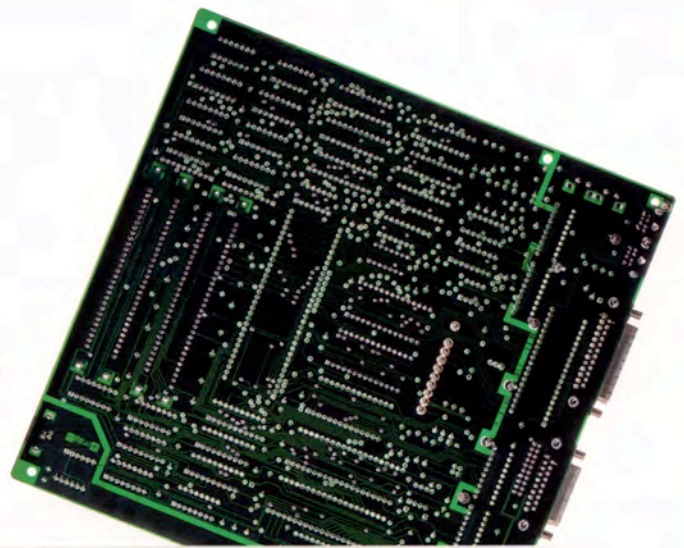
ACT specified, designed and supervised the construction of an all new Mini Tank portable container. The stackable Minitanks were carefully sized to make the best use of space on the ships providing inter-island freight service. The containers' frames can also be linked together in groups of three to create ISO Tri-Con configurations. The Tri-Con configurations permit faster ship loading and unloading, as well as creating a three-compartment "tank container package" suitable for multiple commodities.

On the cover: A research center in Antarctica needed an absolutely dependable method of receiving, storing and dispensing its once-a-year shipment of propane. ACT supplied a rugged intermodal gas container able to withstand the harsh environment of Antarctica while reliably dispensing propane at sub-zero temperatures.

A large North American manufacturer of specialty chemicals produces very high quality liquids used in a variety of electronic applications, including supercomputer cooling and the cleaning of semiconductors during manufacturing. The company had to have an intermodal method of USA-to-Asia transportation that could be immediately “plugged into” the users’ process lines. A very high integrity container was needed to assure the safe transport of the extremely expensive commodity.

ACT developed a comprehensive specification for a bulk intermodal container based on the customer’s engineering needs, as well as global shipping regulations. Then, ACT supervised the production, compliance to specifications and the project time line. The entire fleet of ISO IMO1/IM1O1 intermodal containers was delivered in less than four months.

Today, the chemical manufacturer enjoys the economics of bulk shipping with the highest possible assurance of container integrity, while its customers can immediately connect the containers to their high-technology manufacturing lines.



Intermodal Chemical Tank (Van Hool)



Intermodal Micro Tank (Columbiana Boiler)

A major U.S. producer of specialty chemicals was looking for a versatile, portable tank built to international standards that would be larger than a drum but smaller than a standard ISO container.

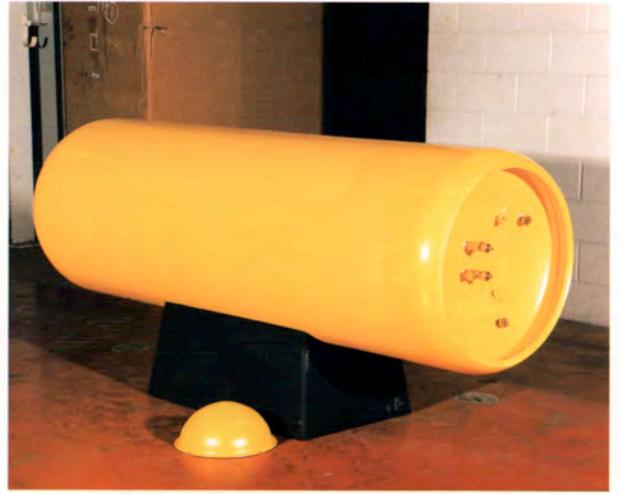
In response, ACT provided the Columbiana Micro Tank. The reusable Micro Tank can transport sulfuric acid, hydrazine, chlorosulphonic acid and other difficult chemicals, as well as liquified gases. The Micro Tank’s capacities range from 150 to 1500 USWG. All models have a common “footprint,” permitting standardized material handling.

Available in lined or unlined carbon steel, as well as stainless steel, the Micro Tanks can be designed to meet IMO1/IM1O1, IMO1/DOT51, or IMO5/DOT51 specifications.

... VIA CONSULTATIVE COMMUNICATION.

The government of Venezuela put together a major "crash program" for providing safe drinking water throughout the country. In order to chlorinate the renewed water supply, chlorine had to be transported from Maricao throughout the country.

The Venezuelan health officials knew through many years of experience that there was only one solution: the U.S. DOT 106A500X Ton Container manufactured by Columbiana Boiler. Through applications experience they knew the Columbiana Ton Container had the best safety design features, as well as the highest quality manufacturing commitment.



Chlorine Ton Container (Columbiana Boiler)



A multinational space technology firm, responsible for the fueling of rockets used to launch communications satellites, had been using "disposable" 55-gallon stainless steel drums to transport the monomethylhydrazine (MMH) rocket propellant. But the company needed an alternative transport container that would meet new, more stringent shipping regulations and avoid the need for cylinder overpacks. In addition, a reusable container would eliminate the costly cleaning and disposal processes.

ACT, working with an experienced manufacturer of hydrazine containers, was able to specify and design a new MMH container. The vertical, reusable, stainless steel hydrazine cylinder eliminated the need for encasement packaging and the expensive, environmentally sensitive cleaning/disposal processes.

Transportation Container For Rocket Propellant (Columbiana Boiler)

A Middle East LPG distributor needed a semi-trailer that would handle the rough local terrain and road conditions, while allowing a very short turning radius.

ACT responded by offering a semi-trailer with a capacity of 13,200 USWG (50,000 liters) and an O.A.L. of less than 39 feet (12 meters). The unit was equipped with heavy duty axles and suspension, as well as extra large balloon tires, to navigate the rugged mountainous road conditions.

ACT is very familiar with the process of adapting USA "standard products" to the specific regulations of overseas transportation ministries, including those of Asia, Latin America, and the Middle East.



LPG Semi-Trailer (Texas Trailer Service)

A major manufacturer of refrigerant gases needed ways to facilitate the transition from CFCs to the new generation of "ozone-friendly" refrigerant gases. In particular, the company required intermodal methods of shipping bulk quantities to end-users throughout the USA and the world.

ACT responded with two solutions. The first one resulted in a fleet of IMO5/DOT51 intermodals, built to the customer's specifications and incorporating ACT's careful

review of applicable international shipping and environmental regulations. The second solution led to a fleet of ton containers built to DOT specification 110A.

By offering multiple size options, ACT allows end-users to carefully select the bulk container sizes that provide for the most economical and appropriate capacities. In turn, end-users enjoy the benefits of going to a single source for all of their specialized container applications.



Intermodal Refrigerant Tank (Columbiana Texas)



DOT 110A Ton Container (Columbiana Boiler)

A CONSULTATIVE APPROACH TO CONTAINER SYSTEMS

Anderson Columbiana Trading (ACT) provides consultative design, engineering and manufacturing for intermodal containers that meet the world's most rigorous standards for aggressive gases and chemicals.

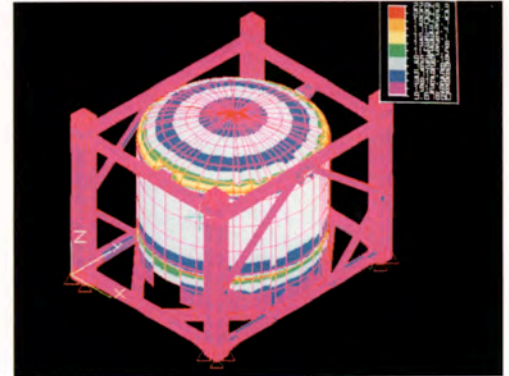
ACT's extensive industry background draws on generations of manufacturing and quality-assurance experience, as exemplified by the close working arrangement with The Columbiana Boiler Company, manufacturer of over 100,000 transport containers for difficult chemicals and gases.

COMPREHENSIVE CHEMICAL-HANDLING SOLUTIONS

ACT can review and make recommendations for your entire commodity-handling process. We can then design large, economical bulk systems or small, flexible intermediate containers; intermodal containers or truck/trailer systems; even modular storage containers with "turnkey" electrical and pump systems built in. And most importantly, we can design completely new solutions that meet all of the appropriate international transport regulations.

AHEAD OF THE REGULATORY CURVE

With our global operations and careful review of regulatory bodies, we can frequently anticipate regulatory changes before our customers can. In addition, manufacturing to customized specifications oftentimes allows us to foresee what tomorrow's "standard products" will look like. As a result, ACT helps protect your long-term container fleet investment.



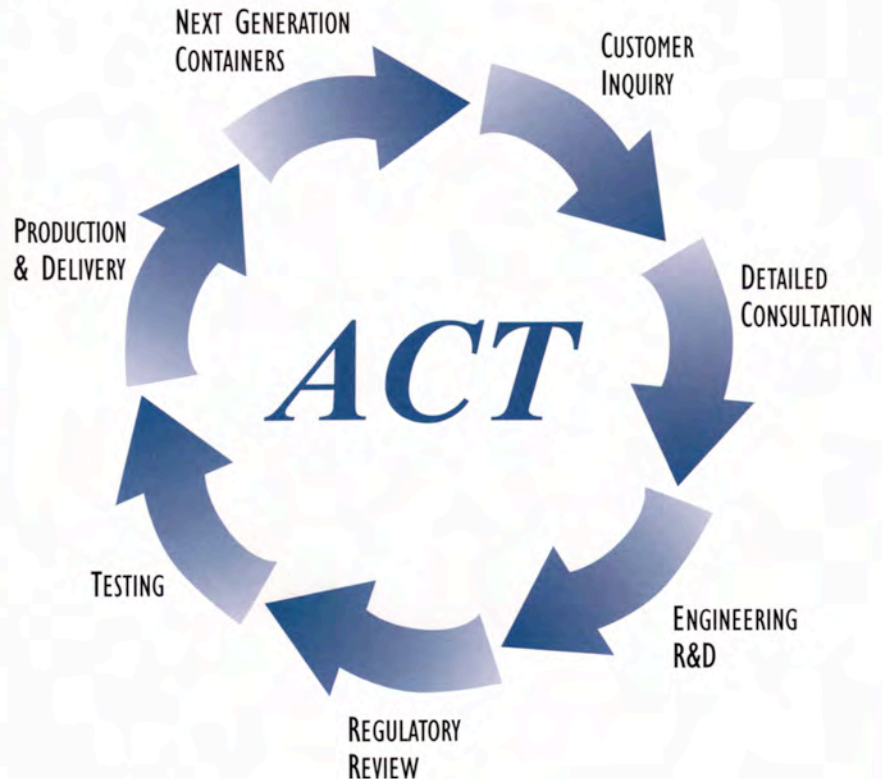
Engineering capabilities include color stress contour plotting of prototype container designs.



A prototype container design undergoing testing at Columbiana Texas. The in-house test facility permits Columbiana Texas to maintain full responsibility for container quality assurance. On-site testing also provides faster test results and shorter production times.

COMPLETE QUALITY DOCUMENTATION

Third party product inspection reports are available, as well as documented assembly compilations.



SINGLE-SOURCE SUPPLIER

A LISTING OF CONTAINER POSSIBILITIES



CYLINDERS:
6 TO 120
USWG

Small capacity cylinders for flexible allotment of pressurized chemicals. Can be designed to meet RID/ADR, DOT 4BW, DOT 4E, or special exemption packaging specifications.



CYLINDERS:
ANSI 14.1
UF₆

Uranium Hexafluoride (UF₆) cylinders for the nuclear power industry, manufactured in accordance with ANSI N14.1 standards. Includes models 30B, 48X and 48Y. Also available: protective shipping overpacks.



**COLUMBIANA
TON CONTAINERS**

DOT106A Ton Containers for chlorine service. DOT110A Ton Containers for compressed gases, including refrigerants, fire-extinguishing chemicals, nitrogen tetroxide, sulfur dioxide, and other authorized chemicals.



**INTERMEDIATE
BULK TANKS**

For sulfuric acid, hydrazine, chlorosulphonic acid, and other chemicals and gases, including UN classes 2, 3, 6 and 8. Can be designed to meet IM01/IM101, or IM01/DOT51, or IM05/DOT51 specifications. Design pressures from 58 to 500 psi (4 to 34.5 bar). All models have a common "footprint," permitting standardized material handling. Capacities from 150 to 1,500 USWG (568 to 5,685 liters). Lined or unlined carbon steel or stainless steel models.



**ISO IM01
INTERMODALS**

IM01/IM101 intermodals for food grade commodities, general chemicals and P.I.H. liquids, UN classes 3, 6 and 8. Available in carbon or stainless steel models, from 2,500 to 9,200 USWG (9,464 to 34,826 liters). Design pressures range from 44 to 99 psig (3 to 6.8 bar).



**ISO IM05
INTERMODALS**

ISO DOT51/IMO5 intermodals for pressurized liquified gases, including LPG, aerosols, cutting fuels, refrigerant gases, ammonia and many other specialty chemicals and gases. Capacities from 2,500 to 9,200 USWG (9,464 to 34,826 liters). Design pressures from 150 to 500 psig (10.3 to 34.5 bar). Available in carbon or stainless steel.



**STORAGE
MODULES**

Modular storage systems for pressurized gases and liquids. Custom-designed, "turnkey" storage systems, complete with pumping systems, specialized valves, meters, hydraulic fittings and electrical equipment. Capacities from 3,900 to 18,000 USWG (14,763 to 68,137 liters) and design pressures from 150 to 500 psig (10.3 to 34.5 bar).



**SEMI-TRAILERS &
CHASSIS-MOUNTED
TANKS**



A wide variety of models for pressurized, acidic or hazardous commodities constructed of carbon or stainless steel. Chassis-mounted tank trucks, including LPG bulk delivery units and vacuum tanks. All container construction complies with MC-331, MC-407, MC-412, ASME, or Sanitary Standard 3A specifications.



ACT'S UNIQUE NETWORK OF INTERMODAL TRANSPORT DESIGNERS & MANUFACTURERS

Drawing on its own extensive industry background, ACT has been able to create a complimentary network of highly-specialized, ASME "U" stamp-qualified manufacturers. Taken as a whole, the ACT group of manufacturers covers the broadest range of chemical and gas bulk transportation solutions found anywhere in the world.



With ACT as the design/engineering/marketing center, this network's synergy offers unsurpassed solutions to container challenges.

RESPONSIVE CUSTOM MANUFACTURING

Some container manufacturers balk at any project that deviates from their standard models...but not ACT. We are able to carefully allocate our network's engineering and production resources to meet even the most extraordinary projects. Our strategy of mutual technical and commercial cooperation within this network of "niche" manufacturers gives ACT an edge over any single producer.



Combined facilities represent over 2,000,000 square feet (185,000 square meters) of manufacturing area.



WORLD-CLASS CUSTOMER SERVICE

The professionals at ACT are dedicated to providing the most environmentally responsible, user-friendly containers in the world. From initial consultations to warranty service, ACT will provide its customers with the highest level of consulting and engineering support.

FLEXIBLE FINANCING ARRANGEMENTS

ACT's financial strength and international monetary experience permits us to offer flexible lease/purchase financing programs. We can even help protect your container manufacturing investments from foreign currency fluctuations. Call your ACT representative for additional details.

ACT

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