



its
SINCE 1977

International Tank Service, Inc.

from concept to completion we are four generations strong



Everett "Butch" S. Kirk, III

Since 1977 International Tank Service, Inc. has been providing quality products and services for the petroleum, chemical, water and waste treatment, utility, heavy industry and governmental agencies. Today, **ITS** is a full service aboveground storage tank contractor with field operations throughout the United States.

By utilizing the skills and talents of all our people we are committed to providing our customers a superior product at a competitive price.



mission statement

Our goal is to be the premiere contractor in the storage tank industry by giving exceptional customer service. We value the importance of relationships and will continue to be fair, honest and ethical in dealings with our clients, employees, vendors and partners. We will strive to foster a work environment that encourages new ideas, innovations and personal growth. The well being of our employees, customers and environment, shall be held to the highest standards. By exceeding our customer's expectations, we will earn more business. Without our customers we would not exist. In God we trust.



corporate commitment

International Tank Service, Inc. is committed to providing you, our customer, with the best professional service possible.

By utilizing our experience, flexibility, and capabilities to meet your needs and governmental regulations, **ITS** remains dedicated to providing dependable, quality products and services at competitive prices.

We believe that our combination of professional experience, knowledge, dedication, and flexibility makes us the best choice for your next tank project. We look forward to bringing the **ITS** commitment to you.

It is our job to furnish you with a product you will be proud of, and one in which we will be proud of. After all, our success is dependent upon your success.



core values

teamwork • *people focused*

We recognize our primary asset is people. To be successful, International Tank Service must be a rewarding place to work. We provide opportunity and encouragement to help our people reach their potential. We work with our clients as a team. Mutual respect provides the foundation for our success.

integrity • *highest ethical standards*

We remain true to our founding values of safety, quality, honesty, and hard work. We have the highest ethical standards in the industry. We “do the right thing.” International Tank Service is a business based on trust and is consistently associated with the high standards of service, quality, personal attention to customers, and integrity.

commitment • *customer driven*

International Tank Service is proactive in finding solutions for our customers, helping them achieve their goals. Lasting relationships are the lifeblood of our business. We want the customer to feel that our staff is customer driven and committed to putting forth our best effort in everything we do. Personal attention to our clients as individuals and caring about them as individuals distinguishes us from other tank companies. At International Tank Service our customers are our respected friends.



ITS builds & designs

● Aboveground Storage Tanks (AST)

- API 650 Field Erected Storage Tanks
- AWWA D100 Field Erected Water Storage Tanks
- Acids & Alkalis
- Asphalt Tanks
- Asphalt Oxidizers
- Biodiesel & Ethanol
- Brine Water
- Clarifiers & Digesters
- Crude Oil & Petroleum Fuels
- Drilling Fluids & Muds
- Fertilizers UAN Solutions
- Fire Water FM Tanks
- Vapor Recovery Tanks
- Vegetable Oils
- Waste Water

ITS services include

- API 653 Tank Inspection
- Consultants & Engineers
- API 653 Tank Repair & Retrofit
- Tank Maintenance Programs
- Custom Shop Fabrication
- Tank Replacement Parts

products & services



Welding vertical pipe seam

The *ITS* team can satisfy a customer's needs from the "beginning to the end" of the contract.



turnkey projects

International Tank Service, Inc. can satisfy a customer's needs from the "beginning to the end" of the contract by the turnkey concept. The Company will act as the Project Manager and General Contractor, performing much of the project with our own personnel, and sub-contracting other parts as needed to specialty contractors. In this way, we eliminate multiple contractors and sub-contractors and place control of the project at a single source, ITS.

new tanks

International Tank Service, Inc. can provide new tank construction for all types of Above Ground Storage Tanks (AST). Our field erection crews utilize the latest construction techniques to provide a safe, dependable new tank at competitive prices.

ITS constructed tanks adhere to strict compliance guidelines in accordance with API, AWWA and FM.

New tank construction services includes: Tank Erection, Foundations, Protective Coating & Linings, Insulation, Cathodic Protection

Kokosing Materials Mansfield, OH



Our field erection crews utilize the latest construction techniques to provide safe, dependable new tank.



tank repair & maintenance

International Tank Service, Inc. provides tank repair and maintenance services, including bottom replacements, shell repairs, fixed and floating roof repairs and replacements, tank re-leveling, fittings and appurtenances, special design and engineering work, as well specialty fabrication and construction project work.

- Secondary Containment Systems
- Tank Bottom Replacements
- Floating Roof Drain Systems
- Cone Roof & Structure Repair & Replacements
- Sunken or Collapsed Floating Roof Repairs
- In-Service Tank Repairs
- Stairways, Handrails, & Platforms
- Out-of Round or Buckled Tank Shell Repairs
- Primary & Secondary Seals for Floating Roof Tanks
- Floating Roof Tank Conversions
- Fire Fighting Foam Systems
- Shell Nozzles, Manways & Appurtenances
- Rolling Ladders and Stair Treads
- Tank Relocation
- Tank Foundations
- Cathodic Protection & Leak Detection
- Shell patches or replacements
- Roof plate repair and replacement



internal & external floating roofs

International Tank Service, Inc. fabricates and installs new floating roofs, as well as repairs and modifies existing floating roofs.

We can revamp floating roof tanks, repair or replace floating roof support legs, wind girders, overflows, vents, circular or radial stairs and rolling ladders.

We can install or repair all types of existing primary and secondary seal systems to meet your needs.

An ITS floating roof is of sound design and construction, and will perform for many years with trouble-free service.

ITS can convert an external floating roof tank to a cone roof tank.



tank jacking & leveling

International Tank Service, Inc. utilizes two jacking systems to safely raise tanks: The Low-Lift Unified Jacking System and the Hi-Lift Unified Jacking System.

The Low-Lift Unified Jacking System allows tanks to be raised up to 1'0" in a single lift, while the Hi-Lift Unified Jacking System allows tanks to be raised up to 10'0" in a single lift.

By jacking your existing tank off the ground, many options for repair or upgrading are available.

1. Installation of a reinforced concrete ringwall, or a compacted stone foundation;
2. Remediate contaminated soil;
3. Installation of an undertank containment liner;
4. Placement of a leak detection monitor;
5. Application of protective coatings to tank bottom;
6. Installation of a cathodic protection system; and
7. Leveling of the tank.

API 653 tank inspection services

ITS provides comprehensive examinations, documentation, and recommendations to customers. By allowing our professionals to inspect your tank, you insure that it will remain in peak condition. By diagnosing trouble signs early on, you may avoid future problems before they have a chance to progress.

design & technical support

Our design staff utilizes state-of-the-art AutoCad equipment to insure that drawings are prepared according to customer specifications, governmental regulations, and all applicable codes. By working closely with our customers, problems are solved in advance of any field work, providing a smoothly run project.

contract maintenance

Sometimes our customers have emergencies that need immediate attention. Our years of experience and our diversified work force allow us to respond quickly to emergencies so they do not become unmanageable catastrophes. This work can be completed on a time and material basis or a fixed dollar amount.



Welding Preparation

Since 1977 International Tank Service, Inc. has been providing exceptional products and services in the manufacturer and repair of above ground storage tanks.

quality assurance & control program

International Tank Service, Inc. takes great pride in their Quality Assurance / Quality Control program. ITS's commitment to quality is demonstrated in all areas of their work. Quality is ensured from Engineering and design to fabrication and field construction through systematic monitoring and evaluation of all their processes. ITS strives to get things right the first time making their products immediately fit for service

International Tank Service only hires the most competent employees with top level of knowledge, skills, experience, and qualifications. All ITS employees possess high level of personnel integrity, confidence, motivation and team spirit which drive their high quality products and services.

ITS's Quality Control Program includes:

- **Review** of all engineering calculations with drafting detailing prior to release of shop drawings.
- **Mill tests** of steel for chemistry, strength, and ductility. All steel used must conform to specified ASTM and design code standards.
- **Weld procedure** and welder qualification in accordance with API, AWWA, and ASME standards.
- **Dimensional inspections** of tank parts prior to erection.
- **Tolerance inspection** procedures for foundation and erection, to ensure compliance with applicable standards, customer requirements, and ITS acceptable tolerances.
- **Visual inspection** of weld quality as specified in tank codes.
- **Radiographic weld inspection** as specified in API or AWWA codes; other weld inspection as called by the customer, API 650 or AWWA codes, including vacuum testing, penetrant oil tests, hardness testing, etc.
- **Hydro-testing**
- **Additional testing** as appropriate for other work. Break tests for concrete, film thickness and holiday testing for painting, pressure tests for piping, etc.
- **Annual inspections** and certification by Factory Mutual for quality control compliance.





safety program

International Tank Service, Inc. is committed to providing safety for everyone, not only their own workers, but for workers around them.

Through technology and innovation we are implementing new and advanced safety practices constantly. At International Tank Service, one accident is too many. As a leader in the industry, ITS looks beyond customer and government regulations insuring the highest safety standards in the industry.



“Commitment to Safety”

The safety and health of our employees is the first consideration in the operations of International Tank Service, Incorporated. Safety and health in our business must be a part of every operation. Without question it is every employee’s responsibility at all levels to ensure that projects are completed safely.

Our objective is a health, safety, security and environmental program that will reduce the number of injuries and illnesses to an absolute minimum, not merely in keeping with, but surpassing, the best experience of operations similar to ours. Our number one goal is nothing less than zero accidents, incidents and injuries in the workplace.

Safety Solutions and Initiatives

In recent years ITS has taken strides forward in accident prevent and injury management. Better HSE training and education has lent itself to lowering incident ratings annually. A Medical Management Group has allowed our company to better handle incidents and accidents from a medical standpoint as well as from a compliance standpoint.

The trained medical staff and specialist from medical management group work on our behalf to ensure proper treatment while still keeping ITS in compliance with OSHA Reporting Standards.



Health, Safety, & Environment

In order to ensure all levels of employment understand our main goal of zero accidents, incidents, and injuries, ITS has committed to continually training and educating our personnel on all levels in all subjects concerning HSE matters. Through this training we are able to convey our message of safe working habits. This not only promotes safe working environments, but also promotes good working relationships between ITS and our customers.

In promoting safe work, our customers are able to enjoy added benefits. When our employees are working safely the customer will see; reduction in costs to complete projects, lower risk factors and better compliance with government standards. When our customers understand our commitment to safety, it gives them a greater sense of ease better piece of mind in trusting ITS to complete a project on schedule, in compliance, and safely.

Training and Education

It is our goal to continue mold and adapt to the ever changing world of safety. In order to do so we have developed a multi pronged approach:

- We have set a final goal of zero incidents, accidents, and injuries.
- We monitor each project individually to ensure success and safety work cooperatively.
- Our safety training is Occupational Safety and Health Administration (OSHA) complaint when regarding subject matter.
- We conduct annual OSHA 10 courses and refreshers.
- All of our HSE programs are OSHA and United States Environmental Protection Agency (USEPA) complaint as a minimum, but often we strive to be a step above compliance.

Through technology and innovation we are implementing new and advanced safety practices constantly.

We also participate in web based owner/contractor sourcing services. These services collect, verify and publish our compliance and prevention performance to member companies:

- www.isnetworld.com
- www.pecpremier.com



fabrication facilities

International Tank Service, Inc. can respond quickly to our customer's tank needs because of our on-site fabrication facility.

Here we cut, roll and fabricate roofs, shells, bottoms, and structurals and make up accessory fittings for the tanks. Completed components are shipped via our own vehicles or commercial motor freight, whichever is more expedient. To assure control over production schedules, our shop's priority is to our own field-erection projects. If you have an emergency that requires an immediate response, we can do it.

Fab Shop Equipment

- **Bertsch Plate Roll**
Capacity: 10'-0" w x 1-3/16" th
- **King Vertical Turret Lathe**
Capacity: 42" Diameter
- **Burny 10 CNC Plasma Table**
Capacity: 10'-0" W x 50'-0" L x 2" TH
- **Roundo Angle Roll**
Capacity: 5" x 5" x 1/2"
- **Fosdick Radial Drill**
Capacity: 13" Column x 5'-0" Arm
- **Driess & Krump Press Brake**
Capacity: 300 Ton



our satisfied customers

C.W. Matthews Atlanta, GA



We are committed to providing our customers a superior product at a competitive price.

- Asphalt Materials
- BP Oil
- Bunge North America
- Cargill
- Citgo Petroleum
- Colas Ltd.
- C.W. Matthews
- DuPont
- Ergon
- General Motors
- Gladioux Refining
- Husky Energy
- Honda of America
- IBM
- J.D. Streett
- Kinder Morgan
- Marathon Petroleum
- Magellan
- Midvalley Pipeline
- Owens Corning
- Old Castle
- Seneca Petroleum
- Suit-Kote
- Sunoco Logistics
- Valero Refining



Typical API 650 Tank Sizes

NOMINAL CAPACITY		TANK DIMENSIONS in feet and inches		APPROXIMATE WEIGHT IN POUNDS	SHELL RING THICKNESS (In Inches)						TOP ANGLE SIZE
BBLs	GALLONS	DIA.	Nominal Height		1	2	3	4	5	6	
500	23,000	15-0	18-0	12,600	1/4	3/16	3/16				2 x 2 x 3/16
1,000	42,000	20-0	18-0	18,000	1/4	3/16	3/16				2 x 2 x 3/16
1,500	63,000	25-0	18-0	24,200	1/4	3/16	3/16				2 x 2 x 3/16
2,000	87,000	25-0	24-0	28,300	1/4	3/16	3/16	3/16			2 x 2 x 3/16
2,500	109,000	25-0	30-0	33,700	1/4	3/16	3/16	3/16	3/16		2 x 2 x 3/16
3,000	126,000	30-0	24-0	37,000	1/4	3/16	3/16	3/16			2 x 2 x 3/16
4,000	168,000	30-0	32-0	43,600	1/4	3/16	3/16	3/16	3/16		2 x 2 x 3/16
5,000	210,000	30-0	40-0	51,000	1/4	3/16	3/16	3/16	3/16		2 x 2 x 3/16
5,000	210,000	35-0	30-0	52,000	1/4	3/16	3/16	3/16	3/16		2 x 2 x 3/16
7,500	324,000	36-8	40-0	68,000	1/4	3/16	3/16	3/16	3/16		2 x 2 x 1/4
7,500	324,000	40-0	34-0	70,000	1/4	3/16	3/16	3/16	3/16		2 x 2 x 1/4
8,900	374,000	40-0	40-0	76,000	1/4	3/16	3/16	3/16	3/16	3/16	2 x 2 x 1/4
10,000	420,000	44-0	37-6	84,650	1/4	3/16	3/16	3/16			2 x 2 x 1/4
10,000	420,000	42-6	40-0	85,000	1/4	1/4	3/16	3/16	3/16		2 x 2 x 1/4
10,000	420,000	45-0	36-0	85,000	1/4	3/16	3/16	3/16	3/16		2 x 2 x 1/4
12,540	525,000	45-0	44-0	98,575	.29	1/4	3/16	3/16	3/16	3/16	2 x 2 x 1/4
12,500	525,000	48-0	40-0	110,000	.27	1/4	3/16	3/16	3/16		2 x 2 x 1/4
15,000	630,000	48-0	48-0	122,000	.34	.27	1/4	3/16	3/16	3/16	2 x 2 x 1/4
15,000	630,000	52-0	40-0	128,000	.31	1/4	1/4	1/4	1/4		2 x 2 x 1/4
16,000	670,000	60-0	32-0	138,000	.27	1/4	1/4	1/4			2 x 2 x 1/4
20,000	846,000	60-0	40-0	164,000	.34	.27	1/4	1/4	1/4		2 x 2 x 1/4
24,000	1,010,000	60-0	48-0	195,000	.41	.34	.27	1/4	1/4	1/4	2 x 2 x 1/4
20,000	840,000	67-0	32-0	169,000	.31	1/4	1/4	1/4			3 x 3 x 3/8
25,000	1,055,000	67-0	40-0	200,000	.38	.31	1/4	1/4	1/4		3 x 3 x 3/8
30,000	1,266,000	67-0	48-0	237,000	.46	.38	.31	1/4	1/4	1/4	3 x 3 x 3/8
30,000	1,266,000	73-4	40-0	237,000	.42	.34	1/4	1/4	1/4		3 x 3 x 3/8
28,500	1,200,000	80-0	32-0	227,000	.38	.27	1/4	1/4			3 x 3 x 3/8
35,000	1,504,000	80-0	40-0	270,000	.46	.38	.27	1/4	1/4		3 x 3 x 3/8
42,500	1,790,000	80-0	48-0	323,000	.55	.46	.38	.27	1/4	1/4	3 x 3 x 3/8
45,000	1,900,000	90-0	40-0	331,000	.52	.41	.31	1/4	1/4		3 x 3 x 3/8
44,500	1,870,000	100-0	32-0	333,000	.46	.34	1/4	1/4			3 x 3 x 3/8
55,000	2,350,000	100-0	40-0	402,000	.57	.46	.34	1/4	1/4		3 x 3 x 3/8
67,000	2,810,000	100-0	48-0	485,000	.69	.57	.46	.34	1/4	1/4	3 x 3 x 3/8
64,000	2,700,000	120-0	32-0	480,000	.55	.41	5/16	5/16			3 x 3 x 3/8
80,000	3,384,000	120-0	40-0	575,000	.69	.55	.41	.27	5/16		3 x 3 x 3/8
96,000	4,030,000	120-0	48-0	690,000	.83	.69	.55	.41	5/16	5/16	3 x 3 x 3/8
87,500	3,680,000	140-0	32-0	653,000	.64	.47	.31	5/16			3 x 3 x 3/8
100,000	4,200,000	134-0	40-0	721,000	.76	.61	.46	.31	5/16		3 x 3 x 3/8
100,000	4,200,000	150-0	32-0	734,000	.68	.52	.34	5/16			3 x 3 x 3/8
109,500	4,606,000	140-0	40-0	780,000	.80	.64	.47	.31	5/16		3 x 3 x 3/8
125,000	5,288,000	150-0	40-0	882,000	.86	.68	.52	.34	5/16		3 x 3 x 3/8
131,500	5,480,000	140-0	48-0	937,000	.96	.80	.64	.47	.31	5/16	3 x 3 x 3/8
150,000	6,300,000	150-0	48-0	1,060,000	1.03	.86	.68	.52	.34	5/16	3 x 3 x 3/8

Weights of Steel Plates

Average Specific Gravities and Weights for Various Liquids

THICKNESS		WEIGHT
Fractions of Inch	Decimals of Inch	Lbs. per Sq. Ft.
3/16	.1875	7.65
7/32	.2187	8.925
1/4	.2500	10.20
9/32	.2813	11.475
5/16	.3125	12.75
11/32	.3437	14.02
3/8	.3750	15.30
13/32	.4062	16.57
7/16	.4375	17.85
15/32	.4687	19.12
1/2	.5000	20.40
17/32	.5312	21.67
9/16	.5625	22.95
19/32	.5937	24.22
5/8	.6250	25.50
21/32	.6562	26.77
11/16	.6875	28.05
23/32	.7187	29.32
3/4	.7500	30.60
25/32	.7812	31.87
13/16	.8125	33.15
27/32	.8437	34.42
7/8	.8750	35.70
29/32	.9062	36.97
15/16	.9375	38.25
31/32	.9687	39.52
1	1.0000	40.80
1 1/32	1.0312	42.07
1 1/16	1.0625	43.35

Liquid	Specific Gravity	Weight Pounds Per U.S. Gallon	Wt. in Pounds per Cubic Ft.
Acetic Acid (100%)	1.05	8.7	66
Alcohol - Commercial	0.833	6.95	52
Asphaltum	1.3	10.8	81
Benzene	0.88	7.3	55
Butane	0.585	5.00	37
Castor Oil	0.964	8.02	60
Caustic Soda (100%)	2.13	17.8	133
Cottonseed Oil	0.93	7.75	58
Creosote	1.1	9.16	69
Crude Oil	0.82-0.97	6.86-8.11	50-62
Cylinder Stock	0.91-0.94	7.58-7.93	57-59
Cocoonut Oil	0.925	7.7	58
Diesel Oil	.90	7.51	56
Ethane	0.446	3.71	28
Ethyl Fluid	1.71	14.2	107
Fuel Oil	.96	8.0	60
Gasoline (motor fuel)	0.71-0.82	5.93-6.86	44-51
Gas Oil	0.843	7.0	52
Kerosene	0.81	6.75	51
Lard Oil	0.918	7.64	57
Linseed Oil - Raw	0.93	7.75	58
Liquid Ammonia (100%)	0.62	5.17	39
Lubricating Oil - Light	0.86-0.90	7.17-7.51	54-56
Lubricating Oil - Heavy	0.89-0.93	7.42-7.76	55-58
Methyl Alcohol	0.791	6.6	50
Molasses	1.47	12.2	92
Muriatic Acid, 40%	1.194	9.9	75
Naphtha	0.729	6.07	45
Naphthalene	1.15	9.58	72
Nitric Acid (100%)	1.56	13.0	97
Olive Oil	0.919	7.65	57
Phenol	1.0677	8.89	67
Pitch	1.11	9.27	69
Propane	0.509	4.24	32
Solvent Naphtah (abt)	.870	7.2	54
Soya Bean Oil	0.926	7.7	58
Sulphuric Acid (100%)	1.84	15.3	115
Sulphurous Acid	1.43	11.9	89
Tar	1.2	10.03	75
Turpentine	0.86	7.17	54
Water (Sea)	1.03	8.60	63.6
Water	1.0	8.33	62.428
Mercury	13.5959	114.	849.

Kokosing Materials Mansfield, OH



Atlas Roofing Franklin, OH



Valley Asphalt Cincinnati, OH



Gladieux Huntington, IN



Westway Terminals, Riverdale, IL



Seneca Petroleum Chicago, IL



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