



# Enhancing Energy Efficiency

# **COMPANY PROFILE**

SS 253 115

THERMODYNE ENGINEERING SYSTEM. an ISO 9001:2008/15 and D&B certified organization with its excellent service, product quality and proven track record, has established itself as the premier OEM manufacturer and turnkey service-provider of LIQUID STORAGE TANKS. Our products range from highly customised ZINCALUME Tanks best fit for storage of pure water, waste-water, oil, chemicals, molasses etc. THERMODYNE has executed more than 2000 projects in more than 10 countries worldwide.





With 25+ years of experience in manufacturing facility, THERMODYNE is committed to create innovative ideas for Storage Tanks through constant research and development. We are pledged to deliver the best quality and innovative technologies to our clients, keeping up with the ever-changing requirements of the industry. Incepted in 2000, our company has earned an expertise in fabricating and engineering steel structures in multiple dimensions. We provide design & manufacturing engineering support, outstanding customer service, consistent product quality, and on-time delivery of our products. The combination of our Zincalume technology and our experienced engineering staff allows us to reduce costs significantly, delivering on time, every time.

# **Our Products:**

Liquid Storage Tanks Zincalume Tanks Corrugated Steel Tanks Industrial Storage Tanks Prefabricated Storage Tanks Fire Fighting Water Tanks RO & DM Water Tanks

# **Certifications:**

ISO 9001:2008 ISO 9001:2015 DUN & BRADSTREET

# In Compliance With

AUSTRALIAN STANDARDS FM GLOBAL STANDARDS

#### ETP & STP Storage Tanks

## INDIAN STANDARDS

# WHO WE ARE

Thermodyne has been established as a trusted industry partner in understanding customer-specific energy needs and offering tailored solutions that provide a competitive edge by lowering operating costs.



## 1. VOLUME

Thermodyne tanks range from 5 cubic meters to 2000 cubic meters.

## 2. PREFABRICATION

Our prefabricated design allows the tank to be dis-assembled and relocated as many times as desired.

## 3. LINER

Thermodyne offers a range of state-of-the-art liner technologies suitable for almost all applications. Our reinforced liners are capable of supporting water pressures of more than 2kg/cm2 and are capable of storage of wide variety of liquids.

#### **Standard Liners**

Manufactured from reinforced, multi-layered, food-grade anti-algae, UV stabilized PVC liner with a woven multifacent nylon scrim, Thermodyne liner is primarily used for installation in lighter commercial and rural domestic tank designs. Con sisting of three bonded layers of PVC fabric, it ensures a homogenous bond between each layer. The inert nature of the PVC prevents it from affect ing the stored liquids.



## THERMODYNE Enhancing Energy Efficiency

## 4. CORRUGATION TECHNOLOGY

Our tanks come in a strong corrugated profile and are stiffened with unique 'W' stiffeners with much higher strength and reliability than normal one. Our unique corrugation technology of uniform pitch and depth makes it a premium one as it acts as a structural reinforcement and shock absorber for earth movement or soil subsidence.

## 5. ZINCALUME

Zincalume is the new cutting edge technology that has given our tanks the best enhanced and aesthetic features. Our expertise in manu facturing Zincalume tanks sets us apart from others. "Zincalume tanks" are fabricated using the highest grade of "Zincalume steel" which lasts up to four times longer than galvanized steel and ensures superior performance and



durability. Powered by hot galvanised AZ150 coating of 43.5% Zinc, 55% Aluminium and 1.5% Silicon, this extensive research technolo gy makes Thermodyne takes 30% to 40% more

corrosion resistant than hot galvanized Z275 steel. With an increasing demand for its durability, resil ience and sustainability, Zincalume is bound set the next generation standard in the coming years.

## 6. BOLTED TECHNOLOGY

The well-devising bolting and welding features makes our tanks much easier to install and relocate. Unlike conventional tanks, our tanks do not require sealing and coating on-site.

## 7. CUSTOMISABLE

We provide tailored formations based on geographical and environmental conditions and also as per the requirements of our esteemed clients.

# ADVANTAGES

#### Relocatable

Thermodyne tanks supports easy relocation of the tanks anytime, even after years of use. The BOLTED Technology enables tanks to be dismantled and reassembled even if it requires changing site locations.

Light-Weight & easily Transportable

Due to the materials use in our products these are light-weighted therefore they are easy to lift and handle. It makes our products easy to transport.





Our tanks supports expansion of tank capacities as and when required. Our team can work on expanding tank volumes anytime without posing any damage to actual tank.

### Strong and Durable

The use high tensile strength of ZINCALUME steel make our products strong, making the longer life expectancy of our products up to 40-50 years.

#### Maintenance free



Thermodyne Tanks are very easy to maintain under general environment conditions, and if well-maintained our tanks enjoy wonderful longevity. 25 YEARS EXCELLENCE

Advantages that sets us apart



tanks are highly cost-effective when compared to other traditional tanks.



Our tanks have pre-approved designs and take the least time for on-site installation.

#### **Environment Protected**

Our tanks are designed to withstand cyclonic wind velocity of 88 m/sec and earthquake zone IV.



# Enhancing Energy Efficiency

www.thermodyneboilers.com

# COMPARISON

Property	Zinc-Alume Tank	Mild Steel (MS) Tank	Concrete Tank
Cost	Rs.3.00 to 10.50 Moderate to low; relatively cost-effective for small to medium-sized tanks	Rs. 5.00 to 30.00 Lower initial cost, but higher long-term maintenance costs due to rust issues	Rs. 5.00 to 15.00 High initial cost for construction,but very cost-effective long-term due to durability
Maintenance	Low maintenance, periodic cleaning and inspection	High maintenance, requires regular inspection and re-coating	Low maintenance once constructed, but periodic inspections for cracks and leaks
Durability	High; excellent resistance to corrosion, moderate mechanical strength	Moderate; prone to corrosion and rust without proper maintenance	Very high; Concrete is highly durable and lasts for decades
Tensile Strenth	275-500 MPa (depending on alloy and thickness)	300-550 MPa (depending on grade of steel)	20-40 MPa (depends on concrete mix design)
Yield Strength	250-400 MPa (depending on thickness and coating)	250-350 MPa (for mild steel)	25-35 MPa (depends on concrete mix design)
Waterproofing	Excellent; very low water absorption, resistant to rust	Needs protective coating to prevent rust and water penetration	Naturally waterproof unless cracks form or improper construction
Fire Resistance	Low; Can melt at temperatures above 420-460°C	Moderate; steel loses strength at high temperatures	High; Concrete is fireproof and can withstand extreme heat
Lifespan	30-60 years Depending on	10-20 years with proper maintenance	30-35 years with proper maintenance and reinforcement

environment and maintenance



Lightweight compared to MS and Concrete tanks

Moderate; heavier than Zinc-Alume but lighter than concrete

Very heavy due to concrete density and volume





		TES1.8	TES2.5	TES2.9	TES3.05	TES3.55	TES4.1	TES4.61	TES5	TES5.5	TES5.8	TES6.1	<b>TES6.5</b>	<b>TES7.1</b>
No. of rings	Dia. → /Wall Height ↓	1.84	2.5	2.95	3.05	3.55	4.1	4.61	5	5.5	5.8	6.1	6.5	7.1
R1	1.12	2.98	5.50	7.65	8.18	11.08	14.78	18.68	21.98	26.60	29.58	32.72	37.15	44.32
R2	2.10	5.58	10.30	14.35	15.34	20.78	27.71	35.03	41.21	49.87	55.46	61.34	69.65	83.10
R3	3.20	8.24	15.21	21.18	22.64	30.67	40.91	51.72	60.84	73.61	81.86	90.55	102.82	122.67
R4	4.20	10.90	20.12	28.01	29.94	40.56	54.10	68.40	80.46	97.36	108.27	119.76	135.98	162.24
R5	5.30	13.61	25.12	34.98	37.39	50.65	67.56	85.42	100.48	121.58	135.21	149.55	169.81	202.61
R6	6.30	16.21	29.93	41.67	44.55	60.35	80.49	101.77	119.71	144.85	161.09	178.18	202.31	241.39
R7	7.40	18.92	34.93	48.64	51.99	70.44	93.95	118.78	139.73	169.07	188.02	207.97	236.14	281.75
<b>R</b> 8	8.40	21.53	39.74	55.33	59.15	80.13	106.89	135.13	158.96	192.34	213.90	236.60	268.65	320.53
DO	0.50	04.04	11 75	60.00		00.00	100.05	150 15	170 00	040 57	010 01		200 40	

КЭ	9.00	24.24	44.75	62.30	00.00	90.22	120.35	152.15	1/0.90	210.37	240.84	200.39	302.48	300.90
R10	10.5	26.84	49.55	69.00	73.75	99.92	133.28	168.50	198.21	239.84	266.71	295.02	334.98	399.68

#### NOTE-ALL CAPACITIES IN KL/M3

For Example

If we looking for a Tank of 20 KL then we have the following options

Volume (Cub Mtr)	Dia (Mtr)	Height (Mtr)	Model
21.18	2.95	3.1	TES2.9R3
20.78	3.55	2.1	TES3.5R2

Method	of se	lection

HorizontallyDia in Mtr eg 1.84,2.5.....VerticallyHeight of Tank in Mtr. eg 1.12,2.1....White ColumnVolumes in Cubic Mtr. eg 2.98, 5.58...



#### Scan for Contact :



IBR | ISO 9001 | PESO | ZED Silver

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