



TOTAL ENERGY ENGINEERING & SERVICES

Innovating Today for a Better Tomorrow

2026



+91-8095165197



www.totalenergy.co.in



ABOUT US



A Brief About The Company



Total Energy Engineering & Services is Part of Dehu Group of Companies, who are a globally recognized leader in industrial engineering solutions, offering specialized services across a wide spectrum of industries including power generation, sugar production, distilleries, water and wastewater management, steel manufacturing, cement production, paper processing , Oil & Gas Equipments.

Our core services encompass retrofitting, revamping, fabrication, site maintenance and comprehensive lifecycle support—all aimed at optimizing plant performance and maximizing operational efficiency. With decades of proven expertise, we deliver durable, high-performance equipment, components & pressure parts that meet the most demanding industrial equipments requirements.

Certified by ASME, Indian Boiler Regulations (IBR) and other international standards, our operations are driven by an unwavering commitment to quality, safety and regulatory compliance. Sustainability is at the heart of our engineering practices—we design solutions that reduce energy consumption, minimize environmental impact & promote long-term cost savings.

Every product and service we offer is tailored to the unique operational needs of our global clients. By combining innovation, precision manufacturing and reliable performance, we empower industries to achieve higher productivity, longer equipment lifespans & measurable business success.

Our Vision, Mission & Values



COMPANY VISION

Our customers are at the heart of everything we do and we are committed to providing them with High-Quality Products related to Boiler Power Plants, Process Industries and Oil & Gas along with excellent customer service.



COMPANY MISSION

We are constantly striving to improve our products and services to exceed our customer's expectations. Our dedicated team of professionals work tirelessly to ensure that our customers receive the best possible solutions and support.



COMPANY VALUES

We are committed to delivering exceptional quality, fostering customer satisfaction, driving creativity, upholding integrity and championing sustainability in all our endeavors.



Our Services

- 1. Supply of Spares (IBR) & Non IBR Pressure Parts**
- 2. Boiler Design Consulting Services**
- 3. Techno-Economic Feasibility Study**
- 4. Third Party Inspection Services**
- 5. Project Management Consultancy**
- 6. RLA (Residual Life Assessment) Study**
- 7. Energy Audits**
- 8. Detail Engineering Services**
- 9. Erection & Commissioning Services**
- 10. Boiler Revamping & Retrofitting**

Pressure Parts



We specialize in the design, manufacturing and supply of high-quality pressure parts for industrial applications. Our expertise includes boilers, pressure piping systems, superheaters, economizers, tube coil leakage repairs and water wall panel services. We manufacture water-tube and fire-tube boilers, ensuring efficiency, durability and compliance with industry standards. Our precision-engineered pressure piping systems guarantee safe and seamless transport of gases and liquids under high pressure.

We enhance boiler efficiency with superheaters and economizers, optimizing heat recovery and reducing costs. Our tube coil leakage repairs minimize downtime while extending the life of superheater coils, economizers and water wall panels. Additionally, we provide high-quality materials and skilled manpower for water wall panel and bed coil services, ensuring prompt and reliable solutions. With a commitment to engineering excellence, innovation, and customer satisfaction, we deliver superior performance and long-term value for every project.

Non-Pressure Parts



We offer a wide range of non-pressure parts essential for industrial applications. Our high-quality fabricated components are designed to support boiler systems, power plants and other industrial setups, ensuring efficiency, durability and seamless integration with existing infrastructure.

Our non-pressure parts include ducts, hoppers, chimneys, dampers, grates, structural platforms, expansion joints and more. These components are engineered with precision to withstand high temperatures, corrosion and mechanical stress, ensuring long-term performance. We also manufacture ash handling systems, fuel handling systems and air preheater components, which play a crucial role in optimizing plant operations and reducing emissions.

With a focus on quality materials, expert craftsmanship and customized solutions, we provide robust and reliable non-pressure parts that enhance operational efficiency and safety. Partner with us for superior engineering solutions tailored to meet your industry's needs.



Tubes

Key Features

Boiler • Heat Exchanger Finned • Cu-Ni

Comprehensive range of tubes including Boiler Tubes, Finned Tubes, Cu-Ni Tubes, and Stainless Steel Tubes for heat transfer and process applications.

Finned Tubes

Material Grades	Standard Specification	Size Range (OD × Thickness × Length)
Carbon Steel (A179, A210, A106 Gr.B), Alloy Steel (A213 T11, T22), SS (A213 TP304/316), Cu-Ni (C70600, C71500), Al 1050/6063, Ti Gr.2	ASTM A179 / A210 / A213 / B111	OD 12.7–219 mm × 1.5–12 mm × up to 12 m

Cu-Ni Tubes

Material Grades	Standard Specification	Size Range (OD × Thickness × Length)
Carbon Steel (A178, A192, A210), Alloy Steel (A213 T5, T9, T11, T22, T91), SS (A213 TP304/316/321/347), Inconel 600/625	ASTM A178 / A192 / A210 / A213 / BS 3059	OD 12.7–168 mm × 2–10 mm × up to 19 m

SS and Higher Alloy Tubes

Material Grades	Standard Specification	Size Range (OD × Thickness × Length)
SS 304/304L, 316/316L, 321, 347, Duplex (S31803/S32205), Super Duplex (S32750/S32760), Incoloy 800/825,	ASTM A213 / A269 / A312 / UNS Series	OD 6–219 mm × 0.8–12.7 mm × up to 12 m



Pipes

Pipes

Range	1/2" to 96"
Execution	Seamless & Welded Pipes, ERW, HFW, SAW, DSAW, LSAW
Standards	API, ASTM/ASME, BS/ISO
Materials	Carbon Steel, Alloys, Stainless Steel, Duplex, Inconel, Titanium, Monel, Hastelloy
Grade	APISLB, A106 Gr B, APISL Gr X42, X52, X60, X65, X70, A333 Gr 6, A333 Gr 3, A671 Gr5, A335 P5, P9, P11, P22, P91, A312, Gr 316/316L, 304/304L, 321/321H, 347/347H, A790 UNS S31803, S32750 / S32760, 6Moly, 310, 317L, 3191I, 904L, Alloy 400, 625, 825, 70600, 70620
Specials	Finned Tubes, Head Exchangers, Tubes & Duplex Tubing Coating: Polythene, Epoxy, Galvanized, 3LPE Cement Lining Galvanized (ASTM153, ASTM123) Electro galvanizing



Plates

PLATE GRADES:

SA 516 Gr 60/65/70 CS Commonly used plates for fabrication of Heat Exchangers, Boilers shell.

SS304/L

is the most popular grades of stainless steel are namely SS 304 and SS316, SS304 contains 18% Chromium and 8% Nickel and are commonly used worldwide.

SS316/L

on the other hand, contains 16% Chromium and 10% Nickel but there is an additional 2% Molybdenum. This addition allows SS316 materials to have increased corrosion resistance as compared to SS304 materials. SS316 materials are favored for use outdoors and nearer to marine and coastal settlements.

SS31803/2205

is also commonly known as duplex stainless steel. This grade is the most popular duplex product on the market which offers good resistance to uniform and localized corrosion and as well as stress corrosion cracking.

SS32750

is a super duplex product with higher corrosive resistance and mechanical strength when compared with SS31803/2205. The PREN of Super Duplex is between 40 to 45. Super duplex has seen increasing usage in the Asia Pacific region for usages such as scrubbers.

SS3105

is an austenitic heat and creep-resisting stainless steel with excellent oxidation resistance in mildly cyclic conditions and is best employed in high temperatures up to 1050°C/1920°F.

SS253MA

is an austenitic heat-resisting stainless steel with excellent oxidation and creep resistance in cyclic conditions and is best employed in high temperatures up to 1100°C/2012°F. This material grade is trademarked by Outokumpu, of which HH Stainless is a appointed distributor for in the South East Asia Region.

SS904L

is an austenitic high alloy stainless steel with low carbon content but with copper being added to improve its resistance to strong reducing acids. It is also resistant to stress corrosion cracking and crevice corrosion.



Pipe Fittings

Fittings

Elbows, Tees, Reducers , End Caps— built for reliability.

Key Features

CS /Alloy: A234 • A860 Forged: A105N • A350 • A694

Overview

Comprehensive range in CS, Alloy, Inconel 825/625, Duplex/Super Duplex & Stainless — seamless/welded/forged.

Carbon Steel — Seamless/Welded

Specs	Grades	Size Range	Schedules
A234, A860, MSS SP75, A420	WPB, WPHY42/52/60/65, WPL6	1/2"–96"	10S – 160S

Carbon/Alloy — Forged

Specs	Specs	Size Range	Schedules
A105N, A350, A694	LF2, F42, F52, F60, F65	1/4"–4"; 1/2"–2"	10S – XXS

Stainless & Higher / Alloy Steel

Specs	Grades	Size Range	Schedules
SS: A403, A815, B366	WP304/L, WP316/L, S31803/S32750, F304/L, F316/L, F1, F5, F11, F22, F91, F92,	SS: 1/2"–48"; Forged: 1/4"–4"	SS: 1/2"–48"; Forged: 1/4"–4"



Flanges • Precision-Machined Reliability

Key Features

ASME B16.5 & 16.47 Series A & B Pressure Rating (150#–2500#)

API 6A High RTJ Flanges Pressure Rating 2000 PSi –20000 PSi

Overview

Precision-engineered ASME (Class 150–2500) and API 6A (2000–20000 Psi) flanges for demanding Critical Sour services.

Carbon Steel

Specs	Grades	Size Range	Pressure Rating
A105N, A350, A694	LF2, F42, F52, F60, F65	1/4"–72"	150# – 2500# 2000-20000 PSi

Stainless & Higher

Specs	Grades	Size Range	Pressure Rating
A182	F304, F316/316L, F51, F53, F55 F1, F5, F11, F12, F22, F91, F92 ,	1/4"–72"	150# – 2500# 2000-20000 PSi

Nickle Alloy

Specs	Grades	Size Range	Pressure Rating
ASTM B564	UNS N06625 , UNS N08825	1/4"–72"	150# – 2500# 2000-20000 PSi



Valves • Precise flow control for critical operations

Key Features (IBR Approved Valves with 12 Months Replacement Warranty)

Ball • Gate • GlobeCheck • Butterfly • Monoflange DBB Valves

Overview

Floating & Trunnion Ball, Gate, Globe, Check, Butterfly — broad material coverage and size ranges.

Typical Materials as per requirement

WCB/WCC, A105, LCB/LCC/LF2, WC6/WC9, C5/C12, F11/F22, CA15/CA6NM, CF8/CF8M/CF3/CF3M, Duplex/Super Duplex, Nickel & Copper alloys

Size Ranges

Type	Size Range
Gate Valves	1/2"–60"
Globe Valves	1/2"–24"
Check Valves Including Non Slam	1/2"–60"
Ball Valves	1/2"–48"
Butterfly Valves	1/2"–120"



Fasteners • High-Strength Studs, Bolts, Nuts & Washers

Key Features

Studs: A193/A320 Nuts: A194

Overview

Stud bolts, nuts and more for high-temperature / high-tensile applications.

Common Types

Anchor • Stud Bolt & Nut • Stud Bar • Hex Bolts/Nuts • Nylon Nuts • Plugs • Jack Screw • U-bolts • Washers

Stud Bolts

Specs	Grades	Size Range
A193, A320	B7, B7M, B8, B8M • L7, L7M Xylan 1070 PTFE Xylan 1424	1/4"–3"

Nuts

Specs	Grades	Size Range
A193, A320	B7, B7M, B8, B8M • L7, L7M Xylan 1070 PTFE Xylan 1424	1/4"–3"



Gaskets • Sealing solutions that last

Key Features

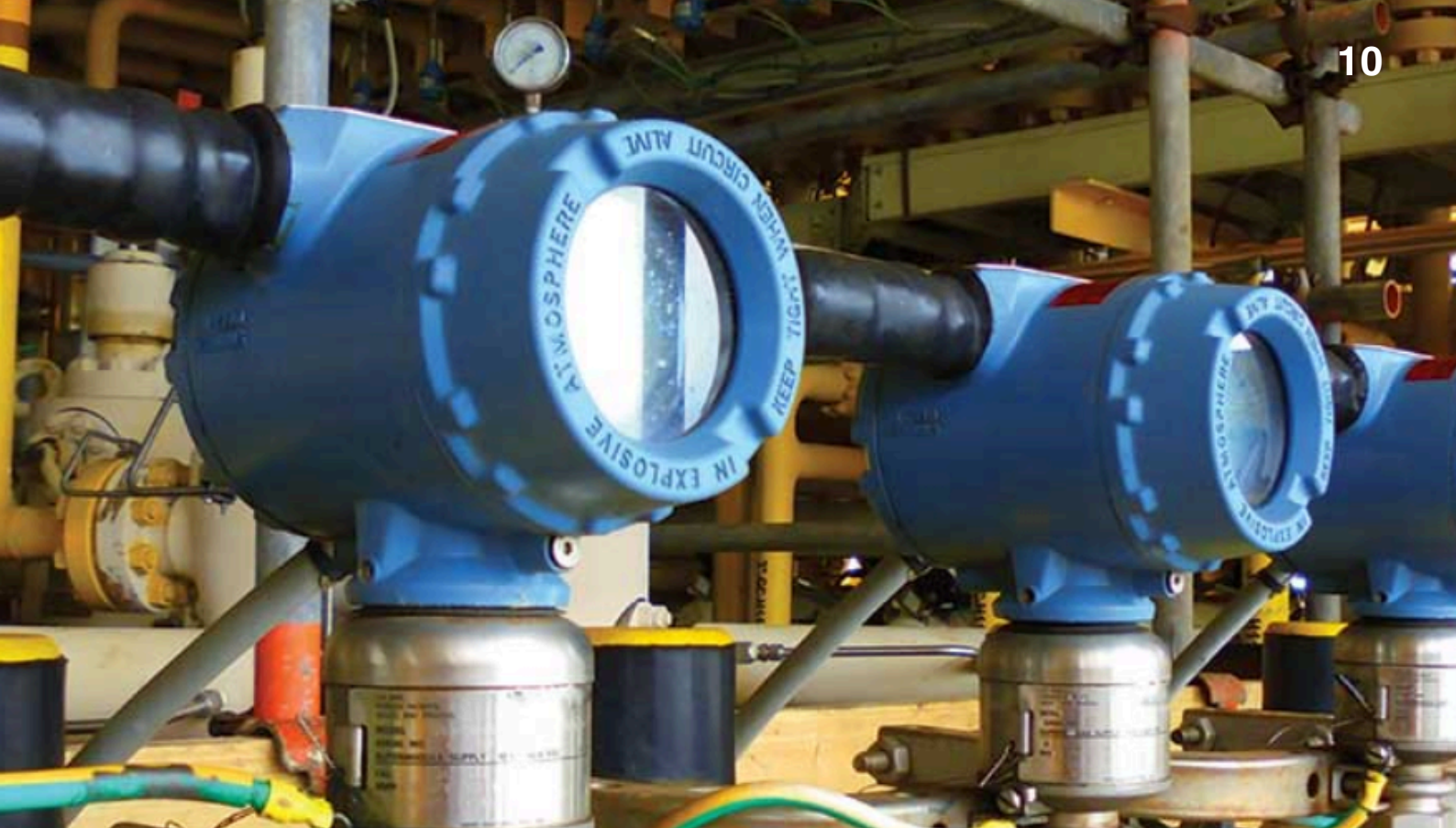
SPW • RTJ Cam profile • Insulation kits

Overview

Non-ferrous, CS/Alloy/SS, super alloys & duplex in multiple constructions.

Gasket Types

Type	Material	Temperature Range	Pressure Rating
SPW (Spiral Wound)	SS/CS with Graphite/Flexible Graphite	-200°C to +600°C	Up to 6000 PSI
RTJ (Ring Type Joint)	Soft Iron, SS, Alloy	-50°C to +400°C	Up to 10,000 PSI
Cam Profile	SS/CS with Flexible Graphite	-200°C to +500°C	Up to 2500 PSI
Insulation Kits	Ceramic Fiber, Mineral Wool	-50°C to +1000°C	Up to 1500 PSI



Instrumentation

- Precision accessories for monitoring & safety.

Overview

We provide engineering consultation and supply for comprehensive range of instrumentation items for process monitoring and safety systems.

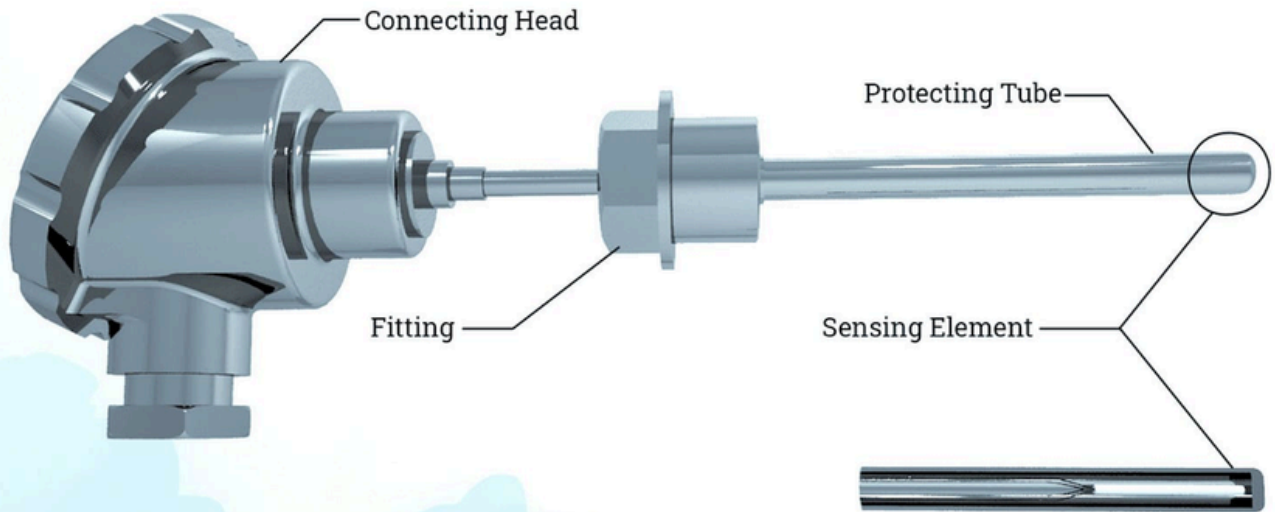
Overview

We provide engineering consultation and supply for comprehensive range of instrumentation items for process monitoring and safety systems.

Pressure Gauges , Diaphragm Seals , Calibration Pods,



Pressure gauge accessories are available in dial sizes of 63, 100, 150 & 250mm and cover ranges from 6 Mbar upto 4000bar with accuracy from 1.6% to 0.25% of f.s. wetted parts include SS 316/ 316L , SS304/304L



RTDs WITH THERMOWELLS/PROTECTION TUBES

Type: Pt 100, 200, 500, 1000 etc.

Element size (MI): Wire wound ceramic encapsulated Wire wound glass encapsulated Thin film ceramic encapsulated

Connection: 2, 3, 4 wire

Accuracy: Class A, B, 1/2, 1/3, 1/5, 1/10, DIN Protection

Sheath: SS304, SS321, SS316, SS310, Inconel 600/800, HRS 446, Hastalloy, Monel etc.

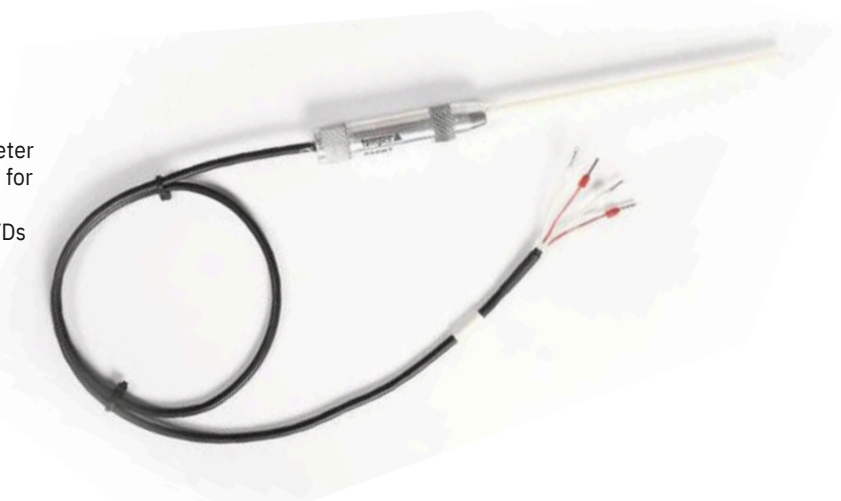
Configuration: Simplex/Duplex/Others

Application range -200° to +600°C Heat-resistance, pressure-tight and gas-tight Replaceable measuring insert Variable, custom process connection Custom special solutions



SPECIAL RTDs

- SSPRT Semi Standard Platinum Resistance Thermometer Platinum Resistance Thermometer
- Slide shoe bearing RTDs Vibration proof RTDs for Bearing & DG sets
- Motor & Transformer winding temperature RTDs
- Handheld & Probe in various designs
- RTDs with IBR approved Thermowells
- Strap on RTDs for nuclear application
- High Accuracy RTDs upto 1/10 DIN I (0.03°C)



THERMISTOR

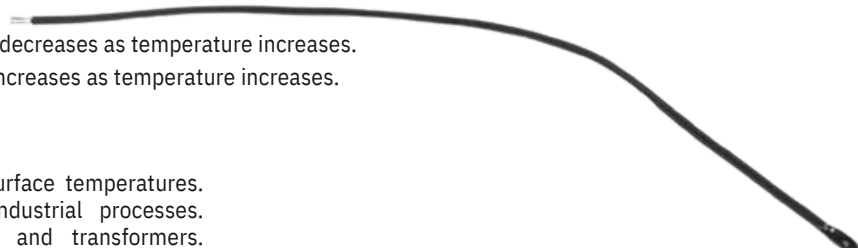
A thermistor is a type of temperature-sensing device that exhibits a change in electrical resistance in response to a change in temperature. Thermistors are made from semiconductor materials and are available in two types:

NTC (Negative Temperature Coefficient): Resistance decreases as temperature increases.

PTC (Positive Temperature Coefficient): Resistance increases as temperature increases.

Thermistor Applications:

Temperature measurement: Air, water, soil, and surface temperatures.
 Temperature control: HVAC, refrigeration, and industrial processes.
 Overheat protection: Electronic devices, motors and transformers.
 Medical devices: Temperature monitoring and control.





Total Energy Engineering & Services

**Shed No. 52, Coperative Industrial Estate Ltd, Hebbal Industrial
Area Kasaba Hobli, Mysuru, Karnataka India 570016**

Contact Us

project-1@totalenergy.co.in