

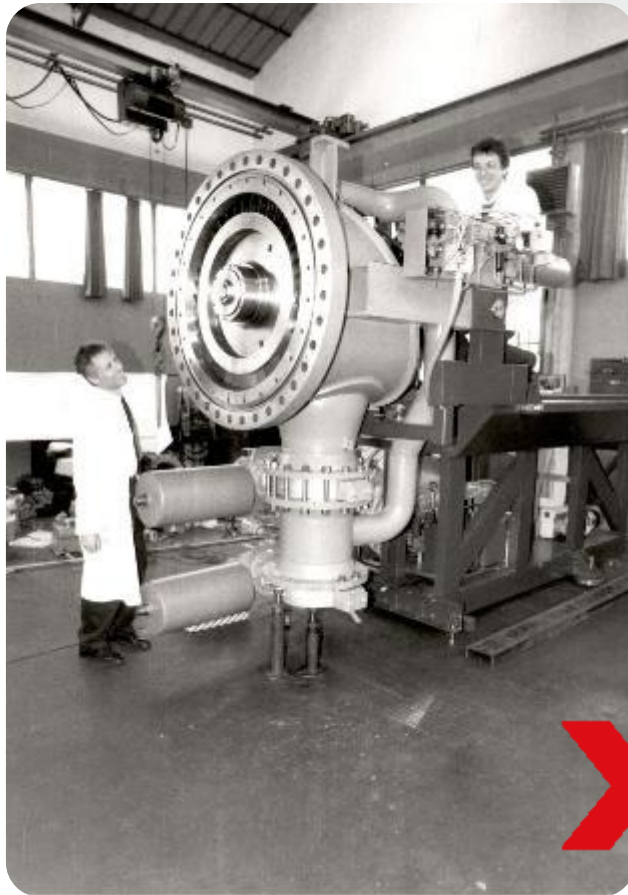
Company Profile

February, 2026

Turboden S.p.A.

A Group Company of  **MITSUBISHI HEAVY INDUSTRIES**

Over 45 Years of a Viable Sustainability



Since 1980, Turboden S.p.A. is a pioneer in the **energy transition**, offering technological solutions to industries and utilities for power generation and heat electrification.

The strength of being part of **Mitsubishi Heavy Industries Group**, together with the vast technical expertise in the carbon mitigation, the capability to be flexible throughout the project lifecycle, make Turboden a dependable partner for **optimized solutions to decarbonize processes**.

Having established itself as a **world-leading company in sustainable power production**, with 470 Organic Rankine Cycle (ORC) plants in more than 50 countries, Turboden is one of the major technology partners for energy efficiency and sustainability.



Our Mission

We provide unique, reliable and advanced technologies founded on our core proprietary turbomachinery, with the aim of maximizing the value of renewable resources and energy efficiency.

Our Vision

We accelerate the transition to a world powered by low-carbon technologies.



Part of Mitsubishi Heavy Industries Group

MISSION NET ZERO

Mitsubishi Heavy Industries Group
will contribute to the realization of
net zero for society as a whole.



Mitsubishi Heavy Industries Group is one of the world's leading industrial groups, spanning energy, smart infrastructure, industrial machinery, aerospace, and defense. MHI Group combines cutting-edge technology with deep experience to deliver innovative, integrated solutions that help to realize a carbon neutral world, improve the quality of life and ensure a safer world.

Turboden Milestones



1980

Mario Gaia former Prof. of Energetics at the University Politecnico di Milano founds Turboden.

1990s

Turboden enters geothermal, waste heat recovery and solar markets with its **ORC technology**.



2000s

Leadership in Europe for biomass application.

2010s

Plant sizes increase from 1-2 MWe up to 10-20 MWe.



2013

MHI acquires the majority of Turboden.

2019

Extension to new products: large heat pump and gas expander.



2024

Turboden America LLC establishment in Houston.

2024-25

The largest geothermal plant ever build (300 MWe Fervo Energy).



TODAY

Turboden is a technological provider for power generation and heat electrification of industries and district heating networks.

Solutions & Services



**POWER
GENERATION**



**HEAT
ELECTRIFICATION**



SERVICE

Power Generation



ORC TECHNOLOGY

The Organic Rankine Cycle (ORC) system is an innovative, closed-loop technology that efficiently produces electricity and heat from a wide range of thermal sources, including renewable energy, waste heat, and industrial processes. By operating without water or steam and using organic fluids, ORC systems are compact, reliable, and well-suited for distributed generation and the recovery of low- to medium-temperature heat, improving energy efficiency and reducing environmental impact.



GAS EXPANDER

Turboden's gas expander solutions improve the efficiency of natural gas networks by recovering energy released during pressure reduction and converting it into clean electricity. Turbo expanders transform otherwise wasted energy into useful power, enhancing sustainability in gas transportation and distribution systems.

Power Generation

Turboden's ORC technology is well suited to the following areas of application.



NEXT-GENERATION GEOTHERMAL

It refers to advanced geothermal technologies that expand clean energy production beyond naturally hot regions by using innovative drilling, reservoir engineering, and heat-extraction methods to access deep, widespread underground heat for reliable, low-carbon power and heating.



CONVENTIONAL GEOTHERMAL

It refers to the use of naturally occurring underground reservoirs of hot water or steam, accessed through wells in geologically active areas, to produce electricity or provide direct heat.



WASTE HEAT TO POWER

It is the process of capturing excess heat from industrial, or energy-generation processes and converting it into useful electricity, improving efficiency and reducing energy waste.



WASTE TO ENERGY

It is the process of converting municipal, industrial or agricultural waste into usable energy, such as electricity.



BIOMASS

It includes organic materials derived from wood, such as forest residues, sawdust, bark, and by-products from production, as well as the wood-based panel industry, used as a renewable energy source to generate power or heat&power in wood processing.

Heat Electrification



Turboden Heat Electrification technologies go beyond simply providing heat—they play a strategic role in accelerating the transition toward cleaner, more efficient energy infrastructure across industries and cities. With its high-temperature heat pump systems for hot water and steam, Turboden generates electrified heat at any capacity and up to 250°C, even in the form of steam.



Industrial sector



District heating network



Carbon capture utilization & storage plant - CCUS

Typical Users



Gas Turbine and Gas Engine



Waste Management



Wood-based panel Industry



Pulp & Paper Industry



Datacenter



Cement Production



Pellet Production



Utility



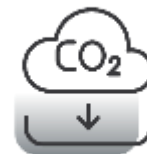
SAGD



Glass Production



Wood Industry



CCUS

Service



We support your plant operations with a robust suite of advanced digital tools designed for **remote diagnostics**, **performance monitoring**, and **predictive maintenance**. Our after-sales services are engineered to ensure maximum system reliability and optimal plant efficiency. Through secure remote access and **intelligent analytics**, our technical team can identify anomalies, optimize parameters, and intervene proactively—reducing unplanned downtime and extending asset lifecycle. Continuous data acquisition and performance tracking allow for precise maintenance planning and faster issue resolution.

LTSA



REVAMPING



SPARE PARTS



CHEMICAL



Global and Proven Experience



470+ installations
in over 50 countries

20 million hours
cumulative operation time

25 thousand GWh
electrical energy generated

63+ mln Ton
CO₂ saved

Global and Proven Experience



GEOTHERMAL
458 MWe, 24 units



WASTE HEAT TO POWER
220 MWe, 56 units



BIOMASS
510 MWe, 347 units



WASTE TO ENERGY
90 MWe, 33 units



LARGE HEAT PUMP
18 MWth 2 units



GAS EXPANDER
10 MWe, 8 units



Overall capacity
installed
1+ GWe



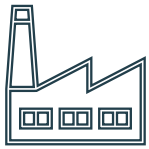
Largest plant
under construction
300 MWe



Largest plant
in operation
29 MWe



Turboden at a Glance



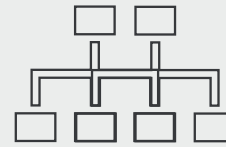
1980
Establishment



450+
Employees



6
sites



3
Business Units



€158 Million
2025 FY revenue



- 400+ in Italian offices
- 50+ in Turkish branch
- 3 in German branch
- 66% university graduates
- 78% engineers
- 30% high-school graduate
- 20 different nationalities
- 41 average age

- 2 head offices in Brescia
- 2 assembly plants in Italy
- 1 branch in Germany
- 1 branch in Turkey (*Turboden Turkey*)
- 1 subsidiary in Texas (*Turboden America LLC*)

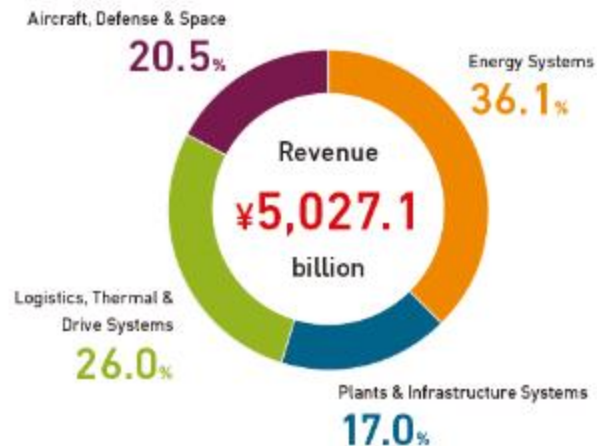
- Power Generation
- Heat Electrification
- After Sales Services

MHI at a Glance

Group Profile

MHI Group manages its operations through three business domains and five segments. We have grouped these business domains and segments based on the similarity of their respective customers and product characteristics into four reporting segments: Energy Systems; Plants & Infrastructure Systems; Logistics, Thermal & Drive Systems; and Aircraft, Defense & Space.

Composition of Revenue by Segment (FY2024)



Energy Systems	Main Businesses - Gas & steam power systems* - Nuclear power systems - Aero engines - Compressors - Marine machinery	Internal Organizations and Major Subsidiaries Energy Systems Nuclear Energy Systems - Mitsubishi Heavy Industries Aero Engines, Ltd. - Mitsubishi Heavy Industries Compressor Corporation - Mitsubishi Heavy Industries Marine Machinery & Equipment Co., Ltd. * Includes GTCC, steam power, and air quality control system	
	Main Businesses - Metals machinery - Commercial ships - Environmental systems - CO₂ capture systems - Engineering - Machinery systems	Internal Organizations and Major Subsidiaries Plants & Infrastructure Systems GX Solutions Machinery Systems - Primetals Technologies, Limited - Mitsubishi Shipbuilding Co., Ltd. - Mitsubishi Heavy Industries Environmental & Chemical Engineering Co., Ltd. - Mitsubishi Heavy Industries Machinery Systems, Ltd.	
	Main Businesses - Material handling systems - Engines - Turbochargers - HVAC systems - Automotive air-conditioning system	Internal Organizations and Major Subsidiaries Logistics, Thermal & Drive Systems - Mitsubishi Logisnext Co., Ltd. - Mitsubishi Heavy Industries Engine & Turbocharger, Ltd. - Mitsubishi Heavy Industries Thermal Systems, Ltd.	
	Main Businesses - Commercial aviation - Defense aircraft - Missile systems - Naval ships - Maritime systems (torpedoes) - Special vehicles (tanks) - Space systems	Internal Organizations and Major Subsidiaries Commercial Aviation Systems Integrated Defense & Space Systems MHI RJ Aviation Inc.	

We are Member of



We Collaborate with





www.turboden.com

Turboden S.p.A.

A Group Company of  **mitsubishi heavy industries**

MOVE THE WORLD FORWARD  **mitsubishi
heavy
industries
group**