

KEEPING CRITICAL MACHINERY MOVING



COMPANY OVERVIEW

Turbodyne is a Saudi-based industrial engineering company delivering localisation solutions for critical rotating equipment, precision-engineered components and industrial spare parts. We provide reverse engineering, manufacturing, repair and refurbishment solutions for demanding industrial applications.

From Al-Jubail, we are progressively developing in-Kingdom manufacturing capabilities, advancing Saudi localisation in alignment with Saudi Vision 2030.

27+
Years of Experience

500+
Clients Served

800 MW
Engineering Capability

OUR FOUNDATION

Turbodyne combines the engineering expertise of **Turbo Engineering Services Pvt. Ltd.** with the manufacturing capabilities of **Precise Gears & Turbine Solutions** and **Turbo Seals Machinery Pvt. Ltd.**, bringing together decades of technical knowledge, manufacturing experience and practical industry expertise.

Together, these established capabilities support **Turbodyne's** Saudi operations and enable the progressive development of in-Kingdom manufacturing and localisation capabilities.



15,000 m²

**TOTAL
AREA**



9,000 m²

**MANUFACTURING
FACILITY**



3 x 5 Ton

**OVERHEAD
CRANES**



12 Metres

**WORKING
HEIGHT**

TURBODYNE  **توربوداين**

CEO's Message

I have seen firsthand how industrial growth is sustained by reliability, and reliability depends on the availability of the right engineering expertise, critical equipment, and spare parts when they are needed most.

Saudi Arabia has established itself as one of the region's leading industrial economies. As the Kingdom continues to expand its industrial base and advance localization, **we believe these engineering and manufacturing capabilities should increasingly be developed within the Kingdom.**

This is the purpose behind **Turbodyne**: to combine proven international engineering and manufacturing expertise with a phased approach to technology transfer, in-Kingdom manufacturing, and the development of Saudi talent.

Our commitment is clear: technical reliability, responsive service, safety, and disciplined execution. **We aim to earn our customers' trust through the quality of every part we manufacture, every repair we undertake, and every commitment we make.**

Fahad Abdulrahman Al-Jabr
CEO



EDUCATION

BSc in Mechanical Engineering,
Purdue University, USA.
Executive MBA,
Al Yamamah University.



ADVANCED STUDIES

Diploma in International Finance,
Washington State University.
LLM in International Corporate &
Commercial Law,
King's College London (In Progress).



LEADERSHIP EXPERIENCE

Over 15 years of leadership experience across engineering, construction, investment, and industrial development.

MISSION

To localise precision-engineered solutions for critical rotating equipment across **industrial, defence and military** sectors through reverse engineering and advanced manufacturing.

VISION

To be a trusted Saudi localisation partner for critical rotating equipment and industrial spare parts, advancing in-Kingdom manufacturing, industrial capability, and Saudi talent in support of Vision 2030.

VALUES



PRECISION
MANUFACTURING



ENGINEERING
EXCELLENCE



QUALITY
ASSURANCE



CUSTOMER
FOCUS

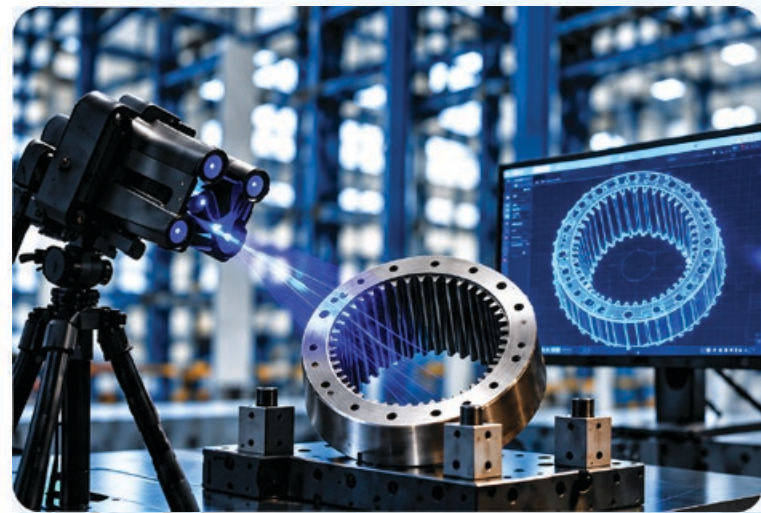
ISO CERTIFICATIONS



CORE CAPABILITIES

Engineering Solutions for Critical Rotating Equipment

Turbodyne provides integrated industrial engineering services covering reverse engineering, precision manufacturing, equipment overhauling, and workshop-based repair and refurbishment. Supported by advanced engineering capabilities and a fully equipped facility, we deliver reliable solutions for critical rotating equipment, engineered components, and industrial spare parts.



Reverse Engineering



Manufacturing



Workshop Services



Field Engineering Services

Industries We Serve



Oil & Gas



Power Generation



Mining



Steel & Cement



Petrochemical & Fertilizers



Water

REVERSE ENGINEERING

Engineering Reconstruction of Critical Rotating Equipment Components

Turbodyne reverse-engineers critical rotating equipment components where original engineering data is unavailable. Using advanced 3D scanning, CAD reconstruction and material analysis, we develop verified engineering specifications for accurate component replication, maintaining dimensional integrity, material requirements and critical design parameters.



3D
SCANNING



CAD
RECONSTRUCTION



MATERIAL
ANALYSIS



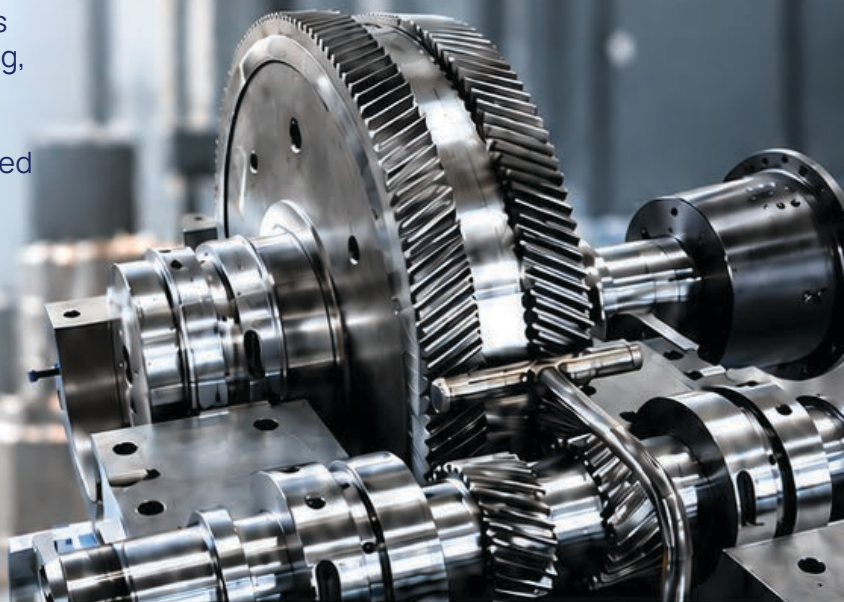
ENGINEERING
VALIDATION



PRECISION MANUFACTURING

FOR CRITICAL ROTATING EQUIPMENT COMPONENTS

Our established manufacturing capabilities deliver precision-engineered components for steam turbines, compressors and pumps, supported by advanced machining, reverse engineering and rigorous quality control. Backed by proven group expertise, these capabilities support **Turbodyne's** phased development of manufacturing and localisation within Saudi Arabia.



STEAM TURBINE & COMPRESSOR ROTORS



Manufacturing of steam turbine rotors to defined specifications, including precision balancing and finish machining.

BLADES & DIAPHRAGMS



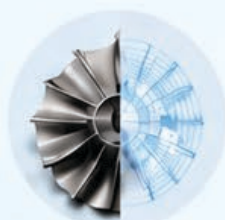
Manufacturing of blades for steam turbines rated up to 800 MW, diaphragms and related flow-path components to defined specifications.

AUXILIARY & GEARBOX COMPONENTS



Manufacturing of gearbox components to support comprehensive repair and overhaul requirements.

ADVANCED CAPABILITIES



OBSOLETE & LEGACY

Component Recreation



5-AXIS CNC

Precision Machining



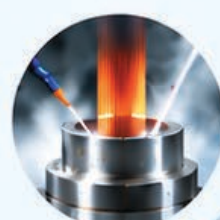
CMM INSPECTION

Dimensional Verification



HEAT TREATMENT

Thermal Processing



SPECIAL PROCESSES

Surface Treatment & Finishing

PRECISION MANUFACTURING



**STEAM TURBINE
STRAINER**



Steam strainers and filtration elements for turbine and high-pressure applications.

LABYRINTH SEALS



HP and LP gland packing rings and segmented sealing assemblies for steam turbines.

**BRASS SEAL STRIPS
& OIL CATCHERS**



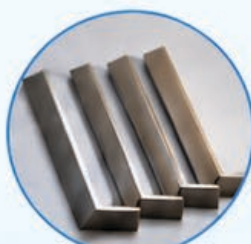
Continuous-coil brass strips for oil-catcher sealing applications.

ADDITIONAL COMPONENTS



**TURBINE
STUDS**

High-grade studs and fasteners.



**L-
SPRINGS**

Flat springs for packing rings.



**SPILL
STRIPS**

Profiled strips for steam turbines.



**LEGACY
SPARES**

Reverse-engineered and obsolete components.

WORKSHOP SERVICES

Turbodyne delivers localized manufacturing and servicing solutions for critical rotating equipment from its advanced manufacturing and servicing facility in Al-Jubail.



ROTOR REPAIR & REFURBISHMENT

Complete rotor repair and restoration



NDT & LIFE ASSESSMENT

Inspection and residual-life evaluation.



BEND REMOVAL & SHAFT RECTIFICATION

Precision straightening and shaft correction.



ASSEMBLY & TESTING

Assembly and performance verification.



MACHINING SERVICES

Precision machining of critical components.



DYNAMIC BALANCING

High- and low-speed balancing of rotating assemblies.

FIELD ENGINEERING SERVICES



Site Overhaul Mobilization of Execution Team.



Long-term Unit Maintenance Contracts.



Emergency Breakdown & Outage Support.

ROTOR BALANCING

LOW-SPEED & VACUUM HIGH-SPEED

MOBILE LOW-SPEED BALANCING

Schenck H100T

100TON

MAXIMUM ROTOR WEIGHT

5.0 m

MAX. ROTOR
DIAMETER

120-800 RPM

DRIVE SPEED RANGE

75 kW

DRIVE POWER

Two-plane dynamic balancing with CAB 706
measurement and ISO tolerance calculation.



VACUUM HIGH-SPEED BALANCING

ABRO HR25K/ISO (100K)

100TON

MAXIMUM ROTOR WEIGHT

15.5 m

MAX. ROTOR LENGTH

4.5 m

MAX. ROTOR
DIAMETER

2.5 MW

DRIVE POWER

Vacuum high-speed balancing for rigid
and flexible rotors.



ABRO TECHNICAL CAPABILITY

3 mbar

ULTIMATE VACUUM

≈ 33 m

BED RAIL LENGTH

2,800 kg/μm

PEDESTAL STIFFNESS

IN-HOUSE MANUFACTURED STEAM TURBINE ROTOR



Developed for Godavari Bio Refineries Ltd., this 21.5 MW Steam Turbine Rotor demonstrates TES's design modification and in-house manufacturing capabilities.

- Customer: **M/s Godavari Bio Refineries Ltd.**
- Operating Speed: **6,310 rpm**
- Make: **TES (Turbo Engineering Services)**
- Length of Rotor: **6.5 meters**
- Maximum Diameter: **1.60 m**
- Weight of Rotor: **4,500 kg (4.5 Tonnes)**

CASE STUDY

Critical Spares Supplied to **AR-RAZI**

الرازي
ar-razi

2025 MAJOR SHUTDOWN

Turbo Engineering Services (TESPL) delivered spare parts in line with the scheduled shutdown requirements, receiving client appreciation for the prompt execution.

OEM
16
WEEKS



TESPL
5
WEEKS

69%
SHORTER
LEAD TIME

POWERING
INDUSTRY
TOGETHER



Metastream
Coupling



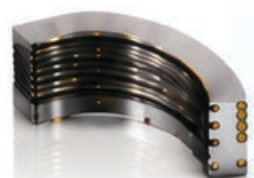
TTV Bolt & Nut



Lube Oil Filter

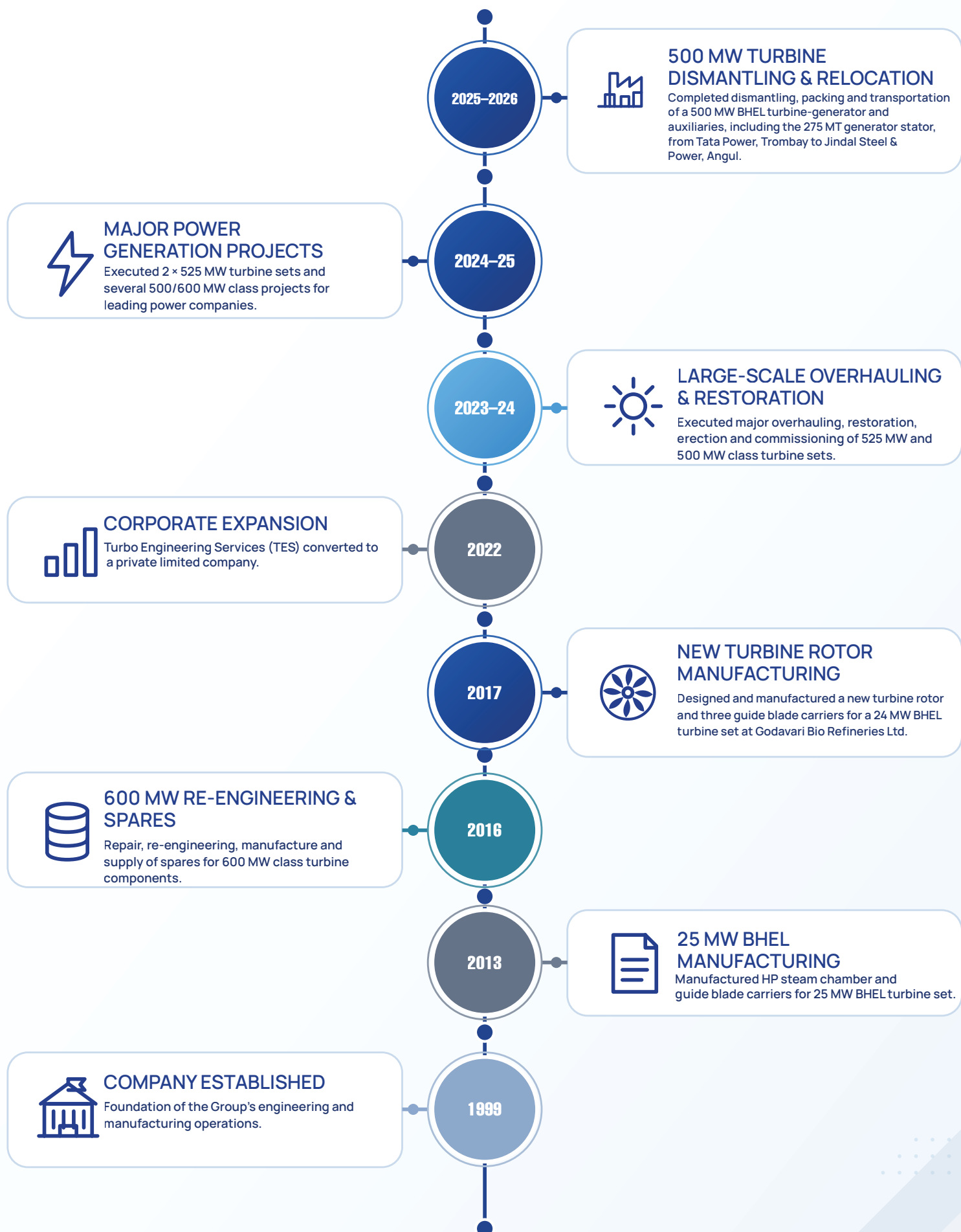


Silicon Rubber
O-Rings



Labyrinth Seals

MILESTONES



Recognition of Engineering Excellence



BEST EMERGING VENDOR – MATERIAL **Tata Steel Annual Supplier Meet 2021 Runner-up**

COMMENDABLE ACHIEVEMENT OF TES | 2020-2021

Turbo Engineering Services successfully restored an 8 MW Top Recovery Turbine (TRT) for Tata Steel Ltd., Jamshedpur, following severe operational damage. The project involved reverse engineering, precision manufacturing, rotor restoration, assembly, high-speed balancing and site commissioning, returning the turbine to full operational performance.



ROTOR RESTORATION

8 MW Top Recovery Turbine (TRT)



CARRIER ASSEMBLY

TRT Restoration Project

APPROVED BY LEADING GLOBAL PLAYERS

Our group is recognized and approved by leading global OEMs, reflecting our commitment to quality, technical competence and engineering excellence. These associations reinforce our proven industry capabilities.

OUR OEM PARTNERS



SIEMENS

ALSTOM

DOOSAN



SULZER

Everllence

20+
OEMS SERVED

OUR CLIENTELE



AND
MANY MORE



500+
CLIENTS WORLDWIDE



**Proven Capability Today
Advancing Localisation in Saudi Arabia
Long-term Local Manufacturing Partnership.**



Third Industrial Support Area, Road No. 293
P.O. Box 3141, Jubail Industrial City 35514
Kingdom of Saudi Arabia



+966 13 346 2625



info@turbodyne.com.sa

