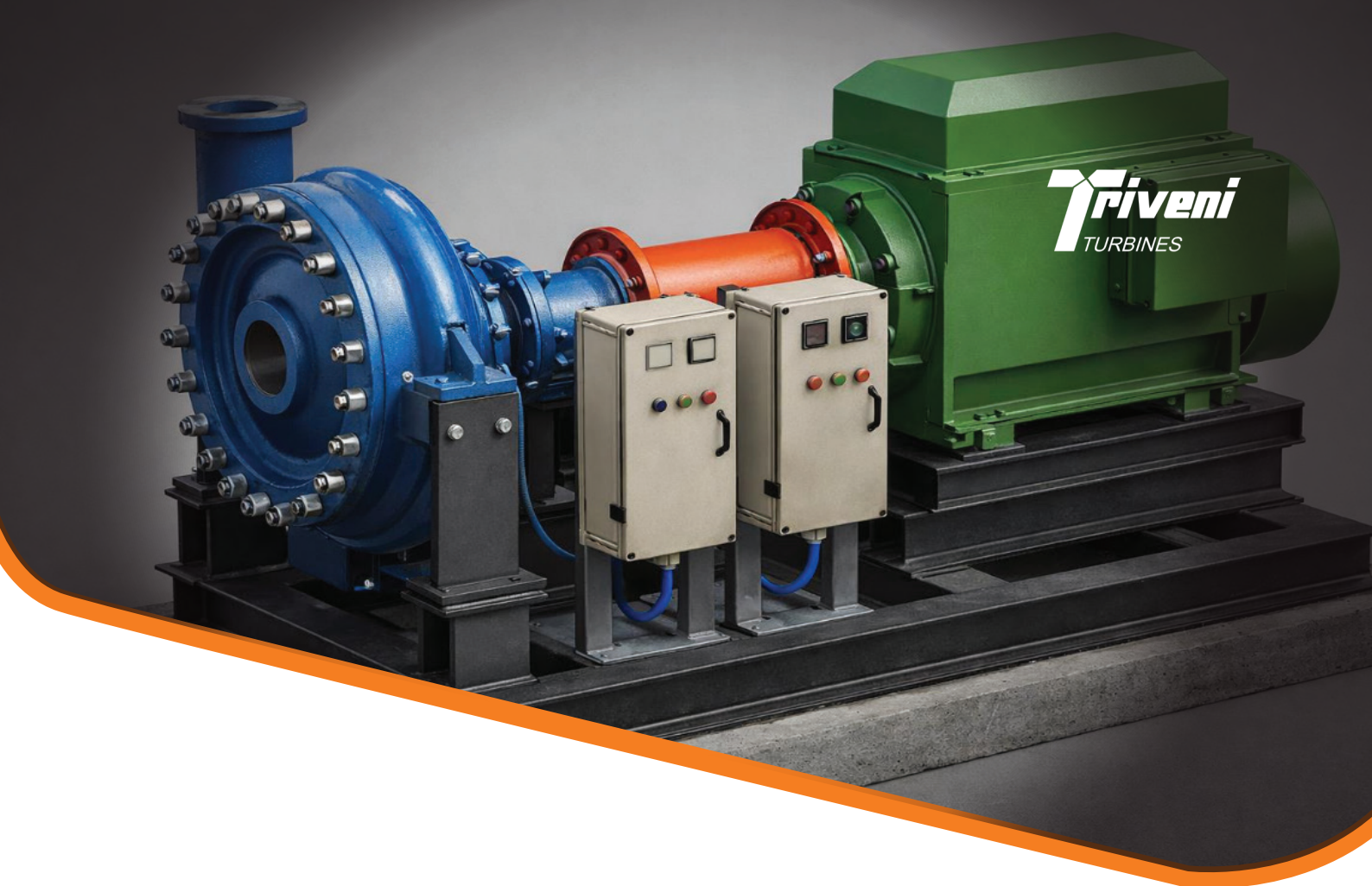




TRIVENI TURBINE CENTRIFUGAL STEAM COMPRESSORS (TSC)

MECHANICAL VAPOR RECOMPRESSION (MVR) REPURPOSING HEAT RETHINKING ENERGY

Mechanical Vapor Recompression (MVR) turns waste vapor into a powerful energy asset. By upgrading low-pressure vapor for reuse, MVR significantly cuts fuel consumption, reduces costs and lowers carbon emissions.

Operating as a closed-loop system, it continuously recovers and reuses energy—boosting plant efficiency while minimizing boiler load. The result: smarter energy use, lower operating costs and a more sustainable industrial future.

TRIVENI TURBINE'S STEAM COMPRESSOR: SIMPLIFYING MVR EFFICIENCY

Engineered for Seamless MVR Integration

At the core of MVR systems, the Triveni Turbine's Steam Compressor (TSC) upgrades low-pressure vapor into valuable process steam with high efficiency and reliability.

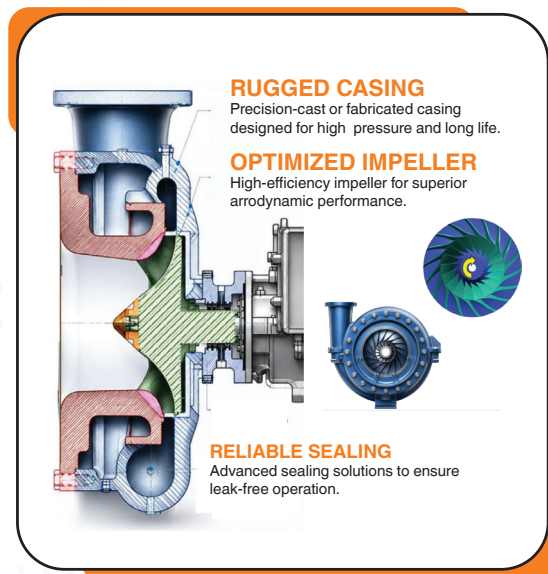
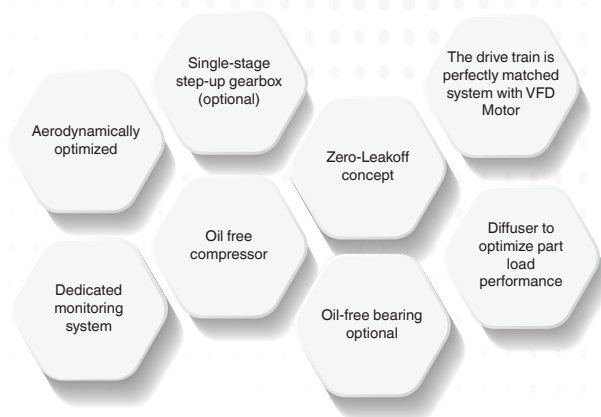
Designed with advanced centrifugal compression technology, it ensures non-contact operation, reduced maintenance and consistent performance.

Backed by Triveni Turbine's turbomachinery expertise, TSC delivers high efficiency across a wide operating range, making it ideal for both new installations and retrofit applications.

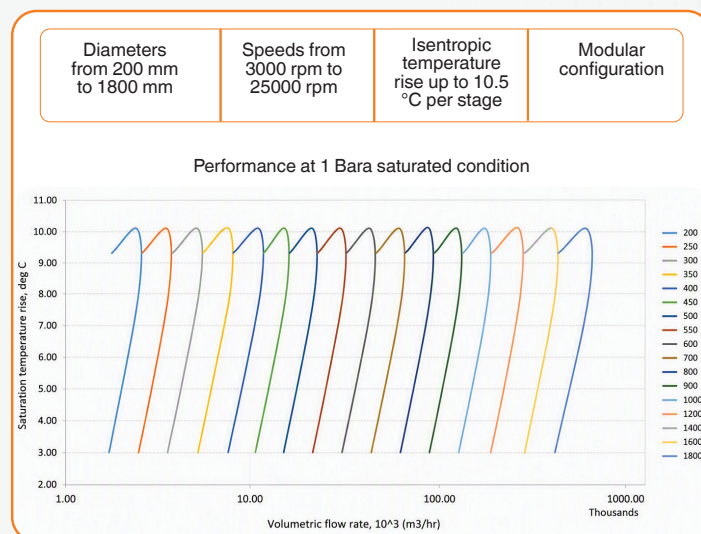
SYSTEM ARCHITECTURE

Integrated Robust Performance-Driven.

TSC is designed as a fully integrated system, comprising of:



COMPRESSOR CONFIGURATION



INTEGRATED ARCHITECTURE ENSURES:

Seamless operation
Precise process control
High system reliability

Design Advantage

- Space-efficient modular & configuration
- Easy access for maintenance & servicing
- Quick integration with minimal disruption to existing systems.

BENEFITS YOU CAN'T IGNORE

01 Up to 88% Efficiency

High isentropic efficiency across the operating range — maximising energy recovery per unit of power consumed

02 Process-Specific Configuration

Tailored to meet individual process parameters — capacity, pressure ratio & temperature rise — across diverse industries

03 Rapid Integration

Compact, modular & skid-mounted system designed for fast deployment into existing plant infrastructure with minimal downtime

04 Long Operational Life

Non-contact aerodynamic operation with zero seal leak-off concept; low wear, low maintenance and minimal unplanned downtime

05 Broad Application Range

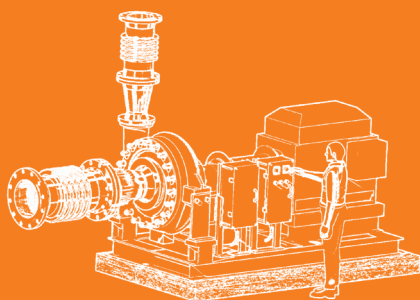
Extensive portfolio of technical configurations covering a wide spectrum of process conditions and industry verticals

06 Multistage Capability

Single-shaft or cascaded single-stage configurations enabling higher isentropic temperature rise for demanding process requirements

INDUSTRIES WE POWER

The TSC is optimised for thermal-intensive industrial processes where significant volumes of low-grade steam or vapor are generated as a by-product.



Sugar



Distilleries



Food Processing



Chemicals



Pharmaceuticals



Zero Liquid Discharge



Desalination

WHY CHOOSE TRIVENI TURBINE LIMITED



6000+ Installations
Worldwide



22+ Industries



Presence in **80+**
Countries



60+ Years of
Engineering Expertise



Trusted by
30+ OEMs



INDIA

SALES, SERVICE AND MANUFACTURING FACILITY

Registered &
Corporate Office

 401, BPTP Capital City,
Sector 94, Noida, India,
Uttar Pradesh – 201 301

 Phone: +91 120 4848000

Manufacturing &
Refurbishment Facility

 Triveni Turbine Limited
12-A, Peenya Industrial
Area, Peenya, India,
Bengaluru – 560 058

 Phone: +91 80 22164000

Manufacturing &
Refurbishment Facility

 Triveni Turbine Limited
No. 491, Sompura 2nd
Stage KIADB Sompura
Industrial Area Nelaman-
gala Taluk, India,
Bengaluru – 562123

 mktg@triveniturbines.com



CONTACT US



VISIT WEBSITE