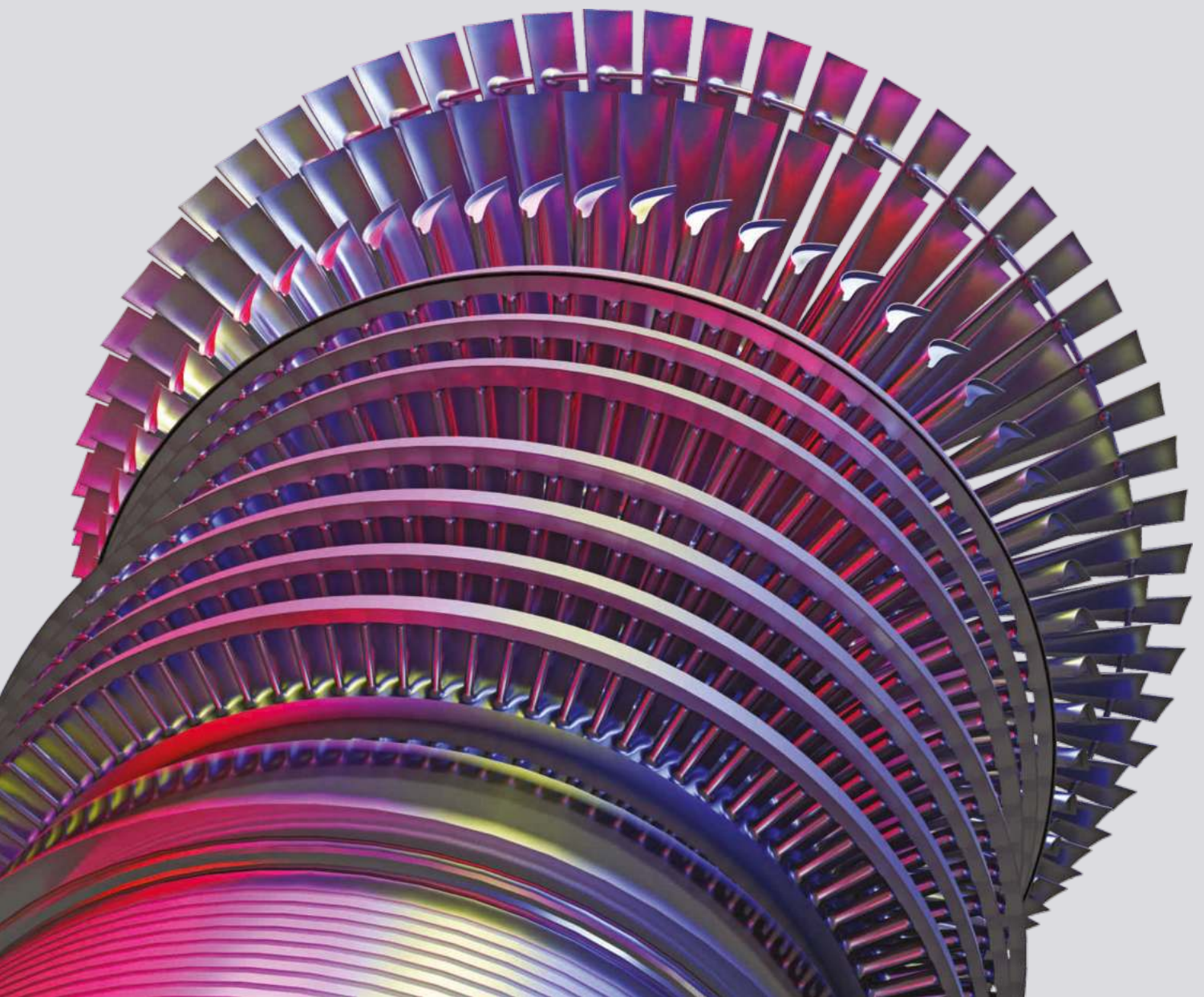


Maxwatt Turbo Systems

STEAM TURBINES (50 kW - 10,000 kW)



Who we are ...

Maxwatt Turbo systems Pvt. Ltd., is led by a team of Techno-entrepreneurs with several decades of experience in development & production of steam turbines and related equipment, besides After-sales support, Refurbishment & Critical components support to thousands of steam turbines of different makes. With credibility of having supplied hundreds of steam turbines across the globe, the team has a proven track-record of conceptualizing, building and leading successful, profitable businesses which make a difference to their clientele.

What we offer ...

- Steam Turbine Generator sets upto 10000 kW capacity
- Energy Recovery Turbines, up to 2000 kW capacity
- Centrifugal vapour compressor upto 100 Tons Per hour (at 1 Bar pressure) capacity
- After-sales support & maintenance overhauls.
- Refurbishment, Uprating & upgrading of existing steam turbines to improve efficiency, increase output and extend service life.

Why Maxwatt

- We are completely focussed on serving customers requiring small turbine solutions
- We offer a comprehensive product range to satisfy varied industrial applications
- Our unique designs and time tested features offer high performance and reliability from each machine

Maxwatt Turbo Systems manufactures Steam turbines up to 10,000 kW rating, for industrial cogeneration, power generation and energy recovery applications. We can offer a fully integrated Steam Turbine Generator Package, in the following configuration:

- Back-pressure
- Extraction (or Induction) cum back pressure
- Condensing
- Extraction (or Induction) cum condensing

The expertises, combined with incorporation of many time-tested features and use of sophisticated advanced engineering tools have contributed to the development of versatile and dependable range of steam turbines.

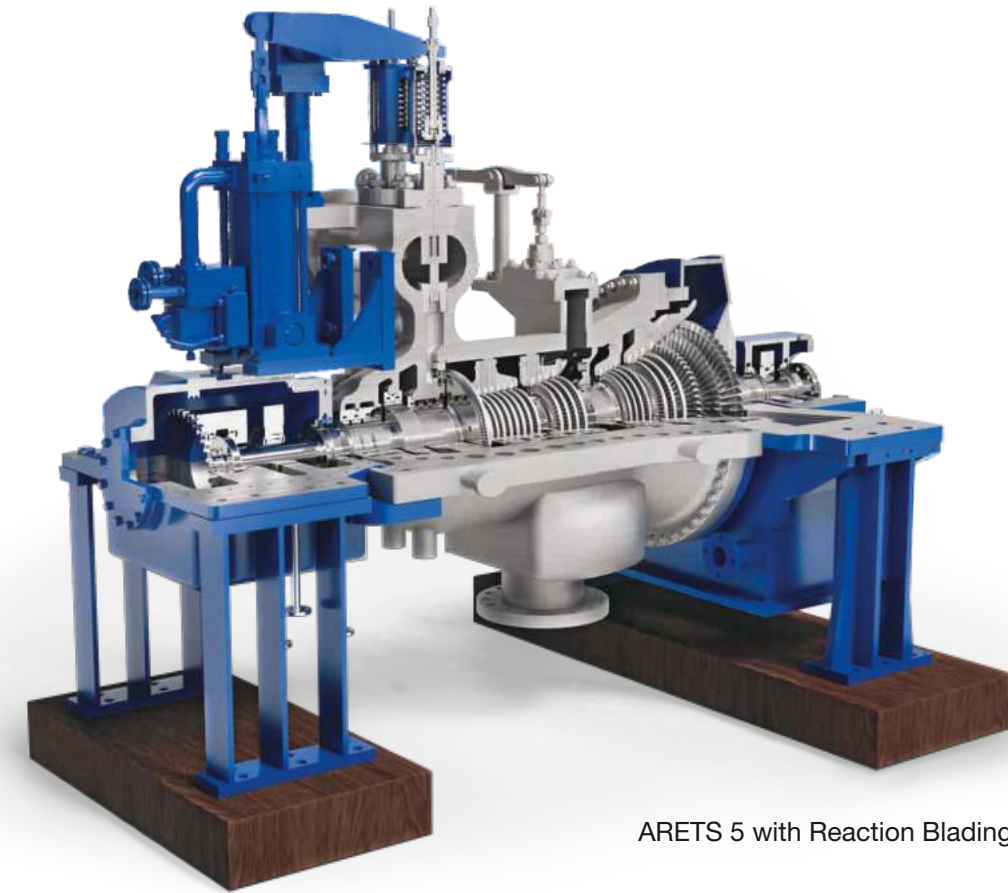
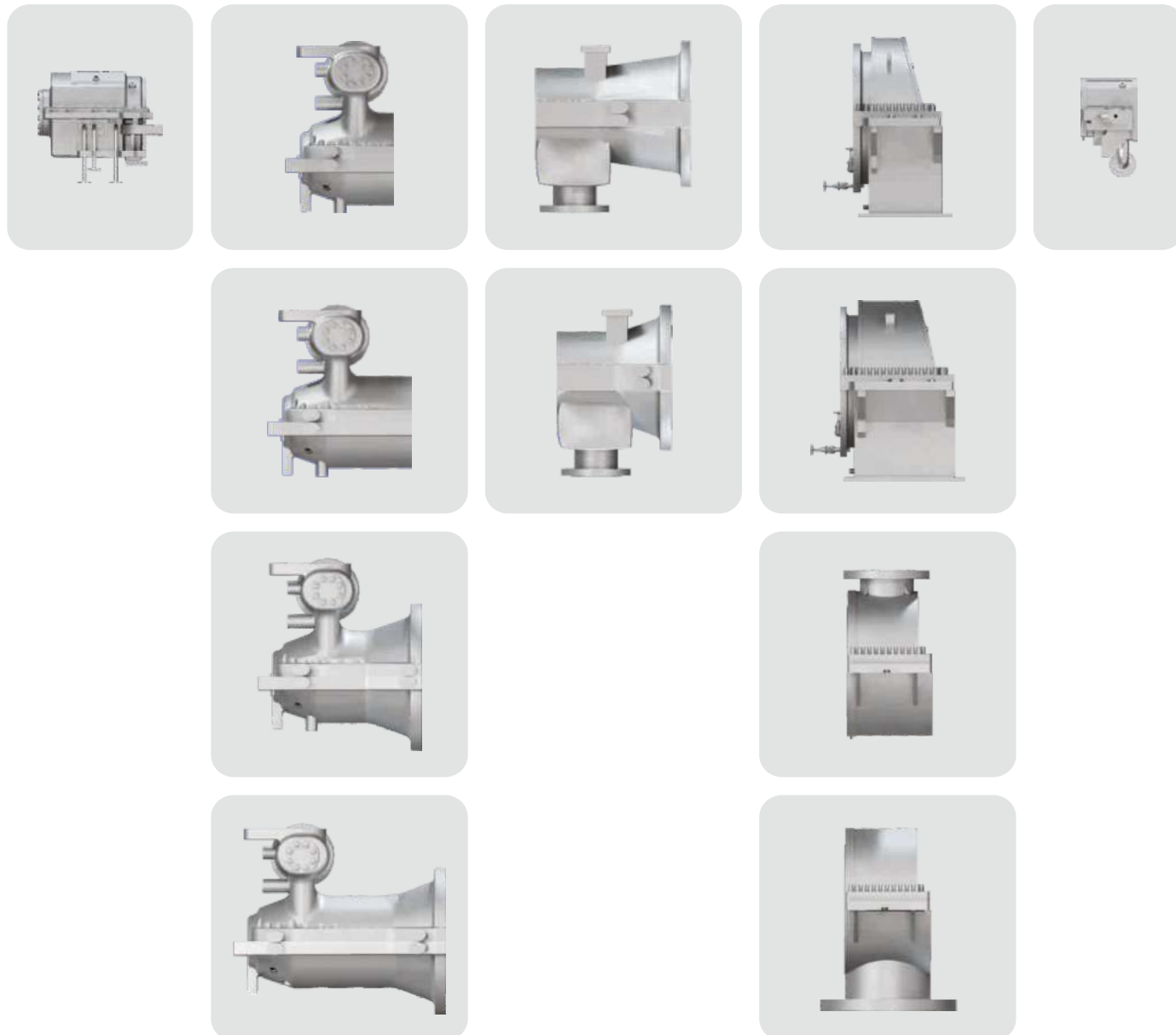
Our efficient design, backed by use of quality material, precision workmanship and a commitment to standard quality process, ensures these machines offer exceptional Reliability and Performance over their lifetime.



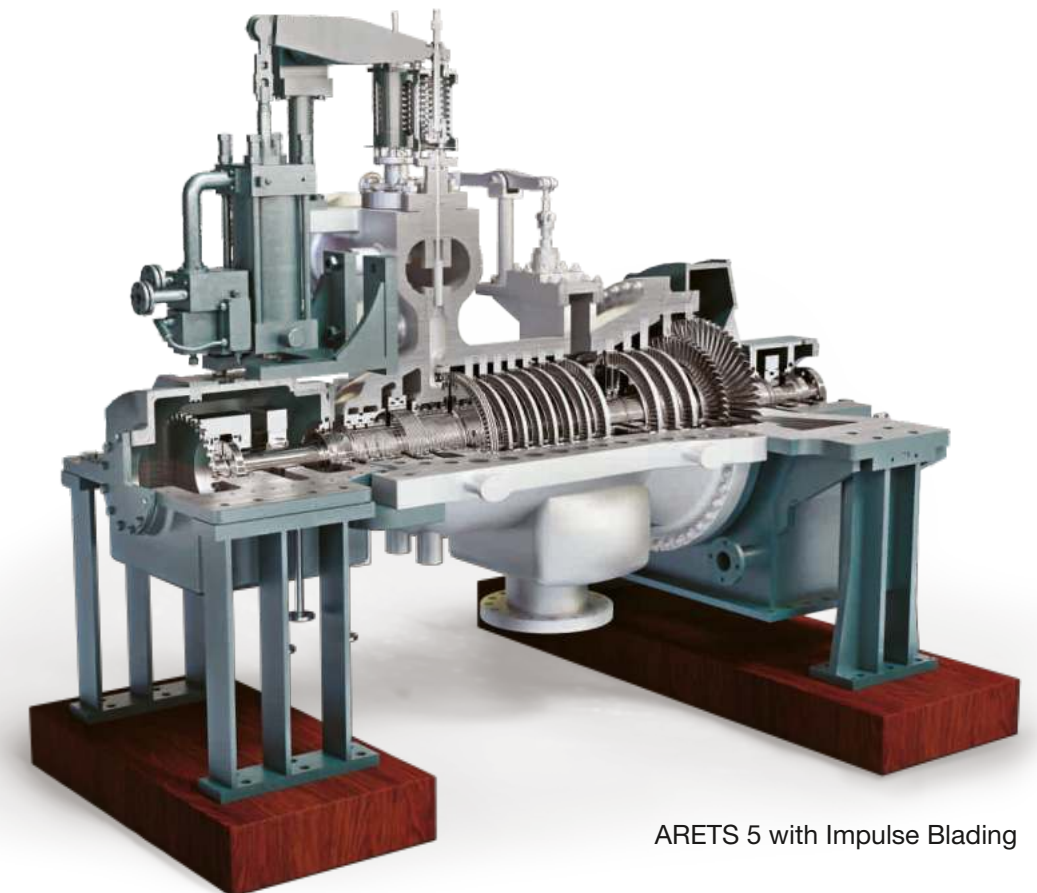
The design approach is based on the “Optimized Flow Path using Modular System” concept. These standardized modules can be arranged together in accordance with the requirement of an application to produce an optimum, compact and high efficiency turbine package. applications

This approach provides following benefits,

- Faster availability of spares due to commonality of standard modules
- Optimization of design & manufacturing time due to availability of common parts
- Reduced development cost & time for newer applications
- Potential to produce varied range of turbines using standard modules



ARETS 5 with Reaction Blading



ARETS 5 with Impulse Blading

Industrial Co-generation &
Power Generation Turbines

High-efficiency, Multi-stage, Customized design

Integral rotor shaft with discs or drum
type construction, machined from a
single solid block of forging

Horizontally split-casing for easy
maintenance & dis-assembly

Turbine rotor supported on both ends

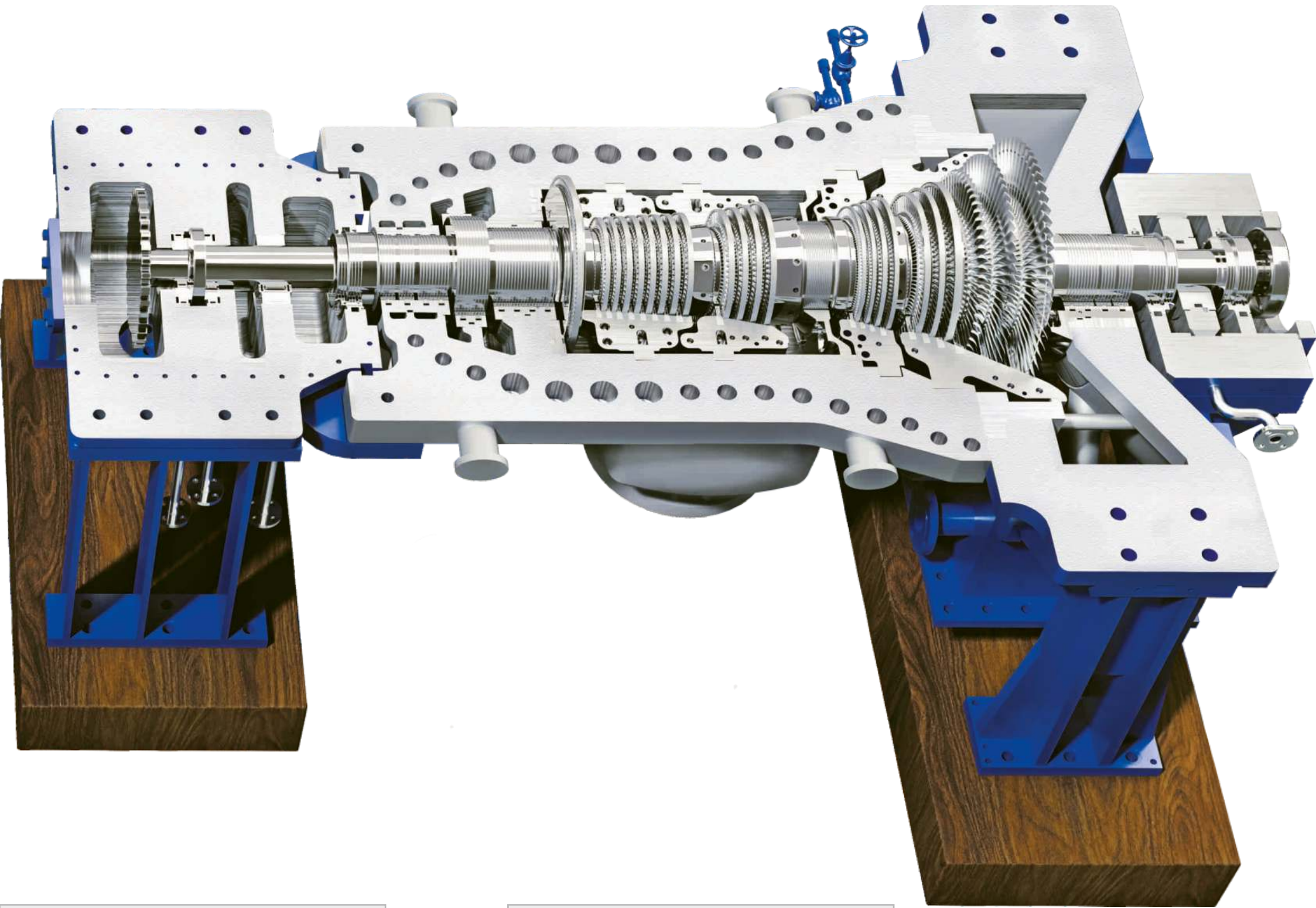
Hydraulically operated fast acting
“stop and Emergency Valve”
with partial stroke testing

Hydraulically operated fast acting
“Control Valve/s” tuned with governor
for load & flow control

Gland seals of “Metallic Labyrinth” or “Brush Seals”
“Caulking Fins built in to Rotor”

Provision for bleed at intermediate pressure

Independent electronic
“Over-speed Governor” with voted logic



Hydro-dynamic Sleeve /
Tilting pad type radial Bearings

Tilting pad type Thrust Bearing

“Axial Movement” indication and trip

Auto & Remote Button Start

Design & Development

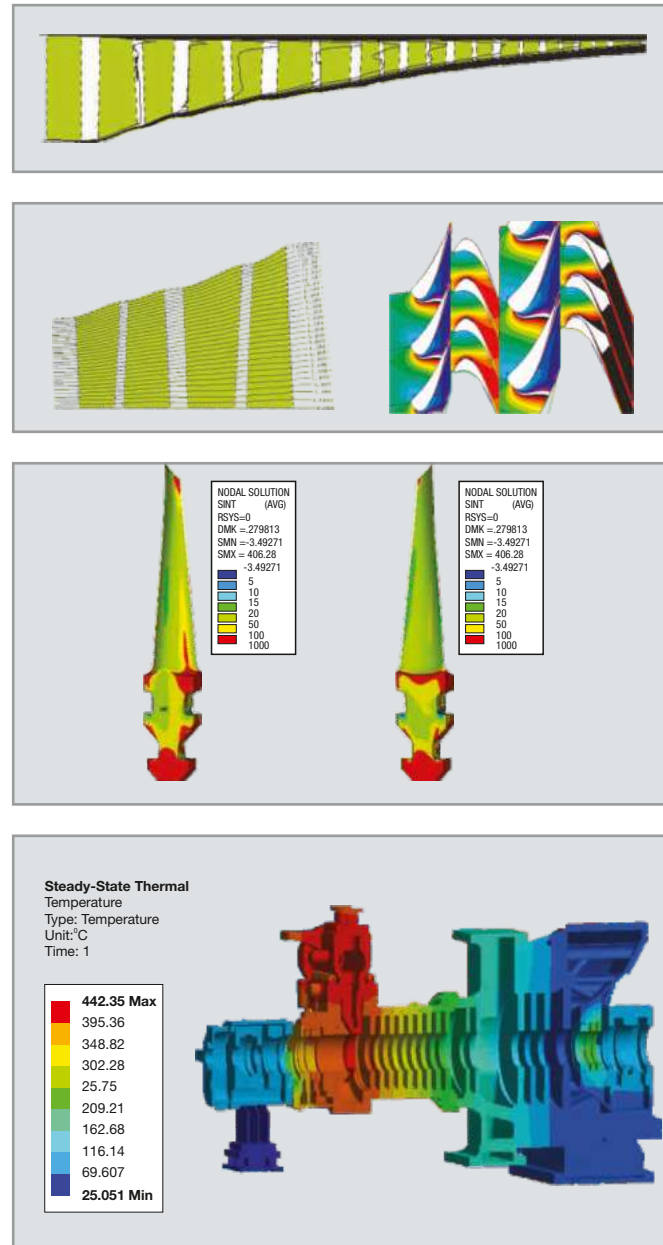
The multi-disciplinary, talented, tech-savvy and experienced team at Maxwatt is recognized in the Industry for being trendsetters in all aspects of small capacity steam turbine technology.

The following design & engineering activities are carried out in-house :

- Thermodynamic design of steam Flow path including nozzles & blades profiles, valve profiles, steam leakage optimisation, etc.
- Mechanical design of Turbine Rotors, Diaphragms & Nozzles, Blades, Casings & Casing Supports, Thermal expansion, Valves, Servo & Control system & linkages, Gears & Gear Boxes, Couplings, Bearings, Steam Gland Seals & Oil seals, Lube oil system etc.
- Application and engineering of other associated mechanical and electrical equipment such as Electrical system, Condensing system, AC generators, Control system etc.

The developed designs are continuously monitored & optimized to improve Product Efficiency, Availability & Reliability, Performance and “Long Interval Between Overhaul”. This approach helps minimize the time taken to implement new development programs.

The design & development facilities include customized & specialized software tools for, Thermodynamic design, Computational Fluid Dynamics, Rotor Dynamics - Lateral & Torsional analysis, Casing mechanics & Blade mechanics, Stability analysis, Heat transfer, and tools for 3D Modeling & 2D designs.



Quality Assurance

With a commitment to maintain high standards of quality in production and service support, the Maxwatt approach to ensuring quality comprises of the following aspects:

- Maintain strict control throughout the in-house & out-sourced production processes
- Working closely with vendors to improve outsourced activities and component purchases

Learning and improving continuously by creating a system of continuous feedback of our products from the users and our own customer care team

Manufacturing

Maxwatt Turbo Systems' manufacturing process is a combination of in-house resources as well as outsourcing of machining operations to some of the carefully evaluated machining expert facilities. While the quality of the machining is assured, the same is reinforced through strict controls & vigilant supervision.

The ultimate aim of manufacturing process is to ensure Value addition at each step.

Raw Material procurement, Component & Product Assembly and Testing is done in house according to an established process.



After Sales Care

After-sales care is a vital crux of our operation philosophy that focuses on optimum equipment performance with minimum downtime. We are available to our customers, 24/7, for any forced-outage of supplied equipment. In addition, an adequate spares-stock is maintained to cater to such emergency situation.

Our trained team of field technicians and engineers are fully equipped to carry out package installation, commissioning, performance monitoring, maintenance and repair of our own turbines as well as those of other manufacturers.

The customer care team also conducts 'On-site' as well as 'At shop' training programs to meet individual customer-needs.



Applications

Distilleries

Paper Plants

Rice Mill

Sugar Plant

Iron & steel

Solvent-extraction Plants

Chemical & Pharma Plants

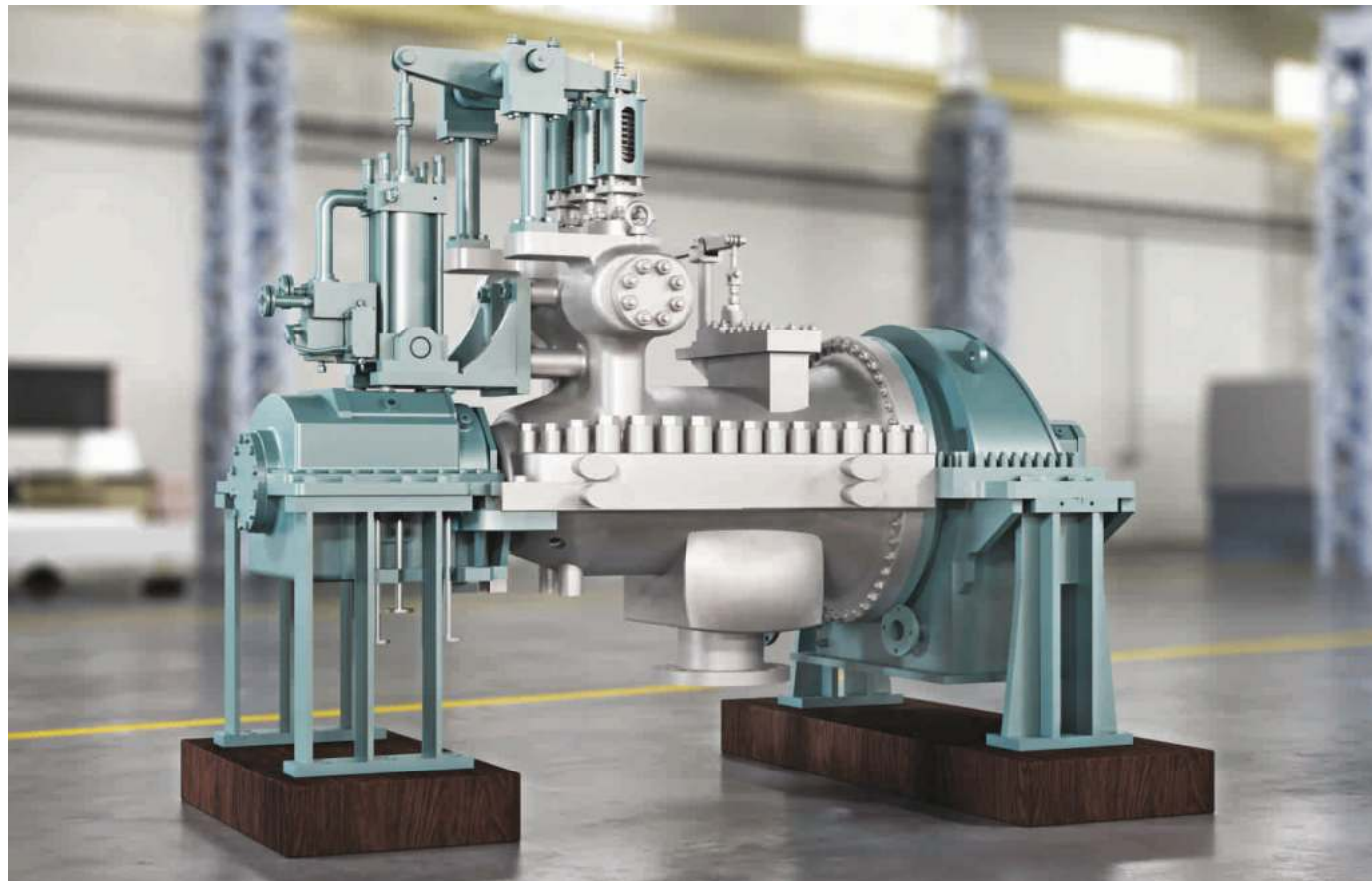
Textile/Textile-processing Units

Dairies

Food-processing Units

Solar Thermal

Geo-thermal



This document is for presentation of our range of offerings and is merely for information purpose only. Anything contained herein does not constitute an offer and is non binding.

Maxwatt Turbo Systems

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