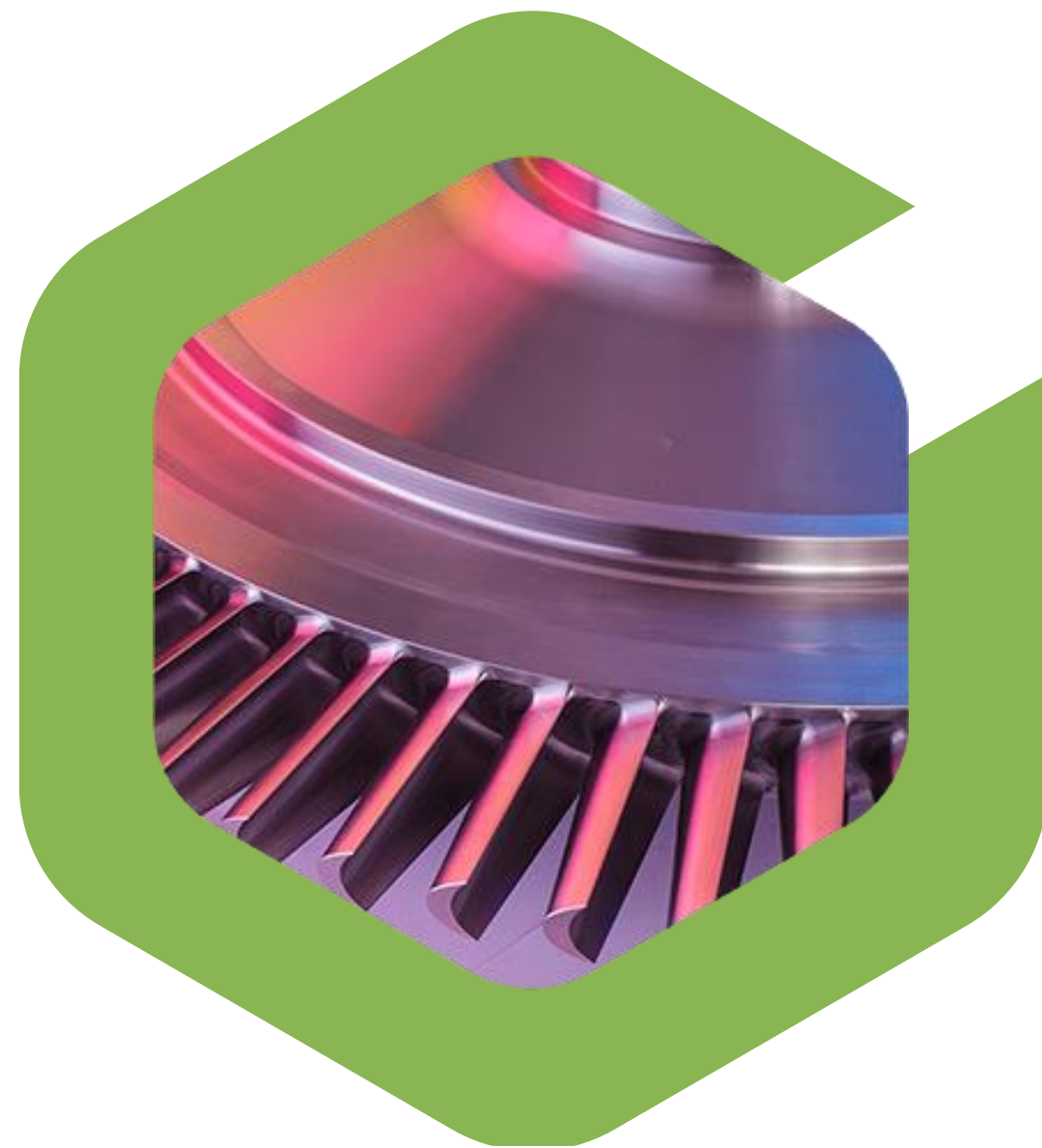




# A Case Study on application of ECT™ in: **Tyre Industry**

# Powering Progress: Engineering Excellence

- Incorporated in 1989 at Bangalore by a technocrat from USA
- First Indigenously designed Overhung Steam Turbines of up to 6 MWe and having USA patent for saturated steam scheme
- First in India for developing 500 kWe Multi fuel gas turbine
- First for establishing Induction Generator based Power generation in India
- First to have indigenously developed Turbochargers, OCS for Helicopter, UP-Lock system and other products for Organizations like ADA, NAL, HAL, GTRE, NSTL etc.



# Diverse Power Innovation Micro to Macro



- ECT Steam Turbine 12,000 / 1,500 RPM;
- Air Expander - Air Expander up to 6000 KW
- Gas Turbine- 30,000 RPM, 500 kWe Capacity
- Oil Cooling system for Helicopter Engines
- Turbocharger for tanks
- Ammonia Turbine
- 100 KW micro gas turbine
- Air Starter for Jet Engines
- 2 stage Turbo compressor

# ECT Applicable Industries

- Powering diverse industries. 450+ installations across 18 countries preventing 7,00,000 tones of CO2 emissions annually
- Users Industries-
  - Tyre
  - Oil Refinery
  - Steel plants
  - CPP
  - Edible Oil
  - Petrochemical
  - Cement
  - Textile
  - Paper
  - Distillery
  - Rice
  - Sugar
  - Chemical
  - Food Processing
  - Power Plant

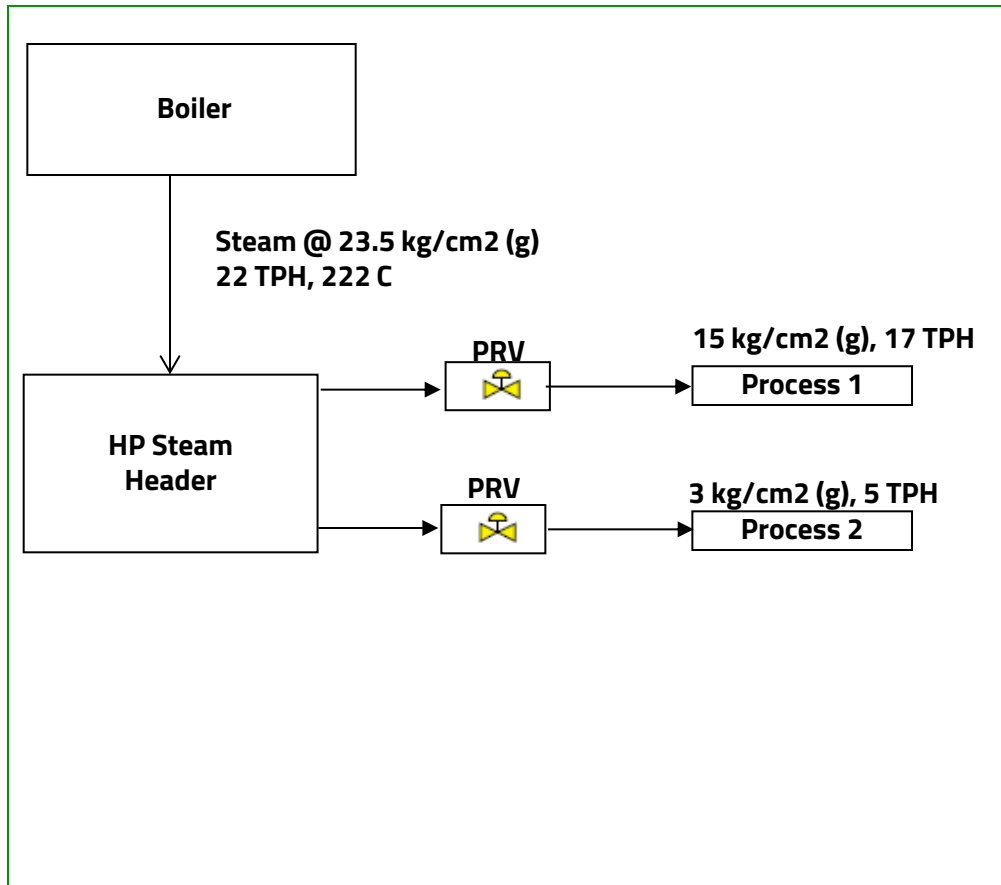


# TurboTech ECT Installations in the Tyre Industry

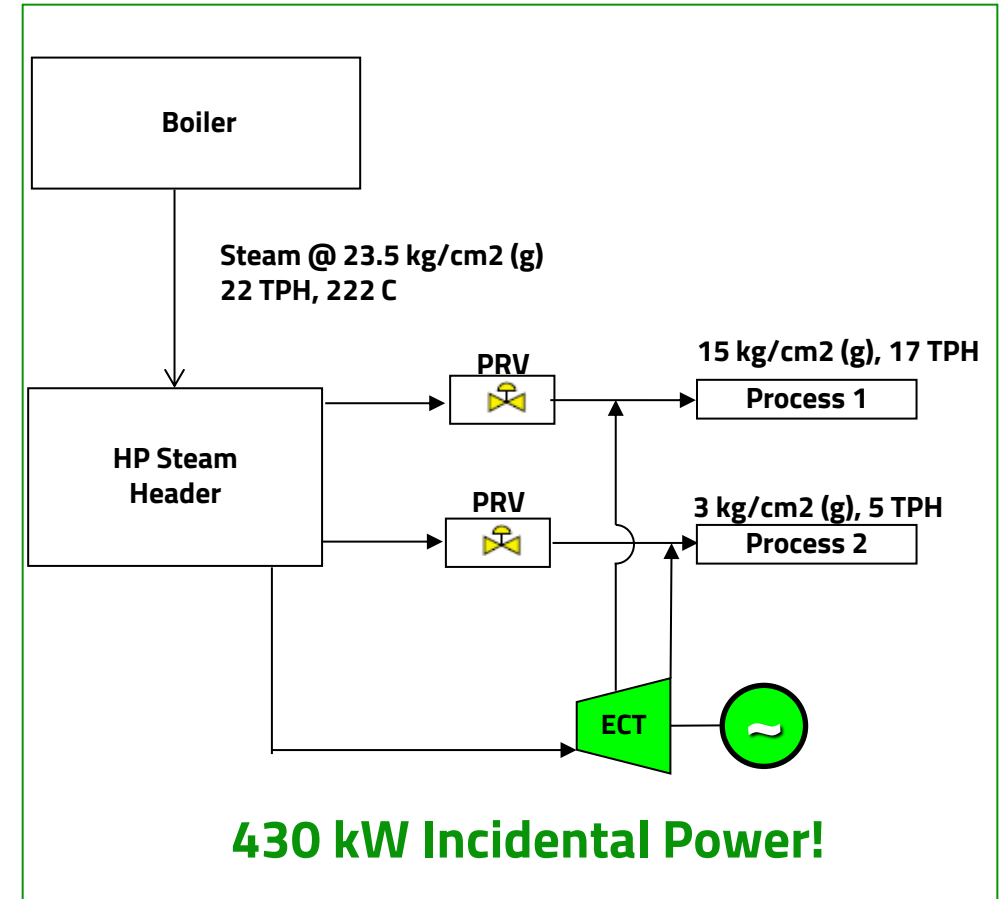
No.	Client	Location	Power	Installation Date
1	JK Tyre & Industries Ltd.	Mysore, KA, India	140 kW	2012
2	CEAT Limited	Nashik, MH, India	135 kW	2016
3	Good Year India Limited	Aurangabad, MH, India	430 kW	2021
4	CEAT Limited	Bhandup, MH, India	160 kW	2021
5	TVS Tyres Limited	Madurai, TN, India	170 kW	2022
6	CEAT Specialty Tyres Limited	Ambarnath, MH, India	65 kW	2022
7	CEAT Limited	Nagpur, MH, India	140 kW	2022
8	Goodyear Indonesia	Bogor, Indonesia	400 kW	2024

# ECT in Tyre Industry

BEFORE ECT



AFTER ECT



# Savings through ECT

## Energy Savings:

Electricity Units Saved per Hour:	430 kW
No of days of operation Per Year:	330 Days Per Annum
Electricity Units Saved Per Year:	~34,05,600 Units Per Annum

## Cost Savings:

Electricity Cost per unit:	INR 6.3/KW
Total Cost Savings per year:	INR 2,14,55,280/- Per Annum

# As Installed Photograph of 140 kW ECT at JK Tyre





# Performance Certificates



CEAT LTD.  
Village Road, Bhandup (W),  
Opp Nalpur Station,  
Mumbai 400078, India  
+91 22 66828393  
www.ceat.com

Date: 21<sup>st</sup> Oct.2021

## TO WHOMSOEVER IT MAY CONCERN

This is to certify that we initially procured the Energy Conservation Turbine - ECT<sup>®</sup> MK III with a capacity of 130 Kw, indigenously designed, manufactured, and commissioned by M/s Turbotech Precession Engineering Private limited Bangalore INDIA. The same is performing efficiently and satisfactorily in our plant at CEAT UNIT - NASHIK.

Based on this performance we procured a Second ECT<sup>®</sup> rated 160 KW, Which is installed and commissioned on 18<sup>th</sup> Oct.2021 at our CEAT BHANDUP MUMBAI UNIT the same also running satisfactorily.

We are pleased and satisfied by both the products and their dedicated service support.

We hereby wish Turbotech continued success and recommended their products in many more installations around the world.

For CEAT Limited, Bhandup-MUMBAI.



For CEAT LIMITED  
*A. C. Pradhan*  
A. C. Pradhan  
General Manager - Engg.

Registered Office: RPG House, 468 D, Annie Besant Road, Worli,  
Mumbai 400030, India. CIN: L25100MH1958PLC011041

An RPG Company

Goodyear South Asia Tyres Private Limited  
Plant & Regd Office:  
1, road no.400, 400A,  
Aurangabad - 431 191 MP - INDIA  
Telephone  
+91 20 9964230  
Fax  
+91 20 9962311, 9158112  
Corporate Office Bangalore  
100, 25th Cross, 10th Stage,  
Email: [ga@goodyear.com](mailto:ga@goodyear.com)



Date: 10.11.2023

## To Whom So Ever It May Concern

This is certify that M/s Turbo Tech Precision Engineering Pvt. Ltd., Bangalore **Make** Back Pressure cum Extraction Steam Turbine, Model ECT MK-VII 235Kw Commissioned on 01 June 2021 at our plant in Aurangabad Maharashtra has been running satisfactorily till date.

The Turbine parameters are as below.

Inlet Steam Pressure	23.0 Kg/cm <sup>2</sup>
Inlet Steam Temperature	220 °C
Inlet Steam Flow Rate	13 TPH
Exit Steam Pressure	3.0 Kg/cm <sup>2</sup>
Extraction Pressure	15.0 Kg/cm <sup>2</sup>
Guaranteed Power	235
Total Turbine Running Hours	18769 Hr
Total Units Generation	2730733 Units

For M/s Goodyear South Asia Tyres Private Limited

*Amulya Jena*  
Amulya Jena  
Manager (Electrical)

*Amulya Jena*  
10/11/23



Date: 13<sup>th</sup> Aug.2022

## PERFORMANCE CERTIFICATE

## TO WHOMSOEVER IT MAY CONCERN

This is to certify that we in procured the Energy Conservation Turbine - ECT<sup>®</sup> MK VII with a capacity of 170 Kw, indigenously designed, manufactured, commissioned and operating by M/s Turbotech Precession Engineering Private limited Bangalore INDIA On BOOT basis. The same is performing efficiently and satisfactorily at our plant TVS Srichakra limited - Madurai.

We are pleased and satisfied by both the products and their dedicated service support.

We hereby wish Turbotech continued success and recommended their products in many more installations around the world.

For TVS Srichakra Limited, MADURAI.

*V. K. KATHARASAN*  
K. KATHARASAN,  
Sr. Manager - Veldelid,

TVS Srichakra Limited  
CIN: L25111TN1952PLC009414  
Regd. Office: TVS Building, 7-B West Vall Street, Madurai 625 001.  
Tel: +91 0452 2356400, Fax: +91 0452 2443468 | Website: [www.tvseurogrip.com](http://www.tvseurogrip.com)  
Manufacturing Unit: Vollerpatt, Molur Taluk, Madurai - 625 122. Tel: +91 452 2443300



# Thank You



turbotecheng



TurboTech-energy



@India\_TurboTech

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