TURBOTECH ENERGY

You're just one step away from joining the rest of the world

A revolution in the energy space is sweeping the world. Let's help you take your place in the new world order of energy efficient and sustainable companies.

Over the course of the last 25+ years, we have installed our turbines and provided energy solutions for some of the most respected brands across the world.

1 *US Patent*

8 *pending Indian patents*

Present in ***17*** *countries*

4,385,300,192
KG CO_2 emission prevented

3,140,785 *MW*
units generated hourly

ABOUT US

One-stop global energy solutions provider

Manufacture turbines, turbine parts and other power generation

equipment

Provides BOOT, EPC, FEED, engineering and project management

services

25+ YEARS OF EXCELLENCE

GLOBAL PRESENCE

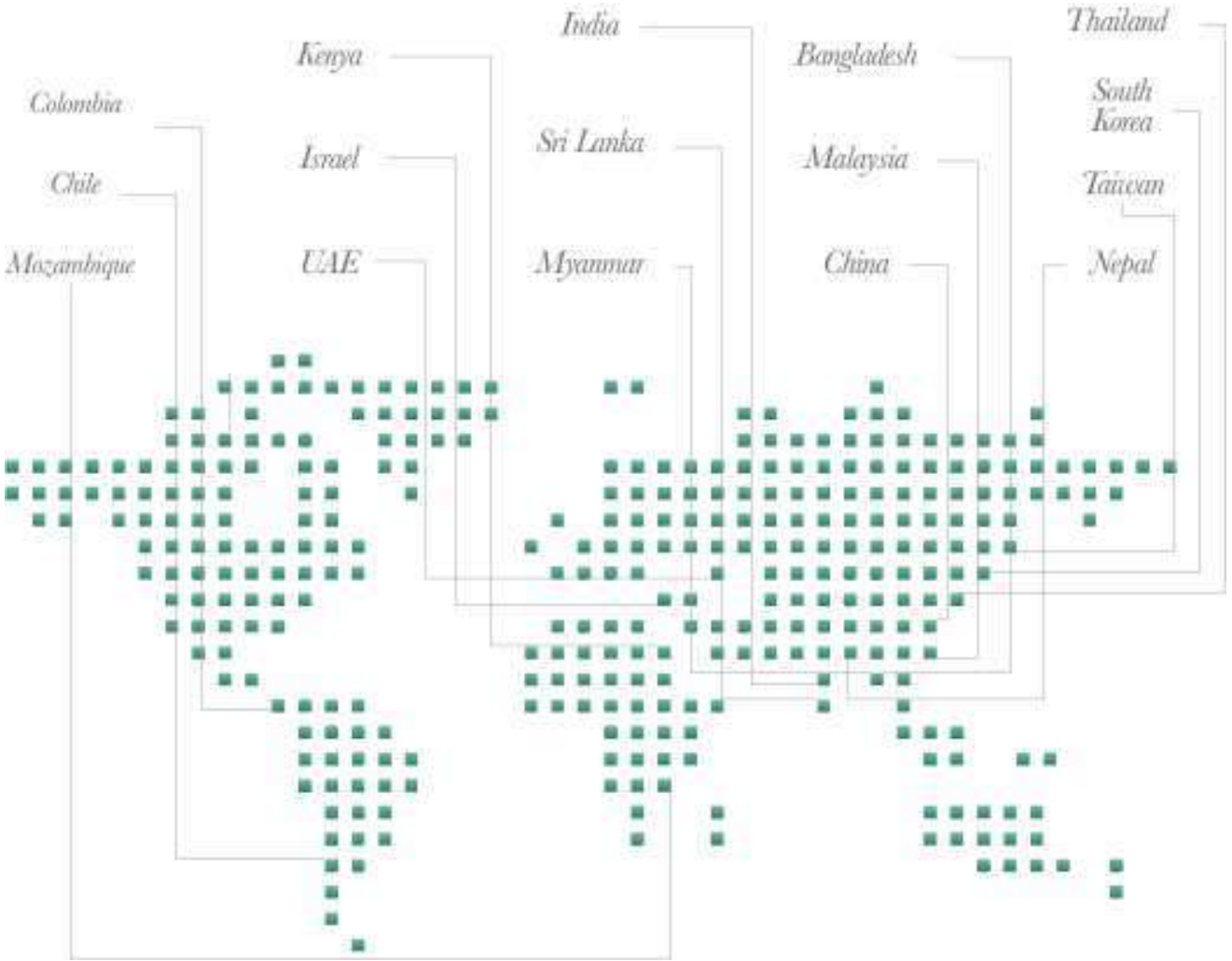
DESIGN EXPERTISE

ENGINEERING & TECHNOLOGY COMPETENCE

ghly experience esign team striving e best techno-com rcial solution

TURBOTECH ENERGY

OUR PRESENCE



Present in 17 countries

TURBOTECH ENERGY

SOME OF OUR CUSTOMERS

LAURELS

CII
Confederation of Indian Industry

CII-Green Products and Services Council

hereby certifies that

Energy Conservation Turbine

(GPTE76001)

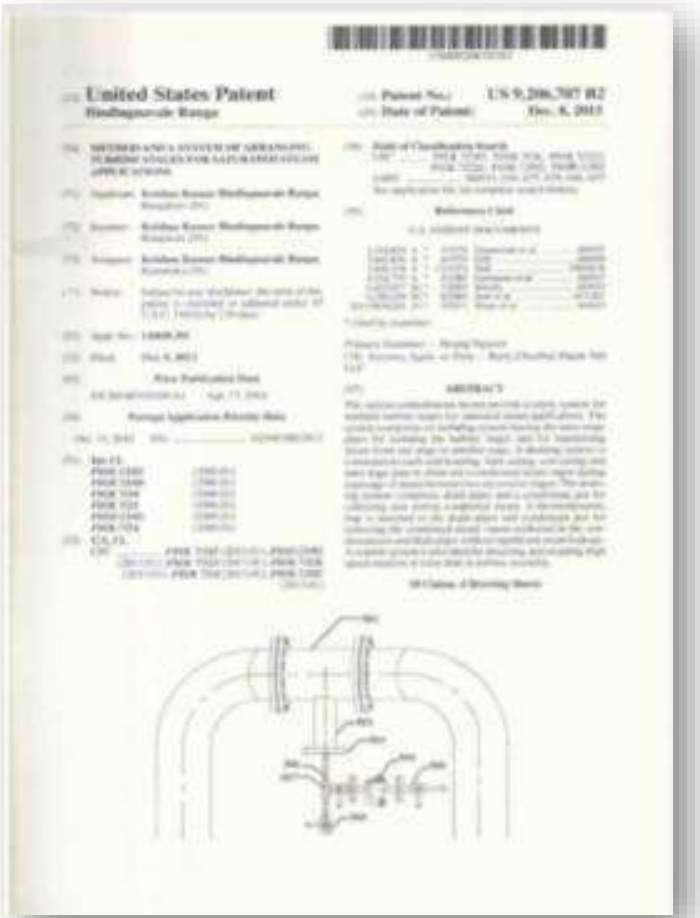
Manufactured by TurboTech Precision Engineering Limited at Bangalore, Karnataka meets the requirements of GreenPro Certification and qualifies as Green Product.

This certification is valid till ***December 2021***

Jamshyd N Godrej
Chairman, CII-Godrej GBC

ParasRaman R
Chairman, CII-Green Products & Services Council

K S Venkatagiri
Executive Director, CII-Godrej GBC



United States Patent
Bindhganavale Ranga

Patent No.: US 9,206,707 B2
Date of Patent: Dec. 8, 2015

Green Product Certification

United States Patent; 8 India Patents Pending

TURBOTECH ENERGY

LAURELS

TÜV NORD

CERTIFICATE

Management system as per
ISO 9001 : 2015

TURBOTECH PRECISION ENGINEERING PVT. LTD.
Survey No. 8 /2, Honnasandra Village,
Kasaba Hobli, Nelmangala Taluk,
Bangalore – 562 123, Karnataka,
India

Design, Development, Manufacture, Testing, Installation
& Servicing of Steam Turbines

Issue 16.10.2018
Place : Mumbai

IAF DAkkS

TÜV NORD

CERTIFICATE

Management system as per
ISO 14001 : 2015

TURBOTECH PRECISION ENGINEERING PVT. LTD.
Survey No. 8 /2, Honnasandra Village,
Kasaba Hobli, Nelmangala Taluk,
Bangalore – 562 123, Karnataka,
India

Design, Development, Manufacture, Testing, Installation
& Servicing of Steam Turbines

Issue 16.10.2018
Place : Mumbai

IAF DAkkS

BUREAU VERITAS
Certification

Certificate of Approval

This is to certify that the Quality Management System of:

TURBOTECH DEFENCE & AEROSPACE
PRIVATE LIMITED
SY NO 8/2, HONNASANDRA VILLAGE, NELAMANGALA TALUK,
BANGALORE RURAL DISTRICT, KARNATAKA, 562 123, INDIA

has been audited in accordance with the requirements of
EN 9104-001:2013 by Bureau Veritas Certification and conforms to the following
Quality Management Systems Standards detailed below

Standards

BS EN ISO 9001:2015
EN 9100:2018
(Technically equivalent to AS9100D)

Scope of certification

DESIGN, MANUFACTURE, ASSEMBLY AND TESTING OF AIRBORNE STORES
FOR AEROSPACE AND DEFENCE APPLICATIONS.

Certification Structure: Single Site

Certificate Issue Date: 20 FEBRUARY 2020

Certification Expiry Date: 19 FEBRUARY 2023

Trevor William Douce
Authorised Signatory

aerospace sector certification scheme

UKAS

ISO 9001 & 140001

AS9100D (Aerospace Manufacturing)

TURBOTECH ENERGY

12,000 RPM
Better performance

Aerospace-grade precipitated, hardened, stainless steel
Corrosion resistant

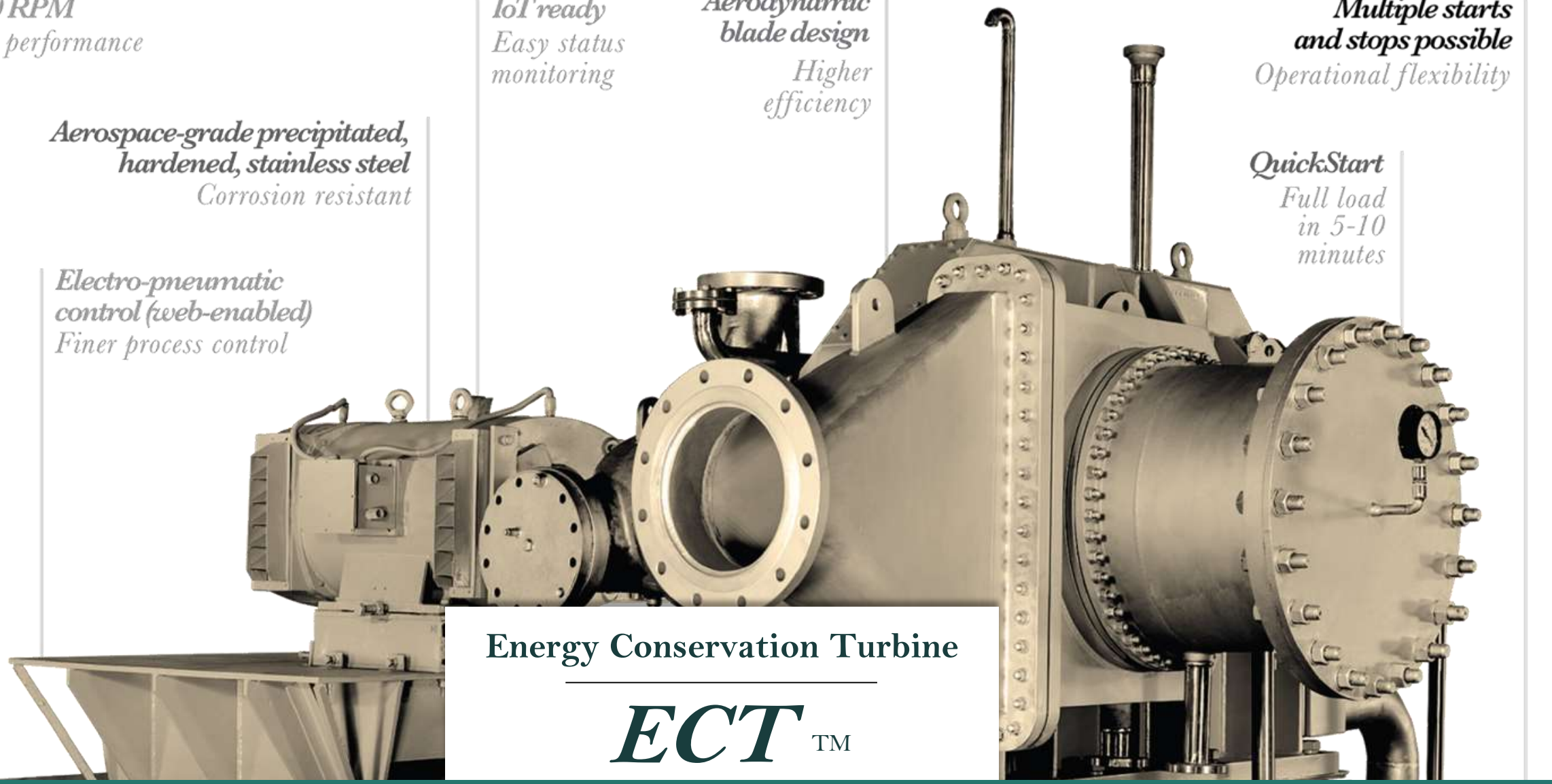
Electro-pneumatic control (web-enabled)
Finer process control

IoT ready
Easy status monitoring

Aerodynamic blade design
Higher efficiency

Multiple starts and stops possible
Operational flexibility

QuickStart
Full load in 5-10 minutes



Energy Conservation Turbine

ECT ™

OUR FLAGSHIP PRODUCT

RELIABILITY

After a few years of operation:

CONVENTIONAL TURBINES

Condition when opened

TURBOTECH TURBINES

Upon cleaning with cloth

Condition when opened

TURBOTECH ENERGY

RELIABILITY

99.5% uptime

Erosion resistant steam wetted parts made of stainless steel

Force lubricated journal and thrust bearings having long life

Labyrinth + carbon seals for effective sealing

TURBOTECH ENERGY

SAFETY

CONVENTIONAL TURBINES

Inserted blade rotor

Split casing

TURBOTECH TURBINES

Blisk rotor

Volute casing

Blisk rotors

Stainless steel volute casings

Blades never dislodged during operation

Offer superior containment

TURBOTECH ENERGY

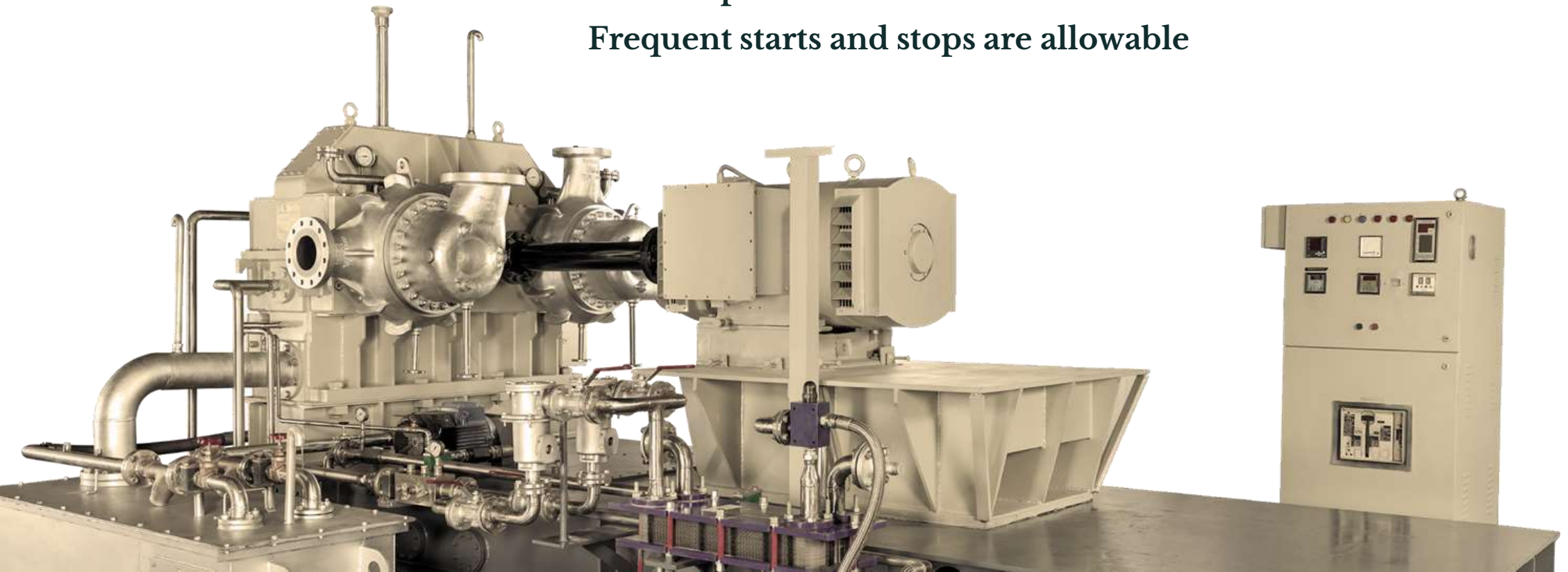
SUPERIOR PERFORMANCE

High speed, high efficiency = higher power generation (8%)

Well suited for *super-heated and saturated* steam

Startup time – 15 mins vs 90 mins

Frequent starts and stops are allowable

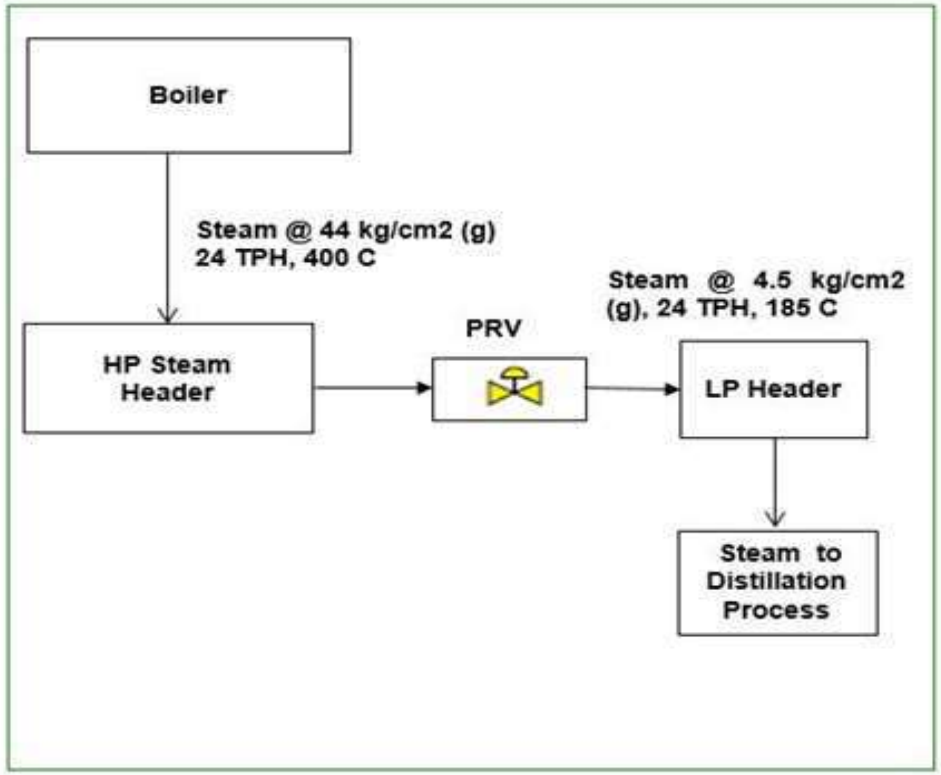


APPLICATION IN THE DISTILLERY INDUSTRY

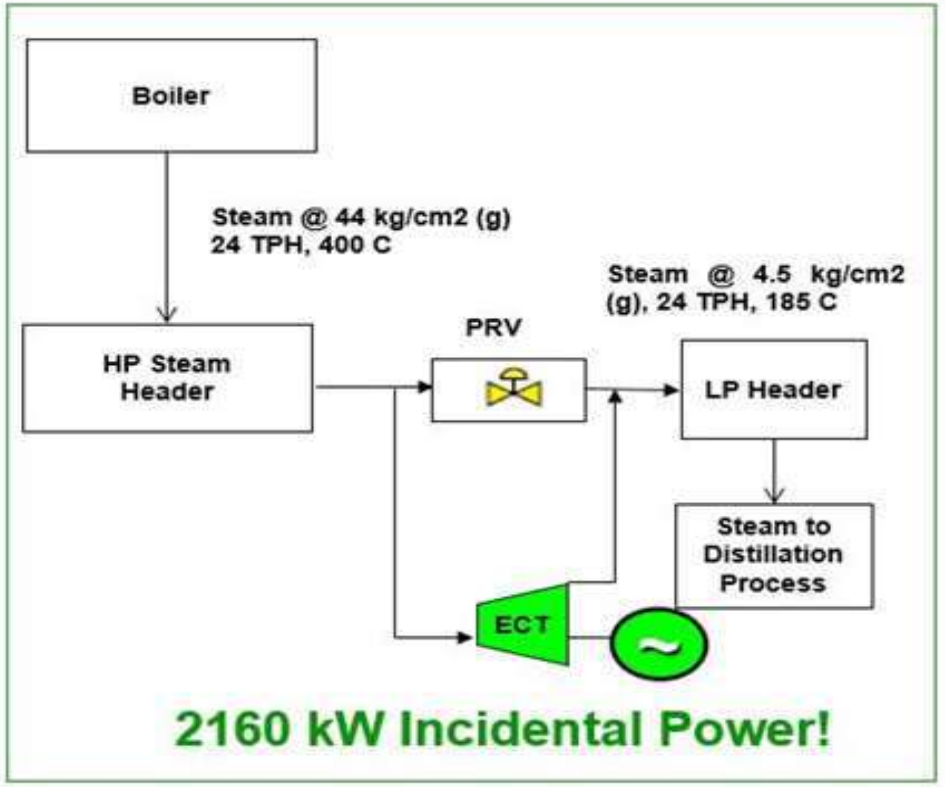
- In a distillery steam is specifically used for selective condensing and boiling in the distillation process after the molasses has gone through fermentation
- In areas or process parts that require steam, Steam from the boiler goes through header and travels through the PRDS/PRS where the pressure and flow of the steam is reduced and throttled as per the process requirement
- Multiple PRVs and PRDs are used in the production process that give an opportunity to generate incidental power
- The Turbotech ECT connected parallel to the PRDS/PRV uses this enthalpy to produce incidental

A CASE STUDY FROM THE DISTILLERY INDUSTRY

BEFORE ECT



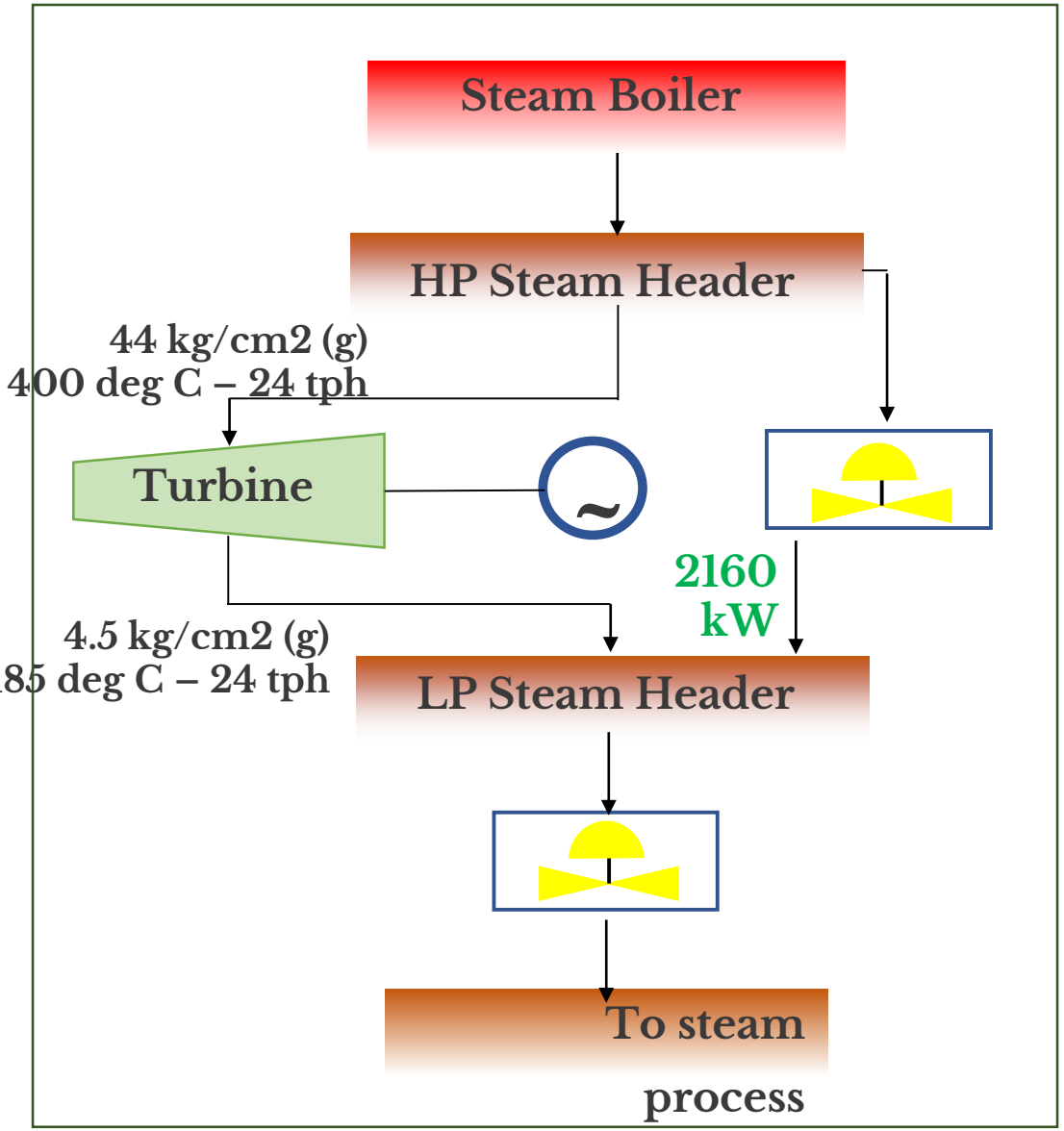
AFTER ECT



TURBOTECH ENERGY

A CASE STUDY FROM THE DISTILLERY INDUSTRY

Sl No.	Description	Details
1.	Power Generated by Turbine (kWh)	2160
2.	Total min. Units generated yearly basis (considering 7200 yearly hours)	1,55,52,000
3.	Gross Yearly Savings (considering Rs 6/unit, for yearly unit savings)	₹ 9,33,12,000
4	Less- (Maintenance and consumables)	₹ 3,00,000
Total Yearly Savings		₹ 9,30,12,000



TURBOTECH ENERGY

TESTIMONIALS

McDowell & Co. Ltd.

30

09.03.2001

TO WHOM-SO-EVER IT MAY CONCERN

This is to certify that we have associated ourselves with M/s. Turbo Tech Precision Engineering (P) Ltd., Bangalore, in field testing their Energy Conservation Turbine (ECT). We have three installations of ECT at our different factory locations running successfully for the past one year or more. Encouraged by the performance, we have placed order for three more units which are currently under execution. We are quite satisfied with the performance of the ECT's and the after sales/service support provided by Turbo Tech.

For McDowell & Co. Ltd.

D. DAS
General Manager-Technical

Reply to: 'Le Parc Richemonde', 51, Richmond Road, Bangalore - 560 025, INDIA.
Tel: (91-80) 2274458, 2272442, 2274452, Fax: (91-80) 2272973. Web Site: www.mcdowellindia.com
Regd. Office: McDowell House, 3, Second Line Beach, P.O. Box No. 36, Chennai - 600 001.

THE UB GROUP
SPIRITS DIVISION

GOLDEN MOMENTS McDOWELL MOMENTS

UB GROUP
UNITED SPIRITS

Date 22nd June, 2013

To Whom So Ever It May Concern

This is to certify that M/s TurboTech Precision Engineering Pvt. Ltd, Bangalore make Back Pressure Steam Turbine Model ECT MK- 07, of capacity 340 kW commissioned in 2009 at our plant in Chennai, Tamilnadu has been running satisfactorily till date.

The performance of the Steam Turbine as committed and the service after sales is good.

For M/s United Spirits Limited

Authorized Signatory

United Spirits Limited
Post Box. No. 5, Bye Pass Road, Poonamallee, Chennai - 600 056. Tel : 91-44-26272436 / 26272436 Fax : 26272116
Regd. Office : 'UB TOWER', # 24, Vittal Mallya Road, Bangalore - 560 001. India. Tel. 91-80-39856500 / 22210705 Fax: 91-80-39856862 / 39856959
www.unitedspirits.in

TURBOTECH ENERGY

SUMMARY

High speed, high efficiency = Higher power generation (8%)

E&C time of 7 days *vs.* 45 days

Reliability of steam wetted parts - lifetime

Overhaul maintenance time of 2 days *vs.* 30 days

Cost of new turbine house - minimal

Emphasis on safety – *Zero accidents*

TURBOTECH ENERGY

TURBOTECH
ENERGY

www.turbotechindia.com
marketing@turbotechindia.com