

Our Profile.....

Bharat Heavy Electricals Limited

**Boiler Auxiliaries Plant
Bharat Heavy Electricals Limited
Ranipet
TN**

**Desalination &
Defence**

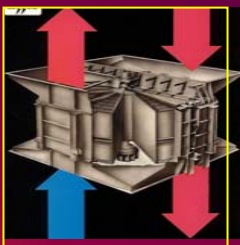
**Sales T/O -
Over Rs.388Cr.**

**Market Leader in the country
Boiler Auxiliaries**

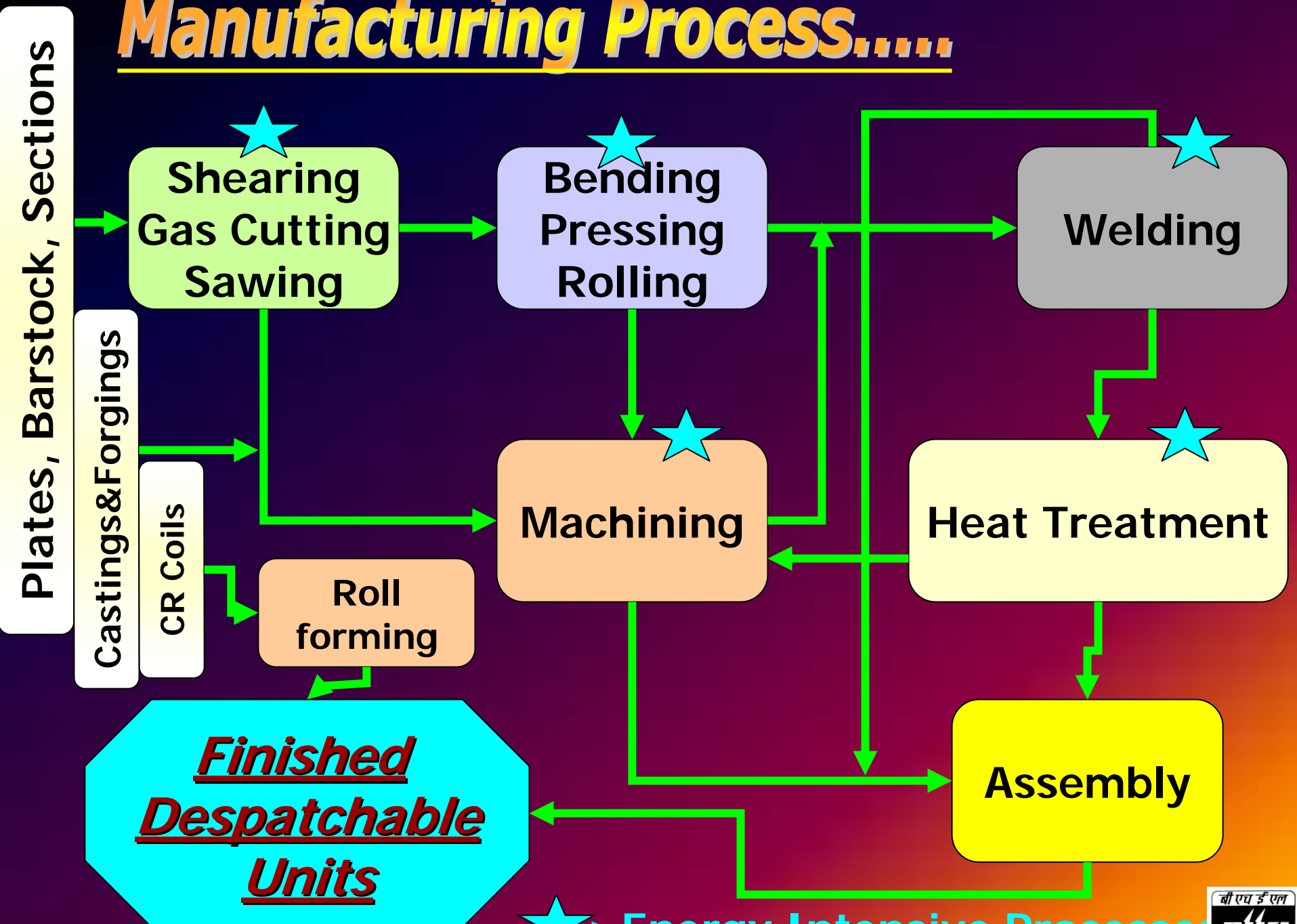
E S P

Air Heater

Fans



Manufacturing Process.....



Plates, Barstock, Sections

Castings & Forgings

CR Coils

★
Shearing
Gas Cutting
Sawing

★
Bending
Pressing
Rolling

★
Machining

Roll forming

★
Welding

★
Heat Treatment

Assembly

Finished Despatchable Units

★ > Energy Intensive Processes



Project 1-INSTALLATION OF LPG BULLETS

REPLACEMENT OF PG PLANT

- ANNUAL ENERGY CONSUMPTION : 2.55 Lks.Units
- ANNUAL SAVINGS : Rs 8.9Lks.

LPG FOR CANTEEN EQUIPMENTS

- ANNUAL ENERGY CONSUMPTION : 4.8 Lakhs Units
- ANNUAL SAVINGS : Rs 10.8Lks

TOTAL SAVINGS : RS 19.7 Lks

2 X 20 Tons LPG Bullets



30 TON FURNACE



Project 2- REPLACEMENT OF OXYGEN PLANT WITH LIQUID OXYGEN BULLETS

- OXYGEN PLANTCONNECTED LOAD : 215 KW**
- ANNUAL ENERGY CONSUMPTION : 3.75 Lks Units**
- COST OF ENERGY SAVINGS : RS 13.12 Lks**

Project 3- Installation of H.V automatic voltage regulator

- ❖ Energy savings of 5%- 2.0 Lakhs Units.
- ❖ Savings to the tune of Rs 7.0 Lakhs / Annum
- ❖ Reduction in breakdown hours.
- ❖ Improvement in efficiency of the connected Load.



A view of AVR

Project 4- Retrofit VFD and CNC with AC Servos

- ❖ Energy savings – 1.8 Lakhs units
- ❖ Increased productivity
- ❖ Improvement in efficiency of the connected Load.



A view of a machine

"NO INVESTMENT" PROJECTS

1. Operating Portable Air compressor during 01am-8am.
2. Redistribution of Power during non production hours.
3. Programming the factory illumination for optimisation.
4. Pressure reduction of Air compressor.
5. Operating the Generators by varying the Frequency.
6. Power Factor & M D control to earn TNEB incentives.

ENCON PLAN 2004 - 05

(1) Reconditioning & Retrofitting of AC VFD & PLC for

- Passenger Lift
- Heating Element Line
- Dynamic Balancing Machine
- EOT Cranes

(2) Installation of

- Electronic Soft starter Air Compressor, NTH40 shearing machine
- Automatic Power factor Controller
- Energy Efficient Fluorescent Fittings
- Compact Fluorescent Lamps
- Energy efficient compressors for Air Conditioners

SUSTENANCE OF ENERGY MONITROING AND MANAGEMENT

- Review of Daily Energy consumption, Maximum Demand & Power factor by Energy manager.
- **Monthly review of Energy Conservation Projects by Head of Maintenance.**
- Quarterly review of Energy Cost by top management
- **Periodical Energy Audit by TNEB approved Auditors.**
- Five year Energy Conservation Projects to reduce the EC/TO by 30% from 2001 to 2007
- **Inter Unit Energy meet within BHEL .**

5 year Energy conservation plan

- **ONLINE ENERGY MANAGEMENT SYSTEM**
- **AUTOMATIC POWER FACTOR CONTROLLER**
- **RETROFIT OF AC VFD & PLC FOR EOT CRANES & PASSENGER LIFTS**
- **SOLAR POWER FOR CANTEEN EQUIPMENTS**
- **MANUFACTURING PROCESS OPTIMISATION.**
- **ENERGY EFFICIENT COMPRESSORS FOR AIR CONDITIONING & REFRIGERATION SYSTEMS**
- **INTRODUCTION OF ENERGY EFFICIENT TUBE LIGHTS**