

### GAS TURBINE EXHAUST BY PASS STACK SYSTEMS

- ENPRO is a supplier of Gas Turbine Exhaust By Pass Stack Systems with references in more than 10 countries.
- Exhaust Gas Systems can be designed both externally and internally insulated.
- These systems can be suitable up to 650 Degrees Celsius exhaust gas temperature.

### ENPRO PROVIDES

- Design, Engineering,
- Detail Design,
- Manufacturing,
- Transportation to Site,
- Site Supervision,
- Erection and Commissioning.

Each Gas Turbine Exhaust Stack by Pass System consists of;

- Diffuser,
- Diverter,
- Silencer,
- Stack Body,
- Non-metallic Expansion Joints,
- Supporting Structure with access platforms.

# ENPRO

PROFESSIONAL APPROACH  
IN  
POWER PROJECTS

**BY PASS STACK SYSTEMS**

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## STACK DAMPERS FOR CYCLING OPERATIONS

ENPRO is supplying Stack Dampers to keep the HRSG hot during short shut down operations. Stack dampers are best used to decrease the total Hot and Warm Start up time when the shut down is no more than 12 hours.

Use of a stack damper is the most effective and inexpensive way to prevent cool air from flowing through an HRSG.

### STACK DAMPERS;

- Used for Cycling Operations,
- Prevents cool air from flowing through the HRSG,
- Decreases total Hot and Warm Start up time,
- Can be both manually operated and automatically operated from DCS with electrical actuator,
- Tailor made design and manufacturing for each Plant,
- Installed at the HRSG outlet Stack,
- Designed for minimum pressure drop,
- Modular design for ease shipment and installation,



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## STACK DAMPERS

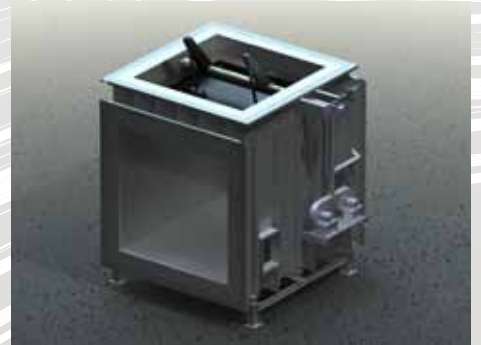
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TO\SS

## DIVERTERS

- Toggle or Pivot armed,
- Electrical or Hydraulic Actuated System,
- %100 Tightness with sealing air System,
- On/Off or Modulating Mode,
- Internally or externally insulated,



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**DIVERTER**

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## STACK SILENCER

ENPRO is doing the design, engineering, detail design and manufacturing of Stack Silencers.

Stack Silencers are used to reduce the noise level of Gas Turbine.

Stack Silencers can reduce the Gas Turbine noise level down to 80dBA based on the Project requirements.

ENPRO experience covers Aeroderivative and Heavy Duty Gas Turbines up to "F" Class Machines.





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**STACK SILENCER**

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## FABRIC EXPANSION JOINTS

ENPRO Fabric Expansion Joints are being used in more than 10 Countries.

ENPRO is doing the engineering, design and manufacturing of Fabric Expansion Joints.

ENPRO is supplying Fabric Expansion Joints which is suitable up to 600 Degrees Celsius with internal insulation.

The expansion joint fabric material must withstand the potential for stress caused by rapid temperature rise of Gas Turbine start ups. The expansion joints shall avoid wrapping, binding, cracking and gas leakage.

The expansion joints should handle both lateral and axial expansion and contractions. They are constructed with different designs according to the adjacent duct, whether it is internally or externally insulated. The flexible element is made up of different layers each with different characteristics to withstand various flow parameters.

These Expansion Joints can be used at the outlet Flange of the Gas Turbine, at the diverter and on the Exhaust Stack.

These expansion joints can be both square and round based on the requirement.

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## EXPENSION JOINT

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