



19th April 2014

- Waste Heat Recovery Technologies
 - Steam Rankine Cycle
 - Organic Rankine Cycle
 - Kalina Cycle
 - Screw Expanders
- Distributed Energy Generation
 - LNG based micro turbine generation
 - CHP using multi fuel

Located: Mumbai, India

Team: Team of Chemical and Mechanical Engineers having international experience of over 15 years.

Principles:

The logo for ALSTOM, with 'ALSTO' in blue and 'M' in red, and a red circular graphic element.

ALSTOM Power Energy Recovery GmbH

The logo for qpunkt gmbh, featuring a green circular graphic with a red dot and a green swoosh, followed by the text 'qpunkt gmbh' and 'Advanced Heat Recovery & Energy Transfer Solutions' below it.

qpunkt gmbh
Advanced Heat Recovery & Energy Transfer Solutions

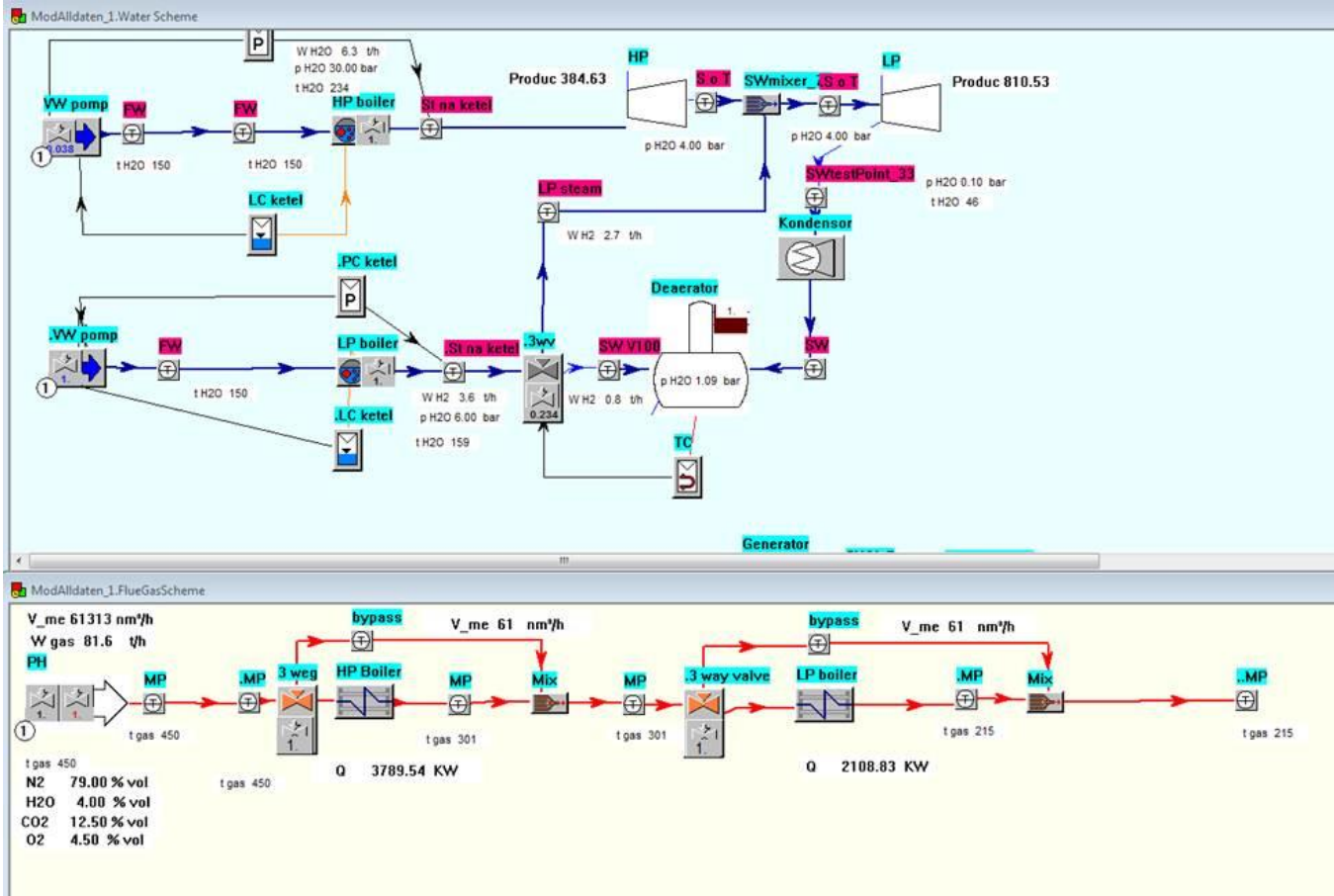


- Process Knowledge
- Bridge between State of the Art German Technology & Cost effective engineering / fabrication for Indian Industry for optimized CAPEX.
- BOOT Concept
- Financing options in association with likes of Tata Cleantech Capital and KFW Bank Germany.

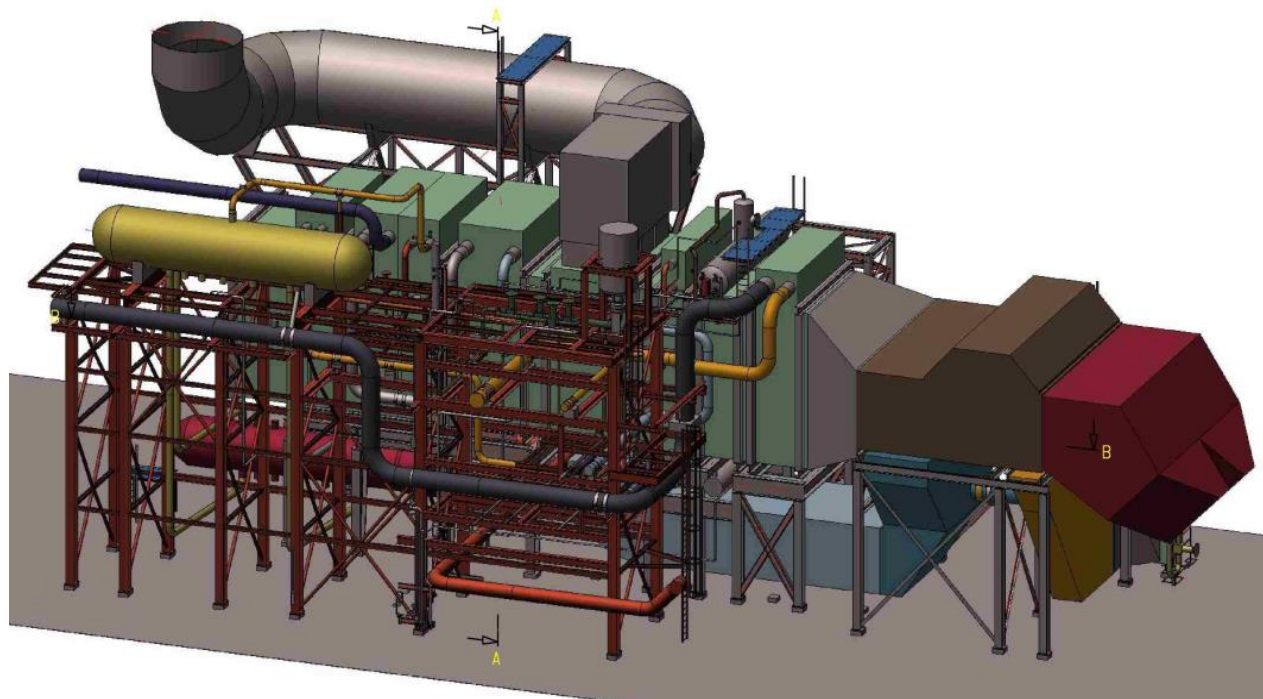
- Glass Industry
- Petrochemical plants (Ethylene furnace)
- Refineries
- Gasification Projects
- Carbon black Plants
- Non Ferrous (copper, zinc plants)
- Chemical Plants
- Fertilizer Plants

- Client list includes GAIL, ONGC, Reliance, IOCL, Vedanta Group, Birla Carbon, Phillips Carbon, to name a few.
- We are back-integrating into fabrication facilities. This allows expansion of our product portfolio beyond those of Alstom.
- We are participating in the growth of MENA and Asia-Pacific regions. This region is expected to invest about \$10 trillion in the next 10 years on Capital equipment.

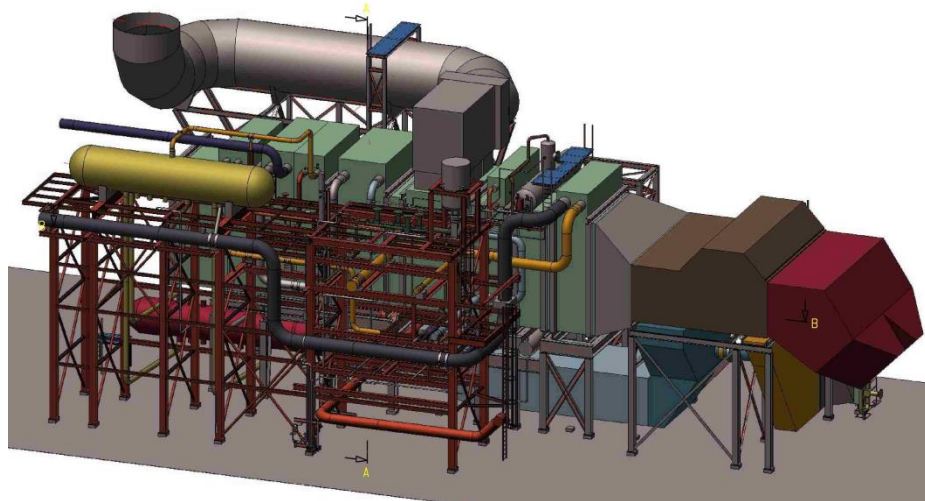




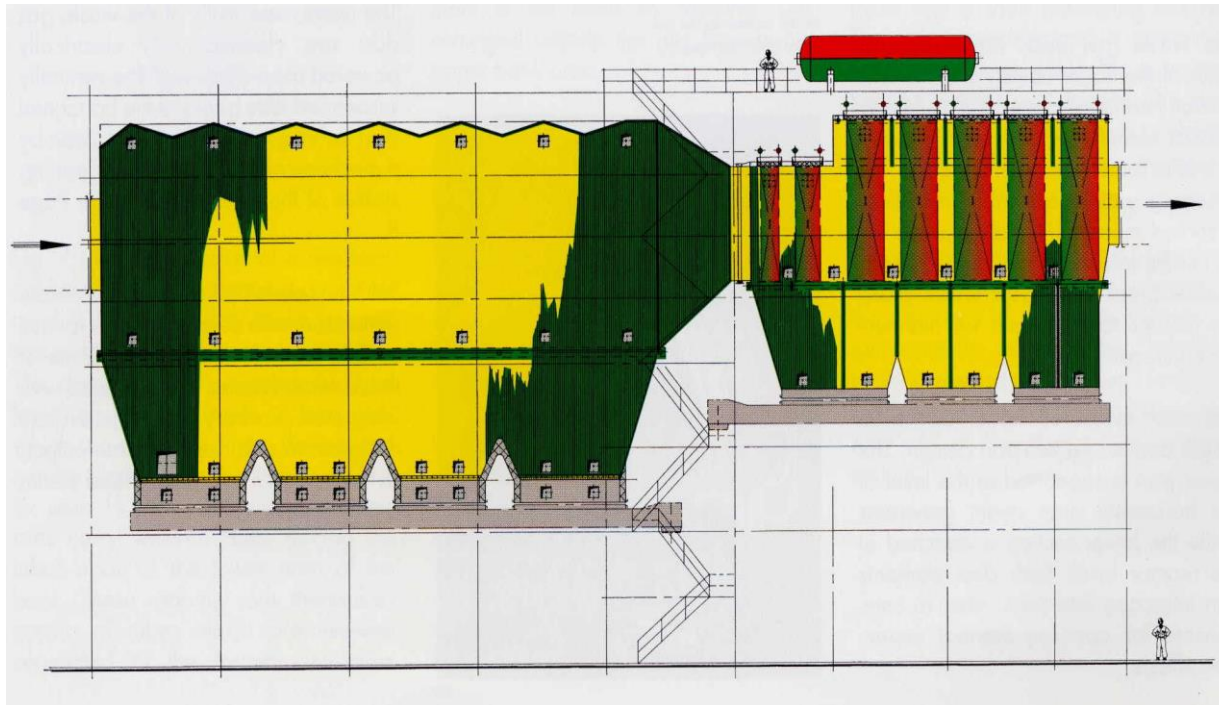
Special Expertise in Handling High Solid /Fiber load in the Flue Gas



PGB, Convection Banks, Fired Heater

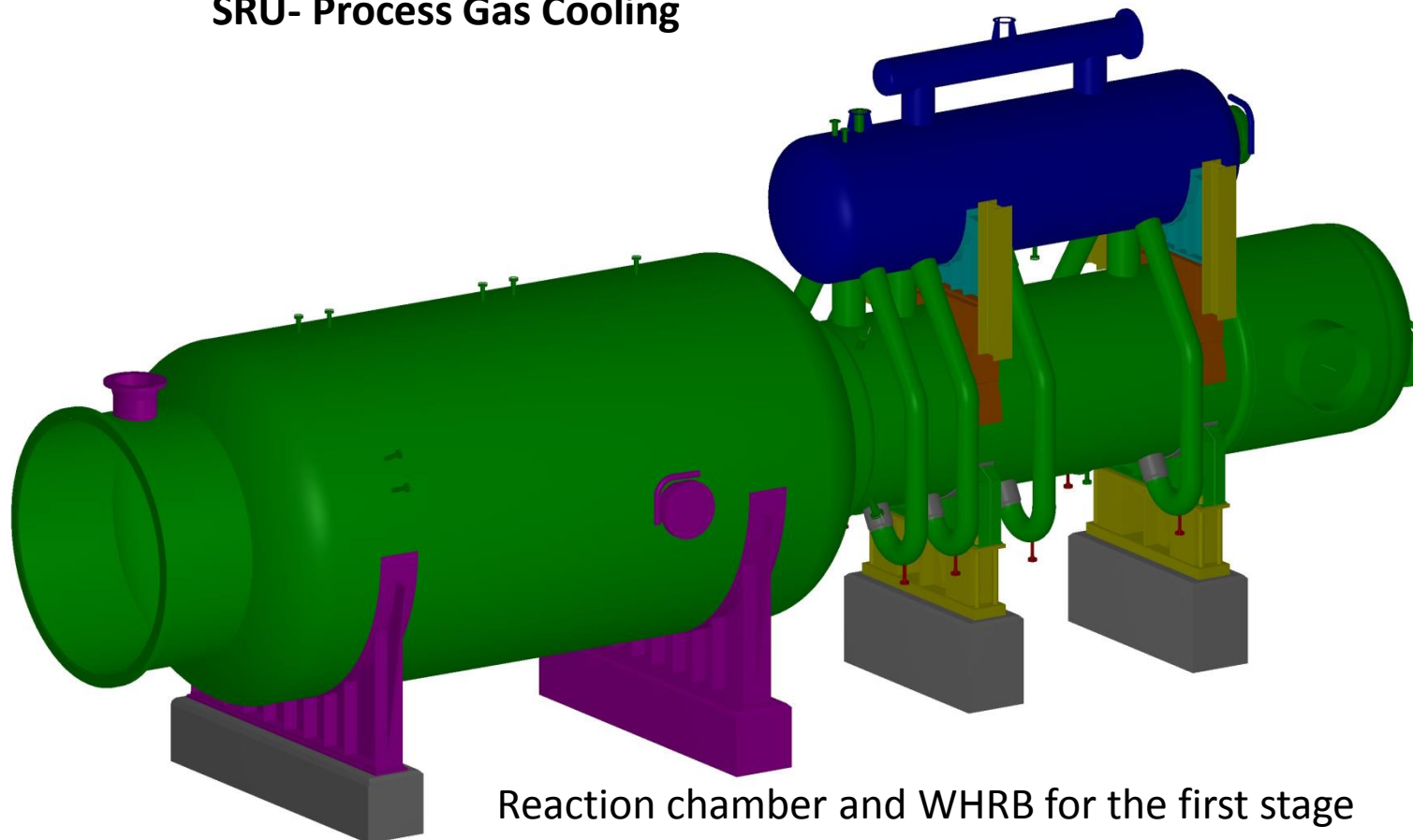


- WHRU in Metallurgical Processes



WHRU in Copper Smelting Plant

SRU- Process Gas Cooling



Reaction chamber and WHRB for the first stage of process to convert hydrogen sulphide laden gases to sulphur

Shack Air Preheater



Ammonia Plant- Process Gas Cooling

3-D-modelling of a process gas cooling system with high-pressure steam superheater for a 2000 t/day ammonia plant in the Middle East.



Energy & Engineering- Syn – Gas Coolers

Ok

Process Gas Cooler, High Pr. Steam Superheater



Schmidt'sche® Transfer Line Exchangers



Energy & Engineering: Major Clients

Ok

Customers	EPC	Licensors
Phillips Carbon	Technip KT India	KBR
Birla carbon	Simon India Ltd.	Lummus India
Vedanta Group	Foster Wheeler	Saipem India
Jindal Steel	Uhde India Pvt. Ltd.	Lurgi India Pvt. Ltd.
Reliance Industries Ltd.	Techimont ICB	Haldor Topsoe
Indian Oil Corporation	Linde	AKER Solutions
Gas Authority of India	EIL	Jacobs India
		Samsung Engineering

- Other industries like Steel, Paper & Pulp, Cement etc.. Have already started accepting new WHR technologies
- Glass heat recovery is a challenge considering dust laden glass, medium temp below 600 deg C flue gases available thus requires a proven technology to maximize the benefit of WHR
- Qpunkt is working in Glass since last decade with vast experience in designing a complete WHR system
- For Glass industry in collaboration with Qpunkt our company is offering a turnkey solution from concept, feasibility to commissioning of entire project including project financing.
- Qpunkt presentation follows.....

Thank you

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