
Fired Heaters revamp projects and studies by Foster Wheeler Italiana

Revamping to upgrade, refurbish and improve the performances of a fired heater or boiler built by the division or by others is an important part of Foster Wheeler Italiana range of activity.

Foster Wheeler has a long revamp experience, providing innovative solutions to meet different specific Client requirements.

At the beginning the revamp is normally analyzed with a study to find out the best solution to improve the performances with an optimized investment cost.

Revamping fired heaters and boilers has been proven very successful in order to extend equipment working life, lower the required capital investment, enhance performances such as duty and efficiency, increase payback, increase run lengths between shutdowns, reduction of maintenance cost, improvement of the sustainability by reducing environmental impact of emissions and noise.



With the design, engineering, procurement and project management performed in-house, Foster Wheeler can provide conceptual engineering, planning and cost control, as well as supervision of shop pre-fabrication, site erection and commissioning.

Partial List of Fired Heaters revamp projects and studies by Foster Wheeler Italiana



A partial list of revamp projects and studies performed by Foster Wheeler Italiana is herewith included.

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Date	Company & Location	Equipment	Scope of work
2008	Saras Sarroch (Italy)	CO Boiler	Revamp
2008	Saras Sarroch (Italy)	CO Boiler	Feasibility Study
2007	MRC Melaka (Malaysia)	TW Steam Reformer	Capacity Increase
2007	Tamoil Collombey (Switzerland)	CO Boiler	Revamp
2007	Tamoil Collombey (Switzerland)	CO Boiler	Design Modification
2007	Mazeikiu Nafta Mazeikiu (Lithuania)	Waste Heat Boilers	Process Design and Engineering
2007	API Falconara (Italy)	Crude and Thermal Cracker	SCR & Denox Revamping / Installation
2007	Saras Sarroch (Italy)	Process Heaters	Flue gas emission study
2007	Al-Bayroni Jubail (Saudi Arabia)	Steam Reformer	Revamp
2006	Mazeikiu Nafta Mazeikiu (Lithuania)	Process Heaters	Design Revamp
2006	Pertamina Kasim (Indonesia)	Crude Heater	Rehabilitation study
2006	Al-Bayroni Jubail (Saudi Arabia)	Steam Reformer	Process Study for Ammonia unit up-grading
2006	Hellenic Petroleum Aspropyrgos (Greece)	CCR Heater	Heater Rehabilitation & Steam Drum Internals
2005	Total Gonfreville (France)	Vacuum Heater	Process Study
2005	Ergmed Priolo (Italy)	Steam Reformer	In & out pigtails, catalyst tubes replacement
2005	Raffineria di Milazzo Milazzo (Italy)	Crude Heater	Process Optimisation
2005	Total La Mede (France)	Crude Heater	Hazop Support Services
2005	AO Mozyr Mozyr (Belarus)	TW Steam Reformer	Inlet & out manifolds replacement
2004	Mazeikiu Nafta Mazeikiu (Lithuania)	Process Heaters	Modernisation
2004	Total Feyzin (France)	Process Heater	Thermal re-rating

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2004	Naftan Novopolsk (Belarus)	Process Heaters	Modernisation
2004	AO Mozyr Mozyr (Belarus)	Visbreaker Heater	Decoking
2004	Raffineria di Cremona Cremona (Italy)	CCR Heater	Pressure Parts Replacement
2004	Esso Singapore	Xylene Reboiler	Rehabilitation
2003	Total Gonfreville (France)	Flue Gas system	De-bottlenecking
2003	Lukoil NHK Burgas (Bulgaria)	Process Heaters	Modernisation
2003	AO Mozyr Mozyr (Belarus)	Process Heaters	Modernisation
2002	MRC Melaka (Malaysia)	TW Steam Reformer	Process Optimisation
2002	Lukoil NHK Burgas (Bulgaria)	Stripper Reboiler Heater	Burners Replacement
2002	Lukoil Permnefteorgsyntez Perm (Russia)	Visbreaker Heater	Basic Design
2002	Agip Raffinazione Sannazzaro (Italy)	Vacuum Heater	Feasibility
2002	Raffineria di Milazzo Milazzo (Italy)	Vacuum Heater	Burners & Convection Section Replacement
2002	Hellenic Petroleum Aspropyrgos (Greece)	Steam Reformer	Process Optimisation
2001	AO Mozyr Mozyr (Belarus)	TW Steam Reformer	In & out pigtails, catalyst tubes replacement
2001	Lukoil Permnefteorgsyntez Perm (Russia)	Process Heaters	Modernisation
2001	Raffinerie Du Sud Ouest Collombey (Switzerland)	Process Heaters	Noise Abatement
2000	Aramco Ras Tanura (Saudi Arabia)	CCR Heater	Increase capacity Burners addition
2000	SAFCO Dhammam (Saudi Arabia)	Steam Reformer	Process and Mechanical Study
2000	Agip Sannazzaro (Italy)	Atmospheric Heater	Feasibility
1999	Saras Saroch (Italy)	Atmospheric Heater	Heater Rehabilitation and Modification

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1999	Takreer Ruwais (U.A.E.)	TW Steam Reformer	Up-grading & increase capacity
1998	Naftan Novopolsk (Belarus)	Atmospheric Heater	Pressure parts and insulation revamp
1998	Raffineria di Milazzo Milazzo (Italy)	Atmospheric Heater	Efficiency increase APH installation
1998	Bariven Amuay (Venezuela)	Vacuum Heater	Pressure parts and insulation revamp
1997	Esso Singapore	TW Steam Reformer	Convection section modification
1997	ERG Petroli Priolo (Italy)	Process Heaters	NOx reduction Burners replacement
1997	BAPCO Bahrein	Visbreaker Heaters	Capacity increase
1997	Fina Antwerp (Belgium)	CCR Heater	Radiant section modification
1996	Raffineria di Roma Roma (Italy)	Charge Heater	Pressure parts replacement
1996	ERG Petroli Priolo (Italy)	Atmospheric, Vacuum Heaters	Tuber sheet replacement
1996	Agip Priolo (Italy)	Vacuum Heaters	Convection section replacement
1995	EKO Thessaloniki (Greece)	Powerformer Heater	Burners relocation
1995	ERG Petroli Priolo (Italy)	Process Heater	Nox reduction
1995	Fina Antwerp (Belgium)	CO Boiler	Capacity increase
1994	Fina Antwerp (Belgium)	Charge Heater	Convection section modification
1994	Aramco Riyadh (Saudi Arabia)	TW Steam Reformer	Catalyst tubes replacement
1994	Agip Livorno (Italy)	Atmospheric Heater	Radiant section modification
1994	Fiatavio Torino (Italy)	Heat Recovery Steam Generator	Stack modification
1994	Samarec Riyadh (Saudi Arabia)	Steam Reformer	Catalyst tubes replacement
1994	Aramco Riyadh (Saudi Arabia)	TW Steam Reformer	Catalyst tubes replacement

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Date	Company & Location	Equipment	Scope of work
1992	Saras Sarroch (Italy)	Atmospheric Heaters	Energy conservation
1991	Raffineria di Cremona Cremona (Italy)	Atmospheric Heater	Forced air system installation
1990	Praoil Priolo (Italy)	Refinery Heaters	Combustion improvement Burners modification
1988	Agip Sannazzaro (Italy)	CCR Heater	Radiant section modification
1988	SIBP Antwerp (Belgium)	Atmospheric Heater	Improve capacity
1988	Raffineria di Cremona Cremona (Italy)	Atmospheric Heater	Improve efficiency
1987	SAFCO Dammam (Saudi Arabia)	Steam Reformer	Convection section modification
1987	Maraven Cardon (Venezuela)	Atmospheric Heater	Efficiency increase APH installation
1985	Raffineria di Roma Roma (Italy)	Process Heaters	Energy conservation
1984	SIBP Antwerp (Belgium)	Atmospheric Heater	Efficiency increase APH installation
1984	Lagoven Amuay (Venezuela)	Vacuum Heater	Radiant section modification
1983	KNPC - KSC Shuaiba (Kuwait)	Vacuum Heater	Radiant section modification
1983	KNPC - KSC Shuaiba (Kuwait)	All Refinery Heaters	Energy conservation
1982	SIBP Antwerp (Belgium)	Vacuum Heater	Efficiency increase APH installation
1982	Total Trieste (Italy)	CCR Heater	Up-grading
1982	Terni Industrie Chimiche Terni (Italy)	TW Steam Reformer	Efficiency increase APH installation
1982	Saras Sarroch (Italy)	Process Heaters	Energy conservation
1981	SIBP Antwerp (Belgium)	Atmospheric Heater	Efficiency increase APH installation
1981	Aramco Ras Tanura (Saudi Arabia)	Vacuum Heater	Convection section replacement
1981	SIBP Antwerp (Belgium)	Process Heaters	Energy conservation



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1981	Sarpom Trecate (Italy)	Atmospheric Heater	Efficiency increase
1981	Esso Rasiom Augusta (Italy)	Process Heaters	Energy conservation
1980	Exxon Ingolstadt (Germany)	Process Heaters	Energy conservation
1980	Exxon Lago (Aruba)	Process Heaters	Energy conservation
1980	Exxon Singapore	Process Heaters	Energy conservation
1988	Agip Sannazzaro (Italy)	Atmospheric Heater	Efficiency increase APH installation
1971	Lee Chan Yung (Taiwan)	TW Steam Reformer	Radiant section modification