

SELECTION OF CALGAVIN'S REFERENCES - REFINING



O. No.	Project Company	Item Type	Application Description	Customer Benefit	End User	Install Country	Site	Duty	Tubside Fluid
2412	Associated Exchanger	Air Cooler	Oil coolers	Reduced Size	Saudi Aramco	Saudi Arabia		Cooling	Lube oil
2523	NATREF	Fired Heater	Steam Generator	Improved Duty	Natref	South Africa	Sasolburg	Boiling	Water
2554	Imperial Oil	Shell and Tube	Fractional Bottom Cooler	Improved Duty	EXXON	Canada	Jarvis ONT.	Cooling	Heavy Cycle Gas Oil (FCC)
2715	Heat Exchangers	Air Cooler	Lube Oil Cooler	Reduced Size	ESSO EPMI	Malaysia	GUNTONG "D2	Cooling	Lube Oil
2721	Adena Trading and	Shell and Tube	Thermosyphon Reboiler	Improved Duty	Exxon Mobil	Singapore	Jurong	Boiling	Sulfolane, hydrocarbon, H2O
2794	Foster Wheeler (UK)	Air Cooler	Cooler	Improved Duty	Petronas	Malaysia	Kerteh	Cooling	Diesel
2977	Nerefco	Shell and Tube	Stabiliser Reboiler	Improved Duty	Nerefco	Netherlands	Europoort	Cooling	Atmospheric Residue
3010	DEA	Shell and Tube	Solvent Flash Preheater	Reduced Fouling	DEA	Germany	Grassbrook	Boiling	Residues + Solvent
3091	Cabot Carbon Ltd	Shell and Tube	Tar oil heater	Improved Duty	Cabot Indonesia	Indonesia	Cilegon	Heating	Tar Oil
3103	GEA Btt-Batignolles	Air Cooler	Lube oil cooler	Improved Duty	Q.G.P.C	Qatar	Ras Laffan	Cooling	Lube oil
3120	ABB Lummus Heat	Shell and Tube	Gasoil / crude cooler Vacuum	Reduced Size	Wintershall	Germany	Lingen	Cooling	Vacuum Residue
3124	Total (Denver)	Shell and Tube	Crude vs Diesel Exchanger	Reduced Fouling	Total	USA	Commerce City, CO	Heating	Crude Oil
3324	Shell International	Shell and Tube	Reactor feed / effluent Hex	Improved Fluid Distribution	Shell Oil	Germany	Godorf	Cooling	Reactor effluent
3537	Black & Veatch Inc	Shell and Tube	Sulphur Cooler	Improved Fluid Distribution	ADNOC	United Arab	Abu Dhabi	Cooling	Liquid sulphur
3556	Ohmstede Ltd	Shell and Tube	Selexol Solvent chiller	Reduced Size	Farmland Industries	USA	Coffreyville, KS	Cooling	Selexol solution
3568	Kuwait National	Shell and Tube	Waste Heat Boiler	Improved Duty	KNPC	Kuwait	Shuaiba Refinery	Cooling	Vacuum Residue
3569	Petrocel Temex PTA	Shell and Tube	Oil/Oil	Reduced Fouling	Temex	Mexico	Cosoleacaque	Heating	TA slurry
3570	Exxon Mobil Research &	Air Cooler	Raffinate Product Air Cooler	Reduced Fouling	EXXON	USA	Baytown TX	Cooling	Raffinate product
3764	BP Amoco	Double Pipe	Crystalliser Feed/Effluent Test	Improved Duty	BP Amoco	USA	Texas City	Cooling	Crystalizer xylenes
4173	GEA Spiro-Gills Ltd	Air Cooler	Oil Coolers	Improved Duty	Reliance	India	Jamnaga	Cooling	Oil
4298	Colt Engineering	Air Cooler	LCGO Reflux Cooler	Improved Duty	Imperial Oil	Canada	Naticoke	Cooling	LCGO
4406	Bayer (USA)	Shell and Tube	Amine Superheater	Improved Duty	Bayer	USA	Baytown TX	Heating	Amine
4422	ICI	Shell and Tube	Synetix.Methanol converter.	Improved Duty	BHPP	Australia	Altona	Heating	Shyngas and methanol
4451	Harsco Industrial Air-X-	Air Cooler	Oil Cooler	Improved Duty	Denco	Korea		Cooling	Oil
4625	ABB Lummus Global Inc	Shell and Tube	Crude / Oil Interchanger	Reduced Size	Total Angola	Angola	Dalia FPSO	Cooling	Oil/Water Emulsion
4630	BP Chemicals Ltd	Shell and Tube	Reactor Condenser	Improved Duty	BP	UK	HRTC Hull	Condensing	Acetic acid+N2
4925	Olmi S.p.A	Air Cooler	Lube Oil Coolers - Bhel India	Size reduction	Bhel Hyderabad	Oman	Lekhwaier Production	Cooling	Lube oil
5008	Mayr-Wilhelm GmbH &	Shell and Tube	Gasoil / crude cooler	Reduced Size	Deutsche BP AG	Germany	Lingen	Cooling	Gas oil
5283	Jord International	Shell and Tube	Lean Glycol Cooler	Reduced Size	TOTAL	Congo	Moho Bilondo	Cooling	Glycol
5387	BP America Inc.	Shell and Tube	Texas Tower Type. (Feed Effluent	Improved Duty	Licensor - UOP	Germany	Gelsenkirchen	Boiling	Organic compound from crude
5459	SABIC	Shell and Tube	Cleaning of bundle	Improved Duty	Sabic UK	UK	North Tees	Cooling	Cyclohexane
5685	Hudson Products	Air Cooler	Sulfinol	Reduced Size	Shell	USA	Deer Park	Cooling	Sulfinol
5832	Conoco Phillips	Air Cooler	Residue cooler	Reduced Size	Conoco Phillips	Ireland	Cork	Cooling	Residue
5991	Ilsung Corporation	Shell and Tube	Crude Processing	Reduced Size	TOTAL	Angola	Pazflor	Heating	Oil
6256	Lukoil VNPZ	Shell and Tube	feed mixture heater	Improved Duty	Lukoil-VNPZ	Russia	Volgograd	Condensing	Reactor effluent
6855	Jord International	Air Cooler	Sales oil cooler	Reduced Size	Occidental	Oman	Mukhaizna	Cooling	Sales oil
7073	JSC Novokuibyshevsk Oils	Air Cooler	Raffinate cooling	Reduced Size	JSC	Russia		Cooling	Oil