



# Reference List

## Heat exchangers



WN	Tank	Client	Year	HP/LP	TEMA Type	Bellow	Item Name	Tube Material		Licensor
8990	07	FLUOR DANIEL - DU PONT DE NEMOURS	1993	HP	U		MECH MIXER SPIN AGENT HEATER	ST 45.8-III		(*)
8990	08	FLUOR DANIEL - DU PONT DE NEMOURS	1993	HP	U		STATIC MIXER SPIN AGENT HEATER	ST 45.8-III		(*)
8990	09	FLUOR DANIEL - DU PONT DE NEMOURS	1993	HP	U		SPINCELL FLUSH HEAT EXCHANGER	ST 45.8-III		(*)
8147	01	AMOCO CHEMICAL BELGIUM NV	1996	HP	BEM	Y	First Feed Heater	SB-338 9		(*)
8147	02	AMOCO CHEMICAL BELGIUM NV	1996	HP	BEM	Y	Second Feed Heater	SB-338 9		(*)
8242	01	JOHN BROWN	1996	LP	NKN	N	First Reactor Condenser	SB-338 2 (Welded)		
8271	04	TECHNIPETROL SpA - AMOCO CHEMICAL BELGIUM	1996	HP	BEM	Y	Stripper Reboiler	SB-338 2 (Welded)		(*)
8271	05	TECHNIPETROL SpA - AMOCO CHEMICAL BELGIUM	1996	HP	BEM	Y	FIRST FEED HEATER / SECOND FEED HEATER	SB-338 Gr.3		(*)
8271	06	TECHNIPETROL SpA - AMOCO CHEMICAL BELGIUM	1996	HP	BEM	Y	FIRST FEED HEATER / SECOND FEED HEATER	SB-338 Gr.3		(*)
8290	04	BASF ANTWERPEN	1997	LP	BEM	Y	Vaillimverdampfer		1,4206	
8290	05	BASF ANTWERPEN	1997	LP	BEM	Y	Kondensator		1,4306	
8290	06	BASF ANTWERPEN	1997	LP	BEM	Y	Vaillimverdampfer		1,4306	
8290	07	BASF ANTWERPEN	1997	LP	BEM	Y	Kondensator		1,4306	
8307	01	AMOCO CHEMICAL BELGIUM NV	1997	HP	BEM	Y	Fifth Feed Preheater	SA-249 TP316L		(*)
8334	01	DOW ENGINEERING COMPANY	1997	LP	NEN	Y	Surface Condenser	SB-338 2 (Welded)		
8352	01	TECHNIP - BEIJING YANSHAN	1997	LP	AEL	N	First Reactor Overhead Condenser	SA-334 GR1		
8352	02	TECHNIP - BEIJING YANSHAN	1997	LP	AEL	N	Second Reactor Overhead Condenser	SA-334 GR1		
8362	01	STORK COMPRIMO BELGIE NV	1997	LP	AEU	N	OVHD Condenser + Reflux Surge Drum	SA-179 (Seamless)		
8366	01	SINOPEC/LUOYANG PETROCHEMICAL COMPLEX	1997	LP	BEU	N	First HP Off-gas Preheater	SB-338 2 (Welded)		Invista/KTS
8366	02	SINOPEC/LUOYANG PETROCHEMICAL COMPLEX	1997	LP	BEM	N	Start-up Heater	SB-338 2 (Welded)		Invista/KTS
8366	03	SINOPEC/LUOYANG PETROCHEMICAL COMPLEX	1997	LP	BEM	Y	Reactor First Condenser	SB-338 2 (Welded)		Invista/KTS
8366	04	SINOPEC/LUOYANG PETROCHEMICAL COMPLEX	1997	LP	BEM	Y	Reactor Second Condenser	SB-338 2 (Welded)		Invista/KTS
8366	05	SINOPEC/LUOYANG PETROCHEMICAL COMPLEX	1997	LP	BEM	N	Reactor Third Condenser	SB-338 2 (Welded)		Invista/KTS
8366	06	SINOPEC/LUOYANG PETROCHEMICAL COMPLEX	1997	LP	BEM	Y	First Crystallizer Condenser	SB-338 2 (Welded)		Invista/KTS
8366	07	SINOPEC/LUOYANG PETROCHEMICAL COMPLEX	1997	LP	BEM	Y	Secondary Oxidation Off-gas Cooler	SB-338 2 (Welded)		Invista/KTS
8366	08	SINOPEC/LUOYANG PETROCHEMICAL COMPLEX	1997	LP	AEL	Y	Stripper - Reboiler	SB-338 2 (Welded)		Invista/KTS
8366	09	SINOPEC/LUOYANG PETROCHEMICAL COMPLEX	1997	LP	DEL	Y	Dehydration Tower Reboiler	SB-338 2 (Welded)		Invista/KTS
8366	10	SINOPEC/LUOYANG PETROCHEMICAL COMPLEX	1997	HP	BEM	N	FIRST FEED HEATER	SB-338 Gr.3 (SEAMLESS)		(*)
8366	11	SINOPEC/LUOYANG PETROCHEMICAL COMPLEX	1997	HP	BEM	N	SECOND FEED HEATER	SB-338 Gr.3 (SEAMLESS)		(*)
8373	01	JOHN BROWN	1997	LP	BEM	Y	Demin Water Heater	SB-338 2 (Welded)		
8453	01	JOHN BROWN	1999	LP	NEN	N	Off-gas Heater	Sanicro 28		
8507	01	FLUOR DANIEL BV	1999	LP	BEM	N	Vent Condenser	1.4571 (Seamless) (DIN17458)		
8507	02	FLUOR DANIEL BV	1999	LP	BEU	N	Reactor Off-gas Condenser	1.4539 (Seamless) 904L		
8507	03	FLUOR DANIEL BV	1999	LP	BEM	N	Reactor Off-gas Condenser	1.4571 (Seamless) (DIN17458)		
8514	01	STORK COMPRIMO BELGIE NV	1999	LP	BEU	N	First Frac. Reboiler	SA-213 TP304L (Seamless)		
8514	02	STORK COMPRIMO BELGIE NV	1999	LP	BEU	N	First Frac. OVHD Cooler	SA-213 TP304L (Seamless)		
8514	03	STORK COMPRIMO BELGIE NV	1999	LP	BEU	N	Second Frac. Reboiler	SA-213 TP304L (Seamless)		
8514	04	STORK COMPRIMO BELGIE NV	1999	LP	BEU	N	Second Frac. OVHD Cooler	SA-213 TP304L (Seamless)		
8518	01	LVM	1999	LP	BEM	N	Exchanger TT	ST 35.8-1		
8518	12	LVM	1999	LP	BEM	N	Exchanger TT	ST 35.8-1		
8521	03	SOLVAY SA	2000	LP	BEM	Y	PVC 2001 Condenser	SA-312 TP316L		
8521	04	SOLVAY SA	2000	LP	BEM	Y	PVC 2001 Condenser	SA-312 TP316L		
8529	01	NATIONAL PETROCHEMICAL COMPANY SHAHID TONGGOIAN	2000	LP	BEM	Y	Start-up Reactor Feed Preheater	SB-338 2 (Welded)		
8529	02	NATIONAL PETROCHEMICAL COMPANY SHAHID TONGGOIAN	2000	LP	BEM	Y	Reactor Off-gas 1st Partial Condenser	SB-338 2 (Welded)		
8529	03	NATIONAL PETROCHEMICAL COMPANY SHAHID TONGGOIAN	2000	LP	BEM	Y	Reactor Off-gas 1st Partial Condenser	SB-338 2 (Welded)		
8529	04	NATIONAL PETROCHEMICAL COMPANY SHAHID TONGGOIAN	2000	LP	BEM	Y	Reactor Off-gas 2nd Partial Condenser	SB-338 2 (Welded)		
8529	05	NATIONAL PETROCHEMICAL COMPANY SHAHID TONGGOIAN	2000	LP	BEM	Y	Reactor Off-gas 2nd Partial Condenser	SB-338 2 (Welded)		
8529	06	NATIONAL PETROCHEMICAL COMPANY SHAHID TONGGOIAN	2000	LP	BEM	Y	Reactor Off-gas Post Condenser	SB-338 2 (Welded)		
8529	07	NATIONAL PETROCHEMICAL COMPANY SHAHID TONGGOIAN	2000	LP	BEM	Y	Reactor Off-gas Post Condenser	SB-338 2 (Welded)		
8529	08	NATIONAL PETROCHEMICAL COMPANY SHAHID TONGGOIAN	2000	LP	BEM	Y	First CTA Crystallizer Condenser	SB-338 2 (Welded)		
8529	09	NATIONAL PETROCHEMICAL COMPANY SHAHID TONGGOIAN	2000	LP	BEM	Y	First CTA Crystallizer Post Condenser	SB-338 2 (Welded)		
8529	10	NATIONAL PETROCHEMICAL COMPANY SHAHID TONGGOIAN	2000	LP	AEL	Y	Stripper Still Pot Reboiler	SB-338 2 (Welded)		
8529	11	NATIONAL PETROCHEMICAL COMPANY SHAHID TONGGOIAN	2000	LP	BEM	Y	Dehydration Tower Reboiler	SB-338 2 (Welded)		
8529	12	NATIONAL PETROCHEMICAL COMPANY SHAHID TONGGOIAN	2000	LP	AEL	Y	Hydrogenation Reaction Feed Preheater	SB-338 3 (Welded)		(*)
8529	13	NATIONAL PETROCHEMICAL COMPANY SHAHID TONGGOIAN	2000	LP	AEL	Y	Hydrogenation Reaction Feed Preheater	SB-338 3 (Welded)		(*)
8532	03	BAYER RUBBER NV	1999	LP	AES	N	Condenser	SA-789 S31803 (Welded)		
8594	01	FORMOSA CHEMICALS & FIBRE CORPORATION	2000	LP	BEM	Y	Oxidator 1st Vent Condenser	SB-338 2 (Welded)		
8594	02	FORMOSA CHEMICALS & FIBRE CORPORATION	2000	LP	BEM	Y	Oxidator 1st Vent Condenser	SB-338 2 (Welded)		
8594	03	FORMOSA CHEMICALS & FIBRE CORPORATION	2000	LP	BEM	Y	Oxidator 2nd Vent Condenser	SB-338 2 (Welded)		
8594	04	FORMOSA CHEMICALS & FIBRE CORPORATION	2000	LP	BEM	Y	Oxidator 2nd Vent Condenser	SB-338 2 (Welded)		
8594	05	FORMOSA CHEMICALS & FIBRE CORPORATION	2000	LP	BEM	Y	TA 1st Crystallizer Condenser	SB-338 2 (Welded)		
8594	06	FORMOSA CHEMICALS & FIBRE CORPORATION	2000	LP	BEM	Y	1st Crystallizer After Condenser	SB-338 2 (Welded)		
8594	07	FORMOSA CHEMICALS & FIBRE CORPORATION	2000	LP	AEL	Y	Stripper Reboiler	SB-338 2 (Welded)		
8594	08	FORMOSA CHEMICALS & FIBRE CORPORATION	2000	HP	AEL	Y	SLURRY PREHEATER A	SB-789 UNS S31803		(*)
8594	09	FORMOSA CHEMICALS & FIBRE CORPORATION	2000	HP	AEL	Y	SLURRY PREHEATER B	SB-789 UNS S31803		(*)
8594	10	FORMOSA CHEMICALS & FIBRE CORPORATION	2000	HP	AEL	Y	SLURRY PREHEATER C	SB-338 Gr.3 (SEAMLESS)		(*)
8594	11	FORMOSA CHEMICALS & FIBRE CORPORATION	2000	HP	AEL	Y	SLURRY PREHEATER D	SB-338 Gr.3 (SEAMLESS)		(*)
8594	12	FORMOSA CHEMICALS & FIBRE CORPORATION	2000	HP	AEL	Y	SLURRY PREHEATER	SB-338 Gr.3 (SEAMLESS)		(*)
8594	13	FORMOSA CHEMICALS & FIBRE CORPORATION	2000	HP	AEL	Y	SLURRY PREHEATER	SB-338 Gr.3 (SEAMLESS)		(*)
8594	14	FORMOSA CHEMICALS & FIBRE CORPORATION	2000	HP	AEL	Y	SLURRY PREHEATER E	SB-338 Gr.3 (SEAMLESS)		(*)
8594	15	FORMOSA CHEMICALS & FIBRE CORPORATION	2000	HP	AEL	Y	SLURRY PREHEATER F	SB-338 Gr.3 (SEAMLESS)		(*)
8594	16	FORMOSA CHEMICALS & FIBRE CORPORATION	2000	HP	AEL	Y	SLURRY PREHEATER G	SB-338 Gr.3 (SEAMLESS)		(*)
8594	17	FORMOSA CHEMICALS & FIBRE CORPORATION	2000	HP	AEL	Y	SLURRY PREHEATER H	SB-338 Gr.3 (SEAMLESS)		(*)
8594	18	FORMOSA CHEMICALS & FIBRE CORPORATION	2000	HP	AEL	Y	SLURRY PREHEATER I	SB-338 Gr.3 (SEAMLESS)		(*)
8615	01	BP AMOCO CHEMICALS BELGIUM	2000	HP	BEM	Y	Bundle for Fourth Feed Preheater	SB-674 S08925 (Seamless)		(*)
8633	01	BP AMOCO CHEMICALS BELGIUM	2000	LP	BEM	Y	Reboiler	SB-338 2 (Welded)		
8633	03	BP AMOCO CHEMICALS BELGIUM	2000	LP	BEM	Y	Exchanger	SB-338 2 (Welded)		
8648	01	BP AMOCO CHEMICALS BELGIUM	2000	LP	BEM	Y	Start-up Heater	SB-338 2 (Welded)		
8662	01	NATIONAL PETROCHEMICAL COMPANY BOUALI SINA	2001	LP	AES	N	First Stage Feed / Effluent Exchanger	SA-179 (Seamless)		
8662	02	NATIONAL PETROCHEMICAL COMPANY BOUALI SINA	2001	LP	AES	N	Start-up Heater	SA-179 (Seamless)		
8662	03	NATIONAL PETROCHEMICAL COMPANY BOUALI SINA	2001	LP	BEU	N	Quench Cooler	SA-179 (Seamless)		



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WN	Tank	Client	Year	HP/LP	TEMA Type	Bellow	Item Name	Tube Material		Licensor
8662	04	NATIONAL PETROCHEMICAL COMPANY BOUALI SINA	2001	LP	AES	N	Start-up Heater	SA-179 (Seamless)		
8662	05	NATIONAL PETROCHEMICAL COMPANY BOUALI SINA	2001	LP	AES	N	Start-up Heater	SA-179 (Seamless)		
8662	06	NATIONAL PETROCHEMICAL COMPANY BOUALI SINA	2001	LP	AES	N	Start-up Heater	SA-179 (Seamless)		
8662	07	NATIONAL PETROCHEMICAL COMPANY BOUALI SINA	2001	LP	BEU	N	Second Stage Effluent Cooler	SA-179 (Seamless)		
8662	08	NATIONAL PETROCHEMICAL COMPANY BOUALI SINA	2001	LP	BEU	N	Reactor Feed / Effluent Exchanger	SA-179 (Seamless)		
8662	09	NATIONAL PETROCHEMICAL COMPANY BOUALI SINA	2001	LP	BEU	N	Reactor Feed / Effluent Exchanger	SA-179 (Seamless)		
8662	10	NATIONAL PETROCHEMICAL COMPANY BOUALI SINA	2001	LP	BEU	N	Reactor Effluent Trim Cooler	SA-179 (Seamless)		
8662	11	NATIONAL PETROCHEMICAL COMPANY BOUALI SINA	2001	LP	BEU	N	Reactor Feed / Effluent Exchanger	SA-213 TP321 (Seamless)		
8662	12	NATIONAL PETROCHEMICAL COMPANY BOUALI SINA	2001	LP	BEU	N	Reactor Feed / Effluent Exchanger	SA-179 (Seamless)		
8662	13	NATIONAL PETROCHEMICAL COMPANY BOUALI SINA	2001	LP	BEU	N	Reactor Feed / Effluent Exchanger	SA-179 (Seamless)		
8662	14	NATIONAL PETROCHEMICAL COMPANY BOUALI SINA	2001	LP	BEU	N	CSA Preheater	SA-199 T11 (Seamless)		
8662	15	NATIONAL PETROCHEMICAL COMPANY BOUALI SINA	2001	LP	BEM	Y	Stripper Reboiler	SA-199 T11 (Seamless)		
8662	16	NATIONAL PETROCHEMICAL COMPANY BOUALI SINA	2001	LP	BEU	N	Clay Treater Feed Preheater	SA-179 (Seamless)		
8662	17	NATIONAL PETROCHEMICAL COMPANY BOUALI SINA	2001	LP	BEU	N	Clay Treater Feed Preheater	SA-179 (Seamless)		
8662	18	NATIONAL PETROCHEMICAL COMPANY BOUALI SINA	2001	LP	BEM	Y	C9/C10 Splitter Reboiler	SA-199 T11 (Seamless)		
8662	19	NATIONAL PETROCHEMICAL COMPANY BOUALI SINA	2001	LP	BEM	Y	Reactor Effluent Trim Cooler	SA-179 (Seamless)		
8662	20	NATIONAL PETROCHEMICAL COMPANY BOUALI SINA	2001	LP	BEM	N	Reactor Effluent Trim Cooler	SA-179 (Seamless)		
8662	21	NATIONAL PETROCHEMICAL COMPANY BOUALI SINA	2001	LP	BEU	N	Clay Activation Cooler	SA-179 (Seamless)		
8662	22	NATIONAL PETROCHEMICAL COMPANY BOUALI SINA	2001	LP	BEM	Y	LIR Column Reboiler	SA-179 (Seamless)		
8662	23	NATIONAL PETROCHEMICAL COMPANY BOUALI SINA	2001	LP	BEM	Y	Purification Column Reboiler	SA-179 (Seamless)		
8662	24	NATIONAL PETROCHEMICAL COMPANY BOUALI SINA	2001	LP	BEM	Y	Desorbent Rerun Column Reboiler	SA-179 (Seamless)		
8662	25	NATIONAL PETROCHEMICAL COMPANY BOUALI SINA	2001	LP	BFU	N	Desorbent RTo Storage Cooler	SA-179 (Seamless)		
8712	01	JACOBS ENGINEERING	2001	LP	BEM	Y	Bundle	SB-339 Gr.2 (Welded)		
8740	01	DUPONT	2001	HP	AEL	Y	FEED PREHEATER	SB-339 9 SEAMLESS	(*)	Invista/KTS
8767	01	NATIONAL PETROCHEMICAL COMPANY BOUALI SINA	2002	LP	BEU	N	Para-xylene Product Day Tank Heater	SA-179 (Seamless)		
8767	02	NATIONAL PETROCHEMICAL COMPANY BOUALI SINA	2002	LP	BEU	N	Para-xylene Product Day Tank Heater	SA-179 (Seamless)		
8767	03	NATIONAL PETROCHEMICAL COMPANY BOUALI SINA	2002	LP	BEU	N	Para-xylene Product Day Tank Heater	SA-179 (Seamless)		
8767	04	NATIONAL PETROCHEMICAL COMPANY BOUALI SINA	2002	LP	BEU	N	Fuel Oil Tank Heater	SA-179 (Seamless)		
8767	05	NATIONAL PETROCHEMICAL COMPANY BOUALI SINA	2002	LP	BEU	N	Para-xylene Product Storage Heater	SA-179 (Seamless)		
8767	06	NATIONAL PETROCHEMICAL COMPANY BOUALI SINA	2002	LP	BEU	N	Para-xylene Product Storage Heater	SA-179 (Seamless)		
8767	07	NATIONAL PETROCHEMICAL COMPANY BOUALI SINA	2002	LP	BEU	N	Para-xylene Product Storage Heater	SA-179 (Seamless)		
8767	08	NATIONAL PETROCHEMICAL COMPANY BOUALI SINA	2002	LP	BEU	N	Para-xylene Product Storage Heater	SA-179 (Seamless)		
8767	09	NATIONAL PETROCHEMICAL COMPANY BOUALI SINA	2002	LP	BEU	N	Solvent Make Up Tank Heater	SA-179 (Seamless)		
8767	10	NATIONAL PETROCHEMICAL COMPANY BOUALI SINA	2002	LP	BEU	N	Solvent Inventory Tank Heater	SA-179 (Seamless)		
8767	11	NATIONAL PETROCHEMICAL COMPANY BOUALI SINA	2002	LP	BEU	N	Solvent Regeneration Evaporator	SA-179 (Seamless)		
8795	01	NATIONAL PETROCHEMICAL COMPANY BOUALI SINA	2002	LP	BEU	N	Interstage Trim Cooler	SA-179 (Seamless)		
8820	01	BECHTEL TECHNIIP JV / HATCH GORO NICKEL SA	2003	HP	BET	N	Intermediate High Temp Heat Exchanger	SB-339 29	(*)	
8820	02	BECHTEL TECHNIIP JV / HATCH GORO NICKEL SA	2003	HP	BET	N	Intermediate High Temp Heat Exchanger	SB-339 29	(*)	
8820	03	BECHTEL TECHNIIP JV / HATCH GORO NICKEL SA	2003	HP	BET	N	Intermediate High Temp Heat Exchanger	SB-339 29	(*)	
8820	04	BECHTEL TECHNIIP JV / HATCH GORO NICKEL SA	2003	HP	BET	N	Intermediate High Temp Heat Exchanger	SB-339 29	(*)	
8820	05	BECHTEL TECHNIIP JV / HATCH GORO NICKEL SA	2003	HP	BET	N	Intermediate High Temp Heat Exchanger	SB-339 29	(*)	
8820	06	BECHTEL TECHNIIP JV / HATCH GORO NICKEL SA	2003	HP	BET	N	Intermediate High Temp Heat Exchanger	SB-339 29	(*)	
8820	07	BECHTEL TECHNIIP JV / HATCH GORO NICKEL SA	2003	HP	BET	N	Intermediate High Temp Heat Exchanger	SB-339 29	(*)	
8820	08	BECHTEL TECHNIIP JV / HATCH GORO NICKEL SA	2003	HP	BET	N	Intermediate High Temp Heat Exchanger	SB-339 29	(*)	
8820	09	BECHTEL TECHNIIP JV / HATCH GORO NICKEL SA	2003	HP	BET	N	Intermediate High Temp Heat Exchanger	SB-339 29	(*)	
8820	10	BECHTEL TECHNIIP JV / HATCH GORO NICKEL SA	2003	HP	BET	N	Intermediate High Temp Heat Exchanger	SB-339 29	(*)	
8820	11	BECHTEL TECHNIIP JV / HATCH GORO NICKEL SA	2003	HP	BET	N	Intermediate High Temp Heat Exchanger	SB-339 29	(*)	
8820	12	BECHTEL TECHNIIP JV / HATCH GORO NICKEL SA	2003	HP	BET	N	Intermediate High Temp Heat Exchanger	SB-339 29	(*)	
8820	13	BECHTEL TECHNIIP JV / HATCH GORO NICKEL SA	2003	HP	BET	N	Intermediate High Temp Heat Exchanger	SB-339 29	(*)	
8820	14	BECHTEL TECHNIIP JV / HATCH GORO NICKEL SA	2003	HP	BET	N	Intermediate High Temp Heat Exchanger	SB-339 29	(*)	
8820	15	BECHTEL TECHNIIP JV / HATCH GORO NICKEL SA	2003	HP	BET	N	Intermediate High Temp Heat Exchanger	SB-339 29	(*)	
8820	16	BECHTEL TECHNIIP JV / HATCH GORO NICKEL SA	2003	HP	BET	N	Intermediate High Temp Heat Exchanger	SB-339 29	(*)	
8820	17	BECHTEL TECHNIIP JV / HATCH GORO NICKEL SA	2003	HP	BET	N	Intermediate High Temp Heat Exchanger	SB-339 29	(*)	
8820	18	BECHTEL TECHNIIP JV / HATCH GORO NICKEL SA	2003	HP	BET	N	Intermediate High Temp Heat Exchanger	SB-339 29	(*)	
8820	19	BECHTEL TECHNIIP JV / HATCH GORO NICKEL SA	2003	HP	BET	N	Intermediate High Temp Heat Exchanger	SB-339 29	(*)	
8888	01	NATIONAL PETROCHEMICAL COMPANY BOUALI SINA	2003	LP	BEU	N	Ortho Xylene Column Reboiler	SA-179 (Seamless)		
8899	01	LARSEN & TOUBRO LIM Indian Oil PTA	2004	LP	NKN	N	First Reactor Condenser	SB-339 2 (Welded)		Invista/KTS
8899	02	LARSEN & TOUBRO LIM Indian Oil PTA	2004	LP	NKN	N	First Reactor Condenser	SB-339 2 (Welded)		Invista/KTS
8899	03	LARSEN & TOUBRO LIM Indian Oil PTA	2004	LP	NKN	N	Second Reactor Condenser	SB-339 2 (Welded)		Invista/KTS
8899	04	LARSEN & TOUBRO LIM Indian Oil PTA	2004	LP	NKN	N	Second Reactor Condenser	SB-339 2 (Welded)		Invista/KTS
8900	01	AK PROCESS	2003	LP	NKN	N	Reactor Condenser	SB-339 2 (Welded)		Invista/KTS
8900	02	AK PROCESS	2003	LP	NKN	N	Reactor Condenser	SB-339 2 (Welded)		Invista/KTS
8900	03	AK PROCESS	2003	HP	AEL	Y	FIRST PREHEATER	N08825 seamless (Alloy)	(*)	Invista/KTS
8900	04	AK PROCESS	2003	HP	AEL	Y	SECOND PREHEATER	SB-339 9 (SEAMLESS)	(*)	Invista/KTS
8900	05	AK PROCESS	2003	HP	AEL	Y	THIRD PREHEATER	SB-339 9 (SEAMLESS)	(*)	Invista/KTS
8914	01	PETROCHEMICAL INDUSTRIES DEVELOPMENT MANAGEMENT COMPANY (PIDMCO)	2004	LP	BEM	Y	DEA Reboiler	SA-213 TP304L		
8914	02	PETROCHEMICAL INDUSTRIES DEVELOPMENT MANAGEMENT COMPANY (PIDMCO)	2004	LP	BEM	Y	T-1802 Overhead Condenser	SA-213 TP304L		
8914	03	PETROCHEMICAL INDUSTRIES DEVELOPMENT MANAGEMENT COMPANY (PIDMCO)	2004	LP	BEU	N	CO2 Stripper Reboiler	SA-213 TP304L		
8914	04	PETROCHEMICAL INDUSTRIES DEVELOPMENT MANAGEMENT COMPANY (PIDMCO)	2004	LP	BEM	Y	LTS Effluent / Demi Water Exchanger	SA-213 TP304L		
8914	05	PETROCHEMICAL INDUSTRIES DEVELOPMENT MANAGEMENT COMPANY (PIDMCO)	2004	LP	BEM	Y	Methanator Feed Heater	SA-213 T11		
8914	06	PETROCHEMICAL INDUSTRIES DEVELOPMENT MANAGEMENT COMPANY (PIDMCO)	2004	LP	BEM	Y	Cold Methanator Feed Heater	SA-179 (Seamless)		
8914	07	PETROCHEMICAL INDUSTRIES DEVELOPMENT MANAGEMENT COMPANY (PIDMCO)	2004	LP	AEL	N	Refrigerant Condenser	SB-339 2 (Welded)		
8914	08	PETROCHEMICAL INDUSTRIES DEVELOPMENT MANAGEMENT COMPANY (PIDMCO)	2004	LP	AEL	N	Refrigerant Condenser	SB-339 2 (Welded)		
8916	01	PETROCHEMICAL INDUSTRIES DEVELOPMENT MANAGEMENT COMPANY (PIDMCO)	2004	HP	AEU	N	BFW Preheater	SA-213 T11	(*)	
8916	02	PETROCHEMICAL INDUSTRIES DEVELOPMENT MANAGEMENT COMPANY (PIDMCO)	2004	HP	AEU	N	LTS Effluent / HHP BFW Heater	SA-213 TP304L	(*)	
8916	03	PETROCHEMICAL INDUSTRIES DEVELOPMENT MANAGEMENT COMPANY (PIDMCO)	2004	HP	BEM	N	Syngas Compressor Kick Back Water Cooler	SA-210 C	(*)	
8916	04	PETROCHEMICAL INDUSTRIES DEVELOPMENT MANAGEMENT COMPANY (PIDMCO)	2004	HP	BEU*	N	Ammonia Converter Effluent / HHP Cold BFW Heater	SA-213 T11	(*)	
8916	05	PETROCHEMICAL INDUSTRIES DEVELOPMENT MANAGEMENT COMPANY (PIDMCO)	2004	HP	BEM	N	Ammonia Converter Effluent Water Cooler	SA-210 C	(*)	
8916	06	PETROCHEMICAL INDUSTRIES DEVELOPMENT MANAGEMENT COMPANY (PIDMCO)	2004	HP	NEN*	N	Ammonia Loop Cold Gas / Gas Exchanger	SA-210 C	(*)	
8916	07	PETROCHEMICAL INDUSTRIES DEVELOPMENT MANAGEMENT COMPANY (PIDMCO)	2004	HP	NIKU	N	First Ammonia Refrigerant	SA-210 C	(*)	
8916	08	PETROCHEMICAL INDUSTRIES DEVELOPMENT MANAGEMENT COMPANY (PIDMCO)	2004	HP	NIKU	N	Second Ammonia Refrigerant	SA-210 C	(*)	
8916	09	PETROCHEMICAL INDUSTRIES DEVELOPMENT MANAGEMENT COMPANY (PIDMCO)	2004	HP	NEU	N	HRU Feed Gas Cooler	SA-179 (Seamless)	(*)	
8916	10	PETROCHEMICAL INDUSTRIES DEVELOPMENT MANAGEMENT COMPANY (PIDMCO)	2004	HP	NEN	N	Ammonia Stripper Feed / Effluent Exchanger	SA-179 (Seamless)	(*)	
8916	11	PETROCHEMICAL INDUSTRIES DEVELOPMENT MANAGEMENT COMPANY (PIDMCO)	2004	HP	BEM	N	NH3 Stripper Effluent Cooler	SA-210 C	(*)	
8948	01	BP CHEMBEL NV GEEL	2004	LP	BEM	Y	Oxidation Reactor Start-up Heater	SB-338 2 (Welded)		
8948	02	BP CHEMBEL NV GEEL	2004	LP	AEL	Y	HP Vent Gas Preheater	SB-338 2 (Welded)		
8949	01	TECHNIP FRANCE	2004	LP	BEM	N	Seal Oil Cooler	SA-789 S31803 (Seamless)		
8949	02	TECHNIP FRANCE	2004	LP	BEM	N	Seal Oil Cooler	SA-789 S31803 (Seamless)		
8949	03	TECHNIP FRANCE	2004	LP	BEM	N	Seal Oil Cooler	SA-789 S31803 (Seamless)		
8949	04	TECHNIP FRANCE	2004	LP	BEM	N	Seal Oil Cooler	SA-789 S31803 (Seamless)		
8955	01	FORMOSA CHEMICALS INDUSTRIES - (NINGBO) LIMITED COMPANY	2004	LP	AEL	N	Stripper Reboiler	SB-338 2 (Welded)		



# Reference List

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WN	Tank	Client	Year	HP/LP	TEMA Type	Bellow	Item Name	Tube Material		Licensor
8955	02	FORMOSA CHEMICALS INDUSTRIES - (NINGBO) LIMITED COMPANY	2004	HP	AEL	Y	PHTHALIC ACID CRYSTALLS + H2O	SB-338 GR3 (S)	(*)	
8955	03	FORMOSA CHEMICALS INDUSTRIES - (NINGBO) LIMITED COMPANY	2004	HP	AEL	Y	PHTHALIC ACID CRYSTALLS + H2O	SB-338 GR3 (S)	(*)	
8955	04	FORMOSA CHEMICALS INDUSTRIES - (NINGBO) LIMITED COMPANY	2004	HP	AEL	Y	PHTHALIC ACID CRYSTALLS + H2O	SB-338 GR3 (S)	(*)	
8955	05	FORMOSA CHEMICALS INDUSTRIES - (NINGBO) LIMITED COMPANY	2004	HP	AEL	Y	PHTHALIC ACID CRYSTALLS + H2O	SB-338 GR3 (S)	(*)	
8955	06	FORMOSA CHEMICALS INDUSTRIES - (NINGBO) LIMITED COMPANY	2004	HP	AEL	Y	PHTHALIC ACID CRYSTALLS + H2O	SB-338 GR3 (S)	(*)	
8955	07	FORMOSA CHEMICALS INDUSTRIES - (NINGBO) LIMITED COMPANY	2004	HP	AEL	Y	PHTHALIC ACID CRYSTALLS + H2O	SB-338 GR3 (S)	(*)	
8955	08	FORMOSA CHEMICALS INDUSTRIES - (NINGBO) LIMITED COMPANY	2004	HP	AEL	Y	PHTHALIC ACID CRYSTALLS + H2O	SB-338 GR3 (S)	(*)	
8955	09	FORMOSA CHEMICALS INDUSTRIES - (NINGBO) LIMITED COMPANY	2004	HP	AEL	Y	PHTHALIC ACID CRYSTALLS + H2O	SA-789 UNS S31803 (S)		
8955	10	FORMOSA CHEMICALS INDUSTRIES - (NINGBO) LIMITED COMPANY	2004	HP	AEL	Y	PHTHALIC ACID CRYSTALLS + H2O	SA-789 UNS S31803 (S)		
8968	01	AK PROCESS	2004	LP	NKN	N	First Reactor Condenser	SB-338 2 (Welded)		Invista/KTS
8968	02	AK PROCESS	2004	LP	NKN	N	First Reactor Condenser	SB-338 2 (Welded)		Invista/KTS
8968	03	AK PROCESS	2004	LP	NKN	N	Second Reactor Condenser	SB-338 2 (Welded)		Invista/KTS
8968	04	AK PROCESS	2004	LP	NKN	N	Second Reactor Condenser	SB-338 2 (Welded)		Invista/KTS
8969	01	AK PROCESS - HUALIAN SUNSHINE PTA phase II - Line 1	2005	HP	AEL	Y	THIRD PREHEATER	SB-338 2 (SEAMLESS)	(*)	Invista/KTS
8969	03	AK PROCESS - HUALIAN SUNSHINE PTA phase II - Line 1	2005	HP	AEL	Y	FOURTH PREHEATER	SB-338 2 (SEAMLESS)	(*)	Invista/KTS
8969	02	AK PROCESS - HUALIAN SUNSHINE PTA phase II - Line 1	2004	HP	AEL	Y	THIRD PREHEATER	SB-338 2 (SEAMLESS)	(*)	Invista/KTS
8969	04	AK PROCESS - HUALIAN SUNSHINE PTA phase II - Line 1	2004	HP	AEL	Y	FOURTH PREHEATER	SB-338 2 (SEAMLESS)	(*)	Invista/KTS
8970	01	AK PROCESS	2004	LP	AEL	Y	CTA Dryer Gas Heater	SA-213 TP316L		
8970	02	AK PROCESS	2004	LP	AEL	Y	CTA Dryer Gas Heater	SA-213 TP316L		
8985	01	FORMOSA CHEMICALS INDUSTRIES (NINGBO) LIMITED COMPANY	2004	HP	NEN	Y	Heater	N08825 seamless (Aloy)	(*)	
8985	02	FORMOSA CHEMICALS INDUSTRIES (NINGBO) LIMITED COMPANY	2004	HP	NEN	Y	Heater	N08825 seamless (Aloy)	(*)	
8985	03	FORMOSA CHEMICALS INDUSTRIES (NINGBO) LIMITED COMPANY	2004	LP	NEN	Y	Heater	N08825 seamless (Aloy)		
8985	04	FORMOSA CHEMICALS INDUSTRIES (NINGBO) LIMITED COMPANY	2004	LP	NEN	Y	Heater	N08825 seamless (Aloy)		
8984	01	AK PROCESS	2005	LP	NKN	N	First Reactor Condenser	SB-338 2 (Welded)		Invista/KTS
8984	02	AK PROCESS	2005	LP	NKN	N	Second Reactor Condenser	SB-338 2 (Welded)		Invista/KTS
9002	01	AK PROCESS	2004	LP	AEL	Y	First Combustor Preheater	SB-626 N10276 (Welded)	(*)	Invista/KTS
9002	02	AK PROCESS	2004	LP	AEL	Y	First Combustor Preheater	SB-626 N10276 (Welded)	(*)	Invista/KTS
9004	01	AK PROCESS	2005	LP	NKN	N	First Reactor Condenser Cooler	SB-338 2 (Welded)		Invista/KTS
9004	02	AK PROCESS	2005	LP	BKM	N	First CTA Crystalliser Condenser	SB-338 2 (Welded)		Invista/KTS
9004	03	AK PROCESS	2005	LP	BEU	N	First CTA Crystalliser Vent Condenser	SB-338 2 (Welded)		Invista/KTS
9004	04	AK PROCESS	2005	LP	NEN	Y	Demin Water Heater	SB-338 2 (Welded)		Invista/KTS
9012	01	FOSTER WHEELER LIAOYANG PETR COMP OF PETROCHINA COMP LTD	2005	LP	AEL	Y	First Combustor Preheater	SB-622 N10276 (Seamless)		Invista/KTS
9015	01	RELIANCE INDUSTRIES LTD. - AK PROCESS	2004	HP	AEL	Y	THIRD PREHEATER	SB-338 2 (SEAMLESS)	(*)	Invista/KTS
9015	02	RELIANCE INDUSTRIES LTD. - AK PROCESS	2004	HP	AEL	Y	FOURTH PREHEATER	SB-338 2 (SEAMLESS)	(*)	Invista/KTS
9016	01	RELIANCE INDUSTRIES LTD. - AK PROCESS	2004	LP	AEL	Y	Start-up Heater	SB-338 2 (SEAMLESS)		Invista/KTS
9019	01	FOSTER WHEELER - LIAOYANG PETROCHEMICAL COMPANY	2004	HP	AEL	Y	SECOND PREHEATER	SB-677 N08904 (2RKG5 SEAMLESS)	(*)	Invista/KTS
9019	02	FOSTER WHEELER - LIAOYANG PETROCHEMICAL COMPANY	2004	HP	AEL	Y	THIRD PREHEATER	SB-338 9 (SEAMLESS)	(*)	Invista/KTS
9019	03	FOSTER WHEELER - LIAOYANG PETROCHEMICAL COMPANY	2004	HP	AEL	Y	THIRD PREHEATER	SB-338 9 (SEAMLESS)	(*)	Invista/KTS
9040	01	FORMOSA CHEMICALS & FIBRE CORPORATION	2005	HP	AEL	Y	PHTHALIC ACID CRYSTALLS + H2O	SB-338 GR3 (S)	(*)	
9040	02	FORMOSA CHEMICALS & FIBRE CORPORATION	2005	HP	AEL	Y	PHTHALIC ACID CRYSTALLS + H2O	SB-338 GR3 (S)	(*)	
9040	03	FORMOSA CHEMICALS & FIBRE CORPORATION	2005	HP	AEL	Y	PHTHALIC ACID CRYSTALLS + H2O	SB-338 GR3 (S)	(*)	
9040	04	FORMOSA CHEMICALS & FIBRE CORPORATION	2005	HP	AEL	Y	PHTHALIC ACID CRYSTALLS + H2O	SB-338 GR3 (S)	(*)	
9040	05	FORMOSA CHEMICALS & FIBRE CORPORATION	2005	HP	AEL	Y	PHTHALIC ACID CRYSTALLS + H2O	SB-338 GR3 (S)	(*)	
9040	06	FORMOSA CHEMICALS & FIBRE CORPORATION	2005	HP	AEL	Y	PHTHALIC ACID CRYSTALLS + H2O	SA-789 UNS S31803 (S)	(*)	
9040	07	FORMOSA CHEMICALS & FIBRE CORPORATION	2005	HP	AEL	Y	PHTHALIC ACID CRYSTALLS + H2O	SA-789 UNS S31803 (S)	(*)	
9040	08	FORMOSA CHEMICALS & FIBRE CORPORATION	2005	HP	AEL	Y	PHTHALIC ACID CRYSTALLS + H2O	SA-789 UNS S31803 (S)	(*)	
9040	09	FORMOSA CHEMICALS & FIBRE CORPORATION	2005	HP	AEL	Y	PHTHALIC ACID CRYSTALLS + H2O	SA-789 UNS S31803 (S)	(*)	
9040	10	FORMOSA CHEMICALS & FIBRE CORPORATION	2005	LP	AEL	N	Stripper Reboiler	SB-338 GR2 (Welded)		Invista/KTS
9093	01	LIAOYANG PETROCHEMICAL COMPANY	2005	HP	AEL	Y	THIRD PREHEATER	SB-338 9 (SEAMLESS)	(*)	Invista/KTS
9106	01	Pakistan PTA Ltd	2006	LP	BEM	Y	First New Vent Condenser & New Separating Drum	SB-338 GR2 (Welded)		Invista/KTS
9110	01	PETROCHINA LIAOYANG PETROCHEMICAL COMPANY	2006	LP	BES	N	EO REACTOR FEED PRODUCT EXCHANGER	SA-213 TP304 (SEAMLESS)		
9119	01	FOSTER WHEELER ENERGY LIMITED - LUCITE INTERNATIONAL	2007	LP	BEM	Y	Flash Column Reboiler	SB-338 GR2 (Welded)		Invista/KTS
9119	02	FOSTER WHEELER ENERGY LIMITED - LUCITE INTERNATIONAL	2007	LP	BEU	Y	MeP Reactor Cooler	SB-338 GR2 (Welded)		Invista/KTS
9137	06	NATIONAL PETROCHEMICAL COMPANY (PIDMCO)	2012	LP	NEM	Y	Falling Film Heat Exchanger	SA-213 TP304 (SEAMLESS)		
9137	05	NATIONAL PETROCHEMICAL COMPANY (PIDMCO)	2011	LP	NEM	Y	Falling Film Heat Exchanger	SA-213 TP304 (SEAMLESS)		
9137	04	NATIONAL PETROCHEMICAL COMPANY (PIDMCO)	2010	LP	NEM	Y	Falling Film Heat Exchanger	SA-213 TP304 (SEAMLESS)		
9137	03	NATIONAL PETROCHEMICAL COMPANY (PIDMCO)	2009	LP	NEM	Y	Falling Film Heat Exchanger	SA-213 TP304 (SEAMLESS)		
9137	02	NATIONAL PETROCHEMICAL COMPANY (PIDMCO)	2008	LP	NEM	Y	Falling Film Heat Exchanger	SA-213 TP304 (SEAMLESS)		
9137	01	NATIONAL PETROCHEMICAL COMPANY (PIDMCO)	2007	LP	NEM	Y	Falling Film Heat Exchanger	SA-213 TP304 (SEAMLESS)		
9170	01	LVM Belgium	2006	HP			Heater	N08825		
9173	01	SHISHI JIA LONG - PETROCHEMICAL FIBER Co., Ltd.	2007	HP	AEL	Y	THIRD PREHEATER	SB-338 9 (SEAMLESS)	(*)	Invista/KTS
9173	02	SHISHI JIA LONG - PETROCHEMICAL FIBER Co., Ltd.	2007	HP	AEL	Y	FOURTH PREHEATER	SB-338 9 (SEAMLESS)	(*)	Invista/KTS
9182	01	Pakistan PTA Ltd	2007	HP	AEL	Y	NEW THIRD PREHEATER	SB-338 9 (SEAMLESS)	(*)	Invista/KTS
9501	01	ARTENIUS PORTUGAL - AKER KVAERNER	2007	LP	NKN	N	First Reactor Condenser	SB-338 GR2 (Welded)		Invista/KTS
9501	02	ARTENIUS PORTUGAL - AKER KVAERNER	2007	LP	NKN	N	Second Reactor Condenser	SB-338 GR2 (Welded)		Invista/KTS
9501	03	ARTENIUS PORTUGAL - AKER KVAERNER	2007	LP	NKN	N	First Reactor Condenser Cooler	SB-338 GR2 (Welded)		Invista/KTS
9518	01	PAKISTAN PTA Ltd	2007	LP	BEM	Y	New Second Vent Condenser	SB-338 GR2 (Welded)		Invista/KTS
9521	01	ARTENIUS PORTUGAL - AKER KVAERNER	2007	HP	AEL	Y	THIRD PREHEATER	SB-338 9 (SEAMLESS)	(*)	Invista/KTS
9521	02	ARTENIUS PORTUGAL - AKER KVAERNER	2007	HP	AEL	Y	FOURTH PREHEATER	SB-338 9 (SEAMLESS)	(*)	Invista/KTS
9527	01	BP CHEMBEL NV GEEL	2008	HP	BEM	Y	Pre-Heater	SB-338 9 (SEAMLESS)	(*)	Invista/KTS
9539	01	HOCEC - AKER KVAERNER JiangYin	2008	HP	AEL	Y	THIRD PREHEATER	SB-338 9 (SEAMLESS)	(*)	Invista/KTS
9539	02	HOCEC - AKER KVAERNER JiangYin	2008	HP	AEL	Y	FOURTH PREHEATER	SB-338 9 (SEAMLESS)	(*)	Invista/KTS
9539	03	HOCEC - AKER KVAERNER	2008	LP	NKN	N	First Reactor Condenser Cooler	SB-338 2 (Welded)		Invista/KTS
9554	01	PETROQUIMICA SUAPE - AKER KVAERNER	2008	LP	AEL	N	Stripper Reboiler	SB-338 GR2 (Welded)		Invista/KTS
9554	02	PETROQUIMICA SUAPE - AKER KVAERNER	2008	LP	NEN	Y	Demin Water Heater	SB-338 GR2 (Welded)		Invista/KTS
9554	03	PETROQUIMICA SUAPE - AKER KVAERNER	2008	LP	BKM	N	First CTA Crystalliser Condenser	SB-338 GR2 (Welded)		Invista/KTS
9554	04	PETROQUIMICA SUAPE - AKER KVAERNER	2008	LP	BEU	N	First CTA Crystalliser Vent Condenser	SB-338 GR2 (Welded)		Invista/KTS
9554	05	PETROQUIMICA SUAPE - AKER KVAERNER	2008	HP	AEL	Y	THIRD PREHEATER	SB-338 9 (SEAMLESS)	(*)	Invista/KTS
9554	06	PETROQUIMICA SUAPE - AKER KVAERNER	2008	HP	AEL	Y	FOURTH PREHEATER	SB-338 9 (SEAMLESS)	(*)	Invista/KTS
9554	07	PETROQUIMICA SUAPE - AKER KVAERNER	2008	LP	AEL	Y	Start-up Heater	SB-338 GR2 (Seamless)		Invista/KTS
9554	08	PETROQUIMICA SUAPE - AKER KVAERNER	2008	HP	AEL	Y	SECOND PREHEATER	N08825 seamless	(*)	Invista/KTS
9561	01	CHANG CHUN PETROCHEMICAL CO.,LTD	2009	LP	BEM	Y	FEED PREHEATER	SB-622 N10276 (Seamless)		
9561	02	CHANG CHUN PETROCHEMICAL CO.,LTD	2009	LP	NKN	N	Intercooler No'1	SB-622 N10276 (Seamless)		
9561	03	CHANG CHUN PETROCHEMICAL CO.,LTD	2009	LP	NKN	N	Intercooler No'2	SB-622 N10276 (Seamless)		
9561	04	CHANG CHUN PETROCHEMICAL CO.,LTD	2009	LP	BEM	Y	Evaporator	SB-626 N10276 (Welded)		
9561	05	CHANG CHUN PETROCHEMICAL CO.,LTD	2009	LP	BEM	Y	Evaporator	SB-626 N10276 (Welded)		
9561	06	CHANG CHUN PETROCHEMICAL CO.,LTD	2009	LP	BEM	N	Flash Column Partial Condenser	SB-626 N10276 (Welded)		
9561	07	CHANG CHUN PETROCHEMICAL CO.,LTD	2009	LP	AEM	Y	Low Boiler Column Reboiler	SB-523 R6702 (Seamless)		
9561	08	CHANG CHUN PETROCHEMICAL CO.,LTD	2009	LP	BEM	N	Low Boiler Column Condenser	SB-626 N10276 (Welded)		
9561	09	CHANG CHUN PETROCHEMICAL CO.,LTD	2009	LP	BEM	Y	Blow Down Tank Vent Condenser	SA-213 316L Low Firmed		
9561	10	CHANG CHUN PETROCHEMICAL CO.,LTD	2009	LP	BEM	Y	Volatiles Stripper Reboiler	SB-523 R6702 (Seamless)		
9632	01	PETROQUIMICA SUAPE - AKER KVAERNER	2008	LP	AEL	Y	First Combustor Preheater	SB-626 N10276 (Welded)		Invista/KTS



# Reference List

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WN	Tank	Client	Year	HP/LP	TEMA Type	Bellow	Item Name	Tube Material	Licensor
9632	02	PETROQUIMICA SUAPE - AKER KVAERNER	2008	HP	AEL	Y	SECOND COMBUSTOR PREHEATER	SA-213 TP316/316L (SEAMLESS PIPE)	(*) Invista/KTS
9632	03	PETROQUIMICA SUAPE - AKER KVAERNER	2008	HP	AEL	Y	FIRST PREHEATER	SA-213 TP304/304L (SEAMLESS)	(*) Invista/KTS
9582	01	CHANG CHUN PETROCHEMICAL CO.,LTD	2009				T-311	AL6XN (welded with N06625)	
9822	01	CTIEI Shaoxing Yandong Petrochemicals	2011	HP	AEL	Y	Preheaters E-04	SB-338 9 (SEAMLESS)	(*)
9822	02	CTIEI Shaoxing Yandong Petrochemicals	2011	HP	AEL	Y	Preheaters E-05	SB-338 9 (SEAMLESS)	(*)
9860	1	Hengji line 1 and 2	2011	HP	AEL	Y	E-1222	2RK65	(*) Invista/KTS
9860	2	Hengji line 1 and 2	2011	HP	AEL	Y	E-1223	2RK65	(*) Invista/KTS
9860	3	Hengji line 1 and 2	2011	HP	AEL	Y	E-1224	SB-338 9 (SEAMLESS)	(*) Invista/KTS
9860	4	Hengji line 1 and 2	2011	HP	AEL	Y	E-1225	SB-338 9 (SEAMLESS)	(*) Invista/KTS
9873	1	Jiaoxing Petrochemicals Co LTD	2011	HP	AEL	Y	E-1222	2RK65	(*) Invista/KTS
9873	2	Jiaoxing Petrochemicals Co LTD	2011	HP	AEL	Y	E-1223	2RK65	(*) Invista/KTS
9873	3	Jiaoxing Petrochemicals Co LTD	2011	HP	AEL	Y	E-1224	SB-338 9 (SEAMLESS)	(*) Invista/KTS
9873	4	Jiaoxing Petrochemicals Co LTD	2011	HP	AEL	Y	E-1225	SB-338 9 (SEAMLESS)	(*) Invista/KTS
9888	1	Hainan Yisheng Petrochemicals	2011	HP	AEL	Y	E-512 preheater	S31803 (SEAMLESS)	(*)
9888	2	Hainan Yisheng Petrochemicals	2011	HP	AEL	Y	E-513 preheater	S31803 (SEAMLESS)	(*)
9888	3	Hainan Yisheng Petrochemicals	2011	HP	AEL	Y	E-514 preheater	S31803 (SEAMLESS)	(*)
9888	4	Hainan Yisheng Petrochemicals	2011	HP	AEL	Y	E-515 preheater	SB-338 9 (SEAMLESS)	(*)
9888	5	Hainan Yisheng Petrochemicals	2011	HP	AEL	Y	E-516 preheater	SB-338 9 (SEAMLESS)	(*)
9960	1	Reliance PTA 5 and PTA6	2011	HP	AEL	Y	E-1222	2RK65	(*) Invista/KTS
9960	2	Reliance PTA 5 and PTA6	2011	HP	AEL	Y	E-1223	2RK65	(*) Invista/KTS
9960	3	Reliance PTA 5 and PTA6	2011	HP	AEL	Y	E-1224	SB-338 9 (SEAMLESS)	(*) Invista/KTS
9960	4	Reliance PTA 5 and PTA6	2011	HP	AEL	Y	E-1225	SB-338 9 (SEAMLESS)	(*) Invista/KTS
10009	1	Hong Gang	2011	HP	AEL	Y	E-05	SB-338 9 (SEAMLESS)	(*)
10009	2	Hong Gang	2011	HP	AEL	Y	E-06	SB-338 9 (SEAMLESS)	(*)
10150	1	OPC Sichuan project	2012	HP	AEL	Y	E-1222	2RK65	(*) Invista/KTS
10150	2	OPC Sichuan project	2012	HP	AEL	Y	E-1223	2RK65	(*) Invista/KTS
10150	3	OPC Sichuan project	2012	HP	AEL	Y	E-1224	SB-338 9 (SEAMLESS)	(*) Invista/KTS
10150	4	OPC Sichuan project	2012	HP	AEL	Y	E-1225	SB-338 9 (SEAMLESS)	(*) Invista/KTS
10157	1	Hengji line 3	2012	HP	AEL	Y	E-1222	2RK65	(*) Invista/KTS
10157	2	Hengji line 3	2012	HP	AEL	Y	E-1223	2RK65	(*) Invista/KTS
10157	3	Hengji line 3	2012	HP	AEL	Y	E-1224	SB-338 9 (SEAMLESS)	(*) Invista/KTS
10157	4	Hengji line 3	2012	HP	AEL	Y	E-1225	SB-338 9 (SEAMLESS)	(*) Invista/KTS
10201	1	Yihua Far Eastern Petrochemicals (Yihua) FEYH	2013	HP	AEL	Y	E-1222	2RK65	(*) Invista/KTS
10201	2	Yihua Far Eastern Petrochemicals (Yihua) FEYH	2013	HP	AEL	Y	E-1223	2RK65	(*) Invista/KTS
10201	3	Yihua Far Eastern Petrochemicals (Yihua) FEYH	2013	HP	AEL	Y	E-1224	SB-338 9 (SEAMLESS)	(*) Invista/KTS
10201	4	Yihua Far Eastern Petrochemicals (Yihua) FEYH	2013	HP	AEL	Y	E-1225	SB-338 9 (SEAMLESS)	(*) Invista/KTS
10338	1	China Prosperity	2014	HP	AEL	Y	E-1224	SB-338 9 (SEAMLESS)	(*) Invista/KTS
10338	2	China Prosperity	2014	HP	AEL	Y	E-1225	SB-338 9 (SEAMLESS)	(*) Invista/KTS
10367	2	US cooper River bp PTA project	2015	HP	AEL	Y	E506A	SB-338 9 (SEAMLESS)	(*)
10496	1	Formosa Taiwan	2015	HP	AEL	Y	E-53502B	Inc 625	(*)
10536	1	China Tongkun Jiaxing PTA	2016	HP	AEL	Y	E-1222	2RK65	(*) Invista/KTS
10536	2	China Tongkun Jiaxing PTA	2016	HP	AEL	Y	E-1223	2RK65	(*) Invista/KTS
10536	3	China Tongkun Jiaxing PTA	2016	HP	AEL	Y	E-1224	SB-338 9 (SEAMLESS)	(*) Invista/KTS
10536	4	China Tongkun Jiaxing PTA	2016	HP	AEL	Y	E-1225	SB-338 9 (SEAMLESS)	(*) Invista/KTS
10604	1	bp PTA plant Geel Belgium	2016	LP	AEL	Y	E-506A	SB-338 12 (SEAMLESS)	
10604	1	bp PTA plant Geel Belgium	2016	LP	AEL	Y	E-506B	SB-338 12 (SEAMLESS)	
10671	7	falling film heat exchangers MEG	2016	LP	AEL	Y		SS 304	
10809	3	PTA preheaters Xinjiang Zhongtai Kunyu New materials	2017	HP	AEL	Y	E-04, E05 and E-06	SB-338 9 (SEAMLESS) / 2RK 65	(*)
10869	7	PIA preheaters Formosa Ningbo	2018	HP	AEL	Y		SB-338 12/ Ti GR3 /S32750	(*)
10870	1	PTA preheaters Xinjiang Zhongtai Kunyu New materials	2018	HP	AEL	Y	E-08	SB-338 9 (SEAMLESS)	(*)
10954	4	PTA Hengji line 4 Dalian	2018	HP	AEL	Y	E-1222 E -1223, E-1224, E-1225	SB-338 9 (SEAMLESS) / 2RK 65	(*) Invista/KTS
10911	1	bp PTA plant Dushan China	2018	HP	AEL	Y	ICE-440	SB-338 9 (SEAMLESS)	(*)
11001	5	PTA Hengji line 5 Dalian	2018	HP	AEL	Y	E-1222 E -1223, E-1224, E-1225	SB-338 9 (SEAMLESS) / 2RK 65	(*) Invista/KTS
10967	1	PTA heater Formosa Plastics Taiwan	2018	HP	AEL	Y	E-05350A	Alloy 625	(*)
11003	3	PTA preheaters Formosa Ningbo	2018	HP	AEL	Y	E-3515 / E-3265A/B	Alloy 625, Alloy 276, Ti SB-338-2	(*)
10903	10	Yisheng New materials	2018	HP	AEL	Y	E-512,513,514,515,516 1/2	SB-228 2 and 3 / S32750	(*)
11034	4	Preheaters Fusian Billion Petrochemicals Co. Ltd	2018	HP	AEL	Y	E-1222 E -1223, E-1224, E-1225	SB-338 9 (SEAMLESS) / 2RK 65	(*) Invista/KTS
11041	10	Yisheng New materials	2018	HP	AEL	Y	E-512,513,514,515,516 1/2	SB-228 2 and 3 / S32750	(*)
11047	4	Preheaters honggang PTA	2018	HP	AEL	Y	E-1222 E -1223, E-1224, E-1225	SB-338 9 (SEAMLESS) / 2RK 65	(*) Invista/KTS
11050	1	bp PTA plant Dushan China	2018	HP	AEL	Y	TCE-440	SB-338 9 (SEAMLESS)	(*)
11179	9	Preheaters PTA6 Formosa	2020	HP	AEL	Y	E-7056A/B, E-7066, E-7076, E-7086A/B, E7096A/BC	SB-338 2 and 12 / S32750	(*)
11228	5	High pressure heaters PTA6 Formosa Ningbo	2020	HP	AEL	Y	E-3266 AA/BB/AB/BA a,d E-3506	Hastelloy C276	(*)
11304	4	Preheaters Tongkun (Jiangsu Jiatong Energy)	2021	HP	AEL	Y	E-1224-1/2, E-1225-1/2	SB-338 9 (SEAMLESS)	(*) Invista/KTS
11351	5	Preheaters Sasa Project Turkey	2021	HP	AEL	Y	E-1221, E-1222, E-1223, E-1224, E-1225	SB-338 9 (SEAMLESS) / 2RK 65	(*) Invista/KTS
11386	4	Preheaters Yisheng Hainan	2021	HP	AEL	Y	E-512, E-513, E-514, E-515	SB-228 2 and 3 / S32750	(*)
11388	3	Preheaters Sinopec Yizheng Chemical Fiber Co.	2021	HP	AEL	Y	E-1222, E-1224, E-1225	SB-338 9 (SEAMLESS)	(*) Invista/KTS
11517	4	Preheaters E-1224 and E-1225 for line 3 and 4 (Dushan)	2022	HP	AEL	Y	E3/4-1224 , E-3/4-1225	SB-338 9 (SEAMLESS)	(*) Invista/KTS
11531	4	Preheaters E-1224 and E-1225 and E-1223 (Honggang)	2023	HP	AEL	Y	E-1224 , E-1225, E-1223	SB-338 9 (SEAMLESS) / 2RK 65	(*) Invista/KTS

Comment: (\*) in yellow : Reference of high pressure heat exchangers  
 in blue duplex high pressure pre heaters  
 orange: condenser type heat exchangers