

REFERENCE LIST

HEAT EXCHANGERS

Loterios Job No.	Year	Customer / EPC	End User	Plant Location	Project Service	Equipment Type	Material Shell Side	Material Tube	Cladding		Sizes			Tubes No. x L mm	Total Surface m2	Design Pressure Bar	working Temperature °C		Weight M Ton	Insp. By	Photos	Notes
									YES	NO	I.D./NPS mm/inch.	Thk. mm	L or H mm				tube side	shell side				
008	1985	ENICHEM	ENICHEM	CAGLIARI ITALY	BRINE	BEU		TITANIUM GR 2		X					90	8				CUSTOMER		
053	1986	ENICHEM	ENICHEM	OTTANA ITALY	COOLER	BEM		SS 316		X					22	11				CUSTOMER		PTA
063	1987	FBM	MONTEFLUOS	SPINETTA MARENGO ITALY	FLUORIDE	DOUBLE PIPE		INCONEL 600		X					50	40				ISPESL		
074	1987	MONTEDIPE	MONTEDIPE	MARGHERA ITALY	SULPHUR ACID	BAYONET	CARBON STEEL	TANTALUM		X	400	1,5*0,9 TANTALUM	1253	22 X 957 DIA 38,1		18	230	90	0,45	ISPESL		Ta
189	1988	ENICHEM	ENICHEM	GELA ITALY	CHLORINE	AEW		TITANIUM GR 2		X					70	7,5				ISPESL		
219	1989	ENICHEM	ENICHEM	GELA ITALY	CHLORINE	AEW		TITANIUM GR 2		X					170	8				ISPESL		
342	1989	MONTEDIPE	MONTEDIPE	PRIOLO ITALY	CHLORINE	AEW		TITANIUM GR 2		X					190	8				ISPESL		
516	1990	FBM	WOODSIDE	OFFSHORE NORTH SEA	SEA WATER	BEU		TITANIUM GR 2		X					165	18				CUSTOMER		OIL & GAS OFFSHORE NOROSOK
621 A	1991	FBM	MOBIL	OFFSHORE NORTH SEA	COOLER	BEU	TITANIUM	TITANIUM GR 12		X	620	19 - 55	7110	148 U 19,05*2,11	56	270	-20 / 65	65 / 156		LL.RR.		OIL & GAS OFFSHORE NOROSOK
621 B	1991	FBM	MOBIL	OFFSHORE NORTH SEA	COOLER	BEU	TITANIUM	TITANIUM GR 12		X	620	19 - 55	7110	148 U 19,05*2,11	56	270	-20 / 65	65 / 156		LL.RR.		OIL & GAS OFFSHORE NOROSOK
634	1991	ENIMONT	ENIMONT	PRIOLO ITALY	CHLORINE COOLER	AEW	TITANIUM	TITANIUM GR 2		X		12 - 8	6050	562	175	8				ISPESL		
901	1992	ALUSUISSE	ALUSUISSE	BERGAMO ITALY	ACETIC ACID	BEM	Fe 510.2	TITANIUM GR 2		X	712	15	6176	574	180	24,5	55 / 75	150 / 180	1,1	ISPESL		
1014	1994	ENICHEM	ENICHEM	MARGHERA ITALY	SULPHUR ACID	No. 3 UNIT BAYONETS	CARBON STEEL	TANTALUM		X	450	55±12,7	1050	36	3	19	230	90		ISPESL		Ta
1129	1995	ENICHEM	ENICHEM	MARGHERA ITALY	SULPHUR ACID	BAYONET	CARBON STEEL	TANTALUM		X	490	55±12,7	1125	38	3,3	19	230	90		ISPESL		Ta
1252	1996	ENICHEM	ENICHEM	GELA ITALY		BEU	SS316L	SS 304 MONEL		X TS	690	10±18	2050	98 U 19,05*1,25	26	6,5	110	40	0,25	ISPESL		OIL&GAS
1287	1996	ENICHEM	ENICHEM	P.TO TORRES ITALY	CHLORINE COOLER	BEM	TITANIUM	TITANIUM GR 2		X	852	4	9001	690 x 8050 19,05 x 0,9	332	1,5	100	60	0,3	CUSTOMER		
1306	1997	DUPONT / FLUOR DANIEL	DUPONT	WILTON UK	DBA EVAPORATOR	BEM	SS 304/304L	TITANIUM GR 2		X TS	890	10-13	8811	781*7010 19,05*1,2	321	14,5	205 / -10	205 / -10	8	U-STAMP		
1306	1997	DUPONT / FLUOR DANIEL	DUPONT	WILTON UK	NACS CALANDRIA	BEM	SS 304/304L	TITANIUM GR 2		X TS	2311	12-11	9616	4650*4877 25,4*1,2	1810	14,5	198 / -10	220 / -10	27	U-STAMP		
1457	1997	TUNTEX TAIWAN	TUNTEX TAIWAN	TAIWAN	OFF GAS PREHEATER	BEM	CARBON STEEL	CARBON STEEL + TITANIUM		X	660	9-18	6276	570*4871 19,05*1,2	62	14,5	230	175	4,5	U-STAMP		PTA
1534	1998	TECNIMONT	SAFCO	AL JUBAIL SAUDI ARABIA	EVAPOR. CONDENS.	BEM	SS 304/304L	CARBON STEEL c/w SAKAPHEN + Titanium		X TS	2200	12-15	8760	3105*6000 25,4*1,2	1430	FV / 6	62	150	27,3	TCM		
1535	1998	TECNIMONT	SAFCO	AL JUBAIL SAUDI ARABIA	AMMONIA CONDENS.	AEL (2 UNITS)	CARBON STEEL	CARBON STEEL c/w SAKAPHEN + Titanium		X TS	1290	20	15920	2396*13410 19,05*8	1890	25 / 6	62	-35 / 174	24,3 ea.	TCM		
1543	1998	LONZA	LONZA	BERGAMO ITALY		DISTRIB.	TITANIUM GR 2	TITANIUM GR 2		X	711	15	785			19	210		0,6	ISPESL		
1569	1998	AKZO NOBEL	AKZO NOBEL	NOVARA ITALY		DISTRIB.	TITANIUM GR 2	TITANIUM GR 2		X	273	4	400			0,3 - 1	185		0,15	CUSTOMER		
1620	1998	TECNIMONT	TECNIMONT	OTTANA ITALY		DISTRIB.	C.S. + TITANIUM	TITANIUM GR 2		X TS	1090	15*3	254			7,0 - 24,0	151 / -10	151 / -10	2	ISPESL		
1757	1998	DUPONT / FLUOR DANIEL	DUPONT	WILTON UK	CRUDE FILTRATE RECEIVER	BEM	SS 304/304L	TITANIUM GR 2		X TS	498	5	5781	277*1267 19,05*1,2	69	6,7	151 / -10	151 / -10	1,35	AI ASME		
A9800	1998	TUNTEX THAILAND	TUNTEX THAILAND Rayong	THAILAND	OFF GAS PREHEATER	BEM	CARBON STEEL	TITANIUM GR 2		X TS	660	9 C.S. 18 TI	6276	570*4871 19,05*1,2	166	8 / F.V. 29,2	175	175	4,5			PTA
B1700	1999	ENICHEM	ENICHEM	PRIOLO ITALY	SEA WATER	AEM	TITANIUM GR 2	TITANIUM GR 2		X	307	4	3648	52*3006 19,05*9	9,1	5,0 / 6,0	70	159	0,32	ISPESL		
B2100	1999	GARGANO	ARABIAN ENGINEER.	OMAN	DESALIN. VACUUM CONDENS.	SPECIAL BEM	TITANIUM GR 2	TITANIUM GR 2		X	300	4	3500	81*3509 19,05*9	17	FV	20	150	0,6	CUSTOMER		
B6200	1999	FORMOSA PLASTIC CO.	FORMOSA PLASTIC CO.	TAIWAN	SAPONIF. C. PREHEAT COND.	AJS (2 UNITS)	SS 304/304L	TITANIUM GR 2		X TS	1540	12	7440	1460*6096 25,4*1,24	1376	6/8	115	180	14 ea.	AI ASME		PTA
D0200	1999	TUNTEX THAILAND	TUNTEX THAILAND Rayong	THAILAND	PTA	BEM	CARBON STEEL	TITANIUM GR 2		X TS	990	12	2434	950 X 2441	138	8	20	175	2,7	LOTERIOS		SHELL SIDE ONLY
D4300	1999	ENICHEM	ENICHEM	ITALY	SULPHUR ACID	BAYONET	CARBON STEEL	TANTALUM		X	400		1253	22 X 957		18	230	90	0,45	ENICHEM		TUBE SIDE ONLY
D6200	1999	TUNTEX THAILAND	TUNTEX THAILAND Rayong	THAILAND	PTA	BEM	CARBON STEEL	SA 516-70 + TITANIUM		X TS	900	12	8478	950 X 5500	313	8 / 28	248	175	9	LOTERIOS		PTA
F3400	2000	RADICI CHIMICA	RADICI CHIMICA	ITALY	NITRIC ACID PLANT	BEM	CARBON STEEL	TITANIUM GR 2		X TS	550	8	6696	196 X 5507	86	1 / FV	200	200	2,5	ISPESL		

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									YES	NO	I.D./NPS mm/inch.	Thk. mm	L or H mm				tube side	shell side				
F5400	2000	SACAL	SACAL	ITALY		BEM	CARBON STEEL	TITANIUM GR 12	X		1260	12		551 X 9300	86	0.49 / 0.35	150	150		LOTERIOS		
G0800	2000	ENICHEM	ENICHEM	ITALY	SULPHUR ACID	BAYONET	CARBON STEEL	TANTALUM		X	400		1253	22 X 957		18	230	90	0,45	ENICHEM		TUBE SIDE ONLY
H9300	2000	ENICHEM	ENICHEM	ITALY	GAS CONDENSER	BEM	CARBON STEEL	HASTELLOY B2		X	273	9	5810	45 x 4305	10	7,8/14,7	140	38	0,9	ISPESL		
J5600	2000	ENICHEM	ENICHEM	ITALY		BES	CARBON STEEL	TITANIUM GR 2		X	1850	13	9150	3321X9150	3800	0.59 / 0.73	60	60	15	CLIENT / ISPESL		
J6700	2000	LONZA	LONZA	ITALY	TMA Pilot Plant	BEM	CARBON STEEL	TITANIUM GR 2	X		219,1	8	2658	26 X 2007	4	0.48 / 8,8	290	310	0,45	LONZA		
K4500	2001	ENICHEM	ENICHEM	ITALY		BES	CARBON STEEL	TITANIUM GR 2		X	1850	13	9150	3321X9150	1895	0.59 / 0.73	60	60	15	CLIENT / ISPESL		BUNDLE ONLY N° 2 UNIT
K5000	2001	CON.SER.V.C.O.	CON.SER.V.C.O.	ITALY	SOLID MUNICIPAL WASTE INCINERATOR	BEM	SS 316	TITANIUM GR 2		X	1350 x 1350	3	5380	361 X 5380	232	0,06	200	200	3,6	LOTERIOS		
K7000	2001	TUNTEX THAILAND	TUNTEX THAILAND Rayong	THAILAND	PTA	BJM	CARBON STEEL	TITANIUM GR 2	X		900	12	5030	950 X 4000	227	8 / 28	255	175	4,5	LOTERIOS		PTA
N3100	2001	TUNTEX TAIWAN	TUNTEX TAIWAN	TAIWAN	PTA	BJM	CARBON STEEL	TITANIUM GR 2	X		700	8+12	5300	508 X 2500	80	8 - F.V. 15	230	175	3	U-STAMP		PTA
N3200	2001	TUNTEX TAIWAN	TUNTEX TAIWAN	TAIWAN	PTA	BEM	CARBON STEEL	TITANIUM GR 2	X		600	8	6000	340 X 3700	227	8 / 14,5	230	175	2	U-STAMP		PTA
N3800	2001	TUNTEX TAIWAN	TUNTEX TAIWAN	TAIWAN	PTA	BEM	CARBON STEEL	TITANIUM GR 12	X		1100	18+20	8400	1500 X 6000	540	8 / 29,2	255	180	11,5	U-STAMP		PTA
N6100	2001	TUNTEX TAIWAN	TUNTEX TAIWAN	TAIWAN	PTA	BEM	CARBON STEEL	TITANIUM GR 2	X		1100	10	4400	150 X 2000	180	8 / 29,2	255	175	5,5	U-STAMP		PTA
N8800	2001	TUNTEX TAIWAN	TUNTEX TAIWAN	TAIWAN	PTA	BEM	CARBON STEEL	TITANIUM GR 12	X		1100	18+20	8400	1500 X 6000	540	8 / 29,2	255	180	11,5	U-STAMP		PTA
N9300	2001	SIITERC NIGI	LUCCHINI	ITALY		Multi tube and BEM n° 3 UNIT	SS 316	TITANIUM GR 2	X		300+600	5+12	6300	150 X 2000		8 / 6	300 316 80 300		3	CUSTOMER		
P3600	2002	BP CHEMBEL	BP CHEMBEL	BELGIUM		BEM	CARBON STEEL	TITANIUM GR 2 / GR 7	X		710	20+25	6240	424 X 4870	121	33 / 29	230	263	6	LOTERIOS		PTA
P7500	2002	NUOVO PIGNONE	ISAB ENERGY	ITALY		AIR COOLER	TITANIUM GR 2	TITANIUM GR 2		X	N° 2 UNIT 400x400	12+45	2800	115 X 11000	101	3,8 / FV	108	85	5	CLIENT / ISPESL		
R0600	2002	SECIT	CRD - LIVORNO	ITALY	STEAM CONDENSER	BEM	SS 304/304L	TITANIUM GR 2	X		1400	10+12	7800	1200 X6150	580	0,49 / FV	54	99	7,5	ASME / HI		
R1500	2002	NUOVO PIGNONE	FLUOR DANIEL / PETROLERA AMERIVEN	VENEZUELA	OVERHEAD CONDENSER	AIR COOLER	TITANIUM GR 2	TITANIUM GR 2		X	N° 12 UNIT 900x200	12+18	4300	357 X 9150	317	6,9 / FV	177	148	20	U-STAMP		
R2200	2002	INCA Inter, DOW Chemulal	DOW INCA - OTTANA	ITALY	PTA	BEM	C.S. + TITANIUM	TITANIUM GR 2	X		1020	12+15	7600	1231 X 6102	480	8 / 29,2	250	200	6,5	CLIENT / ISPESL		PTA
R5400	2002	CON.SER.V.C.O.	CON.SER.V.C.O.	ITALY	SOLID MUNICIPAL WASTE INCINERATOR	BEM	SS 316	TITANIUM GR 2		X	1350 x 1350	3	5380	361 X 5380	232	0,06	200	200	3,6	LOTERIOS		
R5300	2002	POLIMERI EUROPA	POLIMERI EUROPA	ITALY		BES	CARBON STEEL	TITANIUM GR 2	X		2130	13	9150	4286X9150	2460	0.59 / 0.78	60	120	18	CLIENT / ISPESL		BUNDLE ONLY
R5301	2002	POLIMERI EUROPA	POLIMERI EUROPA	ITALY		BES	CARBON STEEL	TITANIUM GR 2		X	1900	13	9150	3321X9150	1895	0.59 / 0.83	60	120	15	CLIENT / ISPESL		BUNDLE ONLY
S3600	2002	TUNTEX TAIWAN	TUNTEX TAIWAN	TAIWAN	PTA	BEM	CARBON STEEL	TITANIUM GR 2	X		1100	10	4400	150 X 2000	180	8 / 29,2	255	175	5,5	LOTERIOS		PTA
T4900	2002	ISAB ENERGY	ISAB ENERGY	ITALY		BEU n° 4 UNIT	CARBON STEEL	TITANIUM GR 2	X		280	8	300	60 X 3000	11	8 / 29,2	160	310	1	LOTERIOS		PED / ISPESL
T5000	2003	TECNIMONT	NATIONAL PETROLCHEMICAL Co	IRAN	QUENCH COOLER	BEM	SS 304/304L	TITANIUM GR 2 / GR12	X		1450	14	11230	2990 X 9000	1575	25 / 13	60	100	21	LOTERIOS		
T5400	2003	FCFC	FCFC	TAIWAN	PTA	BEM	CARBON STEEL	TITANIUM GR 2	X		1050	13/ 18	200	1400 X 1000	67	8 / 24	175	175	3,5	U-STAMP		PTA
A0T00	2003	FCFC	FCFC	TAIWAN	PTA	BEM	CARBON STEEL	TITANIUM GR 2	X		690	10 / 14	5491	571 X 2600	84,2	8 - F.V. / 20	192 / 140	34 / 45	2,4	U-STAMP		PTA
A7V00	2004	FPC	FPC	TAIWAN	AC COLUMN CONDENSER	BEM	TITANIUM GR 2	TITANIUM GR 2		X	1500	12	8031	2660 X 6000	934	5 - F.V. / 7	33 / 42	52 / 51	10,5	U-STAMP		PTA
A8E00	2004	FCI	FCI	CHINA	IPA - PREHEATER	BEM	SS 304/304L	TITANIUM GR 3	X		500	13 / 18	5707	256 X 4500	69	39 - F.V. / 35	33 / 42	52 / 51	2,4	U-STAMP		PTA
A8E00	2004	FCI	FCI	CHINA	IPA- COOLER	BEM	SS316L	TITANIUM GR 3	X		1450	28 / 16+3	8526	3162 X 6000	1135	35 / 22	190 / 168	100 / 170	19	U-STAMP		PTA
A8E00	2004	FCI	FCI	CHINA	IPA - COOLER	BEM	CARBON STEEL	CS+ TITANIUM / TITANIUM GR 2		X	1900	13 / 22+3	5948	2173 X 3000	390	8 - F.V. / 22	190 / 168	34 / 45	17	U-STAMP		PTA
A8E00	2004	FCI	FCI	CHINA	IPA - PREHEATER	BEM	SS 304/304L	TITANIUM / GR 3		X	1350	24 / 16+3	4892	2154 X 3000	386	39 / 21	160 / 200	236	12	U-STAMP		PTA
A8E00	2004	FCI	FCI	CHINA	IPA - CONDENSER	BEM	CARBON STEEL	TITANIUM GR 2	X		1350	14 / 25	11033	1877 X 7000	766	4 - F.V. / 20	192 / 140	133	15,5	U-STAMP		PTA
A8E00	2004	FCI	FCI	CHINA	IPA - CONDENSER	BEM	CARBON STEEL	TITANIUM GR 2	X		780	12 / 6,35	9198	680 X 6000	244	8 - F.V. / 6	152 / 90	34 / 45	4,55	U-STAMP		PTA
A8E00	2004	FCI	FCI	CHINA	IPA - CONDENSER	BEM	CARBON STEEL	TITANIUM GR 2	X		700	10 / 14	8678	564 X 5500	186	8 - F.V. / 20	130 / 50	34 / 45	3,8	U-STAMP		PTA

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										I.D./NPS mm/inch.	Thk. mm	L or H mm				tube side	shell side				
C7S00	2004	FCFC	FCFC	TAIWAN	PC-PLANT REACTOR COOLER	SPECIAL BEU	CARBON STEEL	TITANIUM GR 7	X TS		1600	19 -	11500	16 X 9500	67	7,5 / 6	90 / 40	60 / 37	28	U-STAMP	TUBES D127mm
D1J00	2005	BOREALIS AB	BOREALIS AB	STENUNGSUND SWEDEN	DEBUTANIZER OH PRODUCT COOLER	BES	P 265 GH	TITANIUM GR 2	X		381	9,52 / 6,35	7062	140 X 6100	50	16,9 / 19,6	21 / 24	45,5 / 28	1,3	LOTERIOS	CE MARKING, EN13445 DESIGN - OIL&GAS - OFFSHORE P&T/EN13445
D1V00	2005	SOLVAY SA	SOLVAY SA	ROSIGNANO ITALY	Cl2 COOLER	BEM	CARBON STEEL	TITANIUM GR 2	X TS		1126	12 / 6,35	6900	1031 X 4750	381	10 / 0,5	90 / 40	30 / 43,5	5,9	LOTERIOS	TI GR 7 on gasket position surface
D2K00	2005	SNAM PROGETTI S.p.A.	ABU DHABI GAS INDUSTRIES LTD.	UAE	COOLING WATER CIRCULATION COOLER -LNG	BEM	CARBON STEEL	TITANIUM GR 2	X TS		434,94	11,13	7050	184 X 6100	66,2	10,1 / 13-FV	35 / 45	58 / 45	1,6	U-STAMP	No. 2 PCS - OIL&GAS
D2K00	2005	SNAM PROGETTI S.p.A.	ABU DHABI GAS INDUSTRIES LTD.	UAE	PROPANE COOLER -LNG	AES	CARBON STEEL	TITANIUM GR 2 - FINNED	X TS		935	15 / 12	6500	656 X 4880	476	27,2 / 20,9-FV	35 / 44,7	53,3 / 45	6,3	U-STAMP	No. 2 PCS - OIL&GAS
D2K00	2005	SNAM PROGETTI S.p.A.	ABU DHABI GAS INDUSTRIES LTD.	UAE	BUTANE COOLER - LNG	AEM	CARBON STEEL	TITANIUM GR 2 - FINNED	X TS		830	12 / 9	7385	636 X 6100	582	18,7 / 14,7-FV	35 / 44,1	59,1 / 45	5,1	LOTERIOS	No. 2 PCS - OIL&GAS
D2K00	2005	SNAM PROGETTI S.p.A.	ABU DHABI GAS INDUSTRIES LTD.	UAE	REFRIGERANT DESUPER-HEATER - LNG	AES	CARBON STEEL	TITANIUM GR 2 - FINNED	X TS		1194	14 / 12,7	6817	1180 X 4880	853	19,2 / 14,8-FV	35 / 44,5	73,4 / 55	10,3	U-STAMP	No. 4 PCS - OIL&GAS
D2K00	2005	SNAM PROGETTI S.p.A.	ABU DHABI GAS INDUSTRIES LTD.	UAE	PROPANE AMINE RE-GENERATOR OVHD - LNG	AES	SS316L	TITANIUM GR 2	X TS		710	6 / 6	4858	334 X 3660	71,2	3,5-FV / 13-FV	35 / 43,4	126 / 45	2,5	U-STAMP	No. 4 PCS - OIL&GAS
D4J00	2006	FCFC	FCFC	MAI-LIAO	OLIGOMER REACTOR COOLERS		CARBON STEEL	TITANIUM GR 2 / GR 7	X		1900	20	11500	14 X 9500	70	8 FV / 6 FV	99	60	32,5	U-STAMP	PTA
D4N00	2006	CONG TY CO PHAN TAM NHIN	CONG TY CO PHAN TAM NHIN	HANOI	NaCl Heater	BEM	CARBON STEEL	TITANIUM GR 2	X TS		310	7	4649	76 X 4000	17,4	6 / 6	25 / 70	108 / 84	0,5	LOTERIOS	
D4N00	2006	CONG TY CO PHAN TAM NHIN	CONG TY CO PHAN TAM NHIN	HANOI	Chlorine Cooler	BEM	CARBON STEEL	TITANIUM GR 2	X TS		440	10	5035	255 X 4000	61	6 / 6 + FV	90 / 40	31 / 39	0,9	LOTERIOS	
D6L00	2006	SNAM PROGETTI SUD SPA	ENI	TARANTO ITALY	FRACTIONATOR OVERHAD TRIM COOLER	AES	P275NL2	TITANIUM GR 2	X TS		550	13	7540	258 X 6705	100,6	4,4 / 5,7	60	260	2,5	CEC	CE MARKING, EN13445 DESIGN - OIL&GAS
D6L00	2006	SNAM PROGETTI SUD SPA	ENI	TARANTO ITALY	STABILIZED NAPHTA TRIM COOLER	AES	P275NL2	TITANIUM GR 2	X TS		600	10	8136	315 X 7315	135	12,7 / 9,8	60	258	3,2	CEC	CE MARKING, EN13445 DESIGN - OIL&GAS
D6L00	2006	SNAM PROGETTI SUD SPA	ENI	TARANTO ITALY	LPG TRIM COOLER	AES	P275NL2	TITANIUM GR 2	X TS		254	9	5465	24 X 4877	6,8	38 / 29,4	60	258	0,8	CEC	CE MARKING, EN13445 DESIGN - OIL&GAS
D8D00	2006	SOLVAY CHIMICA BUSSI S.p.A.	SOLVAY CHIMICA BUSSI S.p.A.	BUSSI OFFICINE (PE)	Cl2 COOLER	BEM	CARBON STEEL	TITANIUM GR 2	X TS		348	8	5063	69 X 4000	22	- 0,9 / 7 - 0,9 / 2	90 / 39	16 / 30	0,7	CE	CE MARKING, EN13445 DESIGN OIL & GAS - OFFSHORE
D9P00	2006	KBR / PSN	HIBERNIA MAN.DEV.	CANADA	HYDRAULIC OIL COOLER	AEU	CARBON STEEL	TITANIUM GR 2	X		273	8	1511	59U X 890 Straight Length	11,6	10,34 / 10,34	9 / 22	70 / 40	0,27	U-STAMP	OIL & GAS - OFFSHORE
D9P00	2006	KBR / PSN	HIBERNIA MAN.DEV.	CANADA	HYDRAULIC OIL COOLER	AEU	CARBON STEEL	TITANIUM GR 2	X		273	8	1511	59U X 890 Straight Length	11,6	10,34 / 10,34	9 / 22	70 / 40	0,27	U-STAMP	OIL & GAS - OFFSHORE
D9P00	2006	KBR / PSN	HIBERNIA MAN.DEV.	CANADA	HYDRAULIC OIL COOLER	AEU	CARBON STEEL	TITANIUM GR 2	X		273	8	1511	59U X 890 Straight Length	11,6	10,34 / 10,34	9 / 22	70 / 40	0,27	U-STAMP	OIL & GAS - OFFSHORE
D9P00	2006	KBR / PSN	HIBERNIA MAN.DEV.	CANADA	HYDRAULIC OIL COOLER	AEU	CARBON STEEL	TITANIUM GR 2	X		273	8	1511	59U X 890 Straight Length	11,6	10,34 / 10,34	9 / 22	70 / 40	0,27	U-STAMP	OIL & GAS - OFFSHORE
E1U01	2007	SOLVAY CHIMICA	SOLVAY CHIMICA	ITALY	PASTA PRJ	BEU	CARBON STEEL	TITANIUM GR 2	X		406,4	9	3328	70U X 2300 Straight Length	19,7	12 / 8	80 / 120	300 / 179	0,55	TUV	CE MARKING, EN13445 DESIGN
E2V00	2007	SNAMPROGETTI	SAMIR REFINERY	MAROCOCO	REFLUX WATER CONDENSER	BEU	TITANIUM GR 12	ASTM A 106 Gr. B	X		355,6	5	3586	26U X 2700 Straight Length	11,2	12,26 / 9,41	26 / 38	85,2 / 45	0,42		OIL & GAS
E3H00	2007	STERLING FLUID SYSTEMS	STERLING FLUID SYSTEMS	SINGAPORE	COOLING WATER	AEW	CARBON STEEL	ADMIRALTY	X		168,3	7	1672	16 X 1300	1,04	10,2	31 / 34	68,9 / 60	0,12	LOTERIOS	No.3 PCS
E5R00	2007	CAFFARO CHIMICA	CAFFARO CHIMICA	BRESCIA ITALY	CHLORITE COOLER	BEM	CARBON STEEL	TITANIUM GR 2	X		1067	12	6460	378 X 4877	219	4,15 - F.V. 4,15 - F.V.	80 / 81,7	93 / 93	5,8	TUV	CE MARKING, VSR DESIGN
E5V00	2007	AKER KVAERNER NORWAY	STATOIL HYDRO	TROLL C PLATFORM	INLET COOLER	BEU	TITANIUM GR 2	TITANIUM GR 16	X		537	9	6058	125U X 4800 Straight Length	72	19 - F.V. 30 - F.V.	65 / 25	12 / 29,7	1,2	TUV	CE MARKING, EN13445 DESIGN OIL & GAS - OFFSHORE
E6W00	2008	PETKIM	PETKIM	TURKEY	FEED PRE-HEATERS	BEM	SS 304/304L	C.S.	X		303	6	10146	52 X 9100	27,08	99,4	163 / 190	219	2		PTA
E8T00	2008	FLUOR	TICONA GmbH	Kelsterbach GERMANY	STM VERDAMPFER W2300	BEM	CARBON STEEL	CuNi 70/30	X TS		2000	25	6719	3283 X 3000	735	20 - F.V. 8 - F.V.	164,7 / 165,3	200 / 191,5	27	TUV-SUD	CE MARKING
E8T00	2008	FLUOR	TICONA GmbH	Kelsterbach GERMANY	VERDAMPFER W3500	BEM	CARBON STEEL	CuNi 70/30	X TS		2000	13	6719	3283 X 3000	735	6 - F.V. 6 - F.V.	123,6 / 125	145,3 / 145,2	23,5	TUV-SUD	CE MARKING
E8W00	2008	SIITERC NIGI	LUCCHINI	ITALY		Multi tube and BEM n° 3 UNIT	SS 316	TITANIUM GR 2	X TS		300+600	5-12	6300	150 X 2000		8 / 6	300 316 300 300		3	CEC	CE MARKING
F1F00	2008	MARSINA ENG.	AL KOUT	KUWAIT	AHLIA PROJECT ITEM 502	BEM	CARBON STEEL	NICKEL 201	X TS		900	7	2490	267 X 2500	67	12		135	2,83	3rd PART INSPECTION	OIL&GAS
F1F00	2008	MARSINA ENG.	AL KOUT	KUWAIT	AHLIA PROJECT ITEM 503	BEM	CARBON STEEL	NICKEL 201	X TS		800	10	2490	183 X 2500	44	12		200	2,36	3rd PART INSPECTION	
F1G00	2008	TECHNIP	RusVinyl	RUSSIA IKRA Pj.	CHLORINE COOLER	BEM	CARBON STEEL	TITANIUM GR 2	X TS		1100	6/11	8551	957 X 6096	465,5	7/2	25/35	90/30	7		GOST TI GR 7 on gasket position surface
F1G00	2008	TECHNIP	RusVinyl	RUSSIA IKRA Pj.	CHLORINE CILLER	BEM	CARBON STEEL	TITANIUM GR 2	X TS		800	6/10	6875	495 X 4877	188	7/2	10/15	30/15	3,5		GOST TI GR 7 on gasket position surface
F1K00	2008	FLUOR	TICONA GmbH	GERMANY TIGER Pj.	AUFHEIZER 180W1720 / 180W1721	BEM	SS316L	SA 249 TP316L	X		400	4/5	3800	82 X 3000	19	10 + F.V.	78/82	85/83		TUV SUD + LOTERIOS	N° 2 pieces
F1K00	2008	FLUOR	TICONA GmbH	GERMANY	FC VORVARMER 210W2120	BFM	DUPLEX	DUPLEX	X		300	3,2/5	7000	48 X 6000	22,4	16 +F.V.	70/90	116/90		TUV SUD + LOTERIOS	
F1K00	2008	FLUOR	TICONA GmbH	GERMANY	FC VORVARMER 210W2121	BFM	HASTELLOY C276	HASTELLOY C276	X		300	3,2/5	7000	48 X 6000	22,4	16 +F.V.	90/115	149/116		TUV SUD + LOTERIOS	

REFERENCE LIST

HEAT EXCHANGERS

Loterios Job No.	Year	Customer / EPC	End User	Plant Location	Project Service	Equipment Type	Material Shell Side	Material Tube	Cladding		Sizes			Tubes No. x L mm	Total Surface m2	Design Pressure Bar	working Temperature °C		Weight M Ton	Insp. By	Photos	Notes
									YES	NO	I.D./NPS mm/inch.	Thk. mm	L or H mm				tube side	shell side				
F1K00	2008	FLUOR	TICONA GmbH	GERMANY	SUMPKÜHLER 210W3510	BEM	SS 304/304L	DUPLEX		X	350	3,2/5	4900	60 x 4000	18,5	12 + F.V.	100/40	27/37		TÜV SUD + LOTERIOS		
F2N00	2008	IDE TECHNOLOGIES	ESSAR	INDIA	VACUUM STEAM CONDENSER	AEL (3 UNITS)	SS316L	SA 240 316L	X	TS	1150	7/7	11000	1371 x 9000	729	10/FV	32/40	45/42	14	LOTERIOS		
F2P00	2008	MARSINA ENG.	NATIONAL COMPANY FOR SULPHUR PRODUCTS	KUWAIT	SP3-NCSP-08	SPECIAL	CARBON STEEL	316L	X		700	8	5808	80 x 6000	40	5/5	50	90	3	LOTERIOS		1 pc.
F4D00	2009	TERMOKIMIK	ENEL	BRINDISI - ITALY	CO2 REMOVAL	BFN	SS 316	CuNi 90/10	X		1225	7/8	11000	1420 x 9500	808	4	28/35	40/33	17	LOTERIOS		
F7Z00	2010	PSN	HIBERNIA MAN.DEV.	CANADA	LIFT GAS COOLER	DEU	CARBON STEEL	DUPLEX		X	640	15 /173	6500	247 X 5000	150	31 / 207	72 / 45	35 / 45	8	U-STAMP		OIL&GAS - OFFSHORE
F8L00	2010	KLOEPPER THERM	STATOIL / OSEBERG B	NORWAY	BRAKING RESISTOR UNIT	SPECIAL ELECTRIC	TITANIUM	--		X	800	10	1812	--	--	9,2	5-55	5-55	0,6			
F8P00	2010	SOLVAY THAI	SOLVAY THAI	THAILAND	EPOCHLOROHYDRINE PLANT	CONDENSER	TITANIUM GR 2	CS		X	650	8	6400	203 x 4877	80	3 / 6 F.V.	35	80	1,5			
F8X00	2010	SABIC	IBN RUSHD	SAUDI ARABIA	STRIPPER STIL POT REBOILER	DISTRIB.	TITANIUM GR 2	TITANIUM GR 2		X	785	8	600			8	215		0,28	U-STAMP		PTA
F9W00	2010	IDE TECHNOLOGIES	IDE TECHNOLOGY	CINA	CONDENSER	AEL (4 UNITS)	SS316L	SA 240 316L	X	TS	1800	12	8800	3000 x 6600	1152	F.V. / 5	33 / 40,5	44 / 40	23	LOTERIOS		
G0T00	2010	ENI SpA	ENI SpA	ITALY	COMPRESSOR DISCHARGE AFTERCOOLER	AES	CARBON STEEL	254SMO		X	559	10	5626	310 X 4877	88,5	13,8 / 9,8	103 / 38	26 / 36	1,5	ISPESL		BUNDLE ONLY
G0X00	2011	KLOEPPER THERM	CIRAG OIL	GERMANY	BRAKING RESISTOR UNIT	SPECIAL ELECTRIC	TITANIUM	--		X	800	10	1812	--	--	9,2	5-55	5-55	0,6			
G3F00	2011	SABIC	IBN RUSHD	SAUDI ARABIA	PTA - OFF GAS PREHEATER	BEM	CARBON STEEL	TITANIUM GR 2	X	TS	780	12	6900	860	251	8 F.V. / 29,2	100	155	7	U-STAMP		PTA
G7S00	2012	ASC (JV ACC/SEPSCO)	SWCC	SAUDI ARABIA	DUMP CONDENSERS	BEM	CS + CuNi	TITANIUM GR 2	X	TS	1850	15/8	9000	1300 x 4800	568	5 F.V. / 3,5 F.V.	43	120	22	U-STAMP		10 UNITS
H2T00	2013	STI (SERVIZI TECNICI INDUSTRIALI)	PDVSA	VENEZUELA	STEAM CONDENSER	BEM	CARBON STEEL	TITANIUM GR 2		X	1500	12	8700	1181 X 8700	820	0,37 F.V. / 7,61	-	-	22	LOTERIOS		
H2Z00	2013	FPC	FPC	TAIWAN	INTER + BYPASS COOLER	BEU	-	TITANIUM GR 7	X		550	-	-	130 x 1500 Str	24	21 F.V. / 5	-	-	0,4	U-STAMP		
H3E00	2013	ISAB ENERGY	ISAB ENERGY	ITALY	EVAPOR. CONDENS.	--U	-	TITANIUM GR 2		X	324	-	-	30 X 2840 Str	10		310	160	0,4	LOTERIOS		4 pcs
H3H00	2013	EXXON MOBIL	EXXON MOBIL	ITALY	CONDENSER	BES	-	TITANIUM GR 2		X	787	-	6100	348 X 6100	162	5,5	60	80	2	ISPESL		
H4F00	2013	IDE TECHNOLOGIES	RELIANCE IND.	INDIA	VACUUM STEAM CONDENSER	AEL (3 UNITS)	SS316L	TITANIUM GR 2	X	TS	1800	7/7	11000	1371 x 9000	729	10/FV	32/40	45/42	14	LOTERIOS		
H4N00	2013	SMOE	DET NORSKE / IVAR AASEN	NORWAY	TRANSFER COMPRESSOR SUCTION COOLER	BEM	TITANIUM GR 2	TITANIUM GR 12		X	950	15	6000	1961 X 4400	330	20/63	80	25	5			OIL & GAS OFFSHORE NORSOK
H4N00	2013	SMOE	DET NORSKE / IVAR AASEN	NORWAY	TRANSFER GAS COOLER	BEM	TITANIUM GR 2	TITANIUM GR 12		X	640	10	4300	495 X 2980	68	20/87	150	25	3,2			OIL & GAS OFFSHORE NORSOK
H4L00	2013	EXXON MOBIL	EXXON MOBIL	ITALY	AIR COOLER	-	-	TITANIUM GR 2		X	440	50	2950	231 X 10972	400	8,44 / FV	116	-	5	RW TÜV		FINNED TUBES
H4U00	2013	STI (SERVIZI TECNICI INDUSTRIALI)	PDVSA	VENEZUELA	SEAL WATER COOLER	AET	SS 304/304L	TITANIUM GR 2		X	356	5	4700	206 x 4877	50	10	40	30	1,5			3 UNITS
H4Y00	2013	HYUNDAI HEAVY INDUSTRIES	STATOIL / HAASTA HANTEEN	NORWAY	CONDENSATE HEATER	BEU	DUPLEX	DUPLEX		X	346	10	4300	60 X 4300	31	32/FV	120	110	0,8	TUV		OIL & GAS OFFSHORE NORSOK
H4Y00	2013	HYUNDAI HEAVY INDUSTRIES	STATOIL / HAASTA HANTEEN	NORWAY	3rd STAGE RE-COMPRESSOR SUCTION COOLER	BEU	TITANIUM GR 2	TITANIUM GR 2		X	337	8	5200	51 X 5300	32	44/FV	115	90	0,7	TUV		OIL & GAS OFFSHORE NORSOK
H4Y00	2013	HYUNDAI HEAVY INDUSTRIES	STATOIL / HAASTA HANTEEN	NORWAY	HEATING MEDIUM DUMP COOLER	BEM	TITANIUM GR 2	TITANIUM GR 2		X	203	8	3200	30 X 3200	6	17/FV	120	110	0,4	TUV		OIL & GAS OFFSHORE NORSOK
H4Y00	2013	HYUNDAI HEAVY INDUSTRIES	STATOIL / HAASTA HANTEEN	NORWAY	FUEL GAS HEATER	BEM	DUPLEX	DUPLEX		X	203	5	1600	40 X 1600	4	60	105	110	0,2	TUV		OIL & GAS OFFSHORE NORSOK
H5P00	2013	YARA	YARA	NORWAY	LOW PRESSURE NITRIC ACID	NEN	SS 304/304L	TITANIUM GR 2	X	TS	3000	20	12000	4011 x 9296	2930	7/9	210	75	55	TUV		
G0X00	2013	KLOEPPER THERM	EXXON MOBIL CHEVRON STATOIL	HEBRON PROJ - CANADA	BRAKING RESISTOR UNIT	SPECIAL ELECTRIC	TITANIUM GR 2	--		X	800	10	2100	--	--		5-55	5-55	3			OIL & GAS OFFSHORE NORSOK
H7D00	2014	SABIC - AL BAYRONI	SABIC - AL BAYRONI	SAUDI ARABIA	MDEA SOLUTION COOLER	AET	CARBON STEEL	TITANIUM GR 2	X	TS	1270	13	12000	1530 x 9150	823	5,2	37-47	96-44	16	U-STAMP		2 UNITS U STAMP
H7U00	2014	SABIC - AL BAYRONI	SABIC - AL BAYRONI	SAUDI ARABIA	CIRCULATION WATER COOLER	AEM	CARBON STEEL	TITANIUM GR 2	X	TS	882	11	4700	723 X 3500	146	16,2 / FV	78	183	3,5	U-STAMP		
H7Z00	2014	KLOEPPER THERM	STATOIL / MARINER	MARINER - NORWAY	BRAKING RESISTOR UNIT	SPECIAL ELECTRIC	TITANIUM GR 2	--		X	800	10	2100	--	--		5-55	5-55	3			OIL & GAS OFFSHORE NORSOK

REFERENCE LIST

HEAT EXCHANGERS

Loterios Job No.	Year	Customer / EPC	End User	Plant Location	Project Service	Equipment Type	Material Shell Side	Material Tube	Cladding		Sizes			Tubes No. x L mm	Total Surface m ²	Design Pressure Bar	working Temperature °C		Weight M Ton	Insp. By	Photos	Notes	
									YES	NO	I.D./NPS mm/inch.	Thk. mm	L or H mm				tube side	shell side					
H8U00	2014	STI (SERVIZI TECNICI INDUSTRIALI)	PDVSA	VENEZUELA	TUBE BUNDLES	BEM	CARBON STEEL	TITANIUM GR 2	X	TS	1000		8000	564 X 6096	268		-	-	4	LOTERIOS			
H9R00	2014	STI (SERVIZI TECNICI INDUSTRIALI)	PDVSA	VENEZUELA	TUBE BUNDLES	BEM	CARBON STEEL	TITANIUM GR 2	X	TS	920		5500	784 X 4877	228		-	-	3	LOTERIOS			
J0X00	2014	SICOM ITALIA	AGIP	CROATIA	GAS COOLER	BFU	CARBON STEEL	TITANIUM GR 2		X	620	15	3800	295 X 3000	86	42/10	135	70	2,5	LOTERIOS		OIL & GAS OFFSHORE	
J1E00	2014	RELIANCE	RELIANCE IND.	INDIA	LLP STEAM DUMP CONDENSER	BXM	CARBON STEEL	TITANIUM GR 2	X	TS	2000	15	8300	1954 X 7880	1163	8/7	260	260	26	U-STAMP		PTA	
J1E00	2014	RELIANCE	RELIANCE IND.	INDIA	CONDENSATE SUBCOOLER	AES	CARBON STEEL	TITANIUM GR 2	X	TS	700	10	3800	474 X 3658	102	8/7	260	260	4	U-STAMP		PTA	
J1F00	2014	JOHN CRANE	ZADCO	UAE	POTABLE WATER COOLER	BEU	SS 316	TITANIUM GR 2		X	435	22	1400	11 X 1150	1,2	287/19	50	100	1	U-STAMP		4 UNITS OIL & GAS OFFSHORE	
J1F00	2014	JOHN CRANE	ZADCO	UAE	LUBE OIL COOLER	BEU	SS 316	TITANIUM GR 2		X	300	7	1000	11 X 800	0,8	70/19	50	100	0,6	U-STAMP		18 UNITS OIL & GAS OFFSHORE	
J1F00	2014	JOHN CRANE	ZADCO	UAE	POTABLE WATER COOLER	BEU	SS 316	TITANIUM GR 2		X	300	9	800	5 X 600	0,4	134/19	50	100	0,4	U-STAMP		16 UNITS OIL & GAS OFFSHORE	
J2A00	2014	ISAB ENERGY	ISAB ENERGY / LUKOIL	ITALY	PROCESS WATER COOLER	HAIR PIN	TITANIUM GR 2	TITANIUM GR 2		X	36	3	4880	1 X 4880	0,57	10,5	66	145	0,1			3 UNITS	
J2M00	2014	COMART / PETROFAC	ZADCO	UAE	LEAN GLYCOL COOLER	AES	CARBON STEEL	TITANIUM GR 2		X	520	10	4600	128 X 3658	27	31/30	110/3	110/3	2,2			OIL & GAS OFFSHORE	
J2M00	2014	COMART / PETROFAC	ZADCO	UAE	LEAN GLYCOL COOLER	AES	CARBON STEEL	TITANIUM GR 2		X	363	14	4900	84 X 3658	18	88/10	110/3	110/3	3,5			2 UNITS OIL & GAS OFFSHORE	
J2M00	2014	COMART / PETROFAC	ZADCO	UAE	GLYCOL REGENERATOR OVERHEAD CONDENSER	AES	SS 316	TITANIUM GR 2		X	330	5	3900	46 X 2438	8	12/16	138/3	138/3	1,2			OIL & GAS OFFSHORE	
J2M00	2014	COMART / PETROFAC	ZADCO	UAE	GLYCOL REGENERATOR OVERHEAD CONDENSER	AES	SS 316	TITANIUM GR 2		X	340	4	3300	46 X 3048	7	12/16	138/3	138/3	1,1			2 UNITS OIL & GAS OFFSHORE	
J3U00	2015	JOHN CRANE	ZADCO	UAE	POTABLE WATER COOLER	BEU	SS 316	TITANIUM GR 2		X	115	3	900	5 X 450	0,2	19/18	232	49	0,2			4 UNITS OIL & GAS OFFSHORE	
J4E00	2015	JOHN CRANE	ZADCO	UAE	LUBE OIL COOLER	BEU	SS 316	TITANIUM GR 2		X	141	4	1050	11 X 750	0,7	70/19	100	50	0,3			3 UNITS OIL & GAS OFFSHORE	
J4U00	2015	TECNIMONT	KNPC, MAA REFINERY AGRP PROJECT	KUWAIT	AGE TRIM COMDNSENER	AJ21T	SS 316	TITANIUM GR 2		X	TS	1200	13	7800	708 x 6100	218	5,2/10,4	40	60	15			
J5D00	2015	FLOWSERVE - SIHI STERLING	KNPC FLUOR PRJ A2WD	KUWAIT	RING LIQUID COOLER FOR PUMP VACUUM	BEU	ALLOY 825	TITANIUM GR 2		X	300	6	5000	24 x 5000	12	5/12	38	50	2				
J6C00	2016	PROCESS & TECHNOLOGY Y CIA	PROCESS & TECHNOLOGY Y CIA	FILIPPINE		BEM	CARBON STEEL	TITANIUM GR 12		X	400	10	10000	48 x 10000	38	5/12	130	130	1,7				
J6Y00	2016	CONSOLIDATED SUPPLIER	GASCO	UAE	RUWAI5 3rd NGL TRAIN PROPANE AMMINE REGENERATOR	AES	/	TITANIUM GR 2	X	TS	800		3660	334 X 3660	71,2	3,5/13	85	170	0,8	U-STAMP			
J6Z00	2016	TECNICAS REUNIDAS	KNPC	KUWAIT	MAA REF. GAS TRAIN 5 FEED GAS COMP. DISCHARGEWATER COOLER	AES	SS 316	TITANIUM GR 2	X	TS	1524	55	8665	1200 X 6096	457	90/69	45	60	63	U-STAMP	8 UNITS	OIL&GAS ONSHORE	
J6Z00	2016	TECNICAS REUNIDAS	KNPC	KUWAIT	MAA REF. GAS TRAIN 5 DEPROPANIZER OVERHEAD CONDENSER	AEL	CARBON STEEL	TITANIUM GR 2	X	TS	1727	20	13231	2273 X 10973	4928	22/17	45	50	39,6	U-STAMP	4 UNITS	OIL&GAS ONSHORE	
J6Z00	2016	TECNICAS REUNIDAS	KNPC	KUWAIT	MAA REF. GAS TRAIN 5 DEBUTANIZER OVERHEAD CONDENSER	AEL	CARBON STEEL	TITANIUM GR 2	X	TS	1778	14	8744	2312 X 6706	3095	10/16	45	50	26	U-STAMP	4 UNITS	OIL&GAS ONSHORE	
J6Z00	2016	TECNICAS REUNIDAS	KNPC	KUWAIT	MAA REF. GAS TRAIN 5 KNG PRODUCT WATER COOLER	AES	CARBON STEEL	TITANIUM GR 2	X	TS	1041	13	7612	668 X 6096	305	18/14	45	120	8,6	U-STAMP	2 UNITS	OIL&GAS ONSHORE	
J6Z00	2016	TECNICAS REUNIDAS	KNPC	KUWAIT	MAA REF. GAS TRAIN 5 PENTANE PRODUCT WATER COOLER	AES	CARBON STEEL	TITANIUM GR 2	X	TS	745	12	6656	306 X 5486	128	21/17	45	100	4,6	U-STAMP	2 UNITS	OIL&GAS ONSHORE	
J6Z00	2016	TECNICAS REUNIDAS	KNPC	KUWAIT	MAA REF. GAS TRAIN 5 PROPANE REGENERATION WATER	AEL	CARBON STEEL	TITANIUM GR 2	X	TS	813	20	8928	466 X 7315	517	46/36	45	60	11	U-STAMP	2 UNITS	OIL&GAS ONSHORE	
J6Z00	2016	TECNICAS REUNIDAS	KNPC	KUWAIT	MAA REF. GAS TRAIN 5 BUTANE REGENERATION WATER	AEL	CARBON STEEL	TITANIUM GR 2	X	TS	660	15	6893	288 X 5486	309	39/30	45	65	5,3	U-STAMP	2 UNITS	OIL&GAS ONSHORE	
J6Z00	2016	TECNICAS REUNIDAS	KNPC	KUWAIT	MAA REF. GAS TRAIN 5 PROPANE REFRIGERANT CONDENSER	AEL	CARBON STEEL	TITANIUM GR 2	X	TS	1829	22	9593	2588 X 7315	3630	25/19	45	70	36,2	U-STAMP	8 UNITS	OIL&GAS ONSHORE	
J6Z00	2016	TECNICAS REUNIDAS	KNPC	KUWAIT	MAA REF. GAS TRAIN 5 STRIPPED WATER TRIM COOLER	AES	CARBON STEEL	TITANIUM GR 2	X	TS	673	12	7199	248 X 6096	113	25/20	45	75	3,8	U-STAMP	2 UNITS	OIL&GAS ONSHORE	
J7V00	2016	BUSS CHEM TECH AG	BUSS CHEM TECH	UK	REACTION HEAT EXCHANGER	BEM	SS 316	HASTELLOY B3		X	211	4	3000	59 X 3000	8,7	10/10	40	50	0,5	TUV			
J7V00	2016	BUSS CHEM TECH AG	BUSS CHEM TECH	UK	REACTION HEAT EXCHANGER	BEM	SS 316	HASTELLOY B3		X	211	4	3000	59 X 3000	8,7	10/10	40	50	0,5	TUV			
K0U00	2016	Indorama Ventures (formerly BP)	Indorama (formerly BP)	USA (Decatur, AL)	OVERHEAD CONDENSER	BE	CARBON STEEL	TITANIUM GR 2	X	TS	1700	10	5000	2535X 4880	700	31/7	210	200	15	U-STAMP		PTA	
J8V00	2016	DOMSYO FABRIKER	BRUNNER THERMO	SWEDEN	AIR COOLER		TITANIUM	TITANIUM GR 2															
K2C00	2017	RADIAN OIL	SABIC																				
K1Z00	2017	CANEXUS	CANEXUS	Brazil	ELECTROLYTE COOLER	BEM	SS316	TITANIUM GR 2	X	TS	1000	10	4500	212X 2900	60	8/3	120	120	3	U-STAMP		CHLORINE	

REFERENCE LIST

HEAT EXCHANGERS

Loterios Job No.	Year	Customer / EPC	End User	Plant Location	Project Service	Equipment Type	Material Shell Side	Material Tube	Cladding		Sizes			Tubes No. x L mm	Total Surface m ²	Design Pressure Bar	working Temperature °C		Weight M Ton	Insp. By	Photos	Notes	
									YES	NO	I.D./NPS mm/inch.	Thk. mm	L or H mm				tube side	shell side					
K3T00	2017	YARA	YARA Rostock	Germany	NITRIC ACID CONDENSER	NEN	SS316L	TITANIUM GR 2	X	TS		1724	10	10600	1615 X 8000	1015	5/14	164	67	19	TUV-Nord		AD-2000
K4N00	2017	JOHN CRANE	MAERSK	Norway	K2S 6Mt Water Cooler	COIL		TITANIUM GR 2		X					0,0004	13 / 141	90	90	0,032		4 UNITS		
K4U00	2017	ARKEMA	ARKEMA	ITALY	VENT REBOILER	BKU	CARBON STEEL	TITANIUM GR 2		X	575/1000	12	4885	96UX4885 Str. L	56	8 / 140	294	294	4,5	TUV			
K4U00	2017	ARKEMA	ARKEMA	ITALY	BRINE REBOILER	BKU	CARBON STEEL	TITANIUM GR 2		X	525/1000	12	4885	75UX4885 Str. L	44	8 / 140	294	294	4,3	TUV			
K4U00	2017	ARKEMA	ARKEMA	ITALY	BRINE COOLER	BEU	STAINLESS STEEL	TITANIUM GR 2		X	450	10	4885	62UX4885 Str. L	36	8 / 140	294	165	2,9	TUV			
K4W00	2018	EL NASR FOR FERTILIZERS & CHEMICAL	EL NASR FOR FERTILIZERS & CHEMICAL	EGYPT	TAIL GAS PREHEATER	NEN	STAINLESS STEEL	TITANIUM GR 2	X	TS		1130	10	4024	498 X 4024	155	9,5 / 9,5	179	120	12,5			
K4Y00	2018	RELIANCE	RELIANCE SIBUR ELASTOMERS	INDIA	SALT CONTAINING WATER COOLER	AEP	TITANIUM GR 2	TITANIUM GR 2		X	625	5	6000	144 X 6000	50	10 / 8	65	171	1,43	LLRR			
K4Y00	2018	RELIANCE	RELIANCE SIBUR ELASTOMERS	INDIA	FEED BOTTOM HEAT EXCHANGER	BFM	TITANIUM GR 2	TITANIUM GR 2		X	455	8	2800	180 X 2800	30	7 / 9	120	200	1	LLRR		2 UNITS	
K4Y00	2018	RELIANCE	RELIANCE SIBUR ELASTOMERS	INDIA	BROMINE WATER-VAPOR CONDENSER	BEM	STAINLESS STEEL	TITANIUM GR 2	X	TS		254	9,27	2100	54 X 2100	6,61	14 / 10	200	150	0,5	LLRR		
K4Y00	2018	RELIANCE	RELIANCE SIBUR ELASTOMERS	INDIA	SPENT SOLUTION COOLER	BES	STAINLESS STEEL	TITANIUM GR 2		X	600	8	6000	180 X 6000	83	7 / 7	138	65	3	LLRR			
K5B00	2018	AIBEL	EQUINOR	NORWAY	LP SUCTION COOLER	BEM	TITANIUM GR 2	TITANIUM GR 2		X	650	8	5100	424 X 5100	126	19 / 14,5	185	100	2	TUV			OIL & GAS OFFSHORE
K5B00	2018	AIBEL	EQUINOR	NORWAY	INJECTION WATER	BEM	SUPERDUPL EX	SUPERDUPL EX		X	740	36	6070	510 X 6070	176,2	290 / 41	95	95	9,9	TUV			OIL & GAS OFFSHORE
K5B00	2018	AIBEL	EQUINOR	NORWAY	SUCTION COOLER	BEU	TITANIUM GR 2	TITANIUM GR 2		X	750	10	8500	370U X 8500 Str. L	303	19 / 185	140	100	8,7	TUV			OIL & GAS OFFSHORE
K6B00	2018	PAUL WURTH	ARCELOR MITTAL	KAZAKHSTAN	VAPOR CONDENSER	BEM	CARBON STEEL	TITANIUM GR 2	X	TS		1000	10	5750	457 X 5750	206,8	7 / 1,5	120	120	5,3	TUV		
K6C00	2018	ENEA	ENEA	ANTARCTICA	WATER COOLER	COIL		TITANIUM GR 2							21,52		5	60		0,4			
K6U00	2018	AKERSOLUTIONS KVAERNER JV	EQUINOR	NORWAY	PRODUCED WATER COOLER	AEL	TITANIUM GR 2	TITANIUM GR 2		X	945	12	9400	840 X 9400	456	17 / 42,9	95	95	9,4	TUV		2 UNITS	OIL & GAS OFFSHORE
K7M00	2018	AIBEL	EQUINOR	NORWAY	FLOW LINE HEATER	AEL	DUPLEX	DUPLEX		X	635	10	3500	507 X 3500	97,7	39 / 202	180	180	9,5	TUV			OIL & GAS OFFSHORE
K7M00	2018	AIBEL	EQUINOR	NORWAY	OIL STABILIZER HEATER	BEM	DUPLEX	DUPLEX		X	855	8	6100	902 X 6100	318,8	24 / 32	180	180	8,3	TUV			OIL & GAS OFFSHORE
K7M00	2018	AIBEL	EQUINOR	NORWAY	GAS OIL EXPORT RECYCLE COOLER	BEM	TITANIUM GR 2	TITANIUM GR 2		X	650	10	4500	744 X 4500	144,7	17 / 250	100	100	8,1	TUV			OIL & GAS OFFSHORE
K7M00	2018	AIBEL	EQUINOR	NORWAY	1ST STAGE COMPRESSOR RECYCLE COOLER	BEM	TITANIUM GR 2	TITANIUM GR 2		X	500	10	3950	434 X 3950	82,3	17 / 17	175	175	1,4	TUV			OIL & GAS OFFSHORE
K7M00	2018	AIBEL	EQUINOR	NORWAY	3rd STAGE COMPRESSOR SUCTION COOLER	BEM	TITANIUM GR 2	TITANIUM GR 2		X	875	14	7700	1257 X 7700	464	17 / 37	155	155	6,7	TUV			OIL & GAS OFFSHORE
K7M00	2018	AIBEL	EQUINOR	NORWAY	4th STAGE COMPRESSOR SUCTION COOLER	BEM	TITANIUM GR 2	TITANIUM GR 2		X	650	10	8100	639 X 8100	242	24 / 133	155	155	6,3	TUV			OIL & GAS OFFSHORE
K7M00	2018	AIBEL	EQUINOR	NORWAY	4th STAGE COMPRESSOR AFTERCOOLER	BEM	TITANIUM GR 2	TITANIUM GR 2		X	590	12	7700	471 X 7700	166	22 / 238	190	190	8,85	TUV			OIL & GAS OFFSHORE
K7M00	2018	AIBEL	EQUINOR	NORWAY	GAS HEAT RECOVER EXCHANGER	BFM	DUPLEX	DUPLEX		X	660	8	6600	794 X 6600	246	28 / 238	190	190	11,5	TUV			OIL & GAS OFFSHORE
K7M00	2018	AIBEL	EQUINOR	NORWAY	GAS TREATMENT SUPERHEATER	BEM	DUPLEX	DUPLEX		X	400	8	1000	121 X 1000	8,79	80 / 80	180	180	1	TUV			OIL & GAS OFFSHORE
K7M00	2018	AIBEL	EQUINOR	NORWAY	CONDENSATE GAS HE	BFU	DUPLEX	DUPLEX		X	780	16	4800	342U X 4800 Str. L	182	80 / 80	175	175	9,3	TUV			OIL & GAS OFFSHORE
K7M00	2018	AIBEL	EQUINOR	NORWAY	GAS TREATMENT INLET COOLER	BEM	TITANIUM GR 2	TITANIUM GR 2		X	1080	16	9850	2041 X 9850	946	17 / 80	175	175	15,6	TUV			OIL & GAS OFFSHORE
K7M00	2018	AIBEL	EQUINOR	JOHAN SVERDRUP P2 TOPSIDE - NORWAY	FUEL GAS HEATER (B-45HA001)	DOUBLE PIPE	DUPLEX	DUPLEX			60,3	4	5300	-	0,7	50/FV 50/FV	180	180	90	TUV/CE-MARKING			OIL & GAS OFFSHORE
K7N00	2018	JOHN CRANE	MAERSK	Norway	K2S 6Mt Water Cooler	COIL		TITANIUM GR 2		X					0,0004	13 / 141	90	90	0,032		6 UNITS		
K7R00	2019	DRESSER RAND	DRESSER RAND	INDIA	FRAME OIL COOLER	AEW	CS	TITANIUM GR 2		X	150	7	1500	16 X 1500	1,4	10,5 / 9	100	100	0,24				
K7R00	2019	DRESSER RAND	DRESSER RAND	INDIA	COOLING WATER HEAT EXCHANGER	AEW	CS	TITANIUM GR 2		X	200	8	2000	80 X 2000	4,8	10,5 / 9	100	100	0,36				
K7Y00	2018	JOHN CRANE	MAERSK	Norway	K2S 6Mt Water Cooler	COIL		TITANIUM GR 2		X					0,0004	13 / 141	90	90	0,032		2 UNITS		
K7Z00	2018	JOHN CRANE	ZADCO	UAE	Seal System Cooler	BEU	SS 316L	TITANIUM Gr. 2		X	108,2	3	1200	5U X 900 SL	0,32	40 / 8,6	66	125	0,055	U-STAMP		2 UNITS	
K9E00	2019	BONATTI	UK		Booster Compressor Aftercooler	AEU	-	TITANIUM Gr. 12		X	900	-	-	718U X 6000 SL	281	19 / 75	145	32	2,47	TUV			BUNDLE ONLY
K9F00	2019	KANFA	ARMON	MEXICO (FPSO)	Crude Oil Cooler	AEL	TITANIUM Gr. 2	TITANIUM GR 2		X	650	12	6000	464 X 6000	168,3	12 / 12	150	150	2,7	DNVGL			
K9V00	2019	LOTTE CHEMICAL	LOTTE CHEMICAL	PAKISTAN	Condensate Cooler	BEM	SS 316L	DUPLEX		X	695	8	8000	685 X 8000	269	3,5 / 7	75	150	6,01	LLRR			
LOA00	2019	BERTRAMS		SAUDI ARABIA	FALLING FILM EVAPORATOR	BEM	904L	TITANIUM Gr. 2		X	800 / 1800	8	7100	109 X 7100	115,8	0,5 / 0,5	140	180	4,75	TUV			
LOA00	2019	BERTRAMS		SAUDI ARABIA	RISING FILM EVAPORATOR	BEM	CS	TITANIUM Gr. 7		X	355,6 / 800	8	6000	60 X 6000	29,3	0,5 / 22	180	225	1,5	TUV		2 UNITS	
LOH00	2019	CONSOLIDATED SUPPLIERS	ADNOC	ABU DHABI	CONDENSER	BEM	TITANIUM Gr. 2	TITANIUM Gr. 2		X	203	8	2135	36 X 2135	4,3	23,5 / 8,7	60	100	0,1	U-STAMP		2 UNITS	
LOW00	2019	BP CHEMBEL	BP CHEMBEL	BELGIUM	TUBE BUNDLES	BEU	-	TITANIUM Gr. 2		X	-	-	-	472 U X 3658 SL	196	20 / 33	263	250	3,05	CE-MARKING		2 BUNDLES	
L2T00	2020	HYDROCHEM	HYDROCHEM	ITALY	GAS COOLER	BEM	304L	NICKEL 201		X	219,1	5	3000	10 X 3000	1,7	6 / 6	15	35	0,2	CE-MARKING		2 UNITS	
L3F00	2020	Indorama Ventures (formely BP)	Indorama (formerly BP)	USA (Decatur, AL)	REACTOR FIRST CONDENSER	BEM	CS	TITANIUM Gr. 2		X	2794	20	9150	7480 X 9150	3950	5 / 16,6	150	180	85	U-STAMP			

REFERENCE LIST

HEAT EXCHANGERS

Loterios Job No.	Year	Customer / EPC	End User	Plant Location	Project Service	Equipment Type	Material Shell Side	Material Tube	Cladding		Sizes			Tubes No. x L mm	Total Surface m2	Design Pressure Bar	working Temperature °C		Weight M Ton	Insp. By	Photos	Notes
									YES	NO	I.D./NPS mm/inch.	Thk. mm	L or H mm				tube side	shell side				
L3U00	2020	ENPPI	ADNOC	ZIRKU Island (Abu Dhabi)	SATAH OFF Gas Compressor	AES	CS+I825 Clad	TITANIUM Gr. 2		X	825	12	4200	396 X 2440	65,8	23.1 / 17.93	35 / 42	155,6 / 44,5	6	U2-TS:AP		2 UNITS
L3Y00	2020	BP CHEMBEL	BP CHEMBEL	Geel - Belgium	PTA 2	BEM	CS	TITANIUM Gr. 2	X		1645	16	9985	2574 x 9981	1537	5.19 / 18.62	170.9/142	138.4/134,4	21,5	CE-MARKING		
L4E00	2020	ENI	ENI	Raffineria Porto Marghera	Porto Marghera	BEU	CS + SS 347 Clad	INCONEL I625		X	863	14	6500	213 X 4880 (stright lenght)	163	45 / 45	400/297	187 / 331	7,7	CE-MARKING		
L4E00	2020	ENI	ENI	Raffineria Porto Marghera	Porto Marghera	BEU	-	INCONEL I625	X		-	-	-	213 X 4880 (stright lenght)	163	45 / 45	400/297	187 / 331	7,7	CE-MARKING		Bundle only
L4E00	2020	ENI	ENI	Raffineria Porto Marghera	Porto Marghera	BEU	-	INCONEL I625	X		-	-	-	118 X 4267 (stright lenght)	79	45 / 41	383/382	283/ 274	4,7	CE-MARKING		Bundle only
G21011	2021	GR3N	NEXTCHEM DEMETO	Italy	Pilot Plant	HAIR PIN	CS	TITANIUM Gr. 2	X		78	5	1500	1 X 1500 (straight)	0,2	6 / 7	28 / 101	146	0,4	CE-MARKING		
G21011	2021	GR3N	NEXTCHEM DEMETO	Italy	Pilot Plant	HAIR PIN	CS	TITANIUM Gr. 2	X		78	5	650	1 X 650(straight)	0,01	25,7	101 / 151	219	0,4	CE-MARKING		
G21016	2021	AKER SOLUTION	CONOCO PHILLIPS	NORWAY	Tommliten Alpha	BFU	TITANIUM Gr. 2	titanioum Gr. 2	X		1195	14	6700	855 X 4500	360,4	19 / 70	66 / 25	15 / 40	10	CE-MARKING		OFF-SHORE