

MACCHITM

STEAM & POWER GENERATION

A DIVISION OF SOFINTER S.p.a.



REFERENCE LIST

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MACCHITM

STEAM & POWER GENERATION

A DIVISION OF SOFINTER S.p.a.

FIRED BOILERS

“TITAN M” Model

“MVF” Model

“MRD” Model

HEAT RECOVERY STEAM GENERATORS

PROCESS - WASTE HEAT BOILER

FOSSIL FIRED BOILER

BOILER REVAMPING, LIFE EXTENSION, UPRATING & UPGRADING

FUEL CONVERSION

LIFE ASSESSMENT

TRAINING

REFERENCE LIST

FIRED BOILER - "TITAN M" MODEL

Client	End User	Location	Qty.	Cap. T/h	Press. BarA	Temp. °C	Fuel	Process Application	Comm. Date
TECHNIP FRANCE	SONATRACH ALGERIA	ALGERI ALGERIA	2	81,5	36	405	Oil / Gas	Refinery	2013
GS ENGINEERING & CONSTRUCTION Co. KOREA	INTERNATIONAL POLYMERS Co. (IPC) SAUDI ARABIA	AL-JUBAIL SAUDI ARABIA	1	85	48	405	Gas	Polymers Plant	2013
JGC Corp. JAPAN	RAS LAFFAN LNG Co. (RASGAS) QATAR	RAS LAFFAN QATAR	4	165	43,4	384	Gas	Gas Plant	2012
SAMSUNG KOREA	RUWAIS FERTILIZER INDUSTRIES U.A.E.	RUWAIS U.A.E.	3	145,2	51	430	Gas	Fertilizer Plant	2012
PETROFAC GS JV U.A.E.	ABU DHABI GAS INDUSTRIES Ltd. (GASCO) U.A.E.	RUWAIS U.A.E.	5	180	31	355	Gas	NGL Plant	2011
MAN FERROSTAAL GERMAY	ILAM PETROCHEMICAL COMPLEX IRAN	ILAM IRAN	2	140	52	435	Oil / Gas	Olefin Complex	2010
SNAMPROGETTI ITALY	QATAR FERTILISER Co. (QAFCO) QATAR	MESAIEED QATAR	2	132	58	385	Gas	Fertilizer Plant	2009
IPS CURACAO VENEZUELA	PEQUIVEN MORON FERTILIZER VENEZUELA	MORON VENEZUELA	3	110	61	390	Gas	Fertilizer Plant	2009
MAPNA INTERNATIONAL FZE U.A.E.	POGC IRAN	ASSALUYEH IRAN	6	160	54	274	Diesel Oil / Gas	Gas Plant	2009

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FIRED BOILER - "TITAN M" MODEL

Client	End User	Location	Qty.	Cap. T/h	Press. BarA	Temp. °C	Fuel	Process Application	Comm. Date
CHINA PETROLEUM MATERIAL & EQUIPMENT Corp. (CPMEC) CHINA	PETROCHINA TARIM PETROCHEMICAL Co. CHINA	TARIM CHINA	2	65	57	400	Gas	Urea Plant	2008
FATIMA FERTILISER Co. Ltd. PAKISTAN	FATIMA FERTILISER Co. Ltd. PAKISTAN	MUKHTAR GARH PAKISTAN	1	75	53	390	Gas	Fertiliser Plant	2008
CTCI TAIWAN	PTT THAILAND	RAYONG THAILAND	1	154	62	425	Gas / Hydrogen	Utilities Plant	2008
GS ENGINEERING & CONSTRUCTION Co. KOREA	OMAN OIL Co. OMAN	SALALAH OMAN	2	100	127	525	Oil / Gas	Methanol Plant	2008
SIDEM FRANCE	GECOL LYBIA	DERNA / SOUSSA / ZAWIA / ZUARA LYBIA	12	126	30	sat.	Oil / Gas	Desalination Plant	2009
ARABIAN BEMCO CONTRACTING SAUDI ARABIA	SAUDI ARAMCO SAUDI ARABIA	JUAYMAH SAUDI ARABIA	1	252	58	394	Gas	Gas Plant	2009
SNAMPROGETTI ITALY	SAUDI ARAMCO SAUDI ARABIA	KHURAI SAUDI ARABIA	3	140	15	185	Natural Gas / Sour Gas	Water Injection Facilities / Utilities	2008
DAELIM Ind. Co. KOREA	DAELIM Ind. Co. KOREA	AL-JUBAIL SAUDI ARABIA	3	176	54	415	Gas	Aromatic Plant	2008
CHIYODA - TECHNIP JOINT VENTURE	EXXON MOBIL MIDDLE EAST Ltd. QATAR	RAS LAFFAN QATAR	2	240	56	384	Gas	Gas Plant	2008
EDISON S.p.A. ITALY	EDISON S.p.A. ITALY	SETTIMO TORINESE ITALY	1	60	30	236	Gas	Cogeneration Plant	2008

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Client	End User	Location	Qty.	Cap. T/h	Press. BarA	Temp. °C	Fuel	Process Application	Comm. Date
SIPCHEM SAUDI ARABIA	SIPCHEM SAUDI ARABIA	AL-JUBAIL SAUDI ARABIA	2	200	60	405	Gas	Ethylene Plant	2008
SIDEM FRANCE	MINISTRY OF ENERGY&WATER BAHRAIN	NUHARRAQ ISLAND BAHRAIN	3	257	21	sat.	Gas	Desalination Plant	2007
LINDE AG GERMANY	TASNEE PETROCHEMICALS Co. SAUDI ARABIA	AL-JUBAIL SAUDI ARABIA	2	210	75	490	Oil / Gas	Ethylene Plant	2007
CHIYODA - TECHNIP JOINT VENTURE	QATAR LIQUEFIED GAS Co. Ltd. (QATARGAS) QATAR	RAS LAFFAN QATAR	6	264	79	440	Gas	Gas Plant	2008
CHIYODA - TECHNIP JOINT VENTURE	RAS LAFFAN LNG Co. (RASGAS) QATAR	RAS LAFFAN QATAR	3	240	56	384	Gas	Gas Plant	2007
TECHNIP FRANCE	RAS LAFFAN OLEFIN Co. QATAR	RAS LAFFAN QATAR	3	110	53	293	Gas	Ethylene Plant	2007
EASTERN PETROCHEMICAL Co. (SHARQ) SAUDI ARABIA	EASTERN PETROCHEMICAL Co. (SHARQ) SAUDI ARABIA	AL-JUBAIL SAUDI ARABIA	4	115	53	310	Gas	Utilities & Offsite Plant	2007
JGC / KBR JOINT VENTURE	BP BERAU Ltd. INDONESIA	TANGGUH INDONESIA	3	176	51	400	Oil / Gas	Gas Plant	2007
EQUATE PETROCHEMICAL Co. KUWAIT	EQUATE PETROCHEMICAL Co. KUWAIT	SHUAIBA KUWAIT	3	198	68	390	Oil / Gas	Aromatic Plant	2007

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FIRED BOILER - "TITAN M" MODEL

Client	End User	Location	Qty.	Cap. T/h	Press. BarA	Temp. °C	Fuel	Process Application	Comm. Date
SNAMPROGETTI ITALY	ABU DHABI GAS INDUSTRIES Ltd. (GASCO) U.A.E.	RUWAIS U.A.E.	5	143	38	355	Gas	NGL Plant	2007
CHIYODA Corp. JAPAN	RAS LAFFAN LNG Co. (RAS GAS) QATAR	RAS LAFFAN QATAR	2	159	25	240	Gas	Gas Plant	2006
CHIYODA - TECHNIP JOINT VENTURE	QATAR LIQUEFIED GAS Co. (QATARGAS) QATAR	RAS LAFFAN QATAR	6	264	79	440	Gas	Gas Plant	2006
GS ENGINEERING & CONSTRUCTION Corp. KOREA	QINGDAO LIDONG CHEMICAL Co. CHINA	QINGDAO CHINA	2	180	42	390	Oil / Gas	Aromatic Plant	2006
ENIP ALGERIA	ENIP ALGERIA	SIKIDA ALGERIA	1	123	53	450	Oil / Gas	Ethylene Plant	2006
GS / OIEC JOINT VENTURE	POGC IRAN	ASSALUYEH IRAN	6	160	54	274	Gas	Gas Plant	2006
KHPC / PCC IRAN	KHORASAN NATIONAL PETROCHEMICAL PETROCHEMICAL Ind. IRAN	KHORASAN IRAN	1	84	45	448	Gas	Petrochemical Plant	2005
UHDE GmbH GERMANY	SAUDI ARABIAN FERTILISER Co. (SAFCO) SAUDI ARABIA	AL-JUBAIL SAUDI ARABIA	2	150	67	435	Gas	Fertilizer Plant	2005
TECHNIP ITALY	ORYX GTL Ltd. QATAR	RAS LAFFAN QATAR	3	160	78	294	Gas	GTL Plant	2004

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Client	End User	Location	Qty.	Cap. T/h	Press. BarA	Temp. °C	Fuel	Process Application	Comm. Date
CHIYODA Corp. JAPAN	SIPC SAUDI ARABIA	AL-JUBAIL SAUDI ARABIA	2	85	61	405	Gas	Petrochemical Plant	2004
BASF-YPC Co. Ltd. CHINA	BASF-YPC Co. Ltd. CHINA	NANJING CHINA	2	170	55	390	Gas	Petrochemical Plant	2003
STC ATEL S.p.A. ITALY	NOVEL ITALY	NOVARA ITALY	1	122	51	420	Gas	Cogeneration Plant	2003
SNAMPROGETTI ITALY	SAUDI ARAMCO SAUDI ARABIA	QATIF SAUDI ARABIA	2	120	12	199	Gas	Refinery	2003
AGIP IRAN B.V. IRAN	ENI AGIP PETROPARS JOINT VENTURE	ASSALUYEH IRAN	6	160	54	274	Gas	Gas Plant	2003
TECHNIP ITALY	PETROVIETNAM VIETNAM	PHU MY VIETNAM	1	140	50	380	Gas	Fertilizer Plant	2003
KRUPP UHDE GERMANY	QATAR FERTILISER Co. (QAFCO) QATAR	MESAIEED QATAR	2	120	60	425	Gas	Fertilizer Plant	2003
KAWASAKI HEAVY Ind. JAPAN	CHINA NATIONAL OFFSHORE OIL Corp. CHINA	HAINAN CHINA	1	60	59	389	Gas	Fertilizer Plant	2002
CHIYODA Corp. JAPAN	RAS LAFFAN LNG Co. (RASGAS) QATAR	RAS LAFFAN QATAR	3	159	25	240	Gas	Gas Plant	2004
ENI / AGIP ITALY	ENI / AGIP ITALY	VAL D'AGRI ITALY	2	75	38	300	Gas	Refinery	2002

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Client	End User	Location	Qty.	Cap. T/h	Press. BarA	Temp. °C	Fuel	Process Application	Comm. Date
MINISTRY OF OIL IRAQ	MINISTRY OF OIL IRAQ	KIRKUK IRAQ	4	176	55	410	Gas	Refinery	2004
TRACTEBEL BELGIUM	ELYO FRANCE	ARLES FRANCE	1	83	55	405	Gas	Cogeneration Paper Mill	2002
TECHNIP ITALY	BP AMOCO CHINA	ZHUHAI CHINA	2	77	98	sat.	Gas	PTA Plant	2001
TECHNIP ITALY	QATAR LIQUEFIED GAS Co. Ltd. (QATARGAS) QATAR	MESAIEED QATAR	1	160	17	210	Gas	Sulphur Recovery Plant	2001
KELLOGG BROWN & ROOT (KBR) USA	QATAR CHEMICAL Co. Ltd. (Q-CHEM) QATAR	MESAIEED QATAR	3	105	53	371	Gas	Olefin Complex	2001
RENO DE MEDICI ITALY	RENO DE MEDICI ITALY	S. GIUSTINA ITALY	1	70	75	485	Oil / Gas	Paper Mill	2001
MOBIL NORTH SEA Ltd. U.K.	MOBIL NORTH SEA Ltd. U.K.	PETERHEAD U.K.	1	55	21	229	Gas	Gas Plant	2001
ABB LUMMUS / JGC CONSORTIUM	SHELL CHEMICALS / BASF JOINT VENTURE	JURONG ISLAND (SERAYA) SINGAPORE	1	115	35	350	Light Oil / Gas	SMPO Plant	2001
LG ENGINEERING & CONSTRUCTION Co. KOREA	NATIONAL OIL DISTRIBUTION Co. (NODCO) QATAR	MESAIEED QATAR	1	60	20	sat.	Oil / Gas	Refinery	2000
TOYO ENGINEERING Corp. JAPAN	PUPUK ISKANDAR MUDA INDONESIA	NORT ACEH INDONESIA	1	120	53	390	Gas	Fertilizer Plant	2000

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FIRED BOILER - "TITAN M" MODEL

Client	End User	Location	Qty.	Cap. T/h	Press. BarA	Temp. °C	Fuel	Process Application	Comm. Date
BECHTEL / SNAMPROGETTI JOINT VENTURE	KARACHAGANAK OIL KAZAKHSTAN	KARACHAGANAK KAZAKHSTAN	4	115	53	400	Gas	Petrochemical Plant	2000
HELLENIC PETROLEUM CONSORTIUM	HELLENIC PETROLEUM S.A. GREECE	ATHENS GREECE	1	60	54	410	Oil	Petrochemical Plant	2000
TECHNIP / BECHTEL CONSORTIUM	ABU DHABI NATIONAL OIL Co. (ADNOC) U.A.E.	ABU DHABI U.A.E.	2	130	54	400	Gas	Gas Plant	1999
TOYO ENGINEERING Corp. JAPAN	SIDI KERIR PETROCHEMICALS Co. (SIDPEC) EGYPT	ALEXANDRIA EGYPT	2	50	52	395	Gas	Ethylene Plant	1998
JGC Corp. JAPAN	PARCO PAKISTAN	MULTAN CITY PAKISTAN	3	65	52	390	Oil / Gas	Refinery	1999
DAELIM Ind. Co. KOREA	PETRONAS GAS MALAYSIA	TERENGGANU MALAYSIA	3	100	45	410	Gas	Gas Plant	1998
CHIYODA Corp. JAPAN	PETROMIN LUBRICATING OIL REFINING (LUBEREF) SAUDI ARABIA	YANBU SAUDI ARABIA	3	84	32	371	Tar / Gas	Lube Base Oil Plant	1996
ANSALDO ENERGIA / FOCHI CONSORTIUM	MINISTRY OF ENERGY & WATER U.A.E.	MIRFA U.A.E.	2	220	16	220	Oil / Gas	Desalination Plant	1995
SIEMENS AG GERMANY	KHORASAN NATIONAL PETROCHEMICAL Ind. IRAN	BOJNURD IRAN	3	84	45	448	Diesel Oil / Gas	Cogeneration Plant	1994
FOCHI ITALY	AEM TORINO ITALY	MONCALIERI ITALY	3	86	12	sat.	Oil	District Heating	1993

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FIRED BOILER - "TITAN M" MODEL

Client	End User	Location	Qty.	Cap. T/h	Press. BarA	Temp. °C	Fuel	Process Application	Comm. Date
FIAT ENGINEERING ITALY	FIAT ENGINEERING ITALY	MELFI ITALY	2	130	30	sat.	Heavy Oil / Gas	District Heating	1993
CHIYODA Corp. JAPAN	KAFCO BANGLADESH	CHITTAGONG BANGLADESH	2	85	126	513	Gas	Fertilizer Plant	1992
ITALIMPIANTI ITALY	SITRA DESALINATION PLANT BAHRAIN	AL-HIDD BAHRAIN	1	165	20	215	Diesel Oil / Gas	Desalination Plant	1983
KRUPP UHDE GERMANY	MARSA EL BREGA REFINERY LIBYA	MARSA EL BREGA LIBYA	2	100	46	400	Oil / Gas	Refinery	1983
STADTWERKE GERMANY	BREMA MUNICIPALITY GERMANY	HASTEDT GERMANY	2	100	22	310	Oil / Gas	District Heating	1982
TECHNIPETROL ITALY	MINISTRY OF OIL IRAQ	KIRKUK IRAQ	4	176	55	410	Light Oil / Gas	Refinery	1982
AEG - KANIS GERMANY	WARRI II REFINERY NIGERIA	WARRI NIGERIA	1	95	50	400	Heavy Oil / Gas	Refinery	1981
FOSTER WHEELER ITALY	MARSA EL BREGA REFINERY LIBYA	MARSA EL BREGA LIBYA	2	126	46	400	Heavy Oil	Refinery	1979
UGINE KUHLMANN FRANCE	ELF ATOCHEM FRANCE	FOS-SUR-MER FRANCE	2	110	30	300	Oil / Hydrogen	Chemical Plant	1979
TECHNIPETROL ITALY	MONTEDISON ITALY	PRIOLO GARGALLO ITALY	2	110	90	480	Heavy Oil	Cogeneration Plant	1979
ANSALDO ITALY	NISIC IRAN	MOOBARAKEH / ESHAFAN IRAN	5	200	60	460	Oil / Gas	Refinery	1978

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Client	End User	Location	Qty.	Cap. T/h	Press. BarA	Temp. °C	Fuel	Process Application	Comm. Date
SOC. MINERARIA & METALLURGIA ITALY	SOC. MINERARIA & METALLURGIA ITALY	CROTONE ITALY	1	90	90	500	Heavy Oil	Cogeneration Plant	1975
SIACE ITALY	SIACE ITALY	FIUMEFREDDO ITALY	1	120	52	410	Heavy Oil	Cogeneration Plant	1975
COMING ITALY	GAETA INDUSTRIA PETROLI ITALY	GAETA ITALY	1	100	52	450	Heavy Oil	Cogeneration Plant	1974
SAROM ITALY	SAROM ITALY	RAVENNA ITALY	1	88	62	470	Heavy Oil	Cogeneration Plant	1974

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FIRED BOILER - "MVF" MODEL

Client	End User	Location	Qty.	Cap. T/h	Press. BarA	Temp. °C	Fuel	Process Application	Comm. Date
SNC LAVALIN INTERNATIONAL Inc. CANADA	SAUDI ARAMCO SAUDI ARABIA	WASIT SAUDI ARABIA	3	340	46	399	Gas	Gas Plant	2012
LINDE MIDDLE EAST U.A.E.	ABU DHABI POLYMERS Co. Ltd. (BOROUGE) U.A.E.	RUWAI U.A.E.	2	297	87	460	Oil / Gas	Ethylene Plant	2012
SUNKYONG ENGINEERING & CONSTRUCTION Co. KOREA	SATORP SAUDI ARABIA	AL-JUBAIL SAUDI ARABIA	4	300	39.5	410	Oil / Gas	Refinery	2011
TEHRAN JONOBB BINA JV IRAN	PERSIAN GULF STAR OIL Co. IRAN	BANDAR ABBAS IRAN	3	275	44.1	378	Oil / Gas	Refinery	2011
PETROFAC U.A.E.	SAUDI ARAMCO SAUDI ARABIA	KARAN SAUDI ARABIA	1	305	59	380	Gas	Gas Plant	2010
FISIA ITALIMPIANTI ITALY	QATAR ELECTRICITY & WATER Co. QATAR	RAS ABU FONTAS QATAR	1	335	28	235	Gas	Desalination Plant	2009
LINDE IMPIANTI ITALIA S.p.A. ITALY	ABU DHABI POLYMERS Co. Ltd. (BOROUGE) U.A.E.	RUWAI U.A.E.	3	297	87	460	Oil / Gas	Ethylene Plant	2009
SNAMPROGETTI ITALY	SAUDI ARAMCO SAUDI ARABIA	KHURSANIYAH SAUDI ARABIA	3	305	59	380	Gas	Gas Plant	2007
JGC Corp. JAPAN	DOLPHIN ENERGY U.A.E.	RAS LAFFAN QATAR	4	246	54	410	Gas	Gas Plant	2005

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FIRED BOILER - "MVF" MODEL

Client	End User	Location	Qty.	Cap. T/h	Press. BarA	Temp. °C	Fuel	Process Application	Comm. Date
AGIP KCO UK	AGIP KCO KAZAKHSTAN	KASHAGAN KAZAKHSTAN	3	385	44	400	Gas	Refinery	2005
SNAMPROGETTI ITALY	AGIP LIBYA	MELLITAH LIBYA	4	363	42	355	Gas	Gas Plant	2004
SNAMPROGETTI / TECHINT CONSORTIUM	PROFERTIL ARGENTINA	BAHIA BLANCA ARGENTINA	1	180	46	390	Gas	Fertilizer Plant	1999
TOYO ENGINEERING Corp. JAPAN	KERTIH AROMATIC MALAYSIA	TERENGGANU MALAYSIA	3	140	45	400	Oil / Gas	Aromatic Plant	1999
SUNKYONG ENGINEERING & CONSTRUCTION Co. KOREA	KNPC KUWAIT	MINA AL AHMADI KUWAIT	1	182	63	438	Oil / Gas	Refinery	1998
SABIC SAUDI ARABIA	AIFC PTA SAUDI ARABIA	YANBU SAUDI ARABIA	4	308	41	400	Oil / Gas	Aromatic Plant	1997
SNAMPROGETTI ITALY	NIOC IRAN	BANDAR ABBAS IRAN	2	145	45	380	Heavy Oil / Gas	MTBE Plant	1994
A.S.M. ITALY	A.S.M. ITALY	BRESCIA ITALY	1	145	22	sat.	Light Oil / Heavy Oil / Gas	District Heating	1993
SNAMPROGETTI ITALY	IBN ZAHR SAUDI ARABIA	AL-JUBAIL SAUDI ARABIA	2	140	43	435	Gas	MTBE Plant	1992

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FIRED BOILER - "MVF" MODEL

Client	End User	Location	Qty.	Cap. T/h	Press. BarA	Temp. °C	Fuel	Process Application	Comm. Date
FIAT AUTO ITALY	FIAT AUTO ITALY	POMIGLIANO ITALY	2	110	16	sat.	Oil / Gas	District Heating	1991
RADICI CHIMICA ITALY	RADICI CHIMICA ITALY	NOVARA ITALY	1	80	35	390	Oil / Gas	Chemical Plant	1990

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FIRED BOILER - "MRD" MODEL

Client	End User	Location	Qty.	Cap. T/h	Press. BarA	Temp. °C	Fuel	Process Application	Comm. Date
TECNIMONT INDIA	GULF PETROCHEMICAL INDUSTRIAL Co. (GPIC) BAHRAIN	SITRA ISLAND BAHRAIN	1	110	115	510	Gas	Petrochemical Plant	2012
MARUBENI SINGAPORE	TUAS POWER SINGAPORE	JURONG ISLAND SINGAPORE	2	200	106	510	Oil / Gas	Cogeneration Plant	2012
MITSUBISHI HEAVY Ind. JAPAN	ASMIDAL ALGERIA	ARZEW ALGERIA	2	165	118	515	Gas	Fertilizer Plant	2010
SHAW STONE & WEBSTER USA	EXXONMOBIL SINGAPORE	JURONG ISLAND SINGAPORE	2	203	128	510	Oil / Gas / Waste Gas	Chemical Plant	2009
SAUDI KAYAN PETROCHEMICAL Co. SAUDI ARABIA	SAUDI KAYAN PETROCHEMICAL Co. SAUDI ARABIA	AL-JUBAIL SAUDI ARABIA	2	385	62	400	Crude Oil	Petrochemical Plant	2009
EASTERN PETROCHEMICAL Co. (SHARQ) SAUDI ARABIA	EASTERN PETROCHEMICAL Co. (SHARQ) SAUDI ARABIA	AL-JUBAIL SAUDI ARABIA	3	165	128	510	Oil / Gas	Ethylene Plant	2008
SABIC SAUDI ARABIA	SABIC SAUDI ARABIA	YANBU SAUDI ARABIA	5	165	120	510	Oil / Gas	Utilities & Offsite Plant	2007
ABB LUMMUS GLOBAL THE NETHERLANDS	AL-JUBAIL PETROCHEMICAL Co. (KEMYA) SAUDI ARABIA	AL-JUBAIL SAUDI ARABIA	3	70	120	510	Oil / Gas	Ethylene Plant	2002
SNAMPROGETTI ITALY	FAUJI FERT. Co. Ltd. PAKISTAN	GOT MACHHI PAKISTAN	1	132	130	515	Gas	Fertiliser Plant	1992
FIAT AUTO ITALY	FIAT AUTO ITALY	ATESSA ITALY	2	60	106	518	Oil / Gas	Cogeneration Plant	1992

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FIRED BOILER - "MRD" MODEL

Client	End User	Location	Qty.	Cap. T/h	Press. BarA	Temp. °C	Fuel	Process Application	Comm. Date
SNAMPROGETTI ITALY	GULF PETROCHEMICAL INDUSTRIAL Co. (GPIC) BAHRAIN	SITRA ISLAND BAHRAIN	2	88	136	510	Oil / Gas	Ammonia Methanol Complex	1988
A.S.M. ITALY	A.S.M. ITALY	BRESCIA ITALY	1	253	129	513	Pulver. Coal / Oil / Gas	District Heating	1987
SNAMPROGETTI ITALY	INDOGULF INDIA	JADIGSPUR INDIA	2	110	130	515	Oil / Gas	Fertiliser Plant	1984

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HEAT RECOVERY STEAM GENERATOR

Client	End user	Location	Type	Qty.	Fluid Heated	Cap. T/h	Press. BarA	Temp. °C	Suppl. Firing	Gas Turbine	G. T. Application	Comm. date
TECHNIP FRANCE	SONATRACH ALGERIA	ALGERI ALGERIA	N/C	1	HP	81,5	36	405	YES	G.E. FRAME 6 MS6001B	Refinery	2013
MITSUBISHI HEAVY Ind. JAPAN	AMMONI TATARSTAN RUSSIA	MENDELEEVSKY TATARSTAN RUSSIA	N/C	1	MP	50	43	390	YES	HITACHI FRAME 5 H25	Fertiliser Plant	2013
SNC LAVALIN INTERNATIONAL Inc. CANADA	SAUDI ARAMCO SAUDI ARABIA	WASIT SAUDI ARABIA	N/C	4	HP	286	46	399	NO	MITSUBISHI M501F	Gas Plant	2012
CB&I U.S.A.	REFICAR COLOMBIA	CARTAGENA COLOMBIA	N/C	3	HP	170	43	380	YES	SIEMENS FRAME 6 SGT-800	Refinery	2011
PETROBRAS BRAZIL	PETROBRAS UTE SEPE TIARAJU BRAZIL	CANOAS BRAZIL	N/C	1	HP MP LP	196 27 24	113 27 4	541 317 293	NO	G.E. FRAME 9 PG7241FA	Power Plant	2011
SAIPEM (SNAMPROGETTI) ITALY	QATAR FERTILISER Co. (QAFCO) QATAR	MESAIEED QATAR	N/C	1	HP LP	150 11	69 11	385 185	YES	G.E. FRAME 6 LM6000	Fertiliser Plant	2011
TEHRAN JONOUB BINA JV IRAN	PERSIAN GULF STAR OIL Co. IRAN	BANDAR ABBAS IRAN	N/C	7	LP	125	48	380	YES	G.E. FRAME 6 6561B / 6581B	Refinery	2011
PETROBRAS BRAZIL	PETROBRAS REGAP BRAZIL	BETIM BRAZIL	N/C	1	HP	132	76	450	YES	G.E. FRAME 6 LM6000 SPRINT	Cogeneration Plant	2009

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HEAT RECOVERY STEAM GENERATOR

Client	End user	Location	Type	Qty.	Fluid Heated	Cap. T/h	Press. BarA	Temp. °C	Suppl. Firing	Gas Turbine	G. T. Application	Comm. date
MITSUBISHI HEAVY Ind. JAPAN	ASMIDAL ALGERIA	ARZEW ALGERIA	N/C	3	HP	83	59	380	YES	HITACHI FRAME 5 H25	Fertilizer Plant	2010
STATOIL HYDRO NORWAY	STATOIL HYDRO NORWAY	OSEBERG NORWAY	N/C	1	LP	38	23	436	NO	G.E. FRAME 5 PGT25+	Off-shore	2010
GE OIL & GAS ITALY	QATAR FERTILISER Co. (QAFCO) QATAR	MESAIEED QATAR	N/C	2	HP LP	150 11	69 11	430 185	YES	G.E. FRAME 6 LM6000	Fertiliser Plant	2009
HERA S.p.A. ITALY	HERA S.p.A. ITALY	IMOLA ITALY	N/C	2	HP LP	38 9	61 11	487 230	NO	ROLLS ROYCE FRAME 5 RB211T-DLE	Cogeneration Plant	2008
CHIYODA - TECHNIP JOINT VENTURE	RAS LAFFAN LNG Co. (RASGAS) QATAR	RAS LAFFAN QATAR	N/C	4	HP	220	59	384	YES	G.E. FRAME 6B	Gas Plant	2008
TENARIS DALMINE ITALY	TENARIS DALMINE ITALY	DALMINE ITALY	N/C	2	HP LP	56 13	98 13	519 218	NO	SIEMENS FRAME 6 SGT800	Cogeneration Plant	2006
JGC Corp. JAPAN	DOLPHIN ENERGY U.A.E.	RAS LAFFAN QATAR	N/C	6	HP	46	53	425	NO	ROLLS ROYCE TRENT FRAME 5	Gas Plant	2005
PETRONAS GAS BERHAD MALAYSIA	PETRONAS GAS MALAYSIA	GEBENG MALAYSIA	N/C	1	HP	120	65	475	YES	G.E. FRAME 6B	Refinery	2005

REFERENCE LIST

HEAT RECOVERY STEAM GENERATOR

Client	End user	Location	Type	Qty.	Fluid Heated	Cap. T/h	Press. BarA	Temp. °C	Suppl. Firing	Gas Turbine	G. T. Application	Comm. date
JGC Corp. JAPAN	SOHAR REFINERY OMAN	SOHAR OMAN	N/C	2	HP	35	54	390	NO	HITACHI FRAME 5 H25	Refinery	2005
SNAMPROGETTI - TECHNIP JOINT VENTURE	OMAN INDIA FERTILIZER Co. (OMIFCO) OMAN	MUSCAT OMAN	N/C	2	HP	116	58	395	YES	G.E. FRAME 6B	Fertilizer Plant	2004
EDISON ITALY	SONDEL ITALY	SESTO S. GIOVANNI ITALY	N/C	1	HP LP	43 13	67 10	420 256	NO	G.E. FRAME 6 LM6000PD	District Heating	2003
NPCC / TECHNIP JOINT VENTURE	SOROOSH & NOWROOZ IRAN	IRAN	N/C	3	Water	672	21	165	YES	G.E. FRAME 5 GT35	Off-shore	2003
IPS TOYO LUXEMBOURG	PETROBRAS REFAP BRAZIL	CANOAS BRAZIL	N/C	1	HP LP	80 14	78 30	435 270	YES	HITACHI FRAME 5 H25	Refinery	2003
HIRBODAN IRAN	BANDAR ABBAS REFINERY IRAN	BANDAR ABBAS IRAN	N/C	1	HP	101	56	385	YES	G.E. FRAME 6 PG6581B	Refinery	2003
TECHNIP FRANCE	SAUDI ARAMCO SAUDI ARABIA	ABQAIQ SAUDI ARABIA	N/C	2	HP	52	44	385	NO	G.E. MS5382	NGL Plant	2003
JGC Corp. JAPAN	BAIXADA SANTISTA ENERGIA Ltd. BRAZIL	CUBATAO BRAZIL	N/C	2	HP	383	139	560	YES	G.E. FRAME 9 PG7241FA	Power Plant	N.A.

REFERENCE LIST

HEAT RECOVERY STEAM GENERATOR

Client	End user	Location	Type	Qty.	Fluid Heated	Cap. T/h	Press. BarA	Temp. °C	Suppl. Firing	Gas Turbine	G. T. Application	Comm. date
SONDEL ITALY	PIRELLI TYRE Co. TURKEY	IZMIT TURKEY	N/C	1	HP	64	43	440	YES	G.E. FRAME 5 LM2500	Tyre Factory Plant	2002
TRACTEBEL BELGIUM	ELYO FRANCE	ARLES FRANCE	N/C	1	HP LP	75 15	45 5	405 170	YES	G.E. FRAME 6 LM6000	Paper Mill	2002
ENELPOWER ITALY	NUEVA CENTRAL INDIPENDENCIA ARGENTINA	TUCUMAN ARGENTINA	N/C	1	HP LP	214 52	111 34	528 240	NO	SIEMENS V94.2	Power Plant	N.A.
COMMISSIONING ITALY	LUCCHINI GROUP ITALY	PIOMBINO ITALY	N/C	2	HP	71	130	513	YES	G.E. PGT10B	Steel Complex	2001
ABB LUMMUS / JGC Corp. CONSORTIUM	SHELL CHEMICALS / BASF-YPC Co. Ltd. JOINT VENURE	JURONG ISLAND SINGAPORE	N/C	2	HP	115	35	350	YES	G.E. MS5001PA	SMPO Plant	2001
AIR LIQUIDE FRANCE	AIR LIQUIDE FRANCE	ROUEN FRANCE	N/C	2	HP LP	109 16	80 14	458 170	YES	G.E. FRAME 6 LM6000	Paper Mill	2000
TECHNIP / BECHTEL CONSORTIUM	ABU DHABI NATIONAL OIL Co. (ADNOC) U.A.E.	ABU DHABI U.A.E.	N/C	1	HP	130	51	400	YES	G.E. FRAME 6	Gas Plant	1999
FJFC PAKISTAN	FJFC PAKISTAN	BIN QASIM PAKISTAN	N/C	1	HP	110	40	330	YES	G.E. MS5001	Fertilizer Plant	1999

REFERENCE LIST

HEAT RECOVERY STEAM GENERATOR

Client	End user	Location	Type	Qty.	Fluid Heated	Cap. T/h	Press. BarA	Temp. °C	Suppl. Firing	Gas Turbine	G. T. Application	Comm. date
JGC Corp. JAPAN	RAS LAFFAN LNG Co. (RAS GAS) QATAR	RAS LAFFAN QATAR	N/C	1	LP	159.5	17	240	YES	G.E. FRAME 6	LNG Train Plant 1 & 2	1998
DAELIM Ind. Co. KOREA	PETRONAS GAS MALAYSIA	TERENGGANU MALAYSIA	N/C	8	HP	22	45	410	NO	DRESSER RAND DR61	Gas Plant 5 & 6	1997
HITACHI Ltd. JAPAN	HAINAN FUDAO CHEMICAL Ind. Co. CHINA	HAINAN CHINA	N/C	1	HP	100	112	513	YES	G.E. PGT10	Fertilzer Plant	1995
ENEL ITALY	ENEL ITALY	TRINO VERCELLESE ITALY	N/C	1	HP LP	180 40	56 6	524 278	NO	FIAT AVIO TG50	Power Plant	1994
CARTIERA S. MARCO ITALY	CARTIERA S. MARCO ITALY	PORCARI ITALY	N/C	1	HP	18	51	350	NO	G.E. PGT10	Paper Mill	1993
COGEN Co. ITALY	COGEN Co. ITALY	BOLOGNA ITALY	F/C	1	HP	12	41	400	NO	G.E. PGT5	District Heating	1993
TECNOGROUP BECO ITALY	TECNOGROUP BECO ITALY	BIELLA ITALY	N/C	1	HP	7,5	40	400	YES	TYPHON	Textile Plant	1993
TECNOGROUP BECO ITALY	TECNOGROUP BECO ITALY	BIELLA ITALY	N/C	1	HP	19	40	400	NO	ALSTOM RLM1600	Textile Plant	1993
SONDEL ITALY	SONDEL ITALY	SESTO S. GIOVANNI ITALY	N/C	1	HP LP	61,5 12,8	70 6,5	500 285	YES	G.E. FRAME 6	District Heating	1993
EDISON GAS ITALY	CERESTAR ITALY	CASTELMASSA ITALY	N/C	2	HP	72	66	482	YES	G.E. FRAME 5 LM2500	Agro Industry Plant	1992

REFERENCE LIST

HEAT RECOVERY STEAM GENERATOR

Client	End user	Location	Type	Qty.	Fluid Heated	Cap. T/h	Press. BarA	Temp. °C	Suppl. Firing	Gas Turbine	G. T. Application	Comm. date
TURBOTECNICA ITALY	NAGARJUNA FERTILIZER & PETROCHEMICAL Co. INDIA	KAKINADA INDIA	N/C	2	HP	60	44	385	YES	G.E. PGT10	Fertiliser Plant	1991
FIAT ENGINEERING ITALY	BURGO CARTIERE ITALY	TIMAVO ITALY	F/C	2	HP LP	78 13,5	47 7	380 160	NO	FIAT TG20	Paper Mill	1991
ITALIMPIANTI ITALY	SITRA DESALINATION Co. BAHRAIN	SITRA BAHRAIN	F/C	1	LP	80	20	215	NO	B. BOVERI	Desalination Plant	1984
TURBOTECNICA ITALY	ACEA ITALY	ROMA ITALY	F/C	1	LP	38	18	120	NO	N. PIGNONE	District Heating	1982
NUOVO PIGNONE ITALY	AZZAWIYA OIL REFINERY Co. LIBYA	AZZAWIYA LIBYA	F/C	1	LP	54,8	18	235	NO	G.E. FRAME 5	Petrochemical Plant	1982

REFERENCE LIST

PROCESS - WASTE HEAT BOILER

Client	End User	Location	Type	Qty.	Fluid Heated	Cap. T/h	Press. BarA	Temp. °C	Suppl. Firing	Process Application	Comm. Date
TECHNIP ITALY	SATORP SAUDI ARABIA	AL-JUBAIL SAUDI ARABIA	N/C	1	HP LP	60 10,5	39,5 7	410 190	NO	FCC Plant (Fluid Catalyst Cracking)	2012
HOVENSA LLC U.S.A.	HOVENSA LCC U.S.A.	ST. CROIX VIRGIN ISLANDS U.S.A.	N/C	2	HP	57	51	413	NO	FCC Plant (Fluid Catalyst Cracking)	2009
FBM HUDSON ITALIANA S.p.A. ITALY	SINOPEC ZHONGYUAN OILFIELD Co. CHINA	PUGUANG (SICHUAN PROVINCE) CHINA	N/C	12	HP	79	39	390	NO	Gas Plant	2008
LURGI OIL & GAS GERMANY	NODCO QATAR	MESAIEED QATAR	N/C	1	HP	37	53	420	NO	FCC Plant (Fluid Catalyst Cracking)	2000
NOYVALLESINA ENGINEERING ITALY	NOYVALLESINA ENGINEERING ITALY	DALMINE ITALY	N/C	2	HP	33	80	430	YES	Municipal Incenerator	2000
FIAT ENGINEERING ITALY	FIAT AUTO ITALY	MELFI ITALY	N/C	2	HP	20	37	350	YES	Municipal & Industrial Incinerator	1998
ITALSOF ITALY	SINOPEC CHINA	SHIJIAZHANG CHINA	N/C	1	HP	27	38	sat.	NO	Caprolactam Plant	1996
THYSSEN / LURGI / TECHNIP CONSORTIUM	ELF FRANCE	LEUNA GERMANY	N/C	1	HP	42	39	345	NO	FCC Plant (Fluid Catalyst Cracking)	1996

REFERENCE LIST

PROCESS - WASTE HEAT BOILER

Client	End User	Location	Type	Qty.	Fluid Heated	Cap. T/h	Press. BarA	Temp. °C	Suppl. Firing	Process Application	Comm. Date
DBA GERMANY	PALMA DE MALLORCA MUNICIPAL WASTE SPAIN	PALMA DE MALLORCA SPAIN	N/C	2	HP	50	40	400	YES	Municipal Incenerator	1994
AERIMPIANTI ITALY	AZIENDA MUNICIPALE GREVE IN CHIANTI ITALY	GREVE IN CHIANTI ITALY	N/C	1	HP	20,1	51	380	YES	Municipal Incenerator	1991
OSCHATZ GERMANY	PANTOCHIM BELGIUM	LIEGE BELGIUM	N/C	1	HP	89	42	400	NO	Phtalic AnhydridePlant	1990
ITALIMPIANTI ITALY	ITALSIDER ITALY	BAGNOLI ITALY	N/C	2	HP	32,4	43	255	NO	Steel Mill	1984
SNAMPROGETTI ITALY	ERIAG REFINERY GERMANY	INGLOSTADT GERMANY	F/C	1	LP	12,4	22,5	290	NO	Refinery	1981
KTI FRANCE	PCUK FRANCE	PIERRE BENITE FRANCE	N/C	1	HP	26	47	435	NO	Petrochemical Plant	1981
ITALIMPIANTI ITALY	COMPANHIA SIDERURGICA DE TUBARAO BRAZIL	TUBARAO BRAZIL	F/C	5	LP	26	25	sat.	NO	Steel Mill	1978
C.T.I.P. ITALY	LIQUICHIMICA BIOS ITALY	AUGUSTA ITALY	N/C	2	LP	17,5	9	179	NO	Petrochemical Plant	1976

REFERENCE LIST

FOSSIL FIRED BOILER

Client	Location	Type	Qty.	Cap. T/h	Press. BarA	Temp. °C	Fuel	Process Application	Comm. Date
A.S.M. ITALY	BRESCIA ITALY	Single drum Top supported	1	280	129	513	Pulverized Coal / Heavy Oil / Natural Gas	Power Plant	1988
I.P.Z.S. ITALY	FOGGIA ITALY	Bidrum Top supported	1	99	83	495	Coarse Coal / Natural Gas	Power Plant	1984
MASCIONI ITALY	CUVIO ITALY	Bidrum Top supported	1	65	72	465	Coarse Coal / Heavy Oil	Power Plant	1980

REFERENCE LIST

BOILER REVAMPING - LIFE EXTENSION - UPRATING - UPGRADING

Client	Location	Type of boiler	Qty.	Cap. T/h	Press. BarA	Temp. °C	Fuel	Year	Activity
ZEROCK CONSTRUCTION NIGERIA	OBIAFU/OBRIKOM NIGERIA	CCT Fired Boiler	1	35	11	sat.	Gas	2011	Complete boiler revamping
ENEL SERVIZI S.r.l. ITALY	BRINDISI ITALY	MACCHI Titan M	1	60	21	260	Gas	2011	Complete boiler revamping
A.C.C.A.M. ITALY	BUSTO ARSIZIO ITALY	INSTEAM GVR Waste to Energy	1	32	48	380	Waste	2010	Application of Inconel 625 protective layer for corrosion prevention
PETROMIN LUBRICATING OIL REFINING (LUBEREF) SAUDI ARABIA	YANBU SAUDI ARABIA	MACCHI Titan M	1	84	42	371	Oil / Gas	2010	Supply of new complete superheater
ZEROCK CONSTRUCTION NIGERIA	OBIAFU/OBRIKOM NIGERIA	CCT Fired Boiler	1	35	16	sat.	Gas	2010	Complete boiler revamping
SAIPEM ENERGY SERVICES ITALY	VAL D'AGRI ITALY	MACCHI Titan M	1	75	47	300	Gas	2009	Supply of new complete economizer
A2A ITALY	BRESCIA ITALY	MACCHI Fossil Fired boiler	1	280	130	513	Coal / Gas	2009	Design and supply of by-pass duct for regulation of flue gas temperature before SCR
MINISTRY OF OIL IRAQ	KIKRUK IRAQ	MACCHI Titan M Boiler	1	176	56	410	Oil / Gas	2009	Supply of loose boiler parts for construction of 5th boiler (economizer, ducts, pressure parts, stack, insulation, refractories, etc...)
SAIPEM (SNAMPROGETTI) ITALY	PRIOLO ITALY	MACCHI Titan M Boiler B-1015	1	110	91	480	Oil / Gas	2009	Site replacement of boiler pressure parts, burner sootblowers
EUROPOWER ITALY	BUSTO ARSIZIO ITALY	INSTEAM GVR Waste to Energy	1	32	48	380	Waste	2009	Supply and installation of membraned side walls on waste incineration furnace lateral walls

REFERENCE LIST

BOILER REVAMPING - LIFE EXTENSION - UPRATING - UPGRADING

Client	Location	Type of boiler	Qty.	Cap. T/h	Press. BarA	Temp. °C	Fuel	Year	Activity
TAMOIL REFINERY S.p.A. ITALY	CREMONA ITALY	MACCHI Titan M Boiler	1	60	46	450	Oil / Gas	2008	Superheater supply and site replacement
PETRONAS GAS BERHAD MALAYSIA	TERRENGGANU MALAYSIA	MACCHI H.R.S.G.	5	22	56	410	Gas	2008	Supply of n. 5 desuperhater
QATAR PETROLEUM Ltd. QATAR	DOHA QATAR	MACCHI Flue Gas Cooler	1	37	53	420	Gas	2008	Supply of complete SH "Big Block"
CARBOFIN ENERGIA TRASPORTI ITALY	GENOVA ITALY	MACCHI Marine Boiler	1	36	62	513	Oil	2008	Supply of coils for SH and site replacement supervision
SNAMPROGETTI SUD ITALY	PRIOLO ITALY	MACCHI Titan M Boiler B-1016	1	68	30	265	Gas	2008	Supply of complete superheater
PAKISTAN PETROLEUM Ltd. PAKISTAN	BALUCHISTAN PAKISTAN	CCT Fired Boiler	1	68	30	265	Gas	2008	Supply of pressure parts for complete boiler retubing
ITALIA ZUCCHERI ITALY	PONTELONGO ITALY	CCT Fired Boiler	1	135	73	475	Gas	2007	Complete boiler dismantling and reassemblig in new plant Boiler bank replacement
SNAMPROGETI SUD ITALY	PRIOLO ITALY	MACCHI Titan M Boiler B-1015	1	110	91	480	Oil / Gas	2007	Site replacement of boiler pressure parts, burners and sootblowers sootblowers
EDISON S.p.A. ITALY	SETTIMO TORINESE ITALY	CCT Fired Boiler	1	60	25	236	Gas	2007	Complete boiler revamping
ADGAS U.A.E.	AGD ASAB U.A.E.	CCT H.R.S.G.	4	45	59	470	Gas	2007	Inspection for life extension

REFERENCE LIST

BOILER REVAMPING - LIFE EXTENSION - UPRATING - UPGRADING

Client	Location	Type of boiler	Qty.	Cap. T/h	Press. BarA	Temp. °C	Fuel	Year	Activity
EUROPOWER ITALY	BUSTO ARSIZIO ITALY	COMEF GVR Waste to Energy	1	32	50	380	Waste	2006	Supply and site replacement of boiler tubes and waterwall tubes
EURALLUMINA ITALY	PORTOSCUSO ITALY	BREDA Boiler n.3	1	175	81	375	Oil	2006	Supply and site replacement of combustion chamber walls
RENO DE MEDICI ITALY	S. GIUSTINA ITALY	TOSI VU	1	70	74	340	Oil / Gas	2005	Supply of pressure parts and site replacement
EURALLUMINA ITALY	PORTOSCUSO ITALY	BREDA Boiler n. 3	1	175	81	375	Oil	2005	Material supply and site replacement combustion chamber roof
FERTALGE INDUSTRIE ALGERIA	ARZEW ALGERIA	BABCOCK OMNICAL	2	44	26	350	Gas	2005	Supply of pressure parts and supervision during erection & start-up
KAFCO BANGLADESH	CHITTAGONG BANGLADESH	MACCHI Titan M Boiler	1	95	127	513	Gas	2004	Supply of complete superheater in big block
COMMISSIONING ITALY	BUSTO ARSIZIO ITALY	INSTEAM GVR Waste to Energy	1	32	48	380	Waste	2004	Superheater complete replacement Waterwall tubes replacement Boiler tubes diagnostic
COMMISSIONING ITALY	BUSTO ARSIZIO ITALY	COMEF GVR Waste to Energy	1	32	50	380	Waste	2004	SH complete replacement Waterwall tubes replacement Boiler tubes diagnostic
TECHNIP ITALY	MIDOR EGYPT	FOSTER WHEELER Boilers	2	60	83,6	371	Gas	2003	Supply and replacement of n. 2 superheaters

REFERENCE LIST

BOILER REVAMPING - LIFE EXTENSION - UPRATING - UPGRADING

Client	Location	Type of boiler	Qty.	Cap. T/h	Press. BarA	Temp. °C	Fuel	Year	Activity
CARBOFIN ENERGIA TRASPORTI ITALY	F.P.S.O. OFFSHORE NAN HAI CHINA	MACCHI Titan M Boiler	1	42	34	240	Oil	2003	Boiler complete retubing at jobsite (Singapore)
COMPAGNIE TERMIQUE DE BOIS ROUGE REUNION ISLAND	REUNION ISLAND	STEIN INDUSTRIES Boiler	1	90	99	510	Bagasse	2002	Set of primary / secondary superheater coils
EDISON S.p.A. ITALY	C.le MARGHERA ITALY	CEI / INSTEAM H.R.S.G.	2	190	42	515	N.A.	2002	Boiler bank revamping
TAMOIL Raff. S.p.A. ITALY	CREMONA ITALY	MACCHI Titan M Boiler	1	60	46	450	Oil / Gas	2002	Boiler retubing
EDISON S.p.A. ITALY	S. QUIRICO ITALY	CEI / INSTEAM H.R.S.G.	1	161	76/121	/	N.A.	2001	Modification of BFW line
EURALLUMINA ITALY	PORTOSCUSO ITALY	BREDA Boilers n.2 & n.3	2	175	81	375	Oil	2001	Supply of materials and site activity for boiler tube replacement (combustion chamber and waterwall)
TOYO ENGINEERING Corp. JAPAN	AMERYA EGYPT	MACCHI Titan M Boiler	1	50	53	395	Process Gas	2001	Retubing
ENIPOWER ITALY	RAVENNA ITALY	BREDA Fired Boiler	1	450	122	538	Oil / Gas	2000	Boiler overhauling
EURALLUMINA ITALY	PORTOSCUSO ITALY	BREDA Radiant Boilers	3	175	81	375	Oil	2000	Study and intervention for boiler up-rating

REFERENCE LIST

BOILER REVAMPING - LIFE EXTENSION - UPRATING - UPGRADING

Client	Location	Type of boiler	Qty.	Cap. T/h	Press. BarA	Temp. °C	Fuel	Year	Activity
I.S.E. / EDISON S.p.A. ITALY	TARANTO ITALY	BABCOCK & WILCOCK Boiler	1	480	168	400	Oil	2000	Supply of special bended tubes for burners throat
THYSSEN / LURGI / TECHNIP CONSORTIUM	LEUNA ITALY	MACCHI Flue Gas Cooler	1	42	40	345	N.A.	1999	Renewal of three evaporator bundles
I.S.E. ITALY	TARANTO ITALY	BABCOCK & WILCOCK Boiler	1	480	168	400	Oil	1999	Engineering and supply of cast iron finned tubes for economizer complete replacement
ENICHEM ITALY	RAVENNA ITALY	THERMAL PIPING SYSTEM	1 lot	N.A.	50	380	N.A.	1998	Engineering / fabrication / erection of thermal piping system
ACEA ITALY	TOR DI VALLE ITALY	MACCHI H.R.S.G.	1	superh. H2O	/	209	Rec. only	1998	Engineering / fabrication / replacement of complete lower boiler bank
ELF ATOCHEM ITALY	RHO ITALY	MACCHI Titan M Boiler	1	30	33,5	300	Gas	1998	Boiler uprating
BINDA ITALY	CREVACUORE ITALY	MACCHI Titan M Boiler	1	35	51	450	Oil / Gas	1997	Upgrading replacement of SH, DSH, FDFan, air preheater
FRENE ITALY	RAVENNA ITALY	BREDA Boiler n. 4	1	450	122	538	Oil / Gas	1997	Replacement of parts of boiler tubes, installation of new SH anchor and sootblowers
RADICI CHIMICA ITALY	NOVARA ITALY	TOSI VU Boiler n. 3	1	45	40	400	Oil / Gas	1996	Boiler Revamping: complete replacement of the all boiler tubes with membraned walls (without refractor)
RADICI CHIMICA ITALY	NOVARA ITALY	TOSI VU Boiler n. 3	1	45	34	400	Oil / Gas	1995	Supply and replacement of superheater

REFERENCE LIST

BOILER REVAMPING - LIFE EXTENSION - UPRATING - UPGRADING

Client	Location	Type of boiler	Qty.	Cap. T/h	Press. BarA	Temp. °C	Fuel	Year	Activity
PRAOIL ITALY	GELA ITALY	BREDA Radiant Boilers (Items G 200 - G 300)	2	380	101	530	Oil / Gas / Pet. Coke	1994	Complete refurbishment
A.S.M. ITALY	BRESCIA ITALY	BREDA Bidrum Boiler	1	180	131	515	Oil Gas	1994	"Upgrading", supply of an additional economizer
MEDITERRANEA ITALY	MILAZZO ITALY	MACCHI Titan M Boiler	1	142	58	440	Oil	1994	Supply of the new superheater
A.S.M. ITALY	BRESCIA ITALY	MACCHI - FWEC MRD Boiler	1	253	130	513	Oil / Gas-Coal	1993	"Upgrading" & "Upgrading", supply of an additional economizer and the increase of the thermal efficiency
AGIP OIL Ltd. LIBYA	OFF-SHORE	MACCHI Titan M Boilers	2	55	34	240	Oil	1993	General revamping
ISAB ITALY	PRIOLO ITALY	F. TOSI (Boiler 1) Bidrum Boiler	1	180	94	485	Oil / Gas	1993	Supply of the new HT superheater
ISAB ITALY	PRIOLO ITALY	F. TOSI (Boiler 2) Bidrum Boiler	1	180	94	485	Oil / Gas	1992	Supply of the new HT superheater
EURALLUMINA ITALY	PORTOSCUSO ITALY	BREDA Bidrum Boiler	3	175	51	375	Oil	1990	Complete refurbishment of the pressure parts and the firing system
ENICHEM ANIC ITALY	GELA ITALY	BREDA Radiant Boiler (Item G 100)	1	380	101	530	Oil / Gas / Pet. Coke	1989	General revamping

REFERENCE LIST

BOILER REVAMPING - LIFE EXTENSION - UPRATING - UPGRADING

Client	Location	Type of boiler	Qty.	Cap. T/h	Press. BarA	Temp. °C	Fuel	Year	Activity
PERTUSOLA ITALY	CROTONE ITALY	MACCHI TITAN M Boiler	1	90	40	500	Oil	1989	Supply of the new superheater
ENICHEM ELASTOMERI ITALY	RAVENNA ITALY	BREDA Radiant Boiler	1	280	122	538	Oil / Gas	1989	Redesign and supply of the new spray desuperheater and the relevant critical piping
ENICHEM ANIC ITALY	RAVENNA ITALY	BREDA Radiant Boiler	1	450	122	538	Oil / Gas	1988	"Upgrading", redesign of the attemperator
ENICHEM ANIC ITALY	PORTO TORRES ITALY	BREDA Radiant Boiler	1	300	109	520	Oil / Gas / CWM	1987	Supply of the new sootblowers system and various ancillaries
RADICI CHIMICA ITALY	NOVARA ITALY	F. TOSI VU 50 BPW Boiler	1	80	40	390	Oil	1986	Complete refurbishment
ITALKALI ITALY	PALERMO ITALY	F. TOSI Bidrum Boiler	1	30	51	400	Oil / Gas	1983	"Upgrading", redesign of the attemperator

REFERENCE LIST

FUEL CONVERSION / BURNERS UPGRADING

Client	Location	Type of boiler	Qty.	Cap. T/h	Press. BarA	Temp. °C	Fuel	Year	Activity
SANOFI-AVENTIS ITALY	BRINDISI ITALY	CCT	1	25	31	320	Gas	2011	Feasibility study for boiler conversion from fired boiler to recovery
WORLEY PARSONS QATAR	RAS LAFFAN QATAR	Macchi Titan M	1	145	71	sat.	Gas	2011	Feasibility study for fuel conversion from gas to oil firing
MASCIANI ITALY	CUVIO ITALY	Macchi Fossil fired Boiler	1	60	73	450	Coal	2009	Feasibility study for fuel conversion from Coal to Palm Kernel Shells
QINGDAO LIDONG CHINA	LIDONG CHINA	Macchi Titan M	1	180	56	390	Oil / Gas	2009	Feasibility study for fuel conversion
ADGAS U.A.E.	ABU DHABI U.A.E.	CCT H.R.S.G.	1	46	59	460	Gas	2008	Feasibility engineering study for gas turbine upgrading
EDISON S.p.A. ITALY	SETTIMO TORINESE ITALY	CCT Fired Boiler	1	60	25	236	Gas	2007	Installation of Macchi Low Low NOx Burners retrofitting
PROFERTIL S.A. ARGENTINA	BAHIA BLANCA ARGENTINA	Macchi MVF	1	180	47	390	Gas	2007	Fuel conversion & burners upgrading for new fuel gas mix burning
ERG ITALY	PRIOLO ITALY	Breda	1	480	131	540	Oil / Gas	2007	Replacement of existing burners with n. 9 new MARS II Low Low NOx Macchi burners
ELYO / SETHELEC FRANCE	ARLES FRANCE	Macchi Titan M	1	83	56	405	Gas	2006	Installation of Macchi Low Low NOx Burners
BASF-YPC Co. Ltd. CHINA	NANJING CHINA	Macchi Titan M	2	170	56	390	Gas	2006	Combustion control improvement

REFERENCE LIST

FUEL CONVERSION / BURNERS UPGRADING

Client	Location	Type of boiler	Qty.	Cap. T/h	Press. BarA	Temp. °C	Fuel	Year	Activity
GIARDINI S.p.A. ITALY	VIGEVANO ITALY	Macchi Titan M	1	15	26	240	Oil / Gas	2004	Modification of burner to use gas and polluted combustion air
MILAZZO REFINERY ITALY	MILAZZO ITALY	Macchi	1	90	58	440	Oil	1997	Modification of burners for reducing particulate emission
EURALLUMINA ITALY	PORTOSCUSO ITALY	Breda	2	175	81	375	Oil	1996	Replacement of the burners and combustion system for reducing particulate emission
EURALLUMINA ITALY	PORTOSCUSO ITALY	Breda	1	175	81	375	Oil	1995	Modified of the burners for reducing particulate emission
ENICHEM ANIC ITALY	PORTO TORRES ITALY	Babcock & W (mondrum)	1	300	109	520	Oil / Gas	1988	Replacement of the burners for the combined combustion of the Oil - Gas - CWM (mixture H2O - Coal)
MEDITERRANEA ITALY	MILAZZO ITALY	Macchi	1	142	58	440	Oil	1987	Replacement of the burners for the combined combustion of the Oil - Gas
RADICI CHIMICA ITALY	NOVARA ITALY	F. Tosi C. E. VU 50 BPW (bidrum)	1	80	40	390	Oil	1985	Modification of the burners for the addition of Natural Gas
MONTEDISON ITALY	BUSSI ITALY	Macchi (bidrum)	1	40	31	390	Diesel Oil / Methane	1984	Addition of the fuel Hydrogen
CELLULOSA CALABRA ITALY	CROTONE ITALY	Mariotti	1	40	36	380	Oil / Gas	1984	Replacement of the firing system

REFERENCE LIST

FUEL CONVERSION / BURNERS UPGRADING

Client	Location	Type of boiler	Qty.	Cap. T/h	Press. BarA	Temp. °C	Fuel	Year	Activity
SOCIETA' MINERARIA & METALLURGIA ITALY	CROTONE ITALY	Macchi	1	90	91	500	Oil	1983	Addition of the Natural Gas firing system
ITALKALI ITALY	PALERMO ITALY	F. Tosi (bidrum)	2	30	51	400	Oil / Gas	1982	Fuel gas conversion

REFERENCE LIST

LIFE ASSESSMENT

Client	Location	Type of boiler	Qty.	Cap. T/h	Press. BarA	Temp. °C	Year	Activity
CARBOFIN ENERGIA TRASPORTI ITALY	GENOVA ITALY	Macchi Marine Boiler	1	36	62	513	2010	Inspection pressure parts and SH replacement supervision
PETROBRAS BRAZIL	REVAP BRAZIL	CONFAB Waste Heat Recovery	1	130	105	510	2009	Evaluation of mechanical and thermal design for root cause of lack of performance and tube failures
ADGAS U.A.E.	DAS ISLAND U.A.E.	IHI (IHI - FW SN)	1	360	63	440	2008	Third party root cause analysis for flue gas leakage
EUROPOWER ITALY	A.C.C.A.M. ITALY	COMEF / INSTREAM GVR Waste to energy	2	32	50	380	2008	Check and diagnostic of boiler pressure parts
NETCO NIGERIA	OBIAFU OBRIKOM NIGERIA	CCT Fired Boiler	1	35	16	Sat	2007	Diagnostic intervention on existing boiler after deflagration
A.S.M. ITALY	BRESCIA ITALY	Macchi Fossil Fired Boiler	1	280	130	513	2007	Check and diagnostic of boiler pressure parts
RENO DE MEDICI ITALY	OVARO ITALY	Macchi	1	35	55	470	2006	RLA calculation
FENICE ITALY	CASSINO ITALY	Morteo / Breda	2	70/30	16/22	sat.	2006	Check and diagnostic of boiler pressure parts & auxiliaries
CENTRALE TERMIQUE DU SUD ILE MAURICE	MAURITIUS	STEIN INDUSTRIE Coal Fired Boiler	1	125	81	485	2005	Check and diagnostic regarding leakage in the bank tubes
FERTALGE INDUSTRIE ALGERIA	ARZEW ALGERIA	BABCOCK OMNICAL	2	44	26	350	2005	Boiler pressure parts assessment

REFERENCE LIST

LIFE ASSESSMENT

Client	Location	Type of boiler	Qty.	Cap. T/h	Press. BarA	Temp. °C	Year	Activity
KAFCO BANGLADESH	CHITTAGONG BANGLADESH	Macchi Titan M Boilers	2	95	127	513	2003	Check and diagnostic of boiler pressure parts & auxiliaries
SNAM - TRASPORTI MARITTIMI ITALY	SHIP LNG PALMARIA	Foster Wheeler Boilers (D-MNW-DR)	2	50	53	457	2000	Check and diagnostic of boiler pressure parts
ENIPOWER ITALY	RAVENNA ITALY	Ansaldo H.R.S.G. (BA501)	1	35	138	538	2000	Check and diagnostic of boiler pressure parts
EURALLUMINA ITALY	PORTOSCUSO ITALY	Breda Boilers	2	175	81	375	1999	Life assessment and diagnostic of boilers & auxiliaries
CARTIERA RENO DE MEDICI ITALY	MARZABOTTO ITALY	Macchi Titan M Boiler (M 440)	1	25	71	465	1998	
CARTIERA SOTTRICI BINDA ITALY	VEDANO OLONA ITALY	Macchi Titan M Boiler (M 460)	1	25	64	470	1995	
PRAOIL ITALY	GELA ITALY	Ansaldo - Breda Boiler (Item G 200)	1	380	125	530	1994	
CARTIERA BURGO ITALY	DUINO AURISINA ITALY	Center Boiler	1	120	63	450	1994	
ITALCEMENTI ITALY	VILLA DI SERIO ITALY	F. Tosi Boiler (VU 50)	1	145	96	500	1993	

REFERENCE LIST

TRAINING

End User	Location	Type of boiler	Cap. T/h	Press. BarA	Temp. °C	Fuel	Year	Activity
TUAS POWER SINGAPORE	JURONG ISLAND SINGAPORE	No. 2 Macchi MRD Boilers	200	106	510	Oil / Gas	2011	Training for operation & maintenance personnel at Marubeni office in Japan
AGIP KCO KAZAKHSTAN	KASHAGAN KAZAKHSTAN	No. 3 Macchi MVF Boilers	385	44	400	Gas	2011	Training for operation & maintenance personnel at jobsite
PETROBRAS BRAZIL	UNIVERSITADE RIO DE JANEIRO BRAZIL	Macchi Boilers TM - MVF - MRD - H.R.S.G.	/	/	/	/	2010	Boiler design training for engineers
QATAR FERTILISER Co. (QAFCO) QATAR	MESAIEED QATAR	No. 2 Macchi Titan M Boilers No 4 Macchi H.R.S.G. Type	132 150	58 69	385 430	Gas N.A.	2010	Training for operation & maintenance personnel in Macchi office
SAUDI KAYAN PETROCHEMIAL Co. SAUDI ARABIA	AL-JUBAIL SAUDI ARABIA	No. 2 Macchi MRD Boilers	385	62	400	Crude Oil	2009	Training for operation & maintenance personnel at jobsite
ABU DHABI POLYMERS Co. Ltd. (BOROUGE) U.A.E.	RUWAIS U.A.E.	No. 3 Macchi MVF Boilers	297	87	460	Oil / Gas	2009	Training for operation & maintenance personnel at jobsite
AL-JUBAIL PETROCHEMICAL Co. (KEMYA) SAUDI ARABIA	AL-JUBAIL SAUDI ARABIA	No. 3 Macchi MRD Boilers	70	120	510	Oil / Gas	2009	BMS training for Client engineers in Macchi head offices
MINISTRY OF OIL IRAQ	KIRKUK IRAQ	No. 4 Macchi Titan M Boilers	176	55	410	Gas	2008	Operation, maintenance, BMS, prefabrication and assembling training for 10 people for 2 weeks in Macchi head offices
SABIC SAUDIA ARABIA	YANBU SAUDI ARABIA	No. 5 Macchi MRD Boilers	165	120	510	Oil / Gas	2008	Training for operation & maintenance personnel at jobsite

REFERENCE LIST

TRAINING

End User	Location	Type of boiler	Cap. T/h	Press. BarA	Temp. °C	Fuel	Year	Activity
RAS LAFFAN LNG Co. (RASGAS) QATAR	RAS LAFFAN QATAR	No. 4 Macchi H.R.S.G. Type (with supplementary firing)	220	59	384	N.A.	2008	Training for operation & maintenance personnel at jobsite
RAS LAFFAN OLEFIN Co. QATAR	RAS LAFFAN QATAR	No. 3 Macchi Titan M Boilers	110	53	293	Gas	2008	Training for operation & maintenance personnel at jobsite
MINISTRY OF OIL IRAQ	KIRKUK IRAQ	No. 4 Macchi Titan M Boilers	176	55	410	Gas	2008	Training for site boiler performance test at Macchi office
AL-JUBAIL PETROCHEMICAL Co. (KEMYA) SAUDI ARABIA	AL-JUBAIL SAUDI ARABIA	No. 3 Macchi MRD Boilers	70	120	510	Oil / Gas	2008	Boiler overall design training/stage for Client Engineer at Macchi office
BP BERAU Ltd. INDONESIA	TANGGUH INDONESIA	No. 3 Macchi Titan M Boilers	176	51	400	Oil / Gas	2007	Training for operation & maintenance personnel at jobsite
ABU DHABI GAS INDUSTRIES Ltd. (GASCO) U.A.E.	RUWAIS U.A.E.	No. 5 Macchi Titan M Boilers	180	31	355	Gas	2007	Training for operation & maintenance personnel at jobsite
QATAR LIQUEFIED GAS Co. Ltd. (QATARGAS) QATAR	RAS LAFFAN QATAR	No. 6 Macchi Titan M Boilers	264	79	440	Gas	2007	Training for operation & maintenance personnel at jobsite
SOHAR REFINERY OMAN	SOHAR OMAN	No. 2 Macchi H.R.S.G. Type	35	54	390	N.A.	2006	Training for operation & maintenance personnel at jobsite

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TRAINING

End User	Location	Type of boiler	Cap. T/h	Press. BarA	Temp. °C	Fuel	Year	Activity
SAUDI ARABIAN FERTILISER Co. (SAFCO) SAUDI ARABIA	AL-JUBAIL SAUDI ARABIA	No. 2 Macchi Titan M Boilers	150	67	435	Gas	2005	Training for operation & maintenance personnel at jobsite
BASF-YPC Co. Ltd. CHINA	NANJING CHINA	No. 2 Macchi Titan M Boilers	170	55	390	Gas	2004	Training for operation & maintenance personnel at jobsite
AGIP LIBYA	MELLITAH LIBYA	No. 4 Macchi MVF Boilers	363	42	355	Gas	2004	Training for operation & maintenance personnel at Macchi office
PETROVIETNAM VIETNAM	PHU MY VIETNAM	No. 1 Macchi Titan M Boiler	140	50	380	Gas	2003	Training for operation & maintenance personnel at Macchi office
I.P.Z.S. ITALY	FOGGIA ITALY	No. 1 Macchi Fossil Fired Type Boiler	99	83	495	Coal / Gas	2002	Training for operation & maintenance personnel at jobsite
ABU DHABI NATIONAL OIL Co. (ADNOC) U.A.E.	ABU DHABI U.A.E.	No. 2 Macchi Titan M Boilers	130	54	400	Gas	2000	Training for operation & maintenance personnel at jobsite Commissioning and boiler start-up
ABU DHABI NATIONAL OIL Co. (ADNOC) U.A.E.	ABU DHABI U.A.E.	No. 1 Macchi H.R.S.G. Type (with supplementary firing)	130	51	400	N.A.	2000	Training for operation & maintenance personnel at jobsite Commissioning and boiler start-up
KERTIH AROMATIC MALAYSIA	TERENGGANU MALAYSIA	No. 3 Macchi MVF Boilers	140	45	400	Oil / Gas	1999	Training for operation & maintenance personnel at jobsite Commissioning and boiler start-up
KNPC KUWAIT	MINA AL AHMADI KUWAIT	No. 1 Macchi MVF Boiler	182	63	438	Oil / Gas	1998	Training for operation & maintenance personnel at Macchi office

REFERENCE LIST

TRAINING

End User	Location	Type of boiler	Cap. T/h	Press. BarA	Temp. °C	Fuel	Year	Activity
PETRONAS GAS MALAYSIA	TERENGGANU MALAYSIA	No. 3 Macchi Titan M Boilers	100	45	410	Gas	1997	Training for operation & maintenance personnel at Macchi office
PETRONAS GAS MALAYSIA	TERENGGANU MALAYSIA	No. 8 Macchi H.R.S.G. Type	22	45	410	N.A.	1997	Training for operation & maintenance personnel at Macchi office
PETROMIN LUBRICATING OIL REFINING (LUBEREF) SAUDI ARABIA	YANBU SAUDI ARABIA	No. 3 Macchi Titan M Boilers	84	32	371	Tar / Gas	1996	Training for operation & maintenance personnel at site (Saudi Arabia) Commissioning and boiler start-up
HAINAN FUDAO CHEMICAL Ind. Co. CHINA	HAINAN CHINA	No. 1 Macchi H.R.S.G. Type (with supplementary firing)	100	112	513	N.A.	1996	Training for operation & maintenance personnel at Macchi office Commissioning and boiler start-up