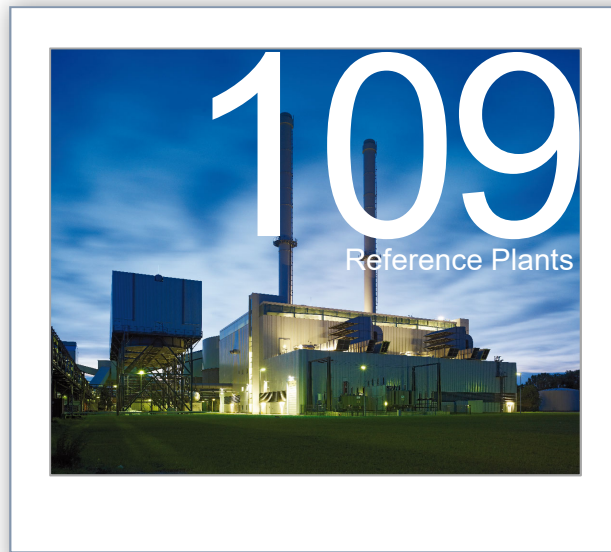


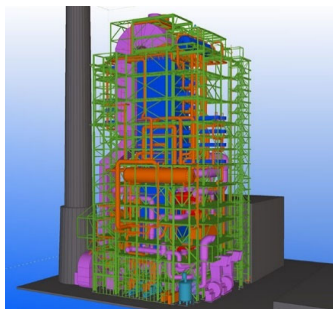
## References Plants for the use of Heat Recovery Fuels



Extraction from the Total List of Reference

14 Plants thereof as EPC

**CCP Plant Ineos Cologne, Germany**  
**INEOS Köln GmbH**



Gas turbine	:	GE MS5002E LE		
Gas turbine output	:	25		MW <sub>el</sub>
Steam capacity	:	HP 240		t/h
		RH 260		
Steam pressure	:	HP 108		bar
		RH 32		
Steam temperature	:	HP 530		°C
		RH 510		
Flying take-over	:	yes		
Auxiliary fuel	:	Natural gas, production residues (gaseous), production residues (liquid), excess gas		
Scope	:	Boiler Island		
Year of commissioning	:	2024		

**CCP Plant Hoechst, Frankfurt am Main, Germany**  
**Infraserv GmbH Co. Höchst KG**



Gas turbine	:	GE 6F.03		
Gas turbine output	:	2 x	88,7	MW <sub>el</sub>
Steam capacity	:	2 x	200	t/h
Steam pressure	:	123,2		bar
Steam temperature	:	512		°C
Flying take-over	:	yes		
Auxiliary fuel	:	Natural gas, production residues (gaseous)		
Scope	:	Boiler Island		
Year of commissioning	:	2023		

**CCP Plant Marl VII, Germany  
Siemens Gas and Power**



Gas turbine	:	SGT-800	
Gas turbine output	:	55	MWel
Steam capacity	:	HP	226
	:	LP	14,4 t/h
Steam pressure	:	HP	80
	:	LP	5,12 bar
Steam temperature	:	HP	500
	:	LP	150 °C
Flying take-over	:	no	
Auxiliary fuel	:	Natural gas, production residues (gaseous)	
Scope	:	Boiler Island	
Year of commissioning	:	2022	

**CCP Plant Marl VI, Germany  
Siemens Gas and Power**



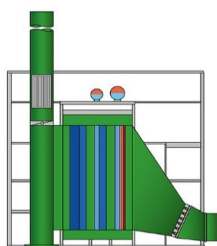
Gas turbine	:	SGT-800	
Gas turbine output	:	2 x 55	MWel
Steam capacity	:	2 x HP	226
	:	2 x LP	14,4 t/h
Steam pressure	:	HP	80
	:	LP	5,12 bar
Steam temperature	:	HP	500
	:	LP	150 °C
Flying take-over	:	no	
Auxiliary fuel	:	Natural gas, production residues (gaseous)	
Scope	:	Boiler Island	
Year of commissioning	:	2022	

**CCP Plant Palm Paper, King's Lynn, Great Britain**  
**Palm Paper Ltd.**



Gas turbine	:		SGT-700	
Gas turbine output	:		32,7	MW <sub>el</sub>
Steam capacity	:	HP	81	t/h
		LP	11,2	t/h
Steam pressure	:	HP	90	bar
		LP	4,2	bar
Steam temperature	:	HP	515	°C
		LP	145	°C
Flying take-over	:		no	
Auxiliary fuel	:		Natural gas	
Scope	:		Boiler Island	
Year of commissioning	:		2018	

**CHP Plant Flensburg, Germany**  
**Stadtwerke Flensburg GmbH**



Gas turbine	:		SGT-800B	
Gas turbine output	:		50	MW <sub>el</sub>
Design pressure	:	HP	110	t/h
		LP	10	t/h
Steam pressure	:	HP	75	bar
		LP	8,5	bar
Steam temperature	:	HP	525	°C
		LP	190	°C
District heating exchanger part:				
Thermal input	:		13	MW
Design pressure	:		40	bar
Allowable operation temperature	:		130	°C
Flying take-over	:		no	
Auxiliary fuel	:		Natural gas	
Scope	:		Boiler Island	
Year of commissioning	:		2015	

**Gas Power Plant Emsland, Lingen, Germany - (Design and detail planning)**  
**RWE Power AG**



Gas turbine	:	Trent 60 WLE		
Gas turbine output	:	2 x 2	à 58	MW <sub>el</sub>
Steam capacity	:	2 x	1140	t/h
Steam pressure	:		186,7	bar
Steam temperature	:		535	°C
Flying take-over	:		no	
Auxiliary fuel	:	Natural gas		
Scope	:	EPCM		
Year of commissioning	:	2012		

**CCP Plant Hattorf, Philippsthal, Germany**  
**Kraftwerk Hattorf GmbH c/o E.ON Energy Projects GmbH**



Gas turbine	:	SGT-700B		
Gas turbine output	:		32	MW <sub>el</sub>
Steam capacity	:		80	t/h
Steam pressure	:		62	bar
Steam temperature	:		500	°C
Flying take-over	:		no	
Auxiliary fuel	:	Natural gas		
Scope	:	EPC		
Year of commissioning	:	2012		

**CCP Plant Varel B8, Varel, Germany**  
**Papier- und Kartonfabrik Varel GmbH & Co. KG**



Gas turbine	:	Solar T 65 Taurus	
Gas turbine output	:	25,6	MW <sub>el</sub>
Thermal input	:	53	MW
Steam capacity	:	90	t/h
Steam pressure	:	90	bar
Steam temperature	:	480	°C
Flying take-over	:	no	
Fuel	:	Natural gas	
Scope	:	Boiler Island	
Year of commissioning	:	2007	

**CHP Plant Linden, Hannover, Germany**  
**Stadtwerke Hannover AG**



Gas turbine	:	GE PG 6111 FA	
Gas turbine output	:	77	MW <sub>el</sub>
Steam capacity	:	HP	93 t/h
	:	MP	13 t/h
	:	RH	105 t/h
Steam pressure	:	HP	98,1 bar
	:	MP	31 bar
	:	RH	30 bar
Steam temperature	:	HP	540 °C
	:	MP	351 °C
	:	RH	546 °C
Flying take-over	:	no	
Auxiliary fuel	:	no	
Scope	:	Boiler Island	
Year of commissioning	:	2011	

**CCP Plant Plattling, Germany**  
**Kraftwerk Plattling GmbH c/o E.ON Energy Projects GmbH**



Gas turbine	:	PG 6111FA	
Gas turbine output	:	77	MW <sub>el</sub>
Steam capacity	:	201	t/h
Steam pressure	:	92	bar
Steam temperature	:	532	°C
Flying take-over	:	no	
Auxiliary fuel	:	Natural gas	
Scope	:	Boiler Island	
Year of commissioning	:	2010	

**CHP Plant Tiefstack, Hamburg, Germany**  
**Vattenfall Europe Hamburg AG**



Gas turbine	:	Trent 60 DLE	
Gas turbine output	:	2 x 51,9	MW <sub>el</sub>
Steam capacity	:	2 x 112	t/h
Steam pressure	:	41	bar
Steam temperature	:	400	°C
Flying take-over	:	no	
Auxiliary fuel	:	Natural gas	
Scope	:	Boiler Island	
Year of commissioning	:	2007	

**CHP Plant Hafen, Münster, Germany  
Stadtwerke Münster GmbH**



Gas turbine	:		RB 211	
Gas turbine output	:	2 x	34,15	MW <sub>el</sub>
Steam capacity	:	2 x	81,5	t/h
Steam pressure	:		82	bar
Steam temperature	:		525	°C
Flying take-over	:		yes	
Auxiliary fuel	:		Natural gas / light fuel oil	
Scope	:		Boiler Island	
Year of commissioning	:		2005	

**CHP Plant Römerbrücke, Saabrücken, Germany  
GDF SUEZ Saarland GmbH (formerly Electrabel Saarland GmbH)**



Gas turbine	:		GE-LM 6000	
Gas turbine output	:		42	MW <sub>el</sub>
Steam capacity	:		115	t/h
Steam pressure	:		115	bar
Steam temperature	:		535	°C
Flying take-over	:		yes	
Auxiliary fuel	:		Natural gas	
Scope	:		Boiler Island	
Year of commissioning	:		2005	



**DK6 Combined Cycle Plant, Dunkirk, France**  
**ENGIE Thermique France**



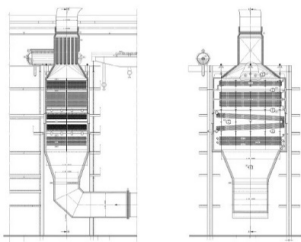
Gas turbine	:	Alstom-GT 13 E		
Gas turbine output	:	2 x	160	MW <sub>el</sub>
Steam capacity per each boiler	:	HP	535	t/h
		RH	530	t/h
Thermal output LP-part	:	LP	50	MW
Steam pressure	:	HP	145	bar
		RH	32	bar
Steam temperature	:	HP	566	°C
		RH	566	°C
Flying take-over	:	yes		
Auxiliary fuel	:	Natural gas, blast furnace gas, coke gas		
Scope	:	Boiler Island		
Year of commissioning	:	2004		

**CHP Plant Würzburg, Germany**  
**ThyssenKrupp Xervon Energy**



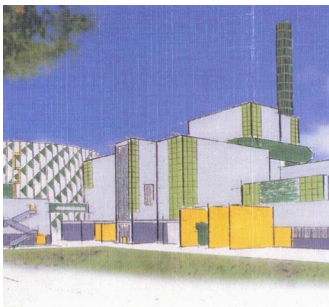
Gas turbine	:	Siemens-SGT 800		
Gas turbine output	:		45	MW <sub>el</sub>
Steam capacity	:		125	t/h
Steam pressure	:		72	bar
Steam temperature	:		515	°C
Flying take-over	:	yes		
Auxiliary fuel	:	Natural gas		
Scope	:	Boiler Island		
Year of commissioning	:	2005		

**CHP Plant Niederrad, Germany**  
**Lentjes GmbH (formerly Lurgi GmbH)**



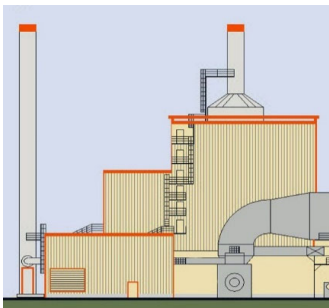
Gas turbine	:	GE-PG 6581 (B)	
Gas turbine output	:	47,7	MW <sub>el</sub>
Steam capacity	:	135	t/h
Steam pressure	:	69	bar
Steam temperature	:	530	°C
Flying take-over	:	no	
Auxiliary fuel	:	Natural gas	
Scope	:	Boiler Island	
Year of commissioning	:	2004	

**CHP Plant III Duisburg-Wanheim, Germany**  
**Lentjes GmbH (formerly AE&E Lentjes GmbH)**



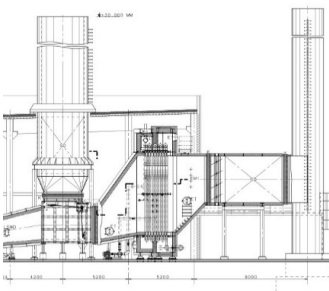
Gas turbine	:	GE-PG 6111 (FA)	
Gas turbine output	:	2 x 77	MW <sub>el</sub>
Steam capacity	:	2 x 96	t/h
Steam pressure	:	105	bar
Steam temperature	:	533	°C
Flying take-over	:	no	
Auxiliary fuel	:	no	
Scope	:	Boiler Island	
Year of commissioning	:	2004	

**Power Plant Grenzach-Wyhlen, Germany**  
**E.ON Energy Projects GmbH**



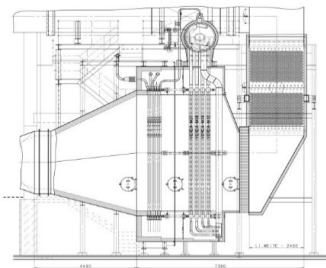
Gas turbine	:	RR-RB 211T	
Gas turbine output	:	32,1	MW <sub>el</sub>
Steam capacity	:	80	t/h
Steam pressure	:	112	bar
Steam temperature	:	525	°C
Flying take-over	:	no	
Auxiliary fuel	:	Natural gas	
Scope	:	EPC	
Year of commissioning	:	2004	

**Gas Turbine Heating Power Plant Augsburg-Ost, Germany**  
**Kraftanlagen Anlagentechnik München GmbH**



Gas turbine	:	GE-LM 2500 PR DLE	
Gas turbine output	:	30,8	MW <sub>el</sub>
Thermal output boiler	:	50	MW <sub>th</sub>
Design pressure	:	22	bar
Flow temperature	:	130	°C
Return flow temperature	:	58	°C
Flying take-over	:	no	
Auxiliary fuel	:	Natural gas	
Scope	:	Boiler Island	
Year of commissioning	:	2004	

**MVV Enamic Ludwigshafen, Germany**  
**MVV Enamic GmbH (formerly MVV Industriekraftwerk Ludwigshafen GmbH)**



Gas turbine	:	Solar-Taurus 70	
Gas turbine output	:	8,5	MW <sub>el</sub>
Steam capacity	:	25	t/h
Steam pressure	:	57	bar
Steam temperature	:	455	°C
Flying take-over	:	no	
Auxiliary fuel	:	Natural gas	
Scope	:	Boiler Island	
Year of commissioning	:	2003	

**CHP Plant Rzeszow, Poland**  
**Lentjes GmbH (formerly Lurgi Energie und Entsorgung GmbH)**



Gas turbine	:	Siemens-V64.3a	
Gas turbine output	:	61,9	MW <sub>el</sub>
Steam capacity	:	110	t/h
Steam pressure	:	98	bar
Steam temperature	:	540	°C
Flying take-over	:	no	
Auxiliary fuel	:	no	
Scope	:	Boiler Island	
Year of commissioning	:	2003	

**FBC Plant Grovehurst, Kent, Great Britain**  
**Lentjes GmbH**



Steam capacity	:	38	t/h
Steam pressure	:	27,5	bar
Steam temperature	:	345	°C
Flying take-over	:	no	
Auxiliary fuel	:	no	
Scope	:	Boiler Island	
Year of commissioning	:	2002	

**CHP Plant Lublin-Wrotków, Lublin, Poland**  
**Lentjes GmbH (formerly Lurgi Lentjes Energie)**



Gas turbine	:	Siemens V 94	
Gas turbine output	:	155	MW <sub>el</sub>
Steam capacity	:	251	t/h
Steam pressure	:	85	bar
Steam temperature	:	528	°C
Flying take-over	:	no	
Auxiliary fuel	:	no	
Scope	:	Boiler Island	
Year of commissioning	:	2002	

**CCP Plant Gendorf, Burgkirchen, Germany  
Infraserv Bayernwerk Gendorf GmbH**



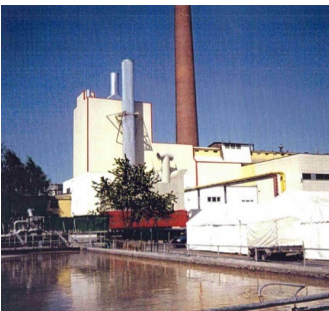
Gas turbine	:	SGT-800	
Gas turbine output	:	43	MW <sub>el</sub>
Steam capacity	:	130	t/h
Steam pressure	:	71	bar
Steam temperature	:	510	°C
Flying take-over	:	yes	
Auxiliary fuel	:	Natural gas, Hydrogen	
Scope	:	Boiler Island	
Year of commissioning	:	2002	

**Power Plant 1+2, Baku, Azerbaijan  
Jacobs Comprimo GmbH**



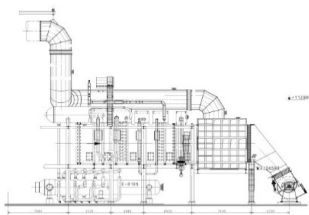
Gas turbine	:	ABB-GT 8	
Gas turbine output	:	2 x	56 MW <sub>el</sub>
Steam capacity	:	2 x	221 t/h
Steam pressure	:	20	bar
Steam temperature	:	289	°C
Flying take-over	:	no	
Auxiliary fuel	:	Natural gas	
Scope	:	Boiler Island	
Year of commissioning	:	2001	

**CCP Plant Raubling, Germany**  
**Raubling Papier GmbH, Heinzl Group (formerly Mondi Packaging Raubling GmbH)**



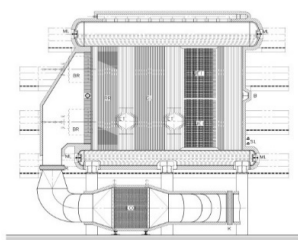
Gas turbine	:	Solar-Mars 100	
Gas turbine output	:	11,3	MW <sub>el</sub>
Steam capacity	:	85	t/h
Steam pressure	:	90	bar
Steam temperature	:	502	°C
Flying take-over	:	yes	
Auxiliary fuel	:	Natural gas, bio gas	
Scope	:	EPC	
Year of commissioning	:	2001	

**YPF Methanol Plant, Plaza Huincul, Argentina**  
**Air Liquide (formerly Lurgi Öl Gas Chemie GmbH)**



Process heat generator	:	Reformer	
Energy source	:	Waste gas	
Thermal input	:	67,3	MW <sub>th</sub>
Gas inlet temperature	:	980	°C
Gas outlet temperature	:	130	°C
Medium flows	:	Process gas, steam, fuel gas, air	
Scope	:	Boiler Island	
Year of commissioning	:	2000	

**CCP Plant Lachendorf, Germany**  
**Drewsen Spezialpapiere GmbH & Co. KG**



Gas turbine	:	Solar-Taurus 60	
Gas turbine output	:	6,9	MW <sub>el</sub>
Steam capacity	:	65	t/h
Design pressure	:	46	bar
Steam temperature	:	460	°C
Flying take-over	:	yes	
Auxiliary fuel	:	Natural gas	
Scope	:	EPC	
Year of commissioning	:	2000	

**CCP Plant Wasserburg, Germany**  
**E.ON Energy Projects GmbH**



Gas turbine	:	Solar-Taurus 70	
Gas turbine output	:	6,75	MW <sub>el</sub>
Steam capacity	:	55	t/h
Steam pressure	:	64	bar
Steam temperature	:	510	°C
Flying take-over	:	yes	
Auxiliary fuel	:	Natural gas	
Scope	:	EPC	
Year of commissioning	:	2000	

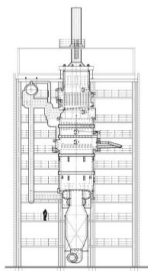


**CHP Lausward, Düsseldorf, Germany**  
**Stadtwerke Düsseldorf AG**



Gas turbine	:	Siemens-V64	
Gas turbine output	:	70	MW <sub>el</sub>
Steam capacity	:	103	t/h
Steam pressure	:	87	bar
Steam temperature	:	541	°C
Flying take-over	:	no	
Auxiliary fuel	:	no	
Scope	:	Boiler Island	
Year of commissioning	:	2000	

**CHP Plant Merheim, Cologne, Germany**  
**RheinEnergie AG (formerly: GEW Köln)**



Gas turbine	:	Solar-Taurus 50	
Gas turbine output	:	5	MW <sub>el</sub>
Steam capacity	:	53	t/h
Steam pressure	:	85	bar
Steam temperature	:	525	°C
Flying take-over	:	yes	
Auxiliary fuel	:	Natural gas, light fuel oil	
Scope	:	EPC	
Year of commissioning	:	1999	

**CCP Plant Erfurt-East, Germany**  
**SWE Stadtwerke Erfurt GmbH**



Gas turbine	:	GE-LM 2500		
Gas turbine output	:	2 x	25	MWel
Steam capacity	:	2 x	85	t/h
Steam pressure	:		80	bar
Steam temperature	:		525	°C
Flying take-over	:		yes	
Auxiliary fuel	:	Natural gas, light fuel oil		
Scope	:	EPC		
Year of commissioning	:	1999		

**SVA Neu-Ulm, Germany**  
**ThyssenKrupp EnCoke**



Steam capacity	:		7,9	t/h
Steam pressure	:		40	bar
Steam temperature	:		400	°C
Flying take-over	:		no	
Auxiliary fuel	:		no	
Scope	:	Boiler Island		
Year of commissioning	:	1999		

**EPZ AMER 9, Geertruidenberg, The Netherlands**  
**Air Liquide Global E&C Solutions Germany (formerly Lurgi Umwelt)**



Energy source	:	Process gas	
Steam capacity	:	27,1	t/h
Steam pressure	:	58	bar
Steam temperature	:	320	°C
Flying take-over	:	no	
Auxiliary fuel	:	no	
Scope	:	Boiler Island	
Year of commissioning	:	1999	

**PCK Schwedt, Schwedt, Germany**  
**PCK Raffinerie GmbH**



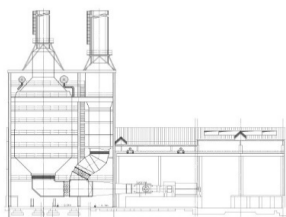
Energy source	:	Sewage Water Combustion	
Steam capacity	:	21,4	t/h
Steam pressure	:	36	bar
Steam temperature	:	270	°C
Flying take-over	:	no	
Auxiliary fuel	:	no	
Scope	:	Boiler Island	
Year of commissioning	:	1998	

**SVZ Schwarze Pumpe, Brandenburg, Germany**  
**LEAG (formerly Schwarze Pumpe GmbH)**



Gas turbine	:	GE-Frame 6	
Gas turbine output	:	40	MW <sub>el</sub>
Steam capacity	:	182	t/h
Steam pressure	:	96	bar
Steam temperature	:	525	°C
Flying take-over	:	yes	
Auxiliary fuel	:	Light fuel oil, synthetic gas, natural gas, production residues (gaseous)	
Scope	:	Boiler Island	
Year of commissioning	:	1997	

**Power Plant Obernburg, Germany**  
**Kraftwerk Obernburg GmbH**



Gas turbine	:	Siemens-V 64	
Gas turbine output	:	70	MW <sub>el</sub>
Steam capacity	:	130	t/h
Design pressure	:	88	bar
Steam temperature	:	515	°C
Flying take-over	:	yes	
Auxiliary fuel	:	Turbine exhaust gas, natural gas (referred to 8 degree air intake)	
Scope	:	Boiler Island	
Year of commissioning	:	1997	

**CCP Plant Dotternhausen, Germany**  
**Holcim (Süddeutschland) GmbH (formerly Rohrbach Zement GmbH & Co. KG)**



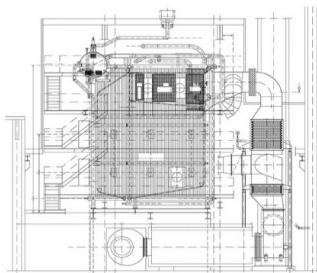
Energy source	:	Waste gas downstream rotary furnace	
Steam capacity	:	11,6	t/h
Steam pressure	:	59	bar
Steam temperature	:	500	°C
Flying take-over	:	yes	
Auxiliary fuel	:	no	
Scope	:	Boiler Island	
Year of commissioning	:	1997	

**CHP Plant Leipzig-North, Germany**  
**Stadtwerke Leipzig GmbH**



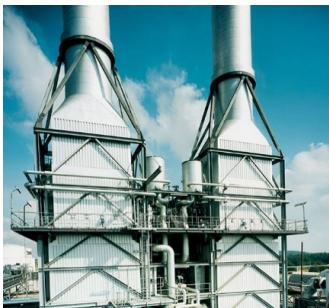
Gas turbine	:	Siemens-V 64	
Gas turbine output	:	2 x 70	MW <sub>el</sub>
Steam capacity	:	2 x 125	t/h
Design pressure	:	85	bar
Steam temperature	:	512	°C
Flying take-over	:	no	
Auxiliary fuel	:	Natural gas	
Scope	:	Boiler Island	
Year of commissioning	:	1996	

**Europa Carton, Hoya, Germany**  
**AF-Consult Switzerland AG (formerly Colenco AG)**



Steam capacity	:	45	t/h
Steam pressure	:	64	bar
Steam temperature	:	450	°C
Flying take-over	:	no	
Auxiliary fuel	:	no	
Scope	:	Boiler Island	
Year of commissioning	:	1996	

**Power Plant Schwarzheide, Brandenburg, Germany**  
**BASF SE**



Gas turbine	:	PG6561 B	
Gas turbine output	:	40,4	MW <sub>el</sub>
Steam capacity	:	2 x 130	t/h
Steam pressure	:	80	bar
Steam temperature	:	480	°C
Flying take-over	:	no	
Auxiliary fuel	:	Natural gas, Fuel oil	
Scope	:	Boiler Island	
Year of commissioning	:	1995	

**CCP Plant Refinery Heide, Hemmingstedt, Germany  
Shell Deutschland Oil GmbH (formerly DEA)**



Gas turbine	:	GE-Frame 3	
Gas turbine output	:	10	MW <sub>el</sub>
Steam capacity	:	135	t/h
Steam pressure	:	75	bar
Steam temperature	:	520	°C
Flying take-over	:	no	
Auxiliary fuel	:	Turbine exhaust gas, gas, heavy fuel oil (referred to 8 degree air intake)	
Scope	:	Boiler Island	
Year of commissioning	:	1995	

**Power Plant Hamburg, Germany  
ADM Hamburg AG (formerly Oelmühle Hamburg AG)**



Gas turbine	:	RR-Typhoon	
Gas turbine output	:	2 x	6 MW <sub>el</sub>
Steam capacity	:	2 x	65 t/h
Design pressure	:	19	bar
Saturated steam temperature	:	198	°C
Flying take-over	:	no	
Auxiliary fuel	:	Natural gas	
Scope	:	Boiler Island	
Year of commissioning	:	1993	

**CCP Plant Hengelo, The Netherlands**  
**Nouryon Industrial Chemicals (formerly Akzo Nobel, before that Salinco)**



Gas turbine	:	GE-Frame 6	
Gas turbine output	:	40,5	MW <sub>el</sub>
Steam capacity	:	175	t/h
Design pressure	:	103	bar
Steam temperature	:	525	°C
Flying take-over	:	no	
Auxiliary fuel	:	Natural gas	
Scope	:	EPC	
Year of commissioning	:	1993	