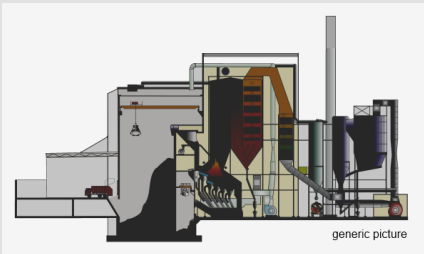


Energy from Waste Reference Projects

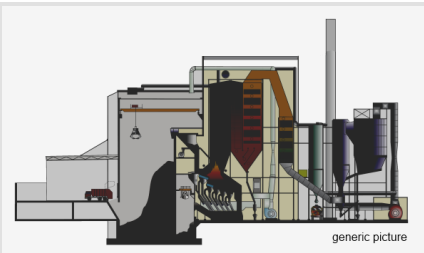
by Hitachi Zosen since 2000

in chronological order



JP, Yokosuka, Kanagawa

Start of operation	2020	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	3
	Throughput per line	5.00 t/h



CN, Shunde

Start of operation	2019	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	4
	Throughput per line	35.42 t/h
Energy recovery	Output	Electrical Power



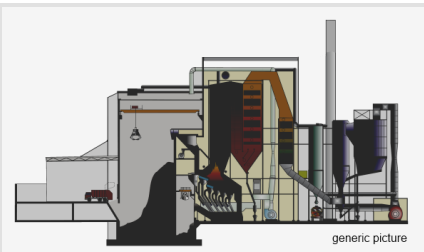
JP, Kyoto (Nambu No.2)

Start of operation	2019	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	10.42 t/h
	Thermal power per line	39.06 MW
Energy recovery	Output	Electrical Power



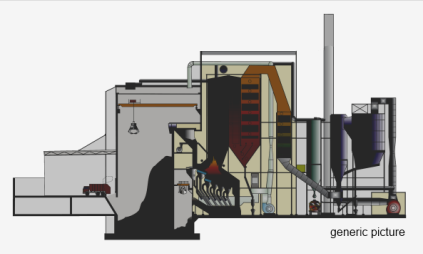
JP, Nagano, Nagano

Start of operation	2019	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	3
	Throughput per line	5.60 t/h
	Thermal power per line	17.90 MW
Energy recovery	Output	Electrical Power



CN, Changsha

Start of operation	2018	
Combustion	Concept	Air-cooled Grate
	Fuel	Refuse Derived Fuel, Municipal Solid Waste
	Number of Lines	6
	Throughput per line	35.42 t/h
Energy recovery	Output	Electrical Power



TH, Nong Khai

Start of operation	2018	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	15.42 t/h
Energy recovery	Output	Electrical Power



JP, Oriei

Start of operation	2018	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	2.40 t/h



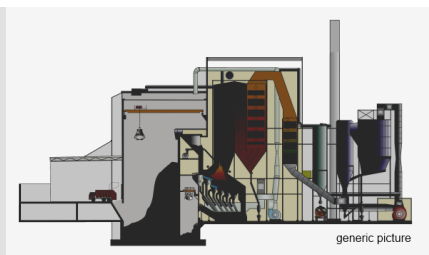
JP, Yatsushiro, Kumamoto

Start of operation	2018	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	2.79 t/h
	Thermal power per line	9.93 MW
Energy recovery	Concept	Condensation Turbine
	Electric power output	2.88 MW (gross)
	Output	Electrical Power



JP, Neyagawa

Start of operation	2018	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	4.17 t/h
	Thermal power per line	13.60 MW
Flue gas treatment	Concept	Entrainment reactor, Fabric Filter, SCR
	Reactant	Calcium Hydroxide, Activated Carbon
	Throughput per line	23'990 m³/h (STP)
Energy recovery	Output	Electrical Power



MY, SMART WTE

Start of operation	2018	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	25.00 t/h
	Thermal power per line	69.44 MW
Energy recovery	Concept	Condensation Turbine
	Electric power output	17.70 MW (gross)
	Output	Electrical Power



CN, Chengdu Wanxing

Start of operation	2017	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	4
	Throughput per line	25.00 t/h
	Thermal power per line	48.60 MW
Flue gas treatment	Concept	Fabric Filter, SCR, Semi-dry System, SNCR, PAC Entrainment
	Reactant	Calcium Hydroxide, Sodium Bicarbonate, Activated Carbon
Energy recovery	Output	Electrical Power



JP, Joetsu, Niigata

Start of operation	2017	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	3.54 t/h
	Thermal power per line	15.60 MW
Flue gas treatment	Concept	SNCR, Entrainment reactor, Fabric Filter
	Reactant	Calcium Hydroxide, Activated Carbon
	Throughput per line	20'330 m³/h (STP)
Energy recovery	Output	Hot Water, Electrical Power



IE, Dublin

Start of operation	2017	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	41.00 t/h
	Thermal power per line	102.5 MW
Boiler	Concept	4-pass boiler
	Steam	125 t/h at 62 bar(a) and 443 °C
Flue gas treatment	Concept	Fabric Filter, Scrubber, Semi-dry System, SNCR
	Scrubber Reactant	Caustic Soda
	Reactant	Lignite Coke, Calcium Hydroxide
	Throughput per line	189'000 m³/h (STP)
Energy recovery	Concept	Condensation Turbine
	Electric power output	68.80 MW (gross)
	Output	Electrical Power, Hot Water



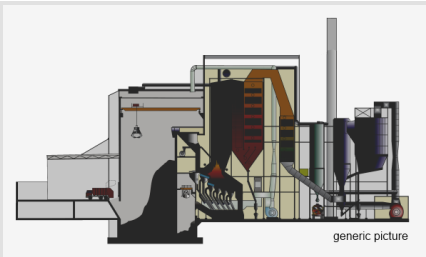
GB, Herefordshire and Worcestershire

Start of operation	2017	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	30.55 t/h
Boiler	Thermal power per line	67.89 MW
	Concept	5-pass boiler
	Steam	89 t/h at 60 bar(a) and 415 °C
Flue gas treatment	Concept	Fabric Filter, Semi-dry System, SNCR
	Reactant	Calcium Hydroxide, Activated Carbon
	Throughput per line	126'000 m³/h (STP)
Energy recovery	Concept	Condensation Turbine
	Electric power output	20.00 MW (gross)
	Output	Electrical Power



CN, Xiamen (Ruikeji)

Start of operation	2017	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	10.42 t/h
Flue gas treatment	Thermal power per line	24.05 MW
	Concept	
	Throughput per line	54'257 m³/h (STP)



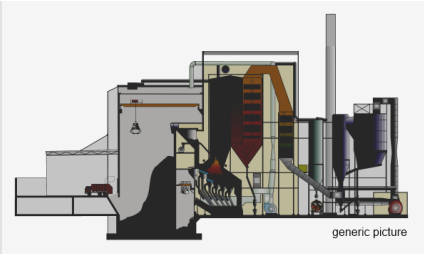
CN, Yingtan

Start of operation	2017	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	16.67 t/h
Flue gas treatment	Thermal power per line	25.20 MW
	Concept	
	Throughput per line	63'115 m³/h (STP)



CN, Guangan

Start of operation	2017	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	12.50 t/h
Flue gas treatment	Thermal power per line	23.26 MW
	Concept	
	Throughput per line	55'266 m³/h (STP)



generic picture

CN, Chongming

Start of operation	2017	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	10.42 t/h
	Thermal power per line	18.78 MW
Flue gas treatment	Concept	
	Throughput per line	44'189 m³/h (STP)



CN, Haikou Phase II

Start of operation	2017	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	25.00 t/h
	Thermal power per line	49.31 MW
Flue gas treatment	Concept	
	Throughput per line	115'540 m³/h (STP)



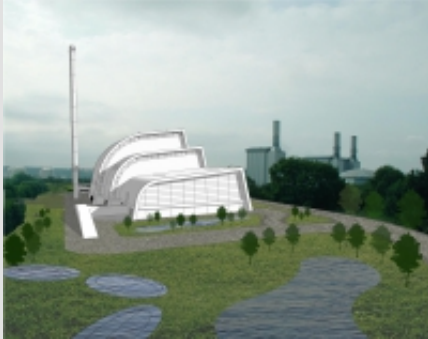
JP, Tokyo (Suginami)

Start of operation	2017	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	12.50 t/h
	Thermal power per line	49.70 MW
Energy recovery	Output	Hot Water, Electrical Power



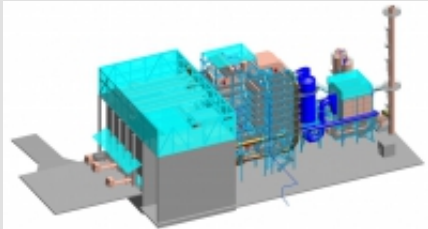
PL, Poznan

Start of operation	2016	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	15.00 t/h
	Thermal power per line	31.50 MW
Boiler	Concept	4-pass boiler
	Steam	38 t/h at 62 bar(a) and 422 °C
Flue gas treatment	Concept	SNCR, Semi-dry System, Fabric Filter
	Reactant	Calcium Hydroxide
	Throughput per line	66'000 m³/h (STP)
Energy recovery	Concept	Condensation Turbine
	Electric power output	17.30 MW (gross)
	Output	Electrical Power, Hot Water



GB, Severnside L1, L2

Start of operation	2016	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	24.24 t/h
Boiler	Thermal power per line	62.61 MW
	Concept	5-pass boiler
	Steam	78 t/h at 62 bar(a) and 422 °C
Flue gas treatment	Concept	SNCR, Semi-dry System, Fabric Filter
	Reactant	Calcium Hydroxide
	Throughput per line	127'000 m³/h (STP)
Energy recovery	Concept	Condensation Turbine
	Electric power output	37.40 MW (gross)
	Output	Electrical Power



IN, Essel Jabalpur

Start of operation	2016	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	25.00 t/h
Boiler	Thermal power per line	47.97 MW
	Concept	4-pass boiler
	Steam	57 t/h at 46 bar(a) and 0 °C
Flue gas treatment	Concept	Evaporation cooler, Fabric Filter
	Reactant	Calcium Hydroxide, Activated Carbon
	Throughput per line	112'178 m³/h (STP)



JP, Fujimino, Saitama

Start of operation	2016	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	3.00 t/h
Energy recovery	Thermal power per line	10.30 MW
	Output	Hot Water, Electrical Power



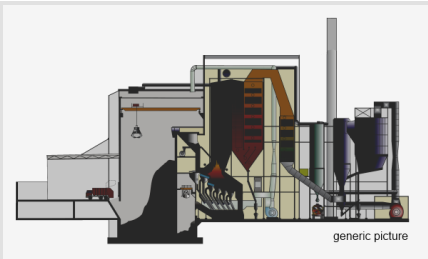
JP, Tsuyama, Okayama

Start of operation	2016	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	2.67 t/h
Energy recovery	Thermal power per line	9.40 MW



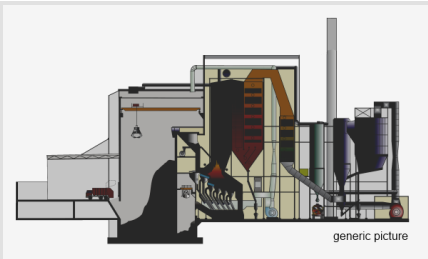
CN, Wuxi Xidong

Start of operation	2016	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	4
	Throughput per line	20.83 t/h
	Thermal power per line	38.77 MW
Flue gas treatment	Concept	SNCR, Spray Absorber, Fabric Filter
	Reactant	Activated Carbon, Calcium Hydroxide
	Throughput per line	100'950 m³/h (STP)
Energy recovery	Output	Electrical Power



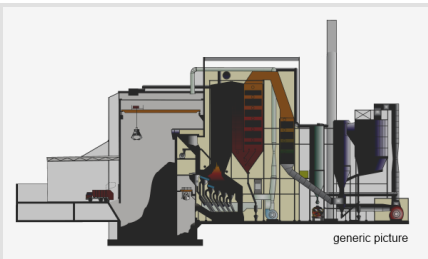
PL, Jarocin

Start of operation	2015	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	1300 m³
	Digester Design	Concrete
	Digester Type	RM18
	Waste Type	Organic Fraction of Municipal Solid Waste
	Waste Throughput per Year	15000 t/a



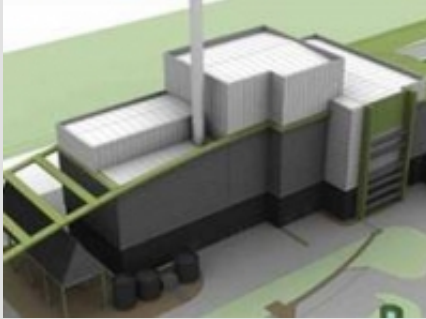
CN, Yongji

Start of operation	2015	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	10.40 t/h



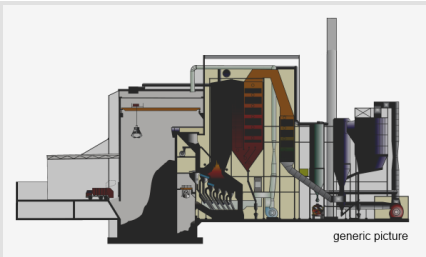
TH, Nonkhem

Start of operation	2015	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	10.40 t/h



GB, Buckinghamshire

Start of operation	2015	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste, Industrial Waste
	Number of Lines	1
	Throughput per line	39.40 t/h
	Thermal power per line	101.7 MW
Boiler	Concept	5-pass boiler
	Steam	127 t/h at 52 bar(a) and 402 °C
Flue gas treatment	Concept	Fabric Filter, Semi-dry System, SNCR
	Reactant	Activated Carbon, Calcium Hydroxide
	Throughput per line	180'714 m³/h (STP)
Energy recovery	Concept	Condensation Turbine
	Electric power output	26.50 MW (gross)
	Output	Electrical Power



JP, Namie

Start of operation	2015	
Combustion	Concept	Air-cooled Grate
	Fuel	Radioactive waste
	Number of Lines	1
	Throughput per line	12.50 t/h
	Thermal power per line	45.00 MW
Flue gas treatment	Concept	Entrainment reactor, Fabric Filter
	Reactant	Calcium Hydroxide, Activated Carbon
	Throughput per line	154'040 m³/h (STP)



CH, Horgen

Start of operation	2015	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	4.20 t/h
	Thermal power per line	15.00 MW
Boiler	Concept	3-pass boiler with external economizer
	Steam	18 t/h at 30 bar(a) and 0 °C
Flue gas treatment	Concept	Entrainment reactor, Electrostatic Precipitator, Fabric Filter, Heat exchanger, SCR
	Reactant	Adsorbent, Sodium Bicarbonate
	Throughput per line	25'300 m³/h (STP)



GB, Ferrybridge

Start of operation	2015	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste, Biomass, Refuse Derived Fuel, Wood
	Number of Lines	2
	Throughput per line	42.25 t/h
	Thermal power per line	117.4 MW
Boiler	Concept	5-pass boiler
	Steam	104 t/h at 72 bar(a) and 427 °C
Flue gas treatment	Concept	Fabric Filter, Heat Exchanger, Semi-dry System, SNCR
	Reactant	Activated Carbon, Calcium Hydroxide
	Throughput per line	208'000 m³/h (STP)
Energy recovery	Concept	Condensation Turbine
	Electric power output	75.00 MW (gross)
	Output	Steam, Electrical Power



JP, Hagi Nagato, Yamaguchi

Start of operation	2015	
Combustion	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	2.16 t/h
	Thermal power per line	4.75 MW
Energy recovery	Output	Hot Water



JP, Gotemba Oyama, Shizuoka

Start of operation	2015	
Combustion	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	2.97 t/h
	Thermal power per line	9.80 MW
Energy recovery	Output	Electrical Power



JP, Murakami, Niigata

Start of operation	2015	
Combustion	Fuel	Municipal Solid Waste, Sewage Sludge
	Number of Lines	2
	Throughput per line	1.96 t/h
	Thermal power per line	6.10 MW
Energy recovery	Output	Hot Water, Electrical Power



CN, Nanchong

Start of operation	2015	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	16.66 t/h
Flue gas treatment	Thermal power per line	31.98 MW
	Concept	SNCR, Spray Absorber, Fabric Filter
	Reactant	Activated Carbon, Calcium Hydroxide
	Throughput per line	83'230 m³/h (STP)
Energy recovery	Output	Electrical Power



CN, Xiamen West

Start of operation	2015	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	12.50 t/h
Flue gas treatment	Thermal power per line	20.10 MW
	Concept	SNCR, Spray Absorber, Fabric Filter
	Reactant	Calcium Hydroxide, Activated Carbon
	Throughput per line	54'170 m³/h (STP)
Energy recovery	Output	Electrical Power



CH, Lucerne Perlen

Start of operation	2015	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	15.60 t/h
Boiler	Thermal power per line	47.00 MW
	Concept	4-pass boiler with external economizer
	Steam	57 t/h at 41 bar(a) and 410 °C
	Flue gas treatment	Entrainment reactor, Entrainment reactor 2, Electrostatic Precipitator, Ext. Eco, Fabric Filter, Fabric Filter 2, Heat Exchanger, Heat exchanger 2, SCR
Energy recovery	Reactant	Sodium Bicarbonate, Lignite Coke, Calcium Hydroxide
	Throughput per line	78'000 m³/h (STP)
	Concept	Condensation Turbine
	Electric power output	28.10 MW (gross)
	Output	Steam, Electrical Power, Hot Water



CN, Shanghai Liming

Start of operation	2014	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	4
	Throughput per line	20.83 t/h
	Thermal power per line	37.62 MW
Flue gas treatment	Concept	SNCR, Entrainment reactor, Fabric Filter, Scrubber
	Reactant	Calcium Hydroxide, Activated Carbon
	Throughput per line	103'810 m³/h (STP)
Energy recovery	Output	Electrical Power



CN, Xiangtan

Start of operation	2014	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	4
	Throughput per line	20.83 t/h
Flue gas treatment	Concept	Entrainment reactor, Fabric Filter, Semi-dry System



CN, Sanya

Start of operation	2014	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	14.58 t/h
Flue gas treatment	Concept	Entrainment reactor, Semi-dry System, Fabric Filter



CN, Shanghai Laogang

Start of operation	2014	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	4
	Throughput per line	31.25 t/h
	Thermal power per line	61.80 MW
Flue gas treatment	Concept	SNCR, Entrainment reactor, Fabric Filter, Scrubber
	Reactant	Calcium Hydroxide, Activated Carbon
	Throughput per line	161'900 m³/h (STP)
Energy recovery	Output	Electrical Power



CN, Harbin

Start of operation	2014	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	25.00 t/h
Flue gas treatment	Concept	Semi-dry System, Fabric Filter



JP, Bekki Hayami, Oita

Start of operation	2014	
Combustion	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	4.90 t/h
	Thermal power per line	14.60 MW
Energy recovery	Output	Electrical Power



CN, Tianjin Binhai

Start of operation	2014	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	20.83 t/h
	Thermal power per line	38.80 MW
Flue gas treatment	Concept	SNCR, Spray Absorber, Fabric Filter
	Reactant	Calcium Hydroxide, Activated Carbon
	Throughput per line	100'250 m³/h (STP)
Energy recovery	Output	Electrical Power



CN, Zhuzhou

Start of operation	2014	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	20.83 t/h
Flue gas treatment	Concept	Entrainment reactor, Semi-dry System, Fabric Filter



CN, Rongcheng

Start of operation	2014	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	14.58 t/h
Flue gas treatment	Concept	Entrainment reactor, Fabric Filter, Semi-dry System



CN, Shuyang

Start of operation	2014	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	14.58 t/h
Flue gas treatment	Concept	Semi-dry System, Fabric Filter



CN, Xingyi

Start of operation	2014	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	12.50 t/h
Flue gas treatment	Concept	Semi-dry System, Entrainment reactor, Fabric Filter



FI, Vantaa

Start of operation	2014	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	24.00 t/h
	Thermal power per line	64.20 MW
Boiler	Concept	4-pass boiler with external economizer
	Steam	83 t/h at 91 bar(a) and 400 °C
Flue gas treatment	Concept	SNCR
	Throughput per line	111'100 m³/h (STP)



CN, Dalian

Start of operation	2014	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	3
	Throughput per line	20.83 t/h
	Thermal power per line	38.80 MW
Flue gas treatment	Concept	SNCR, Spray Absorber, Fabric Filter
	Reactant	Activated Carbon, Calcium Hydroxide
	Throughput per line	100'250 m³/h (STP)
Energy recovery	Output	Electrical Power



CH, Winterthur

Start of operation	2014	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	1500 m3
	Digester Design	Steel
	Digester Type	PF1500
	Waste Type	Bio Waste, Green Waste
	Waste Throughput per Year	25000 t/a



CH, Vétroz

Start of operation	2014	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	1300 m3
	Digester Design	Concrete
	Digester Type	PF1300
	Waste Type	Bio Waste, Green Waste, Liquid Manure, Waste Oil
	Waste Throughput per Year	20000 t/a



PT, Amarsul

Start of operation	2014	
Anaerobic Digestion	Number of Digester(s)	3
	Net volume per digester	1300 m3
	Digester Design	Concrete
	Digester Type	PF1300
	Waste Type	Organic Fraction of Municipal Solid Waste
	Waste Throughput per Year	60000 t/a



PL, Olawa

Start of operation 2014



KR, Namyangju

Start of operation	2013	
Combustion	Concept	Fluidized Bed Gasification
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	2.66 t/h



CN, Yantai

Start of operation	2013	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	20.83 t/h
Flue gas treatment	Concept	Entrainment reactor, Fabric Filter, Semi-dry System



JP, Nishiharima, Hyogo

Start of operation	2013	
Combustion	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	1.85 t/h
	Thermal power per line	5.80 MW
Energy recovery	Output	Electrical Power, Hot Water



JP, Matsuyama, Ehime

Start of operation	2013	
Combustion	Fuel	Municipal Solid Waste
	Number of Lines	3
	Throughput per line	5.83 t/h
	Thermal power per line	16.90 MW
Energy recovery	Output	Electrical Power



JP, Nakakita Sorachi, Hokkaido

Start of operation	2013	
Combustion	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	1.77 t/h
	Thermal power per line	8.20 MW
Boiler	Concept	3-pass boiler
	Steam	
Energy recovery	Output	Electrical Power



JP, Hadano Isehara, Kanagawa

Start of operation	2013	
Combustion	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	4.16 t/h
	Thermal power per line	13.30 MW
Energy recovery	Output	Electrical Power



CN, Haikou

Start of operation	2013	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	25.00 t/h
Flue gas treatment	Thermal power per line	46.00 MW
	Concept	SNCR, Semi-dry System, Fabric Filter
	Reactant	Calcium Hydroxide, Activated Carbon
	Throughput per line	121'220 m³/h (STP)
Energy recovery	Output	Electrical Power



CN, Rudong II

Start of operation	2013	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	20.83 t/h
Flue gas treatment	Concept	Entrainment reactor, Fabric Filter



CN, Changshou

Start of operation	2013	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	3
	Throughput per line	12.50 t/h
Flue gas treatment	Concept	Semi-dry System, Fabric Filter



CN, Longyan

Start of operation	2013	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	12.50 t/h
Flue gas treatment	Concept	Entrainment reactor, Semi-dry System, Fabric Filter



GB, Cleveland L4, L5

Start of operation	2013	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste, Industrial Waste
	Number of Lines	2
	Throughput per line	19.00 t/h
	Thermal power per line	45.85 MW
Boiler	Concept	4-pass boiler
	Steam	56 t/h at 50 bar(a) and 410 °C
Flue gas treatment	Concept	Fabric Filter, Semi-dry System, SNCR
	Reactant	Activated Carbon, Calcium Hydroxide
	Throughput per line	95'400 m³/h (STP)
Energy recovery	Concept	Condensation Turbine
	Electric power output	26.00 MW (gross)
	Output	Electrical Power



JP, Hofu

Start of operation	2013	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	750 m3
	Digester Design	Steel
	Digester Type	ZAFL
	Waste Type	Organic Fraction of Municipal Solid Waste
	Waste Throughput per Year	17500 t/a



JP, Nantan

Start of operation 2013



DE, Fulda

Start of operation	2013	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	1300 m3
	Digester Design	Concrete
	Digester Type	PF1300
	Waste Type	Bio Waste, Green Waste
	Waste Throughput per Year	32000 t/a



NL, Tilburg

Start of operation	2013	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	1300 m3
	Digester Design	Concrete
	Digester Type	PF1300
	Waste Type	Bio Waste, Green Waste
	Waste Throughput per Year	46000 t/a



CH, Zurich Werdhölzli

Start of operation	2013	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	1500 m3
	Digester Design	Steel
	Digester Type	PF1500
	Waste Type	
	Waste Throughput per Year	25000 t/a



FR, Clermont-Ferrand

Start of operation	2013	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	1300 m3
	Digester Design	Concrete
	Digester Type	PF1300
	Waste Type	Bio Waste, Green Waste
	Waste Throughput per Year	15000 t/a



CN, Huzhou

Start of operation	2012	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	8.33 t/h
Flue gas treatment	Concept	Fabric Filter, Semi-dry System, SNCR
Energy recovery	Output	Electrical Power



FI, Vaasa

Start of operation	2012	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste, Industrial Waste
	Number of Lines	1
	Throughput per line	20.00 t/h
	Thermal power per line	61.00 MW
Boiler	Concept	4-pass boiler
	Steam	74 t/h at 42 bar(a) and 402 °C
Flue gas treatment	Concept	SNCR
	Throughput per line	104'140 m³/h (STP)
Energy recovery	Output	Hot Water, Electrical Power



CH, Hinwil

Start of operation	2012	
Flue gas treatment	Concept	Entrainment reactor, Fabric Filter, Heat Exchanger, SCR
	Number of Lines	2
	Fuel	Municipal Solid Waste
	Reactant	Sodium Bicarbonate, Activated Carbon
	Throughput per line	87'500 m³/h (STP)



ES, Sant Adrià de Besòs L1-L3

Start of operation	2012	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste, Industrial Waste
	Number of Lines	3
	Throughput per line	15.00 t/h
	Thermal power per line	48.80 MW
Boiler	Concept	3-pass boiler
	Steam	50 t/h at 40 bar(a) and 400 °C



CN, Ningde

Start of operation
Combustion

2012
Concept
Fuel
Number of Lines
Throughput per line
Concept

Air-cooled Grate
Municipal Solid Waste
2
12.50 t/h
Entrainment reactor, Semi-dry
System, Fabric Filter

Flue gas treatment



TH, Phuket

Start of operation
Combustion

2012
Concept
Fuel
Number of Lines
Throughput per line
Concept

Air-cooled Grate
Municipal Solid Waste
2
14.58 t/h
Semi-dry System, Fabric Filter

Flue gas treatment



CH, Limmattal

Start of operation
Flue gas treatment

2012
Concept
Number of Lines
Fuel
Reactant
Throughput per line

PAC Entrainment
2
Municipal Solid Waste
Activated Carbon
47'000 m³/h (STP)



FR, Vannes

Start of operation
Anaerobic Digestion

2012
Number of Digester(s)
Net volume per digester
Digester Design
Digester Type
Waste Type
Waste Throughput per Year

1
1300 m³
Concrete
PF1300
Organic Fraction of Municipal Solid
Waste
15000 t/a



FR, Angers

Start of operation
Anaerobic Digestion

2012	
Number of Digester(s)	4
Net volume per digester	1300 m3
Digester Design	Concrete
Digester Type	PF1300
Waste Type	Organic Fraction of Municipal Solid Waste
Waste Throughput per Year	50000 t/a



FR, Forbach

Start of operation
Anaerobic Digestion

2012	
Number of Digester(s)	3
Net volume per digester	1300 m3
Digester Design	Concrete
Digester Type	PF1300
Waste Type	Bio Waste, Green Waste
Waste Throughput per Year	42000 t/a



DE, Witten

Start of operation
Anaerobic Digestion

2012	
Number of Digester(s)	1
Net volume per digester	1300 m3
Digester Design	Concrete
Digester Type	PF1300
Waste Type	Bio Waste, Green Waste
Waste Throughput per Year	20000 t/a



DE, Trittau

Start of operation
Anaerobic Digestion

2012	
Number of Digester(s)	1
Net volume per digester	1300 m3
Digester Design	Concrete
Digester Type	PF1300
Waste Type	Bio Waste
Waste Throughput per Year	20000 t/a



IT, Faedo

Start of operation
Anaerobic Digestion

2012	
Number of Digester(s)	2
Net volume per digester	1300 m3
Digester Design	Concrete
Digester Type	PF1300
Waste Type	Bio Waste, Green Waste
Waste Throughput per Year	32000 t/a



IT, Terni

Start of operation	2012	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	1300 m3
	Digester Design	Concrete
	Digester Type	PF1300
	Waste Type	Bio Waste, Green Waste
	Waste Throughput per Year	17500 t/a



NL, Weurt

Start of operation	2012	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	1300 m3
	Digester Design	Concrete
	Digester Type	PF1300
	Waste Type	Bio Waste, Green Waste
	Waste Throughput per Year	40000 t/a



IT, Novi Ligure

Start of operation	2012
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DE, Coesfeld

Start of operation	2012	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	1300 m3
	Digester Design	Concrete
	Digester Type	PF1300
	Waste Type	Bio Waste, Green Waste
	Waste Throughput per Year	40000 t/a



GB, Newhaven

Start of operation	2011	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	14.50 t/h
	Thermal power per line	35.85 MW
Boiler	Concept	4-pass boiler
	Steam	44 t/h at 50 bar(a) and 400 °C
Flue gas treatment	Concept	Semi-dry System, Fabric Filter, SNCR
	Throughput per line	75'600 m³/h (STP)
Energy recovery	Concept	Condensation Turbine
	Electric power output	19.25 MW (gross)
	Output	Electrical Power



NO, Oslo

Start of operation	2011	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste, Industrial Waste
	Number of Lines	1
	Throughput per line	24.00 t/h
	Thermal power per line	66.70 MW
Boiler	Concept	4-pass boiler
	Steam	78 t/h at 42 bar(a) and 402 °C
Flue gas treatment	Concept	Electrostatic Precipitator (3 Fields), Heat Exchanger, Scrubber, Heat exchanger, Heat exchanger 2, Heat exchanger 3, SCR, Heat exchanger 2
	Scrubber Reactant	Lye
	Throughput per line	130'000 m³/h (STP)
Energy recovery	Concept	Back-pressure Turbine
	Electric power output	12.80 MW (gross)
	Output	Hot Water, Electrical Power



JP, Iwata Bannan II, Shizuoka

Start of operation	2011	
Combustion	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	4.67 t/h
	Thermal power per line	3.00 MW
Energy recovery	Output	Hot Water, Electrical Power



GB, Riverside, London

Start of operation	2011	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste, Industrial Waste
	Number of Lines	3
	Throughput per line	32.44 t/h
	Thermal power per line	81.10 MW
Boiler	Concept	4-pass boiler
	Steam	99 t/h at 72 bar(a) and 427 °C
	Flue gas treatment	SNCR, Semi-dry System, Fabric Filter
Energy recovery	Throughput per line	169'800 m³/h (STP)
	Concept	Condensation Turbine
	Electric power output	73.00 MW (gross)
	Output	Electrical Power



NL, Roosendaal

Start of operation	2011	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	21.00 t/h
	Thermal power per line	62.00 MW
Boiler	Concept	5-pass boiler
	Steam	76 t/h at 62 bar(a) and 422 °C
	Flue gas treatment	Entrainment reactor, Fabric Filter, SCR
Energy recovery	Reactant	Sodium Bicarbonate
	Throughput per line	127'000 m³/h (STP)
	Concept	Condensation Turbine
	Electric power output	28.70 MW (gross)
	Output	Hot Water, Electrical Power



DE, Neunkirchen EEW

Start of operation	2011	
Flue gas treatment	Concept	Spray Dryer, Fabric Filter, Scrubber
	Number of Lines	2
	Fuel	Municipal Solid Waste
	Throughput per line	50'000 m³/h (STP)



FR, Noyelles s/Lens

Start of operation	2011	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	8.00 t/h
	Thermal power per line	16.70 MW
Flue gas treatment	Concept	SNCR
	Throughput per line	35'000 m³/h (STP)



CN, Rudong

Start of operation	2011	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	10.42 t/h
Flue gas treatment	Concept	Entrainment reactor, Fabric Filter



CN, Xiangyang

Start of operation	2011	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	16.67 t/h
Flue gas treatment	Concept	Semi-dry System, Fabric Filter



IT, Belluno

Start of operation	2011	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	1300 m3
	Digester Design	Concrete
	Digester Type	PF1300
	Waste Type	Bio Waste, Green Waste, Food Waste
	Waste Throughput per Year	22000 t/a



DE, Ennigerloh

Start of operation	2011	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	1300 m3
	Digester Design	Concrete
	Digester Type	PF1300
	Waste Type	Bio Waste, Green Waste
	Waste Throughput per Year	20000 t/a



DE, Backnang-Neuschöntal

Start of operation	2011	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	1300 m3
	Digester Design	Concrete
	Digester Type	PF1300
	Waste Type	Bio Waste, Green Waste
	Waste Throughput per Year	36000 t/a



CH, Wauwil

Start of operation	2011	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	1300 m3
	Digester Design	Concrete
	Digester Type	PF1300
	Waste Type	Bio Waste, Green Waste
	Waste Throughput per Year	16000 t/a



CH, Chavornay

Start of operation	2011	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	1500 m3
	Digester Design	Steel
	Digester Type	PF1500
	Waste Type	Bio Waste, Green Waste, Food Waste
	Waste Throughput per Year	23000 t/a



DE, Ingolstadt

Start of operation	2011	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	1300 m3
	Digester Design	Concrete
	Digester Type	PF1300
	Waste Type	Bio Waste, Green Waste
	Waste Throughput per Year	20000 t/a



DE, Aurich-Grossefehn

Start of operation	2010	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	1300 m3
	Digester Design	Concrete
	Digester Type	PF1300
	Waste Type	Bio Waste, Green Waste
	Waste Throughput per Year	18000 t/a



NL, Rijsenhout

Start of operation	2010
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CH, Villeneuve

Start of operation	2010	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	1300 m3
	Digester Design	Concrete
	Digester Type	PF1300
	Waste Type	Bio Waste, Green Waste, Food Waste
	Waste Throughput per Year	20000 t/a



NL, Zwolle

Start of operation	2010	
Anaerobic Digestion	Number of Digester(s)	2
	Digester Design	Concrete
	Digester Type	PF1300
	Waste Type	Bio Waste
	Waste Throughput per Year	45000 t/a



LU, Leudelange TABA

Start of operation	2010	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	22.00 t/h
	Thermal power per line	67.00 MW
Boiler	Concept	3-pass boiler
	Steam	79 t/h at 40 bar(a) and 400 °C
Flue gas treatment	Concept	Entrainment reactor, Fabric Filter, SCR
	Reactant	Sodium Bicarbonate, Lignite Coke
	Throughput per line	136'642 m³/h (STP)
Energy recovery	Output	Electrical Power



US, Olmsted L5, MN

Start of operation	2010	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste, Waste Oil
	Number of Lines	1
	Throughput per line	7.93 t/h
	Thermal power per line	23.30 MW
Boiler	Concept	2-pass boiler
	Steam	29 t/h at 44 bar(a) and 346 °C
Flue gas treatment	Concept	SNCR, Spray Dryer, Fabric Filter
	Throughput per line	46'300 m³/h (STP)
Energy recovery	Output	Electrical Power, Steam



JP, Yamagata, Gifu

Start of operation	2010	
Combustion	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	0.75 t/h
Boiler	Concept	Water Injection
	Steam	



NO, Bergen L2

Start of operation	2010	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	16.00 t/h
	Thermal power per line	44.80 MW
Boiler	Concept	4-pass boiler
	Steam	57 t/h at 43 bar(a) and 402 °C
Flue gas treatment	Concept	Fabric Filter, Scrubber, Semi-dry System, SNCR
	Scrubber Reactant	Caustic Soda
	Reactant	Lignite Coke, Calcium Hydroxide
	Throughput per line	92'000 m³/h (STP)
Energy recovery	Output	Hot Water, Electrical Power



BE, Intradel

Start of operation	2009	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste, Sewage Sludge
	Number of Lines	2
	Throughput per line	23.63 t/h
	Thermal power per line	67.10 MW
Boiler	Concept	3-pass boiler with external economizer
	Steam	80 t/h at 40 bar(a) and 400 °C
Flue gas treatment	Concept	Electrostatic Precipitator, Ext. Eco, SCR, Spray Absorber
	Throughput per line	141'000 m³/h (STP)



CN, Chengdu Luodai

Start of operation	2009	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	3
	Throughput per line	16.70 t/h
Flue gas treatment	Concept	SNCR, Entrainment reactor, Fabric Filter
	Reactant	Activated Carbon, Calcium Hydroxide
	Throughput per line	93'720 m³/h (STP)
Energy recovery	Output	Electrical Power



KR, Iksan

Start of operation	2009	
Combustion	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	4.17 t/h
	Thermal power per line	3.90 MW
Energy recovery	Output	Electrical Power



JP, Osaka (Higashiyodo)

Start of operation	2009	
Combustion	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	8.33 t/h
	Thermal power per line	12.00 MW
Energy recovery	Output	Steam, Electrical Power



JP, Aira

Start of operation	2009	
Combustion	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	1.54 t/h
Boiler	Concept	Water Injection
	Steam	



GB, Cleveland L3

Start of operation	2009	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	19.00 t/h
	Thermal power per line	45.80 MW
Boiler	Concept	4-pass boiler
	Steam	55 t/h at 43 bar(a) and 400 °C
Flue gas treatment	Concept	Fabric Filter, Semi-dry System, SNCR
	Reactant	Calcium Hydroxide, Activated Carbon
Energy recovery	Throughput per line	94'600 m³/h (STP)
	Concept	Condensation Turbine
	Electric power output	10.00 MW (gross)
	Output	Electrical Power



AT, Zistersdorf

Start of operation	2009	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	19.79 t/h
	Thermal power per line	57.80 MW
Boiler	Concept	4-pass boiler
	Steam	68 t/h at 42 bar(a) and 405 °C
Flue gas treatment	Concept	Entrainment reactor, Fabric Filter, SCR
	Reactant	Sodium Bicarbonate
	Throughput per line	97'000 m³/h (STP)
Energy recovery	Concept	Condensation Turbine
	Electric power output	14.90 MW (gross)
	Output	Electrical Power



ES, Mallorca

Start of operation	2009	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste, Sewage Sludge
	Number of Lines	2
	Throughput per line	27.00 t/h
	Thermal power per line	70.00 MW
Boiler	Concept	3-pass boiler
	Steam	82 t/h at 52 bar(a) and 400 °C
Flue gas treatment	Concept	Semi-dry System, Fabric Filter, Heat Exchanger, Heat exchanger 2, SCR, Heat exchanger
	Throughput per line	142'000 m³/h (STP)
Energy recovery	Output	Electrical Power



CH, Altdorf

Start of operation	2009	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	340 m3
	Digester Design	Steel
	Digester Type	ZAFS
	Waste Type	Green Waste
	Waste Throughput per Year	5000 t/a



ES, Botarell

Start of operation	2009	
Anaerobic Digestion	Number of Digester(s)	3
	Net volume per digester	1300 m3
	Digester Design	Concrete
	Digester Type	PF1300
	Waste Type	Organic Fraction of Municipal Solid Waste
	Waste Throughput per Year	54000 t/a



QA, Doha

Start of operation	2009	
Anaerobic Digestion	Number of Digester(s)	15
	Net volume per digester	1300 m3
	Digester Design	Concrete
	Digester Type	PF1300
	Waste Type	Green Waste, Organic Fraction of Municipal Solid Waste
	Waste Throughput per Year	160000 t/a



CH, Oensingen

Start of operation	2009	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	1300 m3
	Digester Design	Concrete
	Digester Type	PF1300
	Waste Type	Bio Waste, Green Waste, Food Waste
	Waste Throughput per Year	18000 t/a



FR, Saint Lô

Start of operation	2009	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	1300 m3
	Digester Design	Concrete
	Digester Type	PF1300
	Waste Type	Organic Fraction of Municipal Solid Waste
	Waste Throughput per Year	22000 t/a



CH, Volketswil

Start of operation	2009	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	1300 m3
	Digester Design	Concrete
	Digester Type	PF1300
	Waste Type	Bio Waste, Green Waste
	Waste Throughput per Year	20000 t/a



FR, Argenteuil L4

Start of operation	2008	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	18.15 t/h
	Thermal power per line	48.60 MW
Boiler	Concept	4-pass boiler
	Steam	54 t/h at 47 bar(a) and 380 °C



DE, Witzenhausen

Start of operation	2008	
Combustion	Concept	Fluidized Bed
	Fuel	Refuse Derived Fuel, Pulp Sludge
	Number of Lines	1
	Throughput per line	34.92 t/h
	Thermal power per line	125.3 MW
Flue gas treatment	Concept	SNCR, Semi-dry System, Fabric Filter
	Throughput per line	207'100 m³/h (STP)
Energy recovery	Output	Steam, Electrical Power



JP, Osumi-kimotsuki, Kagoshima Pref.

Start of operation	2008	
Combustion	Concept	Fluidized Bed Gasification
	Fuel	
	Number of Lines	2
	Throughput per line	2.66 t/h



CH, Giubiasco

Start of operation	2008	
Flue gas treatment	Concept	Entrainment reactor, Electrostatic Precipitator (3 Fields), Ext. Eco, Fabric Filter, Fly Ash Treatment, Heat Exchanger, Heat exchanger 2, Heat exchanger 2, Heat exchanger 3, Heat exchanger, SCR, Scrubber
	Number of Lines	2
	Fuel	Municipal Solid Waste
	Scrubber Reactant	Caustic Soda
	Reactant	Lignite Coke
	Throughput per line	67'430 m³/h (STP)



FR, Pithiviers

Start of operation	2008	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	4.00 t/h
	Thermal power per line	10.90 MW
Boiler	Concept	4-pass boiler
	Steam	13 t/h at 40 bar(a) and 380 °C
Flue gas treatment	Concept	SNCR, Entrainment reactor, Fabric Filter
	Reactant	Sodium Bicarbonate
	Throughput per line	24'000 m³/h (STP)
Energy recovery	Output	Steam, Electrical Power



NL, Moerdijk L4

Start of operation	2008	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	38.33 t/h
Boiler	Thermal power per line	95.80 MW
	Concept	2-pass boiler
	Steam	121 t/h at 107 bar(a) and 400 °C
	Flue gas treatment	SNCR, Fabric Filter, Ext. Eco, Scrubber
Energy recovery	Scrubber Reactant	Lye
	Throughput per line	199'200 m³/h (STP)
	Concept	Back-pressure Turbine
	Electric power output	13.47 MW (gross)
	Output	Steam, Electrical Power



CN, Xiamen Garbage Treatment

Start of operation	2008	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	9.00 t/h
Boiler	Thermal power per line	14.65 MW
	Concept	3-pass boiler
	Steam	18 t/h at 40 bar(a) and 400 °C
	Flue gas treatment	Semi-dry System, Fabric Filter
Energy recovery	Throughput per line	42'000 m³/h (STP)
	Output	Electrical Power



DE, Flörsheim Wicker

Start of operation	2008	
Anaerobic Digestion	Number of Digester(s)	3
	Net volume per digester	1300 m3
	Digester Design	Concrete
	Digester Type	GG20
	Waste Type	Bio Waste, Green Waste
	Waste Throughput per Year	45000 t/a



CH, Klingnau

Start of operation	2008	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	1300 m3
	Digester Design	Concrete
	Digester Type	GG20
	Waste Type	Bio Waste, Food Waste, Green Waste, Liquid Waste
	Waste Throughput per Year	20000 t/a



CH, Lavigny

Start of operation	2008	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	960 m3
	Digester Design	Concrete
	Digester Type	GG16
	Waste Type	Bio Waste, Green Waste
	Waste Throughput per Year	16000 t/a



FR, Montpellier

Start of operation	2008
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CH, Inwil

Start of operation	2008	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	960 m3
	Digester Design	Concrete
	Digester Type	GG16
	Waste Type	Bio Waste, Green Waste, Liquid Manure, Liquid Waste, Solid Manure
	Waste Throughput per Year	16000 t/a



NL, Wilp-Achterhoeck

Start of operation	2008	
Anaerobic Digestion	Number of Digester(s)	4
	Net volume per digester	1300 m3
	Digester Design	Concrete
	Digester Type	PF1300
	Waste Type	Bio Waste, Green Waste
	Waste Throughput per Year	60000 t/a



JP, Sano, Tochigi Pref.

Start of operation	2007	
Combustion	Concept	Fluidized Bed Gasification
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	5.33 t/h



NO, Trondheim L3

Start of operation	2007	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	17.29 t/h
	Thermal power per line	45.80 MW
Boiler	Concept	2-pass boiler
	Steam	911 t/h at 16 bar(a) and 180 °C
Flue gas treatment	Concept	SNCR, Semi-dry System, Fabric Filter, Scrubber
	Scrubber Reactant	Lye
	Throughput per line	84'000 m³/h (STP)
	Output	Hot Water
Energy recovery	Output	



JP, Toyota, Aichi Pref.

Start of operation	2007	
Combustion	Concept	Fluidized Bed Gasification
	Fuel	Municipal Solid Waste
	Number of Lines	3
	Throughput per line	5.63 t/h



FR, Dunkerque

Start of operation	2007	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	12.00 t/h
	Thermal power per line	29.30 MW
Boiler	Concept	4-pass boiler
	Steam	35 t/h at 40 bar(a) and 380 °C
Flue gas treatment	Concept	SCR, Scrubber
	Scrubber Reactant	Caustic Soda
	Reactant	Lignite Coke
	Throughput per line	50'000 m³/h (STP)
Energy recovery	Concept	Condensation Turbine
	Electric power output	6.00 MW (gross)
	Output	Electrical Power



DE, Stassfurt EVZA

Start of operation	2007	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste, Industrial Waste
	Number of Lines	2
	Throughput per line	22.50 t/h
	Thermal power per line	55.60 MW
Boiler	Concept	4-pass boiler
	Steam	64 t/h at 40 bar(a) and 400 °C
Flue gas treatment	Concept	SNCR, Semi-dry System, Fabric Filter
	Throughput per line	116'000 m³/h (STP)
Energy recovery	Concept	Condensation Turbine
	Electric power output	28.14 MW (gross)
	Output	Steam, Electrical Power



FR, Issy-les-Moulineaux

Start of operation	2007	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	34.90 t/h
	Thermal power per line	85.23 MW
Boiler	Concept	4-pass boiler
	Steam	104 t/h at 50 bar(a) and 400 °C
Flue gas treatment	Concept	Entrainment reactor, Fabric Filter, SCR
	Reactant	Sodium Bicarbonate, Lignite Coke
	Throughput per line	151'000 m³/h (STP)
Energy recovery	Output	Electrical Power, Hot Water



DE, Bamberg L1 - L3

Start of operation	2007	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste, Industrial Waste, Sewage Sludge
	Number of Lines	3
	Throughput per line	6.00 t/h
	Thermal power per line	17.50 MW
Boiler	Concept	5-pass boiler
	Steam	20 t/h at 40 bar(a) and 400 °C
Energy recovery	Output	Hot Water



JP, Kitashiribeshi, Hokkaido

Start of operation	2007	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	4.10 t/h
	Thermal power per line	2.00 MW
Energy recovery	Output	Electrical Power



DE, Amtzell

Start of operation	2007	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	1300 m3
	Digester Design	Concrete
	Digester Type	GG20
	Waste Type	Bio Waste, Green Waste
	Waste Throughput per Year	18000 t/a



DE, Gröbern

Start of operation	2007	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	1300 m3
	Digester Design	Concrete
	Digester Type	GG20
	Waste Type	Energy Crops
	Waste Throughput per Year	17000 t/a



DE, Ilbenstadt

Start of operation	2007	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	1300 m3
	Digester Design	Concrete
	Digester Type	GG20
	Waste Type	Bio Waste, Green Waste
	Waste Throughput per Year	18250 t/a



CH, Oetwil am See 2

Start of operation	2007
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DE, Regen

Start of operation	2007
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DE, Rostock

Start of operation	2007	
Anaerobic Digestion	Number of Digester(s)	3
	Net volume per digester	1300 m3
	Digester Design	Concrete
	Digester Type	RM18
	Waste Type	Organic Fraction of Municipal Solid Waste
	Waste Throughput per Year	40000 t/a



CH, Utzenstorf

Start of operation	2007	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	720 m3
	Digester Design	Concrete
	Digester Type	GG12
	Waste Type	Bio Waste, Green Waste
	Waste Throughput per Year	12000 t/a



FR, Sète

Start of operation	2006	
Flue gas treatment	Concept	Entrainment reactor, Fabric Filter
	Number of Lines	1
	Fuel	Municipal Solid Waste
	Reactant	Sodium Bicarbonate
	Throughput per line	30'000 m³/h (STP)



JP, Ariake, Kumamoto Pref.

Start of operation	2006	
Combustion	Concept	Fluidized Bed Gasification
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	1.04 t/h
Boiler	Concept	Water Injection
	Steam	



CH, Lausanne (Tridel)

Start of operation	2006	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste, Hospital Waste
	Number of Lines	2
	Throughput per line	12.50 t/h
	Thermal power per line	40.00 MW
Boiler	Concept	4-pass boiler with external economizer
	Steam	46 t/h at 52 bar(a) and 403 °C
Flue gas treatment	Concept	Electrostatic Precipitator (2 Fields), Ext. Eco, Fly Ash Treatment, Heat Exchanger, Heat exchanger 2, Heat exchanger 2, Heat exchanger 3, Heat exchanger, SCR, Scrubber
	Scrubber Reactant	Caustic Soda
	Throughput per line	63'200 m³/h (STP)
Energy recovery	Output	Hot Water, Electrical Power



JP, Tamura, Fukushima

Start of operation	2006	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	1.60 t/h
Energy recovery	Output	Steam



JP, Tokyo (Shinagawa)

Start of operation	2006	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	12.50 t/h
	Thermal power per line	15.00 MW
Energy recovery	Output	Hot Water, Electrical Power



JP, Jonan Haseyama II

Start of operation	2006	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	5.00 t/h
	Thermal power per line	4.90 MW
Energy recovery	Output	Electrical Power



DE, Erfurt

Start of operation	2006	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste, Refuse Derived Fuel
	Number of Lines	1
	Throughput per line	9.75 t/h
	Thermal power per line	26.00 MW
Boiler	Concept	3-pass boiler
	Steam	29 t/h at 40 bar(a) and 400 °C
Flue gas treatment	Concept	Fabric Filter, Semi-dry System, SNCR
	Reactant	Calcium Hydroxide, Lignite Coke
	Throughput per line	54'000 m³/h (STP)
Energy recovery	Concept	Condensation Turbine
	Electric power output	4.90 MW (gross)
	Output	Steam, Hot Water, Electrical Power



CH, Aarberg

Start of operation	2006	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	1300 m³
	Digester Design	Concrete
	Digester Type	GG20
	Waste Type	Bio Waste, Green Waste, Food Waste
	Waste Throughput per Year	16000 t/a



CH, Langenthal

Start of operation	2006	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	240 m³
	Digester Design	Steel
	Digester Type	GG4
	Waste Type	Bio Waste, Green Waste
	Waste Throughput per Year	5600 t/a



CH, Ottenbach

Start of operation	2006
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CH, Pratteln

Start of operation 2006



DE, Reimlingen

Start of operation 2006



DE, Weissenfels 2

Start of operation	2006	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	960 m3
	Digester Design	Concrete
	Digester Type	GG16
	Waste Type	Bio Waste, Crop Residues
	Waste Throughput per Year	25000 t/a



FR, Nantes Valorena

Start of operation	2005	
Flue gas treatment	Concept	Entrainment reactor, Fabric Filter, SCR
	Number of Lines	2
	Fuel	Municipal Solid Waste
	Reactant	Sodium Bicarbonate
	Throughput per line	56'500 m³/h (STP)



JP, Kashiwa, Chiba

Start of operation	2005	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	5.21 t/h
	Thermal power per line	2.50 MW
Energy recovery	Output	Hot Water, Electrical Power



KR, Incheon South

Start of operation	2005	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	10.42 t/h
Energy recovery	Output	Steam



JP, Odate, Akita

Start of operation	2005	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	1.88 t/h
Boiler	Concept	Water Injection
	Steam	
Energy recovery	Output	Hot Water



TW, Yunlin

Start of operation	2005	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	12.50 t/h
	Thermal power per line	15.80 MW
Energy recovery	Output	Electrical Power



DE, Ludwigslust

Start of operation	2005	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	6.00 t/h
	Thermal power per line	16.00 MW
Boiler	Concept	3-pass boiler
	Steam	19 t/h at 40 bar(a) and 400 °C
Flue gas treatment	Concept	Fabric Filter, Semi-dry System, SNCR
	Reactant	Calcium Hydroxide, Lignite Coke
	Throughput per line	34'000 m³/h (STP)
Energy recovery	Concept	Condensation Turbine
	Electric power output	3.00 MW (gross)
	Output	Electrical Power



DE, Zorbau

Start of operation	2005	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	21.00 t/h
	Thermal power per line	53.60 MW
Boiler	Concept	3-pass boiler
	Steam	63 t/h at 40 bar(a) and 400 °C
Flue gas treatment	Concept	Semi-dry System, Fabric Filter, SNCR
	Throughput per line	118'000 m³/h (STP)
Energy recovery	Concept	Condensation Turbine
	Electric power output	28.30 MW (gross)
	Output	Electrical Power



US, Corn Plus, Winnebago, MN

Start of operation	2005	
Combustion	Concept	Fluidized Bed
	Fuel	Corn Syrup
	Number of Lines	1
	Throughput per line	22.70 t/h
	Thermal power per line	38.00 MW
Flue gas treatment	Concept	Entrainment reactor, Fabric Filter
Energy recovery	Output	Steam



US, Hampton Roads, VA

Start of operation	2005	
Combustion	Concept	Fluidized Bed
	Fuel	Sewage Sludge
	Number of Lines	1
	Throughput per line	1.10 t/h
	Thermal power per line	2.60 MW
Flue gas treatment	Concept	Scrubber
	Throughput per line	23'000 m³/h (STP)



SE, Uppsala (Block 5)

Start of operation	2005	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	26.40 t/h
	Thermal power per line	73.33 MW
Boiler	Concept	4-pass boiler
	Steam	100 t/h at 20 bar(a) and 212 °C
Flue gas treatment	Concept	Electrostatic Precipitator (2 Fields), Scrubber, Fabric Filter, SCR
	Scrubber Reactant	Lye
	Throughput per line	148'900 m³/h (STP)
Energy recovery	Output	Steam, Hot Water



FR, Rennes L1+L2

Start of operation	2005	
Flue gas treatment	Concept	Semi-dry System, Fabric Filter, SCR
	Number of Lines	2
	Fuel	Municipal Solid Waste
	Throughput per line	40'400 m³/h (STP)
Energy recovery	Output	Steam, Electrical Power



FR, Rennes L3

Start of operation	2005	
Flue gas treatment	Concept	Semi-dry System, Fabric Filter, SCR
	Number of Lines	1
	Fuel	Municipal Solid Waste
	Throughput per line	61'900 m³/h (STP)
Energy recovery	Output	Steam, Electrical Power



CH, Jona

Start of operation	2005	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	330 m³
	Digester Design	Concrete
	Digester Type	ZAFE
	Waste Type	Bio Waste, Food Waste, Green Waste
	Waste Throughput per Year	5000 t/a



ES, La Rioja

Start of operation	2005	
Anaerobic Digestion	Number of Digester(s)	6
	Net volume per digester	1050 m³
	Digester Design	Concrete
	Digester Type	ZAFB
	Waste Type	Organic Fraction of Municipal Solid Waste
	Waste Throughput per Year	75000 t/a



CH, Lenzburg

Start of operation	2005	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	340 m³
	Digester Design	Steel
	Digester Type	ZAFS
	Waste Type	Bio Waste, Food Waste, Green Waste, Liquid Waste
	Waste Throughput per Year	5000 t/a



MQ, Martinique

Start of operation 2005



CH, Uzwil 2

Start of operation	2005	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	1300 m ³
	Digester Design	Concrete
	Digester Type	ZAFB
	Waste Type	Bio Waste, Green Waste
	Waste Throughput per Year	20000 t/a



DE, TREA Breisgau

Start of operation	2004	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	22.00 t/h
	Thermal power per line	61.10 MW
Boiler	Concept	3-pass boiler with external economizer
	Steam	74 t/h at 40 bar(a) and 400 °C
Flue gas treatment	Concept	Electrostatic Precipitator (2 Fields), SCR, Semi-dry System, Fabric Filter, Scrubber
	Scrubber Reactant	Lye
	Throughput per line	116'000 m ³ /h (STP)



JP, Takamatsu, Kagawa Pref.

Start of operation	2004	
Combustion	Concept	Fluidized Bed Gasification
	Fuel	Municipal Solid Waste
	Number of Lines	3
	Throughput per line	4.17 t/h



NL, Alkmaar L4

Start of operation	2004	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	27.50 t/h
	Thermal power per line	75.00 MW
Boiler	Concept	4-pass boiler with external economizer
	Steam	89 t/h at 42 bar(a) and 405 °C
Flue gas treatment	Concept	Electrostatic Precipitator (2 Fields), Electrostatic Precipitator (3 Fields), SCR, Scrubber
	Scrubber Reactant	Caustic Soda
	Reactant	Activated Carbon
	Throughput per line	155'900 m³/h (STP)
Energy recovery	Output	Electrical Power



US, MCES, St. Paul, MN

Start of operation	2004	
Combustion	Concept	Fluidized Bed
	Fuel	Sewage Sludge
	Number of Lines	3
	Throughput per line	4.00 t/h
	Thermal power per line	9.40 MW
Flue gas treatment	Concept	SNCR, Fabric Filter, Scrubber
	Scrubber Reactant	Lye
	Throughput per line	40'190 m³/h (STP)
Energy recovery	Output	Steam



TW, Taitung

Start of operation	2004	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	6.25 t/h
Energy recovery	Output	Electrical Power



JP, Kyoto

Start of operation	2004	
Anaerobic Digestion	Number of Digester(s)	2
	Net volume per digester	1150 m3
	Digester Design	Steel
	Digester Type	GG16
	Waste Type	Bio Waste, Food Waste
	Waste Throughput per Year	15000 t/a



DE, Passau

Start of operation 2004



CH, Thun

Start of operation
Combustion

2003

Concept
Fuel

Water-cooled Grate
Municipal Solid Waste, Sewage
Sludge

Number of Lines
Throughput per line
Thermal power per line
Concept

1
18.40 t/h
46.00 MW
4-pass boiler with external
economizer

Boiler

Steam
Concept
Scrubber Reactant
Throughput per line

55 t/h at 40 bar(a) and 400 °C
Electrostatic Precipitator (3 Fields),
SCR, Ext. Eco, Heat Exchanger,
Scrubber, Heat exchanger, Fabric
Filter, Fly Ash Treatment
Lye
78'000 m³/h (STP)

Flue gas treatment



FR, Poitiers

Start of operation
Combustion

2003

Concept
Fuel
Number of Lines
Throughput per line

Air-cooled Grate
Municipal Solid Waste
2
3.30 t/h



FR, Evreux

Start of operation
Combustion

2003

Concept
Fuel

Air-cooled Grate
Municipal Solid Waste, Sewage
Sludge

Number of Lines
Throughput per line
Thermal power per line

2
5.63 t/h
14.40 MW

Boiler

Concept
Steam

2-pass boiler
17 t/h at 40 bar(a) and 380 °C

Flue gas treatment

Concept

Fabric Filter, SCR, Semi-dry
System
Sodium Bicarbonate, Lignite Coke
31'000 m³/h (STP)
Back-pressure Turbine
6.00 MW (gross)
Electrical Power

Energy recovery

Reactant
Throughput per line
Concept
Electric power output
Output



JP, Ishikawahokubu, Ishikawa Pref.

Start of operation	2003	
Combustion	Concept	Fluidized Bed Gasification
	Fuel	
	Number of Lines	2
	Throughput per line	3.33 t/h



JP, Fukue, Nagasaki Pref

Start of operation	2003	
Combustion	Concept	Fluidized Bed Gasification
	Fuel	
	Number of Lines	2
	Throughput per line	1.20 t/h



FR, Perpignan

Start of operation	2003	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	12.10 t/h
	Thermal power per line	32.40 MW
Boiler	Concept	4-pass boiler
	Steam	35 t/h at 40 bar(a) and 380 °C
Flue gas treatment	Concept	Semi-dry System, Fabric Filter, SNCR
	Throughput per line	61'000 m³/h (STP)
Energy recovery	Concept	Condensation Turbine
	Electric power output	21.00 MW (gross)
	Output	Electrical Power



US, WWTP Lynn, MA

Start of operation	2003	
Combustion	Concept	Fluidized Bed
	Fuel	Sewage Sludge
	Number of Lines	1
	Throughput per line	1.07 t/h
	Thermal power per line	2.10 MW
Flue gas treatment	Concept	Scrubber, Electrostatic Precipitator
	Throughput per line	40'100 m³/h (STP)



JP, Touga, Pref Shizuoka

Start of operation	2003	
Combustion	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	1.88 t/h



IT, Bologna

Start of operation	2003	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	13.75 t/h
	Thermal power per line	44.80 MW
Boiler	Concept	4-pass boiler
	Steam	53 t/h at 50 bar(a) and 0 °C



JP, Niijima, Tokyo Pref.

Start of operation	2003	
Combustion	Fuel	
	Number of Lines	1
	Throughput per line	1.00 t/h



CH, Buchs SG L1

Start of operation	2003	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste, Industrial Waste
	Number of Lines	1
	Throughput per line	7.20 t/h
	Thermal power per line	22.80 MW
Boiler	Concept	3-pass boiler
	Steam	30 t/h at 40 bar(a) and 0 °C
Energy recovery	Output	Steam, Hot Water, Electrical Power



CH, Bachenbülach 2

Start of operation	2003	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	340 m3
	Digester Design	Steel
	Digester Type	ZAFS
	Waste Type	Bio Waste, Green Waste, Food Waste
	Waste Throughput per Year	4000 t/a



DE, Weissenfels 1

Start of operation	2003	
Anaerobic Digestion	Number of Digester(s)	1
	Net volume per digester	980 m3
	Digester Design	Concrete
	Digester Type	ZAFB
	Waste Type	Bio Waste, Green Waste
	Waste Throughput per Year	12500 t/a



DE, Bremerhaven Duotherm

Start of operation	2002	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	8.00 t/h
	Thermal power per line	23.30 MW
Boiler	Concept	4-pass boiler
	Steam	27 t/h at 40 bar(a) and 0 °C
Energy recovery	Output	Electrical Power



JP, Sakurai, Nara Pref.

Start of operation	2002	
Combustion	Concept	Fluidized Bed Gasification
	Fuel	
	Number of Lines	2
	Throughput per line	3.12 t/h



FR, Le Mans L2bis

Start of operation	2002	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste, Hospital Waste
	Number of Lines	1
	Throughput per line	9.00 t/h
	Thermal power per line	24.10 MW
Boiler	Concept	3-pass boiler
	Steam	29 t/h at 30 bar(a) and 350 °C
Flue gas treatment	Concept	Fabric Filter, SCR, Semi-dry System
	Throughput per line	50'000 m³/h (STP)
	Output	Electrical Power



JP, Okinoerabu, Kagoshima Pref.

Start of operation	2002	
Combustion	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	1.00 t/h
Boiler	Concept	Water Injection
	Steam	



JP, Nasu, Tochigi Pref.

Start of operation	2002	
Combustion	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	2.50 t/h
Energy recovery	Output	Steam, Hot Water



CH, KEBAG Emmenspitz L4

Start of operation	2002	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste, Industrial Waste, Sewage Sludge
	Number of Lines	1
	Throughput per line	10.00 t/h
	Thermal power per line	28.50 MW
Boiler	Concept	3-pass boiler
	Steam	32 t/h at 38 bar(a) and 385 °C
Flue gas treatment	Concept	Scrubber, Fly Ash Treatment, SNCR, NH4OH-Stripper
	Scrubber Reactant	Lye
	Throughput per line	58'040 m³/h (STP)
Energy recovery	Concept	Back-pressure Turbine
	Electric power output	7.70 MW (gross)
	Output	Steam, Hot Water, Electrical Power



JP, Osaka (Maishima)

Start of operation	2001	
Combustion	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	18.75 t/h
Flue gas treatment	Concept	Fabric Filter, Heat Exchanger, SCR, Scrubber
Energy recovery	Output	Electrical Power



JP, Fukuoka Rinkai

Start of operation	2001	
Combustion	Fuel	Municipal Solid Waste
	Number of Lines	3
	Throughput per line	12.50 t/h
Energy recovery	Output	Electrical Power



JP, Nishimurayama, Yamagata Pref.

Start of operation	2001	
Combustion	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	2.08 t/h
Boiler	Concept	Water Injection
	Steam	
Energy recovery	Output	Hot Water



JP, Tokyo (Chuo)

Start of operation	2001	
Combustion	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	12.50 t/h
	Thermal power per line	15.00 MW
Energy recovery	Output	Hot Water, Electrical Power



FR, Rouen

Start of operation	2001	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	3
	Throughput per line	14.50 t/h
	Thermal power per line	38.80 MW
Boiler	Concept	4-pass boiler
	Steam	46 t/h at 36 bar(a) and 0 °C
Energy recovery	Output	Electrical Power



DE, Nuremberg L1-L3

Start of operation	2001	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	3
	Throughput per line	10.50 t/h
Boiler	Thermal power per line	35.00 MW
	Concept	4-pass boiler
	Steam	41 t/h at 45 bar(a) and 400 °C
Flue gas treatment	Concept	SCR, Scrubber
	Scrubber Reactant	Lye
	Throughput per line	64'250 m³/h (STP)
Energy recovery	Output	Steam



FR, Maubeuge

Start of operation	2001	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	5.50 t/h
Boiler	Thermal power per line	14.10 MW
	Concept	4-pass boiler
	Steam	17 t/h at 36 bar(a) and 360 °C
Flue gas treatment	Concept	Semi-dry System, Fabric Filter
	Throughput per line	30'500 m³/h (STP)
Energy recovery	Output	Steam, Hot Water, Electrical Power



FR, Salaise L3

Start of operation	2001	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste, Industrial Waste
	Number of Lines	1
	Throughput per line	19.00 t/h
Boiler	Thermal power per line	48.60 MW
	Concept	3-pass boiler
	Steam	77 t/h at 42 bar(a) and 350 °C
Flue gas treatment	Concept	
	Throughput per line	140'000 m³/h (STP)
Energy recovery	Output	Steam, Electrical Power



IT, Trezzo

Start of operation	2001	
Combustion	Concept	Water-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	16.16 t/h
Boiler	Thermal power per line	41.20 MW
	Concept	4-pass boiler
	Steam	49 t/h at 40 bar(a) and 400 °C
Flue gas treatment	Concept	SNCR, Semi-dry System, Fabric Filter
	Throughput per line	84'000 m³/h (STP)
Energy recovery	Output	Electrical Power



US, McKay Bay, Tampa, FL

Start of operation	2001	
Combustion	Concept	Air-cooled Grate
	Fuel	Municipal Solid Waste
	Number of Lines	4
	Throughput per line	9.46 t/h
	Thermal power per line	26.30 MW
Boiler	Concept	2-pass boiler
	Steam	24 t/h at 45 bar(a) and 0 °C



CH, Oetwil am See 1

Start of operation	2001
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AT, Roppen

Start of operation	2001
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JP, Minamikawachi-2, Osaka Pref.

Start of operation	2000	
Combustion	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	3.96 t/h
Boiler	Concept	Water Injection
	Steam	



JP, Hitachi, Ibaraki Pref.

Start of operation	2000	
Combustion	Fuel	Municipal Solid Waste
	Number of Lines	3
	Throughput per line	4.17 t/h



KR, Buchon Daejang-Dong

Start of operation	2000	
Combustion	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	12.50 t/h
Energy recovery	Output	Electrical Power



JP, Amagasaki II, Hyogo Pref.

Start of operation	2000	
Combustion	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	6.25 t/h



JP, Nishikaigan, Aomori Pref.

Start of operation	2000	
Combustion	Fuel	Municipal Solid Waste
	Number of Lines	1
	Throughput per line	2.75 t/h
Boiler	Concept	Water Injection
	Steam	



TW, Hsichou Changhua

Start of operation	2000	
Combustion	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	18.75 t/h
Energy recovery	Output	Electrical Power



TW, Houli Taichung

Start of operation	2000	
Combustion	Fuel	Municipal Solid Waste
	Number of Lines	2
	Throughput per line	18.75 t/h
Energy recovery	Output	Electrical Power



US, Palo Alto, CA

Start of operation	2000	
Combustion	Concept	Multiple Hearth
	Fuel	Sewage Sludge
	Number of Lines	1
	Throughput per line	1.20 t/h
Flue gas treatment	Concept	Scrubber
	Throughput per line	18'500 m³/h (STP)

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