

Operating Anaerobic Digestion Plants of Commercial Scale*

Australia

**Denmark
Denmark 2**

Jordan

**Spain
Spain 2**

**Austria
Austria 2**

Estonia

Korea

Sweden

Belgium

Finland

Malta

**Switzerland
Switzerland 2**

Canada

France

Netherlands

UK

Carribbean

**Germany
Germany 2
Germany 3**

Polen

Ukraine

China

Italy

Portugal

USA

Corea

Japan

Scotland

* Commercial scale is more than 2500 tpa of Biowaste and/or Organic Industrial Waste (OIW)

Country	Location	Feedstock	System	Scale [tpa]	Date	Type
Australia	Sydney	MBA	ISKA	160'000	2005	dry
Austria	Böheimkirchen	Biowaste, manure	Ing. Bauer GmbH	7'000	1996	wet
Austria	Amstetten	Biowaste, Catering Waste	BST	10'000	2005	wet
Austria	Antiesenhofen	Biowaste, Catering Waste	BST	2'000	2002	wet
Austria	Bruck a.d. Leitha	Catering Waste, EC	Eigenbau	20'000	2004	wet
Austria	Habersdorf	Biowaste, Catering Waste	BST	5'000	2005	wet
Austria	Hagenbrunn	Catering Waste	Entec	20'000	2004	wet
Austria	Heiligenkreuz am Wasen	Catering Waste, EC	Nahtec / Koller	12'000	2002	wet
Austria	Herzogdorf	Biowaste, Catering Waste	BST	10'000	2005	wet
Austria	Hirsdorf	Biowaste, manure, OIW	Entec	14'000	1995	wet
Austria	Immendorf	Vegetables, Manure, EC	Führer, Schweitzer	4'000	2003	wet
Austria	Lustenau	Biowaste	Kompogas	10'000	1996	dry
Austria	Markgrafneusiedel	Biowaste, Catering Waste	Komptech	15'000	2005	wet
Austria	Michaelbeuern	Catering Waste, Manure, EC	Wolf	3'800	2002	wet
Austria	Nussbach	Catering Waste, Manure, EC	Scheitzer	6'600	2001	wet
Austria	Ottwang	Biowaste, Manure, EC	Bioenergetica	5'000	2003	wet
Austria	Penz	Slaughterhouse waste, Manure	AAT, Wolf	20'000	2005	wet
Austria	Pettenbach	Slaughterhouse waste, Manure	Führer	5'700	2003	wet
Austria	Rankweil	Catering Waste, Manure, EC	Entec	2'500	2004	wet
Austria	Rechnitz	Biowaste, Catering Waste	BST	15'000	2004	wet
Austria	Roppen	Biowaste	Kompogas	10'000	2001	dry
Austria	Ruprechtshof	Biowaste, Catering Waste	BST	2'000	2002	wet
Austria	Siggerwiesen	Biowaste	Dranco	20'000	1993	dry

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Austria	St. Pankraz	Catering Waste	Waltenberger	10'000	2003	wet
Austria	St. Stefan i.R.	Slaughterhouse waste, Manure	AAT	13'000	2003	wet
Austria	Vienna	Biowaste	RosRoca	20'000	2006	wet
Austria	Wels	Whey	AAT	45'000	2006	wet
Austria	Wels	Biowaste	Linde BRV/Strabag	15'000	1997	wet

Belgium	Brecht I	Biowaste, Paper	Dranco	20'000	1992	dry
Belgium	Brecht II	Biowaste, Paper	Dranco	50'000	2000	dry
Belgium	Leper	Biowaste	BTA	50'000	2003	wet
Belgium	Mons	Mixed waste	Valorga	58'700	2000	dry

Canada	Dufferin	MSW	Bulrush		2007	
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Caribbean	Martinique	Biowaste	Kompogas	20'000	2005	dry
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China	Beijing	Biowaste	Valorga	105'000	2007	dry
China	Shanghai	Biowaste, MSW	Valorga	268'500	2007	dry

Corea	Ko-Sung	Biowaste	BTA	3'000	2003	wet
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Denmark	Århus	Biowaste, manure, OIW	C.G. Jenson	125'000	1995	wet
Denmark	Blaabjerg	Manure, OIW	BWSC	100'000.00	1996	wet
Denmark	Blåhøj	Manure, OIW	NIRAS	30'000	1997	wet
Denmark	Davinde	Manure, OIW	Krüger	15'000	1988	wet
Denmark	Fangel	Manure, OIW	Krüger	60'000	1989	wet
Denmark	Filskov	Manure, OIW	NIRAS	30'000	1995	wet
Denmark	Grindsted	Biowaste, Sludge	Krüger	40'000	1997	wet
Denmark	Hashøj	Manure, OIW	Krüger	80'000	1994	wet
Denmark	Helsingoer					the plant is closed

Denmark	Hodsager	Manure, OIW	NIRAS	17'500	1993	wet
Denmark	Lemvig	Manure, OIW	BWSC	160'000.00	1992	wet
Denmark	Lintrup	Manure, OIW	Krüger/Bioscan	190'000	1990	wet
Denmark	Nysted	Biowaste, Manure, OIW	Krüger	100'000	1998	wet
Denmark	Revninge	Manure, OIW	Bioscan	15'300	1989	the palnt is closed
Denmark	Ribe	Manure, OIW	Krüger	147'000	1990	wet
Denmark	Sinding	Biowaste, Manure, OIW	Herning Municipal	52'700	1988	wet
Denmark	Snertinge	Manure, OIW	NIRAS	43'000	1996	wet
Denmark	Studsgård	Biowaste, Manure, OIW	Herning Municipal	130'000	1996	wet
Denmark	Thorsø	Manure, OIW	BWSC	100'000.00	1994	wet
Denmark	Vaarst-Fjellerad	Biowaste, Manure, OIW	NIRAS	55'000	1997	wet
Denmark	Vegger	Biowaste, Manure, OIW	WWW Engineering	30'000	1985	wet
Denmark	Vester Hjermitslev	Manure, OIW	Krüger	30'000	1984	wet

Estonia	Valjala	SS, Manure	Ros Roca	40'000	2005	
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Finland	Vaasa	MSW	WABIO/Citec	15'000	1994	dry
Finland	Vaasa (ASJ)	MSW	Citec	15'000	1994	
Finland	Vaasa (Stormossen)	MSW	Citec	30'000	1988	
Finland	Vehmaa	Manure, OIW	Biovakka Oy/Watrec Oy	120000	2005	wet

France	Amiens	MSW	Valorga	85'000	1988	dry
France	Calais	Biowaste, paper	Valorga	27'000	2006	
France	Fos sur Mer	Biowaste, MSW	Valorga	497'600	2008	
France	Le Robert, Martinique	Biowaste	Kompogas	20'000	2006	
France	Lille	Biowaste	STRABAG	62'000	2007	dry
France	Montpellier	MSW	Kompogas	100'000	2008	dry
France	Varennnes-Jarcy	MSW	Valorga	100'000	2001	dry

Germany	Albersdorf	Nawaro	Farmatic	80'000	2002	wet
Germany	Alteno/Duben	Biowaste	Farmatic	86'000	2001	wet
Germany	Alzey	Biowaste	Kompogas	26'000	1999	dry
Germany	Baden-Baden	Biowaste	BTA	5'000	1993	wet
Germany	Bamberg	Biowaste/NawaRo	BioEnergy Biogas	18'200	2006	dry
Germany	Bassum	Grey Waste	Dranco	115'000	1997	MBA, dry
Germany	Behringen	Manure, OIW	Linde-KCA/Strabag	23'000	1996	wet
Germany	Boden	Biowaste	Ros Roca	25'000	1999	wet
Germany	Bottrop	Biowaste	Citec/WABIO	6'500	1995	wet
Germany	Braunschweig	Biowaste	Kompogas	26'000	1997	dry
Germany	Buchen	MSW	ISKA	165'000	2006	MBA, closed down
Germany	Dietrichsdorf	Biowaste, OIW	BTA	17'000	1995	wet
Germany	Deisslingen	Biowaste	Ros Roca	24'000	2005	wet
Germany	Dietrichsdorf	Biowaste, OIW	Ros Roca	75'000	2005	wet
Germany	Düren	MBA	Schwarting UHDE	150'000	1995	wet
Germany	Ellert	Biowaste	Entec	5'000	1997	wet
Germany	Engelskirchen	Biowaste	Valorga	35'000	1998	dry
Germany	Erkheim	Biowaste, OIW	BTA	11'500	1997	wet
Germany	Finsterwalde	Biowaste, Manure	Schwarting UHDE	87'600	1995	wet
Germany	Frankfurt	Biowaste	Kompogas	15'000	1999	dry
Germany	Freiburg	Biowaste	Valorga	36'000	1999	dry
Germany	Freienhufen	Grey waste	Haase	50'000		MBA, wet
Germany	Fürstenwalde	Biowaste, Manure, OIW	Linde KCA/ Strabag-KCA	85'000	1998	wet
Germany	Ganderkesee	Biowaste	AN	3'000	1995	wet
Germany	Gescher	Biowaste, Sludge	Ros Roca	17'500	2005	wet
Germany	Groß Mühligen	Biowaste, Manure, OIW	DSD	42'000	1996	wet
Germany	Hannover	MSW	Valorga	100'000	2005	MBA, dry
Germany	Hannover	Grey waste	Hese-Umwelt	110'000		MBA, wet
Germany	Heilbronn	MSW	ISKA	88'000	2005	MBA, closed down

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Germany	Herten	Biowaste	IMK	18'000	1998	wet
Germany	Hille	Grey Waste, Sludge	Dranco	38'000	2005	dry
Germany	Hirschfelde	OIW	AAT	3'600	1997	wet
Germany	Hoppstätten-Weiersb.	Biowaste	Linde/Strabag-BRV	23'000	2002	dry
Germany	Hunsrück	Biowaste	Kompogas	10'000	1997	dry
Germany	Kahlenberg	MSW	Wehrle Werk	100'000	2001	MBA, wet
Germany	Kaiserslautern	Grey Waste	Dranco	20'000	1999	MBA, dry
Germany	Karlsruhe	Biowaste	BTA	8'000	1996	wet
Germany	Karstädt	Nawaro	Farmatic	80'000	2002	wet
Germany	Kaufbeuren	Biowaste, OIW	BTA/Roediger	6'000	1992	wet
Germany	Kehlheim/Teugn	Biowaste	T.B.W	13'000	?	wet
Germany	Kehlheim/Volkenschwamm	Biowaste	BTA/MAT	13'000	?	wet
Germany	Kempten	Biowaste	Kompogas	10'000	1995	dry
Germany	Kirchstockach	Biowaste	BTA	20'000	1997	wet
Germany	Kleinbautzen	Manure, rye	STRABAG	55'000	2006	wet
Germany	Lemgo	Biowaste, OIW	Linde BRV/ Strabag BRV	38'000	2000	dry
Germany	Leonberg	Biowaste	Dranco	30'000	2004	dry
Germany	Linkenbach	Grey Waste	Schwarting UHDE	57'000	1995	MBA
Germany	Lübeck	Grey waste	Haase	150'000	2006	MBA
Germany	Lüchow	Nawaro	Farmatic	160'000	2002	wet
Germany	Lüneburg	Grey waste	Schwarting UHDE	25'000	1995	MBA
Germany	Malchin		STRABAG	28'000	2007	dry
Germany	Mertingen	Biowaste	BTA	11'000	2001	wet
Germany	Michaelisdonn	Manure, OIW	Krüger	35'000	1995	wet
Germany	Mühlheim	Biowaste, OIW	BTA	22'000	2003	wet
Germany	München	Biowaste	BEKON	8'000	2003	dry
Germany	München	Biowaste	BTA/MAT	20'000	1997	wet
Germany	München	Biosolids, OIW	Schwarting UHDE	87'600	1987	wet
Germany	München/Erding	Biowaste	Kompogas	26'000	1997	dry

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Germany	Münster	Grey waste	Dranco	24'000	2005	dry
Germany	Nentzelsrode	Biowaste	Haase	17'000	1998	wet
Germany	Neubukow	Biowaste, Manure, OIW	Farmatic	80'000	2000	wet
Germany	Neukirchen	Biowaste, Manure	AAT	55'000	1998	wet
Germany	Nieheim	Biowaste	Eggersmann	20'000	2006	
Germany	Nordhausen	Biowaste	Haase	16'000	1999	wet
Germany	Nürnberg	Biowaste, OIW	Komptech	16'000	2004	wet
Germany	Oldenburg	Manure, OIW	Krüger	20'000	1992	wet
Germany	Passau	Biowaste	Kompogas	39'000	2005	dry
Germany	Pastitz/Rügen	Manure, OIW	Bioplan	100'000	1997	wet
Germany	Peine/Mehrum	Biowaste	D.U.T	10'000	1998	wet
Germany	Pohlsche Heide	Grey waste	Dranco	40'000		dry
Germany	Radeberg	Sewage, Biowaste, OIW	Linde KCA/ Strabag-KCA	56'000	1999	wet
Germany	Rhadereistedt	Biowaste, Manure	TBW/MT Energie	10'000	1998	wet
Germany	Sagard (Rügen)	Biowaste, Manure, OIW	Linde-BRV/ Strabag-BRV	48'000	1996	wet
Germany	Schaumburg	Grey waste	Horstmann	25'000		wet
Germany	Schwabach	Biowaste	BTA	12'000	1996	wet
Germany	Schwanebeck	Biowaste, Manure	Haase	50'000	1999	wet
Germany	Schweinfurt	Biowaste	Eggersmann	20'000	2007	wet
Germany	Simmern	Biowaste	Kompogas	10'000	1997	dry
Germany	Vietlübbe	Nawaro	Farmatic	18'000	1998	wet
Germany	Volkenschwand	Biowaste, OIW	Ros Roca	4'000	2005	wet
Germany	Weissenfels	Biowaste	Kompogas	12'500	2003	dry
Germany	Wiefels	Biowaste	Horstmann	80'000	2005	wet
Germany	Wittmund	Manure, OIW	Krüger	120'000	1996	wet
Germany	Zittau	OIW	STRABAG	30'000	2006	dry
Germany	Zobes	Biowaste, manure, OIW	DSD	20'000	1986	wet

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Italy	Camposampiero	Biowaste, sludge, manure	STRABAG	49'000	2005	wet
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Italy	Bassano di Grappa	MSW, Biowaste, SS	Valorga	55'000	2003	dry
Italy	Bastia/Brettona	Manure, OIW	RPA	300'000	1982	wet
Italy	Bellaria	MSW	Ionics Italbina	4'000	1988	wet
Italy	Este	Biowaste, Fat-Srubber	Komptech	250'000	2003	wet
Italy	Marsciano	Manure, OIW	SPI	300'000	1988	wet
Italy	Padua	MSW, Food industry waste	Enbasis	120'000	2008	wet
Italy	Pinerolo	MSW, SS	Citec	30'000	2003	wet
Italy	Rome	MSW	Dranco	40'000	2002	dry, closed down
Italy	Thiene	Manure, OIW	KIKlos	60'000	1990	wet
Italy	Verona	MSW	Snamprogetti	50'000	1998	wet, closed down
Italy	Villacidro	MSW	BTA	45'000	2002	wet

Japan	Akan, Hokkaido		BWSC/MES	9'720	2004	wet
Japan	Ashoro M, Hokkaido		BWSC/MES	7'200	2004	wet
Japan	Ashoro N, Hokkaido		BWSC/MES	5'400	2004	wet
Japan	Hita	Manure, MSW, Sludge	STRABAG	25'000	2005	wet
Japan	Ikoma	Biowaste, SS	Citec	3'000	2001	wet
Japan	Jouetsu	Biowaste, SS	Citec	12'000	2001	wet
Japan	Kyoto	Biowaste	Kompogas	20'000	2004	dry
Japan	Pinerolo	MSW, SS	Citec	30'000	2003	
Japan	Shimonia	Biowaste, SS	Citec	5'000	2001	

Jordan	Amman	Biowaste	Farmatic	60'000	2001	wet
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Korea	Pusan	Biowaste	Dranco	70'000	2005	dry
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Malta		Biowaste	HAASE	45'000	2008	MBA wet
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Netherlands	De Wierde	MSW	Citec	90'000	2002	
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Netherlands	Groningen	Grey Waste	Citec	230'000	2000	MBA, dry
Netherlands	Lelystad	Biowaste	Biocel, Heidemij	35'000	1997	dry
Netherlands	Lelystad	Manure, corn, foodwaste	STRABAG	16'000	2006	wet
Netherlands	Tilburg	Biowaste	Valorga	52'000	1994	dry
Netherlands	Torenhoeve	Manure, biowaste	STRABAG	22'000	2007	wet
Polen	Krosno	Biowaste	Ros Roca	10'000	2006	wet
Polen	Pulawy	MSW	BTA	22'000	2001	wet
Polen	Zgorzelec	MSW, OIW	Roediger	20'000	1999	wet
Portugal	Lissabon	Biowaste, OIW	STRABAG	40'000	2005	wet
Portugal	Tondela	Biowaste, MSW	Valorga	35'000	2007	dry
Scotland	Western Isles	Biowaste, fish waste	STRABAG	8'500	2006	dry
Spain	Alicante	MSW	Dranco	30'000	2002	dry
Spain	Avila	MSW	Ros Roca	36'500	2004	wet
Spain	Barcelona Ecoparc	MSW	Linde/ Strabag	150'000	2002	wet
Spain	Barcelona Ecoparc	MSW	Ros Roca	90'000	2005	wet
Spain	Barcelona Ecoparc	MSW, Biowaste	Valorga	240'000	2004	
Spain	Burgos	MSW	STRABAG	40'000	2005	wet
Spain	Cadiz	MSW	Valorga	115'000	2001	dry
Spain	Gran Canaria	MSW	Ros Roca	60'000	2005	
Spain	Jaen	MSW	Ros Roca	20'000	2005	
Spain	La Coruña	MSW	Valorga	182'000	2001	dry
Spain	Lanzarote	MSW	Ros Roca	36'000	2004	
Spain	Las Dehesas	MSW	Valorga	195'200	2007	
Spain	Palma de Mallorca	MSW, SS	Ros Roca	32'000	2004	wet
Spain	Rioja	Biowaste	Kompogas	75'000	2005	dry

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Spain	Tudela	MSW	Ros Roca	28'000	2005	
Spain	Valladolid	Biowaste	Linde/ Strabag	15'000	2001	dry
Spain	Vitoria	Mixed waste	Dranco	120'000	2006	
Sweden	Borås	Biowaste, OIW	Läckeby	30'000	2004	wet
Sweden	Borlänge	Biowaste	BKS Nordic	12'000	1997	dry, closed down
Sweden	Helsingborg	Manure, OIW	NSR	80'000	1996	wet
Sweden	Jönköping	Biowaste	Citec	15'000	2003	
Sweden	Kalmar	Manure, OIW	Läckeby/VBB VIAK	40'000	1998	wet
Sweden	Kil	Biowaste	Citec	3'000	1998	wet
Sweden	Kristianstad	Biowaste, Manure, OIW	Krüger	150'000	1997	wet
Sweden	Laholm	Manure, OIW	Krüger	70'000	1992	wet
Sweden	Linköping	Manure, OIW	Purac	105'000	1997	wet
Sweden	Skövde	OIW		13'000	2002	wet
Sweden	Skellefteå	Biowaste, OIW	Läckeby	15'000	2006	wet
Sweden	Uppsala	Biowaste, Manure, OIW	VMT/Läckby	30'000	1997	wet
Sweden	Vannersborg	Biowaste	VMT	20'000	2000	wet
Sweden	Västerås	Ley crop, Biowaste	Ros Roca	23'000	2005	wet
Switzerland	Aarberg	Biowaste	Kompogas	12'500	2006	dry
Switzerland	Baar	Biowaste	Linde BRV/ Strabag BRV	6'000	1994	dry
Switzerland	Bachenbülach	Biowaste	Kompogas	10'000	1994	dry
Switzerland	Frauenfeld	Biowaste, OIW	ROM-opur	6'000	1999	dry, closed down
Switzerland	Geneva	Biowaste	Valorga	10'000	2000	dry
Switzerland	Jona	Biowaste	Kompogas	8'000	2005	dry
Switzerland	Lenzburg	Biowaste	Kompogas	5'000	2005	dry
Switzerland	Otelfingen	Biowaste	Kompogas	12'500	1996	dry
Switzerland	Ottenbach	Biowaste	Kompogas	16'000	2006	dry
Switzerland	Pratteln	Biowaste	Kompogas	12'500	2006	dry

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Switzerland	Samstagern	Biowaste	Kompogas	10'000	1995	dry
Switzerland	Utzenstorf	Biowaste	Kompogas	12'500	2005	dry
Switzerland	Villeneuve	Biowaste	Dranco	10'000	1999	nicht mehr in Betrieb
Switzerland	Volketswil	Biowaste	Kompogas	5'000	2001	dry
Switzerland	Wädenswil	OIW	Entec	5'000	1997	wet
UK	Bedford	Manure, foodwaste				wet
UK	Ludlow	foodwaste	Greenfinch	5'000	2006	wet
UK	Holsworthy	Manure, Biowaste	Farmatic	200'000	2002	wet
Ukraine	Zaporozhstal	Manure, OIW	Krüger	12'000	1992	wet
USA	Chino Basin, CA	Manure, Biowaste	Krieg & Fischer		2006	
USA	Greenboro, NC	yard	Duke Engineering	30'000	2000	wet
USA	Moorfield, WV	Biowaste, Manure, Sewage	Enviro-Control	3'000	1996	wet
USA	Talamook	Manure, OIW			1999	wet
USA	Vintage Dairy, CA	Manure	BioEnergy Solutions		2008	wet

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