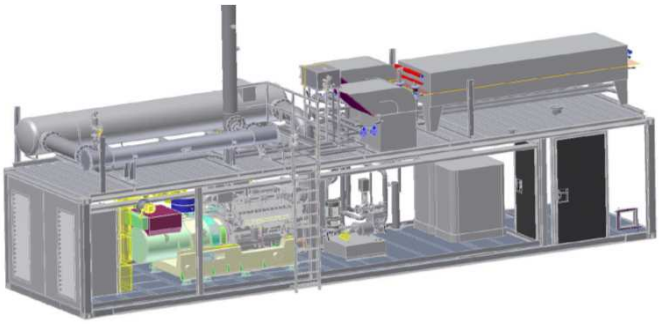
Product Range

Biogas 211 - 2000 kW

(biogas, landfill gas, sewage gas, special gas)



Biogas 211 - 400 kW

Type		**ETW 210 BG**	**ETW 250 BG**	**ETW 360 BG**	**ETW 400 BG**
Power mechanical	kW	220	265	370	414
Power electrical	**kW**	**211**	**254**	**356**	**400**
Power thermal	kW	232	300	394	399
from cooling water	kW	116	174	220	201
from exhaust 150°C	kW	116	126	174	198
from exhaust 180°C	kW	116	126	174	178
Fuel consumption	kW	545	657	894	938
Biogas with calorific value 6 kWh/Nm³	m³/h	90,8	109,5	149,0	156,3
Engine manufacture		MAN	MAN	MAN	MWM
Engine type		E2876LE202	E2848LE322	E3268LE212	TCG2016V8C
Position / number of cylinders		R6	V8	V8	V8
Displacement	cm³	12.400	14.620	17.200	17.500
Medium piston speed	m/s	8,3	7,1	7,9	8,0
Intake air - volume flow	kg/h	1.087	1.177	1.758	1.916
Exhaust gas mass flow	kg/h	1.121	1.311	1.946	2.140
Lube oil consumption	kg/h	0,15	0,08	0,18	0,08
Cogeneration data					
Exhaust temperature before heat exchanger	°C	478	470	445	449
Exhaust temperature after heat exchanger	°C	180	180	180	150
Heating water temperature flow / return	°C	90 / 70	90 / 70	90 / 70	90 / 70
Efficiency electric	%	38,6	38,7	39,8	42,6
thermal	%	42,5	45,7	44,0	42,5
total	%	81,1	84,3	83,8	85,2
Sound					
Sound level engine	dB(A)	100	104	102	97
Sound level exhaust without silencer	dB(A)	120	122	121	120
Exhaust consistence					
NO_x	mg/Nm³	500	500	500	500
CO	mg/Nm³	650	650	650	1000
NMHC	mg/Nm³	40	40	40	40
Dimensions for standard container construction					
Length	m	9,1	9,1	9,1	10,5
Width	m	2,5	2,5	2,5	3,0
Height	m	2,6	2,6	2,6	2,6
Price for standard scope of supply	€	on request	on request	on request	on request

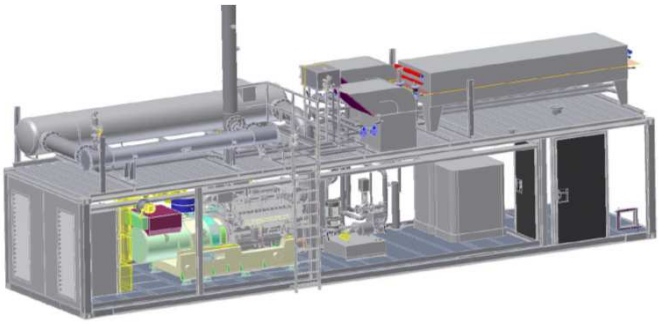
Subject to modifications and amendments
Options: Gas blower station, gas analysis system, gas conditioning system, flare
28.10.2014

CE

Product Range

Biogas 211 - 2000 kW

(biogas, landfill gas, sewage gas, special gas)



Biogas 404 - 800 kW

Type		**ETW 410 BG**	**ETW 530 BG**	**ETW 600 BG**	**ETW 800 BG**
Power mechanical	kW	420	550	620	825
Power electrical	**kW**	**404**	**528**	**600**	**800**
Power **thermal**	kW	492	567	601	798
from cooling water	kW	295	321	302	406
from exhaust 150°C	kW	197	246	299	392
from exhaust 180°C	kW	197	246	269	352
Fuel consumption	kW	1050	1329	1408	1873
Biogas with calorific value 6 kWh/Nm³	m³/h	175,0	221,5	234,7	312,2
Engine manufacture		MAN	MAN	MWM	MWM
Engine type		E2842LE202	E3262LE212	TCG2016V12C	TCG2016V16C
Position / number of cylinders		V12	V12	V12	V16
Displacement	cm³	21.930	25.780	26.300	35.000
Medium piston speed	m/s	7,1	7,9	8,0	8,0
Intake air - volume flow	kg/h	1.879	2.577	2.878	3.826
Exhaust gas mass flow	kg/h	2.093	2.843	3.214	4.273
Lube oil consumption	kg/h	0,20	0,18	0,12	0,17
Cogeneration data					
Exhaust temperature before heat exchanger	°C	510	446	450	447
Exhaust temperature after heat exchanger	°C	180	180	150	150
Heating water temperature flow / return	°C	90 / 70	90 / 70	90 / 70	90 / 70
Efficiency electric	%	38,5	39,7	42,6	42,7
thermal	%	46,9	42,7	42,7	42,6
total	%	85,4	82,4	85,3	85,3
Sound					
Sound level engine	dB(A)	106	108	99	101
Sound level exhaust without silencer	dB(A)	122	117,8	121	122
Exhaust consistence					
NOx	mg/Nm³	500	500	500	500
CO	mg/Nm³	1000	800	1000	1000
NMHC	mg/Nm³	40	40	40	40
Dimensions for standard container construction					
Length	m	10,5	12,2	12,2	12,2
Width	m	3,0	3,0	3,0	3,0
Height	m	2,6	2,6	2,6	2,6
Price for standard scope of supply	€	on request	on request	on request	on request

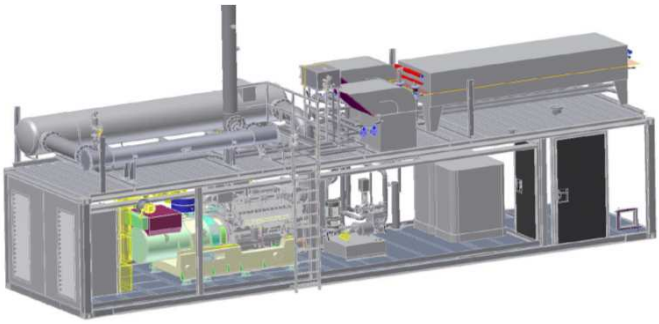
Subject to modifications and amendments
Options: Gas blower station, gas analysis system, gas conditioning system, flare
28.10.2014

CE

Product Range

Biogas 211 - 2000 kW

(biogas, landfill gas, sewage gas, special gas)



Biogas 1200 - 2000 kW

Type		**ETW 1200 BG**	**ETW 1560 BG**	**ETW 2000 BG**
Power mechanical	kW	1235	1605	2056
Power electrical	**kW**	**1200**	**1560**	**2000**
Power **thermal**	kW	1267	1669	2041
from cooling water	kW	630	831	1044
from exhaust 150°C	kW	637	838	997
from exhaust 180°C	kW	577	759	899
Fuel consumption	kW	2868	3760	4676
Biogas with calorific value 6 kWh/Nm³	m³/h	478,0	626,7	779,3
Engine manufacture		MWM	MWM	MWM
Engine type		TCG2020V12	TCG2020V16	TCG2020V20
Position / number of cylinders		V12	V16	V20
Displacement	cm³	53.100	70.800	88.500
Medium piston speed	m/s	9,8	9,8	9,8
Intake air - volume flow	kg/h	5.801	7.601	9.416
Exhaust gas mass flow	kg/h	6.491	8.507	10.547
Lube oil consumption	kg/h	0,25	0,32	0,41
Cogeneration data				
Exhaust temperature before heat exchanger	°C	467	468	455
Exhaust temperature after heat exchanger	°C	150	150	150
Heating water temperature flow / return	°C	90 / 70	90 / 70	90 / 70
Efficiency electric	%	41,8	41,5	42,8
thermal	%	44,2	44,4	43,6
total	%	86,0	85,9	86,4
Sound				
Sound level engine	dB(A)	103	111	112
Sound level exhaust without silencer	dB(A)	119	124	124
Exhaust consistence				
NOx	mg/Nm³	500	500	500
CO	mg/Nm³	1000	1000	1000
NMHC	mg/Nm³	40	40	40
Dimensions for standard container construction	m			
Length	m	12,2	13,5	14,6
Width	m	3,1	3,1	3,1
Height		2,9	2,9	3,2
Price for standard scope of supply	€	on request	on request	on request

Subject to modifications and amendments
Options: Gas blower station, gas analysis system, gas conditioning system, flare
28.10.2014

CE