TEDOM

technology ... in harmony with nature

CHP UNITS IN WASTEWATER TREATMENT PLANTS

Wastewater treatment plants are suitable place for the introduction of cogeneration technology. Sewage gas that is generated in a wastewater treatment plant is purified to biogas and it is used as a fuel for CHP unit. The generated heat is used to heat the adjacent buildings and the electrical power is either utilised for internal needs of the wastewater treatment plant or it can be sold into the grid.

WASTEWATER TREATMENT PLANT KARLOVY VARY

Wastewater treatment plant was built between 1961 and 1967. It was redeveloped between 1989 and 1994, as its capacity was no longer sufficient with regard to the increased production of wastewater. Another redevelopment took place between 2001 and 2003. Its goal was to resolve the current issues and fulfil the requirements with regard to quality indicators of wastewater discharge.

For the time being 55,000 citizens and numerous producers of industrial wastewater are connected to this wastewater treatment plant. The average daily inflow is approximately 24,000 cubic meters.

Basic Information on the Installed Unit

CHP Unit type	Cento T160 SP Bio
Number of units	1
Fuel	Sewer gas
Electrical output	160 kW
Heat output	173 kW
Annual power production	925 MWh
Year of installation	2008
Place of installation	Wastewater treatment plant Karlovy Vary

Benefits of TEDOM cogeneration unit

The CHP unit was delivered with the framework of the overall renovation of the wastewater treatment plant Karlovy Vary. The unit produces enough energy for the operation of the wastewater treatment plant, while any excess energy is sold to the distribution network. It runs 24/7 and the actual output of the CHP is adjusted based on the current quantity of gas.

SELECTED REFERENCES FROM WASTEWATER TREATMENT PLANTS

Šumperk, Czech Republic

CHP unit type:	Cento T150 SP Bio
Electrical output:	140 kW
Year of installation:	2001

Šoštanj, Slovenia

CHP unit type:	Cento T160 SP Bio
Electrical output:	152 kW
Year of installation:	2006

Ostrava, Czech Republic

CHP unit type:	2 x Quanto D400 SP Bio
Electrical output:	2 x 400 kW
Year of installation:	2011

Třebíč, Czech Republic

CHP unit type:	2 x Cento T75 SPE Bio
Electrical output:	2 x 68 kW
Year of installation:	2002

Other references:

- Cento T80 SP Bio, Humpolec, 2012, CZ
- Micro T30 AP Bio, Spalt, 2012, Germany
- Cento T120 SP Bio, Hodonín, 2012, CZ
- Cento T160 SP Bio, Levice, 2011, Slovakia
- Cento T120 SP Bio, Svijany, 2011, CZ
- Micro T30 AP Bio, Romot, 2010, Switzerland
- Cento T160 SP Bio, Vysoké Mýto, 2008, CZ
- Cento T170 SP Bio, Smiřice, 2008, CZ
- Cento T150 SP Bio, Zvolen, 2005, Slovakia
- Cento T140 SPE Bio, Irun, 2003, Spain
- Cento T200 SP Bio, Bytom, 2011, Poland
- Cento M50 SP Bio, Wildberg, 2011, Germany
- Cento T150 SP Bio, Litoměřice, 2004, CZ
- Micro T30 AP Bio, Ottinger, 2011, Germany