

REFERENCES: WASTE INCINERATION PLANTS
(SOA Cat. 0514)

* **MUNICIPALITY OF BOLZANO**

Planning, construction and turnkey delivery of the Municipality of Bolzano's waste incineration plant at Bolzano, including the implementing with optimization and systems guidance up to delivery. The plant consist of one incineration line and includes the supply and execution of the waste incineration furnace, the heat recovery boiler, the thermic cycle, the flue gas purification plant as well as relevant construction works.

Capacity: 180.000 tons/year

Location of Execution: Bolzano (BZ)

Year of Execution: 2008 - 2014

Project: Atzwanger SpA (mandator), Ladurner SpA, Hafner Srl, Consorzio Costruzioni Cooperative CCC (Unieco, CLE, Ceif); Oberosler Cav. Pietro SpA, Seeste SpA, Wipptaler Bau SpA, Stahlbau Pichler Srl

* **AAMPS SpA - LIVORNO**

Enlargement of the bicarbonate storage area and the active carbon.

Location of Execution: Livorno (LI)

Year of Execution: 2008 - 2009

Project: ATZWANGER SpA

* **AAMPS SpA - LIVORNO**

Planning and execution, including safety and coordination planning, of 2 new steam turbines for the waste incineration plant of Livorno, including delivery of accessories and supply of construction and demolition services for the existing turbines.

Location of Execution: Livorno (LI)

Year of Execution: 2007 - 2009

Project: ATZWANGER SpA

* **SIENAMBIENTE SPA, SIENA**

Implementation planning, including safety planning, building and supervision for the expansion of the incineration facility of Poggibonsi by building of a new third line with optimization and systems guidance up to delivery. The third line essentially consists of grate firing, a heat recovery boiler, cloth filter and nitrogen reduction through DENOX, steam water loop, a steam turbine and

air capacitor.

Capacity: 56,000 tons/year
Location of Execution: Poggibonsi (SI), Foci
Year of Execution: 2005-2007 (under construction)
Project: ATZWANGER SpA

* **BURGGRAFENAMT DISTRICT ASSOCIATION, MERANO**

Bid for the delivery, transport, production and functional installation, trial runs and machine supervision for fermentation as well as management of biological waste at the district of Burggrafenamt fermentation station.

Capacity: 20,000 tons/year
Location of Execution: Lana (BZ)
Year of Execution: 2004 – 2007
Project: Dr Eng. Dieter Schönafinger – Bolzano

* **ALTO VICENTINO AMBIENTE GMBH - CONSORTIUM FOR WASTE MANAGEMENT**

Planning and implementation of work for the adjustment of the first and second flue gas treatment lines of the incineration plant in Schio (VI) - Via Lago di Pusiano 4, complete with smoke measuring stations in order to comply with emissions standards outlined in Ministerial Decree n° 503/97. Supply and assembly of two cloth filters, two flue gas measuring stations (FTIR), silos, preparation and metering of additives and flue gas direction. All electrical systems and monitoring devices, flue gas fans, connection to the existing flues and all necessary building supervision.

Capacity: first line 20.000 Nm²/h
Capacity: second line 30.000 Nm²/h
Location of Execution: Via Lago di Pusiano, Schio
Year of Execution: 2004 – 2006
Project: Atzwanger SpA
Public Consult SpA, Milan

* **UNICA AG – FORLÌ**

Maintenance and control of 5.44 megawatt steam turbine, internal inspection of the air capacitor

and electrical systems, technical control of the vacuum pump, preparation of final report and parts catalogue.

Location of Execution: Via Grigioni, Forlì

Year of Execution: 2002

* **ABB INSTRUMENTATION AG, MILAN**

Maintenance of the Bolzano waste incineration plant's first line with supply and installation of electrical lines, switch cabinets, emergency power switch cabinet. Installation of instruments and parts of the SPS system. Engineering and planning work "as built".

Location of Execution: Via L. Isarco - Bolzano

Year of Execution: 2001

Project: SNAM PROGETTI SpA, Rome

* **CIS SPA, FORLÌ**

Supply and installation of an electrical generator system using combustion of domestic refuse and commercial waste.

Supply of a steam turbine (5,44 megawatt capacity, 440° C, 40 bar), air capacitor, (22,800 kg/h), conduit and accessories, 43 bar cutover of the two existing heat recovery boilers, construction and demolition services, electrical systems, switch cabinets, network supply, etc.

Capacity: 5,44 MW

Location of Execution: Via Grigioni, Forlì

Year of Execution: 1999 – 2001

Project: ATZWANGER SpA
C.E.I.F. S.c.a.r.l., Forlì

* **ALTO VICENTINO AMBIENTE GMBH - CONSORTIUM FOR WASTE MANAGEMENT**

Planning, execution and supervision of a waste incineration plant up to its commissioning (according to specifications), including grate stoker furnace (for burning of domestic refuse, commercial and hospital wastes) to 17 megawatt electrical generator.

Supply of 100 t/day waste incineration furnace with a H_u (minimum heating value) of 3500 kcal/h, heat recover boiler for steam (18 t/h, 43 bar, 380° C), 4.44 megawatt steam turbine, air capacitor, flue gas treatment systems with 55,000 Nmc/h electrical filter, spark quencher,

metering of sodium carbonate and activated carbon, 65,000 Nmc/h cloth filter, backup water treatment system, de-aerator, boiler feeding pumps, transformer, switch cabinets, network supply and electrical systems with SPS, smokestack, etc.

Capacity: 100 t/Tag with $H_u = 3500$ kcal/h
Location of Execution: Via Lago di Pusiano, Schio
Year of Execution: 2000 – 2004
Project: ATZWANGER SpA
PUBLIC CONSULT SpA, Milan

* **CIS AG - CONSORTIUM FOR PUBLIC SERVICES**

Contracting work, engineering and construction of a riverside methane power plant, including switch cabinets and central heating installation for gas preparation (thermal output 2,500,000 kcal/h).

Electrical system: 1.5 Megawatt
Gas expander: CRYOSTAR Mod. TG 2-200/60
Location of Execution: Forlì (FO)
Year of Execution: 1998
Project: Dr. Eng. Luciano MORUZZI – Venice

* **A.M.N.I.U.P. –MUNICIPAL UTILITIES OF PADUA**

Planning and turnkey delivery of the second line of the Municipality of Padua's waste incineration plant at San Lazzaro, with adjustment to applicable energy recovery standards.

Supply of waste incineration furnace with 150t/day capacity; heat recovery boiler for steam (15 t/h, 43 bar, 380°C), steam turbine (3.3 megawatt), water condenser in two independent units, pump station for cooling water (800 m³/h), flue gas purification plant with 35,000 Nmc/h electrostatic filter, metering of sodium bicarbonate and activated carbon, 85,000 Nmc/h cloth filter (for flue gas lines 1 and 2), auxiliary systems including water treatment, de-aerator, boiler feed pumps, transformer, switch cabinets, and network supply.

Capacity: 150 t/day
Location of Execution: San Lazzaro, Padua
Year of Execution: 1997-1999
Project: ATZWANGER SpA

PUBLIC CONSULT AG, Milan

* **MUNICIPALITY OF PADOVA**

Adjustment of the first line of the incineration plant, including 3.3 megawatt steam turbine, heat recovery boiler for steam (15 t/h, 43 bar, 380° C) as well as relevant construction work (first contract section)

Capacity: 150 t/day

Location of Execution: San Lazzaro - Padova

Year of Execution: 1995 - 1996

Project: Dr. Eng. Alberto FANTINI - Rome

Dr. Eng. Giorgio PAGANINI – Padova

* **PROVINCIA AUTONOMA DI BOLZANO**

Implementation of an incineration system for hospital waste, including afterburning and flue gas treatment for the Merano hospital.

Capacity: 2 - 3 t/day

Location of Execution: Merano (BZ)

Year of Execution: 1991 - 1992

Project: ATZWANGER SpA

HOVAL – CARNIVAL, Grassobio

HUGO PETERSEN, Gummersbach

* **AUTONOME PROVINZ BOZEN**

Realization of a technological equipment for the waste treatment and disposal as well as sludge of the city Bozen.

Location of Execution: Bozen (BZ)

Year of Execution: 1988-1992

Project: Studio MICHELE – Munich