

REFERENCES: WASTE INCINERATION PLANTS
(SOA Cat. 0514)

* **MUNICIPALITY OF BOLZANO**

€ 699,733.97

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 AG, Bolzano
HOVAL – CARNIVAL, Grassobio
HUGO PETERSEN, Gummersbach

* **MUNICIPALITY OF PADUA**

€ 1,371,021.21

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, Padua

Year of Execution: 1995 - 1996

Project: Dr. Alberto FANTINI, Engineer, Rome
Dr. Giorgio PAGANINI, Engineer, Padua

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

€ 6,349,767.03

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 m²/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 AG, Bolzano
PUBLIC CONSULT AG, Milan

* **CIS AG - CONSORTIUM FOR PUBLIC SERVICES** € 1,687,060.53

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. Luciano MORUZZI, engineer, Venice

* **MUNICIPALITY OF BOLZANO** € 7,157,184.35

Realization of the technological systems for the treatment and disposal of domestic refuse and sewage sludge for the Municipality of Bolzano, including various electromechanical systems.

For example, systems for pre-sorting domestic refuse, and production of biological waste in anaerobic reactors (WEISS system) from a mixture of sewage sludge and the organic portion of the domestic refuse.

Capacity: 140 t/day
Location of Execution: Bolzano
Year of Execution: 1988 - 1992
Project: Studio MICHELE, Munich.

* **CIS SPA, FORLÌ** € 4,191,388.86

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 Megawatt
Location of Execution: Via Grigioni, Forli
Year of Execution: 1999 – 2001
Project: ATZWANGER AG, Bolzano
C.E.I.F. S.c.a.r.l., Forli

* **ALTO VICENTINO AMBIENTE GMBH - CONSORTIUM FOR WASTE MANAGEMENT** € 6,301,213.16

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 – 2001
Project: ATZWANGER SpA, Bolzano
PUBLIC CONSULT SpA, Milan

* **ABB INSTRUMENTATION AG, MILAN** € 175,595.35

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 S.p.A., Rome

* **UNICA AG – FORLÌ** € 34,800.00

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

* **ALTO VICENTINO AMBIENTE GMBH - CONSORTIUM FOR WASTE MANAGEMENT** € 1,341,239.00

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
Location of Execution: Via Lago di Pusiano, Schio
Year of Execution: 2004 – 2005 (under construction)
Project: ATZWANGER SpA, Bolzano
PUBLIC CONSULT SpA, Milan

* **BURGGRAFENAMT DISTRICT ASSOCIATION, MERANO**

€ 2,004,743.500

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 Burgrafenamt fermentation station.

Capacity: 12.000 Nm²/h
Location of Execution: Lana - Bolzano
Year of Execution: 2004 – 2005 (under construction)
Project: ATU, Munich

* **SIENAMBIENTE SPA, SIENA**

€ 10,198,000.00

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 Nm²/h
Location of Execution: Poggibonsi (SI), Foci
Year of Execution: 2005 (work not yet begun)
Project: ATZWANGER SpA, Bolzano
GRUPPO PUBLIC CONSULT SpA, Milan
AREA IMPIANTI SpA, Albignasego (PD)