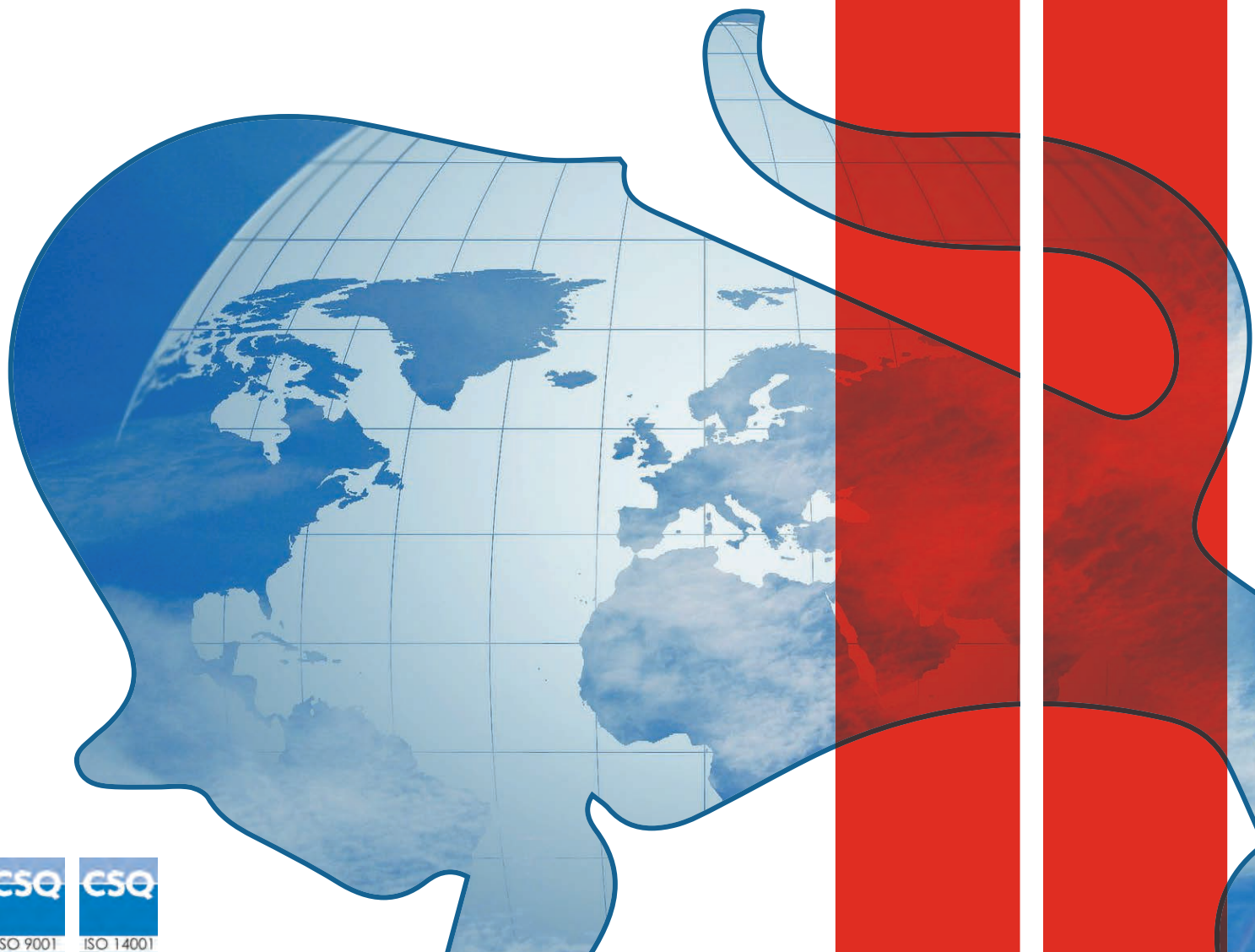


FOR.TEC^{SRL}

INCINERATORS MANUFACTURER

TECHNOLOGY AT THE SERVICE OF THE ENVIRONMENT



COMPANY PROFILE

For.Tec. Forniture Tecnologiche S.r.l. is an Italian Company with 40 years of experience designing, manufacturing, selling and installing high-tech ecologic plants: our daily efforts, researches, studies and tests are directed towards the development of perfect solutions to all the problems arising from waste management.

Thanks to detailed engineering studies and skilled technicians' collaboration, we can offer a full range of incinerators for almost every type of waste, sophisticated crematories and new concept industrial ovens.

The company comprises 2000 m2 production indoor area and more than 5000 m2 outdoor area and it is divided into departments as follows:

- **GENERAL DIRECTION**

- **ADMINISTRATIVE DEPARTMENT**

- **SALES DEPARTMENT:** specialized sellers in incineration field give customers answers to all their doubts, they are ready to advise the most proper model of incinerator according to demand, they manage after-sales service and remote assistance. This department has a very efficient Export Office which handles an extensive dealer network and exports For.Tec. products in many Countries worldwide.

- **ENGINEERING DEPARTMENT:** a close-knit team of engineers and architects daily performs, with great professionalism, analysis of customers' specifications, feasibility studies, customized designs and tests; thanks to the collaboration with the Department of Civil and Mechanical Engineering of University of Cassino and Southern Lazio, we constantly develop new technologies to improve waste treatment solutions.

- **PRODUCTION DEPARTMENT:** skilled and experienced technicians implement projects and build up our incinerators and equipments with great attention to details, ensuring high level of security, high quality and shortest delivery times.



We strive to fulfill each customer's needs:

we give the chance to **customize plants** with many optional equipments, such as automatic loading and deashing systems, wet scrubbers, dry deputation systems, heat recovery systems for hot water/hot-cold air/steam production and pollution control systems.

Our products are all fully CE Certified, our quality is **100% Made in Italy** and our incinerators are manufactured in compliance with the most restrictive construction, health and safety and environmental regulations.



The strengthening presence on the market of For.Tec. waste incinerators, corpses crematories, pet crematories and ecologic systems is an indispensable goal towards which all the efforts and best resources of the Company are continually directed.

In this perspective, For.Tec. Srl considers quality as a key strategic tool for the supply of products and services of absolute and certified reliability, efficiency and safety, in order to meet the Company's priority objective, namely customer's satisfaction.

The acknowledgment of our commitment to the quality research of our products has been awarded with the issuance of **International Quality Certifications**:



- ISO 9001:2015 – IQNET
- ISO 14001:2015 – IQNET
- EN ISO 15614-1 A (Lloyd's Register)
- EN ISO 15614-1 B (Lloyd's Register)
- EN ISO 9606-1 A (Lloyd's Register)
- EN ISO 9606-1 G (Lloyd's Register)



ROTOMAC



Incinerator for:
**MEDICAL AND
GENERAL WASTE**



Incinerator for:
**ANIMAL CARCASSES
AND ORGANIC WASTE**



TECHNOLOGY

The adopted technology for incineration combined with our energy recovery systems makes waste an opportunity and an alternative source of energy.



DESIGN

The design of these systems incorporates the latest engineering discoveries in order to guarantee fuel savings and low emission levels.



ENVIRONMENT

Our systems are designed and built entirely in Italy, by Italian technicians, with Made in Italy materials, all to ensure a very high quality standard.

The range of **Rotomac** incinerators, which represents the flagship of For.Tec. production, is composed of furnaces with rotating or oscillating combustion chamber, suitable for the disposal of almost all types of solid and liquid waste, such as for example hospital, pharmaceutical and medical waste in general, industrial and hazardous waste, including solvents, waste oils and sludge from refineries, organic waste, slaughterhouse waste and whole animal carcasses.

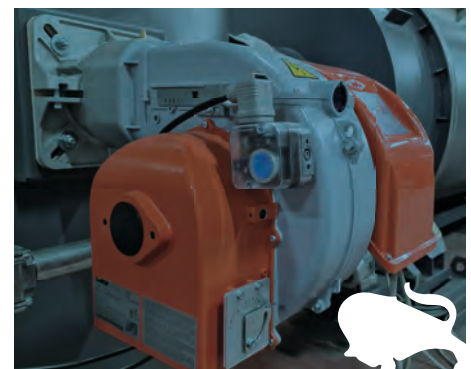
The slight rotary motion imposed on the combustion chamber of the Rotomac plants allows a continuous handling of the waste and therefore brings the great advantage of accelerating its dehydration and incineration, thus making fuel consumption lower than an equal static system.

Rotomac incinerators can be customized thanks to a complete range of optional instruments, thus satisfying the specific needs of each customer. It is possible to choose from the following options:

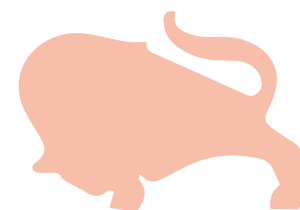
- Automated loading and unloading systems, which allow the introduction of waste into the treatment chamber and the discharge of the ashes in complete safety, thus making the furnace use continuously, even 24 hours a day, with a consequent considerable fuel economy.
- Systems for heat recovery and for the production of domestic hot water, steam or superheated diathermic oil that can be reused in your business.
- Complete systems for the abatement of pollutants, both "dry" and "wet", which together with the postcombustion chamber supplied as standard on each furnace, will make the emissions deriving from the incineration of any type of waste, even the most difficult to deal with, fully compliant with the most restrictive anti-pollution regulations both in Europe and in the world.
- Installation on trailers or inside containers, which makes the systems mobile and therefore perfect for reaching the most remote areas, field hospitals, military bases and countries affected by sudden epidemics.

Standard equipment on each Rotomac oven is a thermal afterburner, which is built in full compliance with the most restrictive anti-pollution regulations; it guarantees the following operating parameters:

- **Operating temperature:** > 850 ° C / > 1100 ° C depending on the category of waste treated
- **Gas residence time:** >2 "
- **Free oxygen content:** >6%



ROTOMAC



ECOTEC

	U.M.	550	1500	2500	5000	6000 multi	8000	10000	12000 multi	15000 multi
Volume	mc	0,55	1,5	2,5	5	6	8	10	12	15
Burning capacity	kg/h	≤ 40	≤ 100	≤ 150	≤ 300	≤ 400	≤ 450	≤ 500	≤ 750	≤ 850
Loading capacity	kg/cycle	70	200	300	600	Only continuous loading	1000	1250	Only continuous loading	Only continuous loading

* Only indicative and non-binding data, they may change, also significantly, according to the exact composition of the loaded waste

EXCE OS

	U.M.	4	8	12	25	35	50	100
Volume	mc	0,4	0,8	1,2	2,5	3,5	5	10
Burning capacity	kg/h	≤ 25	≤ 50	≤ 100	≤ 200	≤ 250	≤ 300	≤ 500
Loading capacity	kg/cycle	60	120	180	375	525	750	1500

* Only indicative and non-binding data, they may change, also significantly, according to the exact composition of the loaded waste

ROTOMAC

	U.M.	1000	1500	2500	4000	6000	12000	15000	18000
Volume	mc	0,9	1,5	2,5	4	6	12	15	18
Burning capacity	Kg/h	≤ 100	≤ 150	≤ 200	≤ 350	≤ 500	≤ 650	≤ 750	≤ 1000
Loading capacity	Kg/cycle	200/350	300/500	500/900	850/1500	1350/2500	Continuous	Continuous	Continuous

* Only indicative and non-binding data, they may change, also significantly, according to the exact composition of the loaded waste

EXCE AN

	U.M.	4	8	12	25	35	50	100
Volume	mc	0,4	0,8	1,2	2,5	3,5	5	10
Burning capacity	kg/h	≤ 50	≤ 100	≤ 150	≤ 250	≤ 300	≤ 350	≤ 500
Loading capacity	kg/cycle	≤ 120	≤ 240	≤ 360	≤ 750	≤ 1050	≤ 1500	≤ 3000

* Only indicative and non-binding data, they may change, also significantly, according to the exact composition of the loaded waste

T-BULL

Incineration chamber volume	m ³	12,17	Maximum potential of incineration burners	Kw	190 x 6
Loading volume in incineration chamber	m ³	7,30	Post-combustion chamber burners	no.	2
Burning Capacity	Kg/h	up to 1000*	Maximum potential of post-combustion burners	Kw	319 x 2
Door's opening dimensions	mm	3900 x 1920	Indicative consumption of Diesel	l/h	60
Incineration chamber's dimensions	mm	3900 (Length) 1920 (Width) 1550 (Height 1) 1700 (Height 2)	Electric consumption	kW	2
Incineration chamber burners	no.	6	Power supply	Type	230v 50Hz
			Total weight	Tons	21

FD 4.0

	U.M.	4.0
Volume	mc	0,80
Burning capacity	kg/h	<50 (classified as a low-capacity installation)
Loading capacity	kg/cycle	≤150
Fuel	type	Diesel/Natural gas/Lpg
Maximum total power of installed burners	Kw	490 (vers. Diesel) 475 (vers. Natural gas/Lpg)
Reference Standards	-	Regulation EU 142/2011 and Regulation EU 1069/2009

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FIDO 550

	U.M.	550
Volume	mc	0,57
Burning capacity	kg/h	≤40 (classified as a low-capacity installation)
Loading capacity	kg/cycle	120
Fuel	type	Diesel/Natural gas/Lpg
Maximum total power of installed burners	Kw	380 (vers. Diesel) 350 (vers. Natural gas/Lpg)
Reference Standards	-	Regulation EU 142/2011 and Regulation EU 1069/2009

* Only indicative and non-binding data, they may change, also significantly, according to the exact composition of the loaded waste

TR PYROLYTIC

	U.M.	2000 OR	5000 OR	12000 OR	20000 OR	2000 VR	5000 VR	8000 VR	12000 VR
Useful Volume	Mc	2	5,3	12,1	20,7	2,1	5,5	7,6	12
Internal Dimensions HxWxL	mm	1000 2000 1000	1400 2400 1600	1600 3600 2100	2000 4500 2300	1200 1200 1400	1300 2000 2100	1500 2200 2300	2000 2400 2500
Paint treatment capacity	kg/h	15	35	50	80	15	35	40	55
Loading capacity	Kg	320	550	700	850	320	550	650	700

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FUMES DEPURATION SYSTEMS

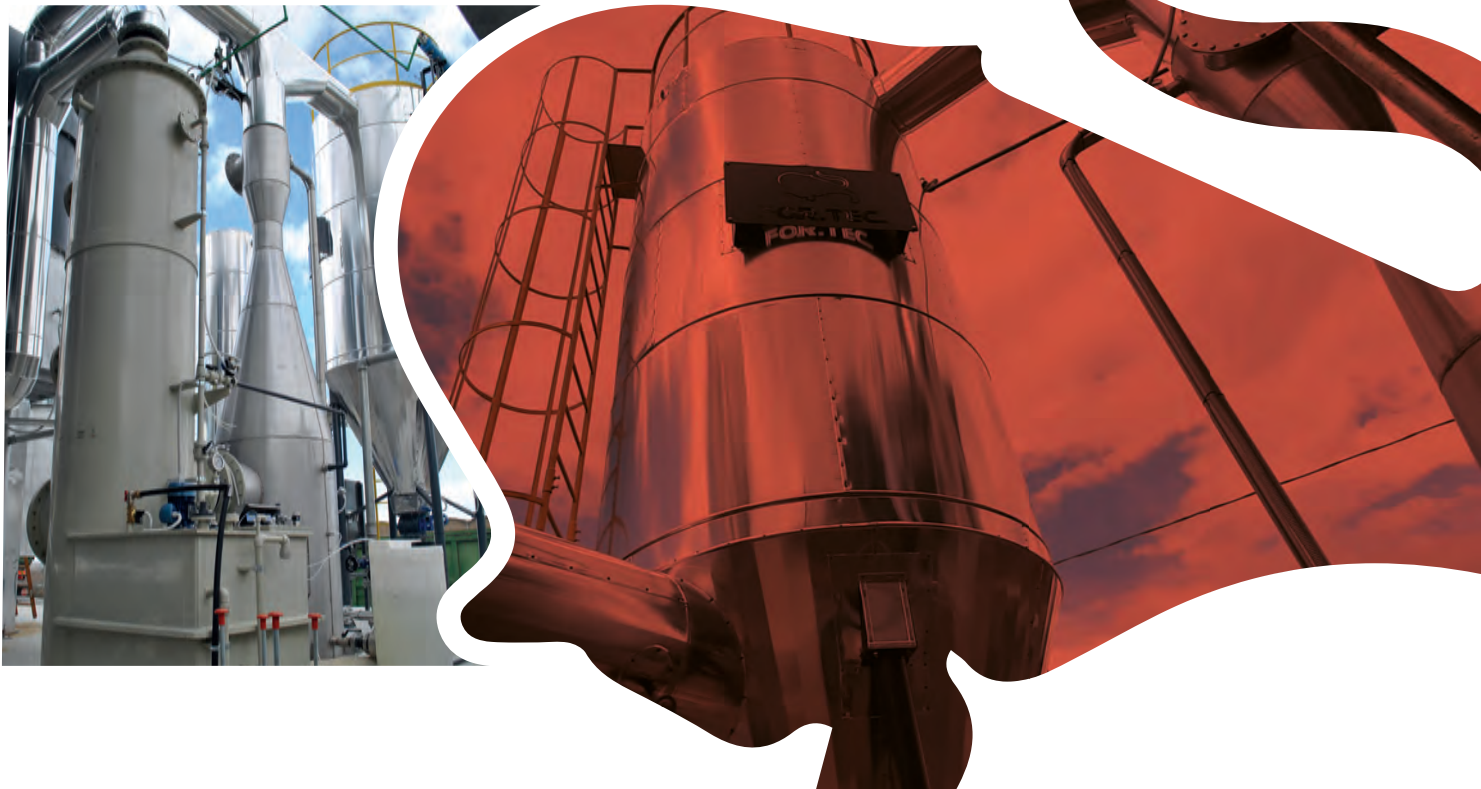
DRY DEPURATION SYSTEM

Thanks to careful design, continuous research and great care in the construction, the "dry" emission abatement system installed on our plants is a cutting-edge instrumentation for pollution control, allowing compliance with the more restrictive European and World regulations.



The abatement process, which acts directly and effectively on each individual pollutant, consists of the following steps:

- 1.** Thermal afterburner for the abatement by oxidation of the VOCs present in the fumes, operating at temperatures of over 850/1100°C in the presence of an excess of air at 6%.
- 2.** Cooling of gas temperatures up to 180°C for the subsequent abatement phases, carried out by means of a fume/water, fume/air or fume/diathermic oil heat exchanger, according to the different application needs.
- 3.** Injection into the gas stream of ventilated powder of lime hydrate for the abatement, by absorption, of fluorine compounds (transformed into calcium fluorides CaF_2) and sulphur compounds (transformed into calcium sulphates CaSO_4); the lime hydrate also absorbs hydrofluoric acid (HF), and produces an effect on hydrochloric acid (HCl) directly proportional to the higher humidity of the environment.
- 4.** Injection into the gas stream of activated carbon powder, in order to prevent the formation of dioxins and furans. The activated carbon dust retains these pollutants by adsorption, guaranteeing yields up to 95%. A mix of hydrated lime and active carbon powder at 20/25% can be found on the market with the name of Sorbalite ®
- 5.** Dedusting by bag filtration, which is able to guarantee an excellent and easy performance on the abatement of dust; our filtration system guarantees dust emission standards <5 mg/mc
- 6.** Washing of the fumes by means of a wet scrubber which guarantees an excellent reduction of water-soluble substances such as HCL, HF and SO₂.



DRY DEPURATION SYSTEM

FUMES DEPURATION SYSTEMS

WET SCRUBBER

One of the leading products of For.Tec brand in the campaign to protect the environment strenuously conducted by the company, is the WET SCRUBBER system for wet abatement of effluent dust in the atmosphere. This system consists of scrubber connected by a duct, which is internally lined with refractory material, at the outlet of the effluent gases from the post-combustion chamber of For.Tec ovens.

The purification of the powders takes place through a curtain of water which, sprayed finely and at high pressure by means of special nozzles on the entire passage section, wets the fine powders contained in the effluent fumes, dragging them with it. The washing water, mixed with the aforementioned powders, precipitates into a settler, built with carbon steel sheet, and here, after having sedimented the impurities, it is put back into circulation by means of an electric pump which feeds the nozzles. At the bottom of said settler, which also acts as a storage tank for the washing water, the decanted sludge (a few tens of kg each year), thanks to a valve, is periodically discharged.



There are many strengths of our Wet Scrubber:

- The scrubber system is activated automatically when the incinerator is started and turns off at the end of the set cycle.
- Since the system is "closed cycle" there is no need to change the washing water. A float valve automatically replenishes only the few liters of water lost due to evaporation.
- In the event of anomalies or malfunctioning of the washing system, a special equipment reports the fact by means of an alarm, both visual and audible



WET SCRUBBER



Hundreds of customers in the world have chosen our ovens!

CUSTOMIZED SERVICES

- Feasibility studies
- Functional Layout
- Thermo fluid dynamics CFD simulations
- Assistance with authorization procedures
- Scheduled maintenance
- Remote assistance

QUALITY



Certified Company
Management System
ISO 9001:2015



Certified Company
Management System
ISO 14001:2015