

## ADVANTAGES



### EASY TO USE

One day training for operators  
Multilingual color "touch-screen"  
Fully automated batch process  
Low maintenance system



### RELIABLE

Equipped with interlock safety system  
Shredding and sterilization in one enclosed  
& compact system  
No intermediate waste handling



### EFFECTIVE

Un-reusable waste  
Pre-shredding permits  
effective sterilization  
Up to 80 % volume waste reduction  
Temperature monitoring  
at the core of the waste



### ENVIRONMENTALLY RESPONSIBLE

Green technology  
Environmentally friendly  
No hazardous emissions  
(smoke, chemical release, radiation)  
Allows on-site treatment



### ECONOMICAL

Easy to install  
No external transport  
& extra packaging needed  
Cost reduction in treatment and  
management of infectious waste.  
Short pay back period, great ROI,  
and large saving.

## WORLDWIDE PRESENCE



For over 20 years, our products are produced entirely in our manufacturing plants in north France. Our ISO 9001 certification allows us to put in place a continuous improvement structure for our products and services. With 80% of sales in export we are adapted to different norms, applicable standards, and specific requirements for the manufacturing of pressure vessels in each market including in Europe, United States of America, Japan, China... Our extensive distribution network enables us to not only ensure the sell but also the installation, commissioning, training, and after-sales service support of our systems in operation.



# TAKING CONTROL OF YOUR WASTE



## THE SUSTAINABLE, & PROVEN TREATMENT SOLUTION

ECODAS machines are installed in more than 70 countries:

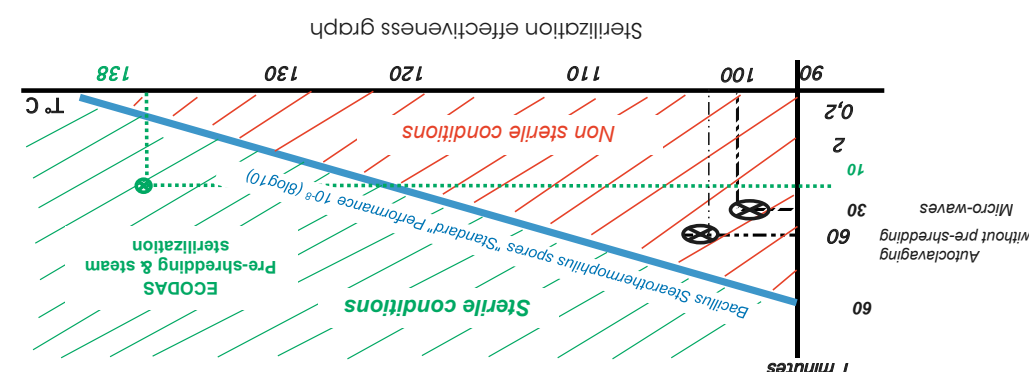
Albania	Egypt	Iraq	Mexico	Saint Lucia
Algeria	United Arab Emirates	Italy	Nepal	Saint Pierre & Miquelon
United Kingdom	Ecuador	Jamaica	Nigeria	Senegal
Angola	Spain	Jordan	New Caledonia	Slovakia
Argentina	Estonia	Kosovo	Oman	Syria
Azerbaijan	France	Kuwait	Palestine	Sudan
Bahrain	Gabon	Kurdistan	Panama	Thailand
Bangladesh	Ghana	Latvia	Paraguay	Tunisia
Bosnia	Greece	Lebanon	Peru	Turkmenistan
Brazil	Guadeloupe	Libya	Philippines	Turkey
Bulgaria	French Guyana	Lithuania	Poland	Ukraine
Cameroon	Honduras	Maldives	Czech Rep.	Uruguay
Canada	Hungary	Morocco	Reunion Island	USA
China	India	Mauritania	Romania	Venezuela
Cyprus	Indonesia	Mayotte	Russia	Vietnam
Denmark	Iran			Zanzibar



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# OUR CONCEPT

ECODAS has developed a patented, innovative and fully automated system that shreds then sterilizes Regulated Medical Waste (RMW) by saturated steam.

ECODAS sustainable treatment process combines pre-shredding and direct pressurized heated steam all in one enclosed system.

The final treated waste is sterilized residue that is safe for disposal as ordinary municipal waste while its initial volume is reduced by up to 80 %.

Now, ECODAS diversifies its applications to the following sectors: agro-food, slaughterhouses, seaports and airports as well as the destruction of confidential documents.



The ECODAS process has been tested by the Pasteur Institute and approved under the direction of the Ministry of Health and the Ministry of the Environment by the French Higher Council of Public Health.

The quality management of ECODAS systems is executed following ISO 9001.

ECODAS systems are designed and manufactured in accordance with the following norms: ASME (USA), CE (Europe), GOSTANDART (Russia), MHLW (Japan), MLSE (China), CSA & TSSA (Canada), ...



At the end of the treatment process, a detailed cycle report is generated.

Machine: T3000		Batch: 010000		Date: 15/05/17	
Time	Temp (°C)	Pressure (bar)	Volume (L)	Weight (kg)	Notes
00:00	120	0.5	0	0	Start
00:05	120	0.5	100	10	Loading
00:10	120	0.5	200	20	Loading
00:15	120	0.5	300	30	Loading
00:20	120	0.5	400	40	Loading
00:25	120	0.5	500	50	Loading
00:30	120	0.5	600	60	Loading
00:35	120	0.5	700	70	Loading
00:40	120	0.5	800	80	Loading
00:45	120	0.5	900	90	Loading
00:50	120	0.5	1000	100	Loading
00:55	120	0.5	1100	110	Loading
01:00	120	0.5	1200	120	Loading
01:05	120	0.5	1300	130	Loading
01:10	120	0.5	1400	140	Loading
01:15	120	0.5	1500	150	Loading
01:20	120	0.5	1600	160	Loading
01:25	120	0.5	1700	170	Loading
01:30	120	0.5	1800	180	Loading
01:35	120	0.5	1900	190	Loading
01:40	120	0.5	2000	200	Loading
01:45	120	0.5	2100	210	Loading
01:50	120	0.5	2200	220	Loading
01:55	120	0.5	2300	230	Loading
02:00	120	0.5	2400	240	Loading
02:05	120	0.5	2500	250	Loading
02:10	120	0.5	2600	260	Loading
02:15	120	0.5	2700	270	Loading
02:20	120	0.5	2800	280	Loading
02:25	120	0.5	2900	290	Loading
02:30	120	0.5	3000	300	Loading
02:35	120	0.5	3100	310	Loading
02:40	120	0.5	3200	320	Loading
02:45	120	0.5	3300	330	Loading
02:50	120	0.5	3400	340	Loading
02:55	120	0.5	3500	350	Loading
03:00	120	0.5	3600	360	Loading
03:05	120	0.5	3700	370	Loading
03:10	120	0.5	3800	380	Loading
03:15	120	0.5	3900	390	Loading
03:20	120	0.5	4000	400	Loading
03:25	120	0.5	4100	410	Loading
03:30	120	0.5	4200	420	Loading
03:35	120	0.5	4300	430	Loading
03:40	120	0.5	4400	440	Loading
03:45	120	0.5	4500	450	Loading
03:50	120	0.5	4600	460	Loading
03:55	120	0.5	4700	470	Loading
04:00	120	0.5	4800	480	Loading
04:05	120	0.5	4900	490	Loading
04:10	120	0.5	5000	500	Loading
04:15	120	0.5	5100	510	Loading
04:20	120	0.5	5200	520	Loading
04:25	120	0.5	5300	530	Loading
04:30	120	0.5	5400	540	Loading
04:35	120	0.5	5500	550	Loading
04:40	120	0.5	5600	560	Loading
04:45	120	0.5	5700	570	Loading
04:50	120	0.5	5800	580	Loading
04:55	120	0.5	5900	590	Loading
05:00	120	0.5	6000	600	Loading
05:05	120	0.5	6100	610	Loading
05:10	120	0.5	6200	620	Loading
05:15	120	0.5	6300	630	Loading
05:20	120	0.5	6400	640	Loading
05:25	120	0.5	6500	650	Loading
05:30	120	0.5	6600	660	Loading
05:35	120	0.5	6700	670	Loading
05:40	120	0.5	6800	680	Loading
05:45	120	0.5	6900	690	Loading
05:50	120	0.5	7000	700	Loading
05:55	120	0.5	7100	710	Loading
06:00	120	0.5	7200	720	Loading
06:05	120	0.5	7300	730	Loading
06:10	120	0.5	7400	740	Loading
06:15	120	0.5	7500	750	Loading
06:20	120	0.5	7600	760	Loading
06:25	120	0.5	7700	770	Loading
06:30	120	0.5	7800	780	Loading
06:35	120	0.5	7900	790	Loading
06:40	120	0.5	8000	800	Loading
06:45	120	0.5	8100	810	Loading
06:50	120	0.5	8200	820	Loading
06:55	120	0.5	8300	830	Loading
07:00	120	0.5	8400	840	Loading
07:05	120	0.5	8500	850	Loading
07:10	120	0.5	8600	860	Loading
07:15	120	0.5	8700	870	Loading
07:20	120	0.5	8800	880	Loading
07:25	120	0.5	8900	890	Loading
07:30	120	0.5	9000	900	Loading
07:35	120	0.5	9100	910	Loading
07:40	120	0.5	9200	920	Loading
07:45	120	0.5	9300	930	Loading
07:50	120	0.5	9400	940	Loading
07:55	120	0.5	9500	950	Loading
08:00	120	0.5	9600	960	Loading
08:05	120	0.5	9700	970	Loading
08:10	120	0.5	9800	980	Loading
08:15	120	0.5	9900	990	Loading
08:20	120	0.5	10000	1000	Loading
08:25	120	0.5	10100	1010	Loading
08:30	120	0.5	10200	1020	Loading
08:35	120	0.5	10300	1030	Loading
08:40	120	0.5	10400	1040	Loading
08:45	120	0.5	10500	1050	Loading
08:50	120	0.5	10600	1060	Loading
08:55	120	0.5	10700	1070	Loading
09:00	120	0.5	10800	1080	Loading
09:05	120	0.5	10900	1090	Loading
09:10	120	0.5	11000	1100	Loading
09:15	120	0.5	11100	1110	Loading
09:20	120	0.5	11200	1120	Loading
09:25	120	0.5	11300	1130	Loading
09:30	120	0.5	11400	1140	Loading
09:35	120	0.5	11500	1150	Loading
09:40	120	0.5	11600	1160	Loading
09:45	120	0.5	11700	1170	Loading
09:50	120	0.5	11800	1180	Loading
09:55	120	0.5	11900	1190	Loading
10:00	120	0.5	12000	1200	Loading

UNLOADING

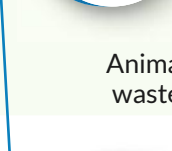
LOADING

SHREDDING

TREATED  
WASTE



Infectious and biomedical waste



Animal waste



Seaports and airports waste

30 min  
mini

DRAINING

COOLING

STERILIZATION

HEATING

Example of  
ECODAS T300  
treatment cycle.

**1**  
The automatic loading of the waste is performed through the top opening of the machine.

**2**  
Shredding starts as soon as the cover is closed, sealed, and locked. The heavy-duty shredder features a regular automatic reverse rotation to prevent jamming, effectively shreds all kinds of waste.

**3**  
The heating is achieved through saturated steam that raises the temperature to 138°C (280 F) and the pressure to 3.5 bar (51 psi).

**4**  
The sterilization is achieved by maintaining 138 °C (280 F) and 3.5 bar (51 psi) at the core of the waste for 10 minutes. The combination of these different factors achieves a microbial inactivation of 10<sup>6</sup> reduction (8 log10).

**5**  
Decompression through the flash tank reduces temperature and pressure in preparation of the opening of the machine.

**6**  
The condensates and the cooling water are discharged into the sanitary drain, and the recovered heat is used to preheat the boiler.

**7**  
The unloading of the final sterilized waste is carried out by gravity discharge into a garbage bin placed directly under the machine.

OUR  
PRODUCT  
LINE

Several models with different treatment capacities are available for a processing volume ranging from 100 to 2500 Liters per cycle.

T100



T150



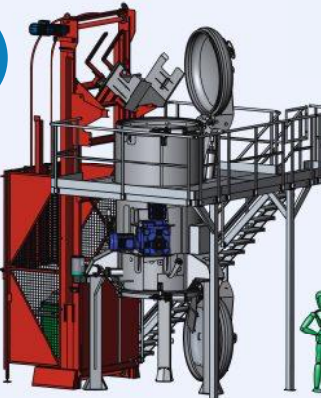
T300



T1000



T2000



# Sustainable TREATMENT CYCLE

