

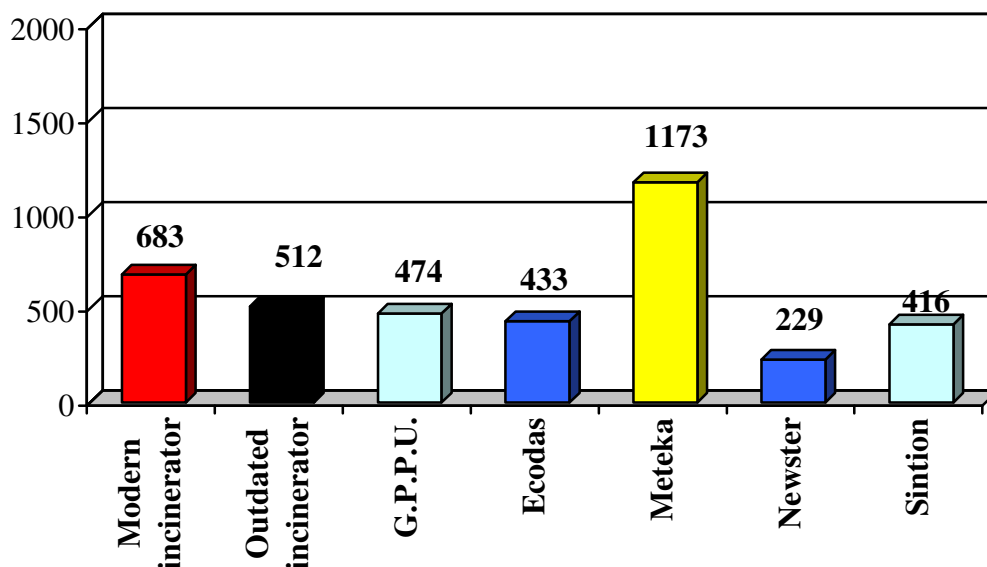
Table 1. Non-incineration medical waste treatment technologies certified for the Polish market:

	G.P.P.U. (Polish)	Ecodas (French)	Meteka (Austrian)	Newster (Italian)	Sintion (Austrian)
Installation	Autoclave TSO 150	Autoclave T.300	Microwave Medister 360	Chemical Thermal Treatment Newster 10	Autoclave + Microwave Sintion 1.1.
Level	sterilisation	sterilisation	sterilisation	sterilisation	sterilisation
Maximum quantity [TPA] *	350	300	130	370	**120
Capacity [kg/cycle]	70	35	12 – 18	10 – 25	12
Chamber capacity [m ³]	0,93	0,35	0,06	0,13	0,103
Installation dimension L x W x H [m]	2,4x1,5x2,7	1,85x2,1x3	1,7x1,05x0,8	1,2x0,8x1,4	0,84x1,2x1,1
Installation mass [kg]	3150	2000	480	1100	430
Power supply type [V]	3 x 380	380	3 x 380	3 x 380	3 x 400
Power [kW]	11,2	17	no data	30	no data
Price net [excluding VAT]	166 000 €	130 000 €	152 494 €	85 000 €	50 000 €
The price includes all equipment	without steam generator	without steam generator	yes	yes	yes
Term of guarantee [month]	24 – 36	12	12	12	12 - 18
Water use per cycle [m ³]	0,25	0,1	0,05	0,15 – 0,3	no data
Steam use per cycle [kg]	30	15	–	–	–
Energy use per cycle [kWh]	5	3	8,5	0,6	1
Chemical use per cycle [kg]	none	none	none	0,3 – 0,5 { 14 – 15% NaClO }	none
Cycle time [minute]	40 – 90	40 – 60	55	15 – 25	10 – 30
Shredder	yes	yes	no	yes	no
Chamber unload	automatic	gravitational	gravitational	automatic	manual
Waste temperature right after process [°C]	80 - 100	80	50	~ 90	< 50

* Maximum cycle time, and full load; operational for 7466 hours per year (85%).

** Sintion requires 8 hours break per twenty-four hours.

**Investment costs
recalculated for maximum capacity
[€ net/tonne]**



Modern incinerator: equipped with secondary chamber; filters and scrubber, and automatic monitoring control system as required by Directive 2000/76/EC. [Average price based on three proposed installations, in 2002/2003.]

Outdated incinerator: equipped with secondary chamber; filters and scrubber, without automatic monitoring control system as required by Directive 2000/76/EC, and [possibly] not meeting the EU emission standard. [Average price based on seven installations built in late 90's.]

All incinerators have average capacity 300 kg/h.

Source:

Urządzenia do unieszkodliwiania zakaźnych odpadów medycznych i weterynaryjnych dostępne na rynku krajowym [Medical waste treatment technologies available on the Polish market], OTZO/WPA, Kraków, March 2003.