

ABOUT US

AUTOCLAVES

- Safety is critical when it comes to autoclaves and manufacturing based on accepted international and local standards.
- Certified raw materials used according to pressure vessel manufacturing standards.
- Manufacturing based on 2014/68/EU or ASME or EAC standards.
- Manufacturing based on 2006/42/EC Machinery Safety Regulation.
- Certified autoclaves by world well-known certification agencies such as Bureau Veritas, TUV, OneCIS Insurance Company.

Akarmak, founded in 1990, manufactures autoclaves and pressure vessels for various industries including the Composite Materials, Glass Industry, Tire Retreading - Rubber Vulcanization, Building Materials, Medical Waste Sterilization.

Our autoclaves are manufactured in our state-of-the-art manufacturing facilities in the city of Eskisehir, with close proximity to major cities and ports. From the customer requirement acquisition stage to design, manufacturing, test, delivery and on-site commissioning, Akarmak is capable of providing turnkey and boutique solutions for every customer need.

The autoclaves are designed using advanced design tools and software meeting the highest safety and quality standards. We approach every project as unique and custom-made, and can handle customer specific requests. The autoclaves are manufactured with limited reliance on outside suppliers and are carried out by an experienced, highly trained and certified work force and technical staff. Akarmak has the following certifications including those for autoclave and pressure vessel manufacturing:

- 2014/68/EU Pressure Equipment Directive
- 2009/105/EC Simple Pressure Vessels Directive
- ASME SEC VIII Div. 1
- EAC
- EN 3834-2
- EN 15085-2
- AD2000

Other certificates that may be required by different countries and jurisdictions. To certify our autoclaves, we work with internationally well-known certificate agencies such as Bureau Veritas, TUV, OneCIS Insurance Company.

Thank you for your interest in our company and our products. We look forward to realizing successful projects with you and enhance your value chain with high quality products.

Please do not hesitate to contact us, if you have any questions. You can also visit us at www.akarmak.com to get more information about our company and our products.



www.akarmak.com



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MEDICAL WASTE
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SYSTEMS

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STERILIZATION SYSTEMS

AKARMAK MEDICAL WASTE STERILIZATION SYSTEM DATA SHEET

Code	Design Values				Consumption / Cycle		
	Cycle Time (min)	Sterilization Capacity (kg/cycle)	Power Supply (kW) [1]	Feeding Unit Volume (lt)	Autoclave Unit Volume (lt)	Electric (kWh) [1]	Steam (kg)
AKR250L	30-35	20-30	20	250	450	2-3	15
AKR500L	30-35	50-70	22	500	600	3-5	25
AKR1000L	40-45	100-130	22	1000	600	5-7	35
AKR2500L	50-60	250-300	55	2500	1800	20-25	80
AKR500A	35-40	500-700	75	-	15000	12-15	400
AKR1000A	45-50	1000-1200	75	-	23000	15-20	600
AKR1500A	50-55	1500-1800	75	-	29000	22-30	800

* Compressor and steam generator are excluded

- Technical Support & Maintenance by Certified Experts
- Up to %80 Volume Reduction
- Well Engineered and Designed Durable Shredder
- Bayonet Door: Safe and User Friendly
- Reference in 50+ Countries
- 30+ Years of Experience and Know-How
- Siemens Touch Panel



TECHNICAL FEATURES

DESCRIPTIONS	AKR250L	AKR500L	AKR1000L	AKR2500L
Sterilization Capacities (kg/cycle)	20-30	50-70	100-130	250-300
Process Method	Full Automatic, Pre-Shredded, Steam Sterilization			
Pressure Vessel and Shredder Hopper Materials	Stainless-steel AISI316L			
Approximate Total Weight	2200	2500	2900	10000
Waste Feeding System	Automatic and manual options			
Total Design Power (Excluding Steam Generator) (kW)	20	22	22	55
Dimensions (Width x Length x Height) (mm) Without Lifter	3000x3300x2750	3000x3300x3150	3000x3300x3600	6000x8000x6500
Dimensions (Width x Length x Height) (mm) With Lifter	3000x3300x4000	3000x3300x4150	3000x3300x4400	6000x8000x6500
Shredder's Electric Motor Power	4kW x 11kW			15kW x 22kW
Auto Reverse System for Shredder in Case Of Waste Jamming	✓	✓	✓	✓
Sterilization Temperature: 135-140°C (Programmable)	✓	✓	✓	✓
Sterilization Pressure: 3-4 bar (Programmable)	✓	✓	✓	✓
Sterilization Level	8log10 (99,9999%)			
Inspection Report For Sterilization Level	As per International Standard (Robert Koch Institute & STAATT Level IV etc.)			
Waste Volume Reduction	Up to 80%			

1 Waste loading
Full automatic loading option.



2 Shredding
Current control in case of waste jamming. The shredder rotates reverse to unjam and process continues.



3 Sterilization
Full automatic mode during vacuuming, steam charging and depressurising.



4 Waste Discharging
Sterilized waste is discharged automatically through archimedes screw.



TECHNICAL FEATURES

DESCRIPTIONS	AKR500A	AKR1000A	AKR1500A
Sterilization Capacities (kg/h)	500-700	1000-1200	1500-1800
Process Method	Full Automatic, Post-Shredded, Steam Sterilization		
Pressure Vessel and Shredder Hopper Materials	P2956H		
Approximate Total Weight	19500	21500	23000
Autoclave Unit Volume (lt)	15000	23000	29000
Waste Feeding System Into Shredder's Hopper	Full Automatic Including Lifter , Covered With Transparent Fences. Container Feeding System		
Autoclave Door System	Full Automatic , Hydraulic Closing / Opening, Hydraulic Locking / Unlocking		
Total Design Power (Excluding Steam Generator and Compressor) (kW)	75 kW	75 kW	75 kW
Dimensions (Inner Dimensions x Length)	Ø2000x4000	Ø2000x6500	Ø2000x8500
Autoclave Trolley (mm)	1200x1200x1200	1200x1200x1200	1200x1200x1200
Shredder's Electric Motor Power	22kW x 30kW	22kW x 30kW	22kW x 30kW
Autoclave Car Material	AISI316L		
Autoclave Trolley Quantity Per Cycle	3	5	7
Feeding Hopper Capacity For Shredding Unit (lt)	2000	2000	2000
Waste Loading into Shredding Unit	Full Automatic Loading into Shredder		
Dimensions for Shredding Unit (Width x Length x Height) (mm)	6000x5600x6500	6500x6200x6500	6500 x 6200 x 6500
Optimum Building Area Needs (mm)	15000x15000x8000	18000x15000x8000	20000x15000x8000
Sterilization Temperature : 140-155°C (Programmable)	✓	✓	✓
Sterilization Pressure: 4-5 bar (Programmable)	✓	✓	✓
Sterilization Level	6log10 (99,9999%)		
Inspection Report For Sterilization Level	As per International Standard (Robert Koch Institute & STAATT Level IV etc.)		
Waste Volume Reduction	Up to 80%		



1 Waste Loading and Autoclave Sterilization
Manual loading with stainless steel trolleys into the autoclave. Automatic weighing in front of the autoclave. Automatic sterilization process.



2 Car loading
Full automatic loading into the shredder.



3 Shredding
Current control in case of waste jamming. The shredder rotates reverse to unjam and process continues.



4 Waste Discharging
Sterilized and shredded waste is discharged automatically to truck or container.