



GREEN LINE

*machines and plants for waste
recycling and composting*

BIO-CHOPPER-MIXERS

SAM 5/ SAM 7 series



Transforming waste for the environmental defense

THE EXPLOITATION OF WASTE FOR A SUSTAINABLE DEVELOPMENT

In these last years we have witnessed a more and more growing conscience rising in the various national policies, based on the necessity of orientating the economy towards a sustainable development. All over the world, measures and incentives are being studied for operating in this direction both in the primary and industrial sector. One of the central points of such sustainable development policies is absolutely the one regarding the waste management of human activities for the environmental defence. Particularly, the organic fraction of wastes can be valued through suitable processes of transformation. In fact organic waste, which represent a relevant part of the total municipal solid waste (about 40% in the industrialised Countries), can be re-inserted into the natural cycle of organic substance for its balance settling. In this way, the composting process proves to be one of the most correct and effective instruments as it allows the reproduction, in a short time and in a small place, what happens in nature by turning precious organic compounds into a stable and hygienised compost, which otherwise would be thrown into dumps. Seko proposes itself in this context through a line of machines particularly indicated for a proper organic waste management, through the recycling and composting process able to obtain the best results under both a technical and economical point of view.

Its activity at an international level includes the supply of machines for different treatments such as: Bio-Chopper-Mixers, Self-propelled Turning Machines, Selection Screens, Bag opener biomixers.



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BIO-CHOPPER-MIXERS

SAM 5 / SAM 7 series



discover the advantages
of a simple,
reliable and efficient
technology



Chopping and mixing are basic operations that must be realised through specific equipment.

The peculiar characteristics of the Bio-Chopper-Mixers SAM 5 and SAM 7 series allow to obtain a balanced dissection and chopping, even of wooden materials, giving the output the characteristics suitable for the micro organisms action.

During the chopping process, the material is also actively mixed, a particularly positive fact for two or more kinds of composting products with a different degree of fermentation (for ex. wood and branches are generally little fermentative, whereas grass, the OFMSW - the Organic Fraction of Municipal Solid Wastes - and zootechnical

dejections are very fermentative). The chopping and mixing are performed by the fibre-dissecting action and laceration of two special slow-motion opposite-rotating spiralled shafts with convergent windings, fitted with original blades and counter-blades favouring the fibre dissecting of wooden products. It is very important that all this process avoid chips and sawdust production. The presence of a certain share of woody and non-crumbled parts ensures a balanced aeration of the mass. Moreover, a correct porosity enables the exceeding water evaporation, creating in this way an important total reduction of the lump during the composting process.

THE MIXING OF MATERIALS WITH DIFFERENT FERMENTATION DEGREE, GUARANTEED BY TWO SPIRALLED SHAFTS WITH CONVERGENT WINDINGS, GIVES THE POSSIBILITY OF:

- ◆ Obtaining a balanced C/N ratio (the correct value is 25-30 to 1)
- ◆ Helping the air permeability and the oxygen diffusion inside the windrow (a contribute to this process is given by the windrow structure and the turning operations periodically executed)
- ◆ Reaching the water level slightly higher than 50% (in fact grass and the OFMSW have a too high water content which can often exceed 80%).

SAM 5 / SAM 7 series

Bio-chopper-mixers

Trailed version for tractor coupling

The trailed version is particularly indicated for operators collecting and reducing the volume of small quantities of green waste, coming from private or public gardens and parks. For such purpose the homologation to circulate on roads can be implemented. Regarding the equipment, the special weighing system is worth mentioning,

since there is the possibility to transfer data from/to a PC granting multiple advantages in the collection.

These machines are available from a 5 to 30 m³ (0,14 to 0,84 ft³) and can be equipped with a rear-loading shovel or a crane with fork for an independent load of the products.





WATCH
THE
VIDEO

Year on year, freshly pruned branches, twigs, woody parts and vegetable waste are difficult to digest, especially in summer. Plant waste can be a real pain and take time and effort to dispose of.

With Samurai 7 you can effectively crush all your green waste, saving time. The trailed version has been developed to reduce the volume of twigs, shrubs and green waste in vivarium, gardens or parks and to shred branches with a diameter of 8-10 cm. Their technical characteristics make them perfect for mixing and shredding materials with different degrees of fermentability. The machines can be approved for road circulation for multiple collection needs.

Samurai can be customized and meet any operator need. They have a range of accessories and options including conveyor up to 5,000 mm, crane with fork for independent product loading, rear loader, double axle, high strength steel or stainless steel parts.



Seko bio chopper-mixers are the suitable machines for quickly shredding twigs and green waste from parks, gardens, vineyards as well as organic fractions from Forsu and thus creating the perfect base for compost.



SAM 5 / SAM 7 series

Bag opener Bio-Choppers

Seko bag opener choppers are the most suitable for the development of this important incoming waste processing, because the bag is opened and not shredded so that the plastic is completely recovered.

Their high productivity, performance and absolute reliability make this machine an important resource in urban waste systems.

Let's transform waste and help the environment! Our bio-chopper Green Line reproduce in a short time and in reduced spaces what happens in nature: they transform precious organic materials into stable and sanitized compost, avoiding their abandonment in the dump.

Discover the power of our bio-chopper open-bag.



WATCH
THE
VIDEO

SAM 5 / SAM 7 series

Bio-chopper-mixers

Stationary version with electric motor

Seko Bio-Chopper-Mixers, equipped with the most advanced slow auger with shredder blades, are particularly used on industrial installations where they can also be managed remotely, via PC. The low noise level emitted by both the engine and the shredding / mixing equipment, this version is perfect for use in any location. Reliability, high performance and safety are the characteris-

tics that make this version the most used and necessary in all composting areas and dumps that require a drastic reduction in the volume of waste. A range of multipurpose machines, able to process any product, from the wet fraction to green residues from the maintenance of parks and gardens, as well as purification mud, peat, soil, dried digestates and more.





Seko electric motor machines, performing and durable, are developed for locations where noise emissions are tolerated to a minimum extent and for composting areas, landfills and installations where cycles of work are long and require high hourly productions.

Seko machines are used to mechanically and biologically dried digestate, coming from anaerobic digestion from biomethane plants, with Forsu, mud, substances

with different compositions and twigs or other structuring agents.

There are 3 phases:

- ◆ reception and selection of materials
- ◆ phase of intensive fermentation and sanitation
- ◆ maturation phase

Find out how to reach perfection with our shredders-mixers.



Stationary electric version with wheels for movement inside the plant



Stationary electric version for waste recycling plant

SAM 5 / SAM 7 series

Bio-chopper-mixers

Stationary version with diesel engine

In the diesel engine version flexibility and safety are the main characteristics. These qualities are particularly enhanced by the hydrostatic control transmission with an automatic reversing system of the rotation sense of the chopping shafts, so to safeguard them when some foreign objects accidentally get into the machine. They are equipped with powerful ecological engines of the last generation, certified as to the emissions subject.

Thanks to low noise and long lasting, these engines guarantee high torque and power with the maximum efficiency in the diesel consumption.

The positioning of both the engine compartment and the centralised control board are easily reachable, so that the operator can freely perform any inspection and maintenance operation.



Created to provide an ecological answer to the disposal of organic waste, Seko bio-choppers can shred green waste, which when appropriately chopped, mixed and aerated with an suitable supply of oxygen, decompose

rapidly and transform into a substance similar to common earth, the fertile humus. Seko machines can be equipped with an anti-odor protective cover for particularly dusty environments.



SAM 5 / SAM 7 series

Bio-chopper-mixers

Diesel engine "Skid frame" version



Seko sets up trucks with demountable systems, which are also moved when loaded through devices on the vehicle itself with variation of balance during handling. They find application in the collection, processing and transport of the most varied types of waste and can be easily placed in a rest area for their filling. Through suitable mechanisms, the Samurai Shredder is then re-

sitioned on the rear part of the truck through a special system which with hydraulic connections allows it to be hooked up.

Customer satisfaction is the best result for Seko and is focus, this is why our Research and Development team is always at work with innovative, customized and high quality solutions.



SAM 5 / SAM 7 series

Bio-chopper-mixers

Truck-Mounted version with diesel engine

The collection and the chopping of the organic waste, carried out both by specialised companies and by the public administrations, can be performed by the Truck-mounted version of the Bio-Chopper-Mixers with fixed application on truck.

These machines represent without any doubt the

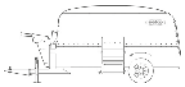
top solution for waste collection, especially for green wastes, branches, pruning and so on, and the consequent volume reduction. Indeed, they combine together the flexibility of their original chopping-mixing system with the easiness and quickness of movement that only a truck can allow.



THE ADVANTAGES BY THESE MACHINES

- ◆ Remarkable volume reduction and stocking space.
- ◆ Easy loading and unloading of any product, especially of green residuals.
- ◆ Chopping and mixing of the product while driving from one spot to the next.
- ◆ Delivery of a ready chopped and mixed product to the composting area for the following process.
- ◆ Significant reduction of managing costs.
- ◆ Possibility of fitting with a crane and the system for loading waste-boxes.

BIO-CHOPPER MIXERS SAM 5 - SAM 7 GREEN & COMPOST SERIES



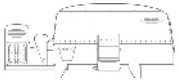
TRAILED VERSION

model	length mm/Inch	width mm/Inch	height mm/Inch	box capacity m ³ /Cu.Ft.	weight kg/Libs	power kW/HP	output m ³ /h - Cu.Ft./h
SAM 5 450/90-GC/T	5404/213	1905/75	2391/94	9/317	3900/8598	37/50	25/30 - 883/1059
SAM 5 450/110-GC/T	5854/230	1905/75	2391/94	11/388	4200/9259	44/59	30/35 - 1059/1236
SAM 5 500/110-GC/T	5708/224	2045/80	2443/96	11/388	5200/11494	59/79	35/40 - 1236/1412
SAM 5 500/130-GC/T	5708/224	2045/80	2656/104	13/459	5400/11904	59/79	35/40 - 1236/1412
SAM 5 500/150-GC/T	6308/248	2045/80	2656/104	15/530	5700/12566	66/88	40/45 - 1412/1589
SAM 5 500/170-GC/T	6608/260	2335/92	2691/106	17/600	5900/13007	66/88	45/50 - 1589/1766
SAM 5 600/200-GC/T	7326/288	2335/92	2791/110	20/706	8100/17857	80/107	55/60 - 1942/2119
SAM 5 600/230-GC/T	7626/300	2335/92	3092/122	23/812	8600/18960	89/119	65/70 - 2295/2472
SAM 5 650/250-GC/T	8013/315	2557/100	3159/124	25/823	10000/22046	118/158	75/80 - 2649/2825
SAM 5 700/300-GC/T	8730/344	2657/104	3264/128	30/1059	11500/25353	185/248	80/100 - 2825/3531
SAM 7 450/70-GC/T	4954/195	1905/75	2382/94	7/247	3800/8377	30/40	20/25 - 706/833
SAM 7 450/90-GC/T	5404/213	1905/75	2382/94	9/317	4100/9039	37/50	25/30 - 833/1059
SAM 7 450/110-GC/T	5854/230	1905/75	2382/94	11/388	4400/9700	44/59	30/35 - 1089/1236
SAM 7 500/110-GC/T	5708/224	2045/80	2521/99	11/388	5400/11904	59/79	35/40 - 1236/1412
SAM 7 500/130-GC/T	5708/224	2045/80	2771/109	13/459	5700/12566	66/88	35/40 - 1236/1412
SAM 7 500/150-GC/T	6308/248	2045/80	2771/109	15/530	5900/13007	66/88	40/45 - 1412/1589
SAM 7 500/170-GC/T	6608/260	2335/92	2803/110	17/600	6100/13448	66/88	45/50 - 1412/1765
SAM 7 600/210-GC/T	7326/288	2335/92	3094/122	21/741	8300/18298	80/107	55/60 - 1942/2119
SAM 7 600/230-GC/T	7626/300	2335/92	3094/122	23/812	8800/19400	89/119	65/70 - 2295/2472
SAM 7 600/250-GC/T	7626/300	2335/92	3294/130	25/823	9000/19841	89/119	70/75 - 2472/2649
SAM 7 650/270-GC/T	8013/315	2557/100	3361/132	27/953	10300/22708	118/158	75/80 - 2472/2825
SAM 7 700/330-GC/T	8730/344	2657/104	3462/136	33/1165	11900/26235	185/248	80/100 - 2825/3531



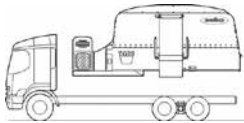
STATIONARY VERSION WITH ELECTRIC ENGINE GREEN & COMPOST

model	length mm/Inch	width mm/Inch	height mm/Inch	box capacity m ³ /Cu.Ft.	weight kg/Libs	power kW/HP	output m ³ /h - Cu.Ft./h
SAM 7 450/70-GC/ME	5333/210	1912/75	2217/87	7/247	4000/8818	30/40	20/25 - 706/833
SAM 7 450/90-GC/ME	5783/228	1912/75	2217/87	9/317	4300/9480	30/40	25/30 - 833/1059
SAM 7 450/110-GC/ME	6233/245	1912/75	2217/87	11/388	4600/10141	30/40	30/35 - 1089/1236
SAM 7 500/110-GC/ME	6087/240	1990/78	2302/91	11/388	5600/12346	37/50	35/40 - 1236/1412
SAM 7 500/130-GC/ME	6087/240	1990/78	2552/100	13/459	5900/13007	37/50	35/40 - 1236/1412
SAM 7 500/150-GC/ME	6687/263	1990/78	2552/100	15/530	6100/13448	55/74	40/45 - 1412/1589
SAM 7 500/170-GC/ME	6987/263	1990/78	2552/100	17/600	6300/13889	55/74	45/50 - 1412/1765
SAM 7 600/210-GC/ME	7705/303	2156/85	2837/112	21/741	8600/18960	90/121	55/60 - 1942/2119
SAM 7 600/230-GC/ME	7784/306	2156/85	2837/112	23/812	9100/20062	90/121	65/70 - 2295/2472
SAM 7 600/250-GC/ME	7784/306	2156/85	3039/120	25/823	9300/20503	90/121	70/75 - 2472/2648
SAM 7 650/270-GC/ME	8200/323	2318/91	3267/129	27/953	12800/28219	132/177	78/80 - 2754/2825
SAM 7 700/330-GC/ME	9148/360	2352/93	3365/132	33/1165	14500/31967	160/214	80/100 - 2825/3531



STATIONARY VERSION WITH DIESEL ENGINE GREEN & COMPOST

model	length mm/Inch	width mm/Inch	height mm/Inch	box capacity m ³ /Cu.Ft.	weight kg/Libs	power kW/HP	output m ³ /h - Cu.Ft./h
SAM 7 450/70-GC/MD	5900/232	2100/83	2382/94	7/247	5300/11684	55/74	20/25 - 706/833
SAM 7 450/90-GC/MD	6400/252	2100/83	2382/94	9/317	5600/12345	55/74	25/30 - 833/1059
SAM 7 450/110-GC/MD	6800/268	2100/83	2382/94	11/388	5900/13007	55/74	30/35 - 1089/1236
SAM 7 550/110-GC/MD	6700/264	2300/91	2521/99	11/388	6900/15212	90/121	35/40 - 1236/1412
SAM 7 550/130-GC/MD	6700/264	2300/91	2771/109	13/459	7200/15873	90/121	35/40 - 1236/1412
SAM 7 550/150-GC/MD	7300/287	2300/91	2771/109	15/530	7400/16314	90/121	40/45 - 1412/1589
SAM 7 550/170-GC/MD	7600/299	2335/92	2803/110	17/600	7600/16755	90/121	45/50 - 1412/1765
SAM 7 600/180-GC/MD	7700/303	2400/94	3094/122	18/636	9300/20503	90/121	45/50 - 1412/1765
SAM 7 600/210-GC/MD	8300/327	2400/94	3094/122	21/741	9800/21605	90/121	55/60 - 1942/2119
SAM 7 600/230-GC/MD	8600/338	2400/94	3094/122	23/812	10300/22708	90/121	65/70 - 2295/2472
SAM 7 600/250-GC/MD	8600/338	2400/94	3294/130	25/823	10500/23148	90/121	70/75 - 2472/2648
SAM 7 650/270-GC/MD	9100/358	2557/101	3361/132	27/953	12000/26455	129/1473	78/80 - 2754/2825
SAM 7 700/330-GC/MD	9800/386	2657/105	3462/136	33/1165	14000/30865	168/225	80/100 - 2825/3531



TRUCK-MOUNTED VERSION WITH DIESEL ENGINE GREEN & COMPOST

model	length mm/Inch	width mm/Inch	height mm/Inch	box capacity m ³ /Cu.Ft.	weight kg/Libs	power kW/HP	output m ³ /h - Cu.Ft./h
SAM 7 G&C 500/150-GC/MD/TM	6580/270	2500/98	2550/100	15/530	6500/14330	90/121	40/45 - 1412/1589
SAM 7 G&C 600/210-GC/MD/TM	7380/290	2500/98	2800/110	21/741	8800/19400	90/121	55/60 - 1942/2119



SLIDING VERSION COMPLETE WITH GREEN & COMPOST FRAME

model	length mm/Inch	width mm/Inch	height mm/Inch	box capacity m ³ /Cu.Ft.	weight kg/Libs	power kW/HP	output m ³ /h - Cu.Ft./h
SAM 7 G&C 500/150-GC/MD/SC	6800/268	2500/98	2650/104	15/530	7400/16314	90/121	40/45 - 1412/1589
SAM 7 G&C 600/210-GC/MD/SC	7600/299	2500/98	2900/114	21/741	9800/21605	90/121	55/60 - 1942/2119



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