



# PRODUCT CATALOGUE

[www.sistema.bio](http://www.sistema.bio)

## CHARACTERISTICS OF Sistema.bio®

Sistema.bio technology is a biogas hybrid reactor, designed to treat the daily waste of animal farms. The reactor ferments manure mixed with water, producing biogas and a powerful bio fertilizer.



**DURABILITY:** Our hybrid reactor is fabricated with high-quality, UV resistant geomembrane. Piping and assemblies are made out of hydraulic PVC and HDPE, offering long lifespan in the harsh conditions of the countryside.



**PREFABRICATED KIT:** The system is composed of a complete kit of prefabricated components optimized for packaging, transportation and easy installation. All parts are easily accessible for replacements. The manufacturing process complies with the strictest quality control standards to ensure a long product life.



**VARIETY OF SIZES:** Our product catalogue offers a range of reactor sizes, from 6 to 200m<sup>3</sup>, to meet the needs of small to medium farmers.

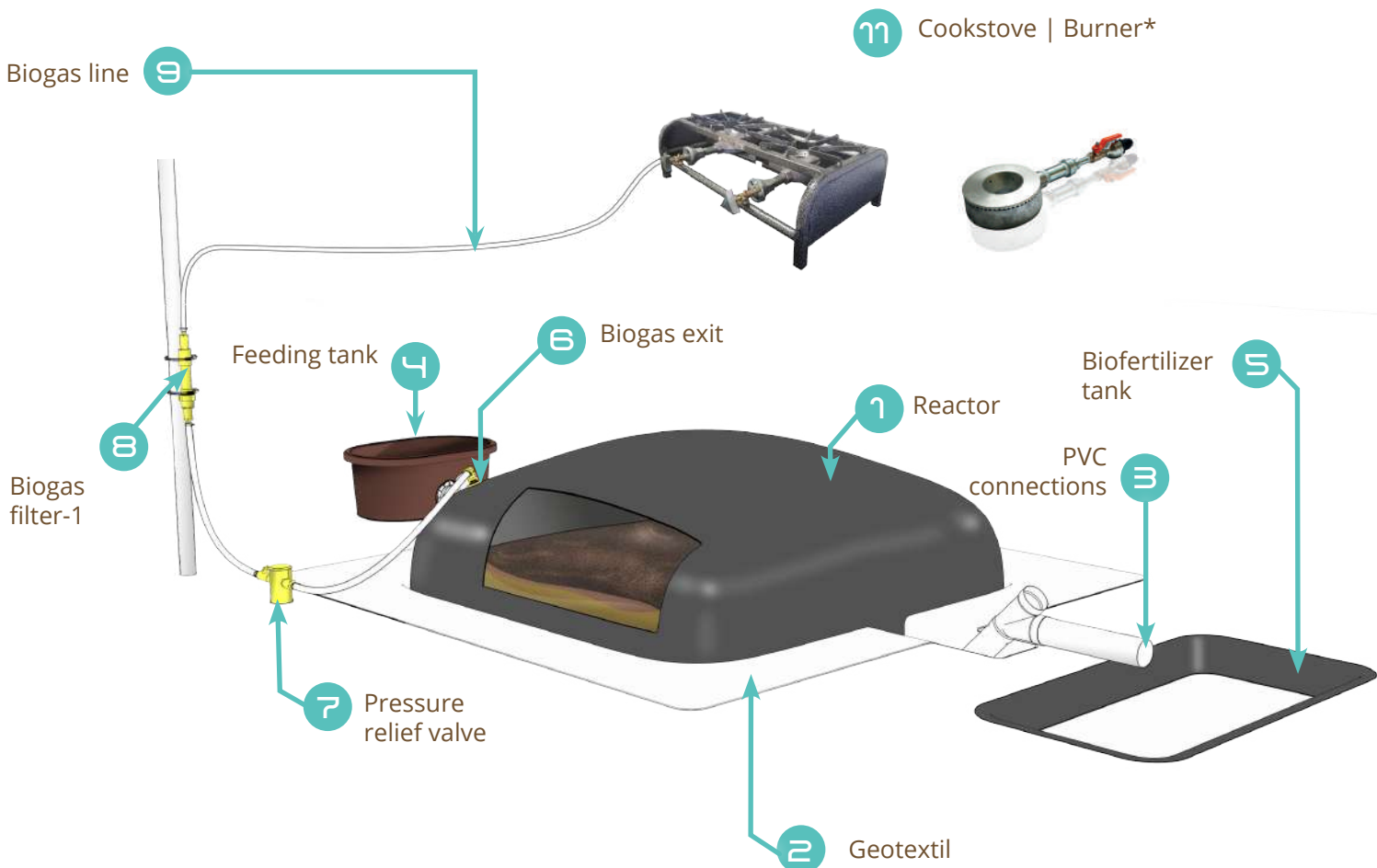


**MODULAR:** The design allows interconnection among reactors, increasing the system's treatment capacity. This allows Sistema.bio to adapt to a wide range of scenarios, and farmers to expand the reactor according to their needs.



**EASY OPERATION AND MAINTENANCE:** Any member of the family or worker on the farm can perform daily activities and simple long term maintenance.

## COMPONENTS OF Sistema.bio®



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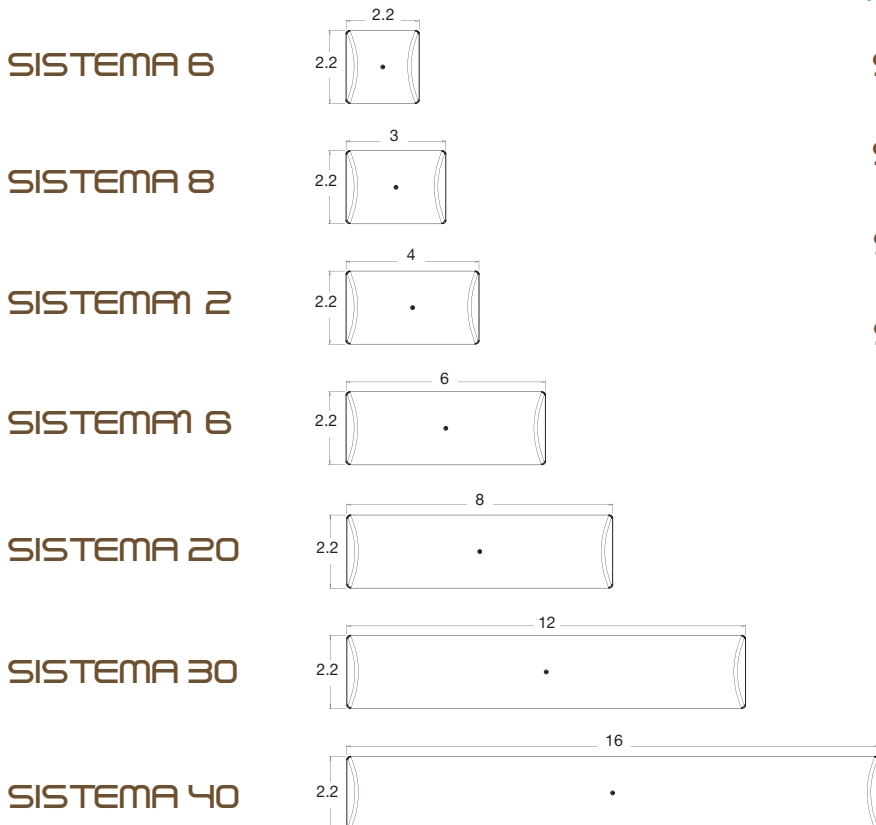
	Dairy cows							
	Model	Manure (L/day)	Number of cows (fully confined)	Biogas production			Biofertilizer production	
				Daily biogas production (m <sup>3</sup> /d)*	Daily average cooking time on one burner (h/day)**	Equivalent in LPG (kg/month)	(L/day)	(ha/year)
Warm climate (>23°C)	Sistema 6	45	2	1.7	3.3	21	135	4.9
	Sistema 8	65	3	2.4	4.8	31	195	7.1
	Sistema 12	90	5	3.3	6.7	43	270	9.9
	Sistema 16	130	7	4.8	9.6	62	390	14.2
	Sistema 20	180	9	6.7	13.3	86	540	19.7
	Sistema 30	260	13	9.6	19.2	124	780	28.5
	Sistema 40	350	18	12.9	25.9	166	1050	38.3
	Sistema 80	700	35	25.9	51.8	333	2100	76.7
	Sistema 120	1050	53	38.8	77.7	499	3150	115.0
	Sistema 160	1400	70	51.8	103.5	665	4200	153.3
Sistema 200	1750	88	64.7	129.4	831	5250	191.6	
Temperate climate (15° to 23°C)	Sistema 6	35	2	1.3	2.5	16	105	3.8
	Sistema 8	50	3	1.8	3.6	23	150	5.5
	Sistema 12	65	3	2.3	4.7	30	195	7.1
	Sistema 16	100	5	3.6	7.2	46	300	11.0
	Sistema 20	135	7	4.9	9.7	63	405	14.8
	Sistema 30	200	10	7.2	14.4	93	600	21.9
	Sistema 40	265	13	9.6	19.1	123	795	29.0
	Sistema 80	530	27	19	38	245	1590	58
	Sistema 120	795	40	29	57	368	2385	87
	Sistema 160	1060	53	38	76	491	3180	116
Sistema 200	1325	66	48	96	614	3975	145	

	Pig							
	Model	Manure (L/day)	Number of pigs	Biogas production			Biofertilizer production	
				Daily biogas production (m <sup>3</sup> /d)*	Daily average cooking time on one burner (h/day)**	Equivalent in LPG (kg/month)	(L/day)	(ha/year)
Warm climate (>23°C)	Sistema 6	30	19	1.9	3.7	24	135	4.9
	Sistema 8	40	25	2.5	5.0	32	180	6.6
	Sistema 12	60	38	3.7	7.5	48	270	9.9
	Sistema 16	80	50	5.0	10.0	64	360	13.1
	Sistema 20	120	75	7.5	15.0	96	540	19.7
	Sistema 30	180	113	11.2	22.5	144	810	29.6
	Sistema 40	235	147	14.7	29.4	189	1058	38.6
	Sistema 80	470	294	29	59	377	2115	77
	Sistema 120	705	441	44	88	566	3173	116
	Sistema 160	940	588	59	117	754	4230	154
Sistema 200	1175	735	73	147	943	5288	193	
Temperate climate (15° to 23°C)	Sistema 6	25	16	1.5	3.0	20	113	4.1
	Sistema 8	35	22	2.1	4.3	27	158	5.7
	Sistema 12	45	28	2.7	5.5	35	203	7.4
	Sistema 16	65	41	4.0	7.9	51	293	10.7
	Sistema 20	90	56	5.5	11.0	70	405	14.8
	Sistema 30	130	81	7.9	15.8	102	585	21.4
	Sistema 40	175	109	10.7	21.3	137	788	28.7
	Sistema 80	350	218	21	43	274	1575	57
	Sistema 120	525	327	32	64	411	2363	86
	Sistema 160	700	436	43	85	548	3150	115
Sistema 200	875	545	53	107	685	3938	144	

\* The biogas production is estimated based on a standard biodigester use.  
 \*\* The production of biogas is variable and depends on particular farm's operating conditions.  
 NOTE: a waste: dilution water ratio of 1:2 has been selected for cow manure.

\* The biogas production is estimated based on a standard biodigester use.  
 \*\* The production of biogas is variable and depends on particular farm's operating conditions.  
 NOTE: a waste:water dilution ratio of 1:3.5 has been selected for pig manure.

## COMPARATIVE DIAGRAMS



## MULTIREACTORS\*\*

- SISTEMA 80 = 2 x Sistema 40
- SISTEMA 120 = 3 x Sistema 40
- SISTEMA 160 = 4 x Sistema 40
- SISTEMA 200 = 5 x Sistema 40

\*Units in m.\*\*Reactors interconnected with each other.



## THE PACKAGE INCLUDES:



**FREE**  
INSTALLATION



**3 FREE**  
SERVICE VISITS



**20 YRS**  
OF DURABILITY & USE

\*Ask our technicians about biogas accessories available in your region.

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