



# 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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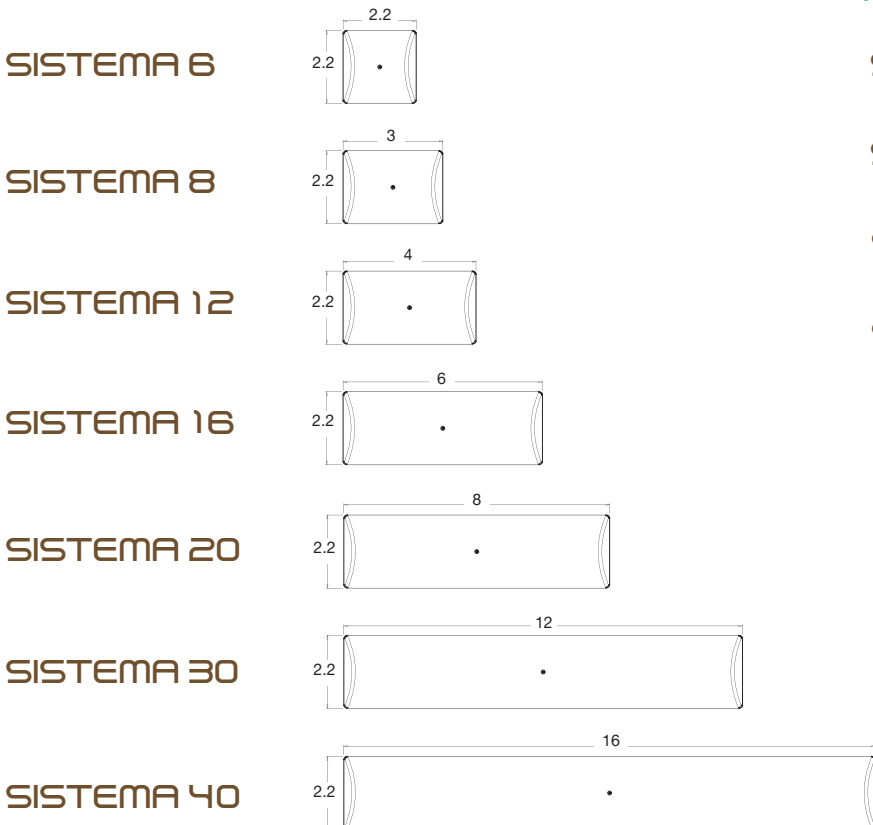
|                                 | Dairy cows  |                |                                 |  |  |                              |                          |           |
|---------------------------------|-------------|----------------|---------------------------------|--|--|------------------------------|--------------------------|-----------|
|                                 | 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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