

G R O W I N G · V I L L A G E · L I F E



A G S O L

SOLAR AGRO-PROCESSING MACHINES

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THE FUTURE OF OFF-GRID MILLING

Agsol offers a range of efficient and affordable agro-processing machines that are designed for off-grid solar.

Our machines are available in DC format for standalone solar or AC format for mini-grid applications.

The advantages are:

- Zero fuel costs
- Low maintenance
- Long machinery life
- Easy to operate

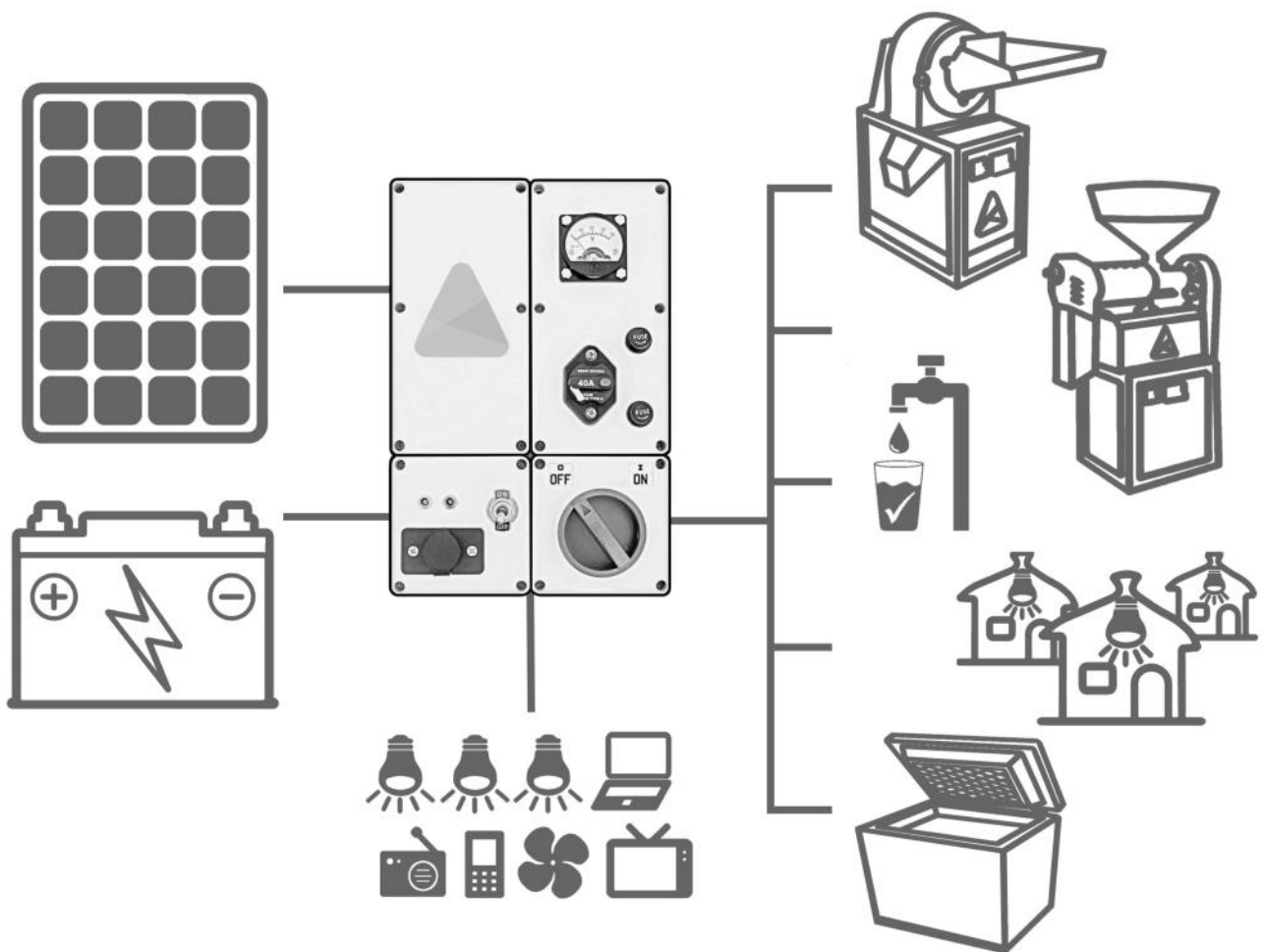
This new technology breaks the dependence on fossil fuels and offers off-grid farming communities another important benefit; electricity, for:

- Household power
- Village lighting
- Income generation

The technology is robust, easy to use and competitively priced against traditional diesel equipment.



STANDALONE SOLAR



The Agsol Power Platform concept is an adaptable solar power system that can run multiple machines and devices.

At the heart of the Platform is the Agsol Solar Control Box. It comes with high amp 48V outlets that can power milling

machines, other appliances or a nano-grid.

With the Power Platform you can grow your system over time using our simple plug-and-play system to add solar panels, batteries, other machines and devices.

HAMMER MILL

A multi-feedstock mill capable of processing a range of cereals and dried tubers to fine or coarse flour for human or animal consumption. It is commonly used to process maize, cassava, sorghum and millet.

The machine is optimised for efficiency, durability, and safety.



Offered with brushless DC or AC motors

	DC 48V BLDC		AC 1- Phase	AC 3-Phase
Motor Rating [kW]	1.3	1.8	2.2	2.2
Production rate [kg/hr]*	60	80	80	85
Efficiency [kg/kWh]	47	46	35	40

** Based on maize milling with 1mm screen . Production rate for cassava is x2 and millet is x3*

Dimensions: 670 x 360 x 700mm

Approx. net weight: 40kg

Average daily output of maize flour on solar:

500W PV - 100kg

1000W PV - 200kg

1500W PV - 300kg

RICE MILL/MAIZE HULLER

Agso's rice mill / maize huller is capable of producing either brown and white rice as well as taking the hard outer shell off of maize.

The machine incorporates an extraction fan to separate husk and chaff, and has an easily adjusted pressure dial to increase or decrease the degree of milling.



Offered with brushless DC or AC motors

	DC 48V BLDC		AC 1- Phase	AC 3-Phase
Motor Rating [kW]	1.3	1.8	2.2	2.2
Production rice [kg/hr]	135	160	160	160
Production maize [kg/hr]	120	120	120	120
Efficiency [kg/kWh]	115	115	90	100

Dimensions: 480 x 290 x 925mm

Approx. net weight: 45kg (with motor)

Average daily output on solar

500W PV - 250kg

1000W PV - 500kg

1500W PV - 750kg

MAIZE THRESHER



Our maize thresher removes maize kernels from dried cobs. It can be adjusted to accommodate larger or smaller cob sizes.

Offered with brushless DC or AC motors

	DC 48V BLDC	AC 1- Phase
Motor Rating [kW]	0.5	0.75
Production [kg/hr]	>1,500	>1,500
Efficiency [kg/kWh]	190	145

Dimensions: 1100 x 270 x 700mm

Approx. net weight: 32kg

Average daily output of maize kernels on solar:

500W PV - 5,000kg

1000W PV - 7,500kg

CHAFF CUTTER

Agsol's chaff cutter can process all types of fodder grass, maize stalks, and agricultural straws.

It uses rotating blades that cut the chaff against a fixed blade to provide a high cutting rate and low power consumption. It has adjustable gears for lighter or heavier feedstocks.



Offered with brushless DC or AC motors

	DC 48V BLDC		AC 1- Phase	AC 3-Phase
Motor Rating [kW]	1.3	1.8	2.2	2.2
Production rate [kg/hr]	>400	>600	>600	>600
Efficiency [kg/kWh]	130	130	100	110

Dimensions: 530 x 750 x 1000mm

Approx. net weight: 75kg (with motor)

Average daily output on solar

500W PV - 750kg

1000W PV - 1500kg

1500W PV - 2250kg

COMPONENTS

Solar Control Box

- 30A 48v solar charge controller
- 48V power outlet with SB50 Anderson plug
- Battery volt meter; low voltage disconnect
- Fuse protected circuits; breaker on 48V circuit
- MC4 solar PV connectors
- Battery cable with Anderson plug(s) or lugs



Solar Panels

- 24V 125W
- V_{mp} : 36V; V_{oc} : 41.8V
- I_{mp} : 3.5A; I_{cs} : 3.85A
- 1480 x 670 x 35mm



COMPONENTS

Cables

- Machine extension cable
- Battery extension cable
- PV cables with MC4 connectors
- Double adaptors & plug adaptors available



Solar panel mounts

- Z brackets
- Rail kits



Inverters

- Pure sinewave 500-1000W
- Fitted with SB50 Anderson plug



RECOMMENDED SYSTEM SIZING

500W PV

- 30A Solar Control Box
- 4 x 100Ah deep cycle batteries

1,000W PV

- 30A Solar Control Box
- 4 x 100Ah deep cycle batteries

1,500W PV

- 30A Solar Control Box
- 4 x 150Ah deep cycle batteries

2,000W PV

- 60A Solar Control Box
- 4 x 200Ah deep cycle batteries

Note:

If you think you may expand your PV system in the future to accommodate more machines, run them longer, or add other high power appliances, please consider sizing the batteries for a larger PV array.

Agsol is happy to advise on system sizing and to work with you to tailor a solution that meets your needs.