



# SATAKE

## Gravity Separator

SA 117  
Issue 1



*Left hand model illustrated.*

Satake Australia Oliver Gravity Separators are used to separate dry bulk materials of similar particle size but different specific weight.

Weight differences of as little as 1% can be detected and separated and particle sizes ranging from 200 microns to 15 millimetres can be processed.

Performance achievable on any given product will vary but can be estimated by tests carried out by Satake in Sydney.

Industries in which gravity separators find application:-

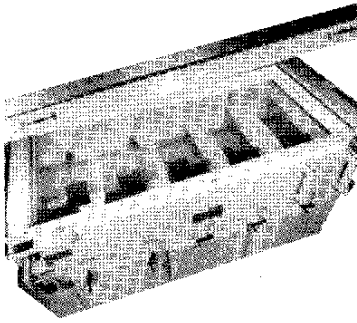
- Agricultural seed cleaning
- Grain processing and milling
- Meat rendering
- Scrap metal reclamation
- Minerals processing
- Cereal foods processing.

Typical products processed on gravity separators:-

- Coffee beans
- Peas
- Edible beans
- Cereal grains
- Grass seeds
- Lucerne
- Pasture seeds
- Mineral sands
- Granulated cable
- Granulated tyres
- Food products processing
- Edible nut processing.

### OLIVER GRAVITY SEPARATORS

manufactured under licence to:  
**OLIVER MANUFACTURING CO. - U.S.A.**  
by **SATAKE AUSTRALIA PTY. LIMITED**



DIMENSIONS	MODEL 50	MODEL 80	MODEL 160	MODEL 240
Deck Size	76 x 152cm	91 x 182cm	106 x 228cm	122 x 300cm
Shipping Weight	564 kg	652 kg	773 kg	1043 kg
Length	190cm	221cm	267cm	330cm
Width	109cm	125cm	140cm	148cm
Height	137cm	137cm	137cm	137cm
Power	4.0kW	5.5 kW	7.5 kW	11.0kW

### DESIGN IMPROVEMENTS

- ★ **IMPROVED DECK CLAMPING** for easier operation and more secure clamping.
- ★ **FINE ADJUSTMENT OF DECK TILT.**
- ★ **OPTIONAL COATED WIRE DECKS** – give improved “grip” on products and increased life.
- ★ **OPTIONAL COUNTER BALANCING** – to reduce dynamic loads imparted by the machine.
- ★ **OPTIONAL AIR VOLUME GAUGES** – allow settings to be recorded and re-set later.
- ★ **OPTIONAL DECK SPEED GAUGES** – also allow recording of setting for use later.
- ★ **OPTIONAL INDEPENDENT DECK DRIVE.**
- ★ **REMOTE FAN OPTION.**

### DECK

A wide variety of deck coverings is available for optimising the performance of a particular machine for any separation problems including large mesh wire, fine wire mesh cloth or linen, depending on the separation involved. We will be happy to advise you on the selection of a deck cover.

The Oliver Gravity Separators have a rectangular deck for greater capacity and accuracy. This provides maximum efficiency for the removal of light products from heavy materials. Heavy, easy to separate particles are discharged from the high side of the deck through adjustable gates. The lighter pieces move the entire length of the deck. This extra travel yields the lowest percentage of middling or unseparated particles and the cleanest light and heavy fractions available.

### FANS

The Oliver Gravity Separator features a patented multiple fan system. Specifically spaced fans, located beneath the deck of the machine, are individually adjustable, permitting precise control of the air flow. The multiple fan system is also extremely efficient.

### ECCENTRICS

Eccentrics are available with optional counterbalancing to eliminate excessive vibration and greatly extend bearing life. This feature, along with a heavy steel base, makes the Oliver Separator one of the most rigidly constructed gravity separators on the market and allows installation in upper floors of mill buildings.

### BODY

All components of the Oliver Gravity Separator, including the motor and fans, are located within a single unit for ease of installation. Built-in air filters can be removed quickly for cleaning and easy access to the moving parts.

All Oliver Gravity Separators are operated by a single electric motor installed inside the frame of the machine and have a variable speed deck drive.

### DUST CONTROL ACCESSORIES

Because the Oliver Gravity Separator passes a large volume of air through the material it separates, dust can be a problem when separating some products. Satake Australia manufactures a line of accessories which can control dust regardless of severity. The Aspirating Feeder is the most economical form of dust control where dust and chaff are only minor irritations. It can eliminate up to 90% of loose dust mixed with the product. For severe dust problems, the Dust Control Hood provides the solution. It will contain 99%+ of an extreme dust problem.

### AUSTRALIAN MANUFACTURE

Australian manufacture ensures availability of spare parts, with industrial quality, locally available components used throughout.

Finally, Satake offers free laboratory service to all its customers. If you have a separation problem, let our staff apply over 100 years of seed cleaning experience. Send us a sample of the product with an explanation of your goals. You will receive an honest appraisal whether a Satake machine will benefit you.

**NOTE:** All Satake machines are the subject of a continuous development programme and, as a result, their specifications may change and differ in detail from those outlined in this data sheet.

### MACHINE CAPACITIES

PARTICLE SIZE	COMMODITY EXAMPLE	MODEL 50 kg / hr.	MODEL 80 kg / hr.	MODEL 160 kg / hr.	MODEL 240 kg / hr.
6 - 10 mm	Beans, Corn, Peas	1600	2700	4500	6700
3 - 6 mm	Wheat, Oats, Corn	1200	1800	3200	4500
1.5 - 3 mm	Millet, Sesame	625	1100	1600	2300
1.5 & less	Clover, Fescue	300	500	900	1400

Note: Capacities will vary with product and separation.

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