



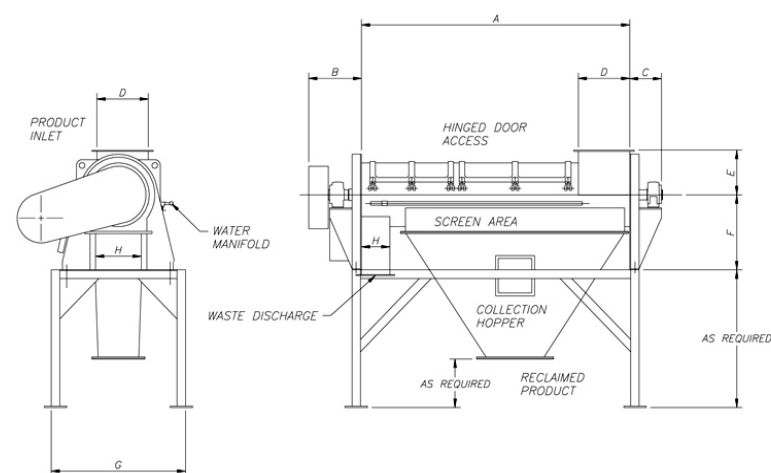
Turbo Separator Features



The Atritor Turbo Separator is the most versatile packaging separation machine capable of separating liquids and solids from numerous types of packaging and containers.

- Custom manufactured with various inlet and discharge designs to meet specific separation requirements.
- Variable shaft speeds of 100rpm to 2,500rpm to enhance separation efficiency.
- Models available in carbon steel or grade 304 stainless steel.
- Sanitary design versions available.
- Available in capacities from 1 tonne per hour to 30 tonnes per hour.
- CIP (clean in place) versions available.
- Up to 99% efficient in product recovery.

Atritor's test facility located in Coventry is equipped with a Turbo Separator model TS2096 which is available for customer product trials.



Model	Body Size	A	B	C	D	E	F	G	H
1672	400 x 1800	1800	450	250	300	330	610	915	350
1696	400 x 2440	2440	450	250	300	330	610	915	350
2072	510 x 1800	1800	510	300	350	380	660	1020	460
2096	510 x 2440	2440	510	300	350	380	660	1020	460
3072	760 x 1800	1800	560	350	460	510	820	1270	610
3096	760 x 2440	2440	560	350	460	510	820	1270	610

Dimensions (mm) for reference only. Other sizes available on request.

Typical Packaging

Tin cans, tin trays, plastic bottles, soft packaging, aluminium cans, sachets, pouches, polymer bags, paper bags, boxed products, Tetra Paks, plastic containers, steel drums, plastic drums, trays, blister packs, tubes, cartons, plastic jars, cardboard containers.

Typical Products

Beans, cigarettes, deodorants, processed meats, soups, toothpaste, beverages, coleslaw, detergents, pasta, potato chips, sugar, biscuits, coffee, gravy granules, pet foods, powdered milk, tea, baby foods, cosmetics, household products, water, pharmaceuticals, juices, vegetables, cereals, custard, insecticides, sauces, flour, yogurt, soap powder, shampoo, oil, paint, plasterboard and many more...



Turbo Separator Applications

Bread Products



Plastic Bottles



Sandwiches



Tinned Products



Drums



Various Containers



Plasterboard



Cereal Products



Tetra Pak Containers



Soft Packaging



Sachets



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All Atritor equipment is built to the rigorous standards of BS EN ISO 9001:2000



Website

For more information about the Turbo Separator, visit our website:
www.turboseparator.co.uk
and send us your enquiry.

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April 2009

TURBO SEPARATOR

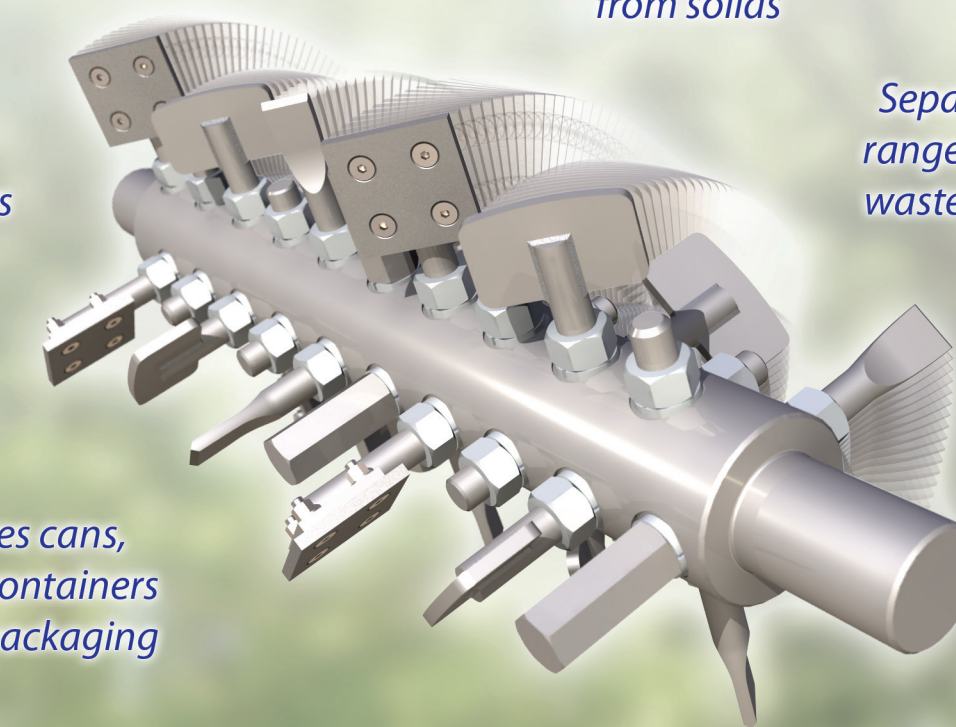
Separates products from packaging for disposal or recycling

Separation for waste-to-energy

Separates liquids from solids

Reduces disposal costs

Separates a wide range of packaged waste for recycling



Separates cans, polymer containers and soft packaging

Separates gypsum from plasterboard

Diverse range of applications



www.turboseparator.co.uk

What does it do?

The Atritor Turbo Separator was developed to remove products from their packaging, releasing it for recycling or disposal.

Through a combination of centrifugal forces, self-generated air flow and mechanical action, up to 99% of dry or liquid materials can be removed from their packaging.

When compared with other methods of packaging separation, the Turbo Separator achieves higher separation efficiencies with lower power consumption which results in reduced running costs.

The Turbo Separator is ideal for separating out of spec, out of date and mislabelled products from a variety of packaging including cans, plastic bottles and boxes.

The diverse range of applications includes the separation of paper from gypsum in plasterboard, glass from laminate in car windscreens and general foodstuffs from their packaging.

How does it work?

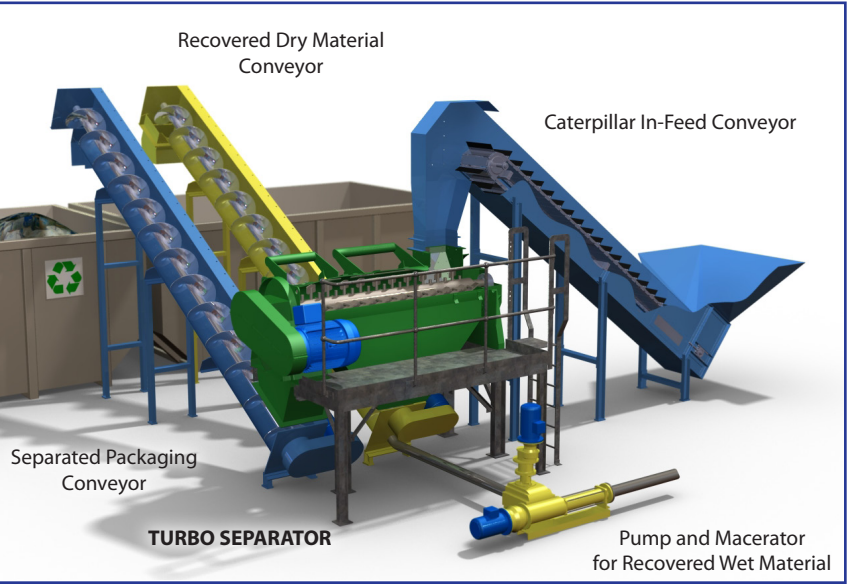
The Atritor Turbo Separator includes a variable-speed shaft which is fitted with paddles. The shaft rotates above three screens, each of which is available in a number of different sizes and designs.

Various types of paddles are available, each designed to perform a specific function. One type generates air flow, others are more efficient at opening particular types of packaging with further designs used to convey or retain material within the separation chamber. By combining different types of paddles in the Turbo Separator, very high separation efficiencies can be achieved.

The Turbo Separator shaft typically runs between 100rpm to 1,000rpm, generating air flow as well as providing the mechanical forces required for packaging separation.

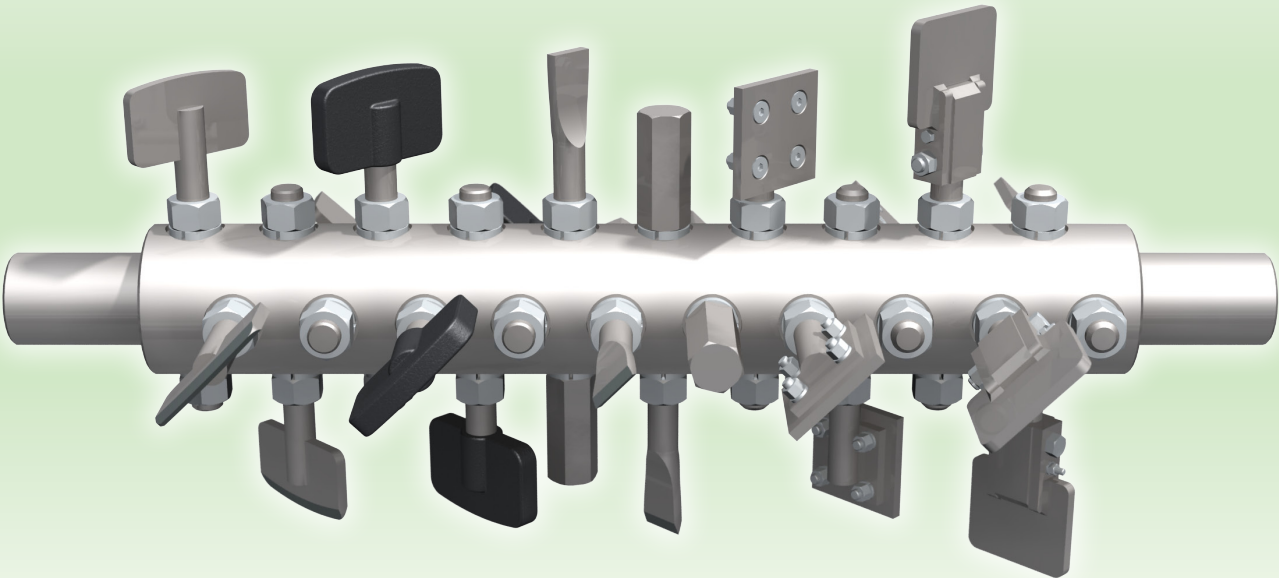
The material to be separated enters the separation chamber and comes into contact with the primary paddles which open the packaging. Paddles and screens are configured so that maximum separation is achieved with minimum damage to the packaging.

The longitudinal strips of steel (“breaker bars”) inside the casing of the Turbo Separator, when used in conjunction with beater paddles, cause a squeezing effect which is especially effective at separating pouches and sachets from their contents.



Paddle Design

Each paddle is designed to perform a specific function. These functions include generating air flow, opening, squeezing or flattening packaging, grinding, material conveying and packaging conveying.



Screen Design

Each Atritor Turbo Separator is fitted with three screens. Each screen is sized and designed to achieve the optimum separation efficiency. There are over 20 sizes available with round, square, rectangular and triangular apertures.



Which industries currently use the Atritor Turbo Separator?

Food manufacturers	To separate packaging from out of specification, out of date or incorrectly packaged products for recycling, repackaging or disposal.
Renderers	To separate packaged food waste and out of date products, releasing the product for rendering and the packaging for recycling.
Plasterboard recyclers	To separate gypsum from its backing paper releasing both materials for recycling.
Waste companies	To reduce landfill costs by separating materials for recycling.
Waste-to-Energy	To separate materials from packaging for use in energy generation.
Composters	To separate materials from their packaging to use in composting.
Cosmetic manufacturers	To separate contents from packaging for secure destruction of packaging, recycling or disposal.
Waste glass	To separate glass from waste stream or laminate for recycling.
Animal feed manufacturers	To separate packaged food products for incorporating into animal feed.
Secure destruction	To separate products from packaging for secure destruction of packaging.

TS2096 Running Costs

Turbo Separator drive:	22kW
Infeed conveyor:	3kW
Recovered material conveyor:	5.5kW
Separated packaging conveyor:	3kW
70% of total power:	24kW

Running cost: **£2.40 per hour**
(Based on £0.10 per kWh)

TS3096 Running Costs

Turbo Separator drive:	37kW
Infeed conveyor:	3kW
Recovered material conveyor:	5.5kW
Separated packaging conveyor:	3kW
70% of total power:	34kW

Running cost: **£3.40 per hour**
(Based on £0.10 per kWh)

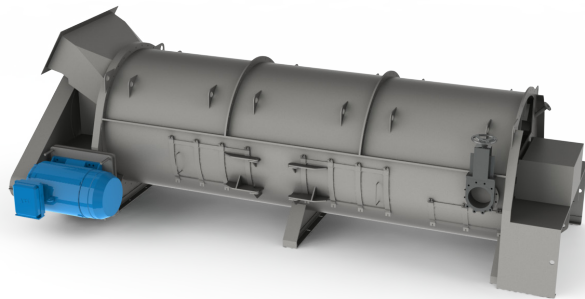
Other Equipment Supplied for the Recycling Industry

The Atritor AST (Air Swept Tubular) Flash Dryer is available in nine models, uniquely capable of drying materials with as much as 95% moisture in the feed without requiring any form of feed conditioning.

The flexibility in settings allows a wide range of materials to be processed, with the AST Dryer capable of reducing moisture content to less than 1%.

Evaporative capacities from 380kg/h to 8,800 kg/h are achievable over the model range.

Typical waste products include sewage sludge, brewer's grains, filter cake, paper sludge, municipal waste, refuse-derived fuel, sawdust chips, chemical waste, pharmaceutical waste.



AST Dryer