

TURBO SEPARATOR

SEPARATES PRODUCTS FROM PACKAGING



Why choose an Atritor Turbo Separator?

The Atritor Turbo Separator efficiently separates products from their packaging, creating two fractions for recycling and/or safe disposal.

Utilising centrifugal forces, self-generated air flow and mechanical action, the Turbo Separator is a highly efficient means of separation and with no need for any additional equipment, it is a very cost-effective process. This is why the Turbo Separator is the market leader in the de-packaging field

A typical process.

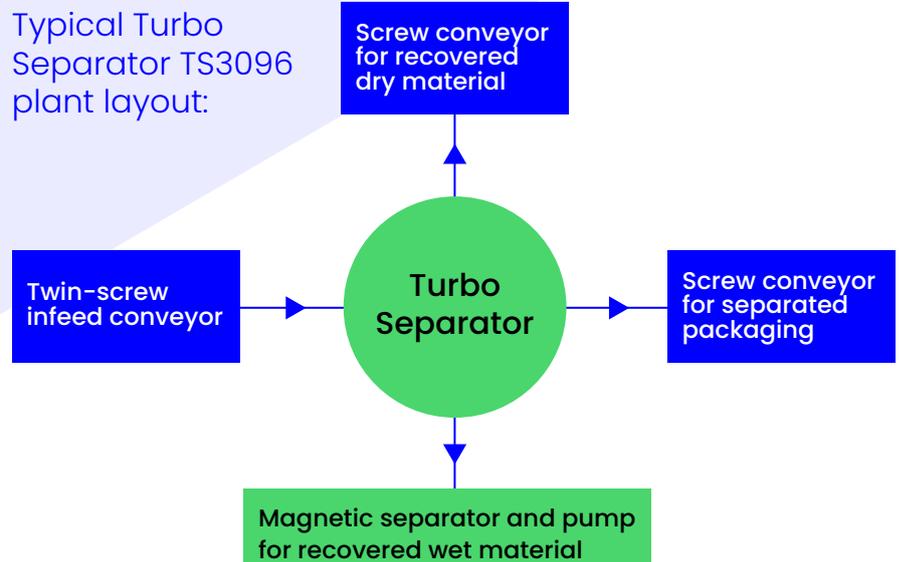
Ability to process

1 to 20 tonnes
per hour.



The Pilot Plant located in Coventry in the UK is used to evaluate customer materials.

Typical Turbo Separator TS3096 plant layout:



How does it work?

The Atritor Turbo Separator includes a variable-speed shaft which is fitted with paddles. Beneath the rotating shaft is a number of screens which are available in a variety of sizes and designs to suit individual applications.

The Turbo Separator shaft typically runs between 100 rpm and 1,000 rpm. This generates air flow as well as providing the centrifugal and 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 to achieve maximum separation.

The Turbo Separator is used across the world for a wide range of applications:

Typical feed materials:

- Plasterboard
- Packaged food
- Coffee pods
- Tea bags
- Packaged drinks
- Paint cans
- Polymer bottles

Typical recovered products

- Organics for Anerobic Digestion
- Gypsum
- Animal feed
- Metal for recycling
- Plastic packaging suitable for recycling

No other equipment required - Highly efficient means of separation.

Separates dry and liquid material and can de-pack with or without additional liquid.

Materials and Applications

Bread Products



Plasterboard



Cosmetics



Plastic Bottles



Canned Products



Kitchen Food Waste



Coffee Pods



Tetra Pak Containers



Salads



Drums



Sachets



Supermarket Waste



Special Features

Capable of separating liquids and solids from a wide range of packaging materials, the Atritor Turbo Separator is the most versatile de-packaging machine on the market.

- Durable construction and adjustable paddles enable the separation of a wide variety of products.
- Custom manufactured with various inlet and discharge designs to meet specific separation requirements.
- Variable shaft speed of 100 rpm to 1,000 rpm to enhance separation efficiency.
- Models available in carbon steel or stainless steel.
- Available in a range of throughputs from 0.6 Tonnes / hour to more than 20 Tonnes / hour.
- Up to 99% product recovery.

Global Supply

6

Continents

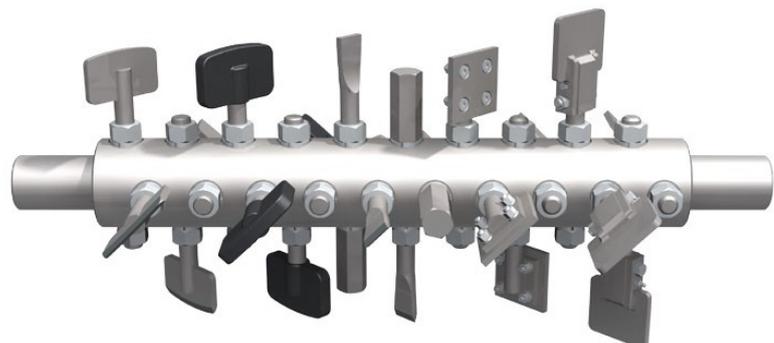
wide range of applications

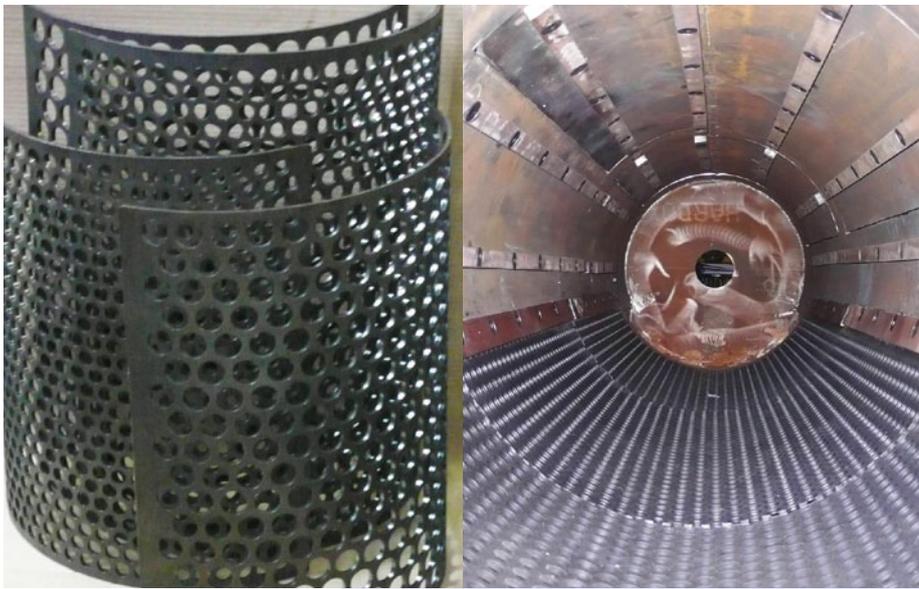
Turbo Separator Estimated Throughputs:

TS Model	TS1260	TS2096	TS3096	TS42120
Drive (kW)	3	22	45	75
Separation Rate (material dependent)	0.6 tonnes/hr	5 tonnes/hr	10 tonnes/hr	20 tonnes/hr

Paddle Design

Various types of paddles are available, each designed to perform a specific function.





Screen Design

To maximise product recovery each Atritor Turbo Separator is fitted with a number of screens. Each screen is sized and designed to achieve the optimum separation efficiency.

Turbo Separator System Power Usage	TS2096	TS3096	TS42120
Turbo Separator drive (kW)	22	45	75
Infeed Conveyor Drive (kW)	3	15	15
Recovered material conveyor drive (kW)	5.5	5.5	5.5
Separated packaging conveyor drive (kW)	3	3	5
70% of total power (kW)	23	48	70

Industries that use the Turbo Separator

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



What material challenge can we solve for you?

We deliver the knowledge we have gained over many years to deliver bespoke de-packaging solutions for industry. We design processes that take waste and add value through de-packaging.

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