



Spec.

ECXPs



ECX40Ps

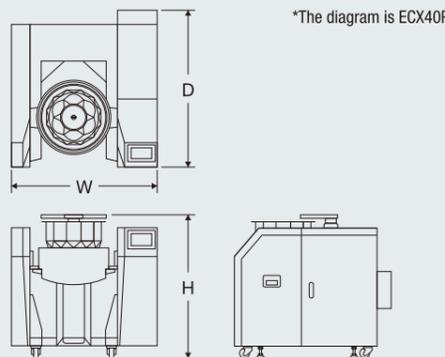
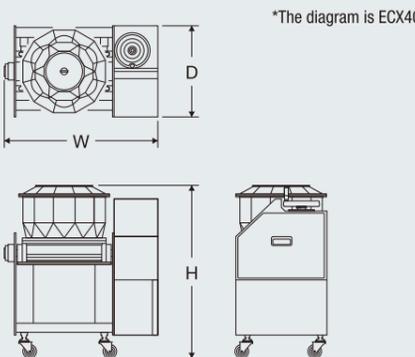
High-Grade

ECX



ECX40

Standard

Model	ECX40Ps	ECX200Ps	ECX40	ECX200
Pieces of size	0mm~		2mm~	
Capacity	40L	200L	40L	200L
Processing capacity	5~15L	50~70L	5~15L	50~70L
Foot print	W1250×D1300×H1200mm	W1800×D1600×H1450mm	W860×D550×H950mm	W1450×D1100×H1300mm
Weight	800Kg	1500Kg	200Kg	800Kg
Drum material	SUS (Buffing) or Abrasion resistant polyurethane		SUS (Buffing)	
Dimensions	 <p>*The diagram is ECX40Ps</p>		 <p>*The diagram is ECX40</p>	

- Product specifications are subject to change without notice.
- Custom specifications are available upon request.
- CE and UL specifications, and GMP specifications for pharmaceuticals are available upon request.
- Auxiliary equipment available.

Testing facility

We have set up trial production rooms in the following two locations. Please feel free to contact us.

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- ▶ **Tipton USA Inc.** 2450 W Broadway Rd. Suite 108, Mesa, AZ 85202, USA



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VEGETABLE INK This catalog is printed using environment-friendly vegetable ink.

26/03/X

For granulation, coating, sizing, and mixing.

ECX Series



For granulation, mixing, and coating particles!



ECX40Ps



For coating particles!



ECX40

The strong stirring power by the multi-spin structure provide doubles productivity.

Patent

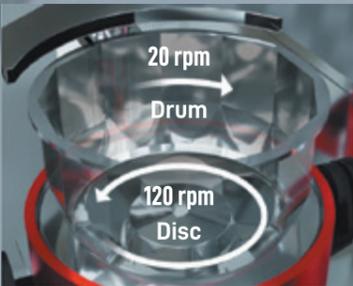
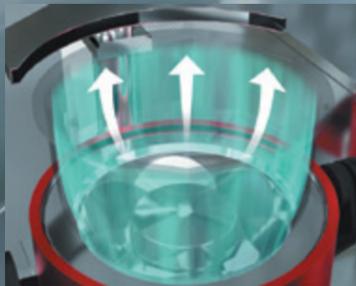
JP3425536 JP4740419 JP5603808 WO2023047529 JP2024-114243

Made in Japan

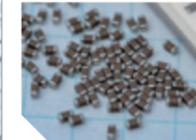
The powerful vortex flow that is created by the multi-spin and uniquely shaped disc doubles productivity, reduces material loss and ensures a quality finish.

Uniquely developed multi-spin and brilliant discs generate powerful spiral-like vortex flow. Processing using this powerful vortex flow reduces processing time by half and reduces material loss. It also creates a more even finish. Furthermore, since the top of the device is open, it is easy to automate with other processes. Upon request, Tipton can customize design to specification to prevent contamination.

Principle

<p>ECXPs ECX</p> <h3>Multi-spin</h3>  <p>Suitable for fine and lightweight particles!</p> <p>The disc and drum are independent, and the rotation direction and rotation speed can be controlled separately. By setting the disc to rotate to the left and the drum to rotate to the right, the agitation power increases and even fine particles and lightweight materials can be processed without difficulty. Also, because it spreads quickly, it saves time and makes the finish more uniform.</p> <p>Patent JP4740419</p>	<p>ECXPs ECX</p> <h3>Brilliant disc</h3>  <p>Minimize ingredient waste</p> <p>The unique brilliant shape composed of polyhedrons further enhances the vortex flow. The pieces are stirred and centrifugally pushed against the drum wall where excessive coating falls and reincorporated back into the mix thereby reducing waste. Since there is no mixing blade, the recipe will be delicately incorporated.</p> <p>Patent JP3425536</p>	<p>ECXPs</p> <h3>Narrow gap and air flow</h3>  <p>Powder particles smaller than 1mm can also be processed.</p> <p>There is a gap between the rotating disc and drum where a continuous flow of air is blown that stops base powders and fine media from falling through.</p> <p>Patent JP5603808</p>
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Applications

<p>Medicine</p> <p>Sugar coating Film coating Granulation Coating particles Mixing</p> 	<p>Health food products Herbal medicine</p> <p>Sugar coating Film coating Granulation Coating particles Mixing</p> 	<p>Food</p> <p>Chocolate coating Snacks Gummy Hard coating Soft coating</p> 	<p>Chemicals</p> <p>Granulation Coating particles Mixing</p> 	<p>Industrial products</p> <p>Spherical granulation Sizing Mixing</p> 	<p>Electronic Components</p> <p>Coating</p> 
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Features

- Coating time reduced**
Speed of incorporating coating powder/liquid more than doubles the productivity rate of conventional coating machines.
- Density consolidation, and higher sphericity**
Creating uniform, high-density, and highly spherical particles by strong centrifugal force is applied to each particle.
- Sharp particle distribution**
A sharp particle distribution is realized as each particle moves without stopping and strong centrifugal force is applied evenly thanks to the unique vortex flow.
- Material loss reduced**
The pieces are stirred and centrifugally pushed against the drum wall where excessive coating falls and reincorporated back into the mix thereby reducing waste.
- Labor saving**
Thanks to its strong stirring power and spread to each piece at high speeds the recipe will be uniformly incorporated. Any operator can achieve a constant quality.
- Easy maintenance**
The powerful vortex makes cleaning a cinch. By simply using water, the tub can be cleaned in just a few minutes.

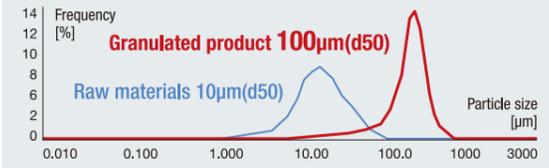
Conventional type Processing time **ECX Series**

16 hours Example of hard coating **5.5 hours**

Conventional machine Aspect ratio **ECX Series**

1.13 **1.04**

*Aspect ratio : compares the longest and shortest diameters. 1=perfect sphere.

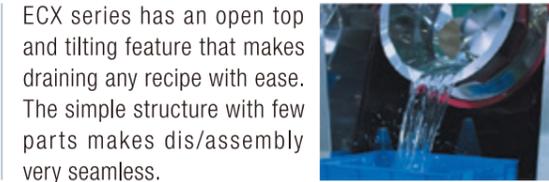


Frequency [%] vs Particle size [µm]



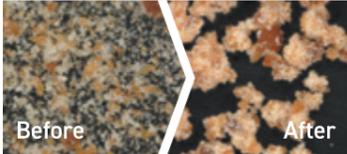
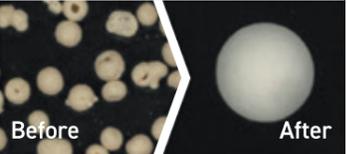
After processing





ECX series has an open top and tilting feature that makes draining any recipe with ease. The simple structure with few parts makes dis/assembly very seamless.

Case study

<p>ECXPs</p> 	<p>Granulation</p> 	<p>Spherical granulation</p> 	<p>Coating particles</p> 
<p>ECX</p> 	<p>Coating</p> 	<p>Coating</p> 	<p>Sizing</p> 