TOLL MANUFACTURING

Elcan Industries' state of the art toll manufacturing facility features 9 full-scale bays dedicated to tolling and testing. In addition to our advance screening technologies, we have an Electro-Magnetic Separator, bulk-to-bag packaging area, blending/mixing machinery and a newly installed Elbow Jet Air Classifier. Unlike most OEMs, we run these machines in our factory every day. This daily practice has given Elcan the hands-on experience and know-how that is invaluable to our customers. All of the equipment that Elcan offers for sale is available for use in our facility. By the time our customers purchase equipment for their factory to run products they were tolling with us, the bugs are all worked out and the problems are eliminated.

Elcan also offers a free test day to any new customers looking to trial their material on the equipment offered. The ability to test products and to toll process it, allows for companies to test new markets and have confidence in the equipment they are purchasing before making a capital equipment decision.



ELCAN Industries, for all of your particle separation needs









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Precision Air Classification for Ultra-Fine Particles

Fine Particle Separation for the 21st Century

IDEAL FOR ABRASIVE OR HIGH PURITY POWDERS

The Elbow-Jet Air Classifier contains no rotating parts. Instead, it relies on air flow and does not contain a classifying wheel making it perfect for the Aerospace and Biomedical Industries. The Coanda effect introduces completely different operating principle from that of typical centrifugal classifiers. The Elbow-Jet will bring new levels of classification precision and efficiency to your operation.



CLASSIFICATION PRINCIPLE:

An ejector unit accelerates particles before being injected by compressed air through a feed nozzle into the classifier.

Then, by the Coanda Effect, the Jetstream will tend to flow along the coanda block. Each particle injected into the classifier has an inertia dependent on its size (mass). The smaller particles, with little inertia, will be highly susceptible to the Coanda Effect and will flow along closer to the Coanda Block. The larger particles, with more inertia, will be less affected by the Coanda Effect and will fly farther out into the carrier air jet. Here, by setting moveable classifications edges as appropriate, particle can be classified by size with astonishing accuracy and efficiency.



MODEL	FEED CAPACITY (kg/hr)	TOTAL AIR FLOW (m3/min)	RATED POWER (kW)	L x W x H (inch)
EJ Lab	1-5	2	2.5	65 x 41 x 55
EJ Pure	3-15	2.7	4.5	77 x 61 x 62
EJ-05-3S	10-70	4-6	8-12	114 x 114 x 118
EJ-15-3S	30-200	9-15	16-23	185 x 157 x 138
EJ-30-3S	60-400	14-24	20-38	201 x 169 x 169
EJ-45-3S	90-600	20-33	23-46	217 x 177 x 177
EJ-60-3S	120-800	25-42	31-56	240 x 205 x 201
EJ-75-3S	150-1,000	31-51	39-77	256 x 228 x 217
EJ-90-3S	180-1,200	36-61	45-86	268 x 236 x 232
EJ-105-3S	210-1,400	41-69	47-92	272 x 240 x 236
EJ-150-3S	300-2,000	58-96	77-112	295 x 260 x 256

Machine Features

Simultaneous Multiple Classification

THE COANDA EFFECT:

"If a surface is placed near a freely

the curved surface of the Coanda Block, the attractive force between the wall and injected particle stream

continues for quite some distance.

flowing Jetstream, that Jetstream will flow along that surface." The Coanda Effect is extremely strong: even along

Aside from easily classifying two products, the Elbow-Jet Air Classifier can also do a triple classification with simultaneous fine and coarse cuts. It can even simultaneously classify four products!

Ultra-Fine Classification

The Elbow-Jet can handle powders ranging from 0.5 to 100um. It exhibits an especially high separation efficiency for particles ranging from 0.5 to 10 um.

Ease of Particle Size Control

Easily control and maintain particle size inside the classifier by simply adjusting the sizing nozzles.

Precise Separations

Agglomerated particles are completely dispersed by the compressed air at the ejector unit and fed immediately into the classifier, there is no worry of reagglomeration in the unit. Resulting in sharp, efficient, and stable separation.

Simple Design

equipment.



The Following Dimensions are based on a layout of equipment of standard specifications. Please contact us if your installation space is more limited.

Machine Features

The lack of rotating parts in the equipment makes it very easy to clean and maintain the

No Rotating Parts

The lack of rotating parts inside the machine means less wear on components inside the machine. No classifier wheel almost completely eliminates the potential for metallic contamination.