



DELIVERING COMPLETE SYSTEMS FOR TODAY'S ALUMINUM RECYCLING NEEDS

Zato has established itself as a turnkey partner capable of supplying complete aluminum recycling plants, from pre-shredding to downstream separation and material preparation.

More than ever, the recycled aluminum market is driven by the need for precise chemistry, with foundries on the hunt for ready-to-process material that meets strict quality standards and helps with decarbonization goals.

To turn scrap into furnace-ready fractions, processors increasingly are investing not just in shredding equipment, but separation technologies that can remove unwanted contaminants and produce purer aluminum.

To supply the various types of equipment needed to meet evolving market demands, Zato has listened to its customers and developed an integrated approach that allows operators to improve material purity, reduce operational risks, increase throughput stability and maximize return on investment.

"Today, **separation technology** has become the primary market driver, and as shredder manufacturers, we must align our engineering with the rigorous demands of these sorting systems.

We can no longer focus solely on the machine in isolation; we must prioritize the requirements of the entire recycling process, says Omar della Gaspera, Zato's global commercial director. "As shredder manufacturers, our focus must shift from the machine itself to the requirements of the entire process. We need to look at the client's specific input material and ensure the highest degree of liberation from contaminants. Our goal is to minimize losses and, ultimately, enable our customers to add significant value to their final product. We are no longer just building equipment; we are optimizing the entire recovery chain"

With installations all over the world, Italy-based **Zato** has evolved beyond the role of a traditional equipment manufacturer, positioning itself as a true partner in process integration. While the company's portfolio remains anchored by its renowned **high-torque twin-shaft preshredders** as well as **single-shaft rotary shears** and **hammermills** engineered for superior material liberation, Zato's true competitive edge now lies in its ability to



engineer complete, automated ecosystems.

Today, the company doesn't just supply individual units; it masters the entire recovery chain through:

- **Advanced downstream separation:** Delivering custom-tailored lines that feature magnetic separation, eddy current systems, and state-of-the-art sensor-based sorting.
- **Integrated plant engineering:** Providing seamless automation and process optimization to ensure every component works in perfect harmony.

In an era where separation technology is the primary market driver, Zato has aligned its engineering with the rigorous demands of modern sorting. Below, **della Gaspera** discuss how this holistic approach is redefining value for the aluminum recycling industry.

Q: What is the key to meeting market demands for aluminum scrap currently?

A: In my opinion, the key is supplying process rather than plants or equipment. Where I see the market going, shredding is definitely king for this kind of application. We need to get a perfect liberation of alien material from the aluminum. Even iron and the small pieces of ferrous that are attached to the aluminum become a resource. In the past, they had a marginal role, nowadays even the processing of iron could become crucial in an integrated cycle of recycling. Now, we have to really take care of every single gram of material, because everything is precious. So, the hammermill, I would say, is really the driver of this kind of transformation, especially a smaller hammermill which provides the flexibility of processing different input materials with different grid sizes. Every foundry nowadays must have a recycling plant shredder to minimize greenhouse gases. By maximizing the recovery and purity of aluminum, as well as copper and other nonferrous metals, we ensure our customers achieve a significantly faster return on their investment. Our focus on high-grade valorization turns scrap into a high-margin asset.

Q: What are the downstream risks of poorly prepared material?

A: Choosing the right shredding technology is the cornerstone of the entire process. If the output remains contaminated with foreign materials—like ferrous metals, zinc, or copper—the downstream separation and recycling stages simply cannot perform. You won't see a return on investment if the material isn't clean enough. On the flip side, if we overprocess or overshed, we risk driving up operating costs and increasing material losses. It's a delicate balancing act; our job is to stay right on that edge to ensure maximum purity without compromising the bottom line.

Q: For recyclers looking to invest in equipment, what sets Zato and its team apart?

A: The team at Zato has worked in many different fields but all have experience in recycling and melting. Some of us have a background at aluminum foundries or steel mills. Many of us have experience with different manufacturers of machines used for separation. This includes magnetic equipment, sensor-based equipment, X-ray and other kinds of sorters. So, we have the capability to merge all the know-how we have internally and then sell to customers a process rather than a machine or a plant.

Q: How does Zato work with customers to provide the best system?

A: For ferrous and nonferrous applications, we can start analyzing the process right away. One of the things our customers appreciate is that after the first call, we typically jump into a yard after less than one week to understand where the customer wants to go and what material he wants to valorize. Then we look at the material he actually has in the yard, because each scrapyard is unique and the material each customer wants to produce is different. For example, the aluminum extruder definitely has some requirements that are different from the ones that are producing ingots. A car manufacturer that wishes to shred its byproducts is a completely different application.

The point is fixing the output the customer wishes to have and fixing the input the customer actually has. It's up to us to define together the best process, which sometimes includes X-ray sorters, sometimes just eddy currents depending on the plant setup. There are different technologies and there are no good or bad ones. The idea is to define the process that is right for the customer in that situation.

At Zato, we don't believe in one-size-fits-all solutions. Everything we deliver is **tailored** to the client's specific plant requirements, from the design stage to the final installation. Our commitment doesn't end with the hardware; it's about building a long-term **technical partnership**.

With a global footprint—from Japan and South America to the United States—we guarantee localized support through our dedicated team of engineers, ensuring 24/7 assistance. A key differentiator for us is our ability to grow with our customers. We might start with a single machine, but we then help them integrate it into a complete, optimized system. This modular approach allows our clients to scale their investment, accelerate their ROI and stay ahead of the ever-evolving market standards by adding specialized equipment as their needs grow.

Zato
North America

sales@zatonorthamerica.com
ZatoNorthAmerica.com