RECYCLING ALUMINUM PROCESS

Aluminum recycling is an efficient and profitable process due to its significant energy savings compared to primary aluminum production. The latter requires around 20 times more energy than the former. Moreover, nearly all types of aluminum **can be recycled, with a recovery rate of 95-99%**, making it one of the most sustainable materials on the planet.

Aluminum is a highly durable metal with excellent recycling properties, making it a valuable resource in the **circular economy**. The global aluminum scrap recycling market is estimated to be worth USD 5.60 billion in 2021 and is projected to grow at a compound annual growth rate **(CAGR) of 8.16%**, reaching **USD 25.12 billion by 2030.**

POTENTIAL MARKETS

- Aluminum smelters
- Secondary aluminum manufacturers
- Scrap dealers and recyclers
- Automotive manufacturers and suppliers*
- Construction and building materials industry
- Electronics and electrical equipment manufacturers
- Packaging and consumer goods industry
- Renewable energy industry

ADVANTAGES OVER THE COMPETITION

Densimetric Table technology over X-Ray Technologies and Infrared Scanning:

- Densimetric Table technology requires less than half the investment needed for X-Ray technologies.
- Compared to X-Ray technologies, the maintenance costs of Densimetric Table technology are significantly lower.

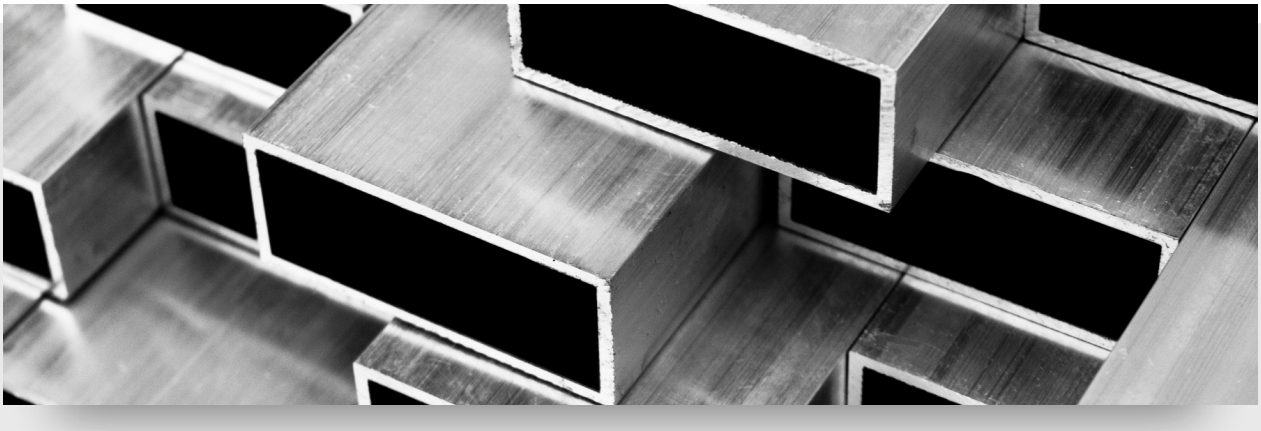
Opportunities:

- Densimetric Table technology is not as widely recognized as X-Ray technology.
- Densimetric Table technology overcomes the technical limitations associated with aluminum wire blowing.

MARKET HIGHLIGHTS

Aluminum usage in an average car has risen significantly, from 25 kg in 1970 to 152 kg currently, and is expected to increase further to 250 kg by 2025. We target major car-producing countries such as China, the USA, Japan, India, South Korea, Germany, Mexico, Brazil, Spain, France, Thailand, Indonesia, Turkey, and the Czech Republic for our aluminum sales.

Our technology efficiently separates the aluminum from contaminants like Zinc, Lead, and Copper based on their densities, making it an ideal solution for maximizing aluminum recovery from various sources such as cans, motor blocks, and door profiles.



ALUMINUM DRY CONCENTRATION

The use of densimetric tables for the dry concentration process of aluminum is a reliable and efficient method for separating aluminum from various materials. This technology provides a precise and cost-effective solution for recovering high-purity aluminum by separating it from contaminants like Zinc, Lead, and Copper based on their densities.

Likewise, the dry concentration process is environmentally friendly, eliminating the need for water or chemical treatment, making it an ideal solution for companies seeking to minimize their environmental impact while optimizing their aluminum recovery process.

EFFICIENT DRY CONCENTRATION

Type of Process	Dry Aluminum concentration
Feed rate	20 to 30 tph
Machines & Equipment	1 Sizer Mogensen Screen 2 Densimetric Tables 1 Control System 8 belt conveyors
Particle fractions for dry concentration	7 - 50 mm
Water & Wastewater	No Water is needed & no wastewater is generated
Quality requirements	Light side 95% Aluminum recovered Heavy side Lead, Cupper, Zinc, and Steel Ultra Light side Plastic film and paper
Total power installed	9,5 Kw per ton

REFERENCES

- ROAL
- SAURECYCLING
- BEFESA
- RMD
- ARZYZ
- INSERTEC