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# **TOMRA Recycling launches new generation X-TRACT for aluminum recycling and processing**

For more than 15 years, TOMRA Recycling has been a global leader in the advancement of aluminum recycling and processing. Today marked a new chapter in the company’s impressive metal sorting history with the next generation of X-TRACT with a new design and breakthrough innovations. TOMRA's x-ray transmission (XRT) technology combines innovative synergies in metal and diamond recovery, once again setting new standards in sensor-based aluminum sorting.

New X-TRACT’s enhanced capabilities and machine intelligence offer major advancements in the high-throughput sorting of complex mixed metal streams to produce high purity, furnace-ready aluminum fractions. With a multitude of brand-new and enhanced features, the next generation   
X-TRACT sets the stage for accelerating the production of circular metals as the industrial sector moves toward a low-carbon future.

**Faster, more precise detection**

Offering groundbreaking innovations and high-speed sorting capability, the new X-TRACT features Dual Processing Technology, which increases the capacity per meter width. Its simultaneous single object and area processing allows operators to choose between high purity and high recovery sorting. Even adjacent, overlapping, and composite materials can be instantly identified and separated using data-driven decision making.

The high-throughput sorting system features a next-generation DUOLINE XRT sensor with two independent line scans positioned close to the input material for high precision detection and faster processing. Due to its close proximity to the material, the sensor also effectively detects copper wires and ultra-thin objects to reduce material loss and maximize profits. Its new x-ray source offers variable power with up to 1000w supply for high-throughput processing of multiple applications and grain sizes, from large fractions to fines (>5mm).

**Enhanced Capability and Flexibility**

The new generation X-TRACT is now capable of sorting with higher belt speeds ranging from 2.3 - 3.8 m/s, to maximize throughput and yields at the same time. To accommodate the faster belt speeds and higher throughput, TOMRA designers extended the sorting chamber and added new extraction ports to remove dust and reduce air turbulence.

With improved image capturing, the new X-TRACT delivers unrivaled sorting accuracy and its new intensity scale feature measures the relative thickness of objects. This eliminates the need for additional sensors and improves the detection of specific material groups like printed circuit boards.

While the previous generation of XRT metal sorting systems from TOMRA offered models that varied by application, the new X-TRACT is based on a modular machine concept. This gives operators the choice between high resolution or high sensitivity sensor systems and different valve blocks, but also enables more operational flexibility and easy upgrades to minimize long-term capital expenditures.

Machine trials in a production environment produce 10-30mm sized aluminum fractions with 99% purity levels. Alutrade, the UK’s largest independent aluminum recycling company and extrusion specialists was the first company to trial the new X-TRACT and compare its results to the previous model. Andrew Powell, Director at Alutrade Ltd, explains: “Even during the trials, the new X-TRACT delivered such powerful results, it creates a new paradigm for our business. We look forward to expanding our operations.”

Terence Keyworth, Segment Manager Metals at TOMRA Recycling emphasized: “New X-TRACT gives recyclers and smelters opportunities to increase their revenues with high-purity aluminum fractions while lowering their carbon footprint and having enough material on hand to meet the market demand. The automotive and construction sectors rely on recycled aluminum to lower their carbon footprint – it’s a matter of being fast enough to supply the surging demand.”

**Designed with the Future in Mind**

The proven and robust design of X-TRACT has long convinced the most prominent industry players worldwide. Matthias Winkler, Product Manager at TOMRA, explained: “When our in-house team set out to design a new generation of X-TRACT, it was absolutely clear that it should be sustainable, connected, and built for long-term performance to reduce operational costs.” Developing a new machine to meet the future needs of the industry involved collaboration with customers, design engineers, aluminum processing experts, metal application specialists, and service teams.

To extend the lifetime of the machine, the designers added enhanced sensor shielding in addition to its top-mounted x-ray source to protect its most valuable components and provide extra stability. The new sorting system that separates aluminum from heavy metals and super lights in a single step even comes with a 4-Year extended warranty on the x-ray source and XRT sensor to consistently meet high-performance standards and service levels.

Tom Jansen, Segment Manager Metals at TOMRA, explained: “Our partners in the aluminum industry rely on the lowest downtimes and long-term performance. X-TRACT’s new design makes it faster and safer for plant operators to replace parts due to normal wear and tear with as little downtime as possible.” The machine’s new catcher hood allows for easier access for maintenance, whether performed by a service team or on-site staff that has been trained by TOMRA.

New X-TRACT is also enabled for cloud-based monitoring, data-driven optimization tools, and remote access with the add-on TOMRA Insight service. With the ability to connect to the machine through online monitoring and digital services, TOMRA’s service team can identify potential issues before they arise and provide remote support to ensure low downtimes.

For more details about X-TRACT and highlights from the machine trials, please visit [www.tomra.com/xtract](http://www.tomra.com/xtract)

**About TOMRA Recycling**

TOMRA Recycling designs and manufactures sensor-based sorting technologies for the global recycling and waste management industry. Over 8,200 systems have been installed in more than 100 countries worldwide.

Responsible for developing the world’s first high capacity Near Infrared (NIR) sensor for waste sorting applications, TOMRA Sorting Recycling remains an industry pioneer with a dedication to extracting high purity fractions from waste streams that maximize both yield and profits.

TOMRA Recycling is part of TOMRA Sorting which also develops sensor-based systems for sorting, peeling and process analytics for the food, mining, and other industries. TOMRA Sorting is owned by Norwegian company TOMRA Systems ASA, which is listed on the Oslo Stock Exchange. Founded in 1972, TOMRA Systems ASA has a turnover of around €876m and employs ~4,600 globally.

For more information on TOMRA Recycling visit [www.tomra.com/recycling](http://www.tomra.com/recycling) or follow us on [LinkedIn](https://www.linkedin.com/company-beta/123801), [Twitter](https://twitter.com/TOMRARecycling) or [Facebook](https://www.facebook.com/TOMRA-Sorting-Recycling-183257172165234/).

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