

ALUMINUM CAN & PET BOTTLE BALER



Aluminum Can & PET Bottle Baler - ToronBale™ AP

Aluminum can and PET bottle baler compacts hollow beverage containers, a material class that defeats general-purpose recycling equipment. Torontech offers the ToronBale™ AP in four press ratings from 30 to 80 tons, with bale weights running from 30 kg on the smallest model to 380 kg on the largest. Cans, PET bottles, and empty oil containers all run through the same chamber. Machine weights range from 1,400 kg to 2,700 kg.

Empty containers are mostly air. A loose PET bottle occupies large volume for almost no mass, so storage and haulage costs climb long before a container fills by weight. The ToronBale™ AP collapses that void space and holds it collapsed, turning a low-density stream into dense units that ship economically. Bale height adjusts from as little as 200 mm up to 1,200 mm depending on model.

Chamber design addresses the spring-back that makes hollow containers difficult. Anti-rebound structures inside the chamber catch each compacted layer so the material cannot recover when the platen lifts. Recycling centers, bottlers, redemption depots, and venue operators all run the ToronBale™ AP. The machine turns loose container waste into a commodity that reclaimers and smelters will buy.

APPLICATIONS

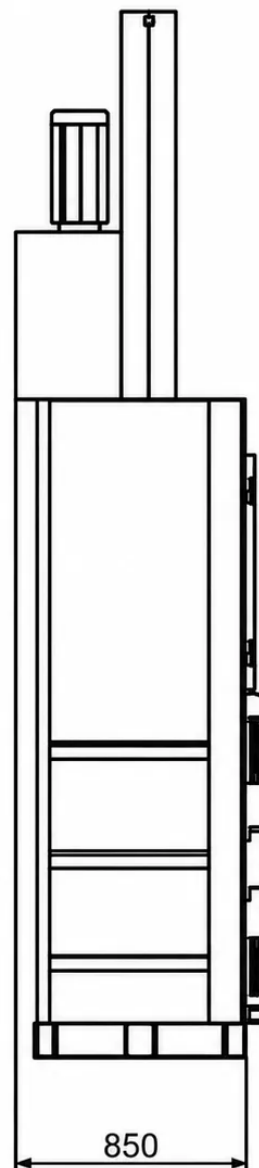
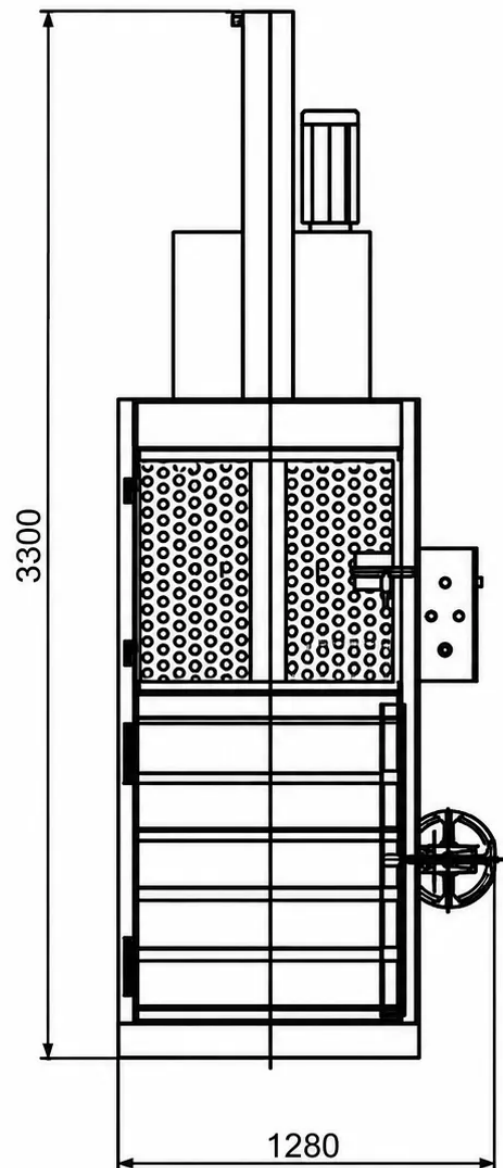
Aluminum Can & PET Bottle Baler - ToronBale™ AP Applications

The ToronBale™ AP suits any operation generating steady volumes of empty beverage containers or similar hollow packaging.

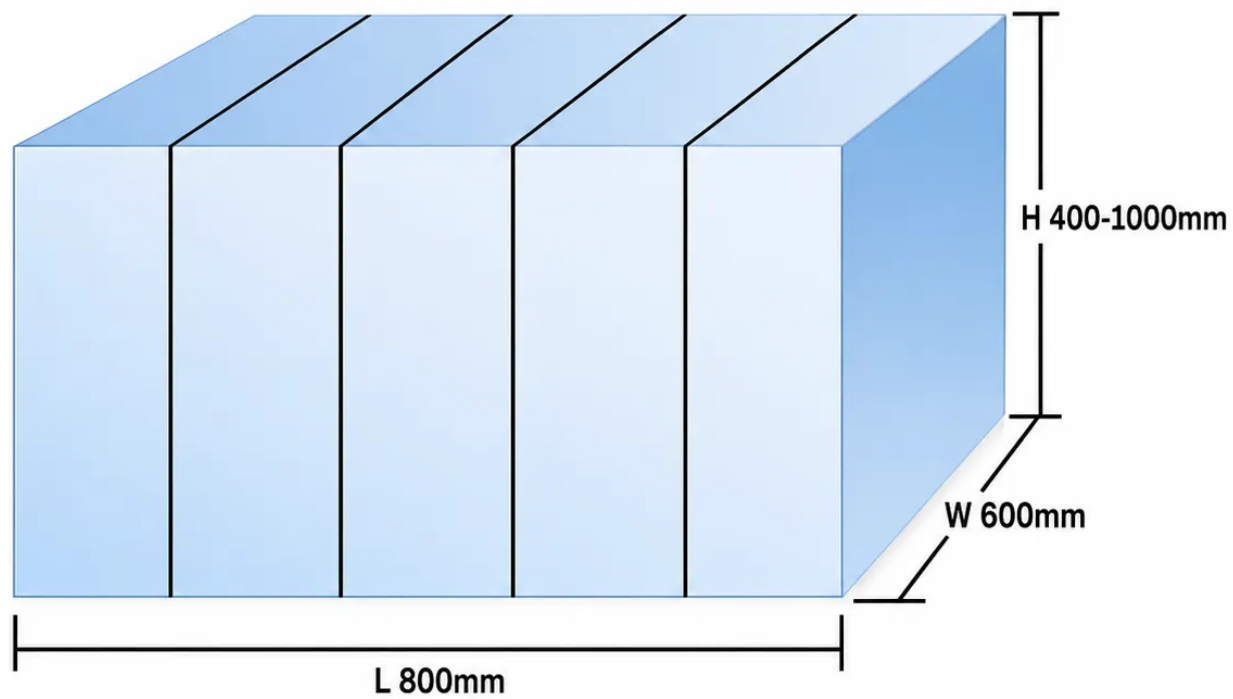
- **Material Recovery Facilities:** bales the sorted PET and aluminum fractions coming off optical and eddy current separation lines

- **Container Deposit and Redemption Centers:** compacts returned bottles and cans on site, reducing collection trips from high-traffic depots
- **Beverage Bottling and Canning Plants:** handles reject containers, line scrap, and returned stock without sending loose material to landfill
- **Supermarkets and Retail Chains:** processes back-of-house container waste alongside customer return collections
- **Stadiums, Arenas, and Event Venues:** compresses the large single-event volumes generated by concession and vendor sales
- **Hotels, Restaurants, and Catering Operations:** consolidates bar and kitchen container waste in limited back-of-house space
- **Scrap Metal Dealers:** bales used beverage cans into dense units priced by weight at the smelter
- **Lubricant and Chemical Packaging Recovery:** compacts empty oil bottles and similar rigid containers after draining

Diagram (Model ToronBaler™ AP)



Bale Size (Model ToronBaler™ AP)







FEATURES

Aluminum Can & PET Bottle Baler - ToronBale™ AP Key Features

The ToronBale™ AP pairs a chamber built for high-rebound material with the safety interlocks and hydraulic components expected in continuous recycling duty.

- **Four Press Ratings, 30 to 80 Tons:** one machine family covers small depots through high-volume recovery facilities without over-specifying
- **Anti-Rebound Gate Structure:** built to European and U.S. safety practice, holding compressed containers in place and blocking uncontrolled door movement
- **Automatic Chain Bale Ejector:** discharges the tied bale from the chamber on command, removing manual handling of loads up to 380 kg
- **Feed Gate Ram Interlock:** stops downward platen travel the moment the loading gate opens, keeping hands clear of the compaction zone
- **Independent Emergency Stop:** a dedicated, prominently mounted circuit cuts hydraulic function apart from the main control system
- **Reinforced Ram Guides:** maintain a square platen face when containers shift unevenly during collapse, protecting cylinder seals from side loading
- **Automatic Load-Balancing Design:** distributes compaction force across the platen so off-center charges do not produce sudden shifts mid-stroke
- **Direct-Coupled Motor and Pump:** a cross-connected direct drive holds full concentricity between motor and pump, replacing conventional couplings and extending pump service life
- **NOK Hydraulic Seals:** Japanese-sourced sealing components extend service intervals and reduce seal replacement downtime
- **A.M.C. Oil Pipe Joints:** Japanese-made fittings hold hydraulic connections leak-free across thermal cycling and vibration

- **Wide Adjustable Bale Height:** bale height sets from 200 mm to 1,200 mm depending on model, letting operators match bale size to buyer requirements or handling limits
- **Compact Floor Footprint:** the 30 ton model occupies 1,280 by 850 mm, fitting depot back rooms and retail service areas

THEORY & METHOD

Theory and Method

Hollow containers compact through buckling rather than gradual densification. A can or bottle carries load along its walls until the applied stress passes the point where the wall buckles, and the enclosed volume then collapses almost instantly. Pressure requirements stay modest as a result. The 30 ton model applies roughly 0.6 MPa across its 800 by 600 mm bale face, enough to collapse container walls without the extreme force that solid scrap demands.

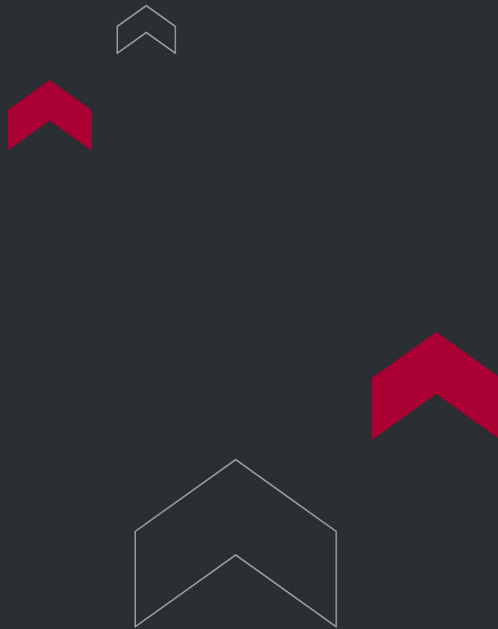
What happens after collapse separates the two materials. Aluminum passes its yield point and stays folded, so a crushed can holds its shape indefinitely. PET behaves differently because bottle walls are biaxially oriented during blow molding, which leaves the polymer with elastic memory. A crushed bottle pushes back toward its original form once load is removed, and any bottle still holding its cap traps air that resists collapse entirely.

Chamber hardware answers that recovery. Anti-rebound dogs mounted on the chamber walls engage each compacted layer and prevent upward expansion when the platen retreats, so successive charges build density instead of re-compressing recovered material. Ram guides keep the platen square as containers redistribute unevenly during collapse. Tying the bale under load locks the compressed state, which is why bale straps carry high residual tension on PET bales.

TECHNICAL SPECIFICATIONS

Aluminum Can & PET Bottle Baler - ToronBale™ AP Technical Specifications

Parameter	ToronBale™ AP-30	ToronBale™ AP-40	ToronBale™ AP-50	ToronBale™ AP-80
Press Force	30 tons (approx. 294 kN)	40 tons (approx. 392 kN)	50 tons (approx. 490 kN)	80 tons (approx. 785 kN)
Feed Opening Size (L × H)	800 × 500 mm	1,000 × 500 mm	1,100 × 500 mm	1,200 × 500 mm
Baling Chamber Height	1,500 mm	1,500 mm	1,500 mm	1,700 mm
Bale Size (L × W × H, H adjustable)	800 × 600 × (200 to 1,000) mm	1,000 × 600 × (300 to 1,000) mm	1,100 × 700 × (300 to 1,000) mm	1,200 × 800 × (300 to 1,200) mm
Bale Weight	30 to 120 kg	60 to 180 kg	90 to 270 kg	200 to 380 kg
Motor Power	5.5 kW	7.5 kW	7.5 kW	15 kW
Machine Weight	1,400 kg	1,700 kg	1,900 kg	2,700 kg
Overall Dimensions (L × W × H)	1,280 × 850 × 3,300 mm	1,480 × 1,000 × 3,400 mm	1,600 × 1,100 × 3,500 mm	1,700 × 1,200 × 3,900 mm
Bale Ejection	Automatic chain ejector			
Materials Handled	Aluminum cans, PET bottles, empty oil containers			



Torontech Inc.

251 Consumers Road, Suite 1200
Toronto, Ontario, M2J 4R3, Canada 

Phone: +1 416 368 2721 | Fax: +1 416 981 7652
Email: info@torontech.com

Torontech, LLC

601 Brickell Key Drive, Suite 700
Miami, FL 33131, USA 

Toll-Free: 1-866-383-7919
Email: sales@torontech.com

Torontech ME FZE

Meydan Grandstand, 6th Floor,
Meydan Road, Nad Al Sheba,
Dubai-261440, UAE 

Phone: +971 488 19252
Email: me@torontech.com

