North American Aluminum Extrusion Market Dynamics
North American Extrusions Market

Aluminum Extrusions Shipments

Mid-single digit growth expected over the next several years

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Extrusions to the Automotive Industry

Rising build rates and increased extrusion content per car makes for a rosy outlook.
### Three Business Models:

<table>
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<tr>
<th>Approximate Number of Company’s &amp; Presses</th>
<th>Dedicated Automotive Market Focus</th>
<th>Serve Multiple Markets Including Automotive / Plus Next Column:</th>
<th>Non-Automotive / Distribution B&amp;C and Other Markets</th>
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<tbody>
<tr>
<td>Six (6) Individual Companies (11) Extrusion Presses</td>
<td>Ten (10) Individual Companies (42) Total Extrusion Presses *Includes Sapa (18) Automotive Presses &amp; 2 Largest Competitors</td>
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<td>OEM Direct and Tier 1 &amp; 2 Some: European &amp; Japanese OEM Transplant Focus</td>
<td>OEM Direct / Tiers 1, 2 &amp; 3</td>
<td>OEM / Tier Suppliers / Jobbers</td>
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**Notes:**
- 6000 Series: 700 Million Lbs
- 7000 Series: 100 Million Lbs.
- Estimated Capacity 6000 Series: 700 Million Lbs
- Estimated Capacity 7000 Series: 100 Million Lbs.
- 6000 Series: 3.7 Billion Lbs.
- 1000/2000/5000/7000 Series: 1.1 Billion Lbs.
- BIW: Body in White
- CMS: Crash Management Systems
- Chassis / Underbody
- ABS: Anti-Lock Brake
- Forging & Impact Stock: Rod & Bar
- HVAC: Precision Tube & Connector’s Steering & Electronics
- Residential & Commercial B&C Truck/ Trailer- Mass Transit
- Metal Distribution Aerospace & Defense
- Machinery and Equipment OEM Consumer Durables Electrical
- 3” - 29” Dia. Plus Rectangular 500 Ton – 16,000 Ton Some: Value Add processing
North American Extrusion Market by Business Model

**6000 Series**
(4.6 billion lbs total capacity)

- Dedicated Automotive Market Focus (160m lbs)
- Serve Multiple Markets Including Automotive (700m lbs)
- Non-Automotive/Distribution B&C and Other Markets (3.7 billion lbs)

**1-2-5-7000 Series**
(1.1 billion Lbs total capacity)

- Dedicated Automotive Market Focus (75m lbs)
- Serve Multiple Markets Including Automotive (100m lbs)
- Non-Automotive/Distribution B&C and Other Markets (1.1 billion lbs)
North American Auto Market by Press Size

A) 7" - 10" Container Presses

B) 9" - 14" Container Presses / Some Indirect

C) 8" - 9" Container Presses: Primarily Coiled Stock

Estimated Current Annual Pounds

- CMS - Crash Management Systems
- Steering & Electronics
- Chassis / Underbody
- HVAC Connectors
- Body In White
- Int/Ext Trim Roof rails
- ABS - Anti Lock Brake
- Forging & Impact Stock: Rod & Bar
- BIW: Body In White
- HVAC Precision Tubing/ Fin Tubing
- Air Bag Canisters
- Drive shafts

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Key Conclusions – Aluminum Extrusion Market:

• Market growth is primarily due to increase in Automotive applications.
• Growth Curve points to Capacity constraint in year 2020 if additional capacity is not added or facilities and presses allocated for automotive growth.
• 6000 Series extrusions are utilized for most automotive applications.
• 7000 Series applications market is at capacity now and is primarily used for aerospace and defense applications.
• 94 Extrusion Companies in NA with 253 extrusion presses. Only 16 Companies and 53 extrusion presses currently used for automotive.
• Projected capacity expansion in North America and Re-allocation of assets should meet demand growth by 2025 projections.