ROTOMOULDING ACROSS THE WORLD

AN OVERVIEW

MARTIN COLES, MATRIX POLYMERS

For nearly 40 years, I've had the privilege of visiting hundreds of Rotomoulders around the world. Many of these visits have not only built business relationships but also lasting friendships. Through these experiences, I've seen firsthand the unique strengths of different regions, as well as the challenges we all share.

One lesson stands out: it is a mistake to stereotype regions or assume one is more advanced than another. Rotomoulding thrives on innovation, and innovation can be found anywhere. Often, the most creative solutions come from places with the fewest resources necessity truly drives invention.

Global Overview: Polyethylene in Rotomoulding

More than 97% of the world's Rotomoulding materials are derived from Polyethylene (PE), whether LLDPE, HDPE, or derivatives such as EVA, Plastomers, and XLPE.

- Global Consumption: 1.9 million tonnes annually (less than 2% of global PE output).
- Why Polyethylene?
  - Easy to process and forgiving
  - Tough and impact resistant
  - Excellent chemical resistance
  - Widely approved for food and water use
  - Simple to grind into powder
  - Cost-effective and globally available

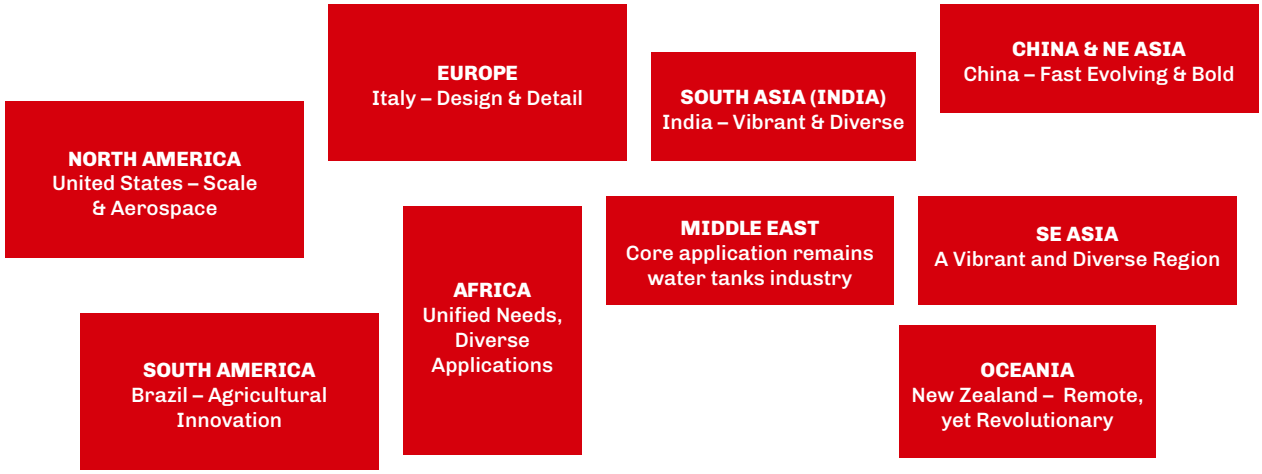
Regional Insights Europe

- Highly diverse sector with advanced OEM demand, particularly in automotive, agriculture, and furniture design.
- Strong innovation in tooling, automation, and energy-efficient processes.
- Estimated usage: 250,000 MT annually.

North America

- One of the largest, most developed markets with strong supplier ecosystems.
- Significant consolidation of moulders in recent years.
- Special strengths: aerospace applications and advanced materials expertise.

GLOBAL ROTOMOULDING HUBS & INNOVATION HOTPOTS



Innovation without Borders – The Global Spirit of Rotomoulding

ROTOMOULDING THRIVES ON INNOVATION, AND INNOVATION CAN BE FOUND ANYWHERE. OFTEN, THE MOST CREATIVE SOLUTIONS COME FROM PLACES WITH THE FEWEST RESOURCES NECESSITY TRULY DRIVES INVENTION.

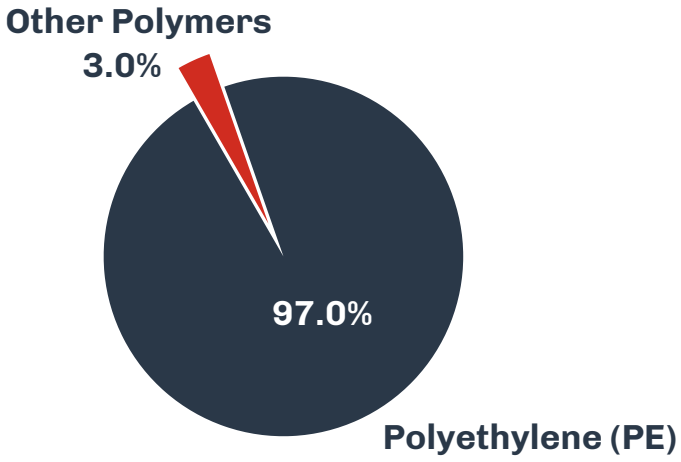
- Estimated usage: 470,000 MT annually.

Africa

A continent of vast scale and striking diversity presents a patchwork of regional markets when it comes to rotomoulding. Each area carries its own demands, preferences, and approaches, shaped by geography, industry, and consumer needs.

- Southern Africa offers one of the most mature markets. South Africa is a sizeable hub where coloured water storage tanks dominate the landscape. Yet the sector extends far beyond tanks, with innovative products supporting materials handling and the mining industry. Local rotomoulders tend to favour compounded colours, valued for their perceived quality over dry blends an option that is readily available in the region. Across the wider south, however, demand is firmly centred on black water tanks, a standard that continues to shape market supply.
- In West and East Africa,

GLOBAL OVERVIEW: POLYETHYLENE IN ROTOMOULDINGHOTPOTS



More than 97% of Rotomoulding materials are Polyethylene (PE)
Global Consumption 1.9 million tonnes annually
(<2% of global PE output)

the picture is remarkably consistent: black water tanks remain the product of choice, with capacities reaching up to 30,000 litres. Notably, some tanks are lined with a natural or white inner layer, a simple yet effective feature that allows consumers to check water cleanliness at a glance.

- By contrast, North Africa reveals a more layered approach literally. Egypt, Algeria, Tunisia, and Morocco form the region's rotomoulding backbone, with production largely focused on water storage tanks. Here, moulders often opt for a three-layer design: a coloured outer shell, a black middle for opacity, and a natural inner surface. This configuration not only protects against contamination but also ensures visibility of stored water, underscoring the region's emphasis on practicality and safety. Taken together, these markets reflect both the common needs and unique adaptations of Africa's rotomoulding industry.
- Estimated usage: 110,000 MT annually a figure that highlights both the scale of demand and the opportunity for continued growth.

Central & South America

- Traditionally water tanks, now diversifying into agriculture, kayaks, sprayer tanks, and industrial products.
- Brazil leading in both scale and innovation.
- Estimated usage: 140,000 MT annually.

Oceania

- Dominated by large water storage tanks, often 50,000L+ for rural and mining use.
- Industry shifted from local to imported PE after Qenos closure.
- Estimated usage: 70,000 MT annually.

China & Northeast Asia

- One of the largest and fastest-evolving markets.
- Key sectors: playgrounds, toys, tanks, military boxes.
- Supply chain strengthened with improved machines and tooling.

ROTOMOULDING HAS PROVEN ITSELF TO BE A TRULY GLOBAL INDUSTRY ONE THAT CONNECTS REGIONS, APPLICATIONS, AND INNOVATIONS ACROSS EVERY CONTINENT.

- Estimated usage: 300,000 MT annually.

Southeast Asia

- Bedrock applications: water tanks and cooler boxes.
- Growing adoption of compounded powders (not just dry blends).
- Estimated usage: 120,000 MT annually.

South Asia

- India is the world's largest market for water tanks and has a vibrant, diversified Rotomoulding industry.
- Strong automotive sector demand (fuel tanks, Urea tanks, cab roofs).
- Estimated usage: 250,000 MT annually.

Middle East

- Water tanks remain core, with unique adoption of multi-layer tanks (up to 7 layers).
- Other key applications: traffic barriers, planters, flotation buoys.
- Estimated usage: 160,000 MT annually.

Shared Global Challenges

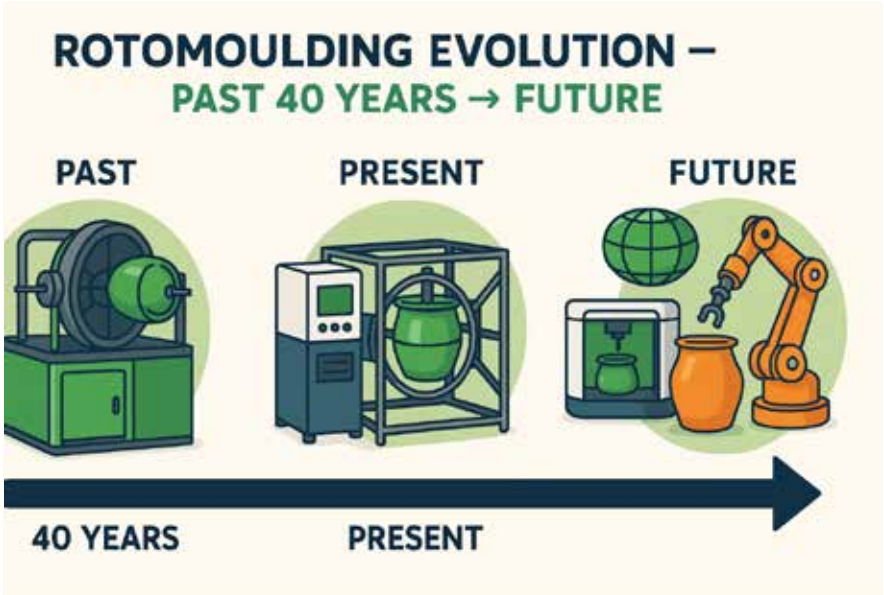
The rotomoulding sector continues to grow across diverse markets, but it faces a set of pressing challenges that demand urgent attention.

Labour remains one of the most critical issues. Shortages of skilled workers, combined with difficulties in retention, are constraining productivity and innovation. Without focused investment in training and workforce development, the industry risks falling behind its potential.

Energy is another mounting concern. High costs and, in some markets, limited availability are squeezing margins and slowing expansion. For an energy-intensive sector, this is not just a financial challenge but a structural one, requiring both policy engagement and the pursuit of alternative, more efficient solutions.

Finally, recycling presents both an opportunity and a hurdle. While demand for sustainable practices is growing, the absence of industry-wide standards for recycled materials is creating inconsistency and mistrust. Establishing clear guidelines could unlock greater adoption, ensure product safety, and strengthen the industry's environmental credentials.

Together, these challenges highlight the need for collective action by businesses, policymakers, and industry bodies alike to secure a resilient and sustainable future.



The Future of Rotomoulding

- **Automation:** to increase efficiency and reduce labour dependence.
- **Electrification:** direct mould heating, reducing energy intensity.
- **Material Expansion:** beyond PE into new polymers.
- **Complexity & Diversity:** broader product range and design sophistication.
- **Sustainability:** clearer industry code for recycled materials and environmental responsibility.

Rotomoulding has proven itself to be a truly global industry one that connects regions, applications, and innovations across every continent. While each market has its own history, scale, and focus, what unites them is the adaptability of Polyethylene and the creativity of moulders who continually push the boundaries of design and functionality.

The challenges ahead from labour shortages to energy costs and the urgent need for recycling standards are shared worldwide. Yet, as history shows, necessity drives innovation, and this industry has always found ways to adapt.

The next decades will see more automation, new materials, and greater emphasis on sustainability. Rotomoulding is moving beyond its traditional image of water tanks and simple containers into advanced, high-performance applications in aerospace, automotive, energy, and beyond.

In short, the future of Rotomoulding is one of evolution and resilience. No matter the geography, the ingenuity of moulders ensures that the industry will remain not just relevant, but essential, in shaping the products of tomorrow.