

CAPABILITIES OVERVIEW

DYNATECT RO-LAB - MOLDING DIVISION



CUSTOM MOLDED RUBBER & URETHANE PRODUCTS

CONTACT US
3 EASY WAYS:

1. Go to our website at dynatect.com
2. Call us at **800-298-2066**
3. Email us at sales@dynatect.com

CUSTOM MOLDED RUBBER AND URETHANE



DYNATECT RO-LAB CUSTOM MOLDED RUBBER AND URETHANE PRODUCTS

Dynatect Ro-Lab is a leading specialist in compounding and producing custom rubber and urethane products with over 100 years of combined elastomer experience, in-house quality control and testing. Our expertise in production and process selection helps us deliver a well-designed and functional product.

Molding Capabilities

- Rubber molding (compression, injection, transfer)
- Urethane molding (compression, RIM, low pressure injection, open cast)
- Mandrel-formed products (hoses, industrial and agricultural rolls, rubber-lined pipes, continuous lengths of tubing and belts)

Specialties

- Small sized, high-volume parts
- Large-scale parts
- Insert molding (functional metal, textiles or ceramic inserts molded into rubber or polyurethane)
- Custom material formulation (to meet performance specifications for durability, flexibility and elasticity)
- Precise tolerances and special finishes

CUSTOM MOLDING | RUBBER AND POLYURETHANE

TOTAL PRODUCTION CONTROL FROM CONCEPT THROUGH MANUFACTURING... ALL UNDER ONE ROOF

The toughest challenges in rubber and polyurethane routinely come to Dynatect Ro-Lab, thanks to a complete in-house capability that stretches from design consulting and custom material formulation to precision molding, finishing and beyond. Generations of OEM manufacturers have trusted Dynatect Ro-Lab to expand the range of possibilities in rubber and urethane components:

- **Tighter tolerances** – stricter adherence to dimensional standards in molding – including RMA A1
- **Custom material formation** – creation of custom polymer blends to conform precisely to customer requirements
- **Exceptional size and thickness** – components that are extra large or extremely small, very thin or extraordinarily thick
- **Insert molding and special finishes** – adding insert components to meet special mechanical requirements, or conforming appearance to RMA F1... the highest standard for exterior attractiveness

Dynatect Ro-Lab capability expands to improve every part of the component life cycle. It begins with the design collaboration between Dynatect Ro-Lab molding specialists and custom engineers. The capability continues with the first article inspections, dimensional validation and part traceability.

Let us show you how we bring extra flexibility into the manufacturing of custom components. Contact us at 800-298-2066, or email to sales@dynatect.com.

MORE PRESSES, MORE PROCESSES FOR GREATER MOLDING OPTIONS

Press Capacity for Large Components, High Volumes

The Dynatect Ro-Lab commitment is supported by an inventory of 100 rubber and urethane presses, with capacities ranging from 5 to 2,500 tons.

Rubber Molding

- 75+ presses, 40 - 2,500 ton capacity
- Presses up to 80" wide
- Platen sizes up to 20' long
- Internal mixing for custom compound production

Urethane Molding

- 23 presses with capacities from 5 - 250 tons
- Up to 24" x 24" platen size
- Machine mixing to 40 lbs/min.
- Oven capacities to 2,880 cubic feet (20' x 12' x 12')



CUSTOM MOLDING | RUBBER AND POLYURETHANE

RUBBER MOLDING

Compression Molding

A straightforward elastomeric molding method involving placement of raw rubber into a two-part heated mold, followed by compression of the rubber in the mold to form and cure the thermoset material under heat and pressure.

- Dynatect Ro-Lab's 1,400 ton compression press is ideal for large molds or thin sheets with close tolerances
- Multi-cavity molds can produce parts down to two grams
- Continuous curing for long, uninterrupted items
- A preferred process for gaskets, seals and O-rings

Transfer Molding

In a process that is a hybrid of compression and injection techniques,

a piston forces preheated material from a transfer pot into a closed mold.

- Creates finished components with intricate shapes
- Compatible with the use of delicate inserts
- Delivers tight dimensions and tolerances
- Usable for all rubber durometers

Injection Molding

A more complex process that injects a preheated material into the cavities of a closed mold.

- Delivers faster curing times than compression or transfer molding
- Shortens cycle times
- Ideal for high volume component production



HOT CAST URETHANE MOLDING

Compression Molding

Liquid polyurethane is poured into a mold and cured in a compression press with capacities up to 250 tons. This technique is most suitable for components that must maintain dimensional accuracy and repeatability.

Low Pressure Injection Molding

Injection of liquid polyurethane into a closed mold under low pressure, in a process ideal for projects in which a component size, component shape

or tooling configuration would make compression molding practical.

Open Cast Molding

The pouring of liquid polyurethane into an open mold, which is then cured in an oven or on a heated table.

- Usable on part sizes from less than an ounce to more than 500 lbs.
- Excellent for projects where conventional tooling would be expensive or impractical



SPECIAL PROCESS

Hoses

- Hoses are built on a mandrel (cylindrical form) in a variety of configurations
 - Soft or wire reinforced walls
 - Plain ends, or duck and rubber flanges with back-up rings
 - Built-in nipples

Other Mandrel-Made Products

- Non-hose mandrel-made products with 4" - 60" diameters with lengths to 50'
- Rubber transition chutes
- Mandrel-made endless belts

Rubber-Lined Pipes

Industrial and Agricultural Rolls

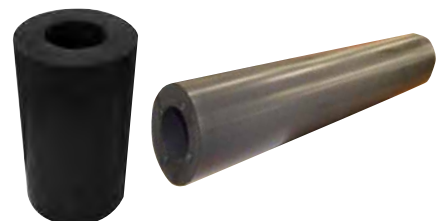
- Rubber or urethane covers
- New or stripped/recovered cores
- Roll regrinding
- Crowns and grooves



RIM (REACTION INJECTION MOLDING)

Injection of polyols and isocyanates into a closed mold, triggering a chemical reaction that causes the material to expand and form the finished product.

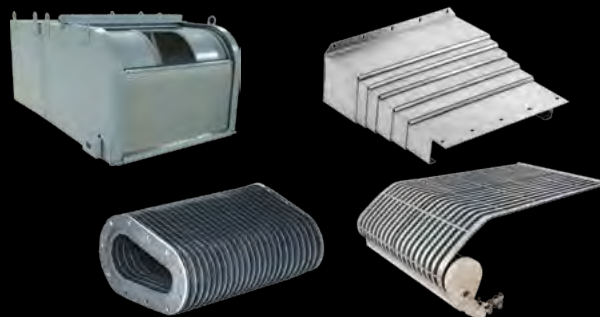
- Effective in forming extremely large products with very light weights
- Able to improve or eliminate secondary operations
- Workable for flexible or rigid products in foams or solids
- Delivers reliable control of components with varying wall thickness



ADDITIONAL DYNATECT PRODUCT LINES ▶

PROTECTIVE COVERS

GORTITE® MACHINE PROTECTION
GORTITE® ROLL-UP DOORS



CABLE & HOSE CARRIERS

GORTRAC® NYLATRAC®
NYLATUBE® GORTUBE®



DYNATECT®
DYNAMIC EQUIPMENT PROTECTION

Global Leaders in Dynamic Protection
for Equipment and People

MECHANICAL MOTION CONTROL

POLYCLUTCH® SLIP CLUTCHES
LSI PRECISION BALL SCREWS



ELASTOMER COMPONENTS

RO-LAB CUSTOM MOLDED
RUBBER & URETHANE



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