

Advanced Light RTM Composites Tooling Training January 22 - 25, 2018

Limited number of spaces available.

Register online via the link below or email
your registration form to
rachel.menges@compositesone.com.

<https://goo.gl/forms/Vs6UGS9WJNEKGfbp1>

See registration form for payment details.

Location:

Piedmont Fiberglass
1813 NC Highway 90 E
Taylorsville, NC 28681

Cost:

\$500 USD per person
(Lunch and graduation
dinner included)

Hotel Accommodations:

Hampton Inn
1508 Cinema Drive
Statesville, NC
Phone: 704-883-8380

PARTICIPANTS UNDERSTAND THAT THEY
WILL RECEIVE CONFIDENTIAL INFORMATION
AND USE OF LIGHT RTM MOLDS AND THEY
WILL NOT COPY SUCH INFORMATION IN
WHOLE OR IN PART.

Schedule of Events

Monday, January 22 - 9:30 AM - 4:30 PM

- Economics of LRTM
- Product Design for Process and Flange
- LRTM Injection Demonstration
- A-Side Mold Construction
- Steps in LRTM Mold Building
- LRTM Demonstration

Tuesday, January 23 - 8:00 AM - 4:30 PM

- Waxing Techniques
- Waxing Demonstration
- Design First Layer of Wax
- LRTM Injection Demonstration
- Waxing First Layer

Wednesday, January 24 - 8:00 AM - 4:30 PM

- Second Layer of Wax
- LRTM Injection Demonstration
- Waxing Flange Details
- Start Lay-Up on B-Side
- More Laminates on B-Side
- MVP Equipment
- LRTM Injection Demonstration

Thursday, January 25 - 8:00 AM - 4:30 PM

- Finish Wax and Laminate on B-Side
- Mold Repair and Maintenance
- Gel Coating, Glass Loading, and Troubleshooting
- Questions and Answers
- LRTM Injection Demonstration
- Introduction to Flex Molding (Silicone Bag System)
- Graduation Dinner

ClosedMold Alliance

Composites One • MVP
RTM North Technologies

Advanced Light RTM
Composites Tooling Training

4-DAY HANDS ON TRAINING

January 22 - 25, 2018

Taylorsville, NC



Hands On Light RTM Composites Tooling Training

You will learn the basics of Light RTM Tooling including:

WHY RTM?

- Advantages and other options

PATTERN DESIGN AND PREPARATION

- Flanges, draft angles, and undercut considerations

BUILDING THE FACE TOOL

- Materials, their properties, and temperature controls
- Designing, building, and attaching the back-up frame
- Accurate location clamping and attachment system

DEFINING THE PART TO BE BUILT

- Working with dimensional wax
- Designing product cut-offs, vents, and peripheral seals
- Injection port location, multiple injection ports, and sensors
- Designing for ribs, cores, inserts, etc.
- Handling complicated shapes, undercuts, etc.

HOW TO ENSURE PART ACCURACY

- Controlling the problem of laminate shrinkage

BUILDING THE BACK TOOL

- Designing the frame and locking accuracy

TOOL LIFE AND CARE

- Replacing the tool faces

FINISHING AND PREPARATION OF THE TOOL

- Preparing the tool surface
- Release agents and their application
- Installing the mold seal
- Reinforcement materials replacement

GETTING STARTED

- Materials and resources

COSTING TOOLS AND PARTS

- Materials, wastage rates, and formulas for costing

RESIN SYSTEMS AND REINFORCEMENTS

- Review of available resin systems and properties
- Review of reinforcement applications and sources

FILLERS AND THEIR EFFECTS

- Impact on surface finish, part cost, and fire retardant
- Surface finish requirements

INJECTION MACHINES

- Features and benefits
- Catalyst and cure systems, production rates
- Preform materials, manual to fully automated

FLEX MOLDING

- Review of silicone bag systems
- Features and benefits
- Materials and start-up



Registration Form

Advanced Light RTM Composites Tooling Training
January 22 - 25, 2018

\$500 per registrant - Full Payment is required with registration prior to
January 15, 2018

Name: _____ Title: _____

Company: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ Fax: _____

Products currently being manufactured: _____

Please circle one: Fabricator Supplier Distributor Other

Registration and Payment Due January 15, 2018

You may register online via the link below or email your registration form to rachel.menges@compositesone.com
<https://goo.gl/forms/2zcZ8zuOFt2eV5Jm2>

Please send payment to:

RTM North \ Attn: Doris Smith
43 First Avenue
Vanastra, ON N0M1L0

Please make checks payable to RTM North. Full payment is required with this registration. Registration will not be considered final until payment is received. All cancellations made ten working days prior to the commencement of the workshop will receive a full refund. Cancellations made less than ten days prior will be subject to a refund if there is a confirmed alternate. All cancellations must be made in writing.