



Jane Paulson &lt;janep2@umn.edu&gt;

## MnTAP FRP Newsletter

1 message

**Minnesota Technical Assistance Program** <mntap@umn.edu>  
To: janep2@umn.edu

Tue, Aug 26, 2014 at 8:00 AM

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Improving Efficiency in FRP Operations [t](#) [f](#) [in](#)

## Financial Assistance Available to E3 in FRP Participants

Are you interested in participating in the E3 in FRP project, but not sure if you can afford to make the recommended upgrades or improvements? Not sure where your investment would have the greatest impact? While many opportunities for FRP improvements require little to no capital, for those that do require a significant investment, help is available.



The [Minnesota Small Business Development Center](#) (MnSBDC) provides a range of tools and services to help Minnesota businesses grow and stay strong. They can help build management skills, explore financing options, assist with marketing and market research, and even help with export opportunities and trade requirements. They offer training seminars, career and networking events, online guidebooks, and one-on-one professional guidance from their experts.

The MnSBDC is offering FREE financial and business consulting services to help you get the most value out of MnTAP's E3 in FRP project. They can help you understand and improve your current finances, and identify relevant loan programs, tax credits, or grant opportunities that can help you reach your goals.

Don't miss this opportunity to improve your FRP operation! Applications are now being accepted for participation in the E3 in FRP project. If you are interested and would like to know more, take a look at MnTAP's [E3 in FRP website](#), or contact Jane Paulson at [janep2@umn.edu](mailto:janep2@umn.edu) or 612-624-1826. If you are ready to sign up, [click here](#) to complete an application!

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## Did you know...

**The best practices yield the most profit.** You paid for your raw materials, now make sure they end up in your product where they belong!

- **Operator spray training:** Virtual spray training can teach operators to reduce overspray and can save up to 25% of the resin used.
- **Resin Metering equipment:** Providing the operators with real-time knowledge of the amount of glass and resin applied allows them to achieve more consistent part thickness. In many cases, better consistency will allow the target thickness to be reduced, resulting in material savings. [Fiberglas Fabricators](#) saved \$10,000 per year in resin costs by reducing the overage on each part.
- **Containment flanges or masking:** Keeping the resin spray contained within the mold perimeter will capture and accumulate overspray. More of the resin goes onto the part, styrene emissions are reduced by decreasing the overspray droplet airtime, and clean-up is easier.

**Material losses to evaporation can be significant.** Reducing evaporation will not only reduce your material costs, but will also decrease your styrene emissions.

- **Non-atomized spray equipment** use a low pressure application stream. This type of equipment can yield resin savings of 8.4%, which is \$126 per ton of resin processed, and can save 168 lbs. of styrene emissions per ton of resin processed.
- **Lower styrene resins** reduce the amount of material lost to evaporation because the material has a greater viscosity. The [AMCA has shown](#) that a 5% reduction in styrene content can reduce styrene emissions by 20 -50% depending on the application method. The less resin that evaporates, the less you have to buy!
- **Closed molding** operations inhibit evaporation by reducing resin contact with air. [Phoenix Industries](#) converted 60% of its production to closed molding and saved 80,000 pounds of styrene emissions over two years, with material savings of 10% per part. Switching from non-atomized to closed molding saved another company 78 lbs. of styrene emissions and \$59 per ton of resin processed.
- **Vacuum bagging and resin infusion** are other methods that limit the resin contact with air. These methods can increase glass to resin ratio, enhance the physical properties of the laminate, and reduce the amount of resin used. [Larson Boats](#) reduced styrene emissions by 77% and solid waste by 50% using the [Virtual Engineered Composition](#) process.

Find more case studies and ways to save in the FRP industry on the MnTAP website. This is the seventh in a series of newsletters providing helpful tips on how to improve YOUR economic results, energy efficiency, and environmental impact! Stay tuned for the next newsletter with more helpful tips, and updates on the [E3 in FRP project](#).

Let us know if you are interested in getting involved in the E3 project, and send us your ideas for future newsletter topics! Contact Jane Paulson, MnTAP Senior Engineer, at [janep2@umn.edu](mailto:janep2@umn.edu). If you are not the appropriate recipient for this email or if you know of additional people who should receive this communication, please send their email addresses to [mntap@umn.edu](mailto:mntap@umn.edu).

*The Minnesota Technical Assistance Program would like to thank the Minnesota Pollution Control Agency (MPCA) and the US EPA Office of Pollution Prevention for financial support of this project.*



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