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SIZE MATTERS...OVERSIZED FRP FUME HOOD PANELS MAXIMIZE FABRICATION AND PER SHEET YIELD

- MFG COMPOSITE SYSTEMS CO. LEVERAGES UNIQUE TOOL TO OPTIMIZE FLAT SHEET MACHINING, STOCK & DELIVERY -

Ashtabula, OH (February 2008) — In an effort to facilitate improved fume hood fabrication yields, MFG Composite Systems Company (MFG-CSC) has introduced a proprietary oversized FRP (fiberglass reinforced plastic) composite sheet that's 1.5" larger than the industry standard (49.5" x 97.5" vs. 48' x 96"). The larger sheet avoids fabrication objection by allowing for a more secure sheet around the edge during CNC machining.

The unique sheet size was born out of a client request and required a larger tool to be built to create a larger compression-molded piece to maximize the end-user yield to its fullest extent. Additionally, the sheets' polyester resin, compression-molded FRP properties use a lower level of glass; thus making it easier to fabricate than pultruded composite panels—offering the capability to machine multiple sheets at one time. This is due to the high glass content in pultruded sheet which may become ragged/break in the process of multi-panel machining. The same benefits hold vs. high-density polyethylene (HDPE) and steel panel options.

PRODUCTION / PROPERTIES / TESTING:

When choosing a Fume Hood, safety should be the number one concern for research, educational and clinical applications requiring small working space and efficient fume removal. MFG-CSC FRP Fume Hood panels are chemical, fume and smoke resistant to meet or exceed industry standards such including:

- SEFA (Scientific Equipment and Furniture Association): Certified Class A for chemical spills
- UL (Underwriters Laboratories): Flame Spread Rating of 20
- UL (Underwriters Laboratories): Smoke Index of 250



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Additionally, the panels have been tested by an independent lab to meet ASTM (American Society for Testing and Materials) standards. Beyond fire resistance, the panels provide an aesthetically pleasing smooth white interior surface that is durable, easy to clean, and provides high light reflectivity. They also withstand exposure to a wide range of laboratory acids, solvents and alkalis. Finally, because they won't absorb spills— they resist staining and discoloration.

TOOL YIELDS VALUE-ADDED STOCKING/DELIVERY PROGRAM:

The initial capital investment in the tool for the oversize fume hood panel has also allowed MFG-CSC to provide a unique stocking program of the panels for quick delivery in the industry. This represents a major benefit to end-uses since fume hood production is typically not cyclical; often arising as clean-room/laboratory projects present themselves—therefore a quicker turnaround in delivery is instrumental.

Because MFG-CSC makes only Fume Hood panel sheet, there is no internal manufacturing competition for other sheet on the press. Therefore, a value-added stocking program and dedication to short lead-time delivery is available as a standard benefit for the industry. The value-added program also applies to standard 4' x 8' sheets with average thicknesses of 0.133 inch.

APPLICATION / CONCLUSION:

The inception of the oversize FRP/Fume Hood sheet and ensuing value-added stock/delivery program is due to a large order requirement request by BMC (Muskegon, Michigan)—a leading manufacturer of top quality laboratory casework, fume hoods and accessories.

BMC Vice President Brian White was looking for an alternative to an existing supplier stating, "MFG-CSC delivered on a promise to provide a new mold to get the sizes of material we



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needed for a better yield. We've now got over 2,000 panels in use and keep a blanket order with them on a six week basis depending on volume. They've really met the service and commitment level they promised with their JIT program."

According to MFG-CSC Sales Manager Mike Parker, "The material is also ideal for any wall panel application that needs these chemical and flame resistant properties. Plus, the oversize sheet can be made for any application to help the ease-of-fabrication & maximize sheet yield."

CORPORATE PROFILE: The MFG Composite Systems Company (EST: 1977) is the largest of Molded Fiber Glass Companies' fifteen entities. A 260,000 square foot manufacturing facility in Ashtabula, OH leverages advanced compression molding processes to produce a diverse spectrum of fiber reinforced polymer (FRP) products, systems and services and industries, notably—heavy truck. The division receives superior technical support from MFG Research Company for unparalleled material performance and utilizes the latest industry technologies including CAD, AUTOCAD, Pro E, CATIA workstations and robotics to provide the optimal value at every stage of production.