Mucel[®] B-Series SCF Delivery System for Blow Molding Applications Equipment Data Sheet



The Trexel MuCell B-Series SCF (Super Critical Fluid) delivery system is a state of the art Nitrogen delivery and dosing system designed specifically for automotive blow molding applications. The system is designed to convert industrial grade Nitrogen into a super critical fluid.

The system precisely doses and injects the super critical fluid into the plasticizing unit of the blow molding machine at a pressure of up to 275 bar, creating a lower density microcellular material structure in the blow molded part. The B-Series SCF delivery system is designed specifically for the automotive blow molding industry and is available in 2 different configurations: The B-300 is designed for discontinuous extruder types and doses SCF on demand only. The B-320 is designed for continuous extruder types and delivers a constant flow rate of SCF.

B-Series systems feature an industry leading control system with a 15" PC based graphical touch screen user interface. Set up parameters require only the parison weight and percent of SCF for discontinuous types or flow rate and percent of SCF for continuous types. The system calculates everything else and provides for the interface with the blow molding machine, resulting in reliable and consistent microcellular foaming of blow molded automotive parts.



Technical Data

| Model | B-300 | B-320 |
|----------------------------|------------------------|------------|
| Operating Mode | Discontinuous | Continuous |
| Minimum Supply Pressure | 13.8 bar | |
| Maximum Supply Pressure | 200 bar | |
| Maximum Flow Rate | 1.2 kg/hr | |
| Overall Dimensions (WxDxH) | 55x63x156cm | |
| Weight | 240 kg | |
| Electrical Connection | 230/110 VAC 1ø 50/50Hz | |
| Air Consumption | 1500 NLM @ 6.5-10 bar | |

MuCell® Blow Molding for Automotive Parts

As a leader in providing lightweighting solutions to the automotive plastic parts industry, Trexel offers its patented MuCell[®] microcellular foaming technology for the production of blow molded automotive components with the following benefits:

- Significant weight and material savings due to reduced material density, 35-45% typical weight reduction
- Improved thermal insulation properties
- Improved acoustical properties
- MuCell[®] foamed parts can be recycled in their original polymer designation; the physical foaming process does not alter the chemistry of the polymer

About Trexel

MuCell® Microcellular foaming technology was originally conceptualized and invented at the Massachusetts Institute of Technology (MIT) and in 1995 Trexel was granted an exclusive worldwide license for the further development and commercialization of the technology. Today, Trexel is the exclusive provider of the MuCell® microcellular foam technology for injection molding and maintains an extensive global patent portfolio. Trexel provides world-class engineering support, training and other design and processing services, as well as the equipment and components integral to the MuCell® process.

From the global headquarters in Boston, Massachusetts, Trexel operates a state of the art plastics processing development laboratory, supporting plastics processors with the definition and implementation of leading and differentiating plastic molding technologies.

In support of a global client base, Trexel operates subsidiaries in Europe, Japan and Southeast Asia with competent plastics processing engineering capabilities. Trexel's worldwide subsidiaries are augmented by a network of competent independent representatives and distributors.







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MuCell® blow molded polyethylene air duct with 41% density reduction compared to solid.