

## Impeder Products for High Frequency Induction Welding

- **Ferrite Impeder Rods.**
- **Ferrite Filled "NeoGlas" Casings.**
- **Impeder Assemblies.**

MMG offers a comprehensive range of impeder and components to meet the requirements of the HF tube mill industry. Our ferrite rods are of the highest quality and designed to meet the stringent environment and operating conditions of the welded steel tube mill. In addition to the standard fiberglass tubing, we now offer a range of "NeoGlas" ferrite-loaded impeder cases to fit our range of internationally standard ferrite rods and tubes. If finished assemblies are required, we offer a standard range of impeder along with the ability to customize product to your particular requirements.



**Ferrite Rods** - Our ferrite rods are manufactured in solid, flat sided solid, hollow, fluted and fluted tube configurations, in 1mm or 2mm steps from 4mm to 20mm. Our material grades, F59 or W10, are specifically designed for tube welding applications to provide optimum performance (see our web site at [www.mmqgb.com](http://www.mmqgb.com) for material properties.)

**"NeoGlas" Casings** - The new "NeoGlas" casings are comprised of ferrite particles loaded at high density into epoxy-glass tubes. Epoxy-glass tubes are commonly used to hold ferrite rods in position during welding, and to direct the flow of cooling water. The efficiency of a ferrite impeder for directing and concentrating current in high frequency welding systems relates to the efficiency of coupling between the induction coil and the magnetic core. Application-specific ferrites have been developed for induction welding, but the conventional epoxy-glass casings, while providing high mechanical strength, result in a separation between coil and core reducing efficiency. The new "NeoGlas" range improves the magnetic loading in coil cross section and moves a shell of ferrite closer to the coil to improve coupling. These casings are most effective in smaller impeder where the cross section occupied by the casing is proportionally greater. Please see the "Tech Alert" entitled "NeoGlas" for order information and sizes available. MMG can also supply plain epoxy-glass sleeves without ferrite loading in one meter lengths on request.

**Impeder Assemblies** - MMG offers a standard range of impeder assemblies but also has the ability to modify and refine these designs to satisfy any new, or unusual operating requirements that arise. Our standard range of impeder includes flow through, return flow, integral, scarfing and return flow scarfing, in sizes from 8mm to 150mm OD. For details on impeder size and construction, please log on to [www.mmqca.com](http://www.mmqca.com) and go to the impeder section under products.

**MMG carries stock of most popular sizes for all of the products above but will extend this option to custom items if specifically requested.**

MMG Canada Ltd.  
Tel: 416-251-2831 Fax: 416-251-6790  
e-mail: [sales@mmqca.com](mailto:sales@mmqca.com)  
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