



# FiberSystems, Inc.

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300# Flanges  
Guide Specification  
Series 5000 Composite Pipe  
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## Guide Specification for Series 5000 Filament Wound FRP Composite 300# FRP Composite Flanges

- 2.10: **Flanges:** To provide maximum structural strength and integrity, all flanges are to be of filament wound composite construction. Flanges are to be of the socket type, and attached to the pipe by use of a structural adhesive. The bell taper for flanges shall be 1/2 deg. Flanges having bells (sockets) with a 0 deg. taper, or tapers exceeding 3/4 deg., are not acceptable.

Flanges are to be constructed using Reichhold Chemical's Dion 9100-05 premium grade epoxy vinylester. An epoxy vinylester resin matrix only is to be used for all flanges because of its superior toughness, strength, and physical properties.

All filament wound FRP composite flanges are to have integral gasket sealing rings on the flange face; including the outer edge of the face of the flanges.

Flanges that will be bolted to mating raised face steel flanges shall explicitly follow the selection and sealing recommendations of Fibersystems' technical bulletin, *Bolting of FRP Composite Flanges to Mating Raised Steel Flanges*.

Compression (gunk) molded flanges or hand laid-up flanges are not acceptable.

Because of the importance of flange integrity, flanges shall be provided only by a manufacturer having a minimum of 10 years of experience in producing filament wound flanges.

All flanges are to be to the dimensions and bolt hole patterns of ANSI B-16.5, 300 lb. drilling. 300# flanges are to be of the heavy duty hubless style.