



## ***Industrial Fiberglass Specialties, Inc.***

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### **Series 5800 FW FRP Furan Composite Pipe, Duct, and Fittings**

**For corrosion and solvent resistant, fire  
retardant, low smoke and high temperature  
industrial service**

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**Uses and  
applications:**

Chemical process piping  
Fire retardant applications  
Acid drains  
Elevated temperature chemical applications  
Floor collection drains  
Process plant piping  
Applications requiring solvent resistance  
Low smoke generation for ducting and stacks  
Excellent physical properties to 400° F.  
Piping for handling combinations of solvents, acids & bases  
An alternative to costly alloys and specialty metals  
Outstanding flame spread resistance  
Industrial service for corrosive liquids

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**Description:  
Composition:**

Filament-wound fiberglass reinforced furon composite pipe.  
ASTM D-2996 Classification Type I, Grade 2.  
Nominal 10 mil glass veil reinforced with fiberglass  
chopped strands, followed by a fiberglass filament wound  
structural overwrap.  
A premium grade heat cured furon resin is used throughout  
all laminates. The exterior of all laminates is factory post  
coated with UV resistant polymer coating.  
Operating temperatures up to 400 ° F.

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**Pipe Sizes:  
Pipe Lengths:**

137+ different diameters, ranging from a tiny 3/8" dia. up  
to a mammoth 168" dia. Pipe available built to iron pipe  
outside diameters (ASTM D-2996, Table 3), as well as pipe  
built to chemical process piping inside diameter standards.  
A current list of pipe sizes is available upon request. New  
sizes are being added regularly.  
1/2" dia. pipe and smaller is built in 5 ft. lengths.  
3/4" & 7/8" dia. pipe is built in 7 ft. lengths.  
1" through 1-1/2" dia. pipe is built in 10 ft. lengths.  
2" through 6" dia. pipe is available in 20 ft. lengths.  
8" dia. through 168" dia. pipe is available in 40 ft. lengths.  
For selected pipe sizes in 24" dia. and larger, 60 ft. lengths  
are available. Longer lengths mean fewer field joints.

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**Performance:** Good corrosion resistance over a wide temperature range. Temperatures from sub-zero to 300° F.

**Advantages:** Working pressures from NBS-PS-15-69 duct to 150 psi+, depending upon size and wall thickness.

Vacuum to -14.7 psig for all sizes, by selection of wall thicknesses, ribs and filament wind angle.

Available for earth burial, all depths, with selection of wall thicknesses, ribs and filament wind angle.

Weighs 1/6 as much as steel. Thus, lower installed costs.

Smooth inner surface produces very low frictional loss for reduced pumping and fan blower costs. Hazen-Williams flow coefficient of 150.

Recommended for a wide range of corrosion applications. Consult with Industrial Fiberglass Specialties, or the resin manufacturer, for specific recommendations.

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**Joining systems:** Bell (socket) and spigot structural adhesive weld bonded joints. Adhesive bonded joints are available as your choice of straight/straight, straight/taper and taper/taper.

Plain ends for butt and strap welding.

Threaded joints (NPT) through 12" dia. Other thread configurations available upon special order.

Flanges, all sizes through 84" dia. Including the superior filament wound socket flanges for sizes through 1/2" dia. through 36" dia. ANSI 150 lb., 300 lb. and 600 lb. all available as standard. Any pressure rating and drilling pattern available on order.

Van Stone, loose ring style, flanges

Flange Spacers - all diameters, bolt hole patterns and thicknesses, built to order.

Bell and spigot O-Ring joints, thru 84" dia.

Bell and spigot O-Ring joints with locking key for restrained ends.

Mechanical Couplings, including Victaulic and Taylor-Kerr.

Speed-Seal O-Ring true unions

Repair (maintenance) couplings.

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**Physical Properties:** See Table 1 for typical physical properties of Series 5700

**Mechanical Properties:** FW FRP Pipe. These are conservative properties that can be used for the design of FW pipe for pressure, vacuum, supported span and burial conditions. Contact Industrial Fiberglass Specialties, Inc. for recommendations on the appropriate design formulas to be used for FRP composite pipe.

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**Burial installations:**

As a custom manufacturer of pipe and fittings, we can design and build pipe to handle burial conditions ranging from live loads due to highway and rail traffic - to earth loads of 100 ft. or greater. We even have experience with underwater installations. Our engineers will welcome the opportunity to work with you on a pipe design, backfill selection and installation methods to meet your specific requirements. The result will be your lowest cost per year of service life (installed basis).

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**Supported span installations:**

Again, we can design and build pipe to provide you the lowest cost for supported span installed pipe. Since we are not limited to just a few pipe wall thicknesses and filament winding angles - we can select and choose the combination of pipe design and support design and cost that will provide your "best buy". Consult with our engineers for help with your specific requirements.

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**Fittings:**

Elbows, standard are 22-1/2°, 30°, 45°, and 90°. Any angle elbow available on special order. Elbows through 48" dia. are available as smooth radius. Mitered elbows are available in all sizes.

Reducing elbows

Tees, Reducing tees

Concentric taper body reducers

Eccentric taper body reducers

Saddles, with FRP and stainless steel threaded outlets, bell outlets, spigot outlets and flanged outlets.

Wear pads (blank saddles)

Crosses, Reducing Crosses

Laterals, Reducing Laterals

True wyes.

P-Traps and 180° U-Bends.

Floor drains

Expansion joints

Pipe couplings, Threaded (NPT) couplings

Adapters, bell by NPT thread (male or female threads available).

Adapters, spigot by NPT thread (male or female threads available).

Pipe nipples, Threaded nipples

Reducing bushings and threaded adapter bushings.

Fitting and pipe plugs. Pipe caps.

Blind flanges, Threaded flanges

Reducing flanges, Orifice flanges

All fittings are available as adhesive socket, plain end, flanged end, bell and spigot O-Ring; or any combination. See full Industrial Fiberglass Specialties" catalog "Reinforced Fiberglass Pipe Fittings & Accessories" for sizes, dimensions and tolerances. Fittings are available from 1/2" dia. through 84" dia. We welcome the opportunity to work with our customers on special fittings.

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