



# FRP PRODUCTS SPEC./TECH. BULLETIN

a single source for standardized corrosion control and anti-wear products for metal and plastic piping

**GLAS MESH FRP ROLL-ON SHIELDS • FRP INSULATION SPACERS • FRP CASING INSULATORS  
• FRP PIPE SADDLES • FRP FLATTIES**

## BACKGROUND

Having been a fiberglass reinforced plastic (FRP) manufacturer and fabricator since 1965, Glas Mesh Company set as objectives (1) the development and marketing of several new and standardized FRP products for use by industry corrosion control engineers and technicians, and (2) insulating products suitable for the prevention of electrical contact shorts on buried and exposed pipelines or mains. Until recently, companies simply used whatever they happened to have on the job site. After a comprehensive development program, Glas Mesh Company designed and began fabricating a line of corrosion and abrasion control products specifically shaped for piping and particularly useful to the gas, oil and chemical industries. These new FRP products are standardized, work effectively and are economical to use. They are also immediately available from stock.

The first of Glas Mesh Company's line of FRP products was the highly successful Roll-On Shield which stops corrosive and electrolytic wear of ferrous metal suspended or overhead pipe mains effectively and economically. FRP Roll-On Shields also eliminate or materially reduce hot or cold energy loss on thermally insulated pipe mains and serve to control abrasion and wear on plastic piping systems. Roll-On Shields are pre-shaped 240° peripherally.

Today Glas Mesh Company provides a complete line of FRP corrosion and abrasion control products: FRP Insulation Spacers, FRP Roll-On Shields, FRP Pipe Saddles, FRP Casing Insulators, and FRP Flatties. All are pre-formed and fabricated for specific functional uses.

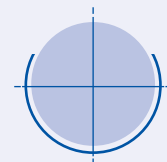
## WHY FRP?

When considering the advantages of modern plastics (light weight, ease of handling and installation, high dielectric strength, no corrosion problems), and their disadvantages (cold flow, cold temperature embrittlement, heat distortion, low abrasion resistance, relatively low compressive strength), it becomes obvious that fiberglass reinforced plastic (FRP) provides all the physical advantages and properties while eliminating or materially reducing the disadvantages of the non-reinforced plastics.

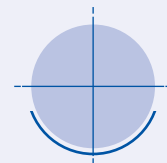
FRP's properties of light weight, ease of handling and installing, high dielectric strength, corrosion resistance with great compressive strength combine to make it the state-of-the-art material for Glas Mesh FRP abrasion control and electrical insulation products. Glas Mesh FRP products will not cold flow under pressure nor become brittle in cold temperatures, will not soften nor distort from heat, and they have excellent abrasion resistant properties.

Glas Mesh products are fabricated from a precision manufactured, filament-wound, ultraviolet protected, FRP epoxy with integral epoxy liner and exterior coating. FRP products' inside diameters approximate the outside diameters of the carrier pipes, thus assuring close fit and requiring minimum clearance during installation. Glas Mesh products meet all known industry-recommended specifications and properties.

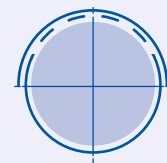
See inside for detailed descriptions and specifications for FRP corrosion control and anti-wear products.



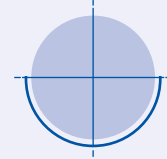
FRP ROLL-ON  
SHIELDS  
240 PC\*



FRP INSULATION  
SPACERS  
120 PC\*



FRP CASING  
INSULATORS  
220 & 240 pc\*



FRP PIPE  
SADDLES  
180 pc\*

FRP FLATTIES  
1 ft sq  
4 thicknesses



1/16"



1/8"



1/4"



1/2"

\*peripheral circumference

# GLAS MESH FRP PRODUCTS: SPECIFICATIONS, PROPERTIES AND USES

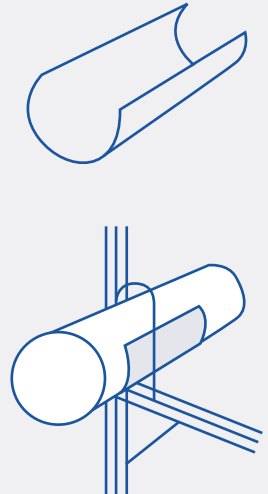
## FRP ROLL-ON SHIELDS — type no. 240

A non-conductive, pre-shaped 240° peripheral snap-on pipe saddle. Applications: Used by utilities for electrical isolation and abrasion control of mains and by industry for load distribution, energy conservation, and insulation protection at hangers and supports of overhead and pylon-supported pipe mains. Also, employed for abrasion control on plastic pipe systems and wrapped cables. FRP Roll-On Shields will never corrode or deteriorate, physically or chemically, and are easily installed. Snaps on carrier pipe and slides into place without tools, banding or welding. Special lengths can be made available.

Shield Nos.	Fit Pipe Diams. (Nominal)	Shield Length
2	2"	6"
3	3"	6"
4	4"	6"
6	6"	9"
8	8"	12"
10	10"	12"
12	12"	12"
16	16"	12"

18" - 36" ALSO AVAILABLE

Unique 240° design used with clevis or roller hangers ensures electrical insulation, eliminates abrasion and wear of pipe coating or jacketing due to vibration and movement of carrier pipe on support hanger. Roll-On Shield maintains the integrity of existing cathodic protection systems.

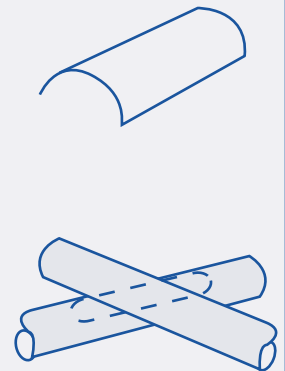


## FRP INSULATION SPACER — type no. 120

An extremely strong, non-conductive fiberglass reinforced plastic insulation spacer. Applications: Used by utilities to prevent and/or correct electrical shorts caused when buried steel mains contact each other or are in close proximity. Peripheral circumference of 120° minimizes shielding effect on cathodic protection systems.



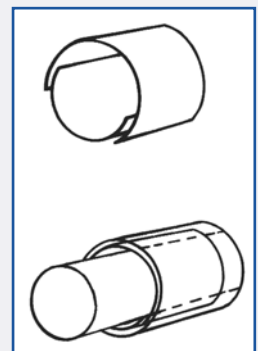
Spacer Nos.	For Pipe Diams. (Nominal)	Wall Thickness	Spacer Length
2	2"	.08"	12"
3	3"	.09"	12"
4	4"	.09"	12"
6	6"	.12"	12"
8	8"	.15"	12"
10	10"	.17"	12"
12	12"	.19"	12"
16	16"	.25"	12"
18	18"	.25"	12"
20	20"	.25"	12"
24	24"	.25"	12"
30	30"	.25"	12"
36	36"	.25"	12"



## FRP CASTING INSULATOR — type nos. 220-240

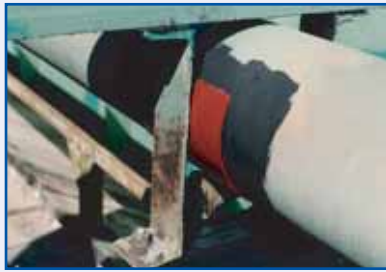
Application: Provides an extremely tough, inexpensive casing insulator that electrically isolates a gas carrier main from a steel casing, and provides excellent abrasion control. The two pieces snap together surrounding the carrier pipe and separating it from the casing. No tools, banding or welding are required. Ideal for retrofits where original or existing spacer or insulator has been damaged, deteriorated or failed. Special lengths can be made available.

Insul. Sizes	For Pipe Diams. (Nominal)	Insulator Length (Standard)
2	2"	6"
3	3"	6"
4	4"	6"
6	6"	6"
8	8"	6"
10	10"	6"
12	12"	6"
16	16"	6"



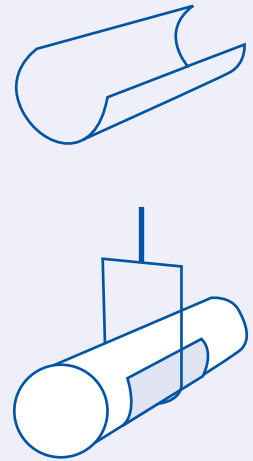
## FRP PIPE SADDLES — type no. 180

Non-corrosive, non-conductive 180° pipe saddles fabricated from high quality FRP. Applications: Substitute for, or use in place of, metal saddles where electrical insulation is desirable, and is ideal for pipes exposed to corrosive environments. Protects pipe insulation and plastic pipe systems from abrasive wear at overhead hangers and supports. May be banded, cemented or taped in place. Special lengths can be made available.



Saddle Nos.	For Pipe Diams. (Nominal)	Saddle Length
1	1"	6"
1½	1½"	6"
2	2"	6"
3	3"	6"
4	4"	6"
6	6"	9"
8	8"	12"
10	10"	12"
12	12"	12"
14	14"	12"
16	16"	12"

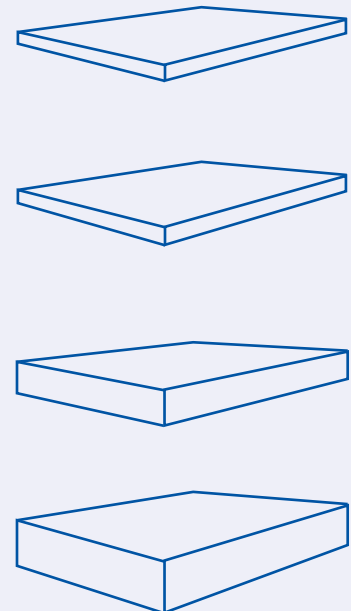
18" - 36" ALSO AVAILABLE



## FRP FLATTIES — type nos. 12-12 1/16", 1/8", 1/4", 1/2"

FRP FLATTIES are made of a select combination of random glass mat reinforcements saturated with polyester resins combined with suitable fillers. These composites are cured and compressed under moderate pressure to form smooth, dense laminates. Flatties have numerous applications in the natural gas distribution and transmissions and liquid pipeline industries. They are available in 12" x 12" squares or economical larger sized sheets. We will be glad to quote prices on specific thicknesses or non-standard sizes, thicknesses or widths.

Dimensions may vary slightly because some material is lost during fabrication.



**NOTE:** All Glas Mesh FRP pipe products can be custom fabricated and sized to fit your own requirements and specifications. Please call or write our FRP design staff.

(not to scale)



CALL OR WRITE TODAY FOR PRICE, DELIVERY AND TECHNICAL INFORMATION. PROMPT AND COURTEOUS RESPONSE GUARANTEED.

*"We wrote the book about FRP  
corrosion control, insulating and anti-wear products  
for gas utilities and other industries."*

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