



# Perry Fiberglass Products, Inc.

LEADERS IN FIBERGLASS REINFORCED PLASTIC DUCT PRODUCTS

33660 PIN OAK PKWY, AVON LAKE, OH 44012

PHONE 440-930-7701

FAX 440-930-7717

www.PerryFiberglass.com

## INDUSTRIAL & COMMERCIAL SPECIFICATION SHEET

### GENERAL CORROSION

#### PERRY 20S CLASS 1 DUCT

##### Ductwork

Single Wall (20S)

Ductwork, including fittings, shall be constructed of filament wound fiberglass reinforced plastic, as manufactured by Perry Fiberglass Products, Inc. per the specification section 15815. Manufactured per SMACNA, ASTM D 2996, and industry standard PS 15-69 minimums. Designed for min 12" WC pressure and 12" WC vacuum. A minimum designed structural safety factor of 5 shall be used.

##### Resins

10 mil liner & 100 mil corrosion barrier

- Hetron FR 992 w/3% antimony trioxide
- Derakane 510A w/5% antimony trioxide
- Eastman Chemical 755-8590 w/3% antimony trioxide

Structural

- Hetron 99P w/3% antimony trioxide
- Derakane 510C w/3% antimony trioxide
- Eastman Chemical 745-4586 w/3% antimony trioxide

#### REQUIREMENTS OF A CLASS 1 DUCT PER UL 181 AND UMC 10-1

**FLAME SPREAD:** less than 25

**FUEL CONTRIBUTED:** less than 10

The laminate shall consist of two of the above resins. Resin shall not contain fillers except as required for thixotropic control of fire retardance. The duct and fittings, as a finished composite shall meet the Flame requirements (25) of a Class 1 duct per UL 181 and UMC 10-1, and ASTM E-84.

Wall thickness shall comply with PS 15-69 duct standards. The ductwork shall be furnished with the following minimum wall thickness 0.125" for ducts up to 20" in diameter, 0.187" for ducts 21" to 36" in diameter, and 0.25" for ducts 37" to 60" in diameter.

Rectangular Ductwork wall thickness shall be determined by substituting the long side for the round diameter.

The inner surface shall contain a 10 mil thick "C" veil saturated with a premium resin from above, (approx. 90% by weight resin). This will be followed by a 100 mil corrosion barrier (2 layers of 1-1/2 oz. chopped mat) with the same resin as used on the 10 mil liner. The structural layer shall be as required for design service and shall be filament wound using resin as detailed above. Duct exterior shall have a relatively smooth surface free of exposed fibers and shall contain an ultra violet inhibiting agent in the gel coat. All resin and joint material is suitable for a 200°F service.

#### INSTALLATION

Field joints shall be butt-type wet lay-up method. Flanged connections shall be provided where indicated on the contract drawings. Both of these joining methods are of the same material as the duct, thus forming a continuous FRP component system.

Manufacturer's installation instructions to be followed.

Overhead ductwork, when exposed, shall be manufactured incorporating a color selected by the Architect.



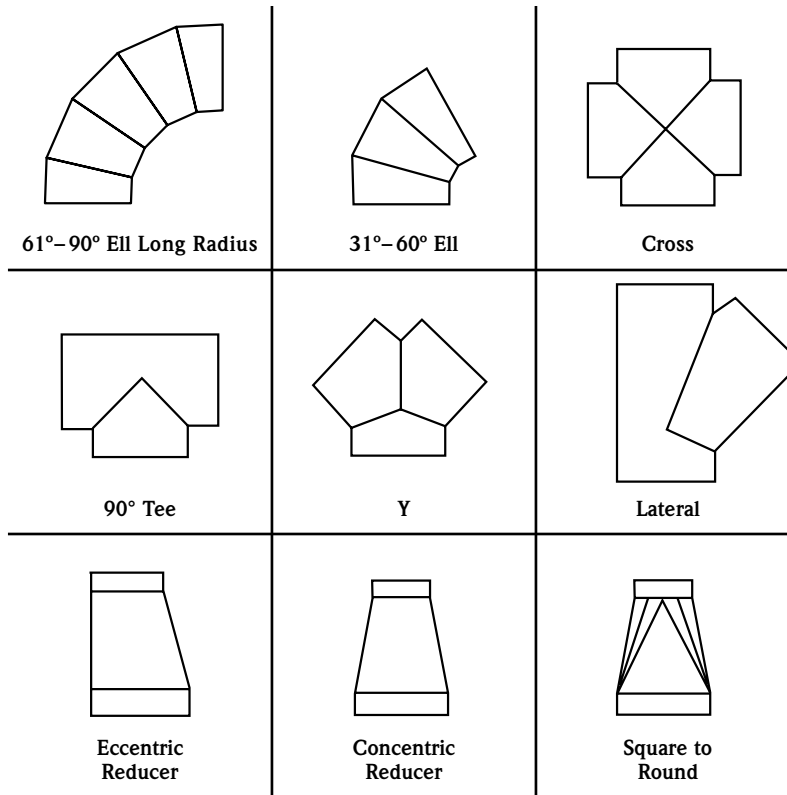
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## TYPICAL CONFIGURATIONS

Individual product sheets are available on our website or by calling our offices.



JOB \_\_\_\_\_

LOCATION \_\_\_\_\_

JOB NO. \_\_\_\_\_

ENGINEER \_\_\_\_\_

REPRESENTATIVE \_\_\_\_\_

CONTRACTOR \_\_\_\_\_

DATE \_\_\_\_\_

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APPROVED BY \_\_\_\_\_