# **GRAIN-AIRE® PIPE SPECIFICATION**

#### Scope

This specification describes 18- through 36-inch (450 to 900 mm) Grain-Aire pipe for use in metering air and providing uniform flow air in flat storage structures.

## **Pipe Requirements**

Grain-Aire pipe shall have a smooth interior and annular exterior corrugations covered with a polypropylene protective screen to provide unrestricted air flow.

## **Joint Performance**

Pipe shall be joined with split or snap couplers covering at least two full corrugations on each end of the pipe.

## **Material Properties**

Pipe and fittings shall be high density polyethylene conforming with the minimum requirements of cell classification 424400C as defined and described in the latest version of ASTM D3350.

#### **Perforations**

| Nominal Diameter | Corrugations Per Foot | Number of Holes Per Foot | Min. Hole Diameter | Open Area Per Foot |
|------------------|-----------------------|--------------------------|--------------------|--------------------|
| 18" (450 mm)     | 4.7                   | 24                       | 5/8" (16 mm)       | 7.36               |
| 24" (600 mm)     | 4.7                   | 24                       | 5/8" (16 mm)       | 7.36               |
| 30" (750 mm)     | 2.9                   | 32                       | 1/2" (13 mm)       | 6.28               |
| 36" (900 mm)     | 2.4                   | 32                       | 1/2" (13 mm)       | 6.28               |

## **Protective Screen**

| Material                    | Polypropylene | Test Method  |  |
|-----------------------------|---------------|--------------|--|
| Bursting Strength (lbs/in²) | 484           | ASTM D3786   |  |
| Weight (oz/yd²)             | 5.3           | ASTM D3776   |  |
| % Open Area                 | 25            | ASTM D475    |  |
| Tensile Strength (lbs)      | 425 (Wrap)    | ASTM D5034   |  |
| (Grab Test)                 | 273 (Fill)    | ASTIVI D3034 |  |