Introduction

Prinsco's Goldflex® is a flexible dual-wall pipe for the agricultural market. 8", 10", 12", and 15" Goldflex is available in large coils and can be installed using a trencher or tile plow with a proper boot, thereby eliminating the need for workers in an open trench. The information presented here details recommendations for boot design, burial depths, and installation techniques, along with additional considerations for installing Goldflex pipe.

Figure 1: Goldflex Coil

Boot Design Recommendations

Optimizing factors of boot width, shaped bottom, and bend radius will allow the pipe to move through the boot while also providing proper support to the installed pipe.

To help aid with initially feeding the pipe through the boot, and reduce friction as the pipe moves through, the inside width of the boot shall be approximately **3" wider** than the outside diameter (OD) of the pipe (Figure 2). Therefore, a boot for 12" Goldflex pipe will be approximately 17.5" wide (Table 1).

However, the bottom of the boot shall have a **shaped bottom** similar to the OD of the pipe to provide proper support. Potential rounded boot shapes are shown in Figure 3. The groove shape left by the boot shall leave a gap no greater than 1-inch on either side of the installed pipe at the springline.

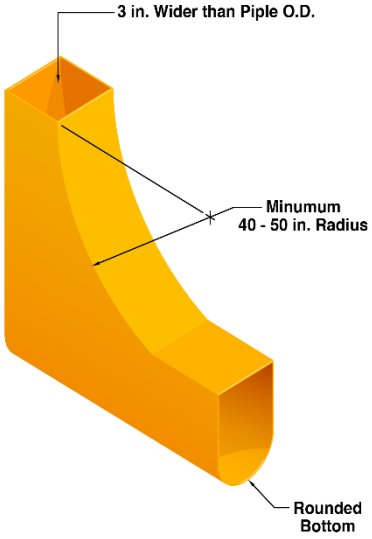

Figure 3: Boot Design Example

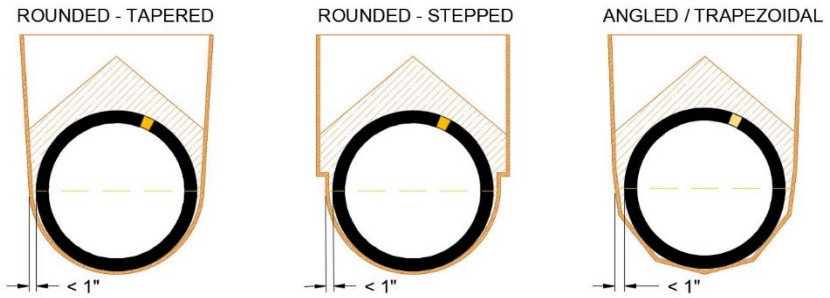

Figure 2: Potential Shaped Bottom Boot Options

Table 1: Goldflex Pipe and Recommended Boot Dimensions

Nominal Pipe ID	Approx. Pipe OD	Boot Width at Top	Minimum Boot Bend Radius
8" (200mm)	9.3" (240mm)	12.3" (315mm)	40" (1000mm)
10" (150mm)	11.9" (300mm)	14.9 (375mm)	40" (1000mm)
12" (300mm)	14.5" (365mm)	17.5" (440mm)	50" (1250mm)
15" (375mm)	17.8" (445mm)	20.8" (520mm)	50" (1500mm)

The boot shall have a minimum **40" to 50" bend radius** depending on the pipe diameter (Table 1). Many commercial boots have a greater bend radius, which may be considered for use for installation of Goldflex. Contact your Prinsco representative for questions on specific boots.

Burial Depth

The maximum burial depth is significantly influenced by the quality and compaction level of the soil backfill around the pipe. Goldflex, along with all flexible pipe, relies on the strength of the soil around it to help carry the overburden load. The maximum recommended burial depth for Goldflex pipe installed in, and surrounded by, native soil is **8-feet** measured from top of pipe. For deeper burial depths and more information on backfill, reference *ASTM F449* and Prinsco's *Agricultural Installation Guide*.

Installation Recommendations

- To aid with installation, a support or large diameter tile feeder should be used to help guide the pipe from the ground into the boot and avoid obstacles (Figure 4). If a guide is not used, someone should walk with the machine to support the pipe and form a consistent arch into the boot.
- Split couplers and tile tape should be used when connecting two ends of Goldflex coils to ensure they do not pull apart during installation.

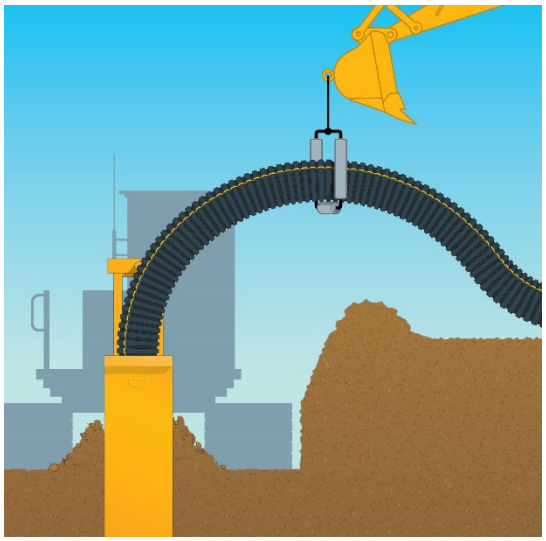

Figure 4: Goldflex Support Guide

Additional Considerations

Below are some additional considerations that should be made when installing Goldflex pipe:

- An overcut, or sub-cut, may be required for deeper burial depths (Figure 5). The depth and use of an overcut will vary based on pipe diameter, soil type, moisture content, ground temperature, etc.
- Special care shall be taken when water table depths are at or near the ground surface. Soil strength and support around the pipe may be reduced with high water levels, thus reducing the load-carrying strength of the installed pipe. For these scenarios, it is recommended to use perforated pipe and allow the soil around the pipe to dewater before applying final backfill.
- The same care and methods that are used for single-wall installations are recommended for Goldflex as well. Refer to Prinsco's *Agricultural Installation Guide* for additional installation recommendations.

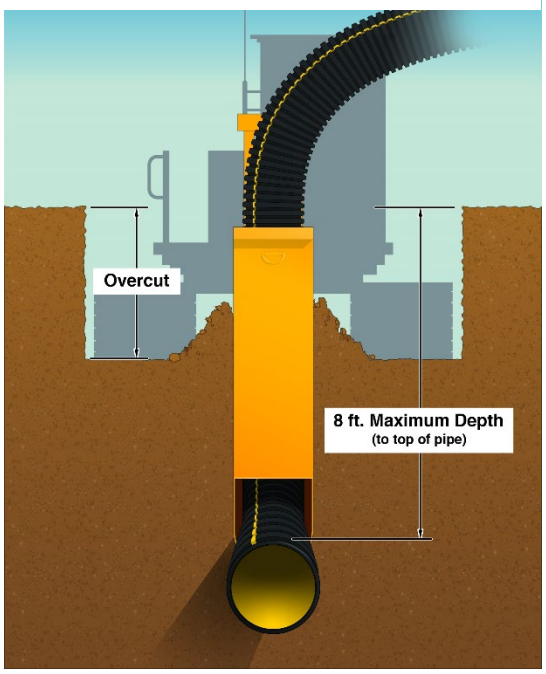

Figure 5: Goldflex Burial Depth and Overcut