



PipeSak® Pipeline Protection

Technical Notes

PipePillo® Structured Pipeline Support

GENERAL

PipePillo® is a structured pipeline pillow (SPP) used to safely support fully loaded pipelines, in rocky trenches, for the life of the pipeline.

PipePillo® pipeline supports are light enough to be handled, yet dense enough to **resist flotation**.

PipePillos® are manufactured from high-strength polypropylene resins which are **environmentally inert** yet softer than most pipeline coatings. In addition, many PipePillo® pipeline support openings allow cathodic protection.

The design incorporates a patented dual frustoconical shape which **transfers extreme loads** effectively through to consolidated or virgin soil beneath. PipePillo® supports offer a **full 90° of support** and will not damage the pipe or its coating.

PipePillos® can also be used to support exposed pipelines during and following integrity digs to **reduce the requirement for compacted soil** beneath the pipeline.

See the PipePillo® dimensional data chart on page 2 for more details or call us for a project-specific design.



FOR USE IN-TRENCH

Most PipePillo® sizes have a rectangular center hole for a standard wood 2x4' to position them in place while keeping workers out of the trench. For deeper excavations, PipePillos® can be strapped to the bottom of the pipeline before installation.

For larger PipePillos®, a hydraulically controlled installation rod, PilloPicker®, can be used to quickly pick up and place PipePillos® - one at a time.

1. Position each PipePillo® pipeline support along the trench line as per the provided spacing requirements.*
2. PipePillo® pipeline supports can be carefully tossed into the trench and straightened later with a standard 2'x4' ensuring the yellow stickers on each PipePillo® are aligned.
3. As the pipeline is lowered in, ensure it is centered over the PipePillo® pipeline supports.
4. For inconsistent areas of trench (e.g. sags, over bends, sidebands, tie-ins, etc.) or areas where external loading is anticipated, closer spacing is recommended.
5. For deep excavations (>6ft/2m), it is recommended proper compacted sand bedding be maintained along the trench bottom between individual PipePillos® to ensure sufficient load capacity is maintained.

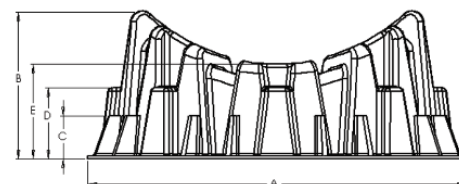
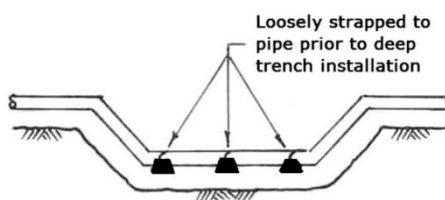
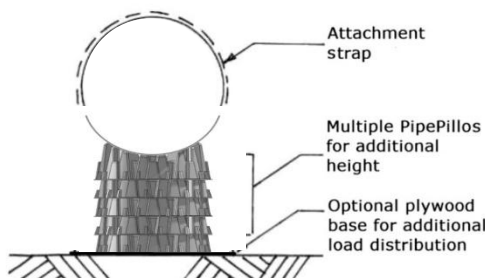
In addition, loosely attach each PipePillo® with an attachment strap (suggest 3/8"-1/2" poly rope) through the two side holes to the bottom of the section of the pipe prior to pipe installation.

***Contact PipeSak for your required PipePillo® spacing.**

FOR USE OUT-OF-TRENCH

Although designed for stable, long-lasting support in rocky trenches, PipePillos® **can be used individually or stacked** for various heights outside of the trench during stringing and welding processes (note: stacked PipePillos® have reduced ultimate capacities, Ultimate Load Capacities in the dimension data chart).

1. PipePillos® arrive stacked in a tight configuration as shown.
2. For stringing, space PipePillos® as you would wooden skids with approximately one tower of PipePillo® pipeline supports of the pipe. **Contact PipeSak for spacing.**



3. Each PipePillo® has two stacked levels +/- the shipping level, which adds 3" to the height, and the extended level, which adds 4.5"-6" to the height/PipePillo® pipeline support. To achieve the extended level, rotate the top PipePillo® approximately 22.5° off center.
4. For areas where soil may be loose or wet, a bottom plate of ¾" plywood may be utilized. For long-term pipe stability and safety following welding, it is recommended every other PipePillo® tower be tightly strapped to the pipeline. When the pipeline moves, its support moves with it.

PipePillo® pipeline supports can also be screwed directly to a base through the bottom flange attachment holes.

PIPEPILLO® DIMENSIONAL DATA

When stacking, ensure corresponding shoulders line up as shown below.

Suggested maximum 5 PipePillo® supports per stack. **Contact us for more information about stacking.**

PipePillo® Model		SPP8	SPP16	SPP24	SPP36	SPP48	
Pipe Size (in)		Up to 4	Up to 8	Up to 16	Up to 24	Up to 36	Up to 48
Weight	lbs. (kg)	0.8 (0.4)	0.8 (0.4)	5.1 (2.3)	9.2 (4.2)	26.7 (12.1)	42.8 (19.4)
Diameter (A)	in (cm)	9 (22.8)	9 (22.8)	16 (40.6)	24 (60.9)	36 (91.4)	46 (116.9)
Overall Height(B)	in (cm)	3.3 (8.4)	3.3 (8.4)	8 (20.3)	9.4 (23.8)	14.0 (36.0)	15.5 (39.4)
Low Stacked Height (C)	in (cm)	1.5 (3.8)	1.5 (3.8)	2.75 (7)	2.75 (7)	3 (7.6)	3 (7.6)
High Stacked Height (D)	in (cm)	N/A	N/A	4.5 (11.4)	4.5 (11.5)	6 (15.2)	6 (15.2)
Pipe Support Height (E)	in (cm)	2.5 (6.4)	2 (5.1)	6 (15.2)	6 (15.2)	8 (20.3)	8 (20.3)
Ultimate Load Capacity* (Single)	lbs. (kg)	3,500 (1,588)	8,500 (3,856)	20,000 (9,070)	33,000 (14,970)	65,000 (29,480)	85,000 (38,550)
Ultimate Load Capacity* (Stacked)	lbs. (kg)	-	-	12,000 (5,443)	20,000 (9,072)	35,000 (15,876)	55,000 (24,948)

* **Load capacities are reduced** when diameters less than the maximum diameter of the PipePillo® are supported. A **minimum** safety factor of 5 is recommended for in-trench use, and a factor of 8 is recommended for out-of-trench use. **Contact PipeSak® for a spacing estimate or more information on load capacities.**