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PVC Installation Guide - Underground Ducts

Install Above Water Table

The PVC duct system is not designed to be waterproof. Installation must be made safely above the water table. Ducts should not be placed where water infiltration may occur.

Depth

The top of the duct can extend into the cement, leaving a minimum of 2 1/2" of cement above the top, or the duct can be placed well below the cement. However, the duct should not be placed so deep that the weight on it will exceed the load capacities. The depth should not be more than 2 1/2 times the diameter of the duct.

Trenching and Backfill

After the excavation has been completed, no special bedding is needed for the PVC Duct. It can rest right on the ground, can be set in sand or light aggregate. Trenches should be pitched to prevent water buildup around the ductwork. Pea gravel or sand (or the material taken from the trench, if equivalent) can be used to backfill. Spread the backfill material evenly around the duct making sure there are no gaps, and tamping in place is a recommended practice.

No cement is needed to fill in around the duct since the tamped fill hold the duct in place and the plastic coating prevents ground corrosion of the galvanized steel. This plastic coating is resistant to any minerals or salts that may be in the backfill soil.

Large Diameter Ducts

Use E-Z Flange with Barrel Clamp for strength, rigidity and a virtual airtight system. Special care should be taken with large diameter ducts. Backfilling and tamping should be done without damage to the ducts. Temporary bracing can be used inside the ducts. Consult an engineer for the reinforcement schedule on large diameter ducts.

Load Specifications

#1 Standard	4"-8"	400 lbs./Linear Ft.
	10"-12"	600 lbs./Linear Ft.
#2 Corrugated	14"-36"	1800 lbs./Linear Ft.*

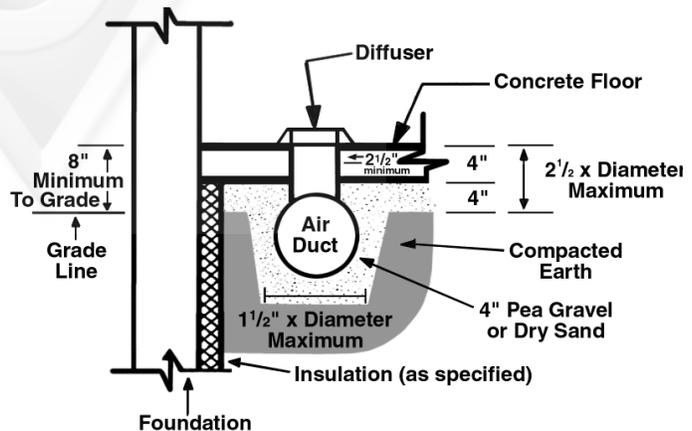
*All ducts 14" or more in diameter are corrugated for extra strength.

Where deeper burial or heavier loading is required duct gauges can be increased. Also angle rings and/or special bracing can be used.

PVC Underground Ducts Size, Gauge and Weight Table

Duct Diameter	Nominal Gauge	Nominal Weight Lbs./Ft.	Duct Diameter	Nominal Gauge	Nominal Weight Lbs./Ft.
4"	26	1.1	30"	20	14.8
5"	26	1.4	32"	20	15.8
6"	26	1.6	34"	18	22.3
7"	26	1.9	36"	18	23.8
8"	26	2.2	38"	18	25.0
9"	24	2.5	40"	18	26.2
10"	24	3.4	42"	16	33.3
12"	24	4.2	44"	16	34.9
14"	24	4.9	46"	16	36.5
16"	24	5.6	48"	16	38.0
18"	22	7.6	50"	16	39.6
20"	22	8.5	52"	16	41.3
22"	22	9.3	54"	16	42.9
24"	22	10.1	56"	16	44.5
26"	20	12.9	58"	16	46.0
28"	20	13.9	60"	16	47.3

Typical Underslab Duct



CAUTION: When backfilling or grading, care should be taken not to dump or push heavy loads directly on the duct, nor should heavy equipment be allowed to run over the duct. It can be crushed under thoughtless abuse.

