



The Blue Diamond Underground OptiVault

The Blue Diamond **OptiVault**, a surface access storage vault stores cable, amplifiers and splice enclosures for underground cable construction. The lightweight HDPE construction allows for easy field handling. Installation is efficient and requires no lifting equipment.

The **OptiVault** is 48" in diameter and is available in three height options. All **OptiVaults** have a 29" surface entry diameter.

Three lid options are available with the Blue Diamond **OptiVault**; a 180 lb concrete filled HDPE lid, locking treadplate steel lid and an H-20 traffic rated lid option. The concrete filled lid design has two lifting handles and an optional custom imprinted aluminum nameplate. A standard cast iron manhole ring and manhole cover should be installed whenever the **OptiVault** is used under roadway pavement.

The Blue Diamond **OptiVault** is RUS/USDA approved and is suitable for use under H-20 highway loads when installed in accordance with the manufacturer's guidelines. Other options such as the Underground Watertight **OptiVault** are also available.



3399 Tates Creek Road, Suite 110
Lexington, KY 40502
(859) 224-0415 • (859) 224-0543 fax
www.bdiky.com

Installation guidelines recommended for Blue Diamond HDPE OptiVaults.

EXCAVATION and BEDDING

Prepare an excavation at least 6' in diameter. Excavate 8-12" deeper than the finished elevation of the base.

Line the hole with the geotextile fabric included with the OptiVault.

Place 8-12" of crushed rock or gravel in the bottom of the excavation to provide a stable base for the vault. In all cases, project specifications must be adhered to.

Backfilling

For installations outside vehicular traffic areas, native material from original excavation may be used to backfill the OptiVault. Care should be taken to place the native material in 8" lifts placed uniformly around the vault. Each 8" lift should be compacted using tamping tools or mechanical tampers. The best results will be achieved when the materials are tamped to approximately 90% of their original density.

Conduit Holes

If conduit holes have not been pre-cut at the factory, use a hole saw with a standard carpenter blade to cut them on site.

VEHICULAR TRAFFIC AREAS

Backfilling

The OptiVault is capable of supporting H-20 Live Loads (45,000 pound, single axle) when backfilled with select granular material* (gravel, angular stone, crushed rock). Backfill must be Class 1 or Class 2 material placed uniformly in 12" lifts and compacted as necessary. A conventional cast iron ring and cover are required in Traffic Installations.

*Backfill Note

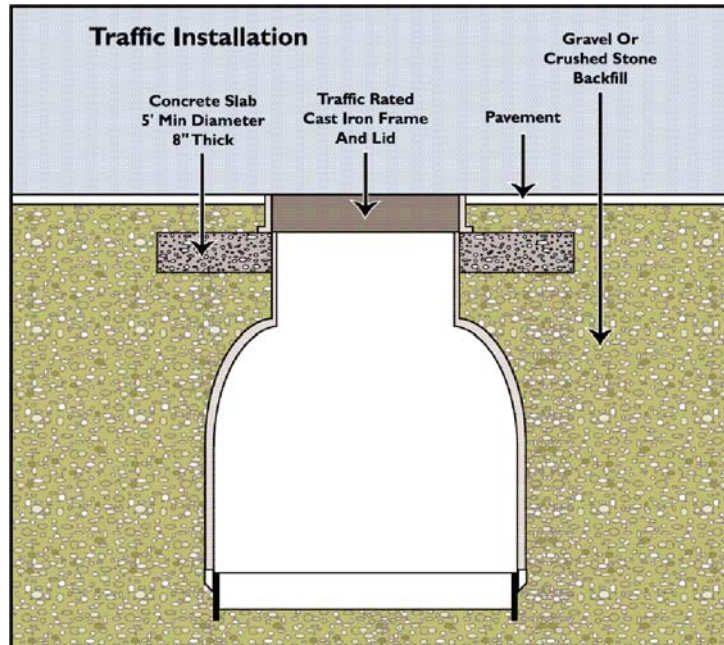
Manhole Ring and Cover Installation

After backfilling in accordance with the previous instructions Opti Vault installed where vehicular traffic occurs require a concrete collar or grade ring to support and level the selected cast iron manhole ring and manhole cover. The concrete grade ring should be approximately 5' in diameter and 8" thick. The opening in the grade ring should be 30" minimum. The Polyethylene neck of the OptiVault should be enclosed by the grade ring but the concrete grade ring must not rest on the OptiVault neck.

*Backfill Note:

Class 1: Angular 1/2 - 3/4" maximum size, well graded crushed stone, coal, slag, cinders or crushed shells. (ASTM D2321 allows the use of 1 1/2" maximum size aggregate, but the use of such large sizes is not consistent with the requirements for uniform haunching and embedment, particularly for small pipe.)

Class 2: Clean, coarse sand and gravel with maximum particle size of 1/2 - 3/4", including variously graded sand and gravel containing small percentages of fine, generally granular and noncohesive, either wet or dry. ASTM D2487 soil types: GW, GP, SW and SP.



ORDER INFORMATION

Part #	Surface Entry OptiVault
BD-MOV41	Surface Access - Overall Height 47"
BD-MOV53	Surface Access - Overall Height 59"
BD-MOV65	Surface Access - Overall Height 71"
	OptiVault Lid Options
BD-MOV-PCL	Concrete filled polyethylene lid
BD-MOV-PCLL	Concrete filled polyethylene lid with lock bar
BD-MOV-TPLL	30" tread plate self-locking lid
BD-MOV-TRL	Traffic rated cast iron lid and collar

