



CIP-FULL DEPTH MANHOLE FAQ

Why Rehabilitate a Manhole?

Effective manhole rehabilitation is necessary to remove infiltration/ inflow, restore structural integrity, and address public safety issues. Deteriorating manholes are a major contributor to SSOs and can be a serious hazard to the public when not properly maintained.

What is a CIP-Full Depth Manhole Liner?

LMK's cured in-place Manhole liner is a unique one-piece resin saturated liner designed to renew structural defects and reduce I/I in a variety of manhole configuration and sizes through the use of a one-size-fits-all liner tube with no digging required whatsoever.

Is the CIP-Full Depth Manhole Liner Conducive to All Manhole Construction Types?

The CIP-Full Depth Manhole liner is made to fit all manholes including barrel sections, eccentric and concentric cones constructed of brick and mortar, pre-cast, or cinderblock. LMK's liner will conform to the manhole walls creating a new structural one-piece lining.

What if Only the Top Section Needs to be Renewed?

LMK also offers the CIPMH™ Chimney liner. Traffic loading, freeze/ thaw conditions, and bad maintenance or faulty installation methods make chimneys a major source of inflow in a collection system. The CIPMH™ liner is a cost effective solution to reduce the most defective portion of the manhole. Please refer to LMK's CIPMH™ Chimney liner System.

How is the CIP-Full Depth Manhole Liner Installed?

First, the manhole is prepared by pressure washing, and filling large voids when necessary. The liner tube is then prepared by vacuum impregnating a specific amount of thermo-set resin. Then, a special retaining ring is attached to the upper end of the liner tube, used to hold the liner in place while it is suspended in the manhole. The liner is fed by hand and inverted through the center of the retaining ring. After the liner is fully inverted, an inflation device is inserted within the manhole liner and controlled air pressure is applied. Lastly, the liner is cured at ambient temperatures, typically within two hours from mixing the resin. Manhole rehabilitation can be completed with only a two- man crew.

Will Weather Conditions Affect the Installation?

LMK's Full Depth Manhole lining process can accommodate installation in cold winter months as well as warm summer months. This is done by adjusting the resin mixtures and cure times giving the installer the necessary working time to complete a successful manhole renewal.



Are Liners Custom Made for Installation?

LMK Manufactures a one-size-fits-all bulk roll of liner tube. When the installer is ready to begin, he simply measures the manhole depth, cuts off an equal length of liner, and proceeds to prepare the liner for installation. There is no need for a custom-tailored liner and the LMK CIP-Full Depth Manhole liner allows the contractor to inspect, measure, prepare the liner, and renew the manhole all in the same day.

How Many CIP-Full Depth Manhole Liners Can be Installed in One Day?

On average 3 to 7 installations per day can be performed with 2 installation devices and a two-man crew.

How long Will the CIP-Full Depth Manhole Liner Last?

LMK's liner systems are engineered for a minimum service life of 50 years.

Is There Traffic Disruption?

Traffic disruption is minimal. Since the entire process is done without digging, costs associated with locating utilities, excavation, and restoration is not applicable.

Is Flow Interrupted During Installation?

Typically, LMK's Full depth liners are installed from the top of the manhole chimney to the crown of the main pipe so no mainline service interruption or reinstatement is necessary.