



The Lifespan[®] System

Watertight, Corrosion-proof Frame and Adjustment Risers

The very systems designed to manage our wastewater have now become major management challenges themselves.



Aging sanitary collection systems are developing leaks. As a result, excess water is getting into the system. The added flow not only reduces sewage carrying capacity, but

often forces systems to handle volumes for which they were not designed.

After severe rain events, the systems often fail, sending untreated sewage into basements, streets and public waterways. Adding temporary storage or expanding treatment capacity does not solve the problem at the source, but instead adds to operational costs and does nothing to abate energy demands and carbon emissions.



The Lifespan[®] System breaks the cycle

The Lifespan[®] System eliminates unwanted flows at the source.

The Lifespan[®] System frame components are made of the same high-performance rubber that has been used to seal sewer pipes and manholes for more than 60 years. Now, applied to the top of the collection system, you have a watertight, corrosion-proof, and highly durable frame, which has the added benefit of eliminating rattling, binding and breakage of covers.

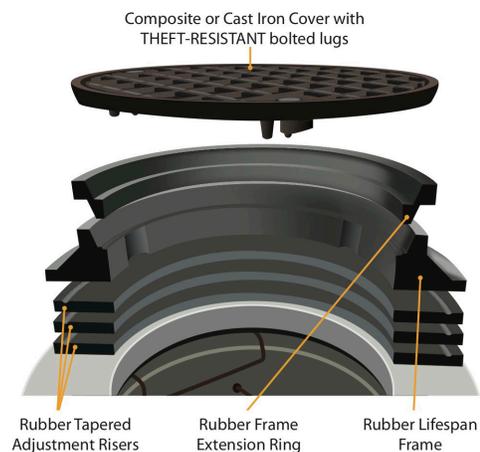
Suitable for use in either new or rehabilitation installations, The Lifespan[®] System is designed to retain the hydraulic, watertight and structural integrity of the underlying concrete structure and deliver a much longer



service life than traditional cast-iron frame and cover systems. This means, when taking into account the elimination of maintenance needs and reduced sewer treatment costs, the life cycle cost of Lifespan[®] will be lower than other systems.

Lifespan[®] is an effective I&I solution for low-traffic, residential and off-road applications. It is not recommended for highways or high-traffic areas.

The Lifespan[®] System is designed to remain watertight - at all connection points, including where it meets the underlying concrete structure.



**Making Infrastructure Watertight Today
for a **Greener**, Sustainable Tomorrow**

Manholes are often the first segment of a collection system to fail!

Traditional concrete and metal systems are not designed to effectively handle their actual use - withstanding freeze-thaw cycles, heavy loads from traffic and a highly corrosive environment. When they inevitably crack and fail, water enters the collection system adding unanticipated flows. At the same time, water infiltrates underneath the frame, taking fines with it. As the sand backfill is lost, voids are created and the pavement which surrounds the frame collapses.



The excessive water reduces capacity while increasing wastewater treatment costs and energy use. Of course, there's also the added expense of repairing the road and the manhole structures themselves.

Common source of Inflow

- Pick holes!
- Periphery between metal cover and metal frame

Common sources of Infiltration

- Gaps between metal frame and concrete grade rings, the stacked grade rings, and the grade rings and the concrete structure.
- Cracks in concrete grade rings

Specifications

The Lifespan System® frame and adjustment risers meet testing standards HKS587. The system also meets AASHTO H-25/HS-25 load requirements with cast iron covers and H-20/HS-20 with composite covers.

HKS587 testing standard:

	ASTM Standard	Test Requirements	Properties	Units
Physical Properties	D 2240	Min. durometer	75	Type A points
	D 412	Min. tensile strength	1200	psi
		Min. ultimate elongation	300	percent
Heat Resistance	D 573 at specified temp	Specified temp. of test	70	degrees C
		Aging time	96	hours
		Max. change in durometer	+15	Type A points
		Max. change in tensile	-20	percent
Compression Set	D 395 Method B at specified temp	Max. change in elongation	-25	percent
		Specified temp. of test	70	degrees C
Low Temp Brittleness	D 746 Procedure B	Max. permissible change (22 hrs)	25	percent
		Tested at -40 deg. C	passes	
Ozone Resistance	D 1149	Concentration of ozone	50	mPa
		Duration of test	72	hours
		Result	No cracks	



Sizes

The Lifespan® System is available in 24"/600mm, 27"/675mm and 30"/750mm clear opening sizes.

The Lifespan® System includes:

- Cast iron or composite cover with SHURE-LOK® alignment and cam security/closure system
- Rubber frame, anchor bolts, sealant
- Tapered rubber adjustment risers (1/2"/12.5mm to 1-1/2"/37.5mm)
- Extension riser



The Lifespan® System

- includes SHURE-LOK® alignment system for exact alignment and locking of frame and cover.
- utilizes tapered risers, simplifying matching the top of the frame with road or ground surfaces.
- saves money because it outlasts and is more efficient than anything else presently available.
- is completely watertight with proper installation.
- absorbs impacts, so the system and surrounding pavement remain intact, saving costly road repairs.
- is installation-friendly - 24"/600mm frame weighs only 55 lbs/25 kgs and 24"/600mm composite cover weighs only 59 lbs/27 kgs!

Field Proven

The Lifespan® System has been field-proven for several years in very harsh environments with temperatures ranging from -32° C (-25° F) to +40° C (+104° F), numerous freeze/thaw cycles, corrosive road salts, residential traffic and snow-plow blades. The units have handled these conditions well and cities continue to install more units.



TEL: (800) 268-8479
 FAX: (888) 674-6960
 WEB: www.hamiltonkent.com
 E-MAIL: information@hamiltonkent.com