# Sewer and Manhole Dredging Kit



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#### Scope of application

Sewer and manhole dredging kits are tools for professionals in the work of dredging debris in public sewerage. It is an appropriate application of our equipment to the machine you are using. It allows for greater productivity. It can work quickly and conveniently, saving labor significantly and making it low-cost.

Sewer and manhole dredging kits consists of two main parts;



1. The sewer cleaning debris basket is an equipment for used to dredging debris inside the sewer to gather in the manhole. It will work with winch (electric winch) with a high traction capacity of 5 tons, which can be installed with the existing vehicle's electrical system to tow the sewer cleaning debris basket instead of manual labor. It can save dozens of workers and help make work more convenient and faster.



2. The clamshell bucket is an equipment for scooping debris out of the manhole into the trunk, consisting of a clamshell bucket set for installation with the excavation system of JCB or small back hoe vehicles. It can scoop up sewage both small and large things such as mud, rubble, solid waste, wood, plastic bags, rags, Sandbags, scrap metal, fat lumps, etc. These sewage will not be able to use the commonly used sewage suction truck.

#### **Technical Parameters**

The clamshell bucket			
Model	60 CM	40 CM	
Approximately width of the bucket while shutting	620 mm	400 mm	
Approximate width of bucket while opening	1,530 mm	1,000 mm	
Approximate bucket height	630 mm	500 mm	
Approximate gross weight	180 kg	120 kg	
Scope of application	Fitted to the excavator system of a small JCB or		
	back hoe vehicle. The clamshell bucket model		
	can be selected according to your needs.		

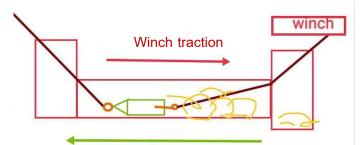
## The sewer cleaning debris basket

Model	60 CM	40 CM
Approximate diameter	600 mm	400 mm
Approximate height	600 mm	400 mm
Approximate gross weight	50 kg	30 kg
Scope of application	<ul> <li>Traction with winch (electric winch) and 1-2 workers.</li> <li>In case of choosing to use the 60 CM model, it is necessary to use the 40 CM model to penetrate the lead first so as not to cause excessive load.</li> <li>There are also 30 CM models available.</li> </ul>	

Winch (electric winch)		
Size	5 tons	
Electrically driven	DC 12V, DC 24V (selectable according to vehicle type)	
Control system	Remote control	
Scope of application	Installed to customer-specified vehicle	
Accessories		
Sling	Approximate diameter 8-10 mm, length approx. 5 m, 5 pieces (can be joined together by loop)	

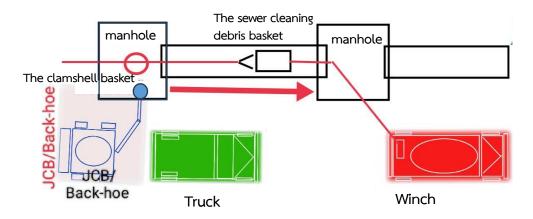
#### The process of dredging debris in public sewerage

- 1. Open the manhole cover in both source and destination work areas.
- 2. Take the PVC pipe, pass the end of the rope or sling from one end of the sewer to the other end of the sewer.
- 3. Take the end of the rope or sling about the sewer cleaning debris basket mouth for the sewer dredging, and the rope or sling is attached to the hook on the bottom of the sewer cleaning debris basket for used in case of pulling back.
- 4. At the other end of the sling with respect to the mouth of the sewer cleaning debris basket, connect it to winch (electric winch) installed on the vehicle.
- 5. Use the remote to activate winch (electric winch) to apply winch traction. Pull the sewer cleaning debris basket in the sewer, which will be able to dredging the sewer, bringing debris in the sewer to the bottom of the manhole. With winch traction (electric winch) this makes it possible to save dozens of manual labors.
- 6. Repeat until the debris remaining in the sewer is diminished or depleted as desired.



Pull back with 1-2 manual labors

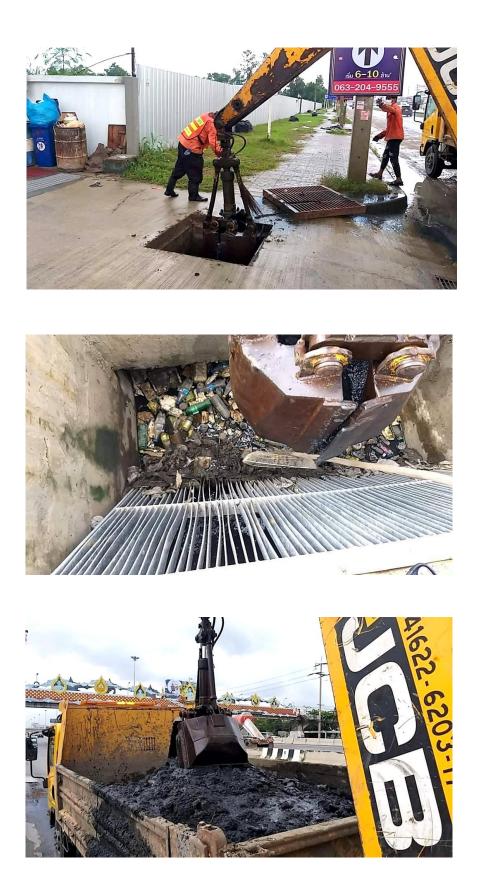
- 7. Then take the clamshell bucket (which is a special device) attached to the JCB or small back hoe and drop it into the mouth of the manhole in the shutting mouth state.
- 8. Once the clamshell bucket is in the manhole. We can spread the clamshell bucket to fill the manhole area. Then lower the clamshell bucket until reach to the debris, then gorge the clamshell bucket mouth to bring the debris out of the manhole.
- 9. This clamshell bucket can scoop debris in the manhole at full rate at a time. It's more than manual labor to pick it up.
- 10. We can move the clamshell bucket and discharge the debris into a truck to be disposed of properly.











**Remark**: The above work process requires about 4-5 workers, short working time and high throughput. However, In the case of manual labor, about 20-30 people are needed, and the workload may decrease according to the physical condition of the worker. There is also a risk of being affected by illness from various diseases.