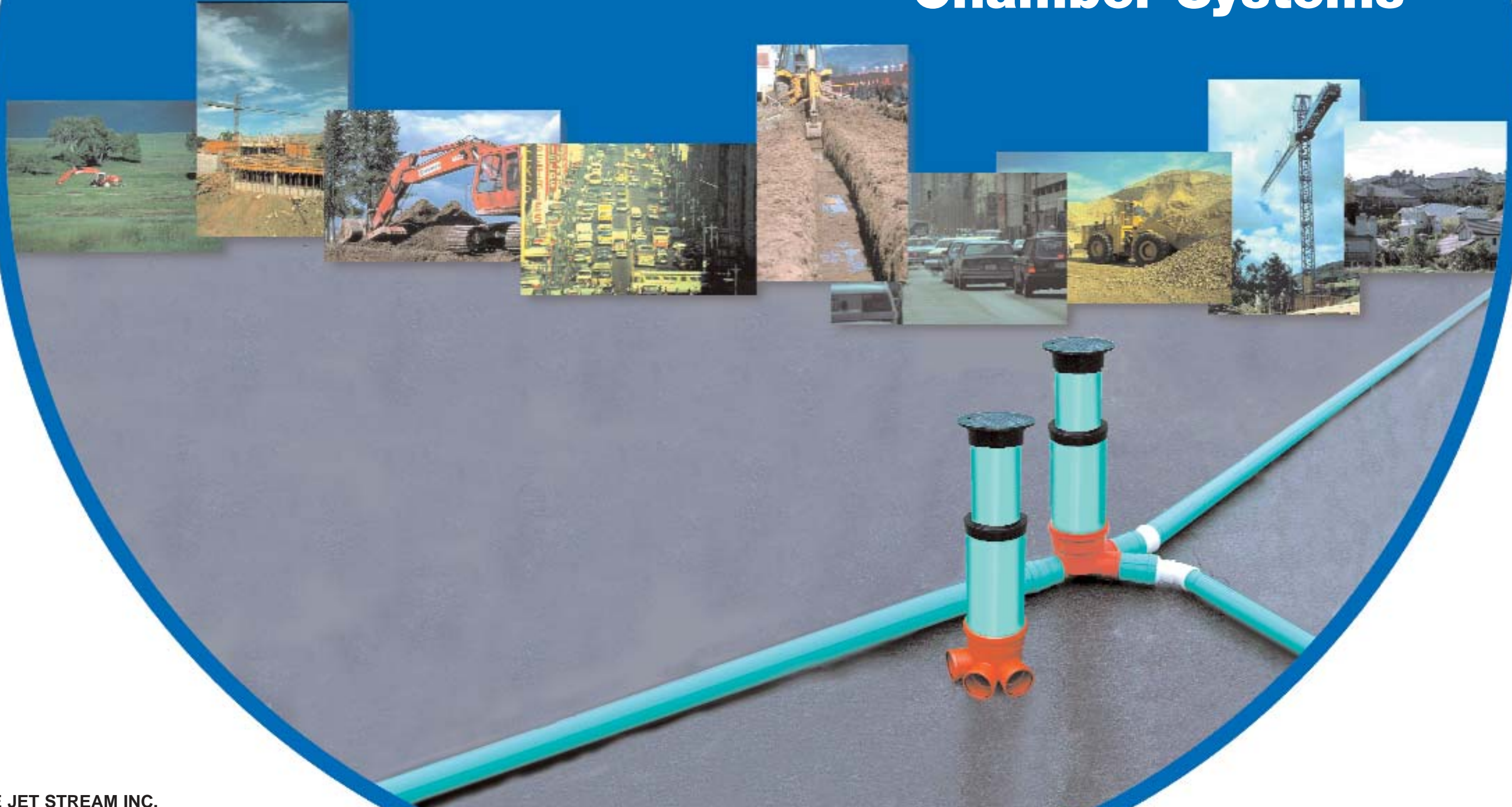


Sewer Pipe & Chamber Systems



PIPELIFE JET STREAM INC.
P.O. BOX 190
1700 S. LINCOLN
Siloam Springs, AR 72761

1-800-643-3470
www.pipelife.com



Pipelife WAC/CSC system consists of the following parts:

1. H-20 rated telescope kit (12"/3' PVC telescope pipe with pre-assembled cast iron frame and cover and rubber adapter)
2. 15.5" PVC riser pipe
3. Injection molded Polypropylene (PP) chamber base



Pipelife WAC/CSC system has the following advantages:

• Economical compared to conventional manholes

Substantial cost savings compared to the traditional materials, on transportation and installation costs due to the light weight construction and "plug and go" gasket/socket assembling method.

• Tightness of the system

All joints meet ASTM D-3212 requirements and ensure complete watertight integrity in the entire system, avoiding infil and exfiltration. Allows air/vacuum testing for the entire pipe system. Excellent performance in high ground water level environment.

• Convenient for shipping and handling.

Reduced risk of product damage during transportation due to the lightweight polymer based construction.

The manhole concept has remained unchanged for more than 100 years. The basic function was to provide an access point into sewer or storm drain systems that is large enough to allow people to enter it and perform inspection and cleaning procedures manually.

Due to technology advances, the need for entry into a manhole to perform routine maintenance operations has almost disappeared. More than ten years ago leading European companies have introduced non-man entry sewer and storm drain network access chamber systems. During the last decade, Wastewater Access Chambers (WAC) and Clean-out/Sampling Chambers (CSC) have replaced more than 60% of traditional manholes installed in Europe. As the leader in the industry, Pipelife has developed a complete WAC/CSC product range to follow the technological advances in both function and materials. Since historically the long-term performance of concrete, particularly in corrosive environments, has not met its expectations, the need for a polymer WAC/CSC system has increased. PVC sewer pipe has gained the major portion of the sewer and storm drain system market, so it's natural to a make the change to a polymer WAC/CSC systems. They provide a long lasting, cost effective alternative to concrete, and also reduce the dangers involved in human entry into confined spaces.

The Pipelife Jet Stream WAC/CSC system is designed to provide access into sewer or storm drain systems for inspection, cleaning and sampling. WAC/CSC is a non-man entry chamber system and all maintenance work is carried out from the ground level. Common uses include:

- TV inspection access points
- Line clean-out access
- Cul-de-sac access
- Interim access points in long pipe sections
- Effluent sampling stations
- Monitoring pits



Code	Description	Dimension
90124-0040000	Repair Coupling	4"
90124-0060000	Repair Coupling	6"
90124-0080000	Repair Coupling	8"
90124-0100000	Repair Coupling	10"
90124-0120000	Repair Coupling	12"
90124-0150000	Repair Coupling	15"



Code	Description	Dimension
90101-0060400	Wye	6"/4"
90101-0080400	Wye	8"/4"
90101-0080600	Wye	8"/6"
90101-0120600	Wye	12"/6"
90101-0120800	Wye	12"/8"



Code	Description	Dimension
90103-0060400	Tee	6"/4"
90103-0080400	Tee	8"/4"
90103-0080600	Tee	8"/6"
90103-0120600	Tee	12"/6"
90103-0120800	Tee	12"/8"



Code	Description	Dimension
90109-0080600	Saddle Wye	8"/6"
90109-0120600	SaddleWye	12"/6"
90109-0150600	SaddleWye	15"/6"



Code	Description	Dimension
90110-0080600	Saddle Tee	8"/6"
90110-0120600	Saddle Tee	12"/6"
90110-0150600	Saddle Tee	15"/6"

PVC Gravity Sewer Pipes*

ASTM D 3034 PSM



SDR 35 available in 20'

SDR 26 in 20' upon request

*All pipes are produced from 12454B type resin.

Code	Description	Dimension
30430-0400-0001300-05	PVC pipe gasket joint SDR 26	4"/13'
30430-0600-0001300-05	PVC pipe gasket joint SDR 26	6"/13'
30430-0800-0001300-05	PVC pipe gasket joint SDR 26	8"/13'
30430-1000-0001300-05	PVC pipe gasket joint SDR 26	10"/13'
30430-1200-0001300-05	PVC pipe gasket joint SDR 26	12"/13'
30430-1500-0001300-05	PVC pipe gasket joint SDR 26	15"/13'
30434-0400-0001300-05	PVC pipe gasket joint SDR 35	4"/13'
30434-0600-0001300-05	PVC pipe gasket joint SDR 35	6"/13'
30434-0800-0001300-05	PVC pipe gasket joint SDR 35	8"/13'
30434-1000-0001300-05	PVC pipe gasket joint SDR 35	10"/13'
30434-1200-0001300-05	PVC pipe gasket joint SDR 35	12"/13'
30434-1500-0001300-05	PVC pipe gasket joint SDR 35	15"/13'

• **Combination with traditional materials.**

Chamber base usage in combination with traditional manholes provides a leak proof solution.



total length is 3' from which 1' is inserted in riser pipe and held in place by rubber adapter).

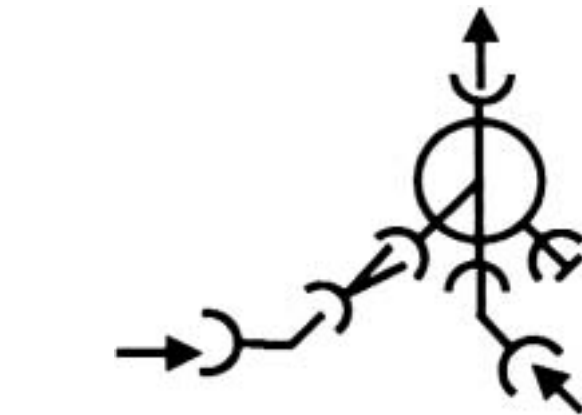
4. Insert the riser pipe into chamber base.
5. Insert telescope pipe with pre-assembled cast iron frame and cover into the riser pipe using rubber adapter.
6. Fill up and compact the trench around the chamber with a class 1, 2 or 3 soil and compact it to a min. 95% standard proctor density with the max. 6" lifts up to final grade. Pull out the telescope pipe with pre-assembled cast iron cover from the riser to adjust to the road surface.
7. All requirements of OSHA regarding installation safety should be followed.

Sewer fittings for WAC/CSC inlet/outlet configuration:

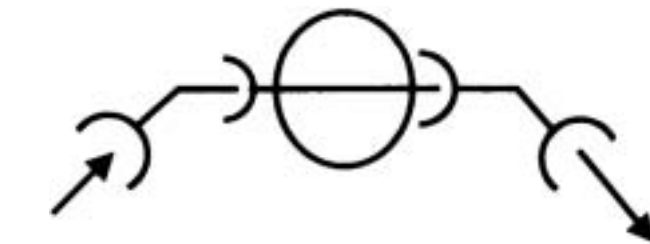
- To connect pipes to chamber base under necessary angle use 22.5° and 45° bends
- To reduce inlet/outlet diameters use standard reducers
- Use plugs to close additional inlets as required.

Installation Instructions:

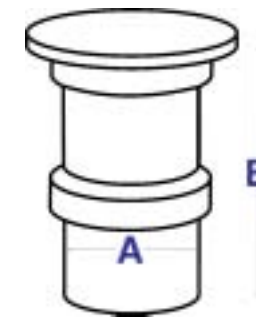
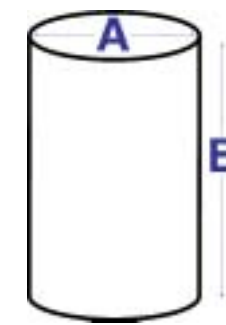
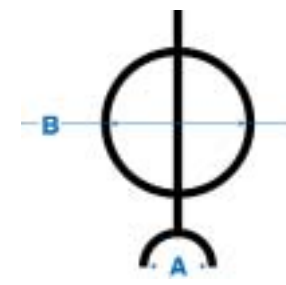
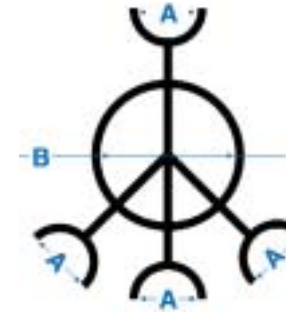
1. Dig a hole a min 4' in diameter to accommodate the chamber and worker. The installation should follow the standard practice stated in ASTM D 2321. Trench bedding under the chamber should be a min. 6".
2. Connect chamber base inlets/outlet to pipe Use 22.5° and 45° bends to adjust inlet/outlet angle or reducers to change inlet size diameters. Use plugs to close inlets as required.
3. In order to cut the proper riser length to reach the ground surface in combination with the telescope pipe, measure the height from ground level down to the riser stop in chamber base and subtract 2' (telescope pipe



- Use 22.5° and 45° bends for WAC/CSC system on pipeline turns.



- Use tapped inlet gasket to create additional inlet in the riser.



Code	Description	Dimension A/B
91000-0408015	Cleanout/Sampling Chamber (CSC) base	6"/15.5"
91000-0408015	Cleanout/Sampling Chamber (CSC) base	8"/15.5"

Code	Description	Dimension A/B
91001-0010015	Wastewater Access Chamber (WAC) base	10"/15.5"
91001-0012015	Wastewater Access Chamber (WAC) base	12"/15.5"
91001-0015015	Wastewater Access Chamber (WAC) base	15"/15.5"

Code	Description	Dimension A/B
91008-0845001	Additional inlet in WAC base	8"/45°L
91008-0845002	Additional inlet in WAC base	8"/45°R
91008-0890001	Additional inlet in WAC base	8"/90°L
91008-0890002	Additional inlet in WAC base	8"/90°R
91008-1245001	Additional inlet in WAC base	12"/45°L
91008-1245002	Additional inlet in WAC base	12"/45°R
91008-1290001	Additional inlet in WAC base	12"/90°L
91008-1290002	Additional inlet in WAC base	12"/90°R

Code	Description	Dimension A/B
91009-0015156	Riser pipe	15.5"/13'
91009-0015264	Riser pipe	15.5"/22'

Code	Description	Dimension A/B
91002-1201503	H-20 rated telescope kit: 3' PVC telescope pipe with rubber adapter cast iron frame and cover	12"/3'



Code	Description	Dimension
91007-0004000	WAC riser tapped inlet gasket	4"
91007-0006000	WAC riser tapped inlet gasket	6"
91007-0008000	WAC riser tapped inlet gasket	8"

PVC SDR 35* Sewer fittings

* SDR 26 available upon request



Code	Description	Dimension
90121-0060000	Permanent plug	6"
90121-0080000	Permanent plug	8"
91004-0150000	CSC socket plug	15.5"
91004-0080000	CSC socket plug	8"



Code	Description	Dimension
90119-0060400	Reducer	6"/4"
90119-0080600	Reducer	8"/6"
90119-0100800	Reducer	10"/8"
90119-0120800	Reducer	12"/8"
90119-0121000	Reducer	12"/10"
90119-0151200	Reducer	15"/12"
91006-0008006	CSC Inlet reducer	8"/6"



90116-0040000	Bend 45°	4"
90116-0060000	Bend 45°	6"
90116-0080000	Bend 45°	8"
90116-0100000	Bend 45°	10"
90116-0120000	Bend 45°	12"
90116-0150000	Bend 45°	15"



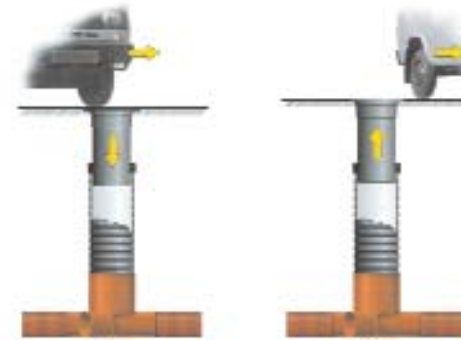
90118-0040000	Bend 22.5°	4"
90118-0060000	Bend 22.5°	6"
90118-0080000	Bend 22.5°	8"
90118-0100000	Bend 22.5°	10"
90118-0120000	Bend 22.5°	12"
90118-0150000	Bend 22.5°	15"



90123-0040000	Stop coupling	4"
90123-0060000	Stop coupling	6"
90123-0080000	Stop coupling	8"
90123-0100000	Stop coupling	10"
90123-0120000	Stop coupling	12"
90123-0150000	Stop coupling	15"

High system strength.

H-20 rated construction, withstands heavy traffic and loads, allows installation depth up to 25'. Easily withstands earth loads, highly resistant to mechanical impact.



Quick and easy installation.

Procedure identical to the standard PVC sewer pipe installation methods, WAC/CSC fits directly to ASTM D 3034 SDR 26 and SDR 35 4"-15" PVC sewer pipe systems.

Excellent hydraulic properties

Built-in 2% slope and smooth internal surface guarantees excellent flow characteristics.

Advanced cover.

Locked cast iron cover prevents unauthorized access and limits movement under traffic.

Telescopic design

Telescope pipe with pre-assembled cast iron cover follows ground surface during seasonal fluctuations eliminating road surface cracking and deformation, reduces road maintenance costs. Height is easily adjustable during installation or road surface renovation.



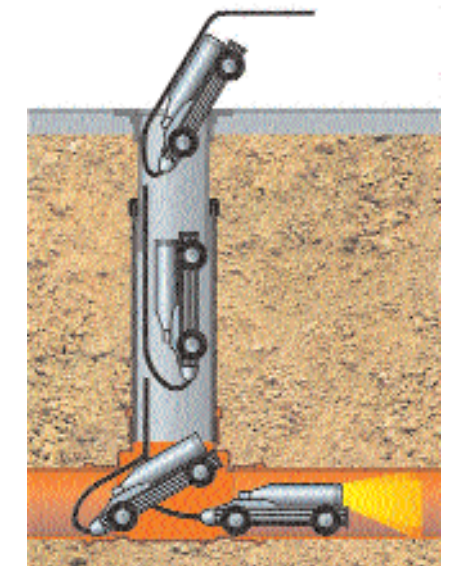
Improved maintenance capabilities.

System is designed to ensure easy access into the system with mechanical cleaning/high-pressure water-jetting equipment. Smooth interior reduces blockage or sedimentation build up. Resists damage from mechanical cleaning equipment.



Convenient inspection.

Designed to accommodate efficient and easy sewer system entry with Closed Circuit Television (CCTV).



Improved chemical properties.

WAC/CSC system consists of non-corrosive materials. Excellent Environmental Stress Corrosion Resistance. Suitable for installations in chemically aggressive environments.