

### Pipe Specification

DN/ID	$d_{im, min}$	$e_{min}$	$e_{1, min}$	$A_{min}$
225	215	0.8	0.7	115.0
300	290	1.6	0.8	145.0
400	388	2.0	1.0	175.0
500	486	2.5	1.5	185.0
600	584	3.0	2.5	220.0
800	780	4.5	3.0	250.0

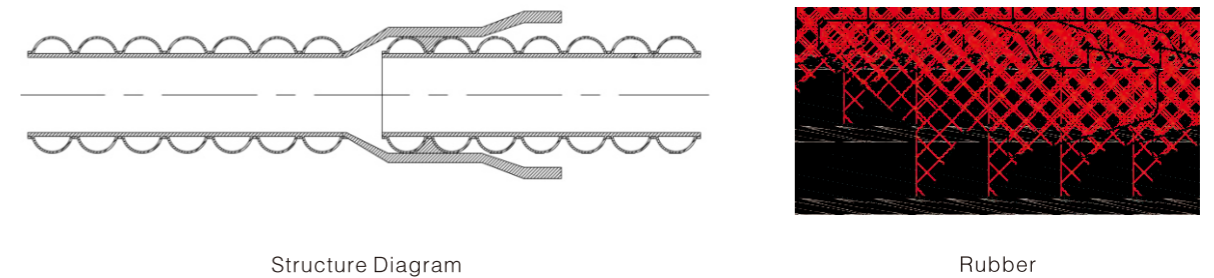
### Ring Stiffness

Rank	SN4	(SN6.3)	SN8	SN10	(SN12.5)
Ring Stiffness (kN/m <sup>2</sup> )	4	(6.3)	8	10	(12.5)

### Pipe Physical Performance

Item		Requirement
Ring Stiffness (KN/m <sup>2</sup> )	SN4	$\geq 4$
	(SN6.3)	$\geq 6.3$
	SN8	$\geq 8$
	SN10	$\geq 10$
	(SN12.5)	$\geq 12.5$
Impact strenthen ( TIR ) %		$\leq 10$
Ring compliance		Smooth, No delamination, No broken
Oven test		No bubble, No delamination, No cracking
Creep rate		$\leq 4$

### Construction Style



### Installation Attention

Pipeline should be constructed on the undisturbed soil foundation or backfilled ground with dense soil after notching, thickness from the top of pipe to the ground of traffic line should not less than 0.7m. Pipeline should be laid linearly, if needs curve laying with soft connection, each socket end.

Should have no more than 2° compare to the corner. Drainage pipeline project can be constructed in the same groove, however, it must be subjected to relative regularity of effecting standard of construction in the same groove of drainage piping system. Pipeline across the railway or high-rank.

Way- construction with barrier should set up concrete, steel, cast-iron protection pipe, the inner diameter should be 0.2m thicker than the reinforced outer diameter. When the site of project has higher underground water level than the dug groove, an action of decreasing the underground water lever should be applied that keeping making the level 0.3-0.5m lower than the lowest place of dug groove until the backfilled project has finished.



### CCTV Detecting Robot

CCTV Detecting Robot equipped the state-of-the-art camera, crawling machine and lighting system, monitor that completely controlled by remote control lever, easy operation and moving.

CCTV Detecting Robot can process image, record the spin and location of camera. CCTV Detecting Robot recording with high quality image and process verbal edit automatically. The main structure of this robot consist of four-wheel drive camera and a tiny computer. According with different diameter of pipe, pick different CCTV Detecting Robot. By CCTV Detecting Robot, we can observe the entire situation inside the pipe. CCTV Detecting Robot applies on project that unable to access the real situation of the inside of pipe. Before examine, high-pressure washing vehicle is needed to wash the part which needs detection in order to make sure that the robot can get through in the pipeline, then use a special packer to block the upper drainage pipe( introduced the packer made in Germany, this kind of packer is made of rubber, with filling air into the rubber to make it expanded so that it can block the pipe), next, use water pumper pump the sewage of well to other sewage well nearby, wait until the water level of pipe to be observed is less higher than the top of robot, it is time for robot to work. When finished pumping the sewage of well, the observation of fluid can be detected as well , because the part of pipe that under the water has come out of the water.



Perfect service system to maximize customer needs.

