

7.6. Valve Chambers

Valve chambers shall be designed in accordance with Volume 2: Standard Drawings.

Design criteria are shown in Table 7-9.

Valve Chamber Design Criteria	
1	Siting of chambers in carriage ways shall be avoided; preferably in the road verge or in the footway, utility corridors must be respected
2	All chambers shall be designed of reinforced concrete
3	The cover level of the valve chambers shall be flushed with surrounding finished ground level unless otherwise specified.
4	The bottom of the chamber shall have a minimum slope of 2%
5	The bottom of the chamber shall have suitable sump holes covered by GRP grating cover.
6	A GRP ladder for access shall be provided in chambers of more than 3.0 m of height. In chambers <3.0m deep a GRP ladder or step irons can be provided.
7	Two flexible joints, with a "rocker pipe" shall be provided on either side of the chamber to avoid damaging pipework in case of differential settlement. Rocker pipes are not required for HDPE solid wall piping.
8	Sufficient working space and clearances inside valve chambers, proper access arrangements and gravity ventilation by employing vent pipes shall be specified
9	A minimum clearance of 500 mm from the walls of the chamber to the equipment shall be provided
10	A minimum clearance of 500 mm from the walls of the chamber to the joints shall be provided.
11	A minimum clearance of 400 mm from the floor of the chamber to the invert level of the pipe shall be provided.
12	All chambers must have a removable cover with lifting hooks for easy installation and repair. The chamber construction and cover shall facilitate the lifting of equipment.
13	In cases where non-restrained pipe systems are used the chamber shall be designed to take the full thrust when the valves are closed. In such cases pipework must be fixed to the chamber walls by means of puddle flanges.
14	All the equipment shall be easily dismantled
15	All the equipment must be properly fixed and supported
16	Flood detector and gas monitors shall be installed as necessary

Table 7-9 – Valve Chamber Design Criteria