

**1.2.8.2 Gate Valves**

- A. Gate valves shall be of the flanged rising stem type, complete with hand wheel, gearbox for valves > DN 350, bolts, nuts, washer, gaskets, stem seals and wedge seals.
- B. Rising stem and threads shall be protected against corrosion.
- C. Gate valves shall be manufactured in accordance with BS EN 1171/ BS EN 558/ ISO 5752 Series 13 and 14.
- D. Gate valves shall be metallic suitable for storm water application ensuring high corrosion and abrasion resistance.
- E. Valves shall be internally and externally protected with minimum 300 microns thick fusion bonded epoxy complying with EN 14901 or shall be protected with enamel coating as per DIN 51178.
- F. Lifting lugs shall be provided for all valves. Resting/mounting legs shall be provided as necessary especially for valves above DN350.
- G. Hand wheels shall be manufactured with forged steel or malleable iron, unless otherwise recommended by the manufacturer, marked "Open" and "Closed" with arrow in appropriate directions. Size of the hand wheel shall be in accordance with EN 12570.
- H. The operating force shall be limited to 245N. A gearing shall be supplied where necessary and if the operating force is greater than 245N. Valves hand wheel shall incorporate a locking bracket for use with a padlock or padlock and chain.
- I. Valves shall be capable of being locked in their operating and isolation positions to prevent unauthorized use of the valves.
- J. The valves shall be supplied complete with all the required joint accessories, gaskets, bolts, nuts, washers, etc. for both flanges of each valve.

**1.2.8.3 Non-Return Valves**

- A. Non-return valves shall be metallic suitable for storm water application ensuring high corrosion and abrasion resistance
- B. The design of the valve body shall be such that there is adequate clearance around the back of the door to minimize jamming by rags and debris. Stops shall be provided to limit the back lift of the disc and shall be positioned to prevent fouling.