

The Fox Model SCS600/BRT Spill Control System

The Fox Model SCS600/BRT system provides continuous protection for the site against minor or major spills of hydrocarbons that may occur. The system is ideally suited to installations such as bulk liquid storage facilities, Service Stations, refuelling areas or any site where there is a risk of hydrocarbon spills contaminating the stormwater network. The second Chamber provides additional protection for the environment in areas where small quantities of pollutants may remain after refuelling. Pollutants remaining on exposed areas can be dislodged by rain and carried into the stormwater network.

The unit consists of two polyethylene chambers. The first unit includes a 600 square medium duty grate. A polyethylene silt basket is fitted below the grate to capture solids and free floating debris. This is removable for disposal of the captured pollutants. A Fox Model DV150 stormwater diversion valve is installed in the bottom of the chamber. A sensor installed in the chamber detects the presence of any hydrocarbons in the runoff. The outlet of this chamber is connected to the inlet of a Fox SQID unit (Stormwater Quality Improvement Device – Fox Model BRT600) with a baffled stormwater outlet. A stainless steel Control Panel is supplied containing all electrical control equipment as well as the Fox Demand Valve, RPZ, Strainer and sensor controls. All washpoints must come from beyond this Panel Box. A water supply and 240 v AC power are required for the control panel which should be installed in a convenient location near the system. A ½" copper drive line and a 32mm electrical conduit are required between the control panel and the first chamber. The ½" copper drive line is the signal line that will activate the diversion of the unit when a demand for wash water is detected. Electrical protection is rated at IP65 (Intrinsically safe supply will not be required if the fuel is diesel). If unleaded or other fuels are to be stored in close proximity to the system intrinsically safe equipment will be required.

At the commencement of a rain event the SCS600 chamber fills to a level where the float is activated. As a cleansing procedure the system will divert the first one to four chambers (site specific) contents without activating the probe. After the first volume of runoff has been diverted the sensor probe will be activated each time the float is triggered; the quality of the runoff is checked before being released. If hydrocarbons are detected a strobe alarm will be activated and the pit contents will be diverted to a holding tank. After the contents of the chamber have been diverted the Diversion Valve will close. This process continues until the water quality is suitable to be discharged to the stormwater network. The stormwater network will be constantly protected as all runoff must pass through the Baffled Retention Trap (BRT) before leaving the site.

An option is available to totally isolate the site if a spill is detected to ensure that no further runoff can leave the area until the cause of the alarm is addressed.

When a wash operation is taking place the diversion valve will be held in an open position. At the end of the wash activity the valve will close. A 'delay drop' function will open the Diversion Valve once more after a 5 minute delay to allow drainage from the area to also be diverted.

The system must be installed in accordance with the instructions provided by Fox Environmental Systems at the time of delivery. Please refer to our drawing A4-SPEC-1010 for the SCS600 specification details and drawing A4-INST-1010 for typical installation details.