

V GUARD 600APS

INSTALLATION MANUAL



The Everhard V GUARD 600APS Gross Pollutant is intended to provide protection to the system by preventing a significant degree of the accumulated coarse debris from getting into the drain, allowing and encouraging easier removal of trash from the collection point. V GUARD 600 APS is moulded in LLDPE and combines a primary grated inlet, often called a Field Gully Pit, with a baffled sump for secondary waste separation.

The Gross Pollutant Trap accepts the standard Class A or Class B steel grate. These are normally supplied as “bolt down” for added security. A purposely built 600 round SQID® is supplied with the V GUARD 600 APS which also has a lift out tray to allow the removal of collected wastes from the unit sump.

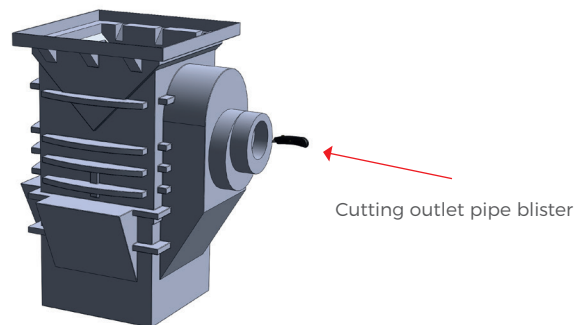
The V GUARD 600APS Gross Pollutant Trap is a vertical hollow square column with its upper part to accept a 600 Round SQID®. The rim, which accepts the standard EVERHARD Series 600 grate, should be slightly below the final surface level of the surrounding apron or hard stand to allow free drainage into the inlet. Where the outlet pipe must be lower than normally allowed by the unit design, a standard Series 600 Pit Riser can be added to the rim of the gross pollutant trap, then the round 600 SQID® can be inserted at the rim of the riser.

The body of the unit has an extended raised blister on one side which can be cut with a jig saw or reciprocal saw to accept an outlet drain pipe up to 300mm diameter. The other three sides each have a raised flat topped “wedge”, which act as anchors to prevent movement and flotation in wet conditions.

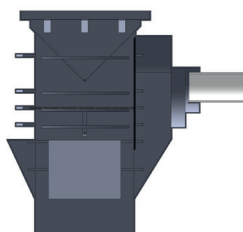
INSTALLATION

Each V GUARD 600APS with lock down grate is supplied with two M8 socket head cap screws holding the grate in place. These pass through the grate and through holes in the rim of the V GUARD 600APS, and are secured by anchors made from nuts welded to short bars. Before installing the V GUARD 600APS, remove the screws and the grate. Retain the screws and anchors.

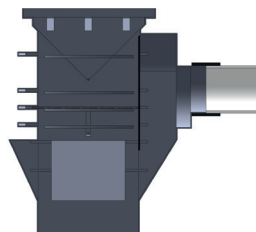
The excavation should be not less than 900mm x 900mm and permit the assembled unit to be placed on a contained 50mm bed of level, firmly compacted, sand at the bottom of the prepared hole. A height of 1200mm from the unit base to the final surface level is required if a riser is not used.



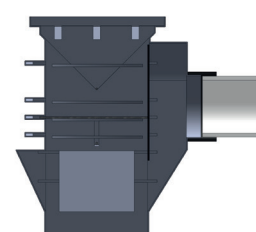
150 Outlet Pipe



225 Outlet Pipe



300 Outlet Pipe



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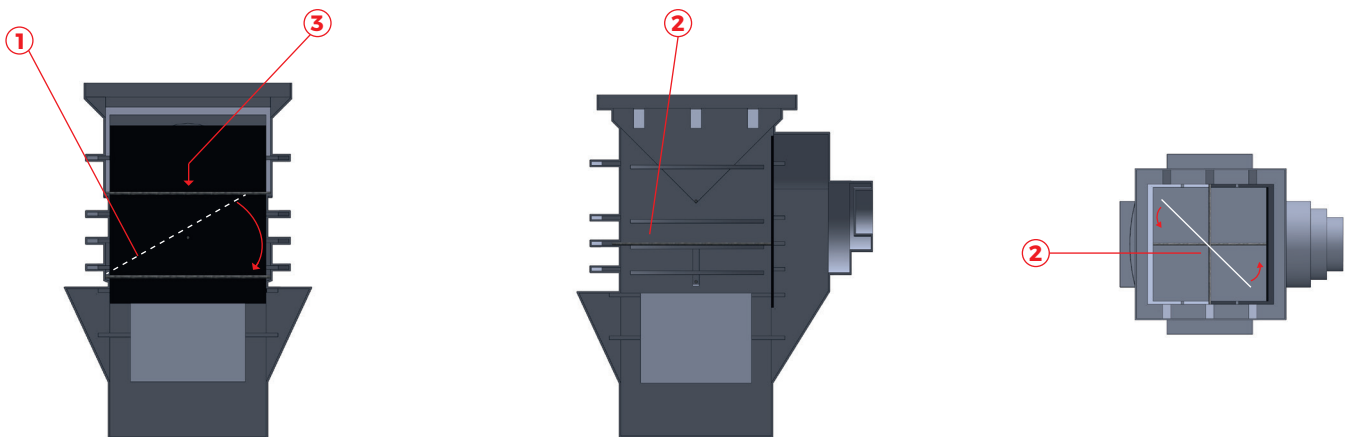


The outlet pipe blister is 330mm wide with a multi size boss and socket arrangement permitting pipes of 300mm, 225mm and 150mm PVC to be connected using rubber sleeves and stainless steel worm drive clips. This allows pipe cover of 180mm using 300mm or 225mm PVC pipe and 200mm pipe cover using 150mm PVC pipe. Mass concrete is normally added around such connections for security.

Standard Everhard Series 600 risers can be used if the depth to the pipe needs to be greater. This simply drops into the rim of the V GUARD 600APS and locks over the lip of the unit.

Everhard strongly recommends the V GUARD is braced to help stabilize the unit when the excavation is backfilled. Remove the SQID® and trash basket from the base for access to the interior.

1. Bracing bar end is fitted into the bottom of the short vertical pocket just above "wedge spade" on one side. Drop the other end into a matching pocket on the opposite side and press down to fit.
2. Bracing bar end is placed into a horizontal pocket above the "wedge spade" inside the opposite flat baffle. Rotate bar until firmly wedged between pocket and baffle.
3. Bracing bar is dropped into the bottom of the "V" moulded in sides of V GUARD 600APS.



Select the required orientation for the grate. It is normal for the slots to be aligned with the direction of the predominant flow. Steel grates have only two screw locations points. Fit the grate and secure with the screws, so that the anchors are held firmly in place beneath the rim. If using a riser, it will be necessary to drill holes in the riser rim to accept the screws.

After the outlet pipe is connected the excavation should be backfilled with stabilised soil/sand mixture moderately compacted around the unit. If concrete backfill is used, great care must be taken to ensure that the weight does not deform the walls.

Everhard recommends that the pipe should be supported by a quantity of concrete placed around the connection to the body of the gross pollutant trap. Where risers have been used, each joint should also be supported by a poured concrete envelope around the body. These should provide at least 50mm support under each connection and a complete collar not less than 50mm thick around the connection.

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For Class A & B Grates, Everhard recommends at least 100mm thick of concrete around and the underside of the top collar of the gross pollutant trap or riser rim to accommodate the loading applied to the grate once installed. The grate must be fitted before the surround of the top collar and all screws and anchors secured in place prior to pouring.

After all concreting is completed and dried and backfill has been consolidated, remove the grate for access. Remove the bracing bars and fit the trash basket at the base and insert the 600 round SQID® below the grate, before placing the grate into position with screws and washers.

GENERAL MAINTENANCE

The V GUARD 600APS grate and SQID® act as filters to remove trash and large particles of trash matter from the collected water entering the V GUARD 600APS. The trash basket will also collect solid matter which the V GUARD 600APS separates from the flow entering the drain. Like any conventional filter or collection system, the grate and SQID® will naturally become blocked by the intercepted storm water and the trash basket will eventually fill. It will therefore be necessary to clear the collected matter from the installation to ensure that the V GUARD 600APS continues to perform satisfactorily. It is strongly recommended that cleaning operations should be undertaken by qualified contractors.

SCHEDULE MAINTENANCE

It is very strongly recommended that the conditions of the grate, SQID® and trash basket are monitored on a regular and frequent basis for some time after the installation. The amount of trash retained by the unit should be checked to determine how long a period between routine cleaning operations can be permitted under normal conditions.

Check the grate and SQID® often - at least once every week. Surrounding areas should be kept clear of trash. Rainfall occurrence and location of the V GUARD 600APS installation, will be primary factors in deciding on a routine maintenance program. Where an installation is close to trees or hedges or other heavy vegetation, or likely sources of waste matter such as a refuse collection area, it is obvious that there is likely to be a significant amount of leaves and similar debris which will require cleaning.

If the installation is in a heavy rainfall area, any rubbish is more likely to be continually damp and will therefore be carried towards the grate, rather than being blown away by wind, so the V GUARD 600APS is likely to receive more regular attention than in dry areas.

In predominantly dry locations, it is more likely that V GUARD 600APS grate and SQID® may become blocked with dry rubbish, but that this will not be noticed until heavy rainfall results in localised flooding because the grate and SQID® do not allow water to drain rapidly away.

CLEANING THE GRATE AREA

Sweep area regularly to clear rubbish from the grate. Do Not sweep waste matter into the V GUARD 600APS. Dispose of all waste matter in a suitable rubbish container.

MONITORING/ CLEANING SQID®

1. Remove the two M8 socket head cap screws securing the grate. Retain screws and washers
2. Remove the Grate
3. Check SQID®. The round cut outs in the upper part of the SQID® are overflows.
4. If trash covers more than 50% of the screen below the overflow, remove the SQID®
5. Lift SQID® out of the unit and dispose of the contents inside.

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TRASH BASKET

1. In normal circumstances, the Trash Basket will be submerged in contained water inside the V GUARD 600APS.
2. Handles of the trash basket are immediately below the SQID® in V GUARD 600APS not fitted with a riser
3. Check the weight of the Trash Basket by trying to lift the handles. If the trash basket appears to be excessively heavy, use appropriate equipment to lift the basket clear of the V GUARD 600APS body.

OPTIONS

It is possible to have the Trash Basket sump pumped out by a licensed contractor using a truck equipped with a pump and a suction hose. Care must be taken to avoid damaging the basket and V GUARD 600APS baffle.

REPLACING COMPONENTS

1. Lower basket into V GUARD 600APS. If it is reluctant to submerge, tilt to one side to enable it to fill with water.
2. Ensure basket is resting on the floor of V GUARD 600APS
3. Place the SQID® into the lip of the V GUARD 600APS
4. Place grate in rim of V GUARD 600APS with slots in correct orientation
5. Secure grate with screws fitted through grate and rim, into anchors embedded in concrete below rim.