



Specification for the Installation of a Vent Stack on an Above Ground PRI.

ESP/PL/PRI/Vent

ES Pipelines Ltd



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This specification is to be used when there is a requirement for a vent stack to be installed as part an above ground PRI.

The vent stack should only be positioned following the completion of a Hazardous Area Drawing for the location of the PRI produced in accordance with IGEM/SR/25 Latest Edition.

The vent stack is to be located between 1m and 3m from the RMI (Remote Monitoring Installation).

Note. See ESPs Site Location Assessment for the Planning, Installation & Commissioning of a PRI.

Concrete Specification: -

- The concrete strength is, as minimum, to be C30; ordinary Portland cement minimum 320 kg/cubic metre.
- Water/cement ratio 0.6; aggregate 20mm with water reducing admixture.
- To be protected from extreme weather conditions for a minimum of 7 days.

Vent Stack details: -

- A VS3/VS4 vent stack is 3.8m in length.
Note. When installed the top of the vent stack should be 3m above the finished ground level.
- At the bottom of the vent stack is a cut out that should face, when installed, in the general direction of the PRI. There are 2 x 20mm PE tails exiting the vent stack by the cut out at the bottom of the vent stack.

Procedure for the Installation of the Vent Stack.

See drawing no. ESP/VS/01.

- At the agreed position excavate a pit to approx. 950mm deep x 500mm x 500mm.
- Form a 150mm deep concrete base with a flat trowel finish, set the fixing bolts into the wet concrete base at the bottom of excavation and allow to set overnight.
Note. ESP can supply a template that that can be used to set the 12mm fixing bolts into the concrete base.
- When satisfied that the concrete base is set position the vent stack on the base and tighten the 4 nuts ensuring that the vent stack is vertical.

Note. It is important that, before the bottom of the vent stack is concreted into place, the vent stack is vertical and that the top of the vent stack is 3m above the finished ground level.

- Back fill the excavation over the vent stack bottom plate with a wet concrete mix leaving a minimum of 500mm to finished ground level.

Procedure for Connecting the Vent Stack to the PRI.

See drawing no. ESP/VS/01

- Position the three garage entries into position; they should be positioned in either of the two cut outs in the concrete base ensuring they all terminate at the same level approx. 25mm above the level of the concrete base and at a minimum of 50mm apart. Ensure that they are not obstructed inside the kiosk as access will be required to connect the flexible relief lines (see Appendix 3) at a later date.

Note. You may have to use both slots. (2 in 1 and 1 in the other).

- Connect each of the 20mm PE tails to two of the garage entry’s using a 20mm x 25mm electro fusion coupling.
- Connect a length of 25mm PE (not supplied) to the third garage entry using a 25mm x 25mm electro fusion coupling. The end that terminates at the vent stack does not enter the vent stack but should be left above ground level approx. 140mm to the front of the vent stack leaving approx. 1 m of PE over.

Note. The length of 25mm PE is the ducting for the pressure lines that will be connected to the Remote Monitoring Installation (RMI).

- When satisfied that all connections are made and the vent stack is installed correctly the remainder of the excavation can be backfilled, over marker tape, using selected backfill.

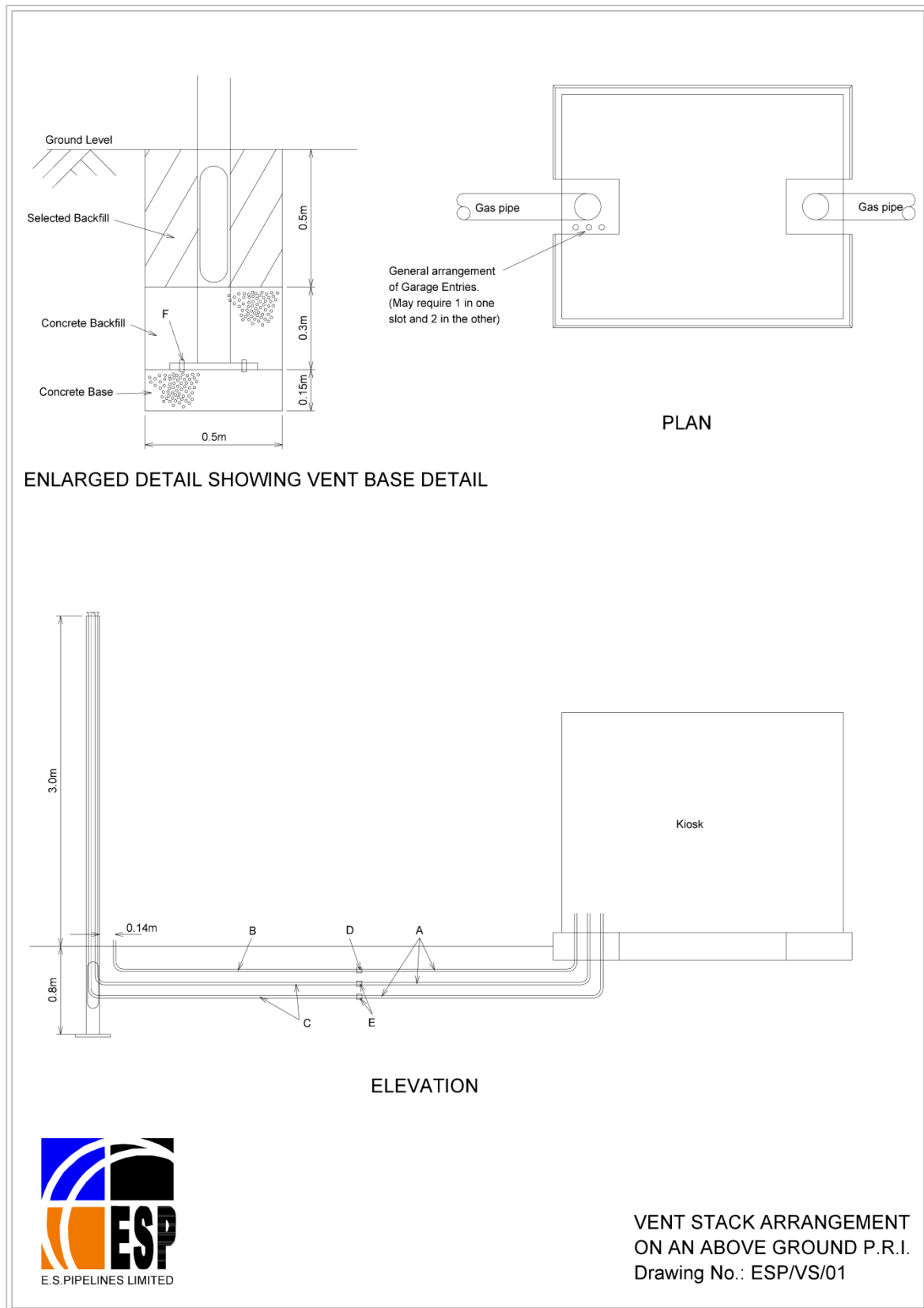
The final connections of both reliefs and RMI inside the kiosk and the RMI cabinet will be completed following commissioning of the PRI.

Drawing Legend.

A	¾"FBSP x 25mm PE Garage Entries x 3	
B	25mm PE	
C	20mm PE x 2	
D	25mm x 25mm Electro Fusion Coupling	
E	25mm x 20mm Electro Fusion Coupling x 2	
F	4 x 12mm S/S Rawl Bolts or Equivalent	

Appendix 1: Drawing No. ESP/VS/01

Drawings showing the layout of a typical vent stack installation.



Appendix 2:

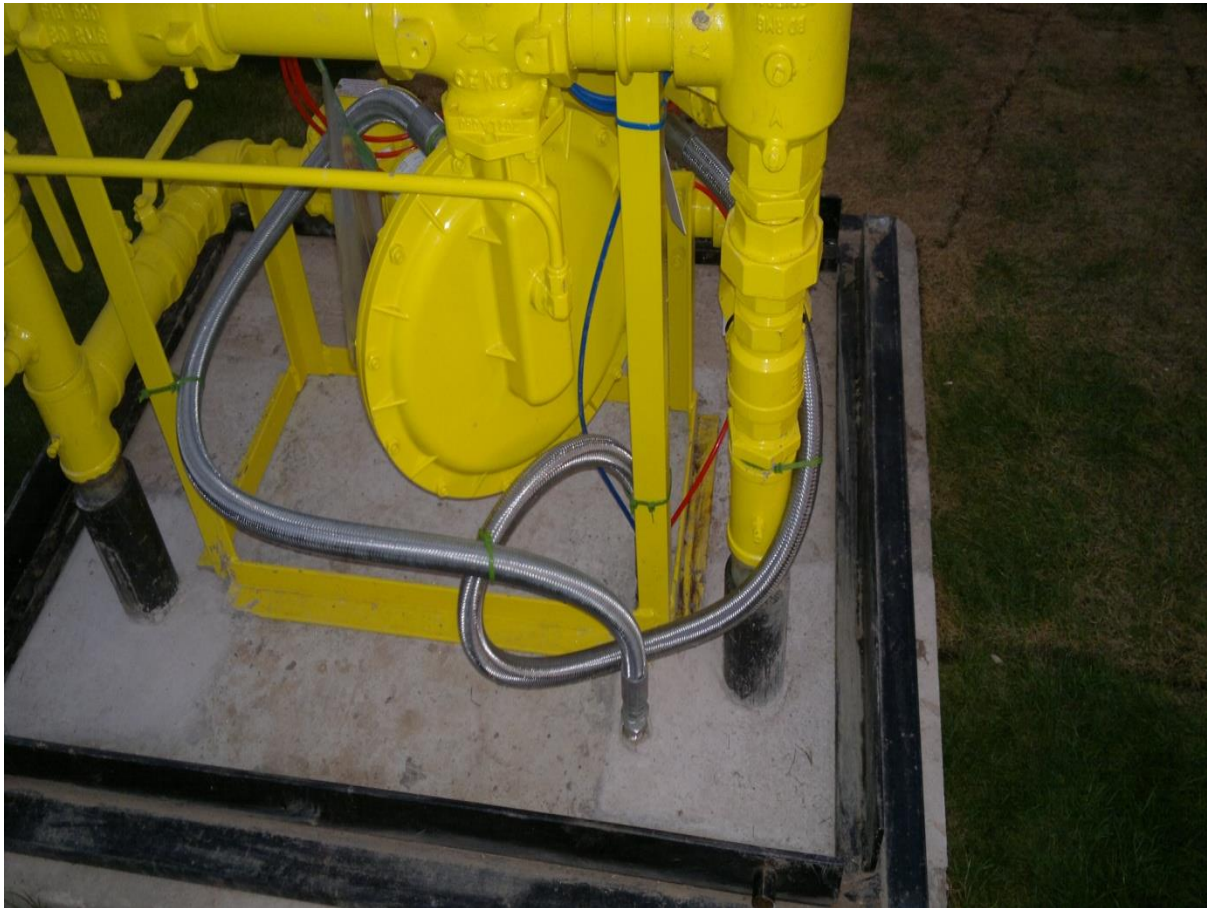
Typical Vent Stack Installation showing the cut out at the bottom of the vent stack



Appendix 3:

Photo showing a single garage entry point, entering through the (MP) inlet pipe cut out (now backfilled). You may have to use both slots to accommodate all three garage entry fittings. (2 in 1 and 1 in the other).

Note. The flexible connections will be fitted following commissioning of the PRI.



If the UIP has any queries whatsoever regarding the installation of a vent stack please contact ESP's Head of Gas:-

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