TRENCH EXCAVATION GUIDELINES.

The recommended excavated trench width and depth varies depending size of the pre-formed PVC trench and the load rating of the grates to be installed.

Figure 1 shows the relevant dimensions to determine excavation requirements.

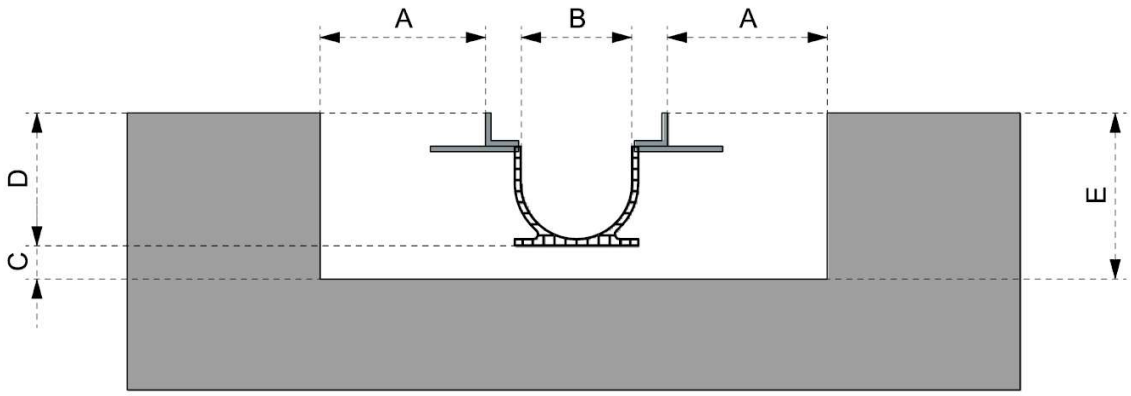

Figure 1: Trench excavation dimension requirements.

A: Minimum recommended side encasement.
B: Internal clear opening of the trench.
C: Minimum recommended base slurry for trench installation.
D: Overall product finish depth.
E: Minimum recommended excavation depth.

Table 1 gives the minimum recommended excavation dimensions, based on the trench size (B) and the class rating of the grates.

Clear Opening (B)	Class Rating (AS3996)	A	C	D	E (C + D)
100 mm	A – B	100	50	130	180
	C - D	150	100	145	245
150 mm	A – B	100	50	180	230
	C - D	150	100	195	295
200 mm	A – B	100	50	230	280
	C - D	150	100	245	345
225 mm	A – B	100	50	255	305
	C - D	150	100	270	370

Table 1: Recommended excavation requirements.

INSTALLATION FINISHES.

CONCRETE/PAVEMENT FINISH.

After the appropriate trench has been excavated (refer to Section 2 and Table 1) and outlet and inlet pipes connected (refer to Section 3), the trench is ready to be installed. The following steps should be followed to ensure successful installation of the trench.

1. Check that the frame of the product is straight and flat and has not bowed or twisted. This can occur from incorrect handling or damage from machinery. A twisted frame will result in grates rocking after installation.

2. Use a string line to set the finish level of the trench. If the surrounding surface does not grade towards the trench, the apron defined in Table 1 can include a small grade towards to the trench to ensure efficient drain off. This should be factored in to finish level of the trench.

3. A slurry bed of low-medium slump concrete can now be poured continuously along the excavated trench, prior to placing the PVC in position. For longer trenches, this may be completed in stages. The height of the slurry bed should be determined based on dimension C from Figure 1 and the slump of the concrete being used.

4. Place each section of PVC in position under the string line. Align each end of the connecting PVC/frame sections so that they are touching. A clamp or bolts can now be used to hold the PVC/frame sections together.

5. Tap the PVC/frame sections to desired finish level and ensure the alignment between the adjoining PVC sections has not moved. Ensure that the frame is not twisted or bowed as this will result in the grates rocking after installation. Use silicon or an appropriate sealant to seal the joins between the PVC sections of the trench runs.

6. Once correct, allow time for the concrete slurry bed to harden sufficiently to hold the PVC/frame at the correct finish level.

7. Concrete can now be poured to approximately half the depth of the excavated trench. The concrete should now be compacted to remove air pockets and ensure that the grooves of the PVC trench are sufficiently filled.

8. The final concrete pour should now be completed to finish height, with the finish surface being graded towards the trench, as required.