Pro Trap

(Patent No: AU 2016900962)

Overview

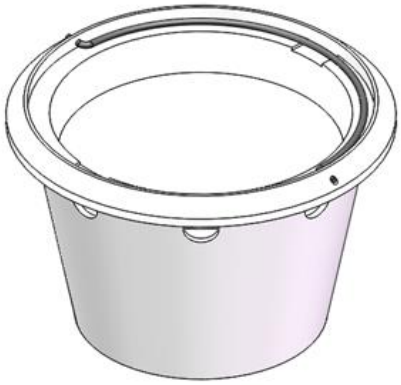
The construction and building industry has a responsibility to ensure it does not contribute to additional stormwater pollution. At the same time, an unprotected building site runs a high risk of sediment (soil, sand, gravel and concrete washings) and other building materials (litter, offcut wires, plastic bags) entering the sewage pipes and floor waste, which creates blockages in the future for the occupants moving in.

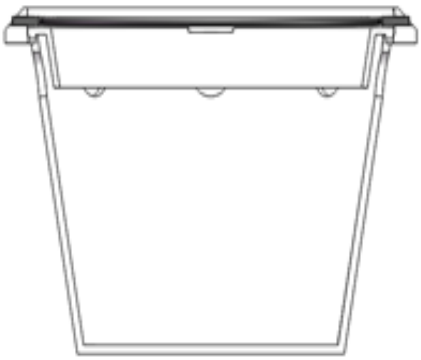
Purpose of the product

The Pro-Trap is a solution that does not allow litter and pollution to wash off-site. To help ensure stormwater and sewage pipes are clean at all times throughout the construction period.

Design of the product

The Pro-Trap is composed of two parts POLYPROPYLENE (PP) bucket body and stainless steel handle (as depicted in Fig. 1 and Fig.2).





Top view (Fig. 1)

Side view (Fig.2)

The body of the bucket is made out of PP material, which is strong and stiff. Thus the product is durable and can be re-useable. The stainless steel handle provides easily lifting to empty the waste.

There are eight 10mm holes on the outer circumference of the bucket which drains waste water, and prevents flooding on the construction site.

For the PP material, please refer to Attachment 1 – data sheet.

Product Installation

Step 1.

Use a grinder to cut the 100mm PVC pipe flush with the ground level. (See Photo 1 and Photo 2)

Step 2.

Drop the Pro-Trap into the 100mm PVC pipe. (See Photo 3)

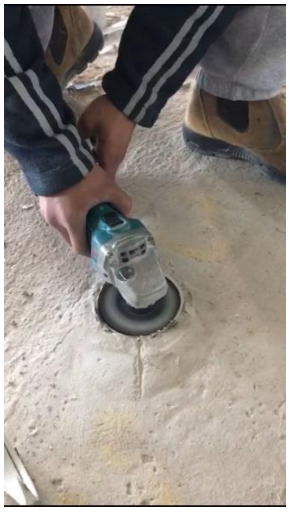


Photo 1

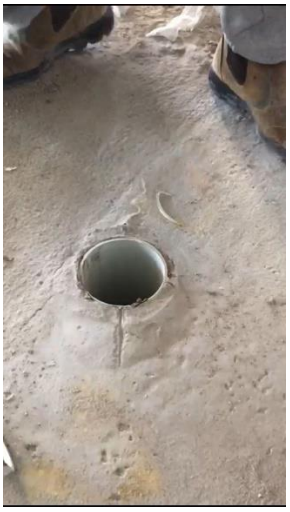


Photo 2

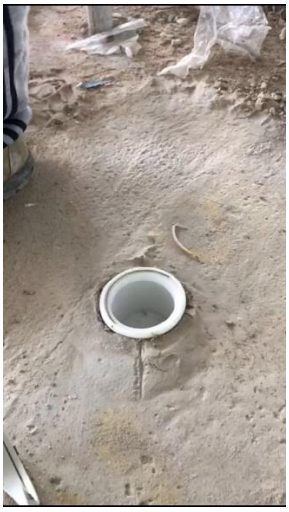


Photo 3

Return the bucket after waterproofing is complete (See Photo 4)

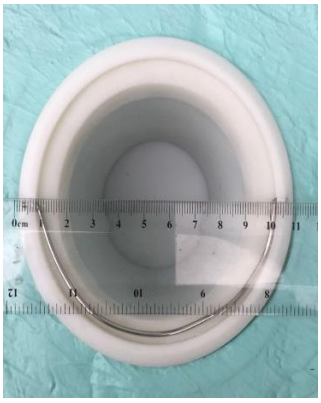


Photo 4

When tiling, leave the bucket intact while applying the sand and cement (See Photo 5). Take the bucket out when completed and empty the waste.

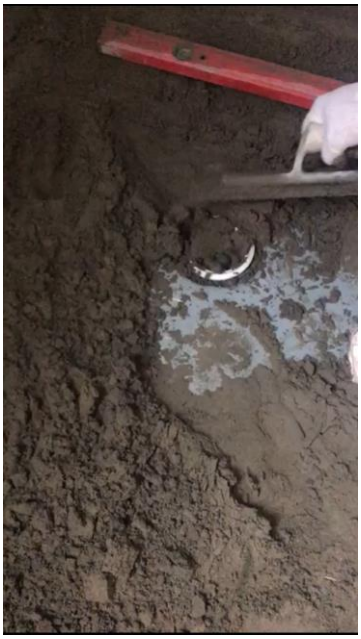
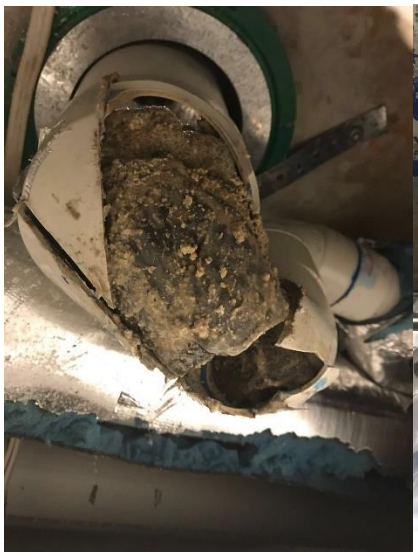
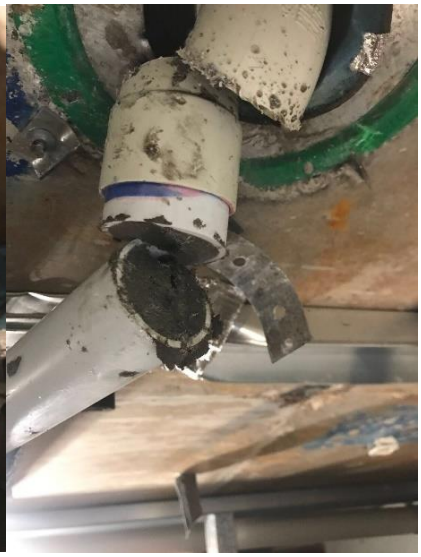
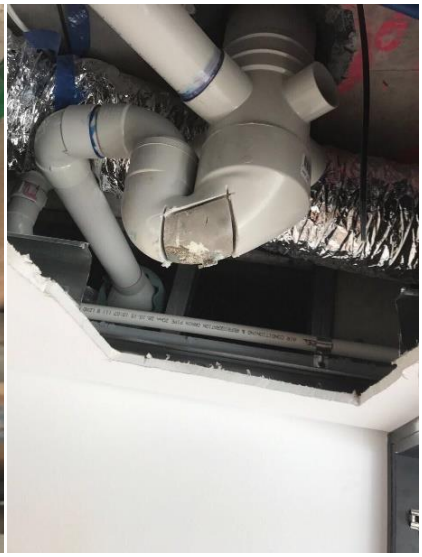


Photo 5

Common blockage case photos

Process of fixing a blocked floor waste

Once the floor waste is blocked.

1. Call the plumber to clear out the floor waste
2. The plumber is required to go down to the lower levels to disrupt the current tenant for access to the floor waste
3. A hole needs to be cut in the gyprock (plaster) in order to reach the floor waste
4. The plumber needs to cut out the blocked floor waste
5. Replace the blocked floor waste with a new one
6. Once that is completed, the hole would need to be patched up.
7. The painter is required to return to paint on the gyprock
8. Steam clean the carpet to restore cleanliness for the tenant.

The process of removing floor waste can be costly, as it can total into thousands. To rectify the situation, buy the Pro-Trap bucket during the early construction stages.

Attachment 1

Technical data sheet	
Specification	
Model	Pro-Trap bucket
Resistance	Oil and chemical
Waterproofing	No damage
Fluid to be measured	Pure water or fluids that will not corrode
Rated flow range	3.46 L/min
Operating pressure range	0 to 1 Mpa
Operating fluid temperature	0 to 90°C
Ambient temperature range	Operation 0 to 50°C
Mass (Weight)	52g
Material part	Body : Polypropylene
	Handle: Stainless steel
Physical Properties	
Density (g/cm³)	0.897
Water Absorption (24 hours %)	0.01
Mechanical Properties	
Hardness, Rockwell R	80
Tensile Strength (psi)	4,800
Tensile Elongation at Yield (%)	23
Flexural Modulus (psi)	160,000
Flexural Strength (psi)	5,400
IZOD Impact (ft-lb/in)	7.5
Compressive Strength (psi)	6,000
Electrical Properties	
Arc Resistance (sec)	100
Dielectric Strength (V/mil) short time ½" thick	475
Dielectric Constant at 1 kHz	2.2 – 2.36
Dissipation Factor at 1 kHz	0.0017
Volume Resistivity (ohm – cm) at 50% RH	2×10^{16}
Thermal Properties	
Coefficient of Linear Thermal Expansion (x 10^{-5} in./in./°F)	6.6
Heat Deflection Temp (°F / °C) **at 66 psi** **at 264 psi**	173/ 78 110 / 43
Melting Temperature (°F / °C)	327 / 164
Max Operating Temp (°F / °C)	170 / 77
Flammability Rating	n.r.

G-Pex

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