

Issue 27 – December 2017

Advanced Pre-treatment of Trade Waste

What is my best Pre-Treatment Option?

We've recently updated our fact sheet detailing the different pre-treatment devices that are on offer for our Trade Waste customers.

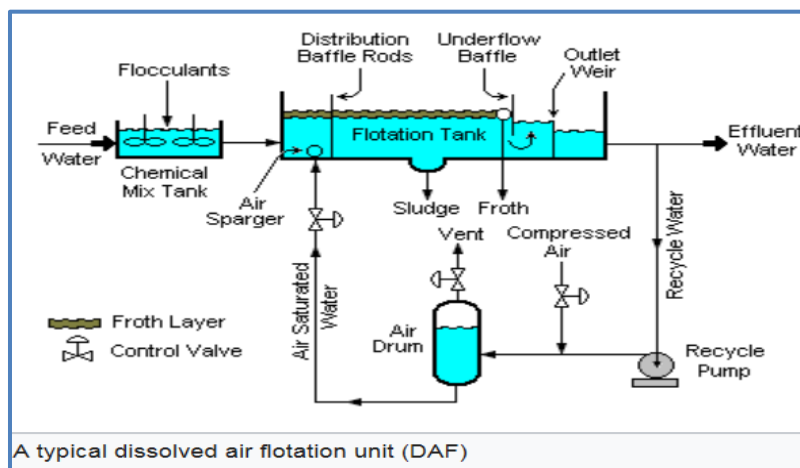
Every business is different and these options range from a grease arrestor to a Dissolved Air Flotation (DAF) unit.

Grease arrestors are the simplest devices for the removal of grease and oil and fine suspended solids from trade wastewater however they are not always the best options.

As an example typical trade waste activities where grease arrestors have proven to be inadequate pre-treatment options include such examples but not limited to:

- Industrial activities such as food manufacturing
- Food courts and other large food service activities
- Discharges with high grease and oil or suspended solids concentrations

Dissolved Air Flotation (DAF) Units have had a demonstrated history and are widely used for treating industrial trade wastes high in solids, grease and insoluble biochemical oxygen demand (BOD).



For more detailed information on the above please refer to the [Trade Waste Fact Sheet](#) where Advanced Pre-treatment Options of trade waste are explained in greater detail.

For further information on the above please contact your Business Relations Consultant on 7424 3753.

Pressure and Flow Supplied to your Property

On occasions the Business Relations Group will receive enquiries regarding the pressure and flow being supplied to a customer's property. In this article we aim to give you an introduction into the relationship between pressure and flow and how it may impact your operations.

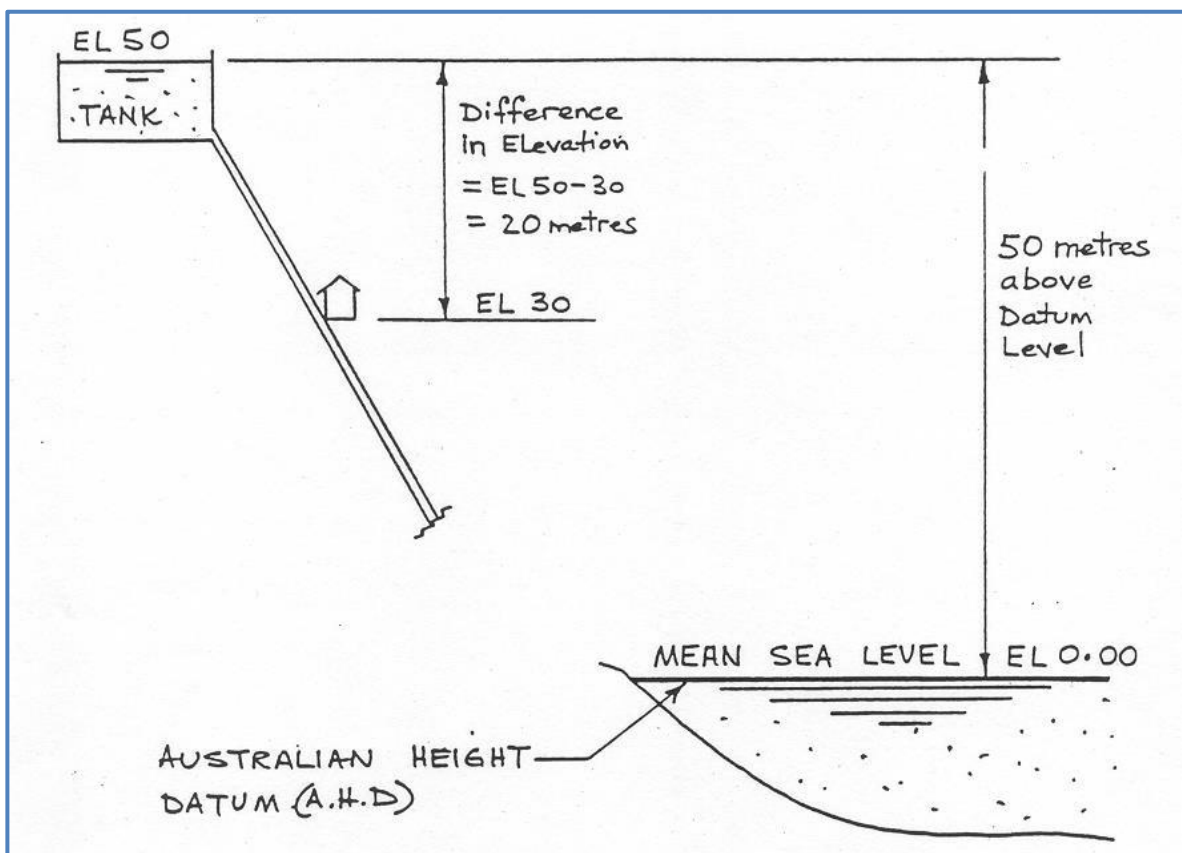
Flow:

The flow of water refers to the motion of a fluid, in this case water, and is commonly expressed in a volume over a defined time period such as minutes, e.g. litres per minute. The flow in closed pipes depends on the pipe diameter, length of pipe, roughness of the pipe wall (friction) and the upstream pressure.

Pressure:

Water pressure is the force acting on an area and is commonly expressed in kilopascals (kPa) or meters head (m). Within the SA Water water supply network the pressure at your connection will, in most cases, originate from an elevated tank upstream from your property. One meter of elevation (1 meters head) equates to approximately 10kPa of pressure. Figure 1 is a typical example illustrating the pressure head created by an elevated tank. In this example the pressure supplied to the house is 20 meters which is approximately 200kPa.

Figure 1 – Example of the pressure being supplied to a property created by the elevation (EL) tank



Pressure and Flow Relationship:

The flow and pressure supplied to your property will depend on a number of factors. The size of your connection(s) and water main abutting your property, your location in the localised network from the elevation tank and whether there are pumping stations or pressure reducing valves near your property will all impact the supply to your property. The flow and pressure will also be impacted by the demand from other water users drawing from the same water main. If there is significant demand on the localised network you may notice a pressure reduction at your property during this time. Conversely, there will be greater supply conditions available during times where demand is lower. When we assess a new water connection application, we will consider the extent of demand already on the localised network and plan accordingly. In areas where the water demand is approaching the capacity of what the localised network can supply, we will propose augmentation solutions to allow for growth and potentially add these projects to our capital works plan.

SA Water's Obligations:

Whilst we will use our best endeavours to provide you with a water flow rate to meet your reasonable needs we do not guarantee specific values for either flow or pressure. We acknowledge that the flow rate and pressure may not be sufficient for all purposes without provision of additional onsite infrastructure. The customer will assume the responsibility of providing such additional infrastructure. For more information on this please refer to the SA Water Standard Customer Contract.

How do you manage pressure at your property?

- Re-pressurise your supply by installing a tank. Water can then be pumped from the tank into your internal plumbing network. This allows you greater control over the pressure and flow of your water supply;
- Reduce the pressure by installing pressure reducing valves through your internal pipework;
- Maintain pressure by reducing pressure losses through better plumbing designs, reducing the number of bends and elbows and rising mains, reducing the distance water travels across your site as well as managing water consumption and efficiency across the your site; and
- Maintain appropriate pipe sizing and ensure pipes are clear of obstacles.

How do you manage flow requirements at your property?

- Installing a tank on your property and pumping from the tank;
- Increase the size of internal pipes at your property if your internal pipes are restricting flow; and
- Implement flow restrictors in the internals of your pipe to decrease flow.

It's important to remember to use a licensed plumber when making changes to your plumbing and ensure you are meeting all the appropriate regulations. Hydraulic Engineers are also useful to assist in the design and improvement of pressure and flow conditions at your property. If you'd like to know specific details regarding the pressure or flow at your property please contact us on the details in the banner below.

mySmartWater Portal and the Smart Water Network



Our new Smart Water Network installed in the Adelaide CBD helps us to minimize the number of breaks in our network. It uses a combination of proven sensor technology to help us detect issues and schedule preventative maintenance. It's a new and effective way for us to minimise the impact network breaks can have on the community.

The sensors capture information about water flow, pressure and leaks in the network. That information is then sent to our Operations Control Centre, where we can analyse it and identify anomalies before they escalate and impact our customers.

The system which was only just recently finalised has already reaped benefit, finding many leaks that have now been repaired and recently preventing a significant break from occurring!

Several customer leaks have also been identified by SA Water and repaired by customers due to the 100 smart meters also installed on some of the CBD's largest water users to monitor their water use and identify faults on their properties.

As part of the CBD Smart Water Network 100 smart water meters were installed across 70 customer sites, and our customers can now easily access their water consumption information by logging on to our new mySmartWater portal recently released through a series of customer workshops held in the SA Water Learning Centre.

Customer smart water meters track water consumption and transmit this data to the portal. By monitoring the mySmartWater data our customers can gain a close understanding of how they use water on their site down to hourly intervals.

This is a huge change from how customers previously monitored their consumption using their quarterly supply charge bill. Our smart water meter customers are really enthusiastic about how they can now understand and improve how they use water at their site.

To date, smart water meters are also saving our customers money, as much as \$14,000 for one alone!

Through mySmartWater customers can set automatic alerts and reports that tell them when something is out of step on their site, such as water consumption increasing above normal thresholds.

Using these alerts customers can then investigate and rectify any issues and start counting their savings.

Customers at our information sessions are keen to see this service grow and expand across multiple sites that they may own or manage within the CBD and further afield.

Disclaimer:

SA Water's Business Relations Group provides recommendations and suggestions only. It is advised that further investigations are detailed studies are completed before any projects are implemented. All applicable standards & guidelines (Australian, EU, AQUIS, HACCP, Australian Drinking Water Quality Guidelines etc.) should be adhered to, and care should be taken to ensure water and wastewater minimisation programs do not negatively impact health or processing operations.