

## Plumbing Solutions – edition 7

### Reduced Velocity Aerator Stack System

*A new stack system that uses a junction fitting at each floor to receive the connection of discharge pipes from sanitary fixtures*

#### Sizing

The stack is sized the same as you would size a fully vented stack system.

- The maximum loadings in fixture units for Reduced Velocity Stack Systems shall comply with Table 7.2 of AS/NZS3500.2:2003
- The fixture unit loading is determined by the number of floor levels involved.
- The stack shall not be reduced in size in and direction.

#### Installation Requirements

When installing Reduced Velocity Aerator Stack Systems the following conditions apply;

- A de-aerator fitting is required at the base of all stacks. This provides a pressure relief by pass much the same way as a fully vented stack system uses a relief vent.
- Where the lengths of the discharge pipes exceed the maximum allowable unvented lengths the discharge pipes may be vented by Air Admittance Valves of standard venting.
- An Aerator shall be installed at each floor level that receives a soil or waste fixture.
- The length of any unvented discharge pipe or common discharge pipe shall not exceed 10 metres.



#### Restrictions

- No connections shall be made to the de-aerator graded pipe within 2.5 metres of the stack base.
- Opposed connections of Aerator junction fittings shall only be connected to equal numbers of fixtures of the same kind.

#### Offsets in stacks

- A double line offset is required if the stack exceeds 5 metres length between any 2 aerators or an aerator and a de-aerator.
- A pressure relief by pass shall be installed on every stack offset greater than 45°.
- Connections near graded offsets shall be restricted the same as fully vented stack systems 2.5 metres from the upper bend.

If you have any questions about Reduced Velocity Aerator Stack Systems or the AS/NZS 3500 Plumbing and Drainage Standards or alternatively, if you would like copies of this or various editions of Plumbing Solutions, please contact Plumbooking on (08) 7424 1360 or email [plumbooking@sawater.com.au](mailto:plumbooking@sawater.com.au)

We welcome your feedback. If you have any comments about Plumbing Solutions, or wish to suggest some topics to be covered in future editions please send us an email to [plumbooking@sawater.com.au](mailto:plumbooking@sawater.com.au)