



WATERFALLS

INSTALLATION AND OPERATING INSTRUCTIONS



INTRODUCTION

Congratulations on your purchase of an AstralPool Waterfall. Waterfalls are available in standard widths of 300mm to 2400mm with Lip sizes of 20mm and 150mm.

This Waterfall must be installed according to these instructions otherwise the Warranty may be void.

Proper installation will also ensure many years of trouble free use and enjoyment.

BEFORE INSTALLATION

Take care not to damage the Waterfall during installation. It is best to keep it in its original packaging until you are ready to begin the actual installation.

Check Waterfall for correct model before Installing.

Maximum height above water level is the width of the waterfall up to a 900mm maximum.(refer Table 4 page 6)

DO NOT LEAVE UN-INSTALLED WATERFALL IN DIRECT SUN LIGHT

The waterfall is shipped with protective Red Tape over the waterfall lip opening. Do not remove this until you are ready to use for the first time. Leave in place throughout the installation to protect the opening from grout and dirt.

INSTALLATION

A dedicated plumbing line is recommended for all waterfalls. Waterfalls up to 900mm can use 40mm PVC pipe but it is recommended that 50mm PVC pipe be used for all installations and **must be used** where the required flow rate exceeds 200 ltr/min or the total pipe length exceeds 20 metres. The waterfall must be installed before the deck and coping are laid to cover the Waterfall.

The Waterfall must be installed on a water supply line that incorporates filtration or rocktrap to prevent debris from blocking the water outlet.

**NOTE: If the Waterfall is not level when installed the water flow will be un-even!
Shims may be used under the waterfall to level
Ensure that the Red Tape on waterfall outlet is in place at all times during Installation.**

1. Glue the Rock Trap as close as possible to the inlet so that it will extend beyond the mounting surface. Refer to Fig 1. on Pg 3.
2. It is recommended that 50mm pipe is used for all installations using a 50/40 reducer coupling to connect the Rock Trap.
3. Make a notch, cutout or penetration in the mounting wall face 20mm longer than the length of the waterfall.
4. When installing waterfalls in a sprayed concrete or brick walls, **do not tie the waterfall to the Reinforcing Steel or spray in the concrete as they can distort and cause internal damage due to excessive stressing and movement however**; provide a penetration using polystyrene or wood, allowing for connection of the pipe work at rear. The Waterfall can then be installed at a later date once the wall has set.

WATERFALLS ARE NOT DESIGNED TO TAKE HEAVY WEIGHTS AND IF THEY ARE NOT SUPPORTED PROPERLY CAN SERIOUSLY AFFECT THE OVERALL PERFORMANCE OF THE WATERFALL .

5. Knock out the penetration and place the waterfall in the notch, cutout or penetration made on the mounting surface leaving a 10mm gap at each end.
NOTE: EXTENDED LIP (150MM) MODELS MUST BE SUFFICIENTLY SUPPORTED UNDER THE LIP .
6. Place the Waterfall on a flat smooth level surface in the correct location.
7. Level the waterfall, using packers where necessary.
8. Use Mortar/ Flexible Adhesive to set the waterfall in place.
9. Ensure the Waterfall stays in a level position while the mortar/Glue is setting.
10. Ensure the waterfall's lip edge will be flush with the finished wall surface.
11. Fill in the area below and in the back with mortar.

12. Keep the waterfall shielded from the sun until covered by decking/coping
13. Do not apply torque to pipe fittings. Support all the piping so that the rear of the unit or fitting is not stressed.

ROCK TRAP

The rock trap filter supplied is to prevent dirt and debris from entering the waterfall. Below is a diagram showing where it should be mounted. For best results mount the rock trap as close to the inlet of the waterfall as possible. The rock trap should always be installed pointing downward.

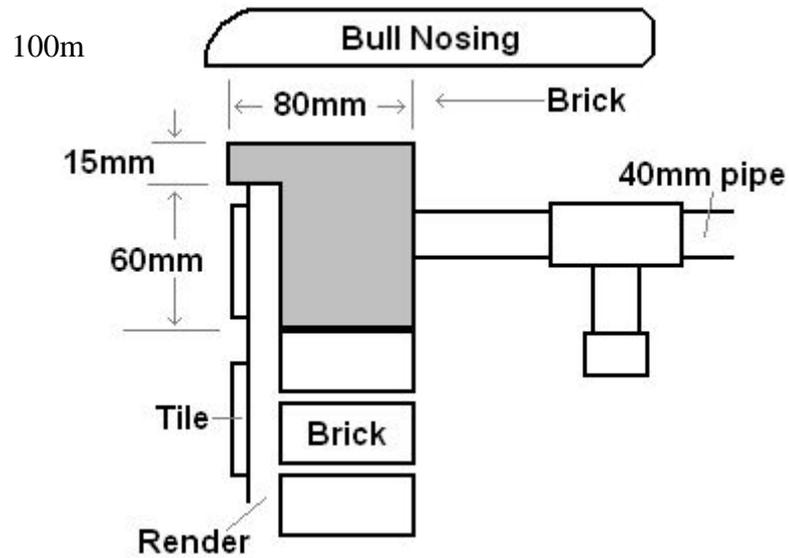
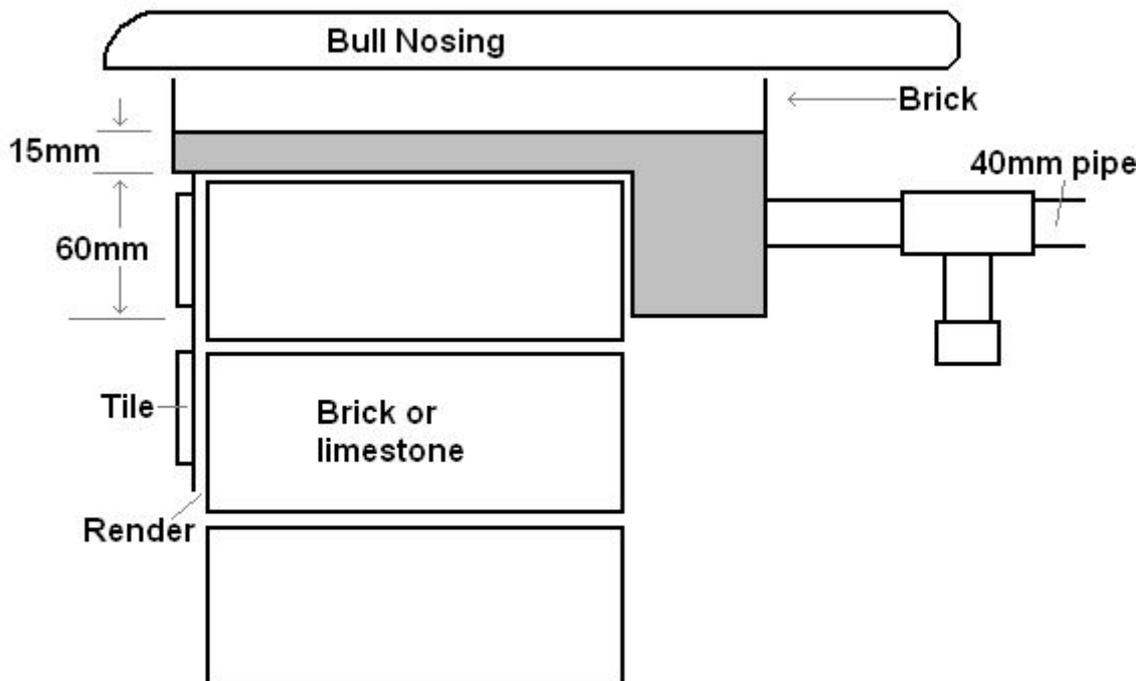


Figure 1



PUMP SELECTION.

Below is a guide as to the pump size required to operate your waterfall efficiently and effectively.

Note: If installing more than one waterfall Eg; 2 x 1200, you now have 2400 waterfall so you must use what is required for a 2400 waterfall to run both.

PUMP SIZE (Approximate) for WATERFALLS

Silkflow Waterfall Length	Required Water Flow - ltr/min/m	Typical Pump Size – Hp	AstralPool Pump (at 8m Head)
300mm	50	0.50	E 140
600mm	100	0.50	E 170
900mm	150	0.75	E 230
1200mm	200	0.75	CTX 280
1800mm	300	1.50	CTX 360
2400mm	400	2.00	CTX 500

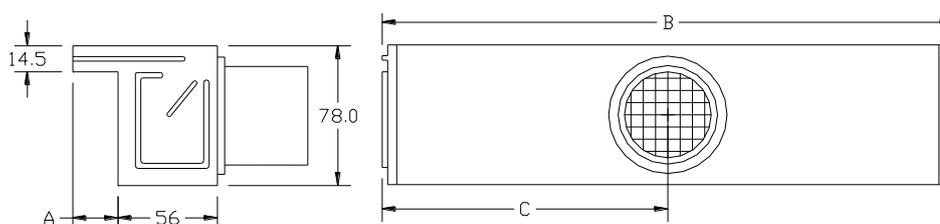
Cascade Waterfall Length	Required Water Flow - ltr/min/m	Typical Pump Size – Hp	AstralPool Pump (at 8m Head)
300mm	25	0.50	E140
600mm	50	0.50	E140
900mm	75	0.50	E140
1200mm	100	0.50	E170
1800mm	150	0.75	E230
2400mm	200	0.75	CTX 280

PIPE INLET LOCATION

The Silkflow waterfall comes in two lip sizes 20mm and 150mm (Dimension A).

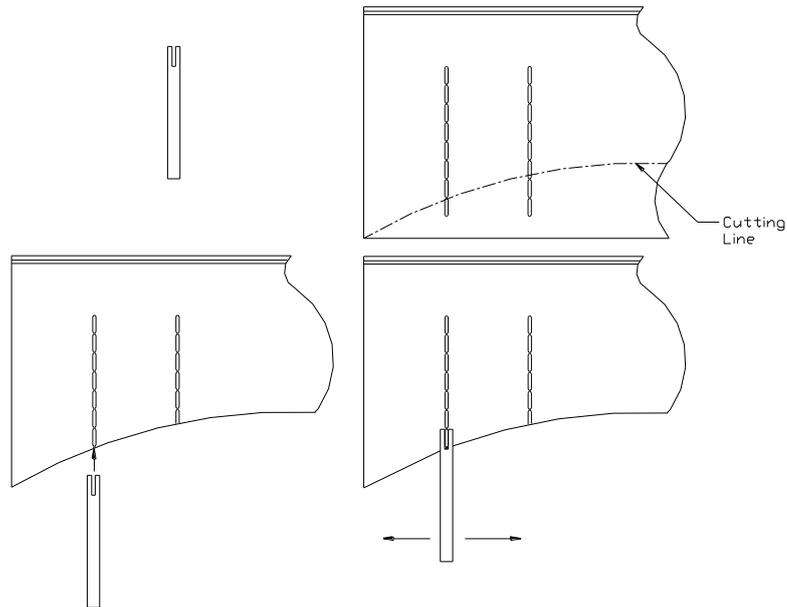
Below outlines all the available waterfall sizes and pipe outlets. This also applies to Cascade waterfalls but they are not available in 150mm lips.

B Waterfall Length (mm)	C (mm) Single outlet waterfalls
300	150
600	300
900	450
1200	600
	Dual outlet waterfalls
1800	450 FROM EACH END OF THE WATERFALL(900 CENTRES)
2400	600 FROM EACH END OF THE WATERFALL(1200 CENTRES)



Cutting 150mm Waterfall's Lip

Waterfalls with Larger lips can be cut to suit the shape of the installation. Ensure no debris is inside the lip. Use the tool provided to remove any partial links remaining after the lip is cut. Then remove one full link from each spacer. Move the tool left to right repeatedly until the link/s of the spacers breaks off.



Flow Control

A two way valve must be installed on the outlet/s of the waterfall pump in an accessible area to control the amount of water that exits the waterfall. It will also reduce the risk of damage on start up. Have the valve half open on start up and reduce or increase depending on the desired waterfall effect you wish to achieve.

Waterfalls naturally become narrower as they fall. Below is a recommended guide for the height your waterfall should be installed above the water surface.

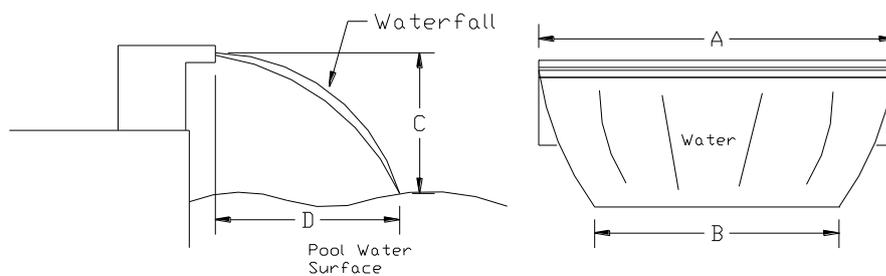


Table 4

A – Waterfall Length	B – Waterfall Width at Pool Surface at Recommended ltr/min/m	C – Recommended Waterfall Height	D – Water Distance at Recommended ltr/min/m
300mm	200mm	300mm	300mm
600mm	500mm	600mm	300mm
900mm	800mm	900mm	300mm
1200mm	1100mm	900mm	300mm
1800mm	1700mm	900mm	300mm
2400mm	2300mm	900mm	300mm

WARRANTY

AstralPool Australia Pty Ltd (ABN 97 007 284 504) ("AstralPool") provides the following warranty in relation to its AstralPool Waterfall ("Product").

The benefits of this warranty are in addition to any rights and remedies imposed by Australian State and Federal legislation that cannot be excluded. Nothing in this warranty is to be interpreted as excluding, restricting or modifying any State or Federal legislation applicable to the supply of goods and services which cannot be excluded, restricted or modified.

WARRANTY

AstralPool warrants that, subject to the exclusions and limitations below, the Product will be free from defects in materials and workmanship during the warranty period. The warranty periods are set out below and commence 30 days after the date of purchase (to allow for installation). The warranty period may vary for different parts of the Product.

Parts	Warranty Period
Materials and Assembly	12 months

If a defect appears in the Product before the end of the warranty period and AstralPool finds the Product to be defective in materials or workmanship, AstralPool will, in its sole discretion, either:

- (a) replace or repair the Product or the defective part of the Product free of charge; or
- (b) Cause the Product or the defective part of the Product to be replaced or repaired by an Authorised AstralPool Service Agent free of charge.

AstralPool reserves the right to replace defective parts of the Product with parts and components of similar quality, grade and composition where an identical part or component is not available.

Goods presented for repair may be replaced by refurbished goods of the same type rather than being repaired. Refurbished parts may be used to repair the goods.

WARRANTY CLAIMS

1. If a fault covered by warranty occurs, the customer must first contact AstralPool at the contact address listed below, or an Authorised AstralPool Service Agent.
2. Any warranty claim must be accompanied by:
 - (a) proof of purchase;
 - (b) full details of the alleged defect; and
 - (c) appropriate documentation (such as historical and maintenance records).
3. The customer must make the Product available to AstralPool or its Authorised AstralPool Service Agent for inspection and testing. AstralPool or its Authorised AstralPool Service Agent will attend the premises where the Product is installed for inspection and testing. If the Product is installed:
 - (a) outside a capital city metropolitan area; and
 - (b) is not within a 20 km radius of an Authorised AstralPool Service Agent;then the customer may have to pay a travel fee.
4. If such inspection and testing finds no defect in the Product, the customer must pay AstralPool's usual costs of service work and testing. If such inspection and testing finds a defect that is not covered by this warranty, the customer must pay AstralPool's usual costs of service work plus any parts and labour required to repair the Product, unless recoverable from AstralPool on the failure of any statutory guarantee under the ACL.

Exclusions

The warranty will not apply where:

- (a) the customer is in breach of the Terms and Conditions of Sale;
- (b) the Product was used for a purpose other than one it was intended for;
- (c) the Product was repaired, modified or altered by any person other than AstralPool;
- (d) the Product has not been installed, maintained and/or operated in complete compliance with the installation and operating instructions and any instructions by AstralPool;
- (e) the Product has been subject to accident, negligence, alteration, abuse or misuse.

The warranty does not extend to:

- a) Normal wear and tear;
- b) weather and other environmental conditions including but not limited to storm, flood, and/or heat wave damage; or
- c) service and maintenance items.

Examples of exclusions include but are not limited to:

- accident, neglect, alteration, abuse or misuse.
- Any repairs required to surroundings and supporting structures.

LIMITATIONS

AstralPool makes no express warranties or representations other than set out in this warranty.

The repair or replacement of the Product or part of the Product is the absolute limit of AstralPool's liability under this express warranty.

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.



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